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CT-402/WS&SI/4th Sem/2017/N

**WATER SUPPLY AND SANITARY
INSTALLATION**

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks
for the questions.

PART – A

Marks – 25

Choose the correct answer from the options given
below in each of the statement :

1. The water supply system means 2
- (a) the entire scheme of collection and disposal of liquid waste
 - (b) the complete layout from the source of supply to the distribution
 - (c) construction of reservoirs
 - (d) construction of canals

[Turn over

2. The water obtained from the tube wells is known as

2

- (a) surface water
- (b) sub-surface water
- (c) run-off
- (d) potable water.

3. When in the previous strata, the surface of water surrounding the well is at atmospheric pressure, the well is known as

2

- (a) gravity well
- (b) artesian well
- (c) open well
- (d) deep well.

4. The earth's water circulatory system is known as

2

- (a) water cycle
- (b) hydrological cycle
- (c) precipitation cycle
- (d) All of these.

5. The open wells or dug wells are also known as

2

- (a) shallow wells
- (b) draw wells
- (c) percolation wells
- (d) All of these.

6. The open wells or dug wells

2

- (a) act as a small storage reservoir
- (b) are suitable for a small discharge
- (c) are cheap in construction
- (d) All of these.

7. A sluice valve, in water distribution system, is used to

2

- (a) protect the pipe against negative pressure
- (b) regulate the flow of water through the pipe
- (c) prevent water to flow back in the opposite direction
- (d) All of the above.

8. A reflux valve, in water distribution system, is used to 2

- (a) protect the pipe against negative pressure
- (b) regulate the flow of water through the pipe
- (c) prevent water to flow back in the opposite direction
- (d) All of the above.

9. A septic tank is a 2

- (a) sedimentation tank
- (b) digestion tank
- (c) combination of sedimentation and digestion tank
- (d) aeration tank.

4.

10. Manholes are generally, located 2

- (a) at all changes of direction
- (b) at all changes of gradient
- (c) at all junctions of main and branch sewers
- (d) All of these.

11. The storm sewers are essentially required to 2
- (a) avoid creation of unfavorable healthy conditions
 - (b) improve the general appearance of the city
 - (c) dispose off the first washings of early showers as quickly as possible
 - (d) All of the above.
12. The sewage should be disposed off without causing odour and nuisance. 2
- (a) Right
 - (b) Wrong.
13. Aerobic bacteria takes place in the 1
- (a) presence
 - (b) absence.

PART – B

Marks – 45

Answer any *five* questions.

14. Describe different methods or layouts of distribution systems in detail and with figures. 9
15. What are intake structures ? Describe in details about different intake structures with figures. 9

16. Explain about different types of rain gauges. 9
17. What are the different sources of water ? Explain various types of precipitation. 9
18. Describe about the different types of pumps and explain how they work with figures. 9
19. What are the different types of wells ? Explain the working and construction details of each with figure. 9