# 1. How do you test a sewer joint for leakage??

Each sewer line section or joint is isolated using an inflatable test device called a packer. Air is injected at a controlled pressure into the isolated area and then shut off. A pressure transducer measures the isolated area pressure over a set time period. If the pressure remains constant or there is only a small pressure drop, the line or joint is considered good. If the isolated area cannot hold the air pressure, it is considered a failure.

#### 2. What are the types of venting system in sewage lines?

Dry vent - each fixture has its own vent pipe. Each vent is a small, isolated pipe that you can work with separately. Having a different vent pipe for each fixture will mean that you have a lot of vent pipes running up through your building and out your roof and this uses a lot of unnecessary piping.

Wet vent - Under this system, you can install several different fixtures in the same system of pipes, attached at different places. Although this system complicates the layout of your plumbing system, it reduces the total amount of piping you need and can save a lot of space and effort.

#### 3. What are the required characteristics of septic system?

A septic tank will remove 30 to 50% of BOD (Biological Oxygen Demand), 40 to 60% of TSS (Total Suspended Solids) (UNEP 2004) and result in an abatement of 1 log units E. coli (a faecal indicator bacteria) (TILLEY et al. 2008) although efficiencies vary greatly depending on the influent concentrations and climatic conditions. The retention time should be 48 hours to achieve moderate treatment.

### 4. What are Cesspools?

Cesspools (or leaching pools) are pits into which concrete, brick or cement block walls have been placed. Wastewater flows into the cesspool and drains or "percolates" into the soil through perforated walls.

Cesspools which serve only as "overflow" pits from septic tanks are much more efficient than the older systems because they receive much less solid material. However, where there is no septic tank to hold the solids, the cesspool will require

much more maintenance. Over time, when the drainage area around the leaching pool becomes saturated, additional pools may have to be dug to handle the volume.

# 5. What are the signs of a failed septic tank?

- Septic tank effluent surfacing on your land.
- Strong or bad odours coming from the septic tank or drains
- Pollution of nearby ditches or streams with effluent
- Slow flushing of toilets
- Gurgling in the drains
- Ground movement (dips) near the septic tank or soakaway drainfield
- Toilet overflowing
- Overflow at washing machine hookup
- Overflows into shower or bath when the sink empties
- Drain inspection chambers have standing effluent in them. These should be empty.