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Assignment # 02

Question-1 :

(1)

soil pipe : A soil pipe is a pipe that conveys sewage or wastewater reliably, either from the toilet or sink to soil drain or sewer. needless to say, there are many pipes within your home that carry water, but there are just as many that carry waste from your property.

* soil pipes are relatively straight forward.

These pipes are noticeable on almost all properties, they can be seen running vertically from the underground drainage system, up to the top of your property where they reach the roof gutter

* The main purpose of soil pipes is to transport the waste from your bathroom, toilet and sink on the upper floor of your home, to the underground drainage system.



Anti-syphon pipe

(2)

— x — x — x — x — :

Anti-syphon pipes are an extra pipe which is connected to the outlets of toilet seats of the all the floor, the other end of which is exposed to atmosphere is called anti-syphon pipe.

These are provided to maintain water seal so that foul gases of the sewer line do not find entry in to the toilet/bathrooms.

* If we look into a toilet seat we find some water at the bottom which remains there even after flushing.

The seats are provided and designed with a trap so that the water remains in the seat. The water is maintained to prevent entry of foul gases from the toilet pipes / soil pipes / sewer lines into the toilet room.



Question -2:

(3)

Sanitary Fixtures

Sanitary fixtures is an exchangeable device which can be connected to a plumbing system to deliver and drain water.

* The most common sanitary fixtures are:

- 1) Bathtubs
- 2) Bidets
- 3) Channel drains
- 4) Drinking fountains
- 5) Hose bib etc.

* Each sanitary fixture has one or more water outlets and a drain. In some cases, the drain has a device that can be manipulated to block the drain to fill the basin of the fixture. Each fixture also has a flood rim, or level at which water will begin to overflow. Most fixtures also have an overflow, which is a conduit for water to drain away when the regular drain is plugged, before the water actually overflows at the flood rim level. Showers and water closets lack this feature.

Sanitary traps: (4)

In sanitary, a trap is a device shaped with a bending pipe path to retain fluid to prevent sewer gases from entering buildings while allowing waste materials to pass through. In domestic

applications, traps are typically U, S, Q or J-shaped pipe located below or within a plumbing fixture.

An S-shaped trap is also known as an S-bend. It was invented by Alexander in 1775 but became known as U-bend following the introduction of the U-shaped trap by Thomas Crapper in 1880.

The U-bend could not jam, so, unlike the S-bend, it did not need an overflow. The most common of these is referred to as P-trap



Question-3

5

Cross Connection :

* Plumbing cross-connection is defined as any physical connection or arrangement between potable water and any source of contamination.

* A cross connection risks contamination of building water piping or municipal water supply with bacteria. A cross connection is a dangerous situation where waste water may enter and contaminate with supply water.

* A cross connection can occur in many places. One example is where a laundry tub has a faucet below the top of the laundry tub. If the faucet enters the tub through the wall, it is possible that when the tub is filled, the faucet will be submerged.



Back siphonage control:

(6)

Back siphonage is a reversal of normal flow in a system caused by a negative pressure (vacuum or partial vacuum) in the supply piping.

* The simplest way to provide back-siphonage prevention is to provide an air gap. An air gap is simply an open vertical space between any device that connects to plumbing system (like a valve or faucet) and any place where contaminated water can collect or pool.

