



***Name: M Asif Afridi***

***ID: 15225***

***Construction Project Management***

***Instructor: Nadeem***

## **Answer # 1**

### **Hydrological Cycle:**

The science of waters of earth and atmospheres is what we called hydrology.

So hydrological cycle is the center focus of hydrology.

The earth's water circulatory system is called as hydrological cycle.

Total supply of earth is in constant circulation from earth to atmosphere and back to earth.

The cycle has no beginning or end it occurs continuously.

There are many processes involved in hydrological cycle that is Precipitation, evaporation, infiltration, runoff, transportation etc.

Yes, hydrological cycle has been disturbed.

Yes, hydrological cycle is disturbed and its reality and the answer

To this lies in a simple fact and that is 'climate changes '.

Earth climate is changing that's mainly due to the atmospheric activities, that greatly involves pollution.

Because of the precipitation patterns have been changed that ultimately leads to change in evaporation, surface and sub surface runoff etc. and that leads to change in hydrological cycle.

So, climate changes are responsible for change of hydrological cycle.

## **Answer # 2**

### **Ground water Sustainability:**

Ground water is one of the critical components of water resources. As it is hidden source, so it is often forgotten and misunderstood. But making a sustainable use of ground water is very important.

So, Ground water sustainability is the development and use of ground water to meet both current and future beneficial purposes without causing unacceptable consequences.

Now rain water harvesting is the process of accumulating, storing and collecting rain water.

Linking rain water harvesting to ground water sustainability means developing rain water harvesting subsurface, and it can be done by means of storing the infiltrated ground water. So, increasing ground water recharge in order to meet beneficial demands leads to ground water sustainability.

### **Answer# 3**

#### **Quality Parameter for designing water supply system for**

Water supply system should be designed in such a way that is long lasting and meet the demands of the community effectively.

As design of water supply system consists of complex pipe networks, so careful design is required.

Main quality parameters involved in the design of water supply system for a community are:

1) It should be colorless and clear. 2) It shall contain no disease producing organisms. 3) It should be a good tasting, free from odor's and preferably cool. 4) It should be non-corrosive. 5) It should be free from objectionable gases such as hydrogen sulfide and objectionable staining materials like iron and manganese. 6) It should be plentiful and economical.