Sanitation for Hotels:

Sanitation in hotels refers to the treatment of utensils, food material, cloth etc.,

Sanitizing these things lowers the risk of health hazards in their reuse.

Sanitation is done by various methods with the help of sanitizers and chemicals.

Few of them are explained below.

→ Utensils should be immersed in hot water at a temperature of atleast 80°c for 2 minutes

→ whenever heat is used as sanitizer, a three compartment washing Vat is required. First one for washing, Second for heat treatment and the third for rinsing.

→ It is necessary to take care that the wash water should not become dirty before it is changed.

→ In a luke warm solution consisting of atleast 50ppm - 100ppm of chlorine, the utensils should be heated for atleast 2 minutes.

→ Application of chlorine solutions as sanitizers helps in removal of bacteria.

→ the utensils, glasses and other things should be then left to dry. So that the odour of any solution should not be present in the utensils.

→ Precautionary measures should be taken to avoid air entrapping in glasses or dishes and the chlorine solution may disinfect the silver plated articles if applied to them.

→ Therefore proper care is needed during the sanitation of utensils and dishes. Other solutions such as ammonium compounds, Iodine and bromine compounds can also be used for the removal of bacteria from water.

Sanitation in hospitals:

Sanitation in hospitals is of greater import -ance when compared to schools, malls, hotels etc.

-Since the hospitals has larger areas with different purpose of utility, the sanitation of such areas differ from each other and are as follows.

→ Hospitals has common areas at each & every floor such as halls, public waiting area etc The floors of these areas should be cleaned atleast once in a day -s floors are important since bacterial agents, dust etc. settle on them. Vaccum cleaners should be used for removal of dust.

→ Detergents and bactericides are applied to moisture the floor and then floor is scrubbed and the liquid is removed & cleaned from it.

→ The rooms should be cleaned soon after the patient is discharged.

→ Tiles and vinyl plastic sheets should be used as surface covering of walls in hospitals; so that stains and dirt on be easily washed off.

→ Anti dirt and washable paints are generally preferred for the walls of hospitals

→ Operation theatres, ICU etc. are the areas where the bacterial agents are mostly developed and these areas should be treated well.

→ The equipments used in operation theatres should be sterile and is washed on regular basis.

→ facilities like washbasins, dust bins etc is provided at every room & floors.

→ Delivery rooms and the areas related to examining of babies is given more importance to sanitary point of view.

Sanitation for melas & fairs:-

→ A mela or fair is a place where the people gather in a large number during festival season.

→ Due to large number of people present in the mela it becomes difficult to maintain sanitation.

→ Improper sanitation in melas may become source for various water borne or food borne diseases such as ~~cholera~~ cholera.

→ Drinking water plants and filters should be treated for sanitation as the people use the water to quench their thirst

→ pollutants in drinking water may create harmful diseases.

→ Toilets should be maintained clean & neat, dustbins should be placed at every few meters.

→ The food stalls in fairs should be clean & neat & the water used for cooking must be free from impurities.

→ Sanitary inspectors must be appointed in melas, which covers more area to take charge of all the sanitation maintainance.

→ One of the best example of big melas is Kumbha mela & the ardh Kumbha mela at Haridwar and Allahabad in India.

→ This mela takes place every year & attracts millions of people from all over the world.

→ The pilgrims in these melas congregate along the banks of the river make it polluted & acts as a source of diseases.

→ Apart from all these sanitary services, medical arrangements should be made as a precautionary measure.

Following are the important aspects of the melas.

a) Safe drinking water supply.
b) Safe food.
c) Hygienic accomodation.
d) Bath rooms
e) other sanitary & medical arrangements

Sanitation for swimming pools and bathing places:

→ Swimming pools and bathing places are generally used for recreational purposes.

→ In such places, the gathering of people is large. Therefore, there is a chance of spreading of contagious diseases & pollutants in water.

→ Generally in a pool there may be 20 to 30 persons at a time. The water can get contaminated either by sewage or by swimmers themselves. The diseases which are mostly cited due to bathing are.

- → Typhoid.
- → Paratyphoid fevers.
- → Dysentery
- → Eyes, nose & throat infections.
- → Ringworms etc.,

→ Crowded pools are in danger of some of the bacteria which causes respiratory diseases. Other common disease associated with the pools is ringworm or fungus infection, which is known as athlete's foot.

→ This disease is spread by the floors of dressing rooms, locker rooms etc.

→ Mats and wooden walk ways around the pool with cleanliness should be given more importance. The floor of the areas around the pool can be made disinfecting by applying 0.3 to 0.6 % of hypochlorite solution on them.

→ Bathing in lakes & pounds which have natural water can be a source of disease. Caused by small parasite is 'schistosome dermatitis'. These parasites enter the bathers body causes rashes & intense itching which can be last for several weeks.

→ Apart from all these few necessary measures.

→ Personal measures should be taken when bathing in pools and lakes.

→ Since there are no stringent governing standards for it as for drinking water.

Quality of Swimming pool water :-

Following are the main features of sanitation with reference to quality of pool water.

Excess Chlorine:

Chlorine compounds, Chlorine calcium hypochlorite etc, should not be less than 0.4 ppm & not be more than 1.0 ppm at all times when the pool is in use.

High-free Residual chlorine :-

→ The amount of high-free residual chlorine to be added in water with ammonia shall be in between 1.0 ppm to 2.0 ppm. Residual chlorine along with high alkalinity is considered to be more satisfactory bacteriologic conditions.

→ Use of such chlorine reduces the eyes irritation of the swimmers & cleans the pool water.

Acidity Alkalinity :

The water in the pool should possess alkalinity if alum & Sulphate of ammonia is used.

