



# Model Question Paper - 1

Time-2.30 hrs

Max.Marks: 90

## Part - I

Choose the correct answer

(15 x 1 = 15)

1. For better visualization, a house should be constructed on \_\_\_\_\_ plot.  
a. elevated                      b. low lying                      c. rectangle                      d. square
2. The best suited size of a bed room is \_\_\_\_\_  
a. 4.00 x 3.00 m                      b. 4.60 x 3.50 m                      c. 3.60 x 4.60 m                      d. 4.50 x 3.60 m
3. Aluminium powder is used at a rate of \_\_\_\_\_ by volume in Autoclaved aerated concrete.  
a. 0.06 – 0.08 %                      b. 0.07 – 0.08 %                      c. 0.05 – 0.08 %                      d. 0.04 – 0.08 %
4. Abbreviation of TMT bar is \_\_\_\_\_  
a. Thermo Mechanically Tested                      b. Thermo Mechanically Treated  
c. Thermo Manually Tested                      d. Techno Mechanically Treated
5. Geodetic surveying is also called \_\_\_\_\_ survey.  
a. Aerial                      b. Astronomical                      c. Trigonometrical                      d. Plane
6. A level which represents the average sea water level is \_\_\_\_\_  
a. Mean sea level                      b. Clean sea level                      c. Mid sea level                      d. Top sea level
7. \_\_\_\_\_ impurities gives taste, odour, turbidity and colour to water.  
a. Chemical                      b. Physical                      c. Bacteriological                      d. Biological
8. Removal of \_\_\_\_\_ from water is known as Water softening.  
e. Odour                      f. Turbidity                      g. Softness                      h. Hardness
9. The normal flow of sewage during the rainy season of the year is called \_\_\_\_\_.  
a. Normal weather flow                      b. Dry weather flow  
c. Wet weather flow                      d. Wet and Dry weather flow





10. The overall length of Golden Quadrilateral is \_\_\_\_\_ km.  
a. 5646                      b. 6465                      c. 4656                      d. 6456
11. The rate of rise or fall of the road along its alignment is called \_\_\_\_\_.  
a. Sight distance    b. Super elevation    c. Road gradient    d. Camber
12. \_\_\_\_\_ is a pressure that a fluid exerts when it is at rest.  
a. Static pressure                      b. Atmospheric pressure  
c. Gauge pressure                      d. Absolute pressure
13. The loss of head due to friction is called \_\_\_\_\_.  
a. Secondary loss    b. Pressure loss    c. Minor loss    d. Major loss
14. \_\_\_\_\_ is commonly used today to describe an earthquake's magnitude  
a. Metric scale                      b. Bio metric scale  
c. Richter scale                      d. Non-metric scale
15. \_\_\_\_\_ are more destructive and harmful to the society than any other weapon.  
a. Machine gun                      b. Antiaircraft gun  
c. Combat weapons                      d. Nuclear weapons

### Part – II

**Answer any ten questions in one or two sentences**  
**(Question number 28 is compulsory)**

**(10 x 3 = 30)**

16. List the types of residential houses.
17. Define - UPVC.
18. Write any four uses of glass in buildings.
19. List the types of survey based on the nature of field of surveying.
20. Write the purpose of chain surveying.
21. Write short note on screening in water treatment units.
22. Define Water carriage system in system of sanitation.
23. Write shortly about North – South and East – West corridor road project.
24. Define – Sight distance.
25. Write the Darcy's formula to find out head loss in terms of velocity and discharge..
26. Define – priming of pump.
27. List some of the natural disasters.
28. Write the causes of flood.





### Part – III

**Answer any five questions briefly**  
**(Question number 35 is compulsory)**

**(5 x 5 = 25)**

29. Write the uses of Ferro cement.
30. Write briefly the procedure of levelling up a dumpy level.
31. Write the objectives of water treatment.
32. Write briefly about soak pit used to dispose effluents from a septic tank.
33. Write briefly about Road curves.
34. Draw a diagram of centrifugal pump and mention its parts.
35. Write the precautions to be taken before and after a cyclone.

### Part – IV

**Answer both questions in detail**

**(2 x 10 = 20)**

36. Write in detail about the benefits of constructing a verandah in a house.

(or)

The readings taken in a traverse using a dumpy level instrument are as follows:

1.315, 1.905, 2.500, 2.760, 0.755, 0.690, 1.330, 1.650, 1.695, 2.000, 2.765, 3.100 and 3.330. The instrument was shifted after 3<sup>rd</sup> and, 8<sup>th</sup> and 10<sup>th</sup> readings. The R.L of Ist point is +300.00m. Enter the readings in a level book form and reduce the R.L of other points by any one method. Do the arithmetic check.

