Maximum : 100 marks

Time : 1 hour and 15 minutes

1. __________ is provided on the road edge to serve as a emergency lane for vehicles compelled to taken out of the pavement.
   (A) Kerb (B) Shoulder
   (C) Carriage way (D) Gradient

2. The brick laid with its breadth parallel to the face of a wall is known as :
   (A) Stretcher bond (B) Zigzag bond
   (C) Garden wall bond (D) Header bond

3. Bearing pile is situated in :
   (A) Hard stratum (B) Water
   (C) Above ground level (D) None of these

4. The camber provided for gravel road is :
   (A) 1 in 20 (B) 1 in 45
   (C) 1 in 24 (D) 1 in 30

5. Rabi crop are sown and harvested in the month of :
   (A) April and September (B) October and March
   (C) February and June (D) January and May

6. The rate of rise or fall of formation level of a road along its alignment is called :
   (A) Kerb (B) Camber
   (C) Gradient (D) Road alignment

7. Which is the ratio of M200 grade concrete given below?
   (A) 1:2:4 (B) 1:1:2
   (C) 1:11/2:3 (D) 1:3:6

A 3

[P.T.O.]
8. What is the clear cover required for beam?
   (A) 25 mm
   (B) 20 mm
   (C) 40 mm
   (D) 15 mm

9. The centre to centre distance between two adjacent supports of a bridge is called:
   (A) Total span
   (B) Clear span
   (C) Span
   (D) Length of bridge

10. The over burned, irregular shape, dark colour brick is known as:
    (A) IIIrd class brick
    (B) IVth class brick
    (C) 1st class brick
    (D) IIrd class brick

11. The depth of foundation is greater than its width is known as:
    (A) Deep foundation
    (B) Shallow foundation
    (C) Footing
    (D) Grillege foundation

12. Which is the process of taking out stones from natural bed of rock?
    (A) Cutting
    (B) Quaring
    (C) Blending
    (D) Swaing

13. The roads connecting village with towns or cities are classified as:
    (A) Other district road
    (B) State highway
    (C) Village road
    (D) Minor district road

14. A canal is generally lined:
    (A) When it is in cutting
    (B) When it is on embankment
    (C) When it is partly in cutting and partly in embankment
    (D) When bed and banks of the canal consist of highly impervious soil

15. The dam is made of earth is known as:
    (A) Coffer dam
    (B) Earthen dam
    (C) Timber dam
    (D) None of these
16. A passometer:
   (A) Arc measuring
   (B) Number of paces covered
   (C) Length of line
   (D) Countering

17. As per 1 RC maximum width of a vehicle should be:
   (A) 3.8 metre
   (B) 4 metre
   (C) 2.44 metre
   (D) 8 metre

18. Cost of building by plinth area method is plinth area ×:
   (A) Cube rate
   (B) Rate
   (C) Plinth area rate
   (D) None of these

19. Curing period of Damp proof course is:
   (A) 3 days
   (B) 15 days
   (C) 10 days
   (D) 7 days

20. When the cost of the estimate exceeds 10% or more ——— estimate is prepared.
   (A) revised
   (B) detailed
   (C) cube rate
   (D) plinth area

21. The limit of water level in a still lake represents:
   (A) Horizontal surface
   (B) Counter line
   (C) Level surface
   (D) Contour gradient

22. The portion of traffic way that is used by pedestrians is only called:
   (A) Side walk
   (B) Foot way
   (C) Foot path
   (D) Crown

23. The initial setting time of cement should not be less than:
   (A) 10 hours
   (B) 5 minutes
   (C) 30 minutes
   (D) All of these

24. Seasoning of timber is the process of:
   (A) Removal of sap
   (B) Drying of timber
   (C) Removal of moisture
   (D) All of these
25. Under surface of an arch is called:
   (A) Crown  (B) Intrados  (C) Soffit  (D) Skew back

26. The size of title block for all size of drawing sheet is 185 MM x MM.
   (A) 65  (B) 100  (C) 50  (D) All of these

27. Grillage foundation is classified as a foundation.
   (A) Deep foundation  (B) Stepped foundation  (C) Footing  (D) Shallow foundation

28. A track is considered as high speed track when the speed of running train:
   (A) 120 km/hr or more  (B) 50 km/hr or more  (C) 70 km/hr or more  (D) 90 km/hr or more

29. When the canal run above the drain:
   (A) Canal siphon  (B) Aqueduct  (C) Super passage  (D) None of these

30. The initial setting of cement is extended using:
   (A) Sand  (B) Earth  (C) Gypsum  (D) None of these

31. Arrangement of brick in layer which does not continuous vertical joint is known as:
   (A) Stone masonry  (B) Bond  (C) Brick masonry  (D) None of these

