E

18/A/C/S-3/4/E

031/217

PAPER – I
DRAUGHTSMAN (CIVIL)
(THEORY)
SEMESTER – III

TIME: 3 HRS. **MARKS: 150**

Note: Attempt all the questions.
All questions carry equal marks.
This paper carries negative marking. 25% marks will be deducted for each wrong answer.

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. $\frac{ly}{lx} < 2$ it is known as –
   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
   b) 160-200 mm
   c) 100-150 mm
   d) 50-100 mm

6. How many grade available in cement?
   a) One
   b) Two
   c) Three
   d) Four

Contd....2

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

Contd....3

15. The common section used in lacing, is –
a) Rolled angle
b) Rolled channel
c) Rolled steel flat
d) All of these

16. Run-off is the water which flows –
a) In sewer pipes
b) In rivers
c) In infiltration
d) Due to leakage of pipes

17. The effluents from the septic tank are discharged into –
a) Drainage
b) Sewer
c) Soak pit
d) Oxidation pond

18. The equipment used for cleaning the sewers easily is called –
a) Gauge
b) Scraper
c) Scoop
d) Claw

19. The city roads which are meant for through traffic usually on a continuous route are known as –
a) Carriage way
b) Express way
c) Arterial streets
d) Sub-arterial streets

20. The central portion of a road for high speed vehicles is known as –
a) Motor way
b) Express way
c) Shoulder
d) Carriage way

21. The super structure of a road is called –
a) Wearing layer
b) Wearing course
c) Road surfacing
d) Any one of these

22. The raising of outer edge of the road above the inner edge is known as –
a) Super-elevation
b) Cant
c) Banking
d) All of these

Contd....4

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) 10 m
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

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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 carbons 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

39. A _____ is a type of bride where the main load carrying elements are hung from suspension cables.
a) Cable stay bridge
b) Suspension bridge
c) Arch bridge
d) Cantilever bridge

40. Which of the following resist forces through tension and prestress the girders?
a) Cables
b) Girders
c) Arch
d) Dam

41. A temporary structure constructed in a river for excluding water from a given site to enable the building operation to be performed on dry surface, is called –
a) Caisson
b) Cofferdam
c) Well foundation
d) Raft foundation

42. When the depth of water is from 4.5 to 6m, the type of coffer dam used is –
a) Earthen cofferdam
b) Roockfill cofferdam
c) Single-walled cofferdam
d) Double walled cofferdam

43. _____is bridge floor directly carryiitg traffic loads.
a) Deck
b) Dam
c) River
d) Footing

44. _____ transfers loads from the girders to the pier caps.
a) Tearing
b) Bearing
c) Shearing
d) None of these

45. The system in which only one pipe is provided to collect both the foul soil waste as well as unfoul waste from the building is known as –
a) One pipe system
b) Two pipe system
c) Three pipe system
d) Both (a) & (b)

46. A strut is a compression member which is –
a) Loaded lightly
b) Vertical
c) Small in length
d) All of these

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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
c) Impervious
d) All of these

50. The enoscope is used to determine –
a) Travel time
b) Average time
c) Spot speed
d) Running speed

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