→ the alkalinity of the water in the pool should not be less than 1.0

Clearness :-

→ the pool should be clean & clear when it is in use.

→ clear pool looks attractive and it also helps in preventing accident.

→ Scum, dirt & any other floating matter should not be present in the pool more than 24hrs.

→ The water should be cleared off & flushed within 24hrs.

Temperature :-

→ The temperature of water in the pool should be maintained upto 5°c warmer than surrounding air and not more than 2°c than the water in the pool.

Bacteria:

→ The water in the pool should be free from bacteria & fungus as it causes

diseases respiratory to respiration & intestinal & nasal discharge which is called as streptococcus.

Sample check & collection:

→ The samples of chlorinated water from the pool is collected in a bottle & it is checked for its quality.
→ The samples are treated with sodium thio sulphate & the solution is sterilized for 15 minutes at 1 to 1.5 kg/cm² of pressure.
→ These samples of chlorinated water should be collected in a bottle by plunging it down towards the surface until the bottle gets filled.

Sanitation in schools & Institutions:-

→ Schools are considered as the temples of knowledge especially in a country like India, where lakhs of students get educated. Thus the schools and Institutions should have complete sanitation arrangements for the students and for teachers.

Main features of school and Institution sanitation are as follows,

a) Own building and location:-

→ the schools should be situated far away from the disturbance causing areas like markets
→ the infrastructure of the schools should provide an easy access to each and every area in the school.
→ the layout of schools and institutional buildings must be planned in such a way that it should be able to accommodate playing areas, auditoriums recreational areas, library etc.
→ the flooring in such buildings should not be slippery and the lighting should be

neither too dark nor too bright.

→ Energy efficient electrical appliances should be preferred.

b) Source of Drinking water:

→ Piped water supply or water tanks, filters etc, should be installed for drinking water.

→ Filtered water is very important in schools and institutions as it is ass consumed by many students and also it reduces chances of causing diseases.

c) Sanitary Lavatories:-

→ Lavatories (or) Washrooms should be provided at each floor or wherever necessary for the disposal of human waste water.

d) Dustbins:

→ As there are more than 100 to 200 students per school, the waste matter develops in large quantity.

→ Waste like uneaten tiffin boxes, chalkpowder, chemicals for floor washing etc.

→ Therefore, garbage pits and dustbins are necessary to be maintained in such places.

e) Hygienic food:-

→ The canteens in the schools, should be clean and neat.

→ The utensils used for cooking food must be regularly washed and cleaned.

→ Extra care should be taken in cooking food as it is consumed by many students.

→ Leafy vegetables and protein food, should be served for the students.

f) Personal Hygiene:-

→ Apart from other sanitation, one should possess being personal hygiene intention.

→ This can be incorporated in the children by giving them health education and implementing strict cleanliness rules.

g) Fencing or Boundary:

→ A fence or boundary wall must be constructed at the outer most boundary.

layout of the school to prevents students from going outside and also to reject the outsiders to enter into the school for misuse of school premises.

→ Playing areas for primary students should be away from that of the higher school students, generally near the boundary.

Rural sanitation:-

→ Basic amenities related to sanitation, water supply and good hygiene are necessary for a productive and healthy life.

→ People living in urban areas has good infrastructure and uninterrupted access to such sanitation amenities.

→ whereas in rural areas, the people has lack of access to such amenities.

→ Rural areas are prone to inadequate water supply and inappropriate sanitation facilities.

→ Nearly 900 million people living in world's rural areas, lack access to an improved water supply and approximately 2 billion people of rural areas in the world face sanitation problems.

→ Lack of access to such amenities leads to decrease in human population and it may also result in gender and social inequalities within the people of rural areas.

→ Due to lack of sanitation facilities, diseases like chronic diarrhoea with malnutrition are caused.

→ Such diseases create a negative impact on the poverty.

→ Routine or productive activities of the rural people are effected with these diseases.

→ Apart from above mentioned problems rural areas are getting victimised to climatical changes and globally fluctuated product markets.

→ Innovative programmes & ideas should be started by governing bodies to overcome the sanitation problems in rural areas by providing safe and sustainable water and by constructing washrooms in rural areas.

→ People living in rural areas should be given health education so that they can also participate actively in such programmes.

→ The central Rural sanitation Programme, which was started in 1986, was one of India's first efforts to provide safe sanitation in rural areas.

→ this programme focused mainly on providing subsidies to people to construct sanitation facilities.

The rural sanitation campaign has the following objectives.

→ Accelerate sanitation coverage in rural areas.

→ Generate a push from the people to get facilities rather than expect the Government to do it.

→ Focus on intensive education & awareness Campaigns to State of Rural Sanitation in India.

→ To reach target of total sanitation a scheme was implemented by Govt is 'Nirmal Bharat' in 2012.

Sustainable Development

Introduction:-

→ "Sustainable Development is the development that meets the needs of the present without comprimising the ability of future generations to meet their own needs."

→ The concept of sustainable development first emerged in 1980s when environmentalists started debating on the impact of economic growth on the environment.

→ The most widely adopted report is "Our common future" also known as the "Bruntland Report" was published by the World Commission on Environment and its Development in 1987.

Elements of Sustainable Development:

→ The key feature of the sustainable development is that it comprises three elements ie.,

→ Environment
→ Society
→ Economy

And three principles such as :

→ Planet
→ People
→ profit.

All the three are balanced so that one doesn't destroy another.

→ The environmental responsibility is it preserve breeding stocks for next year

→ The social responsibility is to generate jobs within the community

→ The economic responsibility is to stay in profit.

→ The 3 pillars of sustainability are powerful tool for defining complete