37. Write the construction procedure of a bituminous road in detail with sketch.

(or)

Determine the loss of head in a pipe line 200 mm diameter and 450m long. The discharge of Water through the pipe is 0.255 m<sup>3</sup>/sec. Take the value of friction factor as 0.002.



## Model Question Paper - 2

Time-2.30 hrs

Max.Marks: 90

### Part-I

Choose the correct answer

(15 x 1 = 15)

1. During ancient times man used to live in \_\_\_\_\_.  
a) apartments      b) row houses      c) dens      d) skyscraper.
2. The room next to verandah is \_\_\_\_\_.  
a) bath room      b) pooja room      c) kitchen      d) living room
3. Light weight concrete reduces the \_\_\_\_\_ of the structure.  
a) live load      b) dead load      c) wind load      d) ice load
4. The spread of self compacting concrete ranges from \_\_\_\_\_ inches.  
a) 1 to 32      b) 10 to 20      c) 20 to 40      d) 30 to 50.
5. The length of a link in a metric chain is \_\_\_\_\_.  
a) 0.1m      b) 0.2m      c) 0.3m      d) 0.5m.
6. French cross staffs are used for setting out \_\_\_\_\_.  
a) acute angle      b) obtuse angle      c) straight angle      d) right angle.
7. In India the quantity of water required for fire demand is \_\_\_\_\_ of total consumption.  
a) 5 to 10%      b) 10 to 20%      c) 20 to 30%      d) 30 to 35%.
8. The primary source of water is \_\_\_\_\_.  
a) rivers      b) sea      c) rain      d) lake .
9. The gradient of 1 metre diameter sewer is \_\_\_\_\_.  
a) 1 in 100      b) 1 in 60      c) 1 in 120      d) 1 in 200.
10. The mode of transport preferred for small distance is \_\_\_\_\_.  
a) railway      b) road      c) water      d) air .



11. The roads connecting capitals of states are \_\_\_\_\_.  
a) district roads      b) national highways  
c) state highways    d) village roads.
12. The cause for major loss in pipe is \_\_\_\_\_.  
a) loss due to friction                                  b) loss due to inlet  
c) loss due to outlet                                     d) loss due to fittings.
13. Air vessel is used in \_\_\_\_\_.  
a) centrifugal pump  
b) vane pump  
c) gear pump  
d) reciprocating pump.
14. Tsunami is a \_\_\_\_\_ word.  
a) Indian                        b) Japanese                        c) Chinese                        d) American.
15. \_\_\_\_\_ is one of the causes for earthquake.  
a) Sea waves                  b) Sound waves                  c) Seismic waves                  d) Wind waves.

## Part-II

**Answer any ten questions in one or two sentences**

**(10 x 3 = 30)**

**(Question number 28 is compulsory)**

16. What are the types of residential buildings?
17. What are the fibres used in FRC?
18. State any three properties of ferrocement?
19. What are the types of obstacles in chain surveying?
20. List the types of bench marks?
21. What are the types of water demand?
22. What are the tests done in sewers?
23. What are the classifications of roads based on materials used?
24. Write short notes on "Camber"
25. "Hydraulic mean depth"- write short notes
26. How the pumps are classified?
27. What is "disaster"?
28. What are the types of "flood"?



### Part-III

**Answer any five questions briefly**

**(5 x 5 = 25)**

**(Question number 35 is compulsory)**

29. What are the properties of glass?
30. List the uses of GPS?
31. What are the impurities of water? Explain in brief.
32. List the important sewer appurtenances?
33. What is super elevation? How it is calculated?
34. Explain "vena contracta" with neat sketch.
35. Write short notes on "Cyclone".

### Part-IV

**Answer both questions in detail**

**(2 x 10 = 20)**

36. What are the rooms in a residence? Explain any four.

or

The following staff readings were observed successively with a level.

0.875, 1.235, 2.310, 1.385, 2.930, 3.125, 4.125, 0.120, 1.875 and 2.030. The first reading taken on B.M. of elevation 132.135m. The instrument has been moved after 2<sup>nd</sup>, 5<sup>th</sup> and 8<sup>th</sup> reading. Enter the readings in a field book form and reduce the R.Ls by any one method. Apply the usual checks.

37. What are the purposes of road arboriculture? How the trees are selected?

or

A 300mm diameter and 600m long pipe connects two reservoirs. The difference in water pressure in two reservoirs is 3m. Determine the velocity of flow in the pipe. The Chezy's constant is 60.