

DRAUGHTSMAN (CIVIL)  
(THEORY)

TIME: 2 HRS.

MARKS: 100

Note: Attempt all the questions.  
All questions carry equal marks.  
Choose the correct answer.

1. In single reinforced beams steel reinforced is provided in -  
a) Tensile zone  
b) Compressive zone  
c) Both (a) & (b)  
d) Neutral zone
  
2. The vertical portions of a steps is called as -  
a) Riser  
b) Tread  
c) Handrail  
d) Flight
  
3. The diameter in Longitudinal bars column should not be less than -  
a) 4 mm  
b) 8 mm  
c) 12 mm  
d) 20 mm
  
4. Slab hanging on a cantilever is known  
a) Continuous slab  
b) Simply supported slab  
c) One way slab  
d) Two way slab
  
5. Minimum thickness of the slab -  
a) 130-150 mm c) 100-150 mm  
b) 160-200 mm  
d) 50-100 mm
  
6. How many grade available in cement?  
a) One  
b) Two  
c) Three  
d) Four

7. When a member carrying mainly axial load it is termed as -  
a) Strut  
b) Column  
c) Tie  
d) All of these
8. When the steel reinforcement is not fully stressed to its permissible value, the section is known as -  
a) Balanced section  
b) Under reinforced section  
c) Over reinforced section  
d) None of these
9. A channel section consists of -  
a) Two webs  
b) Two flanges  
c) Two webs and two flanges  
d) One web and two flanges
10. The failure of a column depends upon  
—a) Length of column  
b) Weight on column  
c) Cross sectional area of column  
d) Slenderness ratio of column
11. The minimum diameter of a manhole cover should be —  
a) 20  
b) 30  
c) 40  
d) 50
12. How many terms are commonly used in house drainage system?  
a) 5  
b) 6  
c) 7  
d) 8
13. Which of the following method used for killing bacteria?  
a) Disinfection  
b) Sedimentation  
c) Filtration  
d) Coagulation
14. Which one of the following system used for provision of pipe line?  
a) Plumping system  
b) Sewerage system  
c) Water distribution system  
d) None of these

15. The common section used in lacing, is  
 —a) Rolled angle  
 c) Rolled steel flat  
 b) Rolled channel  
 d) All of these
16. Run-off is the water which flows  
 —a) In sewer pipes  
 c) In infiltration  
 b) In rivers  
 d) Due to leakage of pipes
17. The effluents from the septic tank are discharged into —  
 a) Drainage  
 c) Soak pit  
 b) Sewer  
 d) Oxidation pond
18. The equipment used for cleaning the sewers easily is called —  
 a) Gauge  
 c) Scoop  
 b) Scraper  
 d) Claw
19. The city roads which are meant for through traffic usually on a continuous route are known as -  
 a) Carriage way  
 c) Arterial streets  
 b) Express way  
 d) Sub-arterial streets
20. The central portion of a road for high speed vehicles is known as —  
 a) Motor way  
 c) Shoulder  
 b) Express way  
 d) Carriage way
21. The super structure of a road is called —  
 a) Wearing layer  
 c) Road surfacing  
 b) Wearing course  
 d) Any one of these
22. The raising of outer edge of the road above the inner edge is known as --  
 a) Super-elevation  
 c) Banking  
 b) Cant  
 d) All of these

23. The value of maximum gradient for hill roads is —  
 a) 1 in 5  
 b) 1 in 10  
 c) 1 in 15  
 d) 1 in 20
24. Exceptional gradient should not be provided in a length more than —  
 a) 10m  
 b) 20 m  
 c) 50 m  
 d) 100 mm
25. The broad gauge is \_\_\_\_\_ wide.  
 a) 0.6096 m  
 b) 0.762 m  
 c) 1.00 m  
 d) 1.676 m
26. For undeveloped areas, the type of gauge adopted is —  
 a) Broad gauge  
 b) Meter gauge  
 c) Narrow gauge  
 d) All of these
27. The resistance of the train is due to —  
 a) Speed  
 b) Gradient  
 c) Curves  
 d) All of these
28. The rail section is divided on the basis of —  
 a) Type of rail  
 b) Spacing of sleepers  
 c) Gauge of the track  
 d) Speed of trains
29. The rail gauge is the distance between —  
 a) Outer faces of rails  
 b) Running faces of rails  
 c) Centre to centre of rails  
 d) None of these
30. The coning of wheels is made to prevent the —  
 a) Lateral movement of the axle  
 b) Lateral movement of the wheels  
 c) Damage of the inside edges of rails  
 d) All of these

31. Creep is the \_\_\_\_\_ movement of rail.  
 a) Longitudinal  
 b) Lateral  
 c) Vertical  
 d) Horizontal
32. The longitudinal movement of the rails in a track is technically known as ---  
 a) Buckling  
 b) Hogging  
 c) Creeping  
 d) None of these
33. Sleepers which satisfy all of the requirements and are only suitable for track circuiting are --  
 a) Wooden sleepers  
 b) Steel sleepers  
 c) Cast iron sleepers  
 d) R.C.C. sleepers
34. The number of sleepers used for rail varies from ---  
 a)  $(n + 1)$  to  $(n + 4)$   
 b)  $(n + 3)$  to  $(n + 6)$   
 c)  $(n + 2)$  to  $(n + 7)$   
 d)  $(n + 4)$  to  $(n + 8)$
35. Fish bolts are made of  
 —a) Cast iron  
 b) Low carbon steel  
 c) High carbon steel  
 d) Stainless steel
36. Rail chairs are used to fix  
 —a) Flat footed rails  
 b) Bull headed rails  
 c) Double headed rails  
 d) None of these
37. A \_\_\_\_\_ is a structure built to span a valley, road, river or any other physical obstacle.  
 a) Bridge  
 b) Canal  
 c) Stair  
 d) Escalator
38. \_\_\_\_\_ is a bridge built using cantilevers.  
 a) Arch bridge  
 b) Cantilever bridge  
 c) Two hinged arch  
 d) Tied arch



47. The number of sleepers used per rail length on the track is known as —  
a) Sleeper b) Sleeper density  
c) Ballast d) Coning of wheel
48. The flow of rail metal due to abnormally heavy loads is called —  
a) Wear of rail b) Creep of rail  
c) Coning of rail d) Hogging of rail
49. The road surfacing should be —  
a) Stable b) Durable d)  
c) Impervious All of these
50. The enoscope is used to determine —  
a) Travel time c) Spot speed  
b) Average time  
d) Running speed