




श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, तिरुवनन्तपुरम् - ६९५ ०११, केरल, भारत
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MFCP held on
25/6/19

WRITTEN TEST FOR JUNIOR ENGINEER (CIVIL) – A to B (I MFCP)

1. Strength and quality of concrete depends on
 - a) Aggregate shape
 - b) Aggregate grading
 - c) Surface area of the aggregate
 - d) All of these
2. After casting, an ordinary cement concrete on drying
 - a) Shrinks
 - b) Expands
 - c) Remains unchanged
 - d) Can expand or shrink
3. Strength of concrete is directly proportional to
 - a) Cement water ratio
 - b) Water cement ratio
 - c) Sand cement ratio
 - d) Water aggregate ratio
4. Durability of concrete is proportional to
 - a) Sand content
 - b) Water cement ratio
 - c) Aggregate ratio
 - d) Cement aggregate ratio
5. M100 grade of concrete approximates
 - a) 1:2:4 mix
 - b) 1:3:4 mix
 - c) 1:3:6 mix
 - d) Both(a) and (b)
6. A concrete is said to be workable if
 - a) Its consistency is of a paste
 - b) it can be easily mixed, placed and compacted
 - c) Bleeding and segregation is there
 - d) Laitance is formed
7. Ration of tensile to compressive strength of concrete is
 - a) 0.025
 - b) 0.04
 - c) 0.1
 - d) 0.4
8. The ratio of Youngs modulus of elasticity for steel to that of concrete is called

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- a) Poissons ratio
 - b) Modular ratio
 - c) Bulk modulus
 - d) Elasticity
9. Sand in mortar is needed for
- a. decreasing the quantity of cement
 - b. Reducing shrinkage
 - c. increasing the strength
 - d. all of the above
10. Chain surveying is most suitable when
- a) Ground is fairly level and open with simple details.
 - b) Area is small in extent.
 - c) Plans are required on a large scale.
 - d) All of these
11. Method used for chaining on sloping ground is
- a) Stepping method
 - b) Hypotenusal allowance method
 - c) Clinometer method
 - d) Both (a) and (b)
12. Maximum allowable limit upto that a measurement may vary from the true value is called
- a) Permissible error
 - b) Residual error
 - c) Expected error
 - d) Safe error
13. The chain length which is not the standard metric chain length is
- a) 10 m
 - b) 20 m
 - c) 25 m
 - d) 30 m
14. Ranging is the process of
- a) Marking some intermediate points in a straight line, joining the two end points in the field
 - b) Fixing ranging rods on the extremities of the area
 - c) Taking offsets from a chain line
 - d) None of these
15. The longest chain line passing through the centre of the area is called
- a) Base line
 - b) Tie line
 - c) Check line

d) All of these

16. In compass surveying

- a) Direction and lengths of survey line is measured by compass
- b) Direction is measured by compass
- c) Length is measured by the chain or tape
- d) Both (b) and (c)
- e) None of these

17. The standard size of a brick is

- a) 20 x 10 x 10 cm
- b) 19 x 9 x 9 cm
- c) 18 x 9 x 9 cm
- d) 18 x 8 x 8 cm

18. Water absorption in I class bricks should not be more than

- a) 10%
- b) 15%
- c) 20%
- d) 25%

19. The load of equipment and furniture kept in a building is called

- a) Dead load
- b) Live load
- c) Designed load
- d) None of these

20. When walls are subjected to heavy loading and the bearing capacity of the soil is very low, then wall is constructed on

- a) Reinforced concrete footing
- b) Column footing
- c) Lean concrete footing
- d) None of these

