



# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Result of III B.Tech I Semester [R10] Supply Examinations Jan-2015

College: ST.MARY'S GROUP OF INSTITUTIONS, CHEBROLU, GUNTUR:BJ

| Htno       | Subcode | Subname                                    | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 09BJ1A0314 | R31032  | OPERATIONS RESEARCH                        | 13       | 0        | 0       |
| 09BJ1A0314 | R31033  | DYNAMICS OF MACHINERY                      | 15       | 0        | 0       |
| 09BJ1A0314 | R31034  | THERMAL ENGINEERING-II                     | 16       | 1        | 0       |
| 09BJ1A0314 | R31036  | METAL CUTTING & MACHINE TOOLS              | 16       | 9        | 0       |
| 09BJ1A0316 | R31032  | OPERATIONS RESEARCH                        | 12       | 0        | 0       |
| 09BJ1A0411 | R31042  | DIGITAL IC APPLICATIONS                    | 16       | 0        | 0       |
| 09BJ1A0421 | R31042  | DIGITAL IC APPLICATIONS                    | 13       | 0        | 0       |
| 09BJ1A0423 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION       | 16       | -1       | 0       |
| 09BJ1A0423 | R31043  | LINEAR IC APPLICATIONS                     | 16       | -1       | 0       |
| 09BJ1A0423 | R31045  | ANTENNAS AND WAVE PROPAGATION              | 15       | -1       | 0       |
| 09BJ1A0423 | R31046  | DIGITAL COMMUNICATIONS                     | 16       | -1       | 0       |
| 09BJ1A0429 | R31042  | DIGITAL IC APPLICATIONS                    | 12       | -1       | 0       |
| 09BJ1A0429 | R31043  | LINEAR IC APPLICATIONS                     | 15       | -1       | 0       |
| 09BJ1A0516 | R31052  | COMPUTER NETWORKS                          | 10       | 0        | 0       |
| 09BJ1A0526 | P31053  | DATA COMMUNICATIONS SYSTEM                 | 21       | 42       | 4       |
| 09BJ1A0526 | R31051  | COMPILER DESIGN                            | 17       | 0        | 0       |
| 09BJ1A0526 | R31052  | COMPUTER NETWORKS                          | 17       | 3        | 0       |
| 09BJ1A0526 | R31054  | COMPUTER GRAPHICS                          | 18       | 0        | 0       |
| 09BJ1A0526 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS     | 12       | 0        | 0       |
| 09BJ1A0526 | R31056  | OPERATIONG SYSTEMS                         | 14       | -1       | 0       |
| 09BJ1A0534 | R31052  | COMPUTER NETWORKS                          | 15       | 0        | 0       |
| 09BJ1A0534 | R31054  | COMPUTER GRAPHICS                          | 16       | 4        | 0       |
| 09BJ5A0201 | R31021  | COMPLEX VARIABLEDS AND STATISTICAL METHODS | 17       | 8        | 0       |
| 09JR1A0427 | R31045  | ANTENNAS AND WAVE PROPAGATION              | 16       | 5        | 0       |
| 109T1A0406 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION       | 14       | 1        | 0       |
| 109T1A0406 | R31042  | DIGITAL IC APPLICATIONS                    | 10       | 2        | 0       |
| 109T1A0406 | R31043  | LINEAR IC APPLICATIONS                     | 9        | 2        | 0       |
| 109T1A0406 | R31045  | ANTENNAS AND WAVE PROPAGATION              | 15       | -1       | 0       |
| 10BJ1A0205 | R31022  | ELECTRICAL MEASUREMENT                     | 16       | 7        | 0       |
| 10BJ1A0205 | R31025  | ELECTRICAL MACHINES-III                    | 16       | 1        | 0       |
| 10BJ1A0208 | R31021  | COMPLEX VARIABLEDS AND STATISTICAL METHODS | 14       | 12       | 0       |
| 10BJ1A0208 | R31022  | ELECTRICAL MEASUREMENT                     | 13       | 41       | 4       |
| 10BJ1A0218 | R31021  | COMPLEX VARIABLEDS AND STATISTICAL METHODS | 14       | 0        | 0       |
| 10BJ1A0218 | R31022  | ELECTRICAL MEASUREMENT                     | 13       | 0        | 0       |
| 10BJ1A0219 | R31021  | COMPLEX VARIABLEDS AND STATISTICAL METHODS | 19       | 0        | 0       |
| 10BJ1A0225 | R31021  | COMPLEX VARIABLEDS AND STATISTICAL METHODS | 12       | 0        | 0       |
| 10BJ1A0234 | R31021  | COMPLEX VARIABLEDS AND STATISTICAL METHODS | 13       | 0        | 0       |
| 10BJ1A0234 | R31022  | ELECTRICAL MEASUREMENT                     | 9        | -1       | 0       |
| 10BJ1A0234 | R31026  | LINEAR & DIGITAL IC APPLICATION            | 19       | -1       | 0       |
| 10BJ1A0235 | R31021  | COMPLEX VARIABLEDS AND STATISTICAL METHODS | 15       | 0        | 0       |
| 10BJ1A0235 | R31024  | POWER ELECTRONICS                          | 10       | -1       | 0       |
| 10BJ1A0235 | R31025  | ELECTRICAL MACHINES-III                    | 16       | -1       | 0       |
| 10BJ1A0237 | R31022  | ELECTRICAL MEASUREMENT                     | 11       | 11       | 0       |
| 10BJ1A0239 | R31021  | COMPLEX VARIABLEDS AND STATISTICAL METHODS | 17       | 0        | 0       |
| 10BJ1A0239 | R31022  | ELECTRICAL MEASUREMENT                     | 12       | -1       | 0       |
| 10BJ1A0239 | R31023  | POWER SYSTEMS-II                           | 12       | 0        | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 10BJ1A0239 | R31024  | POWER ELECTRONICS                            | 12       | -1       | 0       |
| 10BJ1A0239 | R31025  | ELECTRICAL MACHINES-III                      | 12       | -1       | 0       |
| 10BJ1A0239 | R31026  | LINEAR & DIGITAL IC APPLICATION              | 17       | 0        | 0       |
| 10BJ1A0248 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS    | 2        | 0        | 0       |
| 10BJ1A0248 | R31023  | POWER SYSTEMS-II                             | 10       | 0        | 0       |
| 10BJ1A0311 | R31032  | OPERATIONS RESEARCH                          | 11       | 10       | 0       |
| 10BJ1A0311 | R31035  | DESIGN OF MACHINE MEMBERS-I                  | 12       | -1       | 0       |
| 10BJ1A0335 | R31031  | FINITE ELEMENT METHODS                       | 16       | -1       | 0       |
| 10BJ1A0401 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 0        | 46       | 4       |
| 10BJ1A0401 | R31042  | DIGITAL IC APPLICATIONS                      | 0        | 49       | 4       |
| 10BJ1A0401 | R31043  | LINEAR IC APPLICATIONS                       | 0        | 47       | 4       |
| 10BJ1A0401 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 0        | 31       | 0       |
| 10BJ1A0401 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 0        | 26       | 0       |
| 10BJ1A0401 | R31046  | DIGITAL COMMUNICATIONS                       | 0        | 43       | 4       |
| 10BJ1A0401 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 0        | 47       | 2       |
| 10BJ1A0401 | R31048  | IC APPLICATIONS LABS                         | 0        | 46       | 2       |
| 10BJ1A0420 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 6        | 0       |
| 10BJ1A0420 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | -1       | 0       |
| 10BJ1A0420 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 0        | 0       |
| 10BJ1A0420 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 13       | -1       | 0       |
| 10BJ1A0421 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 0        | 0       |
| 10BJ1A0421 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | 0        | 0       |
| 10BJ1A0421 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | -1       | 0       |
| 10BJ1A0422 | R31043  | LINEAR IC APPLICATIONS                       | 17       | 0        | 0       |
| 10BJ1A0422 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 16       | 6        | 0       |
| 10BJ1A0430 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 0        | 0       |
| 10BJ1A0435 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | -1       | 0       |
| 10BJ1A0436 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 0        | 0       |
| 10BJ1A0436 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | -1       | 0       |
| 10BJ1A0436 | R31043  | LINEAR IC APPLICATIONS                       | 13       | -1       | 0       |
| 10BJ1A0436 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 15       | -1       | 0       |
| 10BJ1A0437 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | -1       | 0       |
| 10BJ1A0437 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 7        | -1       | 0       |
| 10BJ1A0439 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 0        | 0       |
| 10BJ1A0439 | R31042  | DIGITAL IC APPLICATIONS                      | 16       | -1       | 0       |
| 10BJ1A0439 | R31043  | LINEAR IC APPLICATIONS                       | 16       | -1       | 0       |
| 10BJ1A0439 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 0        | -1       | 0       |
| 10BJ1A0439 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 16       | -1       | 0       |
| 10BJ1A0439 | R31046  | DIGITAL COMMUNICATIONS                       | 14       | -1       | 0       |
| 10BJ1A0441 | R31042  | DIGITAL IC APPLICATIONS                      | 13       | 21       | 0       |
| 10BJ1A0443 | R31043  | LINEAR IC APPLICATIONS                       | 13       | 0        | 0       |
| 10BJ1A0443 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 2        | 0        | 0       |
| 10BJ1A0448 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 2        | 0       |
| 10BJ1A0448 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 1        | 0       |
| 10BJ1A0449 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 0        | 0       |
| 10BJ1A0449 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | -1       | 0       |
| 10BJ1A0449 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 0        | 0       |
| 10BJ1A0451 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 0        | 0       |
| 10BJ1A0451 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 0        | 0       |
| 10BJ1A0451 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 15       | 0        | 0       |
| 10BJ1A0535 | R31051  | COMPILER DESIGN                              | 18       | 0        | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 10BJ1A0535 | R31054  | COMPUTER GRAPHICS                         | 11       | 0        | 0       |
| 10BJ1A0535 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 16       | 0        | 0       |
| 10BJ1A0570 | R31052  | COMPUTER NETWORKS                         | 11       | 0        | 0       |
| 10BJ1A0570 | R31053  | ADVANCED DATA STRUCTURES                  | 12       | 8        | 0       |
| 10BJ1A0570 | R31054  | COMPUTER GRAPHICS                         | 17       | 0        | 0       |
| 10BJ1A0570 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 1        | 0       |
| 11A91A0293 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 17       | 0        | 0       |
| 11A91A0293 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 0        | 0       |
| 11A91A0293 | R31023  | POWER SYSTEMS-II                          | 13       | 3        | 0       |
| 11A91A0293 | R31024  | POWER ELECTRONICS                         | 14       | 27       | 4       |
| 11A91A0293 | R31025  | ELECTRICAL MACHINES-III                   | 12       | 35       | 4       |
| 11A91A0293 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 19       | 4        | 0       |
| 11BJ1A0304 | R31032  | OPERATIONS RESEARCH                       | 15       | 26       | 4       |
| 11BJ1A0304 | R31033  | DYNAMICS OF MACHINERY                     | 16       | 12       | 0       |
| 11BJ1A0305 | R31034  | THERMAL ENGINEERING-II                    | 16       | 0        | 0       |
| 11BJ1A0307 | R31031  | FINITE ELEMENT METHODS                    | 15       | 1        | 0       |
| 11BJ1A0307 | R31033  | DYNAMICS OF MACHINERY                     | 14       | 14       | 0       |
| 11BJ1A0307 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 14       | 30       | 4       |
| 11BJ1A0307 | R31036  | METAL CUTTING & MACHINE TOOLS             | 14       | 16       | 0       |
| 11BJ1A0312 | R31031  | FINITE ELEMENT METHODS                    | 13       | 0        | 0       |
| 11BJ1A0312 | R31032  | OPERATIONS RESEARCH                       | 11       | 2        | 0       |
| 11BJ1A0312 | R31033  | DYNAMICS OF MACHINERY                     | 14       | 13       | 0       |
| 11BJ1A0312 | R31034  | THERMAL ENGINEERING-II                    | 16       | 4        | 0       |
| 11BJ1A0312 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 11       | 12       | 0       |
| 11BJ1A0312 | R31036  | METAL CUTTING & MACHINE TOOLS             | 14       | 10       | 0       |
| 11BJ1A0313 | R31031  | FINITE ELEMENT METHODS                    | 15       | -1       | 0       |
| 11BJ1A0313 | R31032  | OPERATIONS RESEARCH                       | 11       | 0        | 0       |
| 11BJ1A0313 | R31033  | DYNAMICS OF MACHINERY                     | 12       | 0        | 0       |
| 11BJ1A0313 | R31034  | THERMAL ENGINEERING-II                    | 12       | -1       | 0       |
| 11BJ1A0313 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 15       | 0        | 0       |
| 11BJ1A0313 | R31036  | METAL CUTTING & MACHINE TOOLS             | 14       | -1       | 0       |
| 11BJ1A0319 | R31031  | FINITE ELEMENT METHODS                    | 14       | 0        | 0       |
| 11BJ1A0319 | R31032  | OPERATIONS RESEARCH                       | 13       | 12       | 0       |
| 11BJ1A0319 | R31033  | DYNAMICS OF MACHINERY                     | 16       | 5        | 0       |
| 11BJ1A0319 | R31034  | THERMAL ENGINEERING-II                    | 15       | 2        | 0       |
| 11BJ1A0319 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 14       | 12       | 0       |
| 11BJ1A0319 | R31036  | METAL CUTTING & MACHINE TOOLS             | 15       | 5        | 0       |
| 11BJ1A0320 | R31034  | THERMAL ENGINEERING-II                    | 14       | 0        | 0       |
| 11BJ1A0322 | R31033  | DYNAMICS OF MACHINERY                     | 17       | 28       | 4       |
| 11BJ1A0324 | R31031  | FINITE ELEMENT METHODS                    | 17       | -1       | 0       |
| 11BJ1A0324 | R31032  | OPERATIONS RESEARCH                       | 9        | -1       | 0       |
| 11BJ1A0324 | R31033  | DYNAMICS OF MACHINERY                     | 12       | 2        | 0       |
| 11BJ1A0324 | R31034  | THERMAL ENGINEERING-II                    | 12       | 14       | 0       |
| 11BJ1A0324 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 13       | 15       | 0       |
| 11BJ1A0324 | R31036  | METAL CUTTING & MACHINE TOOLS             | 12       | -1       | 0       |
| 11BJ1A0326 | R31031  | FINITE ELEMENT METHODS                    | 15       | 0        | 0       |
| 11BJ1A0327 | R31036  | METAL CUTTING & MACHINE TOOLS             | 12       | 31       | 4       |
| 11BJ1A0408 | R31046  | DIGITAL COMMUNICATIONS                    | 19       | 35       | 4       |
| 11BJ1A0410 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION      | 19       | 19       | 0       |
| 11BJ1A0410 | R31042  | DIGITAL IC APPLICATIONS                   | 16       | 17       | 0       |
| 11BJ1A0410 | R31043  | LINEAR IC APPLICATIONS                    | 18       | 17       | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 11BJ1A0410 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 20       | 0       |
| 11BJ1A0413 | R31042  | DIGITAL IC APPLICATIONS                      | 14       | 13       | 0       |
| 11BJ1A0419 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 11       | 0       |
| 11BJ1A0419 | R31046  | DIGITAL COMMUNICATIONS                       | 18       | 35       | 4       |
| 11BJ1A0423 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 0        | 0       |
| 11BJ1A0423 | R31042  | DIGITAL IC APPLICATIONS                      | 3        | 0        | 0       |
| 11BJ1A0423 | R31043  | LINEAR IC APPLICATIONS                       | 5        | 0        | 0       |
| 11BJ1A0423 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 3        | 0        | 0       |
| 11BJ1A0423 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 4        | 0        | 0       |
| 11BJ1A0425 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 2        | 0       |
| 11BJ1A0425 | R31042  | DIGITAL IC APPLICATIONS                      | 12       | 4        | 0       |
| 11BJ1A0425 | R31043  | LINEAR IC APPLICATIONS                       | 6        | 9        | 0       |
| 11BJ1A0425 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 5        | 0       |
| 11BJ1A0425 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 19       | 2        | 0       |
| 11BJ1A0425 | R31046  | DIGITAL COMMUNICATIONS                       | 13       | 3        | 0       |
| 11BJ1A0426 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 8        | 0       |
| 11BJ1A0426 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | 0        | 0       |
| 11BJ1A0426 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 0        | 0       |
| 11BJ1A0426 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 15       | 37       | 4       |
| 11BJ1A0426 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 17       | 1        | 0       |
| 11BJ1A0426 | R31046  | DIGITAL COMMUNICATIONS                       | 13       | 11       | 0       |
| 11BJ1A0427 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 0        | 4        | 0       |
| 11BJ1A0427 | R31042  | DIGITAL IC APPLICATIONS                      | 11       | 0        | 0       |
| 11BJ1A0427 | R31043  | LINEAR IC APPLICATIONS                       | 7        | 0        | 0       |
| 11BJ1A0427 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 9        | 1        | 0       |
| 11BJ1A0427 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 15       | -1       | 0       |
| 11BJ1A0427 | R31046  | DIGITAL COMMUNICATIONS                       | 5        | 0        | 0       |
| 11BJ1A0428 | R31042  | DIGITAL IC APPLICATIONS                      | 16       | 14       | 0       |
| 11BJ1A0428 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 16       | 0       |
| 11BJ1A0430 | R31042  | DIGITAL IC APPLICATIONS                      | 16       | 11       | 0       |
| 11BJ1A0430 | R31043  | LINEAR IC APPLICATIONS                       | 20       | 9        | 0       |
| 11BJ1A0430 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 8        | 0       |
| 11BJ1A0430 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 19       | 26       | 4       |
| 11BJ1A0430 | R31046  | DIGITAL COMMUNICATIONS                       | 17       | 33       | 4       |
| 11BJ1A0432 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 11       | 3        | 0       |
| 11BJ1A0432 | R31042  | DIGITAL IC APPLICATIONS                      | 12       | 17       | 0       |
| 11BJ1A0432 | R31043  | LINEAR IC APPLICATIONS                       | 5        | 26       | 0       |
| 11BJ1A0432 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 7        | 8        | 0       |
| 11BJ1A0432 | R31046  | DIGITAL COMMUNICATIONS                       | 6        | 26       | 0       |
| 11BJ1A0438 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 26       | 4       |
| 11BJ1A0438 | R31042  | DIGITAL IC APPLICATIONS                      | 16       | 14       | 0       |
| 11BJ1A0438 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 18       | 0       |
| 11BJ1A0439 | R31042  | DIGITAL IC APPLICATIONS                      | 10       | 6        | 0       |
| 11BJ1A0439 | R31043  | LINEAR IC APPLICATIONS                       | 13       | 32       | 4       |
| 11BJ1A0439 | R31046  | DIGITAL COMMUNICATIONS                       | 14       | 5        | 0       |
| 11BJ1A0441 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | 0        | 0       |
| 11BJ1A0443 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 0        | 0       |
| 11BJ1A0443 | R31042  | DIGITAL IC APPLICATIONS                      | 11       | 0        | 0       |
| 11BJ1A0443 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 0        | 0       |
| 11BJ1A0443 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 10       | 2        | 0       |
| 11BJ1A0443 | R31046  | DIGITAL COMMUNICATIONS                       | 11       | 12       | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 11BJ1A0445 | R31042  | DIGITAL IC APPLICATIONS                      | 8        | 9        | 0       |
| 11BJ1A0445 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 12       | 31       | 4       |
| 11BJ1A0446 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 37       | 4       |
| 11BJ1A0447 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 41       | 4       |
| 11BJ1A0449 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 16       | 10       | 0       |
| 11BJ1A0449 | R31046  | DIGITAL COMMUNICATIONS                       | 17       | 15       | 0       |
| 11BJ1A0451 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 2        | 0       |
| 11BJ1A0451 | R31042  | DIGITAL IC APPLICATIONS                      | 5        | 0        | 0       |
| 11BJ1A0451 | R31043  | LINEAR IC APPLICATIONS                       | 13       | 0        | 0       |
| 11BJ1A0451 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 11       | 0        | 0       |
| 11BJ1A0451 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 10       | -1       | 0       |
| 11BJ1A0451 | R31046  | DIGITAL COMMUNICATIONS                       | 9        | 0        | 0       |
| 11BJ1A0453 | R31042  | DIGITAL IC APPLICATIONS                      | 14       | 10       | 0       |
| 11BJ1A0455 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 8        | 0       |
| 11BJ1A0463 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 35       | 4       |
| 11BJ1A0466 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 11       | 0       |
| 11BJ1A0466 | R31042  | DIGITAL IC APPLICATIONS                      | 8        | 18       | 0       |
| 11BJ1A0466 | R31046  | DIGITAL COMMUNICATIONS                       | 14       | 11       | 0       |
| 11BJ1A0467 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 10       | 7        | 0       |
| 11BJ1A0467 | R31042  | DIGITAL IC APPLICATIONS                      | 8        | 3        | 0       |
| 11BJ1A0467 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 3        | 0        | 0       |
| 11BJ1A0468 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 35       | 4       |
| 11BJ1A0468 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 30       | 4       |
| 11BJ1A0471 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 3        | 0       |
| 11BJ1A0471 | R31042  | DIGITAL IC APPLICATIONS                      | 11       | 7        | 0       |
| 11BJ1A0471 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 16       | 7        | 0       |
| 11BJ1A0471 | R31046  | DIGITAL COMMUNICATIONS                       | 6        | -1       | 0       |
| 11BJ1A0473 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | -1       | 0       |
| 11BJ1A0473 | R31042  | DIGITAL IC APPLICATIONS                      | 5        | -1       | 0       |
| 11BJ1A0473 | R31043  | LINEAR IC APPLICATIONS                       | 21       | -1       | 0       |
| 11BJ1A0473 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 3        | -1       | 0       |
| 11BJ1A0473 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 8        | -1       | 0       |
| 11BJ1A0473 | R31046  | DIGITAL COMMUNICATIONS                       | 5        | -1       | 0       |
| 11BJ1A0473 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 11BJ1A0473 | R31048  | IC APPLICATIONS LABS                         | 14       | 40       | 2       |
| 11BJ1A0515 | R31052  | COMPUTER NETWORKS                            | 16       | 32       | 4       |
| 11BJ1A0519 | R31056  | OPERATIONG SYSTEMS                           | 17       | -1       | 0       |
| 11BJ1A0521 | R31051  | COMPILER DESIGN                              | 15       | 2        | 0       |
| 11BJ1A0521 | R31054  | COMPUTER GRAPHICS                            | 13       | 8        | 0       |
| 11BJ1A0522 | R31054  | COMPUTER GRAPHICS                            | 13       | 0        | 0       |
| 11BJ1A0524 | R31051  | COMPILER DESIGN                              | 14       | 31       | 4       |
| 11BJ1A0527 | R31054  | COMPUTER GRAPHICS                            | 13       | 2        | 0       |
| 11BJ1A0533 | R31054  | COMPUTER GRAPHICS                            | 15       | 19       | 0       |
| 11BJ1A0534 | R31051  | COMPILER DESIGN                              | 15       | 13       | 0       |
| 11BJ1A0534 | R31054  | COMPUTER GRAPHICS                            | 11       | 16       | 0       |
| 11BJ1A0535 | R31051  | COMPILER DESIGN                              | 16       | 16       | 0       |
| 11BJ1A0535 | R31052  | COMPUTER NETWORKS                            | 16       | 20       | 0       |
| 11BJ1A0535 | R31053  | ADVANCED DATA STRUCTURES                     | 17       | 29       | 4       |
| 11BJ1A0535 | R31054  | COMPUTER GRAPHICS                            | 15       | 0        | 0       |
| 11BJ1A0536 | R31054  | COMPUTER GRAPHICS                            | 12       | 3        | 0       |
| 11BJ1A0540 | R31052  | COMPUTER NETWORKS                            | 14       | 3        | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 11BJ1A0540 | R31053  | ADVANCED DATA STRUCTURES                     | 15       | 5        | 0       |
| 11BJ1A0541 | R31051  | COMPILER DESIGN                              | 16       | 10       | 0       |
| 11BJ1A0541 | R31054  | COMPUTER GRAPHICS                            | 14       | 9        | 0       |
| 11BJ1A0542 | R31054  | COMPUTER GRAPHICS                            | 12       | 3        | 0       |
| 11BJ1A0543 | R31051  | COMPILER DESIGN                              | 16       | 2        | 0       |
| 11BJ1A0543 | R31052  | COMPUTER NETWORKS                            | 17       | 1        | 0       |
| 11BJ1A0543 | R31053  | ADVANCED DATA STRUCTURES                     | 17       | 6        | 0       |
| 11BJ1A0543 | R31054  | COMPUTER GRAPHICS                            | 12       | 0        | 0       |
| 11BJ1A0544 | R31054  | COMPUTER GRAPHICS                            | 12       | 5        | 0       |
| 11FE1A0206 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS    | 9        | 6        | 0       |
| 11FE1A0206 | R31022  | ELECTRICAL MEASUREMENT                       | 9        | 0        | 0       |
| 11FE1A0206 | R31023  | POWER SYSTEMS-II                             | 4        | 7        | 0       |
| 11FE1A0206 | R31024  | POWER ELECTRONICS                            | 4        | 17       | 0       |
| 11FE1A0206 | R31025  | ELECTRICAL MACHINES-III                      | 3        | 20       | 0       |
| 11FE1A0206 | R31026  | LINEAR & DIGITAL IC APPLICATION              | 0        | 5        | 0       |
| 11NA1A0402 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 8        | -1       | 0       |
| 12BJ1A0201 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS    | 23       | 35       | 4       |
| 12BJ1A0201 | R31022  | ELECTRICAL MEASUREMENT                       | 19       | 59       | 4       |
| 12BJ1A0201 | R31023  | POWER SYSTEMS-II                             | 20       | 12       | 0       |
| 12BJ1A0201 | R31024  | POWER ELECTRONICS                            | 23       | 26       | 4       |
| 12BJ1A0201 | R31025  | ELECTRICAL MACHINES-III                      | 23       | 56       | 4       |
| 12BJ1A0201 | R31026  | LINEAR & DIGITAL IC APPLICATION              | 17       | 11       | 0       |
| 12BJ1A0201 | R31027  | ELECTRICAL MACHINES-II LAB                   | 23       | 47       | 2       |
| 12BJ1A0201 | R31028  | CONTROL SYSTEMS LAB                          | 25       | 48       | 2       |
| 12BJ1A0202 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS    | 22       | 14       | 0       |
| 12BJ1A0202 | R31022  | ELECTRICAL MEASUREMENT                       | 13       | 10       | 0       |
| 12BJ1A0202 | R31023  | POWER SYSTEMS-II                             | 18       | 5        | 0       |
| 12BJ1A0202 | R31024  | POWER ELECTRONICS                            | 18       | 44       | 4       |
| 12BJ1A0202 | R31025  | ELECTRICAL MACHINES-III                      | 16       | 33       | 4       |
| 12BJ1A0202 | R31026  | LINEAR & DIGITAL IC APPLICATION              | 18       | 16       | 0       |
| 12BJ1A0202 | R31027  | ELECTRICAL MACHINES-II LAB                   | 10       | 30       | 2       |
| 12BJ1A0202 | R31028  | CONTROL SYSTEMS LAB                          | 15       | 32       | 2       |
| 12BJ1A0203 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS    | 24       | 27       | 4       |
| 12BJ1A0203 | R31022  | ELECTRICAL MEASUREMENT                       | 20       | 26       | 4       |
| 12BJ1A0203 | R31023  | POWER SYSTEMS-II                             | 19       | 29       | 4       |
| 12BJ1A0203 | R31024  | POWER ELECTRONICS                            | 23       | 17       | 0       |
| 12BJ1A0203 | R31025  | ELECTRICAL MACHINES-III                      | 21       | 26       | 4       |
| 12BJ1A0203 | R31026  | LINEAR & DIGITAL IC APPLICATION              | 20       | 8        | 0       |
| 12BJ1A0203 | R31027  | ELECTRICAL MACHINES-II LAB                   | 23       | 47       | 2       |
| 12BJ1A0203 | R31028  | CONTROL SYSTEMS LAB                          | 24       | 47       | 2       |
| 12BJ1A0204 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS    | 24       | 37       | 4       |
| 12BJ1A0204 | R31022  | ELECTRICAL MEASUREMENT                       | 22       | 12       | 0       |
| 12BJ1A0204 | R31023  | POWER SYSTEMS-II                             | 23       | 47       | 4       |
| 12BJ1A0204 | R31024  | POWER ELECTRONICS                            | 25       | 49       | 4       |
| 12BJ1A0204 | R31025  | ELECTRICAL MACHINES-III                      | 23       | 14       | 0       |
| 12BJ1A0204 | R31026  | LINEAR & DIGITAL IC APPLICATION              | 19       | 26       | 4       |
| 12BJ1A0204 | R31027  | ELECTRICAL MACHINES-II LAB                   | 25       | 48       | 2       |
| 12BJ1A0204 | R31028  | CONTROL SYSTEMS LAB                          | 24       | 47       | 2       |
| 12BJ1A0205 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS    | 24       | 31       | 4       |
| 12BJ1A0205 | R31022  | ELECTRICAL MEASUREMENT                       | 21       | 43       | 4       |
| 12BJ1A0205 | R31023  | POWER SYSTEMS-II                             | 20       | 5        | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0205 | R31024  | POWER ELECTRONICS                         | 25       | 30       | 4       |
| 12BJ1A0205 | R31025  | ELECTRICAL MACHINES-III                   | 22       | 31       | 4       |
| 12BJ1A0205 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 20       | 3        | 0       |
| 12BJ1A0205 | R31027  | ELECTRICAL MACHINES-II LAB                | 25       | 48       | 2       |
| 12BJ1A0205 | R31028  | CONTROL SYSTEMS LAB                       | 24       | 47       | 2       |
| 12BJ1A0206 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 25       | 59       | 4       |
| 12BJ1A0206 | R31022  | ELECTRICAL MEASUREMENT                    | 24       | 26       | 4       |
| 12BJ1A0206 | R31023  | POWER SYSTEMS-II                          | 24       | 29       | 4       |
| 12BJ1A0206 | R31024  | POWER ELECTRONICS                         | 25       | 50       | 4       |
| 12BJ1A0206 | R31025  | ELECTRICAL MACHINES-III                   | 25       | 51       | 4       |
| 12BJ1A0206 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 25       | 42       | 4       |
| 12BJ1A0206 | R31027  | ELECTRICAL MACHINES-II LAB                | 25       | 50       | 2       |
| 12BJ1A0206 | R31028  | CONTROL SYSTEMS LAB                       | 25       | 50       | 2       |
| 12BJ1A0207 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 25       | 31       | 4       |
| 12BJ1A0207 | R31022  | ELECTRICAL MEASUREMENT                    | 21       | 31       | 4       |
| 12BJ1A0207 | R31023  | POWER SYSTEMS-II                          | 23       | 48       | 4       |
| 12BJ1A0207 | R31024  | POWER ELECTRONICS                         | 23       | 10       | 0       |
| 12BJ1A0207 | R31025  | ELECTRICAL MACHINES-III                   | 21       | -1       | 0       |
| 12BJ1A0207 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 21       | 9        | 0       |
| 12BJ1A0207 | R31027  | ELECTRICAL MACHINES-II LAB                | 23       | 47       | 2       |
| 12BJ1A0207 | R31028  | CONTROL SYSTEMS LAB                       | 25       | 46       | 2       |
| 12BJ1A0208 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 19       | 3        | 0       |
| 12BJ1A0208 | R31022  | ELECTRICAL MEASUREMENT                    | 13       | 0        | 0       |
| 12BJ1A0208 | R31023  | POWER SYSTEMS-II                          | 16       | 18       | 0       |
| 12BJ1A0208 | R31024  | POWER ELECTRONICS                         | 16       | 15       | 0       |
| 12BJ1A0208 | R31025  | ELECTRICAL MACHINES-III                   | 14       | 12       | 0       |
| 12BJ1A0208 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 0        | 0       |
| 12BJ1A0208 | R31027  | ELECTRICAL MACHINES-II LAB                | 10       | 30       | 2       |
| 12BJ1A0208 | R31028  | CONTROL SYSTEMS LAB                       | 15       | 31       | 2       |
| 12BJ1A0209 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 19       | -1       | 0       |
| 12BJ1A0209 | R31022  | ELECTRICAL MEASUREMENT                    | 10       | 11       | 0       |
| 12BJ1A0209 | R31023  | POWER SYSTEMS-II                          | 8        | 1        | 0       |
| 12BJ1A0209 | R31024  | POWER ELECTRONICS                         | 18       | 12       | 0       |
| 12BJ1A0209 | R31025  | ELECTRICAL MACHINES-III                   | 13       | 1        | 0       |
| 12BJ1A0209 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 6        | 0        | 0       |
| 12BJ1A0209 | R31027  | ELECTRICAL MACHINES-II LAB                | 8        | 30       | 2       |
| 12BJ1A0209 | R31028  | CONTROL SYSTEMS LAB                       | 15       | 32       | 2       |
| 12BJ1A0210 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 21       | 15       | 0       |
| 12BJ1A0210 | R31022  | ELECTRICAL MEASUREMENT                    | 4        | 2        | 0       |
| 12BJ1A0210 | R31023  | POWER SYSTEMS-II                          | 16       | 26       | 4       |
| 12BJ1A0210 | R31024  | POWER ELECTRONICS                         | 17       | 50       | 4       |
| 12BJ1A0210 | R31025  | ELECTRICAL MACHINES-III                   | 15       | 47       | 4       |
| 12BJ1A0210 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 17       | 1        | 0       |
| 12BJ1A0210 | R31027  | ELECTRICAL MACHINES-II LAB                | 19       | 40       | 2       |
| 12BJ1A0210 | R31028  | CONTROL SYSTEMS LAB                       | 19       | 40       | 2       |
| 12BJ1A0211 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 24       | 26       | 4       |
| 12BJ1A0211 | R31022  | ELECTRICAL MEASUREMENT                    | 16       | 10       | 0       |
| 12BJ1A0211 | R31023  | POWER SYSTEMS-II                          | 18       | 44       | 4       |
| 12BJ1A0211 | R31024  | POWER ELECTRONICS                         | 19       | 14       | 0       |
| 12BJ1A0211 | R31025  | ELECTRICAL MACHINES-III                   | 15       | 8        | 0       |
| 12BJ1A0211 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 10       | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0211 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 40       | 2       |
| 12BJ1A0211 | R31028  | CONTROL SYSTEMS LAB                       | 22       | 40       | 2       |
| 12BJ1A0212 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 23       | 13       | 0       |
| 12BJ1A0212 | R31022  | ELECTRICAL MEASUREMENT                    | 7        | 1        | 0       |
| 12BJ1A0212 | R31023  | POWER SYSTEMS-II                          | 16       | 16       | 0       |
| 12BJ1A0212 | R31024  | POWER ELECTRONICS                         | 18       | 6        | 0       |
| 12BJ1A0212 | R31025  | ELECTRICAL MACHINES-III                   | 15       | 9        | 0       |
| 12BJ1A0212 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 11       | 0        | 0       |
| 12BJ1A0212 | R31027  | ELECTRICAL MACHINES-II LAB                | 20       | 42       | 2       |
| 12BJ1A0212 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 43       | 2       |
| 12BJ1A0214 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 23       | 31       | 4       |
| 12BJ1A0214 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 38       | 4       |
| 12BJ1A0214 | R31023  | POWER SYSTEMS-II                          | 18       | 4        | 0       |
| 12BJ1A0214 | R31024  | POWER ELECTRONICS                         | 17       | 28       | 4       |
| 12BJ1A0214 | R31025  | ELECTRICAL MACHINES-III                   | 20       | 31       | 4       |
| 12BJ1A0214 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 16       | 0        | 0       |
| 12BJ1A0214 | R31027  | ELECTRICAL MACHINES-II LAB                | 20       | 43       | 2       |
| 12BJ1A0214 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 43       | 2       |
| 12BJ1A0215 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 16       | -1       | 0       |
| 12BJ1A0215 | R31022  | ELECTRICAL MEASUREMENT                    | 2        | -1       | 0       |
| 12BJ1A0215 | R31023  | POWER SYSTEMS-II                          | 14       | 0        | 0       |
| 12BJ1A0215 | R31024  | POWER ELECTRONICS                         | 15       | 4        | 0       |
| 12BJ1A0215 | R31025  | ELECTRICAL MACHINES-III                   | 16       | 0        | 0       |
| 12BJ1A0215 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 12       | 1        | 0       |
| 12BJ1A0215 | R31027  | ELECTRICAL MACHINES-II LAB                | 10       | 30       | 2       |
| 12BJ1A0215 | R31028  | CONTROL SYSTEMS LAB                       | 15       | 30       | 2       |
| 12BJ1A0216 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 21       | 10       | 0       |
| 12BJ1A0216 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 11       | 0       |
| 12BJ1A0216 | R31023  | POWER SYSTEMS-II                          | 17       | 16       | 0       |
| 12BJ1A0216 | R31024  | POWER ELECTRONICS                         | 20       | 29       | 4       |
| 12BJ1A0216 | R31025  | ELECTRICAL MACHINES-III                   | 18       | 37       | 4       |
| 12BJ1A0216 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 16       | 4        | 0       |
| 12BJ1A0216 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 40       | 2       |
| 12BJ1A0216 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 41       | 2       |
| 12BJ1A0217 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 20       | 4        | 0       |
| 12BJ1A0217 | R31022  | ELECTRICAL MEASUREMENT                    | 6        | 8        | 0       |
| 12BJ1A0217 | R31023  | POWER SYSTEMS-II                          | 13       | 7        | 0       |
| 12BJ1A0217 | R31024  | POWER ELECTRONICS                         | 17       | 7        | 0       |
| 12BJ1A0217 | R31025  | ELECTRICAL MACHINES-III                   | 16       | 7        | 0       |
| 12BJ1A0217 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 1        | 0       |
| 12BJ1A0217 | R31027  | ELECTRICAL MACHINES-II LAB                | 12       | 36       | 2       |
| 12BJ1A0217 | R31028  | CONTROL SYSTEMS LAB                       | 19       | 30       | 2       |
| 12BJ1A0218 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 23       | 16       | 0       |
| 12BJ1A0218 | R31022  | ELECTRICAL MEASUREMENT                    | 7        | 0        | 0       |
| 12BJ1A0218 | R31023  | POWER SYSTEMS-II                          | 13       | 0        | 0       |
| 12BJ1A0218 | R31024  | POWER ELECTRONICS                         | 18       | 1        | 0       |
| 12BJ1A0218 | R31025  | ELECTRICAL MACHINES-III                   | 17       | 8        | 0       |
| 12BJ1A0218 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 18       | 0        | 0       |
| 12BJ1A0218 | R31027  | ELECTRICAL MACHINES-II LAB                | 22       | 42       | 2       |
| 12BJ1A0218 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 42       | 2       |
| 12BJ1A0219 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 21       | 31       | 4       |



| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0219 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 26       | 4       |
| 12BJ1A0219 | R31023  | POWER SYSTEMS-II                          | 14       | 26       | 4       |
| 12BJ1A0219 | R31024  | POWER ELECTRONICS                         | 16       | 3        | 0       |
| 12BJ1A0219 | R31025  | ELECTRICAL MACHINES-III                   | 18       | 37       | 4       |
| 12BJ1A0219 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 13       | 0        | 0       |
| 12BJ1A0219 | R31027  | ELECTRICAL MACHINES-II LAB                | 21       | 42       | 2       |
| 12BJ1A0219 | R31028  | CONTROL SYSTEMS LAB                       | 21       | 42       | 2       |
| 12BJ1A0220 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 8        | 0        | 0       |
| 12BJ1A0220 | R31022  | ELECTRICAL MEASUREMENT                    | 12       | 7        | 0       |
| 12BJ1A0220 | R31023  | POWER SYSTEMS-II                          | 15       | 23       | 0       |
| 12BJ1A0220 | R31024  | POWER ELECTRONICS                         | 13       | 8        | 0       |
| 12BJ1A0220 | R31025  | ELECTRICAL MACHINES-III                   | 9        | 14       | 0       |
| 12BJ1A0220 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 0        | 0       |
| 12BJ1A0220 | R31027  | ELECTRICAL MACHINES-II LAB                | 22       | 43       | 2       |
| 12BJ1A0220 | R31028  | CONTROL SYSTEMS LAB                       | 15       | 42       | 2       |
| 12BJ1A0221 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 19       | 28       | 4       |
| 12BJ1A0221 | R31022  | ELECTRICAL MEASUREMENT                    | 6        | 8        | 0       |
| 12BJ1A0221 | R31023  | POWER SYSTEMS-II                          | 15       | 12       | 0       |
| 12BJ1A0221 | R31024  | POWER ELECTRONICS                         | 17       | 17       | 0       |
| 12BJ1A0221 | R31025  | ELECTRICAL MACHINES-III                   | 8        | 7        | 0       |
| 12BJ1A0221 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 6        | 5        | 0       |
| 12BJ1A0221 | R31027  | ELECTRICAL MACHINES-II LAB                | 20       | 40       | 2       |
| 12BJ1A0221 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 40       | 2       |
| 12BJ1A0222 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 0        | -1       | 0       |
| 12BJ1A0222 | R31022  | ELECTRICAL MEASUREMENT                    | 0        | -1       | 0       |
| 12BJ1A0222 | R31023  | POWER SYSTEMS-II                          | 4        | -1       | 0       |
| 12BJ1A0222 | R31024  | POWER ELECTRONICS                         | 1        | -1       | 0       |
| 12BJ1A0222 | R31025  | ELECTRICAL MACHINES-III                   | 0        | -1       | 0       |
| 12BJ1A0222 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 1        | -1       | 0       |
| 12BJ1A0222 | R31027  | ELECTRICAL MACHINES-II LAB                | 0        | -1       | 0       |
| 12BJ1A0222 | R31028  | CONTROL SYSTEMS LAB                       | 0        | -1       | 0       |
| 12BJ1A0223 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 25       | 42       | 4       |
| 12BJ1A0223 | R31022  | ELECTRICAL MEASUREMENT                    | 21       | 26       | 4       |
| 12BJ1A0223 | R31023  | POWER SYSTEMS-II                          | 21       | 11       | 0       |
| 12BJ1A0223 | R31024  | POWER ELECTRONICS                         | 25       | 51       | 4       |
| 12BJ1A0223 | R31025  | ELECTRICAL MACHINES-III                   | 23       | 45       | 4       |
| 12BJ1A0223 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 12       | 40       | 4       |
| 12BJ1A0223 | R31027  | ELECTRICAL MACHINES-II LAB                | 23       | 48       | 2       |
| 12BJ1A0223 | R31028  | CONTROL SYSTEMS LAB                       | 22       | 47       | 2       |
| 12BJ1A0224 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 21       | 8        | 0       |
| 12BJ1A0224 | R31022  | ELECTRICAL MEASUREMENT                    | 15       | 14       | 0       |
| 12BJ1A0224 | R31023  | POWER SYSTEMS-II                          | 19       | 31       | 4       |
| 12BJ1A0224 | R31024  | POWER ELECTRONICS                         | 17       | 28       | 4       |
| 12BJ1A0224 | R31025  | ELECTRICAL MACHINES-III                   | 18       | 26       | 4       |
| 12BJ1A0224 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 26       | 4       |
| 12BJ1A0224 | R31027  | ELECTRICAL MACHINES-II LAB                | 23       | 47       | 2       |
| 12BJ1A0224 | R31028  | CONTROL SYSTEMS LAB                       | 22       | 46       | 2       |
| 12BJ1A0225 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 14       | 17       | 0       |
| 12BJ1A0225 | R31022  | ELECTRICAL MEASUREMENT                    | 20       | 6        | 0       |
| 12BJ1A0225 | R31023  | POWER SYSTEMS-II                          | 18       | 50       | 4       |
| 12BJ1A0225 | R31024  | POWER ELECTRONICS                         | 18       | 27       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0225 | R31025  | ELECTRICAL MACHINES-III                   | 16       | 26       | 4       |
| 12BJ1A0225 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 17       | 8        | 0       |
| 12BJ1A0225 | R31027  | ELECTRICAL MACHINES-II LAB                | 23       | 47       | 2       |
| 12BJ1A0225 | R31028  | CONTROL SYSTEMS LAB                       | 24       | 46       | 2       |
| 12BJ1A0226 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 22       | 27       | 4       |
| 12BJ1A0226 | R31022  | ELECTRICAL MEASUREMENT                    | 22       | 38       | 4       |
| 12BJ1A0226 | R31023  | POWER SYSTEMS-II                          | 21       | 7        | 0       |
| 12BJ1A0226 | R31024  | POWER ELECTRONICS                         | 21       | 16       | 0       |
| 12BJ1A0226 | R31025  | ELECTRICAL MACHINES-III                   | 23       | 18       | 0       |
| 12BJ1A0226 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 18       | 11       | 0       |
| 12BJ1A0226 | R31027  | ELECTRICAL MACHINES-II LAB                | 23       | 47       | 2       |
| 12BJ1A0226 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 46       | 2       |
| 12BJ1A0227 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 16       | 2        | 0       |
| 12BJ1A0227 | R31022  | ELECTRICAL MEASUREMENT                    | 15       | 10       | 0       |
| 12BJ1A0227 | R31023  | POWER SYSTEMS-II                          | 18       | 1        | 0       |
| 12BJ1A0227 | R31024  | POWER ELECTRONICS                         | 21       | 26       | 4       |
| 12BJ1A0227 | R31025  | ELECTRICAL MACHINES-III                   | 17       | 28       | 4       |
| 12BJ1A0227 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 16       | 13       | 0       |
| 12BJ1A0227 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 35       | 2       |
| 12BJ1A0227 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 34       | 2       |
| 12BJ1A0228 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 23       | 33       | 4       |
| 12BJ1A0228 | R31022  | ELECTRICAL MEASUREMENT                    | 18       | 17       | 0       |
| 12BJ1A0228 | R31023  | POWER SYSTEMS-II                          | 21       | 41       | 4       |
| 12BJ1A0228 | R31024  | POWER ELECTRONICS                         | 20       | 26       | 4       |
| 12BJ1A0228 | R31025  | ELECTRICAL MACHINES-III                   | 19       | 38       | 4       |
| 12BJ1A0228 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 9        | 0       |
| 12BJ1A0228 | R31027  | ELECTRICAL MACHINES-II LAB                | 23       | 49       | 2       |
| 12BJ1A0228 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 48       | 2       |
| 12BJ1A0229 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 17       | 16       | 0       |
| 12BJ1A0229 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 3        | 0       |
| 12BJ1A0229 | R31023  | POWER SYSTEMS-II                          | 18       | 36       | 4       |
| 12BJ1A0229 | R31024  | POWER ELECTRONICS                         | 19       | 19       | 0       |
| 12BJ1A0229 | R31025  | ELECTRICAL MACHINES-III                   | 23       | 9        | 0       |
| 12BJ1A0229 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 12       | 0       |
| 12BJ1A0229 | R31027  | ELECTRICAL MACHINES-II LAB                | 22       | 45       | 2       |
| 12BJ1A0229 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 40       | 2       |
| 12BJ1A0230 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 19       | 28       | 4       |
| 12BJ1A0230 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 19       | 0       |
| 12BJ1A0230 | R31023  | POWER SYSTEMS-II                          | 20       | 5        | 0       |
| 12BJ1A0230 | R31024  | POWER ELECTRONICS                         | 16       | 10       | 0       |
| 12BJ1A0230 | R31025  | ELECTRICAL MACHINES-III                   | 16       | 18       | 0       |
| 12BJ1A0230 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 12       | 13       | 0       |
| 12BJ1A0230 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 40       | 2       |
| 12BJ1A0230 | R31028  | CONTROL SYSTEMS LAB                       | 22       | 39       | 2       |
| 12BJ1A0231 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 0        | 2        | 0       |
| 12BJ1A0231 | R31022  | ELECTRICAL MEASUREMENT                    | 0        | 2        | 0       |
| 12BJ1A0231 | R31023  | POWER SYSTEMS-II                          | 0        | 0        | 0       |
| 12BJ1A0231 | R31024  | POWER ELECTRONICS                         | 0        | 8        | 0       |
| 12BJ1A0231 | R31025  | ELECTRICAL MACHINES-III                   | 0        | 10       | 0       |
| 12BJ1A0231 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 0        | 2        | 0       |
| 12BJ1A0231 | R31027  | ELECTRICAL MACHINES-II LAB                | 8        | 30       | 2       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0231 | R31028  | CONTROL SYSTEMS LAB                       | 15       | 30       | 2       |
| 12BJ1A0232 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 25       | 0        | 0       |
| 12BJ1A0232 | R31022  | ELECTRICAL MEASUREMENT                    | 13       | 6        | 0       |
| 12BJ1A0232 | R31023  | POWER SYSTEMS-II                          | 15       | 3        | 0       |
| 12BJ1A0232 | R31024  | POWER ELECTRONICS                         | 22       | 12       | 0       |
| 12BJ1A0232 | R31025  | ELECTRICAL MACHINES-III                   | 14       | 0        | 0       |
| 12BJ1A0232 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 20       | 0        | 0       |
| 12BJ1A0232 | R31027  | ELECTRICAL MACHINES-II LAB                | 8        | 30       | 2       |
| 12BJ1A0232 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 30       | 2       |
| 12BJ1A0233 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 23       | 45       | 4       |
| 12BJ1A0233 | R31022  | ELECTRICAL MEASUREMENT                    | 19       | 16       | 0       |
| 12BJ1A0233 | R31023  | POWER SYSTEMS-II                          | 21       | 41       | 4       |
| 12BJ1A0233 | R31024  | POWER ELECTRONICS                         | 21       | 38       | 4       |
| 12BJ1A0233 | R31025  | ELECTRICAL MACHINES-III                   | 24       | 14       | 0       |
| 12BJ1A0233 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 20       | 26       | 4       |
| 12BJ1A0233 | R31027  | ELECTRICAL MACHINES-II LAB                | 25       | 50       | 2       |
| 12BJ1A0233 | R31028  | CONTROL SYSTEMS LAB                       | 24       | 49       | 2       |
| 12BJ1A0235 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 24       | 45       | 4       |
| 12BJ1A0235 | R31022  | ELECTRICAL MEASUREMENT                    | 23       | 57       | 4       |
| 12BJ1A0235 | R31023  | POWER SYSTEMS-II                          | 24       | 13       | 0       |
| 12BJ1A0235 | R31024  | POWER ELECTRONICS                         | 24       | 41       | 4       |
| 12BJ1A0235 | R31025  | ELECTRICAL MACHINES-III                   | 25       | 40       | 4       |
| 12BJ1A0235 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 22       | 11       | 0       |
| 12BJ1A0235 | R31027  | ELECTRICAL MACHINES-II LAB                | 25       | 50       | 2       |
| 12BJ1A0235 | R31028  | CONTROL SYSTEMS LAB                       | 24       | 49       | 2       |
| 12BJ1A0236 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 13       | 8        | 0       |
| 12BJ1A0236 | R31022  | ELECTRICAL MEASUREMENT                    | 11       | 30       | 4       |
| 12BJ1A0236 | R31023  | POWER SYSTEMS-II                          | 16       | 0        | 0       |
| 12BJ1A0236 | R31024  | POWER ELECTRONICS                         | 19       | 16       | 0       |
| 12BJ1A0236 | R31025  | ELECTRICAL MACHINES-III                   | 15       | 16       | 0       |
| 12BJ1A0236 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 0        | 0       |
| 12BJ1A0236 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 37       | 2       |
| 12BJ1A0236 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 30       | 2       |
| 12BJ1A0238 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 23       | 0        | 0       |
| 12BJ1A0238 | R31022  | ELECTRICAL MEASUREMENT                    | 20       | 6        | 0       |
| 12BJ1A0238 | R31023  | POWER SYSTEMS-II                          | 18       | 7        | 0       |
| 12BJ1A0238 | R31024  | POWER ELECTRONICS                         | 18       | 0        | 0       |
| 12BJ1A0238 | R31025  | ELECTRICAL MACHINES-III                   | 19       | 3        | 0       |
| 12BJ1A0238 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 20       | 0        | 0       |
| 12BJ1A0238 | R31027  | ELECTRICAL MACHINES-II LAB                | 10       | 30       | 2       |
| 12BJ1A0238 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 30       | 2       |
| 12BJ1A0239 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 25       | 0        | 0       |
| 12BJ1A0239 | R31022  | ELECTRICAL MEASUREMENT                    | 18       | 4        | 0       |
| 12BJ1A0239 | R31023  | POWER SYSTEMS-II                          | 17       | 32       | 4       |
| 12BJ1A0239 | R31024  | POWER ELECTRONICS                         | 20       | 5        | 0       |
| 12BJ1A0239 | R31025  | ELECTRICAL MACHINES-III                   | 22       | 6        | 0       |
| 12BJ1A0239 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 5        | 0       |
| 12BJ1A0239 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 36       | 2       |
| 12BJ1A0239 | R31028  | CONTROL SYSTEMS LAB                       | 18       | 34       | 2       |
| 12BJ1A0240 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 17       | 14       | 0       |
| 12BJ1A0240 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 12       | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0240 | R31023  | POWER SYSTEMS-II                          | 15       | 0        | 0       |
| 12BJ1A0240 | R31024  | POWER ELECTRONICS                         | 19       | 2        | 0       |
| 12BJ1A0240 | R31025  | ELECTRICAL MACHINES-III                   | 14       | 3        | 0       |
| 12BJ1A0240 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 14       | 0        | 0       |
| 12BJ1A0240 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 36       | 2       |
| 12BJ1A0240 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 35       | 2       |
| 12BJ1A0241 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 14       | 0        | 0       |
| 12BJ1A0241 | R31022  | ELECTRICAL MEASUREMENT                    | 2        | 2        | 0       |
| 12BJ1A0241 | R31023  | POWER SYSTEMS-II                          | 13       | 0        | 0       |
| 12BJ1A0241 | R31024  | POWER ELECTRONICS                         | 18       | 8        | 0       |
| 12BJ1A0241 | R31025  | ELECTRICAL MACHINES-III                   | 17       | 4        | 0       |
| 12BJ1A0241 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 10       | 2        | 0       |
| 12BJ1A0241 | R31027  | ELECTRICAL MACHINES-II LAB                | 10       | 30       | 2       |
| 12BJ1A0241 | R31028  | CONTROL SYSTEMS LAB                       | 17       | 30       | 2       |
| 12BJ1A0242 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 24       | 2        | 0       |
| 12BJ1A0242 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 12       | 0       |
| 12BJ1A0242 | R31023  | POWER SYSTEMS-II                          | 17       | 2        | 0       |
| 12BJ1A0242 | R31024  | POWER ELECTRONICS                         | 21       | 3        | 0       |
| 12BJ1A0242 | R31025  | ELECTRICAL MACHINES-III                   | 15       | 1        | 0       |
| 12BJ1A0242 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 0        | 0       |
| 12BJ1A0242 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 36       | 2       |
| 12BJ1A0242 | R31028  | CONTROL SYSTEMS LAB                       | 22       | 37       | 2       |
| 12BJ1A0243 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 20       | 8        | 0       |
| 12BJ1A0243 | R31022  | ELECTRICAL MEASUREMENT                    | 12       | 6        | 0       |
| 12BJ1A0243 | R31023  | POWER SYSTEMS-II                          | 16       | 20       | 0       |
| 12BJ1A0243 | R31024  | POWER ELECTRONICS                         | 21       | 19       | 0       |
| 12BJ1A0243 | R31025  | ELECTRICAL MACHINES-III                   | 17       | 8        | 0       |
| 12BJ1A0243 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 17       | 4        | 0       |
| 12BJ1A0243 | R31027  | ELECTRICAL MACHINES-II LAB                | 12       | 35       | 2       |
| 12BJ1A0243 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 35       | 2       |
| 12BJ1A0244 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 17       | 27       | 4       |
| 12BJ1A0244 | R31022  | ELECTRICAL MEASUREMENT                    | 13       | 39       | 4       |
| 12BJ1A0244 | R31023  | POWER SYSTEMS-II                          | 18       | 2        | 0       |
| 12BJ1A0244 | R31024  | POWER ELECTRONICS                         | 19       | 30       | 4       |
| 12BJ1A0244 | R31025  | ELECTRICAL MACHINES-III                   | 16       | 14       | 0       |
| 12BJ1A0244 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 18       | 0        | 0       |
| 12BJ1A0244 | R31027  | ELECTRICAL MACHINES-II LAB                | 12       | 36       | 2       |
| 12BJ1A0244 | R31028  | CONTROL SYSTEMS LAB                       | 22       | 37       | 2       |
| 12BJ1A0245 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 23       | 26       | 4       |
| 12BJ1A0245 | R31022  | ELECTRICAL MEASUREMENT                    | 17       | 9        | 0       |
| 12BJ1A0245 | R31023  | POWER SYSTEMS-II                          | 21       | 12       | 0       |
| 12BJ1A0245 | R31024  | POWER ELECTRONICS                         | 18       | 5        | 0       |
| 12BJ1A0245 | R31025  | ELECTRICAL MACHINES-III                   | 24       | 47       | 4       |
| 12BJ1A0245 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 20       | 16       | 0       |
| 12BJ1A0245 | R31027  | ELECTRICAL MACHINES-II LAB                | 20       | 41       | 2       |
| 12BJ1A0245 | R31028  | CONTROL SYSTEMS LAB                       | 21       | 40       | 2       |
| 12BJ1A0246 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 18       | 4        | 0       |
| 12BJ1A0246 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 5        | 0       |
| 12BJ1A0246 | R31023  | POWER SYSTEMS-II                          | 19       | 21       | 0       |
| 12BJ1A0246 | R31024  | POWER ELECTRONICS                         | 21       | 15       | 0       |
| 12BJ1A0246 | R31025  | ELECTRICAL MACHINES-III                   | 17       | 11       | 0       |

| Htno       | Subcode | Subname                         | Internal | External | credits |
|------------|---------|---------------------------------|----------|----------|---------|
| 12BJ1A0246 | R31026  | LINEAR & DIGITAL IC APPLICATION | 18       | 0        | 0       |
| 12BJ1A0246 | R31027  | ELECTRICAL MACHINES-II LAB      | 17       | 42       | 2       |
| 12BJ1A0246 | R31028  | CONTROL SYSTEMS LAB             | 24       | 41       | 2       |
| 12BJ1A0301 | R31031  | FINITE ELEMENT METHODS          | 25       | 14       | 0       |
| 12BJ1A0301 | R31032  | OPERATIONS RESEARCH             | 19       | 44       | 4       |
| 12BJ1A0301 | R31033  | DYNAMICS OF MACHINERY           | 20       | 30       | 4       |
| 12BJ1A0301 | R31034  | THERMAL ENGINEERING-II          | 23       | 15       | 0       |
| 12BJ1A0301 | R31035  | DESIGN OF MACHINE MEMBERS-I     | 21       | 52       | 4       |
| 12BJ1A0301 | R31036  | METAL CUTTING & MACHINE TOOLS   | 22       | 26       | 4       |
| 12BJ1A0301 | R31037  | THERMAL ENGINEERING LAB         | 22       | 48       | 2       |
| 12BJ1A0301 | R31038  | MACHINE TOOLS LAB               | 25       | 50       | 2       |
| 12BJ1A0302 | R31031  | FINITE ELEMENT METHODS          | 22       | 41       | 4       |
| 12BJ1A0302 | R31032  | OPERATIONS RESEARCH             | 19       | 29       | 4       |
| 12BJ1A0302 | R31033  | DYNAMICS OF MACHINERY           | 19       | 38       | 4       |
| 12BJ1A0302 | R31034  | THERMAL ENGINEERING-II          | 21       | 41       | 4       |
| 12BJ1A0302 | R31035  | DESIGN OF MACHINE MEMBERS-I     | 23       | 26       | 4       |
| 12BJ1A0302 | R31036  | METAL CUTTING & MACHINE TOOLS   | 23       | 33       | 4       |
| 12BJ1A0302 | R31037  | THERMAL ENGINEERING LAB         | 23       | 49       | 2       |
| 12BJ1A0302 | R31038  | MACHINE TOOLS LAB               | 25       | 50       | 2       |
| 12BJ1A0303 | R31031  | FINITE ELEMENT METHODS          | 21       | 31       | 4       |
| 12BJ1A0303 | R31032  | OPERATIONS RESEARCH             | 17       | 27       | 4       |
| 12BJ1A0303 | R31033  | DYNAMICS OF MACHINERY           | 24       | 49       | 4       |
| 12BJ1A0303 | R31034  | THERMAL ENGINEERING-II          | 21       | 38       | 4       |
| 12BJ1A0303 | R31035  | DESIGN OF MACHINE MEMBERS-I     | 20       | 26       | 4       |
| 12BJ1A0303 | R31036  | METAL CUTTING & MACHINE TOOLS   | 20       | 31       | 4       |
| 12BJ1A0303 | R31037  | THERMAL ENGINEERING LAB         | 24       | 50       | 2       |
| 12BJ1A0303 | R31038  | MACHINE TOOLS LAB               | 24       | 48       | 2       |
| 12BJ1A0304 | R31031  | FINITE ELEMENT METHODS          | 16       | 2        | 0       |
| 12BJ1A0304 | R31032  | OPERATIONS RESEARCH             | 16       | 26       | 4       |
| 12BJ1A0304 | R31033  | DYNAMICS OF MACHINERY           | 19       | 8        | 0       |
| 12BJ1A0304 | R31034  | THERMAL ENGINEERING-II          | 19       | 26       | 4       |
| 12BJ1A0304 | R31035  | DESIGN OF MACHINE MEMBERS-I     | 18       | 32       | 4       |
| 12BJ1A0304 | R31036  | METAL CUTTING & MACHINE TOOLS   | 20       | 26       | 4       |
| 12BJ1A0304 | R31037  | THERMAL ENGINEERING LAB         | 23       | 49       | 2       |
| 12BJ1A0304 | R31038  | MACHINE TOOLS LAB               | 23       | 46       | 2       |
| 12BJ1A0305 | R31031  | FINITE ELEMENT METHODS          | 21       | 30       | 4       |
| 12BJ1A0305 | R31032  | OPERATIONS RESEARCH             | 18       | 56       | 4       |
| 12BJ1A0305 | R31033  | DYNAMICS OF MACHINERY           | 21       | 42       | 4       |
| 12BJ1A0305 | R31034  | THERMAL ENGINEERING-II          | 20       | 51       | 4       |
| 12BJ1A0305 | R31035  | DESIGN OF MACHINE MEMBERS-I     | 19       | 57       | 4       |
| 12BJ1A0305 | R31036  | METAL CUTTING & MACHINE TOOLS   | 20       | 26       | 4       |
| 12BJ1A0305 | R31037  | THERMAL ENGINEERING LAB         | 24       | 50       | 2       |
| 12BJ1A0305 | R31038  | MACHINE TOOLS LAB               | 25       | 48       | 2       |
| 12BJ1A0306 | R31031  | FINITE ELEMENT METHODS          | 18       | 26       | 4       |
| 12BJ1A0306 | R31032  | OPERATIONS RESEARCH             | 19       | 18       | 0       |
| 12BJ1A0306 | R31033  | DYNAMICS OF MACHINERY           | 20       | 26       | 4       |
| 12BJ1A0306 | R31034  | THERMAL ENGINEERING-II          | 16       | 26       | 4       |
| 12BJ1A0306 | R31035  | DESIGN OF MACHINE MEMBERS-I     | 17       | 21       | 0       |
| 12BJ1A0306 | R31036  | METAL CUTTING & MACHINE TOOLS   | 20       | 26       | 4       |
| 12BJ1A0306 | R31037  | THERMAL ENGINEERING LAB         | 23       | 48       | 2       |
| 12BJ1A0306 | R31038  | MACHINE TOOLS LAB               | 24       | 48       | 2       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0307 | R31031  | FINITE ELEMENT METHODS        | 11       | 0        | 0       |
| 12BJ1A0307 | R31032  | OPERATIONS RESEARCH           | 6        | -1       | 0       |
| 12BJ1A0307 | R31033  | DYNAMICS OF MACHINERY         | 17       | 9        | 0       |
| 12BJ1A0307 | R31034  | THERMAL ENGINEERING-II        | 12       | 0        | 0       |
| 12BJ1A0307 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 0        | 0       |
| 12BJ1A0307 | R31036  | METAL CUTTING & MACHINE TOOLS | 18       | 0        | 0       |
| 12BJ1A0307 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0307 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0308 | R31031  | FINITE ELEMENT METHODS        | 25       | 39       | 4       |
| 12BJ1A0308 | R31032  | OPERATIONS RESEARCH           | 21       | 56       | 4       |
| 12BJ1A0308 | R31033  | DYNAMICS OF MACHINERY         | 21       | 39       | 4       |
| 12BJ1A0308 | R31034  | THERMAL ENGINEERING-II        | 20       | 41       | 4       |
| 12BJ1A0308 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 19       | 47       | 4       |
| 12BJ1A0308 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 49       | 4       |
| 12BJ1A0308 | R31037  | THERMAL ENGINEERING LAB       | 23       | 46       | 2       |
| 12BJ1A0308 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0309 | R31031  | FINITE ELEMENT METHODS        | 20       | 4        | 0       |
| 12BJ1A0309 | R31032  | OPERATIONS RESEARCH           | 16       | 4        | 0       |
| 12BJ1A0309 | R31033  | DYNAMICS OF MACHINERY         | 18       | 4        | 0       |
| 12BJ1A0309 | R31034  | THERMAL ENGINEERING-II        | 14       | 2        | 0       |
| 12BJ1A0309 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 5        | 11       | 0       |
| 12BJ1A0309 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 3        | 0       |
| 12BJ1A0309 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0309 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0310 | R31031  | FINITE ELEMENT METHODS        | 23       | 32       | 4       |
| 12BJ1A0310 | R31032  | OPERATIONS RESEARCH           | 20       | 15       | 0       |
| 12BJ1A0310 | R31033  | DYNAMICS OF MACHINERY         | 22       | 37       | 4       |
| 12BJ1A0310 | R31034  | THERMAL ENGINEERING-II        | 19       | 27       | 4       |
| 12BJ1A0310 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 22       | 27       | 4       |
| 12BJ1A0310 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 35       | 4       |
| 12BJ1A0310 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0310 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0311 | R31031  | FINITE ELEMENT METHODS        | 20       | 17       | 0       |
| 12BJ1A0311 | R31032  | OPERATIONS RESEARCH           | 17       | 27       | 4       |
| 12BJ1A0311 | R31033  | DYNAMICS OF MACHINERY         | 10       | 2        | 0       |
| 12BJ1A0311 | R31034  | THERMAL ENGINEERING-II        | 19       | 6        | 0       |
| 12BJ1A0311 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 10       | 0       |
| 12BJ1A0311 | R31036  | METAL CUTTING & MACHINE TOOLS | 16       | 14       | 0       |
| 12BJ1A0311 | R31037  | THERMAL ENGINEERING LAB       | 23       | 46       | 2       |
| 12BJ1A0311 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0312 | R31031  | FINITE ELEMENT METHODS        | 19       | 0        | 0       |
| 12BJ1A0312 | R31032  | OPERATIONS RESEARCH           | 14       | 0        | 0       |
| 12BJ1A0312 | R31033  | DYNAMICS OF MACHINERY         | 10       | 0        | 0       |
| 12BJ1A0312 | R31034  | THERMAL ENGINEERING-II        | 6        | 4        | 0       |
| 12BJ1A0312 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 6        | 26       | 0       |
| 12BJ1A0312 | R31036  | METAL CUTTING & MACHINE TOOLS | 14       | 27       | 4       |
| 12BJ1A0312 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0312 | R31038  | MACHINE TOOLS LAB             | 21       | 42       | 2       |
| 12BJ1A0313 | R31031  | FINITE ELEMENT METHODS        | 18       | 0        | 0       |
| 12BJ1A0313 | R31032  | OPERATIONS RESEARCH           | 7        | 2        | 0       |
| 12BJ1A0313 | R31033  | DYNAMICS OF MACHINERY         | 13       | 2        | 0       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
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| 12BJ1A0313 | R31034  | THERMAL ENGINEERING-II        | 13       | 0        | 0       |
| 12BJ1A0313 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 11       | 10       | 0       |
| 12BJ1A0313 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 2        | 0       |
| 12BJ1A0313 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0313 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0314 | R31031  | FINITE ELEMENT METHODS        | 18       | -1       | 0       |
| 12BJ1A0314 | R31032  | OPERATIONS RESEARCH           | 2        | -1       | 0       |
| 12BJ1A0314 | R31033  | DYNAMICS OF MACHINERY         | 12       | -1       | 0       |
| 12BJ1A0314 | R31034  | THERMAL ENGINEERING-II        | 8        | -1       | 0       |
| 12BJ1A0314 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 6        | -1       | 0       |
| 12BJ1A0314 | R31036  | METAL CUTTING & MACHINE TOOLS | 3        | -1       | 0       |
| 12BJ1A0314 | R31037  | THERMAL ENGINEERING LAB       | 20       | -1       | 0       |
| 12BJ1A0314 | R31038  | MACHINE TOOLS LAB             | 20       | 35       | 2       |
| 12BJ1A0315 | R31031  | FINITE ELEMENT METHODS        | 24       | 55       | 4       |
| 12BJ1A0315 | R31032  | OPERATIONS RESEARCH           | 15       | 57       | 4       |
| 12BJ1A0315 | R31033  | DYNAMICS OF MACHINERY         | 21       | 48       | 4       |
| 12BJ1A0315 | R31034  | THERMAL ENGINEERING-II        | 20       | 30       | 4       |
| 12BJ1A0315 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 43       | 4       |
| 12BJ1A0315 | R31036  | METAL CUTTING & MACHINE TOOLS | 25       | 37       | 4       |
| 12BJ1A0315 | R31037  | THERMAL ENGINEERING LAB       | 24       | 48       | 2       |
| 12BJ1A0315 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0316 | R31031  | FINITE ELEMENT METHODS        | 22       | 5        | 0       |
| 12BJ1A0316 | R31032  | OPERATIONS RESEARCH           | 16       | 29       | 4       |
| 12BJ1A0316 | R31033  | DYNAMICS OF MACHINERY         | 24       | 26       | 4       |
| 12BJ1A0316 | R31034  | THERMAL ENGINEERING-II        | 23       | 27       | 4       |
| 12BJ1A0316 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 19       | 32       | 4       |
| 12BJ1A0316 | R31036  | METAL CUTTING & MACHINE TOOLS | 24       | 19       | 0       |
| 12BJ1A0316 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0316 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0317 | R31031  | FINITE ELEMENT METHODS        | 18       | 27       | 4       |
| 12BJ1A0317 | R31032  | OPERATIONS RESEARCH           | 17       | 38       | 4       |
| 12BJ1A0317 | R31033  | DYNAMICS OF MACHINERY         | 19       | 26       | 4       |
| 12BJ1A0317 | R31034  | THERMAL ENGINEERING-II        | 20       | 33       | 4       |
| 12BJ1A0317 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 14       | 36       | 4       |
| 12BJ1A0317 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 7        | 0       |
| 12BJ1A0317 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0317 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0318 | R31031  | FINITE ELEMENT METHODS        | 19       | 51       | 4       |
| 12BJ1A0318 | R31032  | OPERATIONS RESEARCH           | 15       | 29       | 4       |
| 12BJ1A0318 | R31033  | DYNAMICS OF MACHINERY         | 17       | 38       | 4       |
| 12BJ1A0318 | R31034  | THERMAL ENGINEERING-II        | 19       | 40       | 4       |
| 12BJ1A0318 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 19       | 0       |
| 12BJ1A0318 | R31036  | METAL CUTTING & MACHINE TOOLS | 19       | 38       | 4       |
| 12BJ1A0318 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0318 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0319 | R31031  | FINITE ELEMENT METHODS        | 9        | 2        | 0       |
| 12BJ1A0319 | R31032  | OPERATIONS RESEARCH           | 3        | 0        | 0       |
| 12BJ1A0319 | R31033  | DYNAMICS OF MACHINERY         | 15       | 0        | 0       |
| 12BJ1A0319 | R31034  | THERMAL ENGINEERING-II        | 11       | 0        | 0       |
| 12BJ1A0319 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 11       | 0        | 0       |
| 12BJ1A0319 | R31036  | METAL CUTTING & MACHINE TOOLS | 23       | -1       | 0       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
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| 12BJ1A0319 | R31037  | THERMAL ENGINEERING LAB       | 20       | 46       | 2       |
| 12BJ1A0319 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0320 | R31031  | FINITE ELEMENT METHODS        | 12       | 0        | 0       |
| 12BJ1A0320 | R31032  | OPERATIONS RESEARCH           | 18       | 4        | 0       |
| 12BJ1A0320 | R31033  | DYNAMICS OF MACHINERY         | 14       | 4        | 0       |
| 12BJ1A0320 | R31034  | THERMAL ENGINEERING-II        | 16       | 2        | 0       |
| 12BJ1A0320 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 6        | 0       |
| 12BJ1A0320 | R31036  | METAL CUTTING & MACHINE TOOLS | 19       | 10       | 0       |
| 12BJ1A0320 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0320 | R31038  | MACHINE TOOLS LAB             | 25       | 50       | 2       |
| 12BJ1A0321 | R31031  | FINITE ELEMENT METHODS        | 18       | 7        | 0       |
| 12BJ1A0321 | R31032  | OPERATIONS RESEARCH           | 17       | 26       | 4       |
| 12BJ1A0321 | R31033  | DYNAMICS OF MACHINERY         | 16       | 30       | 4       |
| 12BJ1A0321 | R31034  | THERMAL ENGINEERING-II        | 20       | 2        | 0       |
| 12BJ1A0321 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 35       | 4       |
| 12BJ1A0321 | R31036  | METAL CUTTING & MACHINE TOOLS | 23       | 3        | 0       |
| 12BJ1A0321 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0321 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0322 | R31031  | FINITE ELEMENT METHODS        | 15       | 0        | 0       |
| 12BJ1A0322 | R31032  | OPERATIONS RESEARCH           | 6        | 3        | 0       |
| 12BJ1A0322 | R31033  | DYNAMICS OF MACHINERY         | 8        | 1        | 0       |
| 12BJ1A0322 | R31034  | THERMAL ENGINEERING-II        | 8        | 0        | 0       |
| 12BJ1A0322 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 3        | 3        | 0       |
| 12BJ1A0322 | R31036  | METAL CUTTING & MACHINE TOOLS | 12       | 15       | 0       |
| 12BJ1A0322 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0322 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0323 | R31031  | FINITE ELEMENT METHODS        | 24       | 33       | 4       |
| 12BJ1A0323 | R31032  | OPERATIONS RESEARCH           | 21       | 47       | 4       |
| 12BJ1A0323 | R31033  | DYNAMICS OF MACHINERY         | 20       | 34       | 4       |
| 12BJ1A0323 | R31034  | THERMAL ENGINEERING-II        | 22       | 39       | 4       |
| 12BJ1A0323 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 20       | 42       | 4       |
| 12BJ1A0323 | R31036  | METAL CUTTING & MACHINE TOOLS | 24       | 28       | 4       |
| 12BJ1A0323 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0323 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0324 | R31031  | FINITE ELEMENT METHODS        | 24       | 11       | 0       |
| 12BJ1A0324 | R31032  | OPERATIONS RESEARCH           | 21       | 63       | 4       |
| 12BJ1A0324 | R31033  | DYNAMICS OF MACHINERY         | 22       | 41       | 4       |
| 12BJ1A0324 | R31034  | THERMAL ENGINEERING-II        | 22       | 40       | 4       |
| 12BJ1A0324 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 23       | 47       | 4       |
| 12BJ1A0324 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 33       | 4       |
| 12BJ1A0324 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0324 | R31038  | MACHINE TOOLS LAB             | 25       | 50       | 2       |
| 12BJ1A0325 | R31031  | FINITE ELEMENT METHODS        | 22       | 0        | 0       |
| 12BJ1A0325 | R31032  | OPERATIONS RESEARCH           | 22       | 9        | 0       |
| 12BJ1A0325 | R31033  | DYNAMICS OF MACHINERY         | 16       | 26       | 4       |
| 12BJ1A0325 | R31034  | THERMAL ENGINEERING-II        | 19       | 14       | 0       |
| 12BJ1A0325 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 34       | 4       |
| 12BJ1A0325 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 6        | 0       |
| 12BJ1A0325 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0325 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0326 | R31031  | FINITE ELEMENT METHODS        | 15       | 26       | 4       |