32. Unit of bearing capacity of soil:
   (A) Kg/cm²  (B) mm  (C) kg  (D) sqm

33. Which test is conducted to check the proper grinding of cement?
   (A) Chemical  (B) Setting time  (C) Soundness  (D) Fineness
34. Which substance is used as termite proofing material?
   (A) DPV       (B) PVC
   (C) BHC       (D) None of these

35. Which substance is prepared from resins?
   (A) Varnish   (B) Paint
   (C) Destember (D) None of these

36. Isometric drawing are at __________ degree from place.
   (A) 15°       (B) 5°
   (C) 45°       (D) 30°

37. The wall constructed on both sides of the abutments are called:
   (A) Wing wall   (B) approach
   (C) Wheel guards (D) All of these

38. Main reinforcement for cantilever beam is place at the __________ position.
   (A) Bottom     (B) Top
   (C) Middle     (D) None of these

39. The width of a step is called:
   (A) rise       (B) hand rail
   (C) thread     (D) crown

40. __________ is provided over opening of walls.
    (A) Stair      (B) Lintel
    (C) Step       (D) None of these

41. 1M³ of brick masonry contains __________ no. of bricks.
    (A) 750        (B) 1000
    (C) 500        (D) 10000

42. Dimension line should be placed at about __________ mm from the outlines.
    (A) 8          (B) 6
    (C) 10         (D) 5

A 7
43. Drawing of building are drawn using:
   (A) Enlarging  (B) Reducing
   (C) Full scale  (D) None of these

44. A temporary structure erected to a wall for work:
   (A) Scaffold  (B) String
   (C) DPC  (D) Shoring

45. The centre stone of an arch is called:
   (A) Intrados  (B) Crown
   (C) Extrados  (D) Skewback

46. The handrail stair case is supported by:
   (A) flight  (B) spring
   (C) thread  (D) balusters

47. The minimum height of parapet for small culvert is:
   (A) 30 cm  (B) 40 mm
   (C) 50 cm  (D) 60 cm

48. Rectangular tunnels are generally used for:
   (A) carry water  (B) carrying water under pressure
   (C) pedestrians  (D) carry road and railways

49. Among the following which one is not an example for suspension bridge?
   (A) Flying bridge  (B) Ramp bridge
   (C) Sling bridge  (D) Trestle suspension bridge

50. Tool for threading pipes:
   (A) chisel  (B) dies
   (C) hammer  (D) screw

51. Which is the passage for the flow of surplus water in a weir?
   (A) rectangular  (B) head work
   (C) weir  (D) spillway
52. Shapes in tunnels:
   (A) Circular  (B) Rectangular
   (C) Horse shoe  (D) All of these

53. Which is the rain water of locality?
   (A) Refuse  (B) Storm water
   (C) Cold water  (D) None of these

54. The relation between duty $D$ in hectare leummed depth of water $A$ in meters and base period $B$ in days is given by:
   (A) $\Delta = 8.64 \frac{B}{D}$  (B) $\Delta = 8.64 \frac{D}{B}$
   (C) $\Delta = 8.64 BD$  (D) $\Delta = 8.64 \frac{1}{BD}$

55. Which test is conducted by bearing capacity of soil?
   (A) vical apparatus  (B) plate load test
   (C) soundness  (D) none of these

56. The slide slope of embankment for railway track is taken as:
   (A) 4:1  (B) 1:2
   (C) 2:1  (D) 1:4

57. From the septic tank affluents are discharged into:
   (A) sump  (B) effluent treatment plant
   (C) in the view  (D) soak pit

58. The total depth of water required to be supplied during the entire period of crop is known as:
   (A) Delta  (B) Rabi
   (C) Alpha  (D) Base period

59. R.C.C stands for:
   (A) Reinforced Cast Cement  (B) Reinforced Concrete Cement
   (C) Raw Cement Concrete  (D) None of these

60. The unit of earth work excavation:
   (A) m  (B) cm
   (C) $m^3$  (D) none of these
61. The minimum diameter of a sewer pipe should be:
   (A) 1 cm  (B) 5 cm
   (C) 10 cm  (D) 15 cm

62. The grade of concrete M200 is means that the compressive strength of 15 cm cube offer 28 days should be:
   (A) 100 kg 1 square cm  (B) 180 k/square cm
   (C) 200 kg/square cm  (D) 180 kg/square cm

63. Which value is the value of dismantled materials?
   (A) Market value  (B) Salvage value
   (C) Scrap value  (D) Book value