21. The vertical member used in a door frame is called

- a) Post
- b) Still
- c) Hanging style
- d) Rail

22. In a residential building, the width of a door should not be less than

- a) 1.2 m
- b) 0.9 m
- c) 0.6 m

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d) 0.75 m

23. The angular steps provided for changing direction of the stairs are called

- a) Radial step
- b) Angle steps
- c) Round steps
- d) Winders

24. Minimum width of a stair in a residential building

- a) 125 cm
- b) 99 cm
- c) 80cm
- d) 40cm

25. Head room in a staircase, should not be less than

- a) 3.5 m
- b) 3 m
- c) 2.10 m
- d) 2 m

26. The height of hand railing above the tread should be generally in between

- a) 40cm to 50cm
- b) 60cm to 75cm
- c) 75cm to 80cm
- d) 100cm

27. Horizontal member forming bottom of the door frame is called

- a) Transom
- b) Sill
- c) Rail
- d) Threshold

28. Ratio of the cement-sand mortar preferred in load bearing wall is

- a) 1:2
- b) 1:6
- c) 1:8
- d) 1:12

29. The portion of wall on which the end of an arch rests is called

- a) Abutment
- b) Lintel
- c) Soffit
- d) Nosing



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30. The inclined braces used in a truss to prevent sagging of the principal rafters are called
- King post
 - Tie beam
 - Struts
 - Queen post
31. C.G.I. roof covering stands for
- Cement gauzed iron sheets
 - Corrugated galvanized iron sheets
 - Corrugated good iron sheets
 - Carbon galvanized iron sheets
32. The unit of measurement for concrete work in RCC is in
- Meter
 - Cubic meter
 - Square meter
 - Square cm
33. The unit of measurement for steel works in trusses and its parts is in
- Quintal
 - Cm
 - Numbers
 - Kilograms
34. The unit of measurement for electric wiring or of electrification of light, fan, plug points is in
- Point
 - Meter
 - Numbers
 - No unit
35. Generally the unit of measurement for partition wall is in
- Cubic meter
 - Square meter
 - Running meter
 - Numbers
36. The process of evaluating cost of construction of a project is called
- Estimate
 - Rough cost
 - Actual cost
 - Workable cost
37. Estimate expected to be least accurate is
- Supplementary estimate
 - Plinth area estimate
 - Detailed estimate
 - Revised estimate

38. The useful part of liveable area of a building is called
- Carpet area
 - Circulation area
 - Horizontal circulation area
 - Plinth area
39. In a three coat plastering, the third coat is called
- Peripheral coat
 - setting coat
 - Bonding coat
 - floating coat
40. Flat roofs are suitable for tropical places because
- top of flat roof can be used as terrace
 - It equalises temperature i.e rooms are cooler in summer and warm in winter
 - increases appearance
 - all of the above
41. Ratio of cost of labour to the total cost of the building is generally
- 1:10
 - 1:4
 - 1:1
 - 6:10
42. As a thumb rule, percentage of steel in R C C columns is taken as
- 1.0 to 5.0 per cent
 - 5.0 to 10.0 per cent
 - 10.0 to 15.0 per cent
 - 15.0 to 20.0 per cent
43. While mixing cement mortar by volume, the volume of a cement bag is specified as
- 50 litres
 - 35 litres
 - 0.050 cubic meter
 - 0.35 cubic meter
44. In analysis of rates, contractor profit is taken at rate of
- 1%
 - 5%
 - 10%
 - 20%

ANSWER KEY

JE (Civil) MFCP 25 /06/2019

1. (d)
2. (a)
3. (a)
4. (d)
5. (d)
6. (b)
7. (c)
8. (b)
9. (d)
10. (d)
11. (d)
12. (a)
13. (c)
14. (a)
15. (a)
16. (d)
17. (a)
18. (b)
19. (b)
20. (a)
21. (a)
22. (d)
23. (d)
24. (c)
25. (c)
26. (c)
27. (b)

28. (b)

29. (a)

30. (c)

31. (b)

32. (b)

33. (a)

34. (a)

35. (b)

36. (a)

37. (b)

38. (a)

39. (a)

40. (d)

41. (b)

42. (a)

43. (b)

44. (c)

45. (b)

46. (b)

47. (b)

48. (b)

49. (c)

50. (d)