FAQ's

1. **Write about floor drain and its part as sewage pipe fitting?**

   A floor drain is a plumbing fixture that is installed in the floor of a structure, mainly designed to remove any standing water near it. They are usually round, but can also be square or rectangular. They usually range from 2 inches to 12 inches, most are 4 inches in diameter. They have gratings that are made of metal or plastic. The floor around the drain is also sloped to allow the water to flow to the drain. Floor drain connect into a trap so constructed that it can be readily cleaned and of a size to serve efficiently the purpose for which it is intended.

2. **What is cleanout? Mention its purpose in sewage system.**

   A cleanout provides access to horizontal and vertical lines to facilitate inspection and provide a means of removing obstructions such as solid objects, greasy wastes, and hair. Cleanouts, in general, must be gas- and water-tight, provide quick and easy plug removal, allow ample space for the operation of cleaning tools, have a means of adjustment to finished surfaces, be attractive in appearance, and be designed to support whatever traffic is directed over them.

3. **What are the required characteristics of a trap in sewage system?**

   Fixture traps must be self-cleaning by nature. Meaning that with each use wastes such as lint, hair must be able to flush away unhindered. No trap can be used that must depend on moving parts to retain its seal. No trap outlet can be larger than the fixture drain to which it is connected. Every fixture must be trapped separately except for fixtures with integral traps i.e. water closets, urinals and bidets. No plumbing fixture can be double trapped.

4. **What are the possible reasons for broken plumbing trap seals?**

   Trap Siphon age, Back Pressure, wind effect, evaporation and capillary action are some of the reasons for broken plumbing trap seals.

5. **What are the different types of manholes?**

   Depending upon the depth the manholes can be classified as: Shallow Manholes, (b) Normal Manholes, and (c) Deep Manholes.

   Straight – Through Manholes :This is the simplest type of manhole, which is built on a straight run of sewer with no side junctions.

Junction Manholes - This type of manholes are constructed at every junction of two or more sewers, and on the curved portion of the sewers, with curved portion situated within the manhole.

Side entrance Manholes - In large sewers where it is difficult to obtain direct vertical access to the sewer from the top ground level due to obstructions such as, other pipe lines like water, gas, etc., the access shaft should be constructed in the nearest convenient position off the line of sewer, and connected to the manhole chamber by a lateral passage.

Drop Manholes - When a sewer connects with another sewer, where the difference in level between invert level of branch sewer and water line in the main sewer at maximum discharge is greater than 0.6m, a manhole may be built either with vertical or nearly vertical drop pipe from higher sewer to the lower one.

Scraper (service) type manhole - All sewers above 450 mm in diameter should have one manhole at intervals of 110 to 120 m of scraper type. This manhole should have clear opening of 1.2 m x 0.9 m at the top to facilitate lowering of buckets.

Flushing Manholes - In flat ground for branch sewers, when it is not possible to obtain self cleansing velocity at all flows, due to very little flow, it is necessary to incorporate flushing device.