64. Method of valuation:
   (A) Rental 1 method
   (B) Direction compaction with the capital value
   (C) Valuation based on profit
   (D) All of these

65. Conversion factor to convert wet mortar into dry mortar is:
   (A) 1.2  (B) 1.54
   (C) 1.25  (D) None of these

66. A Solid metal cylinder of radius 14 cm and height 21 cm is melted and recast into spheres each of radius 3.5 cm. Calculate the number of spheres:
   (A) 0.343  (B) 72
   (C) 24  (D) 36

67. The area of a sector is 22 cm², find the perimeter of angle of sector is 30:
   (A) 54.12 cm  (B) 23.12 cm
   (C) 9.16 cm  (D) 18.32 cm

68. The diagonals of a rhombus are 36 cm and 24 cm, find its area:
   (A) 812 cm²  (B) 864 cm²
   (C) 672 cm²  (D) 432 cm²
69. A bucket of base dia 24 cm, top dia 40 cm and height 30 cm is filled with water find the weight of water :

(A) 25.34 kg  
(C) 32.42 kg

(B) 34.45 kg  
(D) 18.48 kg

70. Find the area of a sector of a circle whose radius is 14 cm and the length of the are a of sector is 28 cm :

(A) 44 cm²  
(C) 196 cm²

(B) 360 cm²  
(D) 302 cm²

71. Find the volume of a hemisphere of diameter 17 cm :

(A) 972 CC  
(C) 2572 CC

(B) 1156 CC  
(D) 1286 CC

72. Length of an arc of sector is given by :

(A) \( \frac{2\pi r \times Q}{360} \)  
(C) \( \frac{2\pi r \times Q}{180} \)

(B) \( \frac{\pi r^2 \times Q}{360} \)  
(D) \( \frac{\pi r^2 \times Q}{180} \)

73. The volume of a hemisphere is :

(A) \( \frac{V\pi r^3}{12} \)  
(C) \( \frac{4\pi r^3}{3} \)

(B) \( \frac{2\pi r^3}{3} \)  
(D) \( \frac{\pi r^3}{6} \)

74. Surface area of a cube with side ‘a’ cm is :

(A) \( a^2 \)  
(C) \( 3a^2 \)

(B) \( a^2 \)  
(D) \( 6a^2 \)

75. The volume of right cone having base radius \( r \) and height \( h \) is given as :

(A) \( \frac{1}{3}\pi r^3 \)  
(C) \( \frac{4}{3}\pi r^3 \)

(B) \( \pi r^2 h \)  
(D) \( 2\pi \frac{r^3}{3} \)
76. The volume of cylinder with radius $r$ and height $h$ is given by:

(A) $\pi r^2 h$  
(B) $\frac{1}{3} \pi r^2 h$  
(C) $\frac{\pi r^2 h}{3}$  
(D) $\frac{2}{3} \pi r^2$

77. The volume of a cube with side $a$ is given by:

(A) $a^2$  
(B) $a^3$  
(C) $6a^2$  
(D) $6a^3$

78. Volume of a cube with side 7 cm is:

(A) 49  
(B) 294  
(C) 343  
(D) 140

79. Find the side of a square plot whose area is 38.44 m²:

(A) 5.6 m  
(B) 3.8 m  
(C) 6.9 m  
(D) 6.2 m

80. Find the area of right angled triangle having base 10 cm and height 5 cm:

(A) 50 cm²  
(B) 25 cm²  
(C) 100 cm²  
(D) 15 cm²

81. The largest producer of mango:

(A) China  
(B) India  
(C) Thailand  
(D) Pakistan

82. Indian state having largest deposit of Bauxite:

(A) Orissa  
(B) Gujarat  
(C) Maharashtra  
(D) Jharkhand

83. Alamatti dam is on the river:

(A) Krishna  
(B) Cauveri  
(C) Amaravati  
(D) Godavari
84. Planning Commission of India was established in:
   (A) 1947    (B) 1948
   (C) 1949    (D) 1950

85. The 121st amendment of Indian constitution is related with:
   (A) Right to Education    (B) Prohibition of child labour
   (C) Judicial appointment  (D) Jan Lokpal

86. Dharasana salt satyagraha was led by:
   (A) Mahatma Gandhi    (B) Sardar Patel
   (C) Sarojini Naidu    (D) Vinoba Bhave

87. The British Viceroy during the formation of Indian National Congress:
   (A) Lord Rippon    (B) Lord Dufferin
   (C) Lord Lytton    (D) Lansdowne

88. The Bhrama