

Assignment # 2 :-

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Class :- BE (C)

SECTION :- A

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Subject :- waste water engineering

*1) Soil pipe & Anti-siphon pipes :-

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*) Soil-Pipes :-

A soil pipe is for soiled water. This type of will carry water and solids into the sewer. The soil-pipe is also known as soil-vent pipe, as installed in most homes has a specific quality. It is of a dimension to allow solid waste to pass, and it is vented in a very specific way to maintain a safe environment and reduce odours.

*1) Anti-siphon pipes :-

An extra pipe connected to the outlets of toilet seats of all the floors the other end of which is exposed of to atmosphere is called anti-syphonage pipe. These are provided to maintain water seal so that foul gases of the sewer line do not find entry into the toilet / bathrooms.

(2) SANITARY FIXTURES / 4, TRAPS :-

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1) SANITARY FIXTURES :-

A receptacle for industrial and fecal sewage that is installed in homes and public and industrial buildings. Sanitary fixtures are attached to the interior systems of water pipes and sewerage systems and constitute the main elements. It is installed in different areas. Bath tubs, wash stands, shower chumps, traps, and bidets are installed in bathrooms, washrooms, shower rooms. Specially sanitary fixtures are used in medical institutions, laboratories, bath houses, barber shops, beauty saloons etc. These are made from cast iron, ceramics, sheet steel, non ferrous metals and alloys or plastic cast.

2) TRAPS :-

TRAP is a device shaped with a bending pipe path to retain fluid to prevent sewer gases from entering buildings while allowing waste material to pass through. In oil refineries, traps are used to prevent hydrocarbons and other dangerous gases and chemical fumes from escaping through drains. These are typically U, S, Q or J shaped. Located below or within a plumbing fixture. Because of its shape, the trap retains some water after

the fixtures use. This water creates an air seal that prevent sewer gases from passing from drain pipes back into the building. Essentially all plumbing fixtures must be equipped with either an external or internal trap

3) CROSS CONNECTION & Back Siphonage Control :-

1) CROSS CONNECTION:-

It is a temporary or permanent connection b/w a public water system or consumer potable water system and a source or system containing non-potable water or other substances. An example is the piping between a public water system or consumer's potable water system and an auxiliary water system, cooling system or irrigation system.

2) BACK SYPHONAGE CONTROL:-

It is used to protect potable water supply from contamination or pollution due to back flow.

Back siphonage occurs when higher pressure fluids gases, or suspended solids move to an area of lower pressure fluids. For example, when a drinking straw is used to consume a beverage, suction reduces the pressure of fluid inside the straw and then into the drinker's mouth. A significant drop of pressure in a water

delivery system creates a similar action, pulling possibly undesirable material into the system. It is example of an indirect cross-connection

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