| Htno       | Subcode | Subname                       | Internal | External | credits |
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| 12BJ1A0326 | R31032  | OPERATIONS RESEARCH           | 22       | 18       | 0       |
| 12BJ1A0326 | R31033  | DYNAMICS OF MACHINERY         | 19       | 34       | 4       |
| 12BJ1A0326 | R31034  | THERMAL ENGINEERING-II        | 20       | 33       | 4       |
| 12BJ1A0326 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 22       | 21       | 0       |
| 12BJ1A0326 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 29       | 4       |
| 12BJ1A0326 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0326 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0327 | R31031  | FINITE ELEMENT METHODS        | 17       | 18       | 0       |
| 12BJ1A0327 | R31032  | OPERATIONS RESEARCH           | 14       | 15       | 0       |
| 12BJ1A0327 | R31033  | DYNAMICS OF MACHINERY         | 18       | 26       | 4       |
| 12BJ1A0327 | R31034  | THERMAL ENGINEERING-II        | 17       | 39       | 4       |
| 12BJ1A0327 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 16       | 0       |
| 12BJ1A0327 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 11       | 0       |
| 12BJ1A0327 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0327 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0328 | R31031  | FINITE ELEMENT METHODS        | 20       | 3        | 0       |
| 12BJ1A0328 | R31032  | OPERATIONS RESEARCH           | 18       | 15       | 0       |
| 12BJ1A0328 | R31033  | DYNAMICS OF MACHINERY         | 15       | 11       | 0       |
| 12BJ1A0328 | R31034  | THERMAL ENGINEERING-II        | 18       | 14       | 0       |
| 12BJ1A0328 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 14       | 9        | 0       |
| 12BJ1A0328 | R31036  | METAL CUTTING & MACHINE TOOLS | 18       | 33       | 4       |
| 12BJ1A0328 | R31037  | THERMAL ENGINEERING LAB       | 24       | 49       | 2       |
| 12BJ1A0328 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0329 | R31031  | FINITE ELEMENT METHODS        | 13       | 9        | 0       |
| 12BJ1A0329 | R31032  | OPERATIONS RESEARCH           | 12       | 10       | 0       |
| 12BJ1A0329 | R31033  | DYNAMICS OF MACHINERY         | 13       | 27       | 4       |
| 12BJ1A0329 | R31034  | THERMAL ENGINEERING-II        | 8        | 6        | 0       |
| 12BJ1A0329 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 30       | 4       |
| 12BJ1A0329 | R31036  | METAL CUTTING & MACHINE TOOLS | 13       | 7        | 0       |
| 12BJ1A0329 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0329 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0330 | R31031  | FINITE ELEMENT METHODS        | 21       | 11       | 0       |
| 12BJ1A0330 | R31032  | OPERATIONS RESEARCH           | 17       | 12       | 0       |
| 12BJ1A0330 | R31033  | DYNAMICS OF MACHINERY         | 15       | 26       | 4       |
| 12BJ1A0330 | R31034  | THERMAL ENGINEERING-II        | 15       | 26       | 4       |
| 12BJ1A0330 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 16       | 18       | 0       |
| 12BJ1A0330 | R31036  | METAL CUTTING & MACHINE TOOLS | 14       | 36       | 4       |
| 12BJ1A0330 | R31037  | THERMAL ENGINEERING LAB       | 20       | 46       | 2       |
| 12BJ1A0330 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0331 | R31031  | FINITE ELEMENT METHODS        | 24       | 37       | 4       |
| 12BJ1A0331 | R31032  | OPERATIONS RESEARCH           | 18       | 26       | 4       |
| 12BJ1A0331 | R31033  | DYNAMICS OF MACHINERY         | 19       | 26       | 4       |
| 12BJ1A0331 | R31034  | THERMAL ENGINEERING-II        | 20       | 9        | 0       |
| 12BJ1A0331 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 16       | 13       | 0       |
| 12BJ1A0331 | R31036  | METAL CUTTING & MACHINE TOOLS | 24       | 12       | 0       |
| 12BJ1A0331 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0331 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0332 | R31031  | FINITE ELEMENT METHODS        | 21       | 8        | 0       |
| 12BJ1A0332 | R31032  | OPERATIONS RESEARCH           | 14       | 30       | 4       |
| 12BJ1A0332 | R31033  | DYNAMICS OF MACHINERY         | 21       | 35       | 4       |
| 12BJ1A0332 | R31034  | THERMAL ENGINEERING-II        | 23       | 31       | 4       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
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| 12BJ1A0332 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 14       | 39       | 4       |
| 12BJ1A0332 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 40       | 4       |
| 12BJ1A0332 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0332 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0333 | R31031  | FINITE ELEMENT METHODS        | 14       | 0        | 0       |
| 12BJ1A0333 | R31032  | OPERATIONS RESEARCH           | 15       | 2        | 0       |
| 12BJ1A0333 | R31033  | DYNAMICS OF MACHINERY         | 17       | 8        | 0       |
| 12BJ1A0333 | R31034  | THERMAL ENGINEERING-II        | 19       | 4        | 0       |
| 12BJ1A0333 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 13       | 5        | 0       |
| 12BJ1A0333 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | 0        | 0       |
| 12BJ1A0333 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0333 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0334 | R31031  | FINITE ELEMENT METHODS        | 16       | 26       | 4       |
| 12BJ1A0334 | R31032  | OPERATIONS RESEARCH           | 21       | 28       | 4       |
| 12BJ1A0334 | R31033  | DYNAMICS OF MACHINERY         | 25       | 33       | 4       |
| 12BJ1A0334 | R31034  | THERMAL ENGINEERING-II        | 23       | 29       | 4       |
| 12BJ1A0334 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 12       | 0       |
| 12BJ1A0334 | R31036  | METAL CUTTING & MACHINE TOOLS | 25       | 19       | 0       |
| 12BJ1A0334 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0334 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0336 | R31031  | FINITE ELEMENT METHODS        | 22       | 45       | 4       |
| 12BJ1A0336 | R31032  | OPERATIONS RESEARCH           | 21       | 38       | 4       |
| 12BJ1A0336 | R31033  | DYNAMICS OF MACHINERY         | 17       | 12       | 0       |
| 12BJ1A0336 | R31034  | THERMAL ENGINEERING-II        | 20       | 29       | 4       |
| 12BJ1A0336 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 20       | 6        | 0       |
| 12BJ1A0336 | R31036  | METAL CUTTING & MACHINE TOOLS | 16       | 26       | 4       |
| 12BJ1A0336 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0336 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0337 | R31031  | FINITE ELEMENT METHODS        | 20       | 0        | 0       |
| 12BJ1A0337 | R31032  | OPERATIONS RESEARCH           | 19       | 30       | 4       |
| 12BJ1A0337 | R31033  | DYNAMICS OF MACHINERY         | 23       | 31       | 4       |
| 12BJ1A0337 | R31034  | THERMAL ENGINEERING-II        | 24       | 34       | 4       |
| 12BJ1A0337 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 16       | 44       | 4       |
| 12BJ1A0337 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 16       | 0       |
| 12BJ1A0337 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0337 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0338 | R31031  | FINITE ELEMENT METHODS        | 20       | 39       | 4       |
| 12BJ1A0338 | R31032  | OPERATIONS RESEARCH           | 15       | 44       | 4       |
| 12BJ1A0338 | R31033  | DYNAMICS OF MACHINERY         | 17       | 40       | 4       |
| 12BJ1A0338 | R31034  | THERMAL ENGINEERING-II        | 18       | 34       | 4       |
| 12BJ1A0338 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 37       | 4       |
| 12BJ1A0338 | R31036  | METAL CUTTING & MACHINE TOOLS | 19       | 8        | 0       |
| 12BJ1A0338 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0338 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0339 | R31031  | FINITE ELEMENT METHODS        | 10       | 1        | 0       |
| 12BJ1A0339 | R31032  | OPERATIONS RESEARCH           | 16       | 2        | 0       |
| 12BJ1A0339 | R31033  | DYNAMICS OF MACHINERY         | 15       | 0        | 0       |
| 12BJ1A0339 | R31034  | THERMAL ENGINEERING-II        | 19       | 6        | 0       |
| 12BJ1A0339 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 12       | 8        | 0       |
| 12BJ1A0339 | R31036  | METAL CUTTING & MACHINE TOOLS | 15       | 14       | 0       |
| 12BJ1A0339 | R31037  | THERMAL ENGINEERING LAB       | 20       | 46       | 2       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0339 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0340 | R31031  | FINITE ELEMENT METHODS        | 8        | 2        | 0       |
| 12BJ1A0340 | R31032  | OPERATIONS RESEARCH           | 2        | 12       | 0       |
| 12BJ1A0340 | R31033  | DYNAMICS OF MACHINERY         | 9        | 0        | 0       |
| 12BJ1A0340 | R31034  | THERMAL ENGINEERING-II        | 13       | 0        | 0       |
| 12BJ1A0340 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 9        | 0        | 0       |
| 12BJ1A0340 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | -1       | 0       |
| 12BJ1A0340 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0340 | R31038  | MACHINE TOOLS LAB             | 21       | 42       | 2       |
| 12BJ1A0341 | R31031  | FINITE ELEMENT METHODS        | 18       | 0        | 0       |
| 12BJ1A0341 | R31032  | OPERATIONS RESEARCH           | 17       | 27       | 4       |
| 12BJ1A0341 | R31033  | DYNAMICS OF MACHINERY         | 20       | 26       | 4       |
| 12BJ1A0341 | R31034  | THERMAL ENGINEERING-II        | 8        | 16       | 0       |
| 12BJ1A0341 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 11       | 13       | 0       |
| 12BJ1A0341 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 28       | 4       |
| 12BJ1A0341 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0341 | R31038  | MACHINE TOOLS LAB             | 25       | 48       | 2       |
| 12BJ1A0342 | R31031  | FINITE ELEMENT METHODS        | 22       | 0        | 0       |
| 12BJ1A0342 | R31032  | OPERATIONS RESEARCH           | 19       | 7        | 0       |
| 12BJ1A0342 | R31033  | DYNAMICS OF MACHINERY         | 24       | 30       | 4       |
| 12BJ1A0342 | R31034  | THERMAL ENGINEERING-II        | 23       | 9        | 0       |
| 12BJ1A0342 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 27       | 4       |
| 12BJ1A0342 | R31036  | METAL CUTTING & MACHINE TOOLS | 23       | 26       | 4       |
| 12BJ1A0342 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0342 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0343 | R31031  | FINITE ELEMENT METHODS        | 19       | 4        | 0       |
| 12BJ1A0343 | R31032  | OPERATIONS RESEARCH           | 11       | 14       | 0       |
| 12BJ1A0343 | R31033  | DYNAMICS OF MACHINERY         | 14       | 38       | 4       |
| 12BJ1A0343 | R31034  | THERMAL ENGINEERING-II        | 4        | 0        | 0       |
| 12BJ1A0343 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 9        | 15       | 0       |
| 12BJ1A0343 | R31036  | METAL CUTTING & MACHINE TOOLS | 13       | 29       | 4       |
| 12BJ1A0343 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0343 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0344 | R31031  | FINITE ELEMENT METHODS        | 23       | 48       | 4       |
| 12BJ1A0344 | R31032  | OPERATIONS RESEARCH           | 19       | 52       | 4       |
| 12BJ1A0344 | R31033  | DYNAMICS OF MACHINERY         | 21       | 34       | 4       |
| 12BJ1A0344 | R31034  | THERMAL ENGINEERING-II        | 22       | 39       | 4       |
| 12BJ1A0344 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 21       | 5        | 0       |
| 12BJ1A0344 | R31036  | METAL CUTTING & MACHINE TOOLS | 23       | 33       | 4       |
| 12BJ1A0344 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0344 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0345 | R31031  | FINITE ELEMENT METHODS        | 20       | 1        | 0       |
| 12BJ1A0345 | R31032  | OPERATIONS RESEARCH           | 16       | 35       | 4       |
| 12BJ1A0345 | R31033  | DYNAMICS OF MACHINERY         | 17       | 26       | 4       |
| 12BJ1A0345 | R31034  | THERMAL ENGINEERING-II        | 13       | 16       | 0       |
| 12BJ1A0345 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 18       | 0       |
| 12BJ1A0345 | R31036  | METAL CUTTING & MACHINE TOOLS | 15       | 26       | 4       |
| 12BJ1A0345 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0345 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0346 | R31031  | FINITE ELEMENT METHODS        | 22       | 34       | 4       |
| 12BJ1A0346 | R31032  | OPERATIONS RESEARCH           | 22       | 47       | 4       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0346 | R31033  | DYNAMICS OF MACHINERY         | 22       | 33       | 4       |
| 12BJ1A0346 | R31034  | THERMAL ENGINEERING-II        | 20       | 14       | 0       |
| 12BJ1A0346 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 25       | 57       | 4       |
| 12BJ1A0346 | R31036  | METAL CUTTING & MACHINE TOOLS | 24       | 1        | 0       |
| 12BJ1A0346 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0346 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0347 | R31031  | FINITE ELEMENT METHODS        | 18       | 7        | 0       |
| 12BJ1A0347 | R31032  | OPERATIONS RESEARCH           | 17       | 6        | 0       |
| 12BJ1A0347 | R31033  | DYNAMICS OF MACHINERY         | 21       | 8        | 0       |
| 12BJ1A0347 | R31034  | THERMAL ENGINEERING-II        | 14       | 5        | 0       |
| 12BJ1A0347 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 13       | 31       | 4       |
| 12BJ1A0347 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | 14       | 0       |
| 12BJ1A0347 | R31037  | THERMAL ENGINEERING LAB       | 23       | 49       | 2       |
| 12BJ1A0347 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0348 | R31031  | FINITE ELEMENT METHODS        | 14       | 21       | 0       |
| 12BJ1A0348 | R31032  | OPERATIONS RESEARCH           | 17       | 29       | 4       |
| 12BJ1A0348 | R31033  | DYNAMICS OF MACHINERY         | 15       | 6        | 0       |
| 12BJ1A0348 | R31034  | THERMAL ENGINEERING-II        | 18       | 26       | 4       |
| 12BJ1A0348 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 6        | 7        | 0       |
| 12BJ1A0348 | R31036  | METAL CUTTING & MACHINE TOOLS | 19       | 13       | 0       |
| 12BJ1A0348 | R31037  | THERMAL ENGINEERING LAB       | 20       | 46       | 2       |
| 12BJ1A0348 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0349 | R31031  | FINITE ELEMENT METHODS        | 14       | 0        | 0       |
| 12BJ1A0349 | R31032  | OPERATIONS RESEARCH           | 16       | 16       | 0       |
| 12BJ1A0349 | R31033  | DYNAMICS OF MACHINERY         | 15       | 14       | 0       |
| 12BJ1A0349 | R31034  | THERMAL ENGINEERING-II        | 16       | 35       | 4       |
| 12BJ1A0349 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 13       | 14       | 0       |
| 12BJ1A0349 | R31036  | METAL CUTTING & MACHINE TOOLS | 23       | 15       | 0       |
| 12BJ1A0349 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0349 | R31038  | MACHINE TOOLS LAB             | 21       | 42       | 2       |
| 12BJ1A0350 | R31031  | FINITE ELEMENT METHODS        | 22       | 43       | 4       |
| 12BJ1A0350 | R31032  | OPERATIONS RESEARCH           | 14       | 29       | 4       |
| 12BJ1A0350 | R31033  | DYNAMICS OF MACHINERY         | 19       | 3        | 0       |
| 12BJ1A0350 | R31034  | THERMAL ENGINEERING-II        | 16       | 39       | 4       |
| 12BJ1A0350 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 55       | 4       |
| 12BJ1A0350 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 6        | 0       |
| 12BJ1A0350 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0350 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0351 | R31031  | FINITE ELEMENT METHODS        | 24       | 45       | 4       |
| 12BJ1A0351 | R31032  | OPERATIONS RESEARCH           | 16       | 36       | 4       |
| 12BJ1A0351 | R31033  | DYNAMICS OF MACHINERY         | 19       | 30       | 4       |
| 12BJ1A0351 | R31034  | THERMAL ENGINEERING-II        | 20       | 26       | 4       |
| 12BJ1A0351 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 29       | 4       |
| 12BJ1A0351 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 34       | 4       |
| 12BJ1A0351 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0351 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0352 | R31031  | FINITE ELEMENT METHODS        | 11       | 30       | 4       |
| 12BJ1A0352 | R31032  | OPERATIONS RESEARCH           | 13       | 30       | 4       |
| 12BJ1A0352 | R31033  | DYNAMICS OF MACHINERY         | 16       | 7        | 0       |
| 12BJ1A0352 | R31034  | THERMAL ENGINEERING-II        | 8        | 6        | 0       |
| 12BJ1A0352 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 30       | 4       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0352 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 29       | 4       |
| 12BJ1A0352 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0352 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0353 | R31031  | FINITE ELEMENT METHODS        | 21       | 0        | 0       |
| 12BJ1A0353 | R31032  | OPERATIONS RESEARCH           | 4        | 10       | 0       |
| 12BJ1A0353 | R31033  | DYNAMICS OF MACHINERY         | 8        | 5        | 0       |
| 12BJ1A0353 | R31034  | THERMAL ENGINEERING-II        | 16       | 2        | 0       |
| 12BJ1A0353 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 13       | 0       |
| 12BJ1A0353 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 27       | 4       |
| 12BJ1A0353 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0353 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0354 | R31031  | FINITE ELEMENT METHODS        | 22       | 4        | 0       |
| 12BJ1A0354 | R31032  | OPERATIONS RESEARCH           | 14       | 6        | 0       |
| 12BJ1A0354 | R31033  | DYNAMICS OF MACHINERY         | 7        | 17       | 0       |
| 12BJ1A0354 | R31034  | THERMAL ENGINEERING-II        | 20       | 37       | 4       |
| 12BJ1A0354 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 19       | 51       | 4       |
| 12BJ1A0354 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 3        | 0       |
| 12BJ1A0354 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0354 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0355 | R31031  | FINITE ELEMENT METHODS        | 20       | 42       | 4       |
| 12BJ1A0355 | R31032  | OPERATIONS RESEARCH           | 14       | 17       | 0       |
| 12BJ1A0355 | R31033  | DYNAMICS OF MACHINERY         | 17       | 40       | 4       |
| 12BJ1A0355 | R31034  | THERMAL ENGINEERING-II        | 19       | 26       | 4       |
| 12BJ1A0355 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 17       | 0       |
| 12BJ1A0355 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 27       | 4       |
| 12BJ1A0355 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0355 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0356 | R31031  | FINITE ELEMENT METHODS        | 21       | 35       | 4       |
| 12BJ1A0356 | R31032  | OPERATIONS RESEARCH           | 16       | 49       | 4       |
| 12BJ1A0356 | R31033  | DYNAMICS OF MACHINERY         | 18       | 36       | 4       |
| 12BJ1A0356 | R31034  | THERMAL ENGINEERING-II        | 13       | 39       | 4       |
| 12BJ1A0356 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 13       | 35       | 4       |
| 12BJ1A0356 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 26       | 4       |
| 12BJ1A0356 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0356 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0357 | R31031  | FINITE ELEMENT METHODS        | 24       | 12       | 0       |
| 12BJ1A0357 | R31032  | OPERATIONS RESEARCH           | 17       | 57       | 4       |
| 12BJ1A0357 | R31033  | DYNAMICS OF MACHINERY         | 20       | 38       | 4       |
| 12BJ1A0357 | R31034  | THERMAL ENGINEERING-II        | 23       | 29       | 4       |
| 12BJ1A0357 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 23       | 40       | 4       |
| 12BJ1A0357 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | 65       | 4       |
| 12BJ1A0357 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0357 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0358 | R31031  | FINITE ELEMENT METHODS        | 22       | 2        | 0       |
| 12BJ1A0358 | R31032  | OPERATIONS RESEARCH           | 10       | 0        | 0       |
| 12BJ1A0358 | R31033  | DYNAMICS OF MACHINERY         | 11       | 0        | 0       |
| 12BJ1A0358 | R31034  | THERMAL ENGINEERING-II        | 14       | 1        | 0       |
| 12BJ1A0358 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 30       | 4       |
| 12BJ1A0358 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 2        | 0       |
| 12BJ1A0358 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0358 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0359 | R31031  | FINITE ELEMENT METHODS        | 23       | 27       | 4       |
| 12BJ1A0359 | R31032  | OPERATIONS RESEARCH           | 13       | 12       | 0       |
| 12BJ1A0359 | R31033  | DYNAMICS OF MACHINERY         | 12       | 38       | 4       |
| 12BJ1A0359 | R31034  | THERMAL ENGINEERING-II        | 17       | 33       | 4       |
| 12BJ1A0359 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 26       | 4       |
| 12BJ1A0359 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 28       | 4       |
| 12BJ1A0359 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0359 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0360 | R31031  | FINITE ELEMENT METHODS        | 20       | 40       | 4       |
| 12BJ1A0360 | R31032  | OPERATIONS RESEARCH           | 13       | 39       | 4       |
| 12BJ1A0360 | R31033  | DYNAMICS OF MACHINERY         | 18       | 34       | 4       |
| 12BJ1A0360 | R31034  | THERMAL ENGINEERING-II        | 15       | 38       | 4       |
| 12BJ1A0360 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 26       | 4       |
| 12BJ1A0360 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 27       | 4       |
| 12BJ1A0360 | R31037  | THERMAL ENGINEERING LAB       | 20       | 46       | 2       |
| 12BJ1A0360 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0361 | R31031  | FINITE ELEMENT METHODS        | 17       | 11       | 0       |
| 12BJ1A0361 | R31032  | OPERATIONS RESEARCH           | 9        | 17       | 0       |
| 12BJ1A0361 | R31033  | DYNAMICS OF MACHINERY         | 18       | 28       | 4       |
| 12BJ1A0361 | R31034  | THERMAL ENGINEERING-II        | 16       | 26       | 4       |
| 12BJ1A0361 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 26       | 4       |
| 12BJ1A0361 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 26       | 4       |
| 12BJ1A0361 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0361 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0362 | R31031  | FINITE ELEMENT METHODS        | 14       | 0        | 0       |
| 12BJ1A0362 | R31032  | OPERATIONS RESEARCH           | 2        | 0        | 0       |
| 12BJ1A0362 | R31033  | DYNAMICS OF MACHINERY         | 12       | 0        | 0       |
| 12BJ1A0362 | R31034  | THERMAL ENGINEERING-II        | 5        | 8        | 0       |
| 12BJ1A0362 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 1        | 0        | 0       |
| 12BJ1A0362 | R31036  | METAL CUTTING & MACHINE TOOLS | 12       | 0        | 0       |
| 12BJ1A0362 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0362 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0363 | R31031  | FINITE ELEMENT METHODS        | 11       | 5        | 0       |
| 12BJ1A0363 | R31032  | OPERATIONS RESEARCH           | 0        | 0        | 0       |
| 12BJ1A0363 | R31033  | DYNAMICS OF MACHINERY         | 12       | 4        | 0       |
| 12BJ1A0363 | R31034  | THERMAL ENGINEERING-II        | 1        | 11       | 0       |
| 12BJ1A0363 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 4        | 0        | 0       |
| 12BJ1A0363 | R31036  | METAL CUTTING & MACHINE TOOLS | 16       | 6        | 0       |
| 12BJ1A0363 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0363 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0364 | R31031  | FINITE ELEMENT METHODS        | 18       | 33       | 4       |
| 12BJ1A0364 | R31032  | OPERATIONS RESEARCH           | 16       | 38       | 4       |
| 12BJ1A0364 | R31033  | DYNAMICS OF MACHINERY         | 22       | 39       | 4       |
| 12BJ1A0364 | R31034  | THERMAL ENGINEERING-II        | 20       | 26       | 4       |
| 12BJ1A0364 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 8        | 0       |
| 12BJ1A0364 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | 30       | 4       |
| 12BJ1A0364 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0364 | R31038  | MACHINE TOOLS LAB             | 25       | 50       | 2       |
| 12BJ1A0365 | R31031  | FINITE ELEMENT METHODS        | 21       | 0        | 0       |
| 12BJ1A0365 | R31032  | OPERATIONS RESEARCH           | 3        | 26       | 0       |
| 12BJ1A0365 | R31033  | DYNAMICS OF MACHINERY         | 10       | 0        | 0       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0365 | R31034  | THERMAL ENGINEERING-II        | 6        | 0        | 0       |
| 12BJ1A0365 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 9        | 0       |
| 12BJ1A0365 | R31036  | METAL CUTTING & MACHINE TOOLS | 15       | 11       | 0       |
| 12BJ1A0365 | R31037  | THERMAL ENGINEERING LAB       | 20       | 46       | 2       |
| 12BJ1A0365 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0366 | R31031  | FINITE ELEMENT METHODS        | 24       | 7        | 0       |
| 12BJ1A0366 | R31032  | OPERATIONS RESEARCH           | 11       | 14       | 0       |
| 12BJ1A0366 | R31033  | DYNAMICS OF MACHINERY         | 24       | 13       | 0       |
| 12BJ1A0366 | R31034  | THERMAL ENGINEERING-II        | 16       | 11       | 0       |
| 12BJ1A0366 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 46       | 4       |
| 12BJ1A0366 | R31036  | METAL CUTTING & MACHINE TOOLS | 24       | -1       | 0       |
| 12BJ1A0366 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0366 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0367 | R31031  | FINITE ELEMENT METHODS        | 20       | 8        | 0       |
| 12BJ1A0367 | R31032  | OPERATIONS RESEARCH           | 5        | 22       | 0       |
| 12BJ1A0367 | R31033  | DYNAMICS OF MACHINERY         | 15       | 1        | 0       |
| 12BJ1A0367 | R31034  | THERMAL ENGINEERING-II        | 17       | 12       | 0       |
| 12BJ1A0367 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 14       | 0       |
| 12BJ1A0367 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 1        | 0       |
| 12BJ1A0367 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0367 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0368 | R31031  | FINITE ELEMENT METHODS        | 18       | 36       | 4       |
| 12BJ1A0368 | R31032  | OPERATIONS RESEARCH           | 13       | 29       | 4       |
| 12BJ1A0368 | R31033  | DYNAMICS OF MACHINERY         | 20       | 26       | 4       |
| 12BJ1A0368 | R31034  | THERMAL ENGINEERING-II        | 17       | 43       | 4       |
| 12BJ1A0368 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 20       | 15       | 0       |
| 12BJ1A0368 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 17       | 0       |
| 12BJ1A0368 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0368 | R31038  | MACHINE TOOLS LAB             | 25       | 50       | 2       |
| 12BJ1A0369 | R31031  | FINITE ELEMENT METHODS        | 4        | 0        | 0       |
| 12BJ1A0369 | R31032  | OPERATIONS RESEARCH           | 3        | 3        | 0       |
| 12BJ1A0369 | R31033  | DYNAMICS OF MACHINERY         | 12       | 0        | 0       |
| 12BJ1A0369 | R31034  | THERMAL ENGINEERING-II        | 9        | 2        | 0       |
| 12BJ1A0369 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 0        | 12       | 0       |
| 12BJ1A0369 | R31036  | METAL CUTTING & MACHINE TOOLS | 14       | 27       | 4       |
| 12BJ1A0369 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0369 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0370 | R31031  | FINITE ELEMENT METHODS        | 15       | 9        | 0       |
| 12BJ1A0370 | R31032  | OPERATIONS RESEARCH           | 5        | 6        | 0       |
| 12BJ1A0370 | R31033  | DYNAMICS OF MACHINERY         | 9        | 0        | 0       |
| 12BJ1A0370 | R31034  | THERMAL ENGINEERING-II        | 11       | 5        | 0       |
| 12BJ1A0370 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 16       | 0       |
| 12BJ1A0370 | R31036  | METAL CUTTING & MACHINE TOOLS | 19       | 4        | 0       |
| 12BJ1A0370 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0370 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0371 | R31031  | FINITE ELEMENT METHODS        | 21       | 26       | 4       |
| 12BJ1A0371 | R31032  | OPERATIONS RESEARCH           | 7        | 21       | 0       |
| 12BJ1A0371 | R31033  | DYNAMICS OF MACHINERY         | 17       | 26       | 4       |
| 12BJ1A0371 | R31034  | THERMAL ENGINEERING-II        | 13       | 21       | 0       |
| 12BJ1A0371 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 36       | 4       |
| 12BJ1A0371 | R31036  | METAL CUTTING & MACHINE TOOLS | 14       | 31       | 4       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0371 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0371 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0372 | R31031  | FINITE ELEMENT METHODS        | 18       | 37       | 4       |
| 12BJ1A0372 | R31032  | OPERATIONS RESEARCH           | 7        | 44       | 4       |
| 12BJ1A0372 | R31033  | DYNAMICS OF MACHINERY         | 18       | 33       | 4       |
| 12BJ1A0372 | R31034  | THERMAL ENGINEERING-II        | 13       | 27       | 4       |
| 12BJ1A0372 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 16       | 13       | 0       |
| 12BJ1A0372 | R31036  | METAL CUTTING & MACHINE TOOLS | 23       | 42       | 4       |
| 12BJ1A0372 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0372 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0373 | R31031  | FINITE ELEMENT METHODS        | 18       | 1        | 0       |
| 12BJ1A0373 | R31032  | OPERATIONS RESEARCH           | 6        | 5        | 0       |
| 12BJ1A0373 | R31033  | DYNAMICS OF MACHINERY         | 16       | 1        | 0       |
| 12BJ1A0373 | R31034  | THERMAL ENGINEERING-II        | 13       | 6        | 0       |
| 12BJ1A0373 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 6        | 0       |
| 12BJ1A0373 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | 2        | 0       |
| 12BJ1A0373 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0373 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0374 | R31031  | FINITE ELEMENT METHODS        | 12       | 11       | 0       |
| 12BJ1A0374 | R31032  | OPERATIONS RESEARCH           | 8        | 7        | 0       |
| 12BJ1A0374 | R31033  | DYNAMICS OF MACHINERY         | 11       | 0        | 0       |
| 12BJ1A0374 | R31034  | THERMAL ENGINEERING-II        | 11       | 0        | 0       |
| 12BJ1A0374 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 30       | 4       |
| 12BJ1A0374 | R31036  | METAL CUTTING & MACHINE TOOLS | 15       | 3        | 0       |
| 12BJ1A0374 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0374 | R31038  | MACHINE TOOLS LAB             | 20       | 40       | 2       |
| 12BJ1A0376 | R31031  | FINITE ELEMENT METHODS        | 20       | 35       | 4       |
| 12BJ1A0376 | R31032  | OPERATIONS RESEARCH           | 19       | 29       | 4       |
| 12BJ1A0376 | R31033  | DYNAMICS OF MACHINERY         | 23       | 26       | 4       |
| 12BJ1A0376 | R31034  | THERMAL ENGINEERING-II        | 19       | 14       | 0       |
| 12BJ1A0376 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 22       | 18       | 0       |
| 12BJ1A0376 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 30       | 4       |
| 12BJ1A0376 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0376 | R31038  | MACHINE TOOLS LAB             | 25       | 50       | 2       |
| 12BJ1A0377 | R31031  | FINITE ELEMENT METHODS        | 18       | 29       | 4       |
| 12BJ1A0377 | R31032  | OPERATIONS RESEARCH           | 13       | 31       | 4       |
| 12BJ1A0377 | R31033  | DYNAMICS OF MACHINERY         | 19       | 26       | 4       |
| 12BJ1A0377 | R31034  | THERMAL ENGINEERING-II        | 20       | 26       | 4       |
| 12BJ1A0377 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 21       | 35       | 4       |
| 12BJ1A0377 | R31036  | METAL CUTTING & MACHINE TOOLS | 12       | 41       | 4       |
| 12BJ1A0377 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0377 | R31038  | MACHINE TOOLS LAB             | 23       | 46       | 2       |
| 12BJ1A0378 | R31031  | FINITE ELEMENT METHODS        | 18       | 2        | 0       |
| 12BJ1A0378 | R31032  | OPERATIONS RESEARCH           | 8        | 32       | 4       |
| 12BJ1A0378 | R31033  | DYNAMICS OF MACHINERY         | 16       | 18       | 0       |
| 12BJ1A0378 | R31034  | THERMAL ENGINEERING-II        | 13       | 9        | 0       |
| 12BJ1A0378 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 12       | 0       |
| 12BJ1A0378 | R31036  | METAL CUTTING & MACHINE TOOLS | 22       | 28       | 4       |
| 12BJ1A0378 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0378 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0379 | R31031  | FINITE ELEMENT METHODS        | 4        | 0        | 0       |



| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0379 | R31032  | OPERATIONS RESEARCH           | 8        | 14       | 0       |
| 12BJ1A0379 | R31033  | DYNAMICS OF MACHINERY         | 10       | 0        | 0       |
| 12BJ1A0379 | R31034  | THERMAL ENGINEERING-II        | 13       | 3        | 0       |
| 12BJ1A0379 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 30       | 4       |
| 12BJ1A0379 | R31036  | METAL CUTTING & MACHINE TOOLS | 19       | 4        | 0       |
| 12BJ1A0379 | R31037  | THERMAL ENGINEERING LAB       | 22       | -1       | 0       |
| 12BJ1A0379 | R31038  | MACHINE TOOLS LAB             | 20       | 35       | 2       |
| 12BJ1A0380 | R31031  | FINITE ELEMENT METHODS        | 13       | 1        | 0       |
| 12BJ1A0380 | R31032  | OPERATIONS RESEARCH           | 6        | 13       | 0       |
| 12BJ1A0380 | R31033  | DYNAMICS OF MACHINERY         | 15       | 4        | 0       |
| 12BJ1A0380 | R31034  | THERMAL ENGINEERING-II        | 7        | 1        | 0       |
| 12BJ1A0380 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 9        | 0       |
| 12BJ1A0380 | R31036  | METAL CUTTING & MACHINE TOOLS | 16       | 10       | 0       |
| 12BJ1A0380 | R31037  | THERMAL ENGINEERING LAB       | 23       | 49       | 2       |
| 12BJ1A0380 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0381 | R31031  | FINITE ELEMENT METHODS        | 16       | 28       | 4       |
| 12BJ1A0381 | R31032  | OPERATIONS RESEARCH           | 9        | 36       | 4       |
| 12BJ1A0381 | R31033  | DYNAMICS OF MACHINERY         | 16       | 6        | 0       |
| 12BJ1A0381 | R31034  | THERMAL ENGINEERING-II        | 15       | 26       | 4       |
| 12BJ1A0381 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 15       | 34       | 4       |
| 12BJ1A0381 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 28       | 4       |
| 12BJ1A0381 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0381 | R31038  | MACHINE TOOLS LAB             | 24       | 48       | 2       |
| 12BJ1A0382 | R31031  | FINITE ELEMENT METHODS        | 13       | 0        | 0       |
| 12BJ1A0382 | R31032  | OPERATIONS RESEARCH           | 11       | 29       | 4       |
| 12BJ1A0382 | R31033  | DYNAMICS OF MACHINERY         | 12       | 3        | 0       |
| 12BJ1A0382 | R31034  | THERMAL ENGINEERING-II        | 11       | 0        | 0       |
| 12BJ1A0382 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 10       | 0        | 0       |
| 12BJ1A0382 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | 8        | 0       |
| 12BJ1A0382 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0382 | R31038  | MACHINE TOOLS LAB             | 23       | 44       | 2       |
| 12BJ1A0383 | R31031  | FINITE ELEMENT METHODS        | 5        | 0        | 0       |
| 12BJ1A0383 | R31032  | OPERATIONS RESEARCH           | 8        | 0        | 0       |
| 12BJ1A0383 | R31033  | DYNAMICS OF MACHINERY         | 11       | 0        | 0       |
| 12BJ1A0383 | R31034  | THERMAL ENGINEERING-II        | 6        | 0        | 0       |
| 12BJ1A0383 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 7        | 2        | 0       |
| 12BJ1A0383 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | 2        | 0       |
| 12BJ1A0383 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0383 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0384 | R31031  | FINITE ELEMENT METHODS        | 3        | 0        | 0       |
| 12BJ1A0384 | R31032  | OPERATIONS RESEARCH           | 5        | 0        | 0       |
| 12BJ1A0384 | R31033  | DYNAMICS OF MACHINERY         | 12       | 0        | 0       |
| 12BJ1A0384 | R31034  | THERMAL ENGINEERING-II        | 3        | 0        | 0       |
| 12BJ1A0384 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 0        | 0        | 0       |
| 12BJ1A0384 | R31036  | METAL CUTTING & MACHINE TOOLS | 0        | 0        | 0       |
| 12BJ1A0384 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0384 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0386 | R31031  | FINITE ELEMENT METHODS        | 21       | 0        | 0       |
| 12BJ1A0386 | R31032  | OPERATIONS RESEARCH           | 10       | 0        | 0       |
| 12BJ1A0386 | R31033  | DYNAMICS OF MACHINERY         | 21       | 4        | 0       |
| 12BJ1A0386 | R31034  | THERMAL ENGINEERING-II        | 15       | 2        | 0       |

| Htno       | Subcode | Subname                       | Internal | External | credits |
|------------|---------|-------------------------------|----------|----------|---------|
| 12BJ1A0386 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 21       | 11       | 0       |
| 12BJ1A0386 | R31036  | METAL CUTTING & MACHINE TOOLS | 17       | 40       | 4       |
| 12BJ1A0386 | R31037  | THERMAL ENGINEERING LAB       | 23       | 49       | 2       |
| 12BJ1A0386 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0387 | R31031  | FINITE ELEMENT METHODS        | 11       | 0        | 0       |
| 12BJ1A0387 | R31032  | OPERATIONS RESEARCH           | 11       | 18       | 0       |
| 12BJ1A0387 | R31033  | DYNAMICS OF MACHINERY         | 12       | 4        | 0       |
| 12BJ1A0387 | R31034  | THERMAL ENGINEERING-II        | 10       | 0        | 0       |
| 12BJ1A0387 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 5        | 0       |
| 12BJ1A0387 | R31036  | METAL CUTTING & MACHINE TOOLS | 15       | 15       | 0       |
| 12BJ1A0387 | R31037  | THERMAL ENGINEERING LAB       | 22       | 48       | 2       |
| 12BJ1A0387 | R31038  | MACHINE TOOLS LAB             | 23       | 48       | 2       |
| 12BJ1A0388 | R31031  | FINITE ELEMENT METHODS        | 22       | 5        | 0       |
| 12BJ1A0388 | R31032  | OPERATIONS RESEARCH           | 6        | 14       | 0       |
| 12BJ1A0388 | R31033  | DYNAMICS OF MACHINERY         | 15       | 6        | 0       |
| 12BJ1A0388 | R31034  | THERMAL ENGINEERING-II        | 6        | 0        | 0       |
| 12BJ1A0388 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 17       | 30       | 4       |
| 12BJ1A0388 | R31036  | METAL CUTTING & MACHINE TOOLS | 14       | 1        | 0       |
| 12BJ1A0388 | R31037  | THERMAL ENGINEERING LAB       | 23       | 49       | 2       |
| 12BJ1A0388 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0389 | R31031  | FINITE ELEMENT METHODS        | 21       | 3        | 0       |
| 12BJ1A0389 | R31032  | OPERATIONS RESEARCH           | 7        | 8        | 0       |
| 12BJ1A0389 | R31033  | DYNAMICS OF MACHINERY         | 15       | 11       | 0       |
| 12BJ1A0389 | R31034  | THERMAL ENGINEERING-II        | 10       | 9        | 0       |
| 12BJ1A0389 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 13       | 0       |
| 12BJ1A0389 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 26       | 4       |
| 12BJ1A0389 | R31037  | THERMAL ENGINEERING LAB       | 22       | 46       | 2       |
| 12BJ1A0389 | R31038  | MACHINE TOOLS LAB             | 25       | 50       | 2       |
| 12BJ1A0390 | R31031  | FINITE ELEMENT METHODS        | 13       | 20       | 0       |
| 12BJ1A0390 | R31032  | OPERATIONS RESEARCH           | 6        | 35       | 4       |
| 12BJ1A0390 | R31033  | DYNAMICS OF MACHINERY         | 23       | 1        | 0       |
| 12BJ1A0390 | R31034  | THERMAL ENGINEERING-II        | 14       | 6        | 0       |
| 12BJ1A0390 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 8        | 0       |
| 12BJ1A0390 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 8        | 0       |
| 12BJ1A0390 | R31037  | THERMAL ENGINEERING LAB       | 23       | 48       | 2       |
| 12BJ1A0390 | R31038  | MACHINE TOOLS LAB             | 21       | 42       | 2       |
| 12BJ1A0391 | R31031  | FINITE ELEMENT METHODS        | 16       | 5        | 0       |
| 12BJ1A0391 | R31032  | OPERATIONS RESEARCH           | 11       | 53       | 4       |
| 12BJ1A0391 | R31033  | DYNAMICS OF MACHINERY         | 12       | 35       | 4       |
| 12BJ1A0391 | R31034  | THERMAL ENGINEERING-II        | 15       | 29       | 4       |
| 12BJ1A0391 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 18       | 38       | 4       |
| 12BJ1A0391 | R31036  | METAL CUTTING & MACHINE TOOLS | 21       | 62       | 4       |
| 12BJ1A0391 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |
| 12BJ1A0391 | R31038  | MACHINE TOOLS LAB             | 22       | 44       | 2       |
| 12BJ1A0392 | R31031  | FINITE ELEMENT METHODS        | 17       | 31       | 4       |
| 12BJ1A0392 | R31032  | OPERATIONS RESEARCH           | 16       | 26       | 4       |
| 12BJ1A0392 | R31033  | DYNAMICS OF MACHINERY         | 18       | 26       | 4       |
| 12BJ1A0392 | R31034  | THERMAL ENGINEERING-II        | 16       | 34       | 4       |
| 12BJ1A0392 | R31035  | DESIGN OF MACHINE MEMBERS-I   | 20       | 47       | 4       |
| 12BJ1A0392 | R31036  | METAL CUTTING & MACHINE TOOLS | 20       | 4        | 0       |
| 12BJ1A0392 | R31037  | THERMAL ENGINEERING LAB       | 24       | 50       | 2       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0392 | R31038  | MACHINE TOOLS LAB                            | 24       | 48       | 2       |
| 12BJ1A0393 | R31031  | FINITE ELEMENT METHODS                       | 13       | 1        | 0       |
| 12BJ1A0393 | R31032  | OPERATIONS RESEARCH                          | 7        | 12       | 0       |
| 12BJ1A0393 | R31033  | DYNAMICS OF MACHINERY                        | 11       | 18       | 0       |
| 12BJ1A0393 | R31034  | THERMAL ENGINEERING-II                       | 9        | 14       | 0       |
| 12BJ1A0393 | R31035  | DESIGN OF MACHINE MEMBERS-I                  | 16       | 19       | 0       |
| 12BJ1A0393 | R31036  | METAL CUTTING & MACHINE TOOLS                | 22       | 17       | 0       |
| 12BJ1A0393 | R31037  | THERMAL ENGINEERING LAB                      | 24       | 50       | 2       |
| 12BJ1A0393 | R31038  | MACHINE TOOLS LAB                            | 23       | 46       | 2       |
| 12BJ1A0394 | R31031  | FINITE ELEMENT METHODS                       | 6        | 0        | 0       |
| 12BJ1A0394 | R31032  | OPERATIONS RESEARCH                          | 5        | 0        | 0       |
| 12BJ1A0394 | R31033  | DYNAMICS OF MACHINERY                        | 12       | 0        | 0       |
| 12BJ1A0394 | R31034  | THERMAL ENGINEERING-II                       | 2        | 0        | 0       |
| 12BJ1A0394 | R31035  | DESIGN OF MACHINE MEMBERS-I                  | 9        | 0        | 0       |
| 12BJ1A0394 | R31036  | METAL CUTTING & MACHINE TOOLS                | 15       | 0        | 0       |
| 12BJ1A0394 | R31037  | THERMAL ENGINEERING LAB                      | 24       | 49       | 2       |
| 12BJ1A0394 | R31038  | MACHINE TOOLS LAB                            | 22       | 44       | 2       |
| 12BJ1A0395 | R31031  | FINITE ELEMENT METHODS                       | 12       | 2        | 0       |
| 12BJ1A0395 | R31032  | OPERATIONS RESEARCH                          | 8        | 46       | 4       |
| 12BJ1A0395 | R31033  | DYNAMICS OF MACHINERY                        | 14       | 0        | 0       |
| 12BJ1A0395 | R31034  | THERMAL ENGINEERING-II                       | 9        | 6        | 0       |
| 12BJ1A0395 | R31035  | DESIGN OF MACHINE MEMBERS-I                  | 13       | 3        | 0       |
| 12BJ1A0395 | R31036  | METAL CUTTING & MACHINE TOOLS                | 15       | 14       | 0       |
| 12BJ1A0395 | R31037  | THERMAL ENGINEERING LAB                      | 25       | 50       | 2       |
| 12BJ1A0395 | R31038  | MACHINE TOOLS LAB                            | 25       | 50       | 2       |
| 12BJ1A0401 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 31       | 4       |
| 12BJ1A0401 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 29       | 4       |
| 12BJ1A0401 | R31043  | LINEAR IC APPLICATIONS                       | 18       | 14       | 0       |
| 12BJ1A0401 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 38       | 4       |
| 12BJ1A0401 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 60       | 4       |
| 12BJ1A0401 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 45       | 4       |
| 12BJ1A0401 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 12BJ1A0401 | R31048  | IC APPLICATIONS LABS                         | 23       | 48       | 2       |
| 12BJ1A0402 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 55       | 4       |
| 12BJ1A0402 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 26       | 4       |
| 12BJ1A0402 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 31       | 4       |
| 12BJ1A0402 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 36       | 4       |
| 12BJ1A0402 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 33       | 4       |
| 12BJ1A0402 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 26       | 4       |
| 12BJ1A0402 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0402 | R31048  | IC APPLICATIONS LABS                         | 24       | 47       | 2       |
| 12BJ1A0403 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 45       | 4       |
| 12BJ1A0403 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 56       | 4       |
| 12BJ1A0403 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 40       | 4       |
| 12BJ1A0403 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 35       | 4       |
| 12BJ1A0403 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 32       | 4       |
| 12BJ1A0403 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 13       | 0       |
| 12BJ1A0403 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0403 | R31048  | IC APPLICATIONS LABS                         | 24       | 47       | 2       |
| 12BJ1A0404 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 52       | 4       |
| 12BJ1A0404 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 37       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0404 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 38       | 4       |
| 12BJ1A0404 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 50       | 4       |
| 12BJ1A0404 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 12       | 0       |
| 12BJ1A0404 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 45       | 4       |
| 12BJ1A0404 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A0404 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 12BJ1A0405 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 18       | 0       |
| 12BJ1A0405 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 7        | 0       |
| 12BJ1A0405 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 16       | 0       |
| 12BJ1A0405 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 3        | 0       |
| 12BJ1A0405 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 17       | 0       |
| 12BJ1A0405 | R31046  | DIGITAL COMMUNICATIONS                       | 18       | 1        | 0       |
| 12BJ1A0405 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A0405 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0406 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 51       | 4       |
| 12BJ1A0406 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 26       | 4       |
| 12BJ1A0406 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 33       | 4       |
| 12BJ1A0406 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 28       | 4       |
| 12BJ1A0406 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 28       | 4       |
| 12BJ1A0406 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 35       | 4       |
| 12BJ1A0406 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 47       | 2       |
| 12BJ1A0406 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A0407 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 22       | 42       | 4       |
| 12BJ1A0407 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 60       | 4       |
| 12BJ1A0407 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 44       | 4       |
| 12BJ1A0407 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 38       | 4       |
| 12BJ1A0407 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 39       | 4       |
| 12BJ1A0407 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 27       | 4       |
| 12BJ1A0407 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A0407 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 12BJ1A0408 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 22       | 31       | 4       |
| 12BJ1A0408 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 31       | 4       |
| 12BJ1A0408 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 51       | 4       |
| 12BJ1A0408 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 60       | 4       |
| 12BJ1A0408 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 5        | 0       |
| 12BJ1A0408 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 38       | 4       |
| 12BJ1A0408 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0408 | R31048  | IC APPLICATIONS LABS                         | 22       | 45       | 2       |
| 12BJ1A0409 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 24       | 46       | 4       |
| 12BJ1A0409 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 35       | 4       |
| 12BJ1A0409 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 50       | 4       |
| 12BJ1A0409 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 48       | 4       |
| 12BJ1A0409 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 48       | 4       |
| 12BJ1A0409 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 46       | 4       |
| 12BJ1A0409 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 50       | 2       |
| 12BJ1A0409 | R31048  | IC APPLICATIONS LABS                         | 25       | 50       | 2       |
| 12BJ1A0410 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 29       | 4       |
| 12BJ1A0410 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 32       | 4       |
| 12BJ1A0410 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 12       | 0       |
| 12BJ1A0410 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 12       | 0       |
| 12BJ1A0410 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 26       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0410 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 28       | 4       |
| 12BJ1A0410 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 43       | 2       |
| 12BJ1A0410 | R31048  | IC APPLICATIONS LABS                         | 21       | 43       | 2       |
| 12BJ1A0411 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 30       | 4       |
| 12BJ1A0411 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 26       | 4       |
| 12BJ1A0411 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 17       | 0       |
| 12BJ1A0411 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 35       | 4       |
| 12BJ1A0411 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 21       | 6        | 0       |
| 12BJ1A0411 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 3        | 0       |
| 12BJ1A0411 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0411 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |
| 12BJ1A0412 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 35       | 4       |
| 12BJ1A0412 | R31042  | DIGITAL IC APPLICATIONS                      | 21       | 18       | 0       |
| 12BJ1A0412 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 16       | 0       |
| 12BJ1A0412 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 16       | 42       | 4       |
| 12BJ1A0412 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 26       | 4       |
| 12BJ1A0412 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 27       | 4       |
| 12BJ1A0412 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0412 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |
| 12BJ1A0413 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 15       | 0       |
| 12BJ1A0413 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 16       | 0       |
| 12BJ1A0413 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 27       | 4       |
| 12BJ1A0413 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 26       | 4       |
| 12BJ1A0413 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 40       | 4       |
| 12BJ1A0413 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 36       | 4       |
| 12BJ1A0413 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0413 | R31048  | IC APPLICATIONS LABS                         | 23       | 48       | 2       |
| 12BJ1A0414 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 29       | 4       |
| 12BJ1A0414 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 26       | 4       |
| 12BJ1A0414 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 18       | 0       |
| 12BJ1A0414 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 26       | 4       |
| 12BJ1A0414 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 21       | 0       |
| 12BJ1A0414 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 31       | 4       |
| 12BJ1A0414 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 12BJ1A0414 | R31048  | IC APPLICATIONS LABS                         | 21       | 45       | 2       |
| 12BJ1A0415 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 59       | 4       |
| 12BJ1A0415 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 60       | 4       |
| 12BJ1A0415 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 50       | 4       |
| 12BJ1A0415 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 43       | 4       |
| 12BJ1A0415 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 41       | 4       |
| 12BJ1A0415 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 34       | 4       |
| 12BJ1A0415 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 50       | 2       |
| 12BJ1A0415 | R31048  | IC APPLICATIONS LABS                         | 25       | 50       | 2       |
| 12BJ1A0416 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 31       | 4       |
| 12BJ1A0416 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 41       | 4       |
| 12BJ1A0416 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 45       | 4       |
| 12BJ1A0416 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 53       | 4       |
| 12BJ1A0416 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 39       | 4       |
| 12BJ1A0416 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 31       | 4       |
| 12BJ1A0416 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 12BJ1A0416 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0417 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 25       | 31       | 4       |
| 12BJ1A0417 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 10       | 0       |
| 12BJ1A0417 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 40       | 4       |
| 12BJ1A0417 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 56       | 4       |
| 12BJ1A0417 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 64       | 4       |
| 12BJ1A0417 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 37       | 4       |
| 12BJ1A0417 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A0417 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 12BJ1A0418 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 55       | 4       |
| 12BJ1A0418 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 39       | 4       |
| 12BJ1A0418 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 40       | 4       |
| 12BJ1A0418 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 28       | 4       |
| 12BJ1A0418 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 32       | 4       |
| 12BJ1A0418 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 30       | 4       |
| 12BJ1A0418 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A0418 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A0419 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 55       | 4       |
| 12BJ1A0419 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 33       | 4       |
| 12BJ1A0419 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 44       | 4       |
| 12BJ1A0419 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 45       | 4       |
| 12BJ1A0419 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 40       | 4       |
| 12BJ1A0419 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 39       | 4       |
| 12BJ1A0419 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A0419 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A0420 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 37       | 4       |
| 12BJ1A0420 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 27       | 4       |
| 12BJ1A0420 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 11       | 0       |
| 12BJ1A0420 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 47       | 4       |
| 12BJ1A0420 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 2        | 0       |
| 12BJ1A0420 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 42       | 4       |
| 12BJ1A0420 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 12BJ1A0420 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |
| 12BJ1A0421 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 32       | 4       |
| 12BJ1A0421 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 14       | 0       |
| 12BJ1A0421 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 17       | 0       |
| 12BJ1A0421 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 31       | 4       |
| 12BJ1A0421 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 51       | 4       |
| 12BJ1A0421 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 42       | 4       |
| 12BJ1A0421 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0421 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 12BJ1A0422 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 0        | -1       | 0       |
| 12BJ1A0422 | R31048  | IC APPLICATIONS LABS                         | 0        | -1       | 0       |
| 12BJ1A0423 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 42       | 4       |
| 12BJ1A0423 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 34       | 4       |
| 12BJ1A0423 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 30       | 4       |
| 12BJ1A0423 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 14       | 0       |
| 12BJ1A0423 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 26       | 4       |
| 12BJ1A0423 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 28       | 4       |
| 12BJ1A0423 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A0423 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |
| 12BJ1A0424 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 55       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0424 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 44       | 4       |
| 12BJ1A0424 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 35       | 4       |
| 12BJ1A0424 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 37       | 4       |
| 12BJ1A0424 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 43       | 4       |
| 12BJ1A0424 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 14       | 0       |
| 12BJ1A0424 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 48       | 2       |
| 12BJ1A0424 | R31048  | IC APPLICATIONS LABS                         | 24       | 48       | 2       |
| 12BJ1A0425 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 14       | 0       |
| 12BJ1A0425 | R31042  | DIGITAL IC APPLICATIONS                      | 16       | 14       | 0       |
| 12BJ1A0425 | R31043  | LINEAR IC APPLICATIONS                       | 20       | 31       | 4       |
| 12BJ1A0425 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 48       | 4       |
| 12BJ1A0425 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 17       | 4        | 0       |
| 12BJ1A0425 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 31       | 4       |
| 12BJ1A0425 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 43       | 2       |
| 12BJ1A0425 | R31048  | IC APPLICATIONS LABS                         | 21       | 44       | 2       |
| 12BJ1A0426 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 16       | 0       |
| 12BJ1A0426 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | 0        | 0       |
| 12BJ1A0426 | R31043  | LINEAR IC APPLICATIONS                       | 18       | 0        | 0       |
| 12BJ1A0426 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 0        | 0       |
| 12BJ1A0426 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 13       | 2        | 0       |
| 12BJ1A0426 | R31046  | DIGITAL COMMUNICATIONS                       | 13       | 5        | 0       |
| 12BJ1A0426 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 12BJ1A0426 | R31048  | IC APPLICATIONS LABS                         | 21       | 44       | 2       |
| 12BJ1A0427 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 44       | 4       |
| 12BJ1A0427 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 40       | 4       |
| 12BJ1A0427 | R31043  | LINEAR IC APPLICATIONS                       | 6        | 18       | 0       |
| 12BJ1A0427 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 10       | 13       | 0       |
| 12BJ1A0427 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 8        | 19       | 0       |
| 12BJ1A0427 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 27       | 4       |
| 12BJ1A0427 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 12BJ1A0427 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A0428 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 3        | 0       |
| 12BJ1A0428 | R31042  | DIGITAL IC APPLICATIONS                      | 14       | 6        | 0       |
| 12BJ1A0428 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 1        | 0       |
| 12BJ1A0428 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | -1       | 0       |
| 12BJ1A0428 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 0        | 0       |
| 12BJ1A0428 | R31046  | DIGITAL COMMUNICATIONS                       | 18       | 0        | 0       |
| 12BJ1A0428 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 12BJ1A0428 | R31048  | IC APPLICATIONS LABS                         | 21       | 45       | 2       |
| 12BJ1A0429 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 19       | 0       |
| 12BJ1A0429 | R31042  | DIGITAL IC APPLICATIONS                      | 14       | 0        | 0       |
| 12BJ1A0429 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 0        | 0       |
| 12BJ1A0429 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 7        | 0       |
| 12BJ1A0429 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 0        | 0       |
| 12BJ1A0429 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 7        | 0       |
| 12BJ1A0429 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 22       | 42       | 2       |
| 12BJ1A0429 | R31048  | IC APPLICATIONS LABS                         | 22       | 42       | 2       |
| 12BJ1A0430 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 26       | 4       |
| 12BJ1A0430 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 11       | 0       |
| 12BJ1A0430 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 9        | 0       |
| 12BJ1A0430 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 31       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0430 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 29       | 4       |
| 12BJ1A0430 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 26       | 4       |
| 12BJ1A0430 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0430 | R31048  | IC APPLICATIONS LABS                         | 24       | 47       | 2       |
| 12BJ1A0431 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 11       | 36       | 4       |
| 12BJ1A0431 | R31042  | DIGITAL IC APPLICATIONS                      | 14       | 0        | 0       |
| 12BJ1A0431 | R31043  | LINEAR IC APPLICATIONS                       | 17       | 14       | 0       |
| 12BJ1A0431 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 18       | 4        | 0       |
| 12BJ1A0431 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 13       | 0       |
| 12BJ1A0431 | R31046  | DIGITAL COMMUNICATIONS                       | 17       | 10       | 0       |
| 12BJ1A0431 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 12BJ1A0431 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A0432 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 15       | 0       |
| 12BJ1A0432 | R31042  | DIGITAL IC APPLICATIONS                      | 16       | 9        | 0       |
| 12BJ1A0432 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 7        | 0       |
| 12BJ1A0432 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 7        | 0       |
| 12BJ1A0432 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 1        | 0       |
| 12BJ1A0432 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 0        | 0       |
| 12BJ1A0432 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 44       | 2       |
| 12BJ1A0432 | R31048  | IC APPLICATIONS LABS                         | 22       | 45       | 2       |
| 12BJ1A0433 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 12       | 0       |
| 12BJ1A0433 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 4        | 0       |
| 12BJ1A0433 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 0        | 0       |
| 12BJ1A0433 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 7        | 27       | 0       |
| 12BJ1A0433 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 1        | 0       |
| 12BJ1A0433 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 29       | 4       |
| 12BJ1A0433 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 42       | 2       |
| 12BJ1A0433 | R31048  | IC APPLICATIONS LABS                         | 23       | 43       | 2       |
| 12BJ1A0434 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 11       | 0       |
| 12BJ1A0434 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 0        | 0       |
| 12BJ1A0434 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 6        | 0       |
| 12BJ1A0434 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 28       | 4       |
| 12BJ1A0434 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 14       | 2        | 0       |
| 12BJ1A0434 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 18       | 0       |
| 12BJ1A0434 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 42       | 2       |
| 12BJ1A0434 | R31048  | IC APPLICATIONS LABS                         | 23       | 43       | 2       |
| 12BJ1A0435 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 44       | 4       |
| 12BJ1A0435 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 34       | 4       |
| 12BJ1A0435 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 30       | 4       |
| 12BJ1A0435 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 30       | 4       |
| 12BJ1A0435 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 18       | 0       |
| 12BJ1A0435 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 10       | 0       |
| 12BJ1A0435 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 12BJ1A0435 | R31048  | IC APPLICATIONS LABS                         | 23       | 45       | 2       |
| 12BJ1A0436 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 33       | 4       |
| 12BJ1A0436 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 4        | 0       |
| 12BJ1A0436 | R31043  | LINEAR IC APPLICATIONS                       | 24       | -1       | 0       |
| 12BJ1A0436 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 9        | 0       |
| 12BJ1A0436 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 3        | 0       |
| 12BJ1A0436 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 1        | 0       |
| 12BJ1A0436 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 42       | 2       |



| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0436 | R31048  | IC APPLICATIONS LABS                         | 21       | 43       | 2       |
| 12BJ1A0437 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 26       | 4       |
| 12BJ1A0437 | R31042  | DIGITAL IC APPLICATIONS                      | 21       | 12       | 0       |
| 12BJ1A0437 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 11       | 0       |
| 12BJ1A0437 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 29       | 4       |
| 12BJ1A0437 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 2        | 0       |
| 12BJ1A0437 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 27       | 4       |
| 12BJ1A0437 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 12BJ1A0437 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A0438 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 31       | 4       |
| 12BJ1A0438 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 14       | 0       |
| 12BJ1A0438 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 11       | 0       |
| 12BJ1A0438 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 14       | 0       |
| 12BJ1A0438 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 46       | 4       |
| 12BJ1A0438 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 27       | 4       |
| 12BJ1A0438 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0438 | R31048  | IC APPLICATIONS LABS                         | 23       | 48       | 2       |
| 12BJ1A0439 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 29       | 4       |
| 12BJ1A0439 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 15       | 0       |
| 12BJ1A0439 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 18       | 0       |
| 12BJ1A0439 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 12       | 0       |
| 12BJ1A0439 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 0        | 0       |
| 12BJ1A0439 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 17       | 0       |
| 12BJ1A0439 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A0439 | R31048  | IC APPLICATIONS LABS                         | 22       | 47       | 2       |
| 12BJ1A0440 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 19       | 0       |
| 12BJ1A0440 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 14       | 0       |
| 12BJ1A0440 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 1        | 0       |
| 12BJ1A0440 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 7        | 0       |
| 12BJ1A0440 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 0        | 0       |
| 12BJ1A0440 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 8        | 0       |
| 12BJ1A0440 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 42       | 2       |
| 12BJ1A0440 | R31048  | IC APPLICATIONS LABS                         | 21       | 43       | 2       |
| 12BJ1A0441 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 31       | 4       |
| 12BJ1A0441 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 26       | 4       |
| 12BJ1A0441 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 40       | 4       |
| 12BJ1A0441 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 45       | 4       |
| 12BJ1A0441 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 4        | 0       |
| 12BJ1A0441 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 40       | 4       |
| 12BJ1A0441 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 50       | 2       |
| 12BJ1A0441 | R31048  | IC APPLICATIONS LABS                         | 25       | 50       | 2       |
| 12BJ1A0442 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 41       | 4       |
| 12BJ1A0442 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 11       | 0       |
| 12BJ1A0442 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 29       | 4       |
| 12BJ1A0442 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 33       | 4       |
| 12BJ1A0442 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 41       | 4       |
| 12BJ1A0442 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 35       | 4       |
| 12BJ1A0442 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 12BJ1A0442 | R31048  | IC APPLICATIONS LABS                         | 21       | 45       | 2       |
| 12BJ1A0443 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 43       | 4       |
| 12BJ1A0443 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 7        | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0443 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 16       | 0       |
| 12BJ1A0443 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 12       | 0       |
| 12BJ1A0443 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 27       | 4       |
| 12BJ1A0443 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 11       | 0       |
| 12BJ1A0443 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0443 | R31048  | IC APPLICATIONS LABS                         | 22       | 45       | 2       |
| 12BJ1A0444 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 31       | 4       |
| 12BJ1A0444 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 6        | 0       |
| 12BJ1A0444 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 8        | 0       |
| 12BJ1A0444 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 10       | 0       |
| 12BJ1A0444 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 21       | 10       | 0       |
| 12BJ1A0444 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 3        | 0       |
| 12BJ1A0444 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 41       | 2       |
| 12BJ1A0444 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A0445 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 38       | 4       |
| 12BJ1A0445 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 31       | 4       |
| 12BJ1A0445 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 31       | 4       |
| 12BJ1A0445 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 37       | 4       |
| 12BJ1A0445 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 5        | 0       |
| 12BJ1A0445 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 36       | 4       |
| 12BJ1A0445 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 46       | 2       |
| 12BJ1A0445 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A0446 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 0        | 0       |
| 12BJ1A0446 | R31042  | DIGITAL IC APPLICATIONS                      | 0        | 0        | 0       |
| 12BJ1A0446 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 0        | 0       |
| 12BJ1A0446 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 9        | 0        | 0       |
| 12BJ1A0446 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 11       | 0        | 0       |
| 12BJ1A0446 | R31046  | DIGITAL COMMUNICATIONS                       | 17       | 2        | 0       |
| 12BJ1A0446 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 12BJ1A0446 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A0447 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 31       | 4       |
| 12BJ1A0447 | R31042  | DIGITAL IC APPLICATIONS                      | 16       | 26       | 4       |
| 12BJ1A0447 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 14       | 0       |
| 12BJ1A0447 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 13       | 0       |
| 12BJ1A0447 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 20       | 27       | 4       |
| 12BJ1A0447 | R31046  | DIGITAL COMMUNICATIONS                       | 15       | 9        | 0       |
| 12BJ1A0447 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 12BJ1A0447 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A0448 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 37       | 4       |
| 12BJ1A0448 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 1        | 0       |
| 12BJ1A0448 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 28       | 4       |
| 12BJ1A0448 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 30       | 4       |
| 12BJ1A0448 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 14       | 0       |
| 12BJ1A0448 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 7        | 0       |
| 12BJ1A0448 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 12BJ1A0448 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A0449 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 0        | -1       | 0       |
| 12BJ1A0449 | R31042  | DIGITAL IC APPLICATIONS                      | 0        | -1       | 0       |
| 12BJ1A0449 | R31043  | LINEAR IC APPLICATIONS                       | 0        | -1       | 0       |
| 12BJ1A0449 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 0        | -1       | 0       |
| 12BJ1A0449 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 0        | -1       | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0449 | R31046  | DIGITAL COMMUNICATIONS                       | 0        | -1       | 0       |
| 12BJ1A0449 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 0        | -1       | 0       |
| 12BJ1A0449 | R31048  | IC APPLICATIONS LABS                         | 0        | -1       | 0       |
| 12BJ1A0450 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 11       | 0       |
| 12BJ1A0450 | R31042  | DIGITAL IC APPLICATIONS                      | 5        | 3        | 0       |
| 12BJ1A0450 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 2        | 0       |
| 12BJ1A0450 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 10       | 18       | 0       |
| 12BJ1A0450 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 9        | 20       | 0       |
| 12BJ1A0450 | R31046  | DIGITAL COMMUNICATIONS                       | 10       | 17       | 0       |
| 12BJ1A0450 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 42       | 2       |
| 12BJ1A0450 | R31048  | IC APPLICATIONS LABS                         | 20       | 42       | 2       |
| 12BJ1A0451 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 34       | 4       |
| 12BJ1A0451 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | 12       | 0       |
| 12BJ1A0451 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 15       | 0       |
| 12BJ1A0451 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 29       | 4       |
| 12BJ1A0451 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 29       | 4       |
| 12BJ1A0451 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 10       | 0       |
| 12BJ1A0451 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 41       | 2       |
| 12BJ1A0451 | R31048  | IC APPLICATIONS LABS                         | 20       | 42       | 2       |
| 12BJ1A0452 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 31       | 4       |
| 12BJ1A0452 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 26       | 4       |
| 12BJ1A0452 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 20       | 0       |
| 12BJ1A0452 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 34       | 4       |
| 12BJ1A0452 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 26       | 4       |
| 12BJ1A0452 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 8        | 0       |
| 12BJ1A0452 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 12BJ1A0452 | R31048  | IC APPLICATIONS LABS                         | 22       | 44       | 2       |
| 12BJ1A0453 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 26       | 4       |
| 12BJ1A0453 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 14       | 0       |
| 12BJ1A0453 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 16       | 0       |
| 12BJ1A0453 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 18       | 45       | 4       |
| 12BJ1A0453 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 4        | 0       |
| 12BJ1A0453 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 8        | 0       |
| 12BJ1A0453 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 42       | 2       |
| 12BJ1A0453 | R31048  | IC APPLICATIONS LABS                         | 22       | 42       | 2       |
| 12BJ1A0454 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 15       | 0       |
| 12BJ1A0454 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 5        | 0       |
| 12BJ1A0454 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 0        | 0       |
| 12BJ1A0454 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 46       | 4       |
| 12BJ1A0454 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 47       | 4       |
| 12BJ1A0454 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 10       | 0       |
| 12BJ1A0454 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 42       | 2       |
| 12BJ1A0454 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0455 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 26       | 4       |
| 12BJ1A0455 | R31042  | DIGITAL IC APPLICATIONS                      | 0        | 8        | 0       |
| 12BJ1A0455 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 6        | 0       |
| 12BJ1A0455 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 0        | 17       | 0       |
| 12BJ1A0455 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 0        | 4        | 0       |
| 12BJ1A0455 | R31046  | DIGITAL COMMUNICATIONS                       | 0        | 11       | 0       |
| 12BJ1A0455 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 12BJ1A0455 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0456 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 32       | 4       |
| 12BJ1A0456 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 26       | 4       |
| 12BJ1A0456 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 18       | 0       |
| 12BJ1A0456 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 13       | 48       | 4       |
| 12BJ1A0456 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 15       | 5        | 0       |
| 12BJ1A0456 | R31046  | DIGITAL COMMUNICATIONS                       | 14       | 8        | 0       |
| 12BJ1A0456 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 43       | 2       |
| 12BJ1A0456 | R31048  | IC APPLICATIONS LABS                         | 20       | 43       | 2       |
| 12BJ1A0457 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 16       | 0       |
| 12BJ1A0457 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 7        | 0       |
| 12BJ1A0457 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 31       | 4       |
| 12BJ1A0457 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 48       | 4       |
| 12BJ1A0457 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 0        | 0       |
| 12BJ1A0457 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 0        | 0       |
| 12BJ1A0457 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 12BJ1A0457 | R31048  | IC APPLICATIONS LABS                         | 22       | 44       | 2       |
| 12BJ1A0458 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 11       | 0       |
| 12BJ1A0458 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 1        | 0       |
| 12BJ1A0458 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 4        | 0       |
| 12BJ1A0458 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 20       | 0       |
| 12BJ1A0458 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 4        | 0       |
| 12BJ1A0458 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 0        | 0       |
| 12BJ1A0458 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0458 | R31048  | IC APPLICATIONS LABS                         | 23       | 45       | 2       |
| 12BJ1A0459 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 28       | 4       |
| 12BJ1A0459 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 26       | 4       |
| 12BJ1A0459 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 1        | 0       |
| 12BJ1A0459 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 26       | 4       |
| 12BJ1A0459 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 26       | 4       |
| 12BJ1A0459 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 14       | 0       |
| 12BJ1A0459 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 43       | 2       |
| 12BJ1A0459 | R31048  | IC APPLICATIONS LABS                         | 22       | 44       | 2       |
| 12BJ1A0460 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 33       | 4       |
| 12BJ1A0460 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 11       | 0       |
| 12BJ1A0460 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 15       | 0       |
| 12BJ1A0460 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 41       | 4       |
| 12BJ1A0460 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 9        | 0       |
| 12BJ1A0460 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 3        | 0       |
| 12BJ1A0460 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A0460 | R31048  | IC APPLICATIONS LABS                         | 24       | 47       | 2       |
| 12BJ1A0461 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 26       | 4       |
| 12BJ1A0461 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 20       | 0       |
| 12BJ1A0461 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 27       | 4       |
| 12BJ1A0461 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 19       | 0       |
| 12BJ1A0461 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 5        | 0       |
| 12BJ1A0461 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 13       | 0       |
| 12BJ1A0461 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0461 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0462 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 44       | 4       |
| 12BJ1A0462 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 29       | 4       |
| 12BJ1A0462 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 32       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0462 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 43       | 4       |
| 12BJ1A0462 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 48       | 4       |
| 12BJ1A0462 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 35       | 4       |
| 12BJ1A0462 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0462 | R31048  | IC APPLICATIONS LABS                         | 25       | 49       | 2       |
| 12BJ1A0463 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 31       | 4       |
| 12BJ1A0463 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 34       | 4       |
| 12BJ1A0463 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 12       | 0       |
| 12BJ1A0463 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 12       | 0       |
| 12BJ1A0463 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 26       | 4       |
| 12BJ1A0463 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 11       | 0       |
| 12BJ1A0463 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 43       | 2       |
| 12BJ1A0463 | R31048  | IC APPLICATIONS LABS                         | 20       | 44       | 2       |
| 12BJ1A0464 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 24       | 47       | 4       |
| 12BJ1A0464 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 42       | 4       |
| 12BJ1A0464 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 65       | 4       |
| 12BJ1A0464 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 25       | 72       | 4       |
| 12BJ1A0464 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 37       | 4       |
| 12BJ1A0464 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 33       | 4       |
| 12BJ1A0464 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A0464 | R31048  | IC APPLICATIONS LABS                         | 25       | 50       | 2       |
| 12BJ1A0465 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 22       | 30       | 4       |
| 12BJ1A0465 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 33       | 4       |
| 12BJ1A0465 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 31       | 4       |
| 12BJ1A0465 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 42       | 4       |
| 12BJ1A0465 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 26       | 4       |
| 12BJ1A0465 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 40       | 4       |
| 12BJ1A0465 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 46       | 2       |
| 12BJ1A0465 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A0466 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 37       | 4       |
| 12BJ1A0466 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 9        | 0       |
| 12BJ1A0466 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 29       | 4       |
| 12BJ1A0466 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 43       | 4       |
| 12BJ1A0466 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 31       | 4       |
| 12BJ1A0466 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 33       | 4       |
| 12BJ1A0466 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0466 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0467 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 22       | 36       | 4       |
| 12BJ1A0467 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 26       | 4       |
| 12BJ1A0467 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 12       | 0       |
| 12BJ1A0467 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 41       | 4       |
| 12BJ1A0467 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 32       | 4       |
| 12BJ1A0467 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 33       | 4       |
| 12BJ1A0467 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 12BJ1A0467 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |
| 12BJ1A0468 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 37       | 4       |
| 12BJ1A0468 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 12       | 0       |
| 12BJ1A0468 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 28       | 4       |
| 12BJ1A0468 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 48       | 4       |
| 12BJ1A0468 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 12       | 0       |
| 12BJ1A0468 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 8        | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0468 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 12BJ1A0468 | R31048  | IC APPLICATIONS LABS                         | 24       | 46       | 2       |
| 12BJ1A0469 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 24       | 26       | 4       |
| 12BJ1A0469 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 18       | 0       |
| 12BJ1A0469 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 33       | 4       |
| 12BJ1A0469 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 46       | 4       |
| 12BJ1A0469 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 4        | 0       |
| 12BJ1A0469 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 28       | 4       |
| 12BJ1A0469 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0469 | R31048  | IC APPLICATIONS LABS                         | 24       | 48       | 2       |
| 12BJ1A0470 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 38       | 4       |
| 12BJ1A0470 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 29       | 4       |
| 12BJ1A0470 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 8        | 0       |
| 12BJ1A0470 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 47       | 4       |
| 12BJ1A0470 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 21       | 49       | 4       |
| 12BJ1A0470 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 33       | 4       |
| 12BJ1A0470 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 12BJ1A0470 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0471 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 48       | 4       |
| 12BJ1A0471 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 58       | 4       |
| 12BJ1A0471 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 47       | 4       |
| 12BJ1A0471 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 38       | 4       |
| 12BJ1A0471 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 30       | 4       |
| 12BJ1A0471 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 44       | 4       |
| 12BJ1A0471 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0471 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 12BJ1A0472 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 36       | 4       |
| 12BJ1A0472 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 26       | 4       |
| 12BJ1A0472 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 14       | 0       |
| 12BJ1A0472 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 41       | 4       |
| 12BJ1A0472 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 15       | 0       |
| 12BJ1A0472 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 17       | 0       |
| 12BJ1A0472 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0472 | R31048  | IC APPLICATIONS LABS                         | 23       | 48       | 2       |
| 12BJ1A0473 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 48       | 4       |
| 12BJ1A0473 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 55       | 4       |
| 12BJ1A0473 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 56       | 4       |
| 12BJ1A0473 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 54       | 4       |
| 12BJ1A0473 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 47       | 4       |
| 12BJ1A0473 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 52       | 4       |
| 12BJ1A0473 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A0473 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 12BJ1A0474 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 34       | 4       |
| 12BJ1A0474 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 10       | 0       |
| 12BJ1A0474 | R31043  | LINEAR IC APPLICATIONS                       | 20       | 13       | 0       |
| 12BJ1A0474 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 46       | 4       |
| 12BJ1A0474 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 41       | 4       |
| 12BJ1A0474 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 35       | 4       |
| 12BJ1A0474 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0474 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0475 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 43       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0475 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 34       | 4       |
| 12BJ1A0475 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 30       | 4       |
| 12BJ1A0475 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 36       | 4       |
| 12BJ1A0475 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 35       | 4       |
| 12BJ1A0475 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 35       | 4       |
| 12BJ1A0475 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0475 | R31048  | IC APPLICATIONS LABS                         | 22       | 45       | 2       |
| 12BJ1A0476 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 42       | 4       |
| 12BJ1A0476 | R31042  | DIGITAL IC APPLICATIONS                      | 21       | 26       | 4       |
| 12BJ1A0476 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 26       | 4       |
| 12BJ1A0476 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 46       | 4       |
| 12BJ1A0476 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 12       | 0       |
| 12BJ1A0476 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 12       | 0       |
| 12BJ1A0476 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 46       | 2       |
| 12BJ1A0476 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0477 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 30       | 4       |
| 12BJ1A0477 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 31       | 4       |
| 12BJ1A0477 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 41       | 4       |
| 12BJ1A0477 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 56       | 4       |
| 12BJ1A0477 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 26       | 4       |
| 12BJ1A0477 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 34       | 4       |
| 12BJ1A0477 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A0477 | R31048  | IC APPLICATIONS LABS                         | 25       | 49       | 2       |
| 12BJ1A0478 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 36       | 4       |
| 12BJ1A0478 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 17       | 0       |
| 12BJ1A0478 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 11       | 0       |
| 12BJ1A0478 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 40       | 4       |
| 12BJ1A0478 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 54       | 4       |
| 12BJ1A0478 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 33       | 4       |
| 12BJ1A0478 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 12BJ1A0478 | R31048  | IC APPLICATIONS LABS                         | 23       | 48       | 2       |
| 12BJ1A0479 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 45       | 4       |
| 12BJ1A0479 | R31042  | DIGITAL IC APPLICATIONS                      | 21       | 39       | 4       |
| 12BJ1A0479 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 30       | 4       |
| 12BJ1A0479 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 34       | 4       |
| 12BJ1A0479 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 36       | 4       |
| 12BJ1A0479 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 28       | 4       |
| 12BJ1A0479 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 12BJ1A0479 | R31048  | IC APPLICATIONS LABS                         | 24       | 48       | 2       |
| 12BJ1A0480 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 32       | 4       |
| 12BJ1A0480 | R31042  | DIGITAL IC APPLICATIONS                      | 14       | 9        | 0       |
| 12BJ1A0480 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 17       | 0       |
| 12BJ1A0480 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 17       | 48       | 4       |
| 12BJ1A0480 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 9        | 0       |
| 12BJ1A0480 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 7        | 0       |
| 12BJ1A0480 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 47       | 2       |
| 12BJ1A0480 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A0481 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 26       | 4       |
| 12BJ1A0481 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 18       | 0       |
| 12BJ1A0481 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 12       | 0       |
| 12BJ1A0481 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 45       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0481 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 6        | 0       |
| 12BJ1A0481 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 8        | 0       |
| 12BJ1A0481 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 12BJ1A0481 | R31048  | IC APPLICATIONS LABS                         | 22       | 45       | 2       |
| 12BJ1A0482 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 15       | 0       |
| 12BJ1A0482 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 2        | 0       |
| 12BJ1A0482 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 0        | 0       |
| 12BJ1A0482 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 36       | 4       |
| 12BJ1A0482 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 31       | 4       |
| 12BJ1A0482 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 11       | 0       |
| 12BJ1A0482 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A0482 | R31048  | IC APPLICATIONS LABS                         | 22       | 45       | 2       |
| 12BJ1A0483 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 26       | 4       |
| 12BJ1A0483 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 7        | 0       |
| 12BJ1A0483 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 0        | 0       |
| 12BJ1A0483 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 18       | 0       |
| 12BJ1A0483 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 7        | 0       |
| 12BJ1A0483 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 7        | 0       |
| 12BJ1A0483 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 47       | 2       |
| 12BJ1A0483 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A0484 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 11       | 16       | 0       |
| 12BJ1A0484 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 4        | 0       |
| 12BJ1A0484 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 1        | 0       |
| 12BJ1A0484 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 7        | 0       |
| 12BJ1A0484 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 20       | 7        | 0       |
| 12BJ1A0484 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 4        | 0       |
| 12BJ1A0484 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A0484 | R31048  | IC APPLICATIONS LABS                         | 23       | 48       | 2       |
| 12BJ1A0485 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 32       | 4       |
| 12BJ1A0485 | R31042  | DIGITAL IC APPLICATIONS                      | 21       | 28       | 4       |
| 12BJ1A0485 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 40       | 4       |
| 12BJ1A0485 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 45       | 4       |
| 12BJ1A0485 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 3        | 0       |
| 12BJ1A0485 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 34       | 4       |
| 12BJ1A0485 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A0485 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0486 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 26       | 4       |
| 12BJ1A0486 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 1        | 0       |
| 12BJ1A0486 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 8        | 0       |
| 12BJ1A0486 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 40       | 4       |
| 12BJ1A0486 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 39       | 4       |
| 12BJ1A0486 | R31046  | DIGITAL COMMUNICATIONS                       | 18       | 9        | 0       |
| 12BJ1A0486 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A0486 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |
| 12BJ1A0487 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 21       | 39       | 4       |
| 12BJ1A0487 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 34       | 4       |
| 12BJ1A0487 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 11       | 0       |
| 12BJ1A0487 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 15       | 34       | 4       |
| 12BJ1A0487 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 27       | 4       |
| 12BJ1A0487 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 27       | 4       |
| 12BJ1A0487 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 45       | 2       |



| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0487 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A0488 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 39       | 4       |
| 12BJ1A0488 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 31       | 4       |
| 12BJ1A0488 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 35       | 4       |
| 12BJ1A0488 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 61       | 4       |
| 12BJ1A0488 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 32       | 4       |
| 12BJ1A0488 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 5        | 0       |
| 12BJ1A0488 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A0488 | R31048  | IC APPLICATIONS LABS                         | 21       | 41       | 2       |
| 12BJ1A0489 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 10       | 0       |
| 12BJ1A0489 | R31042  | DIGITAL IC APPLICATIONS                      | 16       | 0        | 0       |
| 12BJ1A0489 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 0        | 0       |
| 12BJ1A0489 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 3        | 0       |
| 12BJ1A0489 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 17       | 0        | 0       |
| 12BJ1A0489 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 2        | 0       |
| 12BJ1A0489 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A0489 | R31048  | IC APPLICATIONS LABS                         | 21       | 41       | 2       |
| 12BJ1A0490 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 28       | 4       |
| 12BJ1A0490 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 0        | 0       |
| 12BJ1A0490 | R31043  | LINEAR IC APPLICATIONS                       | 16       | 1        | 0       |
| 12BJ1A0490 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 40       | 4       |
| 12BJ1A0490 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 19       | 2        | 0       |
| 12BJ1A0490 | R31046  | DIGITAL COMMUNICATIONS                       | 18       | 14       | 0       |
| 12BJ1A0490 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A0490 | R31048  | IC APPLICATIONS LABS                         | 21       | 41       | 2       |
| 12BJ1A0491 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 50       | 4       |
| 12BJ1A0491 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 37       | 4       |
| 12BJ1A0491 | R31043  | LINEAR IC APPLICATIONS                       | 16       | 30       | 4       |
| 12BJ1A0491 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 34       | 4       |
| 12BJ1A0491 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 34       | 4       |
| 12BJ1A0491 | R31046  | DIGITAL COMMUNICATIONS                       | 17       | 37       | 4       |
| 12BJ1A0491 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 12BJ1A0491 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A0492 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 31       | 4       |
| 12BJ1A0492 | R31042  | DIGITAL IC APPLICATIONS                      | 7        | 8        | 0       |
| 12BJ1A0492 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 8        | 0       |
| 12BJ1A0492 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 28       | 4       |
| 12BJ1A0492 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 8        | 0       |
| 12BJ1A0492 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 9        | 0       |
| 12BJ1A0492 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A0492 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A0493 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 10       | 0       |
| 12BJ1A0493 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 2        | 0       |
| 12BJ1A0493 | R31043  | LINEAR IC APPLICATIONS                       | 17       | 2        | 0       |
| 12BJ1A0493 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 15       | 13       | 0       |
| 12BJ1A0493 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 0        | 0       |
| 12BJ1A0493 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 16       | 0       |
| 12BJ1A0493 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A0493 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A0494 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 12       | 0       |
| 12BJ1A0494 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 2        | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A0494 | R31043  | LINEAR IC APPLICATIONS                       | 20       | 3        | 0       |
| 12BJ1A0494 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 20       | 0       |
| 12BJ1A0494 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 2        | 0       |
| 12BJ1A0494 | R31046  | DIGITAL COMMUNICATIONS                       | 17       | 9        | 0       |
| 12BJ1A0494 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A0494 | R31048  | IC APPLICATIONS LABS                         | 20       | 46       | 2       |
| 12BJ1A0495 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 0        | -1       | 0       |
| 12BJ1A0495 | R31048  | IC APPLICATIONS LABS                         | 0        | -1       | 0       |
| 12BJ1A0496 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 41       | 4       |
| 12BJ1A0496 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 40       | 4       |
| 12BJ1A0496 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 40       | 4       |
| 12BJ1A0496 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 26       | 4       |
| 12BJ1A0496 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 26       | 4       |
| 12BJ1A0496 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 43       | 4       |
| 12BJ1A0496 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 50       | 2       |
| 12BJ1A0496 | R31048  | IC APPLICATIONS LABS                         | 25       | 49       | 2       |
| 12BJ1A0497 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 32       | 4       |
| 12BJ1A0497 | R31042  | DIGITAL IC APPLICATIONS                      | 21       | 14       | 0       |
| 12BJ1A0497 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 8        | 0       |
| 12BJ1A0497 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 38       | 4       |
| 12BJ1A0497 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 7        | 0       |
| 12BJ1A0497 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 11       | 0       |
| 12BJ1A0497 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A0497 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A0498 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 0        | 0       |
| 12BJ1A0498 | R31042  | DIGITAL IC APPLICATIONS                      | 15       | 29       | 4       |
| 12BJ1A0498 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 32       | 4       |
| 12BJ1A0498 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 17       | 57       | 4       |
| 12BJ1A0498 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 19       | 8        | 0       |
| 12BJ1A0498 | R31046  | DIGITAL COMMUNICATIONS                       | 18       | 29       | 4       |
| 12BJ1A0498 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 20       | 45       | 2       |
| 12BJ1A0498 | R31048  | IC APPLICATIONS LABS                         | 20       | 44       | 2       |
| 12BJ1A0499 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 11       | 10       | 0       |
| 12BJ1A0499 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 1        | 0       |
| 12BJ1A0499 | R31043  | LINEAR IC APPLICATIONS                       | 18       | 0        | 0       |
| 12BJ1A0499 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 3        | 0       |
| 12BJ1A0499 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 1        | 11       | 0       |
| 12BJ1A0499 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 14       | 0       |
| 12BJ1A0499 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A0499 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A04A0 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 27       | 4       |
| 12BJ1A04A0 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 17       | 0       |
| 12BJ1A04A0 | R31043  | LINEAR IC APPLICATIONS                       | 16       | 18       | 0       |
| 12BJ1A04A0 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 17       | 12       | 0       |
| 12BJ1A04A0 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 26       | 4       |
| 12BJ1A04A0 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 17       | 0       |
| 12BJ1A04A0 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A04A0 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A04A1 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 54       | 4       |
| 12BJ1A04A1 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 26       | 4       |
| 12BJ1A04A1 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 10       | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A04A1 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 17       | 59       | 4       |
| 12BJ1A04A1 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 26       | 4       |
| 12BJ1A04A1 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 14       | 0       |
| 12BJ1A04A1 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A04A1 | R31048  | IC APPLICATIONS LABS                         | 21       | 40       | 2       |
| 12BJ1A04A2 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 6        | 11       | 0       |
| 12BJ1A04A2 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 0        | 0       |
| 12BJ1A04A2 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 19       | 0       |
| 12BJ1A04A2 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 10       | 0       |
| 12BJ1A04A2 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 2        | 0       |
| 12BJ1A04A2 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 20       | 0       |
| 12BJ1A04A2 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 42       | 2       |
| 12BJ1A04A2 | R31048  | IC APPLICATIONS LABS                         | 22       | 41       | 2       |
| 12BJ1A04A3 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 10       | 0       |
| 12BJ1A04A3 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 6        | 0       |
| 12BJ1A04A3 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 7        | 0       |
| 12BJ1A04A3 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 4        | 0       |
| 12BJ1A04A3 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 21       | 31       | 4       |
| 12BJ1A04A3 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 6        | 0       |
| 12BJ1A04A3 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A04A3 | R31048  | IC APPLICATIONS LABS                         | 22       | 40       | 2       |
| 12BJ1A04A4 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 7        | 19       | 0       |
| 12BJ1A04A4 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 1        | 0       |
| 12BJ1A04A4 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 0        | 0       |
| 12BJ1A04A4 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 3        | 0       |
| 12BJ1A04A4 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 18       | 0       |
| 12BJ1A04A4 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 1        | 0       |
| 12BJ1A04A4 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A04A4 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A04A5 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 6        | 0       |
| 12BJ1A04A5 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 0        | 0       |
| 12BJ1A04A5 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 3        | 0       |
| 12BJ1A04A5 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 0        | 0       |
| 12BJ1A04A5 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 0        | 0       |
| 12BJ1A04A5 | R31046  | DIGITAL COMMUNICATIONS                       | 18       | 0        | 0       |
| 12BJ1A04A5 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 12BJ1A04A5 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A04A6 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 31       | 4       |
| 12BJ1A04A6 | R31042  | DIGITAL IC APPLICATIONS                      | 21       | 39       | 4       |
| 12BJ1A04A6 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 41       | 4       |
| 12BJ1A04A6 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 54       | 4       |
| 12BJ1A04A6 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 8        | 0       |
| 12BJ1A04A6 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 34       | 4       |
| 12BJ1A04A6 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A04A6 | R31048  | IC APPLICATIONS LABS                         | 25       | 49       | 2       |
| 12BJ1A04A7 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 6        | 0       |
| 12BJ1A04A7 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 3        | 0       |
| 12BJ1A04A7 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 0        | 0       |
| 12BJ1A04A7 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 4        | 0       |
| 12BJ1A04A7 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 21       | 0        | 0       |
| 12BJ1A04A7 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 35       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A04A7 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 40       | 2       |
| 12BJ1A04A7 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A04A8 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 43       | 4       |
| 12BJ1A04A8 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 40       | 4       |
| 12BJ1A04A8 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 30       | 4       |
| 12BJ1A04A8 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 34       | 4       |
| 12BJ1A04A8 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 28       | 4       |
| 12BJ1A04A8 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 40       | 4       |
| 12BJ1A04A8 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04A8 | R31048  | IC APPLICATIONS LABS                         | 24       | 48       | 2       |
| 12BJ1A04A9 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 51       | 4       |
| 12BJ1A04A9 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 11       | 0       |
| 12BJ1A04A9 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 8        | 0       |
| 12BJ1A04A9 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 45       | 4       |
| 12BJ1A04A9 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 9        | 0       |
| 12BJ1A04A9 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 26       | 4       |
| 12BJ1A04A9 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 46       | 2       |
| 12BJ1A04A9 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A04B0 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 6        | 0       |
| 12BJ1A04B0 | R31042  | DIGITAL IC APPLICATIONS                      | 14       | 0        | 0       |
| 12BJ1A04B0 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 0        | 0       |
| 12BJ1A04B0 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 9        | 0       |
| 12BJ1A04B0 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 14       | 0        | 0       |
| 12BJ1A04B0 | R31046  | DIGITAL COMMUNICATIONS                       | 18       | 6        | 0       |
| 12BJ1A04B0 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A04B0 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A04B1 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 6        | 0       |
| 12BJ1A04B1 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 0        | 0       |
| 12BJ1A04B1 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 9        | 0       |
| 12BJ1A04B1 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 18       | 21       | 0       |
| 12BJ1A04B1 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 13       | 0       |
| 12BJ1A04B1 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 9        | 0       |
| 12BJ1A04B1 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A04B1 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A04B2 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 4        | 0       |
| 12BJ1A04B2 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 0        | 0       |
| 12BJ1A04B2 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 8        | 0       |
| 12BJ1A04B2 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 2        | 4        | 0       |
| 12BJ1A04B2 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 8        | 0        | 0       |
| 12BJ1A04B2 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 0        | 0       |
| 12BJ1A04B2 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A04B2 | R31048  | IC APPLICATIONS LABS                         | 21       | 40       | 2       |
| 12BJ1A04B3 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 11       | 0       |
| 12BJ1A04B3 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 0        | 0       |
| 12BJ1A04B3 | R31043  | LINEAR IC APPLICATIONS                       | 17       | 9        | 0       |
| 12BJ1A04B3 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 18       | 30       | 4       |
| 12BJ1A04B3 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 5        | 0       |
| 12BJ1A04B3 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 9        | 0       |
| 12BJ1A04B3 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 43       | 2       |
| 12BJ1A04B3 | R31048  | IC APPLICATIONS LABS                         | 22       | 43       | 2       |
| 12BJ1A04B4 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 14       | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A04B4 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 0        | 0       |
| 12BJ1A04B4 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 2        | 0       |
| 12BJ1A04B4 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 2        | 8        | 0       |
| 12BJ1A04B4 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 8        | 0        | 0       |
| 12BJ1A04B4 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 3        | 0       |
| 12BJ1A04B4 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 12BJ1A04B4 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A04B5 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 0        | -1       | 0       |
| 12BJ1A04B5 | R31048  | IC APPLICATIONS LABS                         | 0        | -1       | 0       |
| 12BJ1A04B7 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 26       | 4       |
| 12BJ1A04B7 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 6        | 0       |
| 12BJ1A04B7 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 20       | 0       |
| 12BJ1A04B7 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 16       | 0       |
| 12BJ1A04B7 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 51       | 4       |
| 12BJ1A04B7 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 48       | 4       |
| 12BJ1A04B7 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04B7 | R31048  | IC APPLICATIONS LABS                         | 25       | 49       | 2       |
| 12BJ1A04B8 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 31       | 4       |
| 12BJ1A04B8 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 7        | 0       |
| 12BJ1A04B8 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 11       | 0       |
| 12BJ1A04B8 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 26       | 4       |
| 12BJ1A04B8 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 26       | 4       |
| 12BJ1A04B8 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 26       | 4       |
| 12BJ1A04B8 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 40       | 2       |
| 12BJ1A04B8 | R31048  | IC APPLICATIONS LABS                         | 20       | 40       | 2       |
| 12BJ1A04B9 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 14       | 0       |
| 12BJ1A04B9 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 31       | 4       |
| 12BJ1A04B9 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 11       | 0       |
| 12BJ1A04B9 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 18       | 56       | 4       |
| 12BJ1A04B9 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 21       | 5        | 0       |
| 12BJ1A04B9 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 10       | 0       |
| 12BJ1A04B9 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04B9 | R31048  | IC APPLICATIONS LABS                         | 24       | 48       | 2       |
| 12BJ1A04C0 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 0        | -1       | 0       |
| 12BJ1A04C0 | R31048  | IC APPLICATIONS LABS                         | 0        | -1       | 0       |
| 12BJ1A04C1 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 37       | 4       |
| 12BJ1A04C1 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 35       | 4       |
| 12BJ1A04C1 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 57       | 4       |
| 12BJ1A04C1 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 53       | 4       |
| 12BJ1A04C1 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 27       | 4       |
| 12BJ1A04C1 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 33       | 4       |
| 12BJ1A04C1 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04C1 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 12BJ1A04C2 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 14       | 0       |
| 12BJ1A04C2 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 9        | 0       |
| 12BJ1A04C2 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 15       | 0       |
| 12BJ1A04C2 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 33       | 4       |
| 12BJ1A04C2 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 42       | 4       |
| 12BJ1A04C2 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 45       | 4       |
| 12BJ1A04C2 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04C2 | R31048  | IC APPLICATIONS LABS                         | 23       | 48       | 2       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A04C4 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 58       | 4       |
| 12BJ1A04C4 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 26       | 4       |
| 12BJ1A04C4 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 38       | 4       |
| 12BJ1A04C4 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 42       | 4       |
| 12BJ1A04C4 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 28       | 4       |
| 12BJ1A04C4 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 41       | 4       |
| 12BJ1A04C4 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04C4 | R31048  | IC APPLICATIONS LABS                         | 24       | 48       | 2       |
| 12BJ1A04C5 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 47       | 4       |
| 12BJ1A04C5 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 12       | 0       |
| 12BJ1A04C5 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 17       | 0       |
| 12BJ1A04C5 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 53       | 4       |
| 12BJ1A04C5 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 32       | 4       |
| 12BJ1A04C5 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 26       | 4       |
| 12BJ1A04C5 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 42       | 2       |
| 12BJ1A04C5 | R31048  | IC APPLICATIONS LABS                         | 22       | 43       | 2       |
| 12BJ1A04C6 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 55       | 4       |
| 12BJ1A04C6 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 41       | 4       |
| 12BJ1A04C6 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 56       | 4       |
| 12BJ1A04C6 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 52       | 4       |
| 12BJ1A04C6 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 11       | 0       |
| 12BJ1A04C6 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 44       | 4       |
| 12BJ1A04C6 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A04C6 | R31048  | IC APPLICATIONS LABS                         | 24       | 50       | 2       |
| 12BJ1A04C7 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 26       | 4       |
| 12BJ1A04C7 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 39       | 4       |
| 12BJ1A04C7 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 13       | 0       |
| 12BJ1A04C7 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 50       | 4       |
| 12BJ1A04C7 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 35       | 4       |
| 12BJ1A04C7 | R31046  | DIGITAL COMMUNICATIONS                       | 25       | 44       | 4       |
| 12BJ1A04C7 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04C7 | R31048  | IC APPLICATIONS LABS                         | 23       | 49       | 2       |
| 12BJ1A04C8 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 16       | 39       | 4       |
| 12BJ1A04C8 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 11       | 0       |
| 12BJ1A04C8 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 10       | 0       |
| 12BJ1A04C8 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 26       | 4       |
| 12BJ1A04C8 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 19       | 0       |
| 12BJ1A04C8 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 27       | 4       |
| 12BJ1A04C8 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04C8 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A04C9 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 47       | 4       |
| 12BJ1A04C9 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 27       | 4       |
| 12BJ1A04C9 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 28       | 4       |
| 12BJ1A04C9 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 51       | 4       |
| 12BJ1A04C9 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 35       | 4       |
| 12BJ1A04C9 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 28       | 4       |
| 12BJ1A04C9 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 48       | 2       |
| 12BJ1A04C9 | R31048  | IC APPLICATIONS LABS                         | 23       | 48       | 2       |
| 12BJ1A04D0 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 20       | 38       | 4       |
| 12BJ1A04D0 | R31042  | DIGITAL IC APPLICATIONS                      | 23       | 52       | 4       |
| 12BJ1A04D0 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 65       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A04D0 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 61       | 4       |
| 12BJ1A04D0 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 26       | 4       |
| 12BJ1A04D0 | R31046  | DIGITAL COMMUNICATIONS                       | 23       | 52       | 4       |
| 12BJ1A04D0 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 12BJ1A04D0 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 12BJ1A04D1 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 18       | 0       |
| 12BJ1A04D1 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 7        | 0       |
| 12BJ1A04D1 | R31043  | LINEAR IC APPLICATIONS                       | 20       | 14       | 0       |
| 12BJ1A04D1 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 36       | 4       |
| 12BJ1A04D1 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 40       | 4       |
| 12BJ1A04D1 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 26       | 4       |
| 12BJ1A04D1 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 12BJ1A04D1 | R31048  | IC APPLICATIONS LABS                         | 22       | 44       | 2       |
| 12BJ1A04D2 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 17       | 0       |
| 12BJ1A04D2 | R31042  | DIGITAL IC APPLICATIONS                      | 8        | 0        | 0       |
| 12BJ1A04D2 | R31043  | LINEAR IC APPLICATIONS                       | 17       | 4        | 0       |
| 12BJ1A04D2 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 18       | 1        | 0       |
| 12BJ1A04D2 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 5        | 0       |
| 12BJ1A04D2 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 7        | 0       |
| 12BJ1A04D2 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 20       | 46       | 2       |
| 12BJ1A04D2 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A04D3 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 8        | 6        | 0       |
| 12BJ1A04D3 | R31042  | DIGITAL IC APPLICATIONS                      | 5        | 4        | 0       |
| 12BJ1A04D3 | R31043  | LINEAR IC APPLICATIONS                       | 15       | -1       | 0       |
| 12BJ1A04D3 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 4        | 0        | 0       |
| 12BJ1A04D3 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 3        | 10       | 0       |
| 12BJ1A04D3 | R31046  | DIGITAL COMMUNICATIONS                       | 7        | 5        | 0       |
| 12BJ1A04D3 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 20       | 40       | 2       |
| 12BJ1A04D3 | R31048  | IC APPLICATIONS LABS                         | 14       | 40       | 2       |
| 12BJ1A04D4 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 16       | 0       |
| 12BJ1A04D4 | R31042  | DIGITAL IC APPLICATIONS                      | 14       | 18       | 0       |
| 12BJ1A04D4 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 29       | 4       |
| 12BJ1A04D4 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 35       | 4       |
| 12BJ1A04D4 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 21       | 5        | 0       |
| 12BJ1A04D4 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 26       | 4       |
| 12BJ1A04D4 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 40       | 2       |
| 12BJ1A04D4 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A04D5 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 15       | 0       |
| 12BJ1A04D5 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 5        | 0       |
| 12BJ1A04D5 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 5        | 0       |
| 12BJ1A04D5 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 22       | 31       | 4       |
| 12BJ1A04D5 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 31       | 4       |
| 12BJ1A04D5 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 14       | 0       |
| 12BJ1A04D5 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 12BJ1A04D5 | R31048  | IC APPLICATIONS LABS                         | 24       | 48       | 2       |
| 12BJ1A04D6 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 31       | 4       |
| 12BJ1A04D6 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 32       | 4       |
| 12BJ1A04D6 | R31043  | LINEAR IC APPLICATIONS                       | 18       | 11       | 0       |
| 12BJ1A04D6 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 33       | 4       |
| 12BJ1A04D6 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 26       | 4       |
| 12BJ1A04D6 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 26       | 4       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A04D6 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 43       | 2       |
| 12BJ1A04D6 | R31048  | IC APPLICATIONS LABS                         | 21       | 44       | 2       |
| 12BJ1A04D7 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 17       | 12       | 0       |
| 12BJ1A04D7 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 6        | 0       |
| 12BJ1A04D7 | R31043  | LINEAR IC APPLICATIONS                       | 21       | 7        | 0       |
| 12BJ1A04D7 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 46       | 4       |
| 12BJ1A04D7 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 12       | 0       |
| 12BJ1A04D7 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 6        | 0       |
| 12BJ1A04D7 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 43       | 2       |
| 12BJ1A04D7 | R31048  | IC APPLICATIONS LABS                         | 21       | 44       | 2       |
| 12BJ1A04D8 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 31       | 4       |
| 12BJ1A04D8 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 26       | 4       |
| 12BJ1A04D8 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 35       | 4       |
| 12BJ1A04D8 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 42       | 4       |
| 12BJ1A04D8 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 9        | 0       |
| 12BJ1A04D8 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 30       | 4       |
| 12BJ1A04D8 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 12BJ1A04D8 | R31048  | IC APPLICATIONS LABS                         | 22       | 43       | 2       |
| 12BJ1A04D9 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 15       | 0       |
| 12BJ1A04D9 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 2        | 0       |
| 12BJ1A04D9 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 11       | 0       |
| 12BJ1A04D9 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 31       | 4       |
| 12BJ1A04D9 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 17       | 36       | 4       |
| 12BJ1A04D9 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 35       | 4       |
| 12BJ1A04D9 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 46       | 2       |
| 12BJ1A04D9 | R31048  | IC APPLICATIONS LABS                         | 22       | 45       | 2       |
| 12BJ1A04E0 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 41       | 4       |
| 12BJ1A04E0 | R31042  | DIGITAL IC APPLICATIONS                      | 18       | 9        | 0       |
| 12BJ1A04E0 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 9        | 0       |
| 12BJ1A04E0 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 26       | 4       |
| 12BJ1A04E0 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 16       | 0       |
| 12BJ1A04E0 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 36       | 4       |
| 12BJ1A04E0 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 12BJ1A04E0 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 12BJ1A04E1 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 9        | 0        | 0       |
| 12BJ1A04E1 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 4        | 0       |
| 12BJ1A04E1 | R31043  | LINEAR IC APPLICATIONS                       | 22       | 1        | 0       |
| 12BJ1A04E1 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 19       | 15       | 0       |
| 12BJ1A04E1 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 20       | 3        | 0       |
| 12BJ1A04E1 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 0        | 0       |
| 12BJ1A04E1 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 41       | 2       |
| 12BJ1A04E1 | R31048  | IC APPLICATIONS LABS                         | 21       | 42       | 2       |
| 12BJ1A04E2 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 0        | -1       | 0       |
| 12BJ1A04E2 | R31048  | IC APPLICATIONS LABS                         | 0        | -1       | 0       |
| 12BJ1A04E3 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 18       | 0       |
| 12BJ1A04E3 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 16       | 0       |
| 12BJ1A04E3 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 6        | 0       |
| 12BJ1A04E3 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 16       | 29       | 4       |
| 12BJ1A04E3 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 19       | 8        | 0       |
| 12BJ1A04E3 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 10       | 0       |
| 12BJ1A04E3 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 46       | 2       |



| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 12BJ1A04E3 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 12BJ1A04E4 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 5        | 7        | 0       |
| 12BJ1A04E4 | R31042  | DIGITAL IC APPLICATIONS                      | 2        | 0        | 0       |
| 12BJ1A04E4 | R31043  | LINEAR IC APPLICATIONS                       | 15       | 0        | 0       |
| 12BJ1A04E4 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 1        | -1       | 0       |
| 12BJ1A04E4 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 0        | 0        | 0       |
| 12BJ1A04E4 | R31046  | DIGITAL COMMUNICATIONS                       | 0        | 2        | 0       |
| 12BJ1A04E4 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 20       | 40       | 2       |
| 12BJ1A04E4 | R31048  | IC APPLICATIONS LABS                         | 20       | 41       | 2       |
| 12BJ1A04E5 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 54       | 4       |
| 12BJ1A04E5 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 43       | 4       |
| 12BJ1A04E5 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 2        | 0       |
| 12BJ1A04E5 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 38       | 4       |
| 12BJ1A04E5 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 11       | 0       |
| 12BJ1A04E5 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 41       | 4       |
| 12BJ1A04E5 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 12BJ1A04E5 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |
| 12BJ1A04E6 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 15       | 31       | 4       |
| 12BJ1A04E6 | R31042  | DIGITAL IC APPLICATIONS                      | 22       | 13       | 0       |
| 12BJ1A04E6 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 1        | 0       |
| 12BJ1A04E6 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 17       | 47       | 4       |
| 12BJ1A04E6 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 32       | 4       |
| 12BJ1A04E6 | R31046  | DIGITAL COMMUNICATIONS                       | 22       | 15       | 0       |
| 12BJ1A04E6 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 12BJ1A04E6 | R31048  | IC APPLICATIONS LABS                         | 21       | 46       | 2       |
| 12BJ1A0501 | R31051  | COMPILER DESIGN                              | 20       | 26       | 4       |
| 12BJ1A0501 | R31052  | COMPUTER NETWORKS                            | 17       | 46       | 4       |
| 12BJ1A0501 | R31053  | ADVANCED DATA STRUCTURES                     | 21       | 30       | 4       |
| 12BJ1A0501 | R31054  | COMPUTER GRAPHICS                            | 20       | 36       | 4       |
| 12BJ1A0501 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS       | 21       | 32       | 4       |
| 12BJ1A0501 | R31056  | OPERATIONG SYSTEMS                           | 20       | 34       | 4       |
| 12BJ1A0501 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB    | 22       | 45       | 2       |
| 12BJ1A0501 | R31058  | ADVANCED DATA STRUCTURES LAB                 | 22       | 46       | 2       |
| 12BJ1A0502 | R31051  | COMPILER DESIGN                              | 18       | 11       | 0       |
| 12BJ1A0502 | R31052  | COMPUTER NETWORKS                            | 18       | 41       | 4       |
| 12BJ1A0502 | R31053  | ADVANCED DATA STRUCTURES                     | 20       | 27       | 4       |
| 12BJ1A0502 | R31054  | COMPUTER GRAPHICS                            | 20       | 39       | 4       |
| 12BJ1A0502 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS       | 21       | 12       | 0       |
| 12BJ1A0502 | R31056  | OPERATIONG SYSTEMS                           | 18       | 42       | 4       |
| 12BJ1A0502 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB    | 23       | 46       | 2       |
| 12BJ1A0502 | R31058  | ADVANCED DATA STRUCTURES LAB                 | 23       | 45       | 2       |
| 12BJ1A0503 | R31051  | COMPILER DESIGN                              | 22       | 50       | 4       |
| 12BJ1A0503 | R31052  | COMPUTER NETWORKS                            | 20       | 34       | 4       |
| 12BJ1A0503 | R31053  | ADVANCED DATA STRUCTURES                     | 24       | 51       | 4       |
| 12BJ1A0503 | R31054  | COMPUTER GRAPHICS                            | 23       | 37       | 4       |
| 12BJ1A0503 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS       | 21       | 46       | 4       |
| 12BJ1A0503 | R31056  | OPERATIONG SYSTEMS                           | 22       | 37       | 4       |
| 12BJ1A0503 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB    | 24       | 48       | 2       |
| 12BJ1A0503 | R31058  | ADVANCED DATA STRUCTURES LAB                 | 24       | 49       | 2       |
| 12BJ1A0504 | R31051  | COMPILER DESIGN                              | 18       | 34       | 4       |
| 12BJ1A0504 | R31052  | COMPUTER NETWORKS                            | 19       | 57       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0504 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 43       | 4       |
| 12BJ1A0504 | R31054  | COMPUTER GRAPHICS                         | 20       | 7        | 0       |
| 12BJ1A0504 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 10       | 0       |
| 12BJ1A0504 | R31056  | OPERATIONG SYSTEMS                        | 23       | 35       | 4       |
| 12BJ1A0504 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0504 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0505 | R31051  | COMPILER DESIGN                           | 20       | 26       | 4       |
| 12BJ1A0505 | R31052  | COMPUTER NETWORKS                         | 22       | 36       | 4       |
| 12BJ1A0505 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 29       | 4       |
| 12BJ1A0505 | R31054  | COMPUTER GRAPHICS                         | 21       | 37       | 4       |
| 12BJ1A0505 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 38       | 4       |
| 12BJ1A0505 | R31056  | OPERATIONG SYSTEMS                        | 21       | 29       | 4       |
| 12BJ1A0505 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0505 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 48       | 2       |
| 12BJ1A0506 | R31051  | COMPILER DESIGN                           | 21       | 6        | 0       |
| 12BJ1A0506 | R31052  | COMPUTER NETWORKS                         | 20       | 33       | 4       |
| 12BJ1A0506 | R31053  | ADVANCED DATA STRUCTURES                  | 24       | 19       | 0       |
| 12BJ1A0506 | R31054  | COMPUTER GRAPHICS                         | 20       | 42       | 4       |
| 12BJ1A0506 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 15       | 27       | 4       |
| 12BJ1A0506 | R31056  | OPERATIONG SYSTEMS                        | 22       | 29       | 4       |
| 12BJ1A0506 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0506 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 48       | 2       |
| 12BJ1A0507 | R31051  | COMPILER DESIGN                           | 17       | 33       | 4       |
| 12BJ1A0507 | R31052  | COMPUTER NETWORKS                         | 18       | 34       | 4       |
| 12BJ1A0507 | R31053  | ADVANCED DATA STRUCTURES                  | 19       | 39       | 4       |
| 12BJ1A0507 | R31054  | COMPUTER GRAPHICS                         | 16       | 5        | 0       |
| 12BJ1A0507 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 11       | 0       |
| 12BJ1A0507 | R31056  | OPERATIONG SYSTEMS                        | 22       | 18       | 0       |
| 12BJ1A0507 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 45       | 2       |
| 12BJ1A0507 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0508 | R31051  | COMPILER DESIGN                           | 19       | 11       | 0       |
| 12BJ1A0508 | R31052  | COMPUTER NETWORKS                         | 17       | 38       | 4       |
| 12BJ1A0508 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 40       | 4       |
| 12BJ1A0508 | R31054  | COMPUTER GRAPHICS                         | 15       | 26       | 4       |
| 12BJ1A0508 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 6        | 0       |
| 12BJ1A0508 | R31056  | OPERATIONG SYSTEMS                        | 17       | 26       | 4       |
| 12BJ1A0508 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A0508 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0509 | R31051  | COMPILER DESIGN                           | 15       | 26       | 4       |
| 12BJ1A0509 | R31052  | COMPUTER NETWORKS                         | 18       | 37       | 4       |
| 12BJ1A0509 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 27       | 4       |
| 12BJ1A0509 | R31054  | COMPUTER GRAPHICS                         | 18       | 43       | 4       |
| 12BJ1A0509 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 14       | 39       | 4       |
| 12BJ1A0509 | R31056  | OPERATIONG SYSTEMS                        | 19       | 35       | 4       |
| 12BJ1A0509 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 43       | 2       |
| 12BJ1A0509 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 43       | 2       |
| 12BJ1A0510 | R31051  | COMPILER DESIGN                           | 18       | 15       | 0       |
| 12BJ1A0510 | R31052  | COMPUTER NETWORKS                         | 18       | 35       | 4       |
| 12BJ1A0510 | R31053  | ADVANCED DATA STRUCTURES                  | 21       | 15       | 0       |
| 12BJ1A0510 | R31054  | COMPUTER GRAPHICS                         | 21       | 31       | 4       |
| 12BJ1A0510 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 14       | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0510 | R31056  | OPERATIONG SYSTEMS                        | 17       | 14       | 0       |
| 12BJ1A0510 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 43       | 2       |
| 12BJ1A0510 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 43       | 2       |
| 12BJ1A0511 | R31051  | COMPILER DESIGN                           | 22       | 8        | 0       |
| 12BJ1A0511 | R31052  | COMPUTER NETWORKS                         | 23       | 26       | 4       |
| 12BJ1A0511 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 30       | 4       |
| 12BJ1A0511 | R31054  | COMPUTER GRAPHICS                         | 23       | 13       | 0       |
| 12BJ1A0511 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 24       | 9        | 0       |
| 12BJ1A0511 | R31056  | OPERATIONG SYSTEMS                        | 21       | 14       | 0       |
| 12BJ1A0511 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0511 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |
| 12BJ1A0512 | R31051  | COMPILER DESIGN                           | 19       | 15       | 0       |
| 12BJ1A0512 | R31052  | COMPUTER NETWORKS                         | 18       | 42       | 4       |
| 12BJ1A0512 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 32       | 4       |
| 12BJ1A0512 | R31054  | COMPUTER GRAPHICS                         | 20       | 8        | 0       |
| 12BJ1A0512 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 6        | 0       |
| 12BJ1A0512 | R31056  | OPERATIONG SYSTEMS                        | 19       | 31       | 4       |
| 12BJ1A0512 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 46       | 2       |
| 12BJ1A0512 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0513 | R31051  | COMPILER DESIGN                           | 22       | 32       | 4       |
| 12BJ1A0513 | R31052  | COMPUTER NETWORKS                         | 22       | 34       | 4       |
| 12BJ1A0513 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 31       | 4       |
| 12BJ1A0513 | R31054  | COMPUTER GRAPHICS                         | 21       | 27       | 4       |
| 12BJ1A0513 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 25       | 34       | 4       |
| 12BJ1A0513 | R31056  | OPERATIONG SYSTEMS                        | 23       | 33       | 4       |
| 12BJ1A0513 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 48       | 2       |
| 12BJ1A0513 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 49       | 2       |
| 12BJ1A0514 | R31051  | COMPILER DESIGN                           | 22       | 34       | 4       |
| 12BJ1A0514 | R31052  | COMPUTER NETWORKS                         | 22       | 40       | 4       |
| 12BJ1A0514 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 26       | 4       |
| 12BJ1A0514 | R31054  | COMPUTER GRAPHICS                         | 23       | 46       | 4       |
| 12BJ1A0514 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 25       | 42       | 4       |
| 12BJ1A0514 | R31056  | OPERATIONG SYSTEMS                        | 24       | 33       | 4       |
| 12BJ1A0514 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0514 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |
| 12BJ1A0515 | R31051  | COMPILER DESIGN                           | 15       | 31       | 4       |
| 12BJ1A0515 | R31052  | COMPUTER NETWORKS                         | 17       | 28       | 4       |
| 12BJ1A0515 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 36       | 4       |
| 12BJ1A0515 | R31054  | COMPUTER GRAPHICS                         | 19       | 43       | 4       |
| 12BJ1A0515 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 11       | 0       |
| 12BJ1A0515 | R31056  | OPERATIONG SYSTEMS                        | 18       | 26       | 4       |
| 12BJ1A0515 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0515 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 43       | 2       |
| 12BJ1A0516 | R31051  | COMPILER DESIGN                           | 19       | 36       | 4       |
| 12BJ1A0516 | R31052  | COMPUTER NETWORKS                         | 21       | 53       | 4       |
| 12BJ1A0516 | R31053  | ADVANCED DATA STRUCTURES                  | 20       | 40       | 4       |
| 12BJ1A0516 | R31054  | COMPUTER GRAPHICS                         | 20       | 26       | 4       |
| 12BJ1A0516 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 8        | 0       |
| 12BJ1A0516 | R31056  | OPERATIONG SYSTEMS                        | 21       | 31       | 4       |
| 12BJ1A0516 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0516 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 48       | 2       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0517 | R31051  | COMPILER DESIGN                           | 20       | 31       | 4       |
| 12BJ1A0517 | R31052  | COMPUTER NETWORKS                         | 23       | 39       | 4       |
| 12BJ1A0517 | R31053  | ADVANCED DATA STRUCTURES                  | 19       | 32       | 4       |
| 12BJ1A0517 | R31054  | COMPUTER GRAPHICS                         | 16       | 36       | 4       |
| 12BJ1A0517 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 48       | 4       |
| 12BJ1A0517 | R31056  | OPERATIONG SYSTEMS                        | 19       | 35       | 4       |
| 12BJ1A0517 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 46       | 2       |
| 12BJ1A0517 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 45       | 2       |
| 12BJ1A0518 | R31051  | COMPILER DESIGN                           | 22       | 26       | 4       |
| 12BJ1A0518 | R31052  | COMPUTER NETWORKS                         | 22       | 31       | 4       |
| 12BJ1A0518 | R31053  | ADVANCED DATA STRUCTURES                  | 24       | 26       | 4       |
| 12BJ1A0518 | R31054  | COMPUTER GRAPHICS                         | 24       | 35       | 4       |
| 12BJ1A0518 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 25       | 32       | 4       |
| 12BJ1A0518 | R31056  | OPERATIONG SYSTEMS                        | 25       | 34       | 4       |
| 12BJ1A0518 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 49       | 2       |
| 12BJ1A0518 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 45       | 2       |
| 12BJ1A0519 | R31051  | COMPILER DESIGN                           | 15       | 32       | 4       |
| 12BJ1A0519 | R31052  | COMPUTER NETWORKS                         | 16       | 34       | 4       |
| 12BJ1A0519 | R31053  | ADVANCED DATA STRUCTURES                  | 19       | 47       | 4       |
| 12BJ1A0519 | R31054  | COMPUTER GRAPHICS                         | 15       | 8        | 0       |
| 12BJ1A0519 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 15       | 26       | 4       |
| 12BJ1A0519 | R31056  | OPERATIONG SYSTEMS                        | 17       | 26       | 4       |
| 12BJ1A0519 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 45       | 2       |
| 12BJ1A0519 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0520 | R31051  | COMPILER DESIGN                           | 11       | 15       | 0       |
| 12BJ1A0520 | R31052  | COMPUTER NETWORKS                         | 17       | 58       | 4       |
| 12BJ1A0520 | R31053  | ADVANCED DATA STRUCTURES                  | 14       | 17       | 0       |
| 12BJ1A0520 | R31054  | COMPUTER GRAPHICS                         | 17       | 5        | 0       |
| 12BJ1A0520 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 2        | 0       |
| 12BJ1A0520 | R31056  | OPERATIONG SYSTEMS                        | 15       | 31       | 4       |
| 12BJ1A0520 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 40       | 2       |
| 12BJ1A0520 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A0521 | R31051  | COMPILER DESIGN                           | 21       | 41       | 4       |
| 12BJ1A0521 | R31052  | COMPUTER NETWORKS                         | 22       | 41       | 4       |
| 12BJ1A0521 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 49       | 4       |
| 12BJ1A0521 | R31054  | COMPUTER GRAPHICS                         | 24       | 41       | 4       |
| 12BJ1A0521 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 30       | 4       |
| 12BJ1A0521 | R31056  | OPERATIONG SYSTEMS                        | 21       | 41       | 4       |
| 12BJ1A0521 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0521 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 48       | 2       |
| 12BJ1A0522 | R31051  | COMPILER DESIGN                           | 19       | 34       | 4       |
| 12BJ1A0522 | R31052  | COMPUTER NETWORKS                         | 20       | 29       | 4       |
| 12BJ1A0522 | R31053  | ADVANCED DATA STRUCTURES                  | 19       | 29       | 4       |
| 12BJ1A0522 | R31054  | COMPUTER GRAPHICS                         | 19       | 56       | 4       |
| 12BJ1A0522 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 32       | 4       |
| 12BJ1A0522 | R31056  | OPERATIONG SYSTEMS                        | 19       | 34       | 4       |
| 12BJ1A0522 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A0522 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0523 | R31051  | COMPILER DESIGN                           | 16       | 35       | 4       |
| 12BJ1A0523 | R31052  | COMPUTER NETWORKS                         | 15       | 32       | 4       |
| 12BJ1A0523 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 45       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0523 | R31054  | COMPUTER GRAPHICS                         | 18       | 40       | 4       |
| 12BJ1A0523 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 9        | 0       |
| 12BJ1A0523 | R31056  | OPERATIONG SYSTEMS                        | 19       | 33       | 4       |
| 12BJ1A0523 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 47       | 2       |
| 12BJ1A0523 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 48       | 2       |
| 12BJ1A0524 | R31051  | COMPILER DESIGN                           | 21       | 31       | 4       |
| 12BJ1A0524 | R31052  | COMPUTER NETWORKS                         | 20       | 61       | 4       |
| 12BJ1A0524 | R31053  | ADVANCED DATA STRUCTURES                  | 20       | 42       | 4       |
| 12BJ1A0524 | R31054  | COMPUTER GRAPHICS                         | 20       | 40       | 4       |
| 12BJ1A0524 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 13       | 0       |
| 12BJ1A0524 | R31056  | OPERATIONG SYSTEMS                        | 17       | 44       | 4       |
| 12BJ1A0524 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0524 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A0525 | R31051  | COMPILER DESIGN                           | 21       | 36       | 4       |
| 12BJ1A0525 | R31052  | COMPUTER NETWORKS                         | 17       | 42       | 4       |
| 12BJ1A0525 | R31053  | ADVANCED DATA STRUCTURES                  | 23       | 39       | 4       |
| 12BJ1A0525 | R31054  | COMPUTER GRAPHICS                         | 19       | 47       | 4       |
| 12BJ1A0525 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 41       | 4       |
| 12BJ1A0525 | R31056  | OPERATIONG SYSTEMS                        | 22       | 38       | 4       |
| 12BJ1A0525 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 47       | 2       |
| 12BJ1A0525 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 47       | 2       |
| 12BJ1A0526 | R31051  | COMPILER DESIGN                           | 21       | 39       | 4       |
| 12BJ1A0526 | R31052  | COMPUTER NETWORKS                         | 25       | 41       | 4       |
| 12BJ1A0526 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 26       | 4       |
| 12BJ1A0526 | R31054  | COMPUTER GRAPHICS                         | 24       | 60       | 4       |
| 12BJ1A0526 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 23       | 26       | 4       |
| 12BJ1A0526 | R31056  | OPERATIONG SYSTEMS                        | 23       | 36       | 4       |
| 12BJ1A0526 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0526 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |
| 12BJ1A0527 | R31051  | COMPILER DESIGN                           | 16       | 36       | 4       |
| 12BJ1A0527 | R31052  | COMPUTER NETWORKS                         | 22       | 28       | 4       |
| 12BJ1A0527 | R31053  | ADVANCED DATA STRUCTURES                  | 21       | 38       | 4       |
| 12BJ1A0527 | R31054  | COMPUTER GRAPHICS                         | 16       | 40       | 4       |
| 12BJ1A0527 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 26       | 4       |
| 12BJ1A0527 | R31056  | OPERATIONG SYSTEMS                        | 24       | 27       | 4       |
| 12BJ1A0527 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 49       | 2       |
| 12BJ1A0527 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 47       | 2       |
| 12BJ1A0528 | R31051  | COMPILER DESIGN                           | 18       | 8        | 0       |
| 12BJ1A0528 | R31052  | COMPUTER NETWORKS                         | 18       | 48       | 4       |
| 12BJ1A0528 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 28       | 4       |
| 12BJ1A0528 | R31054  | COMPUTER GRAPHICS                         | 17       | 5        | 0       |
| 12BJ1A0528 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 2        | 0       |
| 12BJ1A0528 | R31056  | OPERATIONG SYSTEMS                        | 19       | 30       | 4       |
| 12BJ1A0528 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 43       | 2       |
| 12BJ1A0528 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 43       | 2       |
| 12BJ1A0529 | R31051  | COMPILER DESIGN                           | 14       | 7        | 0       |
| 12BJ1A0529 | R31052  | COMPUTER NETWORKS                         | 16       | 14       | 0       |
| 12BJ1A0529 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 1        | 0       |
| 12BJ1A0529 | R31054  | COMPUTER GRAPHICS                         | 14       | 33       | 4       |
| 12BJ1A0529 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 16       | 29       | 4       |
| 12BJ1A0529 | R31056  | OPERATIONG SYSTEMS                        | 18       | 13       | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0529 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 40       | 2       |
| 12BJ1A0529 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A0530 | R31051  | COMPILER DESIGN                           | 9        | 9        | 0       |
| 12BJ1A0530 | R31052  | COMPUTER NETWORKS                         | 5        | 7        | 0       |
| 12BJ1A0530 | R31053  | ADVANCED DATA STRUCTURES                  | 12       | 1        | 0       |
| 12BJ1A0530 | R31054  | COMPUTER GRAPHICS                         | 21       | 31       | 4       |
| 12BJ1A0530 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 14       | 9        | 0       |
| 12BJ1A0530 | R31056  | OPERATIONG SYSTEMS                        | 19       | 11       | 0       |
| 12BJ1A0530 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0530 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0531 | R31051  | COMPILER DESIGN                           | 16       | 17       | 0       |
| 12BJ1A0531 | R31052  | COMPUTER NETWORKS                         | 14       | 26       | 4       |
| 12BJ1A0531 | R31053  | ADVANCED DATA STRUCTURES                  | 10       | 30       | 4       |
| 12BJ1A0531 | R31054  | COMPUTER GRAPHICS                         | 13       | 4        | 0       |
| 12BJ1A0531 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 2        | 0       |
| 12BJ1A0531 | R31056  | OPERATIONG SYSTEMS                        | 11       | 5        | 0       |
| 12BJ1A0531 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 40       | 2       |
| 12BJ1A0531 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A0532 | R31051  | COMPILER DESIGN                           | 14       | 5        | 0       |
| 12BJ1A0532 | R31052  | COMPUTER NETWORKS                         | 16       | 26       | 4       |
| 12BJ1A0532 | R31053  | ADVANCED DATA STRUCTURES                  | 14       | 29       | 4       |
| 12BJ1A0532 | R31054  | COMPUTER GRAPHICS                         | 15       | 1        | 0       |
| 12BJ1A0532 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 0        | 0       |
| 12BJ1A0532 | R31056  | OPERATIONG SYSTEMS                        | 18       | 36       | 4       |
| 12BJ1A0532 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 43       | 2       |
| 12BJ1A0532 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A0533 | R31051  | COMPILER DESIGN                           | 22       | 47       | 4       |
| 12BJ1A0533 | R31052  | COMPUTER NETWORKS                         | 23       | 53       | 4       |
| 12BJ1A0533 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 32       | 4       |
| 12BJ1A0533 | R31054  | COMPUTER GRAPHICS                         | 25       | 30       | 4       |
| 12BJ1A0533 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 24       | 42       | 4       |
| 12BJ1A0533 | R31056  | OPERATIONG SYSTEMS                        | 25       | 30       | 4       |
| 12BJ1A0533 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 49       | 2       |
| 12BJ1A0533 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 49       | 2       |
| 12BJ1A0534 | R31051  | COMPILER DESIGN                           | 17       | 16       | 0       |
| 12BJ1A0534 | R31052  | COMPUTER NETWORKS                         | 19       | 26       | 4       |
| 12BJ1A0534 | R31053  | ADVANCED DATA STRUCTURES                  | 16       | 17       | 0       |
| 12BJ1A0534 | R31054  | COMPUTER GRAPHICS                         | 20       | 47       | 4       |
| 12BJ1A0534 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 26       | 4       |
| 12BJ1A0534 | R31056  | OPERATIONG SYSTEMS                        | 19       | 4        | 0       |
| 12BJ1A0534 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 44       | 2       |
| 12BJ1A0534 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A0535 | R31051  | COMPILER DESIGN                           | 16       | 31       | 4       |
| 12BJ1A0535 | R31052  | COMPUTER NETWORKS                         | 13       | 19       | 0       |
| 12BJ1A0535 | R31053  | ADVANCED DATA STRUCTURES                  | 16       | 32       | 4       |
| 12BJ1A0535 | R31054  | COMPUTER GRAPHICS                         | 14       | 0        | 0       |
| 12BJ1A0535 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 2        | 0       |
| 12BJ1A0535 | R31056  | OPERATIONG SYSTEMS                        | 17       | 9        | 0       |
| 12BJ1A0535 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 45       | 2       |
| 12BJ1A0535 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 45       | 2       |
| 12BJ1A0536 | R31051  | COMPILER DESIGN                           | 20       | 10       | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0536 | R31052  | COMPUTER NETWORKS                         | 15       | 39       | 4       |
| 12BJ1A0536 | R31053  | ADVANCED DATA STRUCTURES                  | 20       | 33       | 4       |
| 12BJ1A0536 | R31054  | COMPUTER GRAPHICS                         | 20       | 13       | 0       |
| 12BJ1A0536 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 5        | 0       |
| 12BJ1A0536 | R31056  | OPERATIONG SYSTEMS                        | 19       | 26       | 4       |
| 12BJ1A0536 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A0536 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 46       | 2       |
| 12BJ1A0537 | R31051  | COMPILER DESIGN                           | 15       | 10       | 0       |
| 12BJ1A0537 | R31052  | COMPUTER NETWORKS                         | 15       | 45       | 4       |
| 12BJ1A0537 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 28       | 4       |
| 12BJ1A0537 | R31054  | COMPUTER GRAPHICS                         | 17       | 40       | 4       |
| 12BJ1A0537 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 30       | 4       |
| 12BJ1A0537 | R31056  | OPERATIONG SYSTEMS                        | 17       | 30       | 4       |
| 12BJ1A0537 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0537 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 48       | 2       |
| 12BJ1A0538 | R31051  | COMPILER DESIGN                           | 17       | 10       | 0       |
| 12BJ1A0538 | R31052  | COMPUTER NETWORKS                         | 14       | 26       | 4       |
| 12BJ1A0538 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 10       | 0       |
| 12BJ1A0538 | R31054  | COMPUTER GRAPHICS                         | 19       | 27       | 4       |
| 12BJ1A0538 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 10       | 0       |
| 12BJ1A0538 | R31056  | OPERATIONG SYSTEMS                        | 18       | 26       | 4       |
| 12BJ1A0538 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 44       | 2       |
| 12BJ1A0538 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 44       | 2       |
| 12BJ1A0539 | R31051  | COMPILER DESIGN                           | 18       | 38       | 4       |
| 12BJ1A0539 | R31052  | COMPUTER NETWORKS                         | 25       | 38       | 4       |
| 12BJ1A0539 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 41       | 4       |
| 12BJ1A0539 | R31054  | COMPUTER GRAPHICS                         | 23       | 64       | 4       |
| 12BJ1A0539 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 25       | 31       | 4       |
| 12BJ1A0539 | R31056  | OPERATIONG SYSTEMS                        | 24       | 27       | 4       |
| 12BJ1A0539 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0539 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |
| 12BJ1A0540 | R31051  | COMPILER DESIGN                           | 7        | 9        | 0       |
| 12BJ1A0540 | R31052  | COMPUTER NETWORKS                         | 13       | 39       | 4       |
| 12BJ1A0540 | R31053  | ADVANCED DATA STRUCTURES                  | 6        | 8        | 0       |
| 12BJ1A0540 | R31054  | COMPUTER GRAPHICS                         | 17       | 5        | 0       |
| 12BJ1A0540 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 9        | 3        | 0       |
| 12BJ1A0540 | R31056  | OPERATIONG SYSTEMS                        | 13       | 20       | 0       |
| 12BJ1A0540 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 40       | 2       |
| 12BJ1A0540 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A0541 | R31051  | COMPILER DESIGN                           | 16       | 36       | 4       |
| 12BJ1A0541 | R31052  | COMPUTER NETWORKS                         | 16       | 32       | 4       |
| 12BJ1A0541 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 27       | 4       |
| 12BJ1A0541 | R31054  | COMPUTER GRAPHICS                         | 18       | 27       | 4       |
| 12BJ1A0541 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 33       | 4       |
| 12BJ1A0541 | R31056  | OPERATIONG SYSTEMS                        | 21       | 31       | 4       |
| 12BJ1A0541 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 45       | 2       |
| 12BJ1A0541 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0542 | R31051  | COMPILER DESIGN                           | 20       | 15       | 0       |
| 12BJ1A0542 | R31052  | COMPUTER NETWORKS                         | 20       | 28       | 4       |
| 12BJ1A0542 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 29       | 4       |
| 12BJ1A0542 | R31054  | COMPUTER GRAPHICS                         | 15       | 48       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0542 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 26       | 4       |
| 12BJ1A0542 | R31056  | OPERATIONG SYSTEMS                        | 18       | 29       | 4       |
| 12BJ1A0542 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0542 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0543 | R31051  | COMPILER DESIGN                           | 13       | 22       | 0       |
| 12BJ1A0543 | R31052  | COMPUTER NETWORKS                         | 18       | 15       | 0       |
| 12BJ1A0543 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 28       | 4       |
| 12BJ1A0543 | R31054  | COMPUTER GRAPHICS                         | 18       | 13       | 0       |
| 12BJ1A0543 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 2        | 0       |
| 12BJ1A0543 | R31056  | OPERATIONG SYSTEMS                        | 18       | 5        | 0       |
| 12BJ1A0543 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 44       | 2       |
| 12BJ1A0543 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0544 | R31051  | COMPILER DESIGN                           | 22       | 31       | 4       |
| 12BJ1A0544 | R31052  | COMPUTER NETWORKS                         | 25       | 61       | 4       |
| 12BJ1A0544 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 54       | 4       |
| 12BJ1A0544 | R31054  | COMPUTER GRAPHICS                         | 22       | 15       | 0       |
| 12BJ1A0544 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 24       | 15       | 0       |
| 12BJ1A0544 | R31056  | OPERATIONG SYSTEMS                        | 25       | 35       | 4       |
| 12BJ1A0544 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0544 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |
| 12BJ1A0545 | R31051  | COMPILER DESIGN                           | 18       | 31       | 4       |
| 12BJ1A0545 | R31052  | COMPUTER NETWORKS                         | 12       | 34       | 4       |
| 12BJ1A0545 | R31053  | ADVANCED DATA STRUCTURES                  | 20       | 27       | 4       |
| 12BJ1A0545 | R31054  | COMPUTER GRAPHICS                         | 21       | 12       | 0       |
| 12BJ1A0545 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 26       | 4       |
| 12BJ1A0545 | R31056  | OPERATIONG SYSTEMS                        | 21       | 30       | 4       |
| 12BJ1A0545 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A0545 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0546 | R31051  | COMPILER DESIGN                           | 17       | 9        | 0       |
| 12BJ1A0546 | R31052  | COMPUTER NETWORKS                         | 16       | 18       | 0       |
| 12BJ1A0546 | R31053  | ADVANCED DATA STRUCTURES                  | 20       | 12       | 0       |
| 12BJ1A0546 | R31054  | COMPUTER GRAPHICS                         | 19       | 15       | 0       |
| 12BJ1A0546 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 2        | 0       |
| 12BJ1A0546 | R31056  | OPERATIONG SYSTEMS                        | 21       | 8        | 0       |
| 12BJ1A0546 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 44       | 2       |
| 12BJ1A0546 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A0547 | R31051  | COMPILER DESIGN                           | 16       | 30       | 4       |
| 12BJ1A0547 | R31052  | COMPUTER NETWORKS                         | 13       | 18       | 0       |
| 12BJ1A0547 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 26       | 4       |
| 12BJ1A0547 | R31054  | COMPUTER GRAPHICS                         | 20       | 26       | 4       |
| 12BJ1A0547 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 7        | 0       |
| 12BJ1A0547 | R31056  | OPERATIONG SYSTEMS                        | 23       | 13       | 0       |
| 12BJ1A0547 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 44       | 2       |
| 12BJ1A0547 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0549 | R31051  | COMPILER DESIGN                           | 19       | 26       | 4       |
| 12BJ1A0549 | R31052  | COMPUTER NETWORKS                         | 16       | 6        | 0       |
| 12BJ1A0549 | R31053  | ADVANCED DATA STRUCTURES                  | 20       | 31       | 4       |
| 12BJ1A0549 | R31054  | COMPUTER GRAPHICS                         | 19       | 31       | 4       |
| 12BJ1A0549 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 1        | 0       |
| 12BJ1A0549 | R31056  | OPERATIONG SYSTEMS                        | 21       | 19       | 0       |
| 12BJ1A0549 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 47       | 2       |



| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0549 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0550 | R31051  | COMPILER DESIGN                           | 21       | 39       | 4       |
| 12BJ1A0550 | R31052  | COMPUTER NETWORKS                         | 18       | 45       | 4       |
| 12BJ1A0550 | R31053  | ADVANCED DATA STRUCTURES                  | 23       | 33       | 4       |
| 12BJ1A0550 | R31054  | COMPUTER GRAPHICS                         | 19       | 37       | 4       |
| 12BJ1A0550 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 25       | 33       | 4       |
| 12BJ1A0550 | R31056  | OPERATIONG SYSTEMS                        | 23       | 31       | 4       |
| 12BJ1A0550 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0550 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 48       | 2       |
| 12BJ1A0551 | R31051  | COMPILER DESIGN                           | 19       | 31       | 4       |
| 12BJ1A0551 | R31052  | COMPUTER NETWORKS                         | 20       | 43       | 4       |
| 12BJ1A0551 | R31053  | ADVANCED DATA STRUCTURES                  | 23       | 17       | 0       |
| 12BJ1A0551 | R31054  | COMPUTER GRAPHICS                         | 22       | 39       | 4       |
| 12BJ1A0551 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 34       | 4       |
| 12BJ1A0551 | R31056  | OPERATIONG SYSTEMS                        | 22       | 29       | 4       |
| 12BJ1A0551 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 48       | 2       |
| 12BJ1A0551 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 47       | 2       |
| 12BJ1A0552 | R31051  | COMPILER DESIGN                           | 15       | 7        | 0       |
| 12BJ1A0552 | R31052  | COMPUTER NETWORKS                         | 17       | 9        | 0       |
| 12BJ1A0552 | R31053  | ADVANCED DATA STRUCTURES                  | 24       | 14       | 0       |
| 12BJ1A0552 | R31054  | COMPUTER GRAPHICS                         | 22       | 26       | 4       |
| 12BJ1A0552 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 23       | 30       | 4       |
| 12BJ1A0552 | R31056  | OPERATIONG SYSTEMS                        | 18       | 16       | 0       |
| 12BJ1A0552 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 45       | 2       |
| 12BJ1A0552 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 44       | 2       |
| 12BJ1A0553 | R31051  | COMPILER DESIGN                           | 16       | 11       | 0       |
| 12BJ1A0553 | R31052  | COMPUTER NETWORKS                         | 12       | 36       | 4       |
| 12BJ1A0553 | R31053  | ADVANCED DATA STRUCTURES                  | 20       | 28       | 4       |
| 12BJ1A0553 | R31054  | COMPUTER GRAPHICS                         | 18       | 46       | 4       |
| 12BJ1A0553 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 23       | 6        | 0       |
| 12BJ1A0553 | R31056  | OPERATIONG SYSTEMS                        | 21       | 26       | 4       |
| 12BJ1A0553 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0553 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 43       | 2       |
| 12BJ1A0554 | R31051  | COMPILER DESIGN                           | 18       | 7        | 0       |
| 12BJ1A0554 | R31052  | COMPUTER NETWORKS                         | 19       | 11       | 0       |
| 12BJ1A0554 | R31053  | ADVANCED DATA STRUCTURES                  | 16       | 10       | 0       |
| 12BJ1A0554 | R31054  | COMPUTER GRAPHICS                         | 20       | 15       | 0       |
| 12BJ1A0554 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 9        | 0       |
| 12BJ1A0554 | R31056  | OPERATIONG SYSTEMS                        | 16       | 18       | 0       |
| 12BJ1A0554 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0554 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0555 | R31051  | COMPILER DESIGN                           | 18       | 4        | 0       |
| 12BJ1A0555 | R31052  | COMPUTER NETWORKS                         | 14       | 10       | 0       |
| 12BJ1A0555 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 12       | 0       |
| 12BJ1A0555 | R31054  | COMPUTER GRAPHICS                         | 21       | 7        | 0       |
| 12BJ1A0555 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 9        | 0       |
| 12BJ1A0555 | R31056  | OPERATIONG SYSTEMS                        | 16       | 11       | 0       |
| 12BJ1A0555 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 45       | 2       |
| 12BJ1A0555 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 46       | 2       |
| 12BJ1A0556 | R31051  | COMPILER DESIGN                           | 16       | 27       | 4       |
| 12BJ1A0556 | R31052  | COMPUTER NETWORKS                         | 4        | 20       | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0556 | R31053  | ADVANCED DATA STRUCTURES                  | 14       | 32       | 4       |
| 12BJ1A0556 | R31054  | COMPUTER GRAPHICS                         | 14       | 0        | 0       |
| 12BJ1A0556 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 12       | 2        | 0       |
| 12BJ1A0556 | R31056  | OPERATIONG SYSTEMS                        | 15       | 5        | 0       |
| 12BJ1A0556 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 12       | 35       | 2       |
| 12BJ1A0556 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 44       | 2       |
| 12BJ1A0557 | R31051  | COMPILER DESIGN                           | 22       | 31       | 4       |
| 12BJ1A0557 | R31052  | COMPUTER NETWORKS                         | 22       | 63       | 4       |
| 12BJ1A0557 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 51       | 4       |
| 12BJ1A0557 | R31054  | COMPUTER GRAPHICS                         | 23       | 9        | 0       |
| 12BJ1A0557 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 11       | 0       |
| 12BJ1A0557 | R31056  | OPERATIONG SYSTEMS                        | 22       | 33       | 4       |
| 12BJ1A0557 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0557 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 47       | 2       |
| 12BJ1A0558 | R31051  | COMPILER DESIGN                           | 17       | 9        | 0       |
| 12BJ1A0558 | R31052  | COMPUTER NETWORKS                         | 17       | 12       | 0       |
| 12BJ1A0558 | R31053  | ADVANCED DATA STRUCTURES                  | 14       | 5        | 0       |
| 12BJ1A0558 | R31054  | COMPUTER GRAPHICS                         | 17       | 10       | 0       |
| 12BJ1A0558 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 12       | 0       |
| 12BJ1A0558 | R31056  | OPERATIONG SYSTEMS                        | 14       | 2        | 0       |
| 12BJ1A0558 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 45       | 2       |
| 12BJ1A0558 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A0560 | R31051  | COMPILER DESIGN                           | 15       | 10       | 0       |
| 12BJ1A0560 | R31052  | COMPUTER NETWORKS                         | 15       | 29       | 4       |
| 12BJ1A0560 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 18       | 0       |
| 12BJ1A0560 | R31054  | COMPUTER GRAPHICS                         | 20       | 8        | 0       |
| 12BJ1A0560 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 14       | 0       |
| 12BJ1A0560 | R31056  | OPERATIONG SYSTEMS                        | 12       | 12       | 0       |
| 12BJ1A0560 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0560 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A0561 | R31051  | COMPILER DESIGN                           | 16       | 31       | 4       |
| 12BJ1A0561 | R31052  | COMPUTER NETWORKS                         | 19       | 34       | 4       |
| 12BJ1A0561 | R31053  | ADVANCED DATA STRUCTURES                  | 16       | 34       | 4       |
| 12BJ1A0561 | R31054  | COMPUTER GRAPHICS                         | 16       | 13       | 0       |
| 12BJ1A0561 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 4        | 0       |
| 12BJ1A0561 | R31056  | OPERATIONG SYSTEMS                        | 15       | 15       | 0       |
| 12BJ1A0561 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 44       | 2       |
| 12BJ1A0561 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A0562 | R31051  | COMPILER DESIGN                           | 22       | 31       | 4       |
| 12BJ1A0562 | R31052  | COMPUTER NETWORKS                         | 20       | 46       | 4       |
| 12BJ1A0562 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 56       | 4       |
| 12BJ1A0562 | R31054  | COMPUTER GRAPHICS                         | 21       | 26       | 4       |
| 12BJ1A0562 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 0        | 0       |
| 12BJ1A0562 | R31056  | OPERATIONG SYSTEMS                        | 22       | 37       | 4       |
| 12BJ1A0562 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 47       | 2       |
| 12BJ1A0562 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 47       | 2       |
| 12BJ1A0563 | R31051  | COMPILER DESIGN                           | 15       | 9        | 0       |
| 12BJ1A0563 | R31052  | COMPUTER NETWORKS                         | 17       | 36       | 4       |
| 12BJ1A0563 | R31053  | ADVANCED DATA STRUCTURES                  | 14       | 0        | 0       |
| 12BJ1A0563 | R31054  | COMPUTER GRAPHICS                         | 15       | 34       | 4       |
| 12BJ1A0563 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 32       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0563 | R31056  | OPERATIONG SYSTEMS                        | 16       | 30       | 4       |
| 12BJ1A0563 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 40       | 2       |
| 12BJ1A0563 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 42       | 2       |
| 12BJ1A0564 | R31051  | COMPILER DESIGN                           | 23       | 47       | 4       |
| 12BJ1A0564 | R31052  | COMPUTER NETWORKS                         | 23       | 36       | 4       |
| 12BJ1A0564 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 45       | 4       |
| 12BJ1A0564 | R31054  | COMPUTER GRAPHICS                         | 25       | 40       | 4       |
| 12BJ1A0564 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 23       | 55       | 4       |
| 12BJ1A0564 | R31056  | OPERATIONG SYSTEMS                        | 24       | 60       | 4       |
| 12BJ1A0564 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0564 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |
| 12BJ1A0565 | R31051  | COMPILER DESIGN                           | 17       | 20       | 0       |
| 12BJ1A0565 | R31052  | COMPUTER NETWORKS                         | 16       | 26       | 4       |
| 12BJ1A0565 | R31053  | ADVANCED DATA STRUCTURES                  | 16       | 44       | 4       |
| 12BJ1A0565 | R31054  | COMPUTER GRAPHICS                         | 20       | 13       | 0       |
| 12BJ1A0565 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 5        | 0       |
| 12BJ1A0565 | R31056  | OPERATIONG SYSTEMS                        | 17       | 26       | 4       |
| 12BJ1A0565 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 45       | 2       |
| 12BJ1A0565 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0566 | R31051  | COMPILER DESIGN                           | 17       | 39       | 4       |
| 12BJ1A0566 | R31052  | COMPUTER NETWORKS                         | 18       | 63       | 4       |
| 12BJ1A0566 | R31053  | ADVANCED DATA STRUCTURES                  | 16       | 48       | 4       |
| 12BJ1A0566 | R31054  | COMPUTER GRAPHICS                         | 17       | 31       | 4       |
| 12BJ1A0566 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 26       | 4       |
| 12BJ1A0566 | R31056  | OPERATIONG SYSTEMS                        | 18       | 42       | 4       |
| 12BJ1A0566 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 45       | 2       |
| 12BJ1A0566 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0567 | R31051  | COMPILER DESIGN                           | 22       | 40       | 4       |
| 12BJ1A0567 | R31052  | COMPUTER NETWORKS                         | 25       | 48       | 4       |
| 12BJ1A0567 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 50       | 4       |
| 12BJ1A0567 | R31054  | COMPUTER GRAPHICS                         | 24       | 47       | 4       |
| 12BJ1A0567 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 35       | 4       |
| 12BJ1A0567 | R31056  | OPERATIONG SYSTEMS                        | 25       | 37       | 4       |
| 12BJ1A0567 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 48       | 2       |
| 12BJ1A0567 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 49       | 2       |
| 12BJ1A0568 | R31051  | COMPILER DESIGN                           | 20       | 19       | 0       |
| 12BJ1A0568 | R31052  | COMPUTER NETWORKS                         | 20       | 27       | 4       |
| 12BJ1A0568 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 36       | 4       |
| 12BJ1A0568 | R31054  | COMPUTER GRAPHICS                         | 24       | 32       | 4       |
| 12BJ1A0568 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 33       | 4       |
| 12BJ1A0568 | R31056  | OPERATIONG SYSTEMS                        | 17       | 39       | 4       |
| 12BJ1A0568 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 45       | 2       |
| 12BJ1A0568 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0569 | R31051  | COMPILER DESIGN                           | 23       | 53       | 4       |
| 12BJ1A0569 | R31052  | COMPUTER NETWORKS                         | 25       | 31       | 4       |
| 12BJ1A0569 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 45       | 4       |
| 12BJ1A0569 | R31054  | COMPUTER GRAPHICS                         | 23       | 52       | 4       |
| 12BJ1A0569 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 39       | 4       |
| 12BJ1A0569 | R31056  | OPERATIONG SYSTEMS                        | 24       | 35       | 4       |
| 12BJ1A0569 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0569 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0570 | R31051  | COMPILER DESIGN                           | 15       | 15       | 0       |
| 12BJ1A0570 | R31052  | COMPUTER NETWORKS                         | 15       | 26       | 4       |
| 12BJ1A0570 | R31053  | ADVANCED DATA STRUCTURES                  | 14       | 35       | 4       |
| 12BJ1A0570 | R31054  | COMPUTER GRAPHICS                         | 14       | 13       | 0       |
| 12BJ1A0570 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 16       | 0        | 0       |
| 12BJ1A0570 | R31056  | OPERATIONG SYSTEMS                        | 20       | 27       | 4       |
| 12BJ1A0570 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0570 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0571 | R31051  | COMPILER DESIGN                           | 22       | 34       | 4       |
| 12BJ1A0571 | R31052  | COMPUTER NETWORKS                         | 24       | 39       | 4       |
| 12BJ1A0571 | R31053  | ADVANCED DATA STRUCTURES                  | 24       | 50       | 4       |
| 12BJ1A0571 | R31054  | COMPUTER GRAPHICS                         | 22       | 40       | 4       |
| 12BJ1A0571 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 35       | 4       |
| 12BJ1A0571 | R31056  | OPERATIONG SYSTEMS                        | 24       | 35       | 4       |
| 12BJ1A0571 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0571 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |
| 12BJ1A0573 | R31051  | COMPILER DESIGN                           | 19       | 18       | 0       |
| 12BJ1A0573 | R31052  | COMPUTER NETWORKS                         | 18       | 26       | 4       |
| 12BJ1A0573 | R31053  | ADVANCED DATA STRUCTURES                  | 20       | 28       | 4       |
| 12BJ1A0573 | R31054  | COMPUTER GRAPHICS                         | 19       | 14       | 0       |
| 12BJ1A0573 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 30       | 4       |
| 12BJ1A0573 | R31056  | OPERATIONG SYSTEMS                        | 22       | 28       | 4       |
| 12BJ1A0573 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A0573 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0574 | R31051  | COMPILER DESIGN                           | 12       | 45       | 4       |
| 12BJ1A0574 | R31052  | COMPUTER NETWORKS                         | 19       | 41       | 4       |
| 12BJ1A0574 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 53       | 4       |
| 12BJ1A0574 | R31054  | COMPUTER GRAPHICS                         | 12       | 52       | 4       |
| 12BJ1A0574 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 11       | 0       |
| 12BJ1A0574 | R31056  | OPERATIONG SYSTEMS                        | 16       | 16       | 0       |
| 12BJ1A0574 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 47       | 2       |
| 12BJ1A0574 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 47       | 2       |
| 12BJ1A0575 | R31051  | COMPILER DESIGN                           | 20       | 43       | 4       |
| 12BJ1A0575 | R31052  | COMPUTER NETWORKS                         | 20       | 32       | 4       |
| 12BJ1A0575 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 48       | 4       |
| 12BJ1A0575 | R31054  | COMPUTER GRAPHICS                         | 21       | 10       | 0       |
| 12BJ1A0575 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 2        | 0       |
| 12BJ1A0575 | R31056  | OPERATIONG SYSTEMS                        | 23       | 49       | 4       |
| 12BJ1A0575 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 46       | 2       |
| 12BJ1A0575 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0576 | R31051  | COMPILER DESIGN                           | 21       | 36       | 4       |
| 12BJ1A0576 | R31052  | COMPUTER NETWORKS                         | 21       | 35       | 4       |
| 12BJ1A0576 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 31       | 4       |
| 12BJ1A0576 | R31054  | COMPUTER GRAPHICS                         | 21       | 35       | 4       |
| 12BJ1A0576 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 23       | 38       | 4       |
| 12BJ1A0576 | R31056  | OPERATIONG SYSTEMS                        | 21       | 30       | 4       |
| 12BJ1A0576 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A0576 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 47       | 2       |
| 12BJ1A0577 | R31051  | COMPILER DESIGN                           | 19       | 17       | 0       |
| 12BJ1A0577 | R31052  | COMPUTER NETWORKS                         | 18       | 32       | 4       |
| 12BJ1A0577 | R31053  | ADVANCED DATA STRUCTURES                  | 21       | 26       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0577 | R31054  | COMPUTER GRAPHICS                         | 19       | 9        | 0       |
| 12BJ1A0577 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 26       | 4       |
| 12BJ1A0577 | R31056  | OPERATIONG SYSTEMS                        | 21       | 26       | 4       |
| 12BJ1A0577 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 46       | 2       |
| 12BJ1A0577 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 46       | 2       |
| 12BJ1A0578 | R31051  | COMPILER DESIGN                           | 21       | 45       | 4       |
| 12BJ1A0578 | R31052  | COMPUTER NETWORKS                         | 24       | 32       | 4       |
| 12BJ1A0578 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 49       | 4       |
| 12BJ1A0578 | R31054  | COMPUTER GRAPHICS                         | 23       | 36       | 4       |
| 12BJ1A0578 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 47       | 4       |
| 12BJ1A0578 | R31056  | OPERATIONG SYSTEMS                        | 24       | 37       | 4       |
| 12BJ1A0578 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 41       | 2       |
| 12BJ1A0578 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A0579 | R31051  | COMPILER DESIGN                           | 15       | 16       | 0       |
| 12BJ1A0579 | R31052  | COMPUTER NETWORKS                         | 16       | 11       | 0       |
| 12BJ1A0579 | R31053  | ADVANCED DATA STRUCTURES                  | 16       | 32       | 4       |
| 12BJ1A0579 | R31054  | COMPUTER GRAPHICS                         | 15       | 8        | 0       |
| 12BJ1A0579 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 0        | 0       |
| 12BJ1A0579 | R31056  | OPERATIONG SYSTEMS                        | 17       | 18       | 0       |
| 12BJ1A0579 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 43       | 2       |
| 12BJ1A0579 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A0580 | R31051  | COMPILER DESIGN                           | 16       | 11       | 0       |
| 12BJ1A0580 | R31052  | COMPUTER NETWORKS                         | 13       | 35       | 4       |
| 12BJ1A0580 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 27       | 4       |
| 12BJ1A0580 | R31054  | COMPUTER GRAPHICS                         | 13       | 40       | 4       |
| 12BJ1A0580 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 26       | 4       |
| 12BJ1A0580 | R31056  | OPERATIONG SYSTEMS                        | 19       | 32       | 4       |
| 12BJ1A0580 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 43       | 2       |
| 12BJ1A0580 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 43       | 2       |
| 12BJ1A0581 | R31051  | COMPILER DESIGN                           | 20       | 44       | 4       |
| 12BJ1A0581 | R31052  | COMPUTER NETWORKS                         | 16       | 37       | 4       |
| 12BJ1A0581 | R31053  | ADVANCED DATA STRUCTURES                  | 21       | 41       | 4       |
| 12BJ1A0581 | R31054  | COMPUTER GRAPHICS                         | 18       | 40       | 4       |
| 12BJ1A0581 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 14       | 0       |
| 12BJ1A0581 | R31056  | OPERATIONG SYSTEMS                        | 22       | 45       | 4       |
| 12BJ1A0581 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0581 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 49       | 2       |
| 12BJ1A0582 | R31051  | COMPILER DESIGN                           | 22       | 39       | 4       |
| 12BJ1A0582 | R31052  | COMPUTER NETWORKS                         | 18       | 26       | 4       |
| 12BJ1A0582 | R31053  | ADVANCED DATA STRUCTURES                  | 21       | 40       | 4       |
| 12BJ1A0582 | R31054  | COMPUTER GRAPHICS                         | 21       | 35       | 4       |
| 12BJ1A0582 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 15       | 0       |
| 12BJ1A0582 | R31056  | OPERATIONG SYSTEMS                        | 22       | 26       | 4       |
| 12BJ1A0582 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 46       | 2       |
| 12BJ1A0582 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 46       | 2       |
| 12BJ1A0583 | R31051  | COMPILER DESIGN                           | 14       | 16       | 0       |
| 12BJ1A0583 | R31052  | COMPUTER NETWORKS                         | 15       | 35       | 4       |
| 12BJ1A0583 | R31053  | ADVANCED DATA STRUCTURES                  | 9        | 41       | 4       |
| 12BJ1A0583 | R31054  | COMPUTER GRAPHICS                         | 16       | 3        | 0       |
| 12BJ1A0583 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 8        | 0       |
| 12BJ1A0583 | R31056  | OPERATIONG SYSTEMS                        | 19       | 27       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0583 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 44       | 2       |
| 12BJ1A0583 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A0584 | R31051  | COMPILER DESIGN                           | 17       | 10       | 0       |
| 12BJ1A0584 | R31052  | COMPUTER NETWORKS                         | 18       | 34       | 4       |
| 12BJ1A0584 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 42       | 4       |
| 12BJ1A0584 | R31054  | COMPUTER GRAPHICS                         | 21       | 31       | 4       |
| 12BJ1A0584 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 30       | 4       |
| 12BJ1A0584 | R31056  | OPERATIONG SYSTEMS                        | 21       | 30       | 4       |
| 12BJ1A0584 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 46       | 2       |
| 12BJ1A0584 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0585 | R31051  | COMPILER DESIGN                           | 19       | 7        | 0       |
| 12BJ1A0585 | R31052  | COMPUTER NETWORKS                         | 21       | 37       | 4       |
| 12BJ1A0585 | R31053  | ADVANCED DATA STRUCTURES                  | 19       | 26       | 4       |
| 12BJ1A0585 | R31054  | COMPUTER GRAPHICS                         | 22       | 18       | 0       |
| 12BJ1A0585 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 26       | 4       |
| 12BJ1A0585 | R31056  | OPERATIONG SYSTEMS                        | 22       | 31       | 4       |
| 12BJ1A0585 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A0585 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0586 | R31051  | COMPILER DESIGN                           | 21       | 43       | 4       |
| 12BJ1A0586 | R31052  | COMPUTER NETWORKS                         | 21       | 31       | 4       |
| 12BJ1A0586 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 48       | 4       |
| 12BJ1A0586 | R31054  | COMPUTER GRAPHICS                         | 25       | 35       | 4       |
| 12BJ1A0586 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 26       | 4       |
| 12BJ1A0586 | R31056  | OPERATIONG SYSTEMS                        | 21       | 28       | 4       |
| 12BJ1A0586 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0586 | R31058  | ADVANCED DATA STRUCTURES LAB              | 24       | 48       | 2       |
| 12BJ1A0587 | R31051  | COMPILER DESIGN                           | 20       | 29       | 4       |
| 12BJ1A0587 | R31052  | COMPUTER NETWORKS                         | 23       | 54       | 4       |
| 12BJ1A0587 | R31053  | ADVANCED DATA STRUCTURES                  | 23       | 40       | 4       |
| 12BJ1A0587 | R31054  | COMPUTER GRAPHICS                         | 24       | 26       | 4       |
| 12BJ1A0587 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 32       | 4       |
| 12BJ1A0587 | R31056  | OPERATIONG SYSTEMS                        | 21       | 26       | 4       |
| 12BJ1A0587 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 49       | 2       |
| 12BJ1A0587 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 49       | 2       |
| 12BJ1A0588 | R31051  | COMPILER DESIGN                           | 21       | 39       | 4       |
| 12BJ1A0588 | R31052  | COMPUTER NETWORKS                         | 16       | 50       | 4       |
| 12BJ1A0588 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 35       | 4       |
| 12BJ1A0588 | R31054  | COMPUTER GRAPHICS                         | 19       | 30       | 4       |
| 12BJ1A0588 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 20       | 40       | 4       |
| 12BJ1A0588 | R31056  | OPERATIONG SYSTEMS                        | 18       | 30       | 4       |
| 12BJ1A0588 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0588 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A0589 | R31051  | COMPILER DESIGN                           | 18       | 13       | 0       |
| 12BJ1A0589 | R31052  | COMPUTER NETWORKS                         | 19       | 33       | 4       |
| 12BJ1A0589 | R31053  | ADVANCED DATA STRUCTURES                  | 14       | 41       | 4       |
| 12BJ1A0589 | R31054  | COMPUTER GRAPHICS                         | 21       | 26       | 4       |
| 12BJ1A0589 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 18       | 0       |
| 12BJ1A0589 | R31056  | OPERATIONG SYSTEMS                        | 22       | 28       | 4       |
| 12BJ1A0589 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 45       | 2       |
| 12BJ1A0589 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 45       | 2       |
| 12BJ1A0590 | R31051  | COMPILER DESIGN                           | 21       | 40       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0590 | R31052  | COMPUTER NETWORKS                         | 23       | 34       | 4       |
| 12BJ1A0590 | R31053  | ADVANCED DATA STRUCTURES                  | 25       | 46       | 4       |
| 12BJ1A0590 | R31054  | COMPUTER GRAPHICS                         | 24       | 37       | 4       |
| 12BJ1A0590 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 30       | 4       |
| 12BJ1A0590 | R31056  | OPERATIONG SYSTEMS                        | 25       | 27       | 4       |
| 12BJ1A0590 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 25       | 50       | 2       |
| 12BJ1A0590 | R31058  | ADVANCED DATA STRUCTURES LAB              | 25       | 50       | 2       |
| 12BJ1A0591 | R31051  | COMPILER DESIGN                           | 15       | 2        | 0       |
| 12BJ1A0591 | R31052  | COMPUTER NETWORKS                         | 12       | 14       | 0       |
| 12BJ1A0591 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 2        | 0       |
| 12BJ1A0591 | R31054  | COMPUTER GRAPHICS                         | 12       | 8        | 0       |
| 12BJ1A0591 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 12       | 2        | 0       |
| 12BJ1A0591 | R31056  | OPERATIONG SYSTEMS                        | 14       | 9        | 0       |
| 12BJ1A0591 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | -1       | 0       |
| 12BJ1A0591 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | -1       | 0       |
| 12BJ1A0592 | R31051  | COMPILER DESIGN                           | 21       | 32       | 4       |
| 12BJ1A0592 | R31052  | COMPUTER NETWORKS                         | 20       | 33       | 4       |
| 12BJ1A0592 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 37       | 4       |
| 12BJ1A0592 | R31054  | COMPUTER GRAPHICS                         | 24       | 35       | 4       |
| 12BJ1A0592 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 33       | 4       |
| 12BJ1A0592 | R31056  | OPERATIONG SYSTEMS                        | 23       | 26       | 4       |
| 12BJ1A0592 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A0592 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 46       | 2       |
| 12BJ1A0594 | R31051  | COMPILER DESIGN                           | 18       | 7        | 0       |
| 12BJ1A0594 | R31052  | COMPUTER NETWORKS                         | 12       | 9        | 0       |
| 12BJ1A0594 | R31053  | ADVANCED DATA STRUCTURES                  | 11       | 12       | 0       |
| 12BJ1A0594 | R31054  | COMPUTER GRAPHICS                         | 11       | 2        | 0       |
| 12BJ1A0594 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 3        | 0       |
| 12BJ1A0594 | R31056  | OPERATIONG SYSTEMS                        | 16       | 5        | 0       |
| 12BJ1A0594 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 42       | 2       |
| 12BJ1A0594 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 43       | 2       |
| 12BJ1A0596 | R31051  | COMPILER DESIGN                           | 17       | 9        | 0       |
| 12BJ1A0596 | R31052  | COMPUTER NETWORKS                         | 15       | 20       | 0       |
| 12BJ1A0596 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 30       | 4       |
| 12BJ1A0596 | R31054  | COMPUTER GRAPHICS                         | 14       | 3        | 0       |
| 12BJ1A0596 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 4        | 0       |
| 12BJ1A0596 | R31056  | OPERATIONG SYSTEMS                        | 15       | 12       | 0       |
| 12BJ1A0596 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A0596 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 45       | 2       |
| 12BJ1A0597 | R31051  | COMPILER DESIGN                           | 18       | 15       | 0       |
| 12BJ1A0597 | R31052  | COMPUTER NETWORKS                         | 22       | 28       | 4       |
| 12BJ1A0597 | R31053  | ADVANCED DATA STRUCTURES                  | 22       | 38       | 4       |
| 12BJ1A0597 | R31054  | COMPUTER GRAPHICS                         | 22       | 5        | 0       |
| 12BJ1A0597 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 24       | 6        | 0       |
| 12BJ1A0597 | R31056  | OPERATIONG SYSTEMS                        | 22       | 16       | 0       |
| 12BJ1A0597 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 24       | 48       | 2       |
| 12BJ1A0597 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 47       | 2       |
| 12BJ1A0598 | R31051  | COMPILER DESIGN                           | 15       | 7        | 0       |
| 12BJ1A0598 | R31052  | COMPUTER NETWORKS                         | 18       | 5        | 0       |
| 12BJ1A0598 | R31053  | ADVANCED DATA STRUCTURES                  | 14       | 8        | 0       |
| 12BJ1A0598 | R31054  | COMPUTER GRAPHICS                         | 12       | 6        | 0       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A0598 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 18       | 4        | 0       |
| 12BJ1A0598 | R31056  | OPERATIONG SYSTEMS                        | 14       | 15       | 0       |
| 12BJ1A0598 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 30       | 2       |
| 12BJ1A0598 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 43       | 2       |
| 12BJ1A0599 | R31051  | COMPILER DESIGN                           | 16       | -1       | 0       |
| 12BJ1A0599 | R31052  | COMPUTER NETWORKS                         | 15       | 26       | 4       |
| 12BJ1A0599 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 13       | 0       |
| 12BJ1A0599 | R31054  | COMPUTER GRAPHICS                         | 17       | 7        | 0       |
| 12BJ1A0599 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 17       | 0       |
| 12BJ1A0599 | R31056  | OPERATIONG SYSTEMS                        | 19       | 12       | 0       |
| 12BJ1A0599 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 42       | 2       |
| 12BJ1A0599 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A05A0 | R31051  | COMPILER DESIGN                           | 22       | 30       | 4       |
| 12BJ1A05A0 | R31052  | COMPUTER NETWORKS                         | 24       | 35       | 4       |
| 12BJ1A05A0 | R31053  | ADVANCED DATA STRUCTURES                  | 23       | 45       | 4       |
| 12BJ1A05A0 | R31054  | COMPUTER GRAPHICS                         | 19       | 15       | 0       |
| 12BJ1A05A0 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 24       | 26       | 4       |
| 12BJ1A05A0 | R31056  | OPERATIONG SYSTEMS                        | 21       | 13       | 0       |
| 12BJ1A05A0 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 45       | 2       |
| 12BJ1A05A0 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 46       | 2       |
| 12BJ1A05A1 | R31051  | COMPILER DESIGN                           | 18       | 26       | 4       |
| 12BJ1A05A1 | R31052  | COMPUTER NETWORKS                         | 17       | 6        | 0       |
| 12BJ1A05A1 | R31053  | ADVANCED DATA STRUCTURES                  | 18       | 45       | 4       |
| 12BJ1A05A1 | R31054  | COMPUTER GRAPHICS                         | 13       | 5        | 0       |
| 12BJ1A05A1 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 1        | 0       |
| 12BJ1A05A1 | R31056  | OPERATIONG SYSTEMS                        | 19       | 12       | 0       |
| 12BJ1A05A1 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 46       | 2       |
| 12BJ1A05A1 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A05A3 | R31051  | COMPILER DESIGN                           | 14       | 6        | 0       |
| 12BJ1A05A3 | R31052  | COMPUTER NETWORKS                         | 15       | 26       | 4       |
| 12BJ1A05A3 | R31053  | ADVANCED DATA STRUCTURES                  | 13       | 27       | 4       |
| 12BJ1A05A3 | R31054  | COMPUTER GRAPHICS                         | 7        | 49       | 4       |
| 12BJ1A05A3 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 43       | 4       |
| 12BJ1A05A3 | R31056  | OPERATIONG SYSTEMS                        | 16       | 41       | 4       |
| 12BJ1A05A3 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 15       | 0        | 0       |
| 12BJ1A05A3 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A05A4 | R31051  | COMPILER DESIGN                           | 16       | 3        | 0       |
| 12BJ1A05A4 | R31052  | COMPUTER NETWORKS                         | 18       | 28       | 4       |
| 12BJ1A05A4 | R31053  | ADVANCED DATA STRUCTURES                  | 21       | 9        | 0       |
| 12BJ1A05A4 | R31054  | COMPUTER GRAPHICS                         | 14       | 31       | 4       |
| 12BJ1A05A4 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | 15       | 0       |
| 12BJ1A05A4 | R31056  | OPERATIONG SYSTEMS                        | 20       | 13       | 0       |
| 12BJ1A05A4 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 47       | 2       |
| 12BJ1A05A4 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A05A5 | R31051  | COMPILER DESIGN                           | 15       | 15       | 0       |
| 12BJ1A05A5 | R31052  | COMPUTER NETWORKS                         | 19       | 28       | 4       |
| 12BJ1A05A5 | R31053  | ADVANCED DATA STRUCTURES                  | 23       | 33       | 4       |
| 12BJ1A05A5 | R31054  | COMPUTER GRAPHICS                         | 13       | 2        | 0       |
| 12BJ1A05A5 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 5        | 0       |
| 12BJ1A05A5 | R31056  | OPERATIONG SYSTEMS                        | 17       | 14       | 0       |
| 12BJ1A05A5 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 21       | 44       | 2       |



| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A05A5 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 46       | 2       |
| 12BJ1A05A6 | R31051  | COMPILER DESIGN                           | 5        | 1        | 0       |
| 12BJ1A05A6 | R31052  | COMPUTER NETWORKS                         | 0        | 0        | 0       |
| 12BJ1A05A6 | R31053  | ADVANCED DATA STRUCTURES                  | 3        | 0        | 0       |
| 12BJ1A05A6 | R31054  | COMPUTER GRAPHICS                         | 14       | 1        | 0       |
| 12BJ1A05A6 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 15       | -1       | 0       |
| 12BJ1A05A6 | R31056  | OPERATIONG SYSTEMS                        | 15       | -1       | 0       |
| 12BJ1A05A6 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 38       | 2       |
| 12BJ1A05A6 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A05A7 | R31051  | COMPILER DESIGN                           | 19       | 32       | 4       |
| 12BJ1A05A7 | R31052  | COMPUTER NETWORKS                         | 20       | 56       | 4       |
| 12BJ1A05A7 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | 27       | 4       |
| 12BJ1A05A7 | R31054  | COMPUTER GRAPHICS                         | 18       | 42       | 4       |
| 12BJ1A05A7 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 40       | 4       |
| 12BJ1A05A7 | R31056  | OPERATIONG SYSTEMS                        | 18       | 39       | 4       |
| 12BJ1A05A7 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 23       | 47       | 2       |
| 12BJ1A05A7 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 46       | 2       |
| 12BJ1A05A8 | R31051  | COMPILER DESIGN                           | 17       | 8        | 0       |
| 12BJ1A05A8 | R31052  | COMPUTER NETWORKS                         | 15       | 27       | 4       |
| 12BJ1A05A8 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 26       | 4       |
| 12BJ1A05A8 | R31054  | COMPUTER GRAPHICS                         | 20       | 39       | 4       |
| 12BJ1A05A8 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 17       | 12       | 0       |
| 12BJ1A05A8 | R31056  | OPERATIONG SYSTEMS                        | 15       | 33       | 4       |
| 12BJ1A05A8 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 43       | 2       |
| 12BJ1A05A8 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 44       | 2       |
| 12BJ1A05A9 | R31051  | COMPILER DESIGN                           | 18       | 20       | 0       |
| 12BJ1A05A9 | R31052  | COMPUTER NETWORKS                         | 21       | 33       | 4       |
| 12BJ1A05A9 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 26       | 4       |
| 12BJ1A05A9 | R31054  | COMPUTER GRAPHICS                         | 14       | 13       | 0       |
| 12BJ1A05A9 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 23       | 6        | 0       |
| 12BJ1A05A9 | R31056  | OPERATIONG SYSTEMS                        | 15       | 26       | 4       |
| 12BJ1A05A9 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 38       | 2       |
| 12BJ1A05A9 | R31058  | ADVANCED DATA STRUCTURES LAB              | 21       | 43       | 2       |
| 12BJ1A05B0 | R31051  | COMPILER DESIGN                           | 16       | -1       | 0       |
| 12BJ1A05B0 | R31052  | COMPUTER NETWORKS                         | 14       | 39       | 4       |
| 12BJ1A05B0 | R31053  | ADVANCED DATA STRUCTURES                  | 15       | -1       | 0       |
| 12BJ1A05B0 | R31054  | COMPUTER GRAPHICS                         | 12       | 2        | 0       |
| 12BJ1A05B0 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 22       | -1       | 0       |
| 12BJ1A05B0 | R31056  | OPERATIONG SYSTEMS                        | 17       | 35       | 4       |
| 12BJ1A05B0 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 40       | 2       |
| 12BJ1A05B0 | R31058  | ADVANCED DATA STRUCTURES LAB              | 20       | 40       | 2       |
| 12BJ1A05B1 | R31051  | COMPILER DESIGN                           | 15       | 26       | 4       |
| 12BJ1A05B1 | R31052  | COMPUTER NETWORKS                         | 19       | 35       | 4       |
| 12BJ1A05B1 | R31053  | ADVANCED DATA STRUCTURES                  | 23       | 30       | 4       |
| 12BJ1A05B1 | R31054  | COMPUTER GRAPHICS                         | 16       | 0        | 0       |
| 12BJ1A05B1 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 21       | 28       | 4       |
| 12BJ1A05B1 | R31056  | OPERATIONG SYSTEMS                        | 17       | 17       | 0       |
| 12BJ1A05B1 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 22       | 45       | 2       |
| 12BJ1A05B1 | R31058  | ADVANCED DATA STRUCTURES LAB              | 22       | 45       | 2       |
| 12BJ1A05B2 | R31051  | COMPILER DESIGN                           | 18       | 6        | 0       |
| 12BJ1A05B2 | R31052  | COMPUTER NETWORKS                         | 17       | 28       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 12BJ1A05B2 | R31053  | ADVANCED DATA STRUCTURES                  | 17       | 26       | 4       |
| 12BJ1A05B2 | R31054  | COMPUTER GRAPHICS                         | 10       | 34       | 4       |
| 12BJ1A05B2 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS    | 19       | 13       | 0       |
| 12BJ1A05B2 | R31056  | OPERATIONG SYSTEMS                        | 15       | 15       | 0       |
| 12BJ1A05B2 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB | 20       | 45       | 2       |
| 12BJ1A05B2 | R31058  | ADVANCED DATA STRUCTURES LAB              | 23       | 45       | 2       |
| 12BJ5A0201 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 18       | 21       | 0       |
| 12BJ5A0205 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 16       | 28       | 4       |
| 12BJ5A0205 | R31022  | ELECTRICAL MEASUREMENT                    | 20       | 9        | 0       |
| 12BJ5A0205 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 17       | 19       | 0       |
| 12BJ5A0207 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 17       | 9        | 0       |
| 12BJ5A0208 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 17       | 0        | 0       |
| 12BJ5A0210 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 15       | 14       | 0       |
| 12BJ5A0210 | R31024  | POWER ELECTRONICS                         | 16       | 30       | 4       |
| 12BJ5A0210 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 19       | 10       | 0       |
| 12BJ5A0212 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 15       | 0        | 0       |
| 12BJ5A0214 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 19       | 9        | 0       |
| 12BJ5A0215 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 18       | 8        | 0       |
| 12BJ5A0215 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 16       | 16       | 0       |
| 12BJ5A0216 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 19       | -1       | 0       |
| 12BJ5A0216 | R31022  | ELECTRICAL MEASUREMENT                    | 17       | -1       | 0       |
| 12BJ5A0216 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 18       | -1       | 0       |
| 12BJ5A0217 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 15       | 2        | 0       |
| 12BJ5A0217 | R31024  | POWER ELECTRONICS                         | 14       | 18       | 0       |
| 12BJ5A0217 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 16       | 26       | 4       |
| 12BJ5A0218 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 4        | -1       | 0       |
| 12BJ5A0218 | R31024  | POWER ELECTRONICS                         | 4        | 39       | 4       |
| 12BJ5A0218 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 8        | -1       | 0       |
| 12BJ5A0220 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 21       | 12       | 0       |
| 12BJ5A0220 | R31022  | ELECTRICAL MEASUREMENT                    | 18       | 26       | 4       |
| 12BJ5A0220 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 18       | 31       | 4       |
| 12BJ5A0224 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 15       | 0        | 0       |
| 12BJ5A0224 | R31023  | POWER SYSTEMS-II                          | 19       | 26       | 4       |
| 12BJ5A0226 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 18       | 28       | 4       |
| 12BJ5A0226 | R31022  | ELECTRICAL MEASUREMENT                    | 16       | 4        | 0       |
| 12BJ5A0227 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 13       | 14       | 0       |
| 12BJ5A0227 | R31023  | POWER SYSTEMS-II                          | 19       | 26       | 4       |
| 12BJ5A0227 | R31024  | POWER ELECTRONICS                         | 18       | 37       | 4       |
| 12BJ5A0227 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 19       | 27       | 4       |
| 12BJ5A0303 | R31031  | FINITE ELEMENT METHODS                    | 9        | 0        | 0       |
| 12BJ5A0303 | R31033  | DYNAMICS OF MACHINERY                     | 13       | 6        | 0       |
| 12BJ5A0402 | R31046  | DIGITAL COMMUNICATIONS                    | 19       | 17       | 0       |
| 12BJ5A0403 | R31042  | DIGITAL IC APPLICATIONS                   | 16       | 8        | 0       |
| 12BJ5A0403 | R31043  | LINEAR IC APPLICATIONS                    | 19       | 11       | 0       |
| 12BJ5A0403 | R31045  | ANTENNAS AND WAVE PROPAGATION             | 15       | 0        | 0       |
| 12BJ5A0405 | R31046  | DIGITAL COMMUNICATIONS                    | 18       | 28       | 4       |
| 12BJ5A0406 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION      | 16       | 32       | 4       |
| 12BJ5A0406 | R31046  | DIGITAL COMMUNICATIONS                    | 17       | 16       | 0       |
| 12BJ5A0503 | R31051  | COMPILER DESIGN                           | 16       | 11       | 0       |
| 13BJ5A0201 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 25       | 16       | 0       |
| 13BJ5A0201 | R31022  | ELECTRICAL MEASUREMENT                    | 24       | 26       | 4       |

| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 13BJ5A0201 | R31023  | POWER SYSTEMS-II                          | 24       | 50       | 4       |
| 13BJ5A0201 | R31024  | POWER ELECTRONICS                         | 24       | 54       | 4       |
| 13BJ5A0201 | R31025  | ELECTRICAL MACHINES-III                   | 25       | 44       | 4       |
| 13BJ5A0201 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 23       | 7        | 0       |
| 13BJ5A0201 | R31027  | ELECTRICAL MACHINES-II LAB                | 25       | 50       | 2       |
| 13BJ5A0201 | R31028  | CONTROL SYSTEMS LAB                       | 25       | 49       | 2       |
| 13BJ5A0202 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 24       | 2        | 0       |
| 13BJ5A0202 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 40       | 4       |
| 13BJ5A0202 | R31023  | POWER SYSTEMS-II                          | 19       | 2        | 0       |
| 13BJ5A0202 | R31024  | POWER ELECTRONICS                         | 10       | 30       | 4       |
| 13BJ5A0202 | R31025  | ELECTRICAL MACHINES-III                   | 18       | 17       | 0       |
| 13BJ5A0202 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 2        | 0       |
| 13BJ5A0202 | R31027  | ELECTRICAL MACHINES-II LAB                | 10       | 30       | 2       |
| 13BJ5A0202 | R31028  | CONTROL SYSTEMS LAB                       | 18       | 30       | 2       |
| 13BJ5A0204 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 25       | 26       | 4       |
| 13BJ5A0204 | R31022  | ELECTRICAL MEASUREMENT                    | 18       | 11       | 0       |
| 13BJ5A0204 | R31023  | POWER SYSTEMS-II                          | 24       | 39       | 4       |
| 13BJ5A0204 | R31024  | POWER ELECTRONICS                         | 21       | 47       | 4       |
| 13BJ5A0204 | R31025  | ELECTRICAL MACHINES-III                   | 25       | 40       | 4       |
| 13BJ5A0204 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 20       | 42       | 4       |
| 13BJ5A0204 | R31027  | ELECTRICAL MACHINES-II LAB                | 15       | 41       | 2       |
| 13BJ5A0204 | R31028  | CONTROL SYSTEMS LAB                       | 19       | 42       | 2       |
| 13BJ5A0205 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 25       | 13       | 0       |
| 13BJ5A0205 | R31022  | ELECTRICAL MEASUREMENT                    | 21       | 14       | 0       |
| 13BJ5A0205 | R31023  | POWER SYSTEMS-II                          | 22       | 26       | 4       |
| 13BJ5A0205 | R31024  | POWER ELECTRONICS                         | 17       | 18       | 0       |
| 13BJ5A0205 | R31025  | ELECTRICAL MACHINES-III                   | 24       | 16       | 0       |
| 13BJ5A0205 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 16       | 7        | 0       |
| 13BJ5A0205 | R31027  | ELECTRICAL MACHINES-II LAB                | 22       | 42       | 2       |
| 13BJ5A0205 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 42       | 2       |
| 13BJ5A0206 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 22       | 5        | 0       |
| 13BJ5A0206 | R31022  | ELECTRICAL MEASUREMENT                    | 14       | 2        | 0       |
| 13BJ5A0206 | R31023  | POWER SYSTEMS-II                          | 14       | 30       | 4       |
| 13BJ5A0206 | R31024  | POWER ELECTRONICS                         | 18       | 12       | 0       |
| 13BJ5A0206 | R31025  | ELECTRICAL MACHINES-III                   | 15       | 13       | 0       |
| 13BJ5A0206 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 13       | 0        | 0       |
| 13BJ5A0206 | R31027  | ELECTRICAL MACHINES-II LAB                | 19       | 37       | 2       |
| 13BJ5A0206 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 37       | 2       |
| 13BJ5A0207 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 21       | 12       | 0       |
| 13BJ5A0207 | R31022  | ELECTRICAL MEASUREMENT                    | 16       | 35       | 4       |
| 13BJ5A0207 | R31023  | POWER SYSTEMS-II                          | 20       | 10       | 0       |
| 13BJ5A0207 | R31024  | POWER ELECTRONICS                         | 17       | 1        | 0       |
| 13BJ5A0207 | R31025  | ELECTRICAL MACHINES-III                   | 16       | 43       | 4       |
| 13BJ5A0207 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 15       | 4        | 0       |
| 13BJ5A0207 | R31027  | ELECTRICAL MACHINES-II LAB                | 21       | 42       | 2       |
| 13BJ5A0207 | R31028  | CONTROL SYSTEMS LAB                       | 23       | 41       | 2       |
| 13BJ5A0208 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 22       | 19       | 0       |
| 13BJ5A0208 | R31022  | ELECTRICAL MEASUREMENT                    | 16       | 19       | 0       |
| 13BJ5A0208 | R31023  | POWER SYSTEMS-II                          | 19       | 26       | 4       |
| 13BJ5A0208 | R31024  | POWER ELECTRONICS                         | 18       | 35       | 4       |
| 13BJ5A0208 | R31025  | ELECTRICAL MACHINES-III                   | 18       | 45       | 4       |

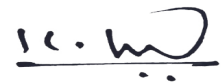
| Htno       | Subcode | Subname                                   | Internal | External | credits |
|------------|---------|---|----------|----------|---------|
| 13BJ5A0208 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 11       | 17       | 0       |
| 13BJ5A0208 | R31027  | ELECTRICAL MACHINES-II LAB                | 21       | 40       | 2       |
| 13BJ5A0208 | R31028  | CONTROL SYSTEMS LAB                       | 21       | 39       | 2       |
| 13BJ5A0209 | R31021  | COMPLEX VARIABLES AND STATISTICAL METHODS | 21       | 28       | 4       |
| 13BJ5A0209 | R31022  | ELECTRICAL MEASUREMENT                    | 15       | 10       | 0       |
| 13BJ5A0209 | R31023  | POWER SYSTEMS-II                          | 16       | 28       | 4       |
| 13BJ5A0209 | R31024  | POWER ELECTRONICS                         | 18       | 12       | 0       |
| 13BJ5A0209 | R31025  | ELECTRICAL MACHINES-III                   | 16       | 29       | 4       |
| 13BJ5A0209 | R31026  | LINEAR & DIGITAL IC APPLICATION           | 17       | 13       | 0       |
| 13BJ5A0209 | R31027  | ELECTRICAL MACHINES-II LAB                | 18       | 40       | 2       |
| 13BJ5A0209 | R31028  | CONTROL SYSTEMS LAB                       | 20       | 39       | 2       |
| 13BJ5A0301 | R31031  | FINITE ELEMENT METHODS                    | 13       | 0        | 0       |
| 13BJ5A0301 | R31032  | OPERATIONS RESEARCH                       | 5        | 5        | 0       |
| 13BJ5A0301 | R31033  | DYNAMICS OF MACHINERY                     | 12       | 6        | 0       |
| 13BJ5A0301 | R31034  | THERMAL ENGINEERING-II                    | 8        | 1        | 0       |
| 13BJ5A0301 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 12       | 14       | 0       |
| 13BJ5A0301 | R31036  | METAL CUTTING & MACHINE TOOLS             | 13       | 1        | 0       |
| 13BJ5A0301 | R31037  | THERMAL ENGINEERING LAB                   | 24       | 50       | 2       |
| 13BJ5A0301 | R31038  | MACHINE TOOLS LAB                         | 24       | 48       | 2       |
| 13BJ5A0302 | R31031  | FINITE ELEMENT METHODS                    | 19       | 35       | 4       |
| 13BJ5A0302 | R31032  | OPERATIONS RESEARCH                       | 16       | 30       | 4       |
| 13BJ5A0302 | R31033  | DYNAMICS OF MACHINERY                     | 17       | 36       | 4       |
| 13BJ5A0302 | R31034  | THERMAL ENGINEERING-II                    | 18       | 26       | 4       |
| 13BJ5A0302 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 19       | 26       | 4       |
| 13BJ5A0302 | R31036  | METAL CUTTING & MACHINE TOOLS             | 19       | 29       | 4       |
| 13BJ5A0302 | R31037  | THERMAL ENGINEERING LAB                   | 25       | 50       | 2       |
| 13BJ5A0302 | R31038  | MACHINE TOOLS LAB                         | 25       | 50       | 2       |
| 13BJ5A0303 | R31031  | FINITE ELEMENT METHODS                    | 14       | 34       | 4       |
| 13BJ5A0303 | R31032  | OPERATIONS RESEARCH                       | 9        | 31       | 4       |
| 13BJ5A0303 | R31033  | DYNAMICS OF MACHINERY                     | 16       | 11       | 0       |
| 13BJ5A0303 | R31034  | THERMAL ENGINEERING-II                    | 15       | 13       | 0       |
| 13BJ5A0303 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 19       | 26       | 4       |
| 13BJ5A0303 | R31036  | METAL CUTTING & MACHINE TOOLS             | 22       | 9        | 0       |
| 13BJ5A0303 | R31037  | THERMAL ENGINEERING LAB                   | 24       | 50       | 2       |
| 13BJ5A0303 | R31038  | MACHINE TOOLS LAB                         | 24       | 48       | 2       |
| 13BJ5A0304 | R31031  | FINITE ELEMENT METHODS                    | 7        | 0        | 0       |
| 13BJ5A0304 | R31032  | OPERATIONS RESEARCH                       | 0        | 46       | 4       |
| 13BJ5A0304 | R31033  | DYNAMICS OF MACHINERY                     | 12       | 0        | 0       |
| 13BJ5A0304 | R31034  | THERMAL ENGINEERING-II                    | 2        | 0        | 0       |
| 13BJ5A0304 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 3        | 2        | 0       |
| 13BJ5A0304 | R31036  | METAL CUTTING & MACHINE TOOLS             | 13       | 8        | 0       |
| 13BJ5A0304 | R31037  | THERMAL ENGINEERING LAB                   | 20       | 46       | 2       |
| 13BJ5A0304 | R31038  | MACHINE TOOLS LAB                         | 20       | 40       | 2       |
| 13BJ5A0305 | R31031  | FINITE ELEMENT METHODS                    | 7        | 16       | 0       |
| 13BJ5A0305 | R31032  | OPERATIONS RESEARCH                       | 6        | 0        | 0       |
| 13BJ5A0305 | R31033  | DYNAMICS OF MACHINERY                     | 18       | 26       | 4       |
| 13BJ5A0305 | R31034  | THERMAL ENGINEERING-II                    | 7        | 3        | 0       |
| 13BJ5A0305 | R31035  | DESIGN OF MACHINE MEMBERS-I               | 9        | 39       | 4       |
| 13BJ5A0305 | R31036  | METAL CUTTING & MACHINE TOOLS             | 16       | 3        | 0       |
| 13BJ5A0305 | R31037  | THERMAL ENGINEERING LAB                   | 24       | 50       | 2       |
| 13BJ5A0305 | R31038  | MACHINE TOOLS LAB                         | 23       | 46       | 2       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 13BJ5A0306 | R31031  | FINITE ELEMENT METHODS                       | 7        | 12       | 0       |
| 13BJ5A0306 | R31032  | OPERATIONS RESEARCH                          | 5        | 17       | 0       |
| 13BJ5A0306 | R31033  | DYNAMICS OF MACHINERY                        | 12       | 6        | 0       |
| 13BJ5A0306 | R31034  | THERMAL ENGINEERING-II                       | 9        | 44       | 4       |
| 13BJ5A0306 | R31035  | DESIGN OF MACHINE MEMBERS-I                  | 6        | 34       | 4       |
| 13BJ5A0306 | R31036  | METAL CUTTING & MACHINE TOOLS                | 14       | 27       | 4       |
| 13BJ5A0306 | R31037  | THERMAL ENGINEERING LAB                      | 24       | 50       | 2       |
| 13BJ5A0306 | R31038  | MACHINE TOOLS LAB                            | 20       | 40       | 2       |
| 13BJ5A0307 | R31031  | FINITE ELEMENT METHODS                       | 0        | -1       | 0       |
| 13BJ5A0307 | R31032  | OPERATIONS RESEARCH                          | 0        | -1       | 0       |
| 13BJ5A0307 | R31034  | THERMAL ENGINEERING-II                       | 0        | -1       | 0       |
| 13BJ5A0307 | R31035  | DESIGN OF MACHINE MEMBERS-I                  | 0        | -1       | 0       |
| 13BJ5A0307 | R31036  | METAL CUTTING & MACHINE TOOLS                | 2        | -1       | 0       |
| 13BJ5A0307 | R31037  | THERMAL ENGINEERING LAB                      | 23       | -1       | 0       |
| 13BJ5A0307 | R31038  | MACHINE TOOLS LAB                            | 20       | -1       | 0       |
| 13BJ5A0308 | R31031  | FINITE ELEMENT METHODS                       | 20       | 5        | 0       |
| 13BJ5A0308 | R31032  | OPERATIONS RESEARCH                          | 17       | 40       | 4       |
| 13BJ5A0308 | R31033  | DYNAMICS OF MACHINERY                        | 20       | 32       | 4       |
| 13BJ5A0308 | R31034  | THERMAL ENGINEERING-II                       | 19       | 36       | 4       |
| 13BJ5A0308 | R31035  | DESIGN OF MACHINE MEMBERS-I                  | 16       | 42       | 4       |
| 13BJ5A0308 | R31036  | METAL CUTTING & MACHINE TOOLS                | 21       | 52       | 4       |
| 13BJ5A0308 | R31037  | THERMAL ENGINEERING LAB                      | 24       | 50       | 2       |
| 13BJ5A0308 | R31038  | MACHINE TOOLS LAB                            | 20       | 48       | 2       |
| 13BJ5A0309 | R31031  | FINITE ELEMENT METHODS                       | 5        | 4        | 0       |
| 13BJ5A0309 | R31032  | OPERATIONS RESEARCH                          | 4        | 5        | 0       |
| 13BJ5A0309 | R31033  | DYNAMICS OF MACHINERY                        | 12       | 9        | 0       |
| 13BJ5A0309 | R31034  | THERMAL ENGINEERING-II                       | 3        | 5        | 0       |
| 13BJ5A0309 | R31035  | DESIGN OF MACHINE MEMBERS-I                  | 2        | 39       | 4       |
| 13BJ5A0309 | R31036  | METAL CUTTING & MACHINE TOOLS                | 14       | 8        | 0       |
| 13BJ5A0309 | R31037  | THERMAL ENGINEERING LAB                      | 24       | 50       | 2       |
| 13BJ5A0309 | R31038  | MACHINE TOOLS LAB                            | 24       | 42       | 2       |
| 13BJ5A0401 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 23       | 44       | 4       |
| 13BJ5A0401 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 37       | 4       |
| 13BJ5A0401 | R31043  | LINEAR IC APPLICATIONS                       | 25       | 41       | 4       |
| 13BJ5A0401 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 24       | 58       | 4       |
| 13BJ5A0401 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 25       | 41       | 4       |
| 13BJ5A0401 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 40       | 4       |
| 13BJ5A0401 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 50       | 2       |
| 13BJ5A0401 | R31048  | IC APPLICATIONS LABS                         | 25       | 50       | 2       |
| 13BJ5A0403 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 46       | 4       |
| 13BJ5A0403 | R31042  | DIGITAL IC APPLICATIONS                      | 24       | 30       | 4       |
| 13BJ5A0403 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 29       | 4       |
| 13BJ5A0403 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 33       | 4       |
| 13BJ5A0403 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 47       | 4       |
| 13BJ5A0403 | R31046  | DIGITAL COMMUNICATIONS                       | 24       | 41       | 4       |
| 13BJ5A0403 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 49       | 2       |
| 13BJ5A0403 | R31048  | IC APPLICATIONS LABS                         | 24       | 49       | 2       |
| 13BJ5A0404 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 19       | 49       | 4       |
| 13BJ5A0404 | R31042  | DIGITAL IC APPLICATIONS                      | 25       | 40       | 4       |
| 13BJ5A0404 | R31043  | LINEAR IC APPLICATIONS                       | 24       | 14       | 0       |
| 13BJ5A0404 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 23       | 11       | 0       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 13BJ5A0404 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 13       | 0       |
| 13BJ5A0404 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 19       | 0       |
| 13BJ5A0404 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |
| 13BJ5A0404 | R31048  | IC APPLICATIONS LABS                         | 23       | 44       | 2       |
| 13BJ5A0405 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 18       | 31       | 4       |
| 13BJ5A0405 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 31       | 4       |
| 13BJ5A0405 | R31043  | LINEAR IC APPLICATIONS                       | 19       | 17       | 0       |
| 13BJ5A0405 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 53       | 4       |
| 13BJ5A0405 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 24       | 26       | 4       |
| 13BJ5A0405 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 10       | 0       |
| 13BJ5A0405 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 47       | 2       |
| 13BJ5A0405 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 13BJ5A0406 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 31       | 4       |
| 13BJ5A0406 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 26       | 4       |
| 13BJ5A0406 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 32       | 4       |
| 13BJ5A0406 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 16       | 0       |
| 13BJ5A0406 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 4        | 0       |
| 13BJ5A0406 | R31046  | DIGITAL COMMUNICATIONS                       | 21       | 31       | 4       |
| 13BJ5A0406 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 13BJ5A0406 | R31048  | IC APPLICATIONS LABS                         | 22       | 44       | 2       |
| 13BJ5A0407 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 14       | 0       |
| 13BJ5A0407 | R31042  | DIGITAL IC APPLICATIONS                      | 13       | 11       | 0       |
| 13BJ5A0407 | R31043  | LINEAR IC APPLICATIONS                       | 16       | 26       | 4       |
| 13BJ5A0407 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 13       | 0       |
| 13BJ5A0407 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 22       | 26       | 4       |
| 13BJ5A0407 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 30       | 4       |
| 13BJ5A0407 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 24       | 45       | 2       |
| 13BJ5A0407 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 13BJ5A0408 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 12       | 38       | 4       |
| 13BJ5A0408 | R31042  | DIGITAL IC APPLICATIONS                      | 17       | 34       | 4       |
| 13BJ5A0408 | R31043  | LINEAR IC APPLICATIONS                       | 16       | 34       | 4       |
| 13BJ5A0408 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 21       | 12       | 0       |
| 13BJ5A0408 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 26       | 4       |
| 13BJ5A0408 | R31046  | DIGITAL COMMUNICATIONS                       | 16       | 35       | 4       |
| 13BJ5A0408 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 44       | 2       |
| 13BJ5A0408 | R31048  | IC APPLICATIONS LABS                         | 22       | 45       | 2       |
| 13BJ5A0409 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 31       | 4       |
| 13BJ5A0409 | R31042  | DIGITAL IC APPLICATIONS                      | 21       | 14       | 0       |
| 13BJ5A0409 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 9        | 0       |
| 13BJ5A0409 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 16       | 33       | 4       |
| 13BJ5A0409 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 23       | 7        | 0       |
| 13BJ5A0409 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 6        | 0       |
| 13BJ5A0409 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 45       | 2       |
| 13BJ5A0409 | R31048  | IC APPLICATIONS LABS                         | 23       | 46       | 2       |
| 13BJ5A0410 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 14       | 19       | 0       |
| 13BJ5A0410 | R31042  | DIGITAL IC APPLICATIONS                      | 19       | 11       | 0       |
| 13BJ5A0410 | R31043  | LINEAR IC APPLICATIONS                       | 14       | 7        | 0       |
| 13BJ5A0410 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 14       | 19       | 0       |
| 13BJ5A0410 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 18       | 2        | 0       |
| 13BJ5A0410 | R31046  | DIGITAL COMMUNICATIONS                       | 19       | 18       | 0       |
| 13BJ5A0410 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 23       | 45       | 2       |

| Htno       | Subcode | Subname                                      | Internal | External | credits |
|------------|---------|--|----------|----------|---------|
| 13BJ5A0410 | R31048  | IC APPLICATIONS LABS                         | 22       | 46       | 2       |
| 13BJ5A0411 | R31041  | COMPUTER ARCHITECTURE & ORGANIZATION         | 13       | 27       | 4       |
| 13BJ5A0411 | R31042  | DIGITAL IC APPLICATIONS                      | 20       | 18       | 0       |
| 13BJ5A0411 | R31043  | LINEAR IC APPLICATIONS                       | 23       | 7        | 0       |
| 13BJ5A0411 | R31044  | ELECTRONIC MEASUREMENTS AND INSTRUMENTATIONS | 20       | 15       | 0       |
| 13BJ5A0411 | R31045  | ANTENNAS AND WAVE PROPAGATION                | 20       | 29       | 4       |
| 13BJ5A0411 | R31046  | DIGITAL COMMUNICATIONS                       | 20       | 32       | 4       |
| 13BJ5A0411 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 25       | 46       | 2       |
| 13BJ5A0411 | R31048  | IC APPLICATIONS LABS                         | 23       | 47       | 2       |
| 13BJ5A0412 | R31047  | DIGITAL COMMUNICATIONS LAB                   | 0        | -1       | 0       |
| 13BJ5A0412 | R31048  | IC APPLICATIONS LABS                         | 0        | -1       | 0       |
| 13BJ5A0501 | R31051  | COMPILER DESIGN                              | 19       | 41       | 4       |
| 13BJ5A0501 | R31052  | COMPUTER NETWORKS                            | 21       | 32       | 4       |
| 13BJ5A0501 | R31053  | ADVANCED DATA STRUCTURES                     | 18       | 44       | 4       |
| 13BJ5A0501 | R31054  | COMPUTER GRAPHICS                            | 14       | 26       | 4       |
| 13BJ5A0501 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS       | 21       | 14       | 0       |
| 13BJ5A0501 | R31056  | OPERATIONG SYSTEMS                           | 19       | 26       | 4       |
| 13BJ5A0501 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB    | 23       | 47       | 2       |
| 13BJ5A0501 | R31058  | ADVANCED DATA STRUCTURES LAB                 | 23       | 47       | 2       |
| 13BJ5A0502 | R31051  | COMPILER DESIGN                              | 13       | 10       | 0       |
| 13BJ5A0502 | R31052  | COMPUTER NETWORKS                            | 17       | 37       | 4       |
| 13BJ5A0502 | R31053  | ADVANCED DATA STRUCTURES                     | 16       | 28       | 4       |
| 13BJ5A0502 | R31054  | COMPUTER GRAPHICS                            | 4        | 4        | 0       |
| 13BJ5A0502 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS       | 16       | 2        | 0       |
| 13BJ5A0502 | R31056  | OPERATIONG SYSTEMS                           | 14       | 28       | 4       |
| 13BJ5A0502 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB    | 22       | 46       | 2       |
| 13BJ5A0502 | R31058  | ADVANCED DATA STRUCTURES LAB                 | 22       | 46       | 2       |
| 13BJ5A0503 | R31051  | COMPILER DESIGN                              | 19       | 31       | 4       |
| 13BJ5A0503 | R31052  | COMPUTER NETWORKS                            | 19       | 36       | 4       |
| 13BJ5A0503 | R31053  | ADVANCED DATA STRUCTURES                     | 19       | 29       | 4       |
| 13BJ5A0503 | R31054  | COMPUTER GRAPHICS                            | 18       | 4        | 0       |
| 13BJ5A0503 | R31055  | MICRO PROCESSORS AND MULTICORE SYSTEMS       | 21       | 31       | 4       |
| 13BJ5A0503 | R31056  | OPERATIONG SYSTEMS                           | 15       | 30       | 4       |
| 13BJ5A0503 | R31057  | OPERATING SYSTEMS AND COMPILER DESIGN LAB    | 23       | 46       | 2       |
| 13BJ5A0503 | R31058  | ADVANCED DATA STRUCTURES LAB                 | 22       | 46       | 2       |

**\*\*Note:-** For Recounting/Revaluation/Challenge By Revaluation Apply through only Online([WWW.JNTUKEXAMS.NET](http://WWW.JNTUKEXAMS.NET)) on or before 4:00pm 27-03-2015.



Date:26-03-2015

Controller of Examinations

**\*\* NOTE:-** If any Discrepancy in the results, he has to apply on or before 20-04-2015 with Hallticket,D-form,Attendance and Principal's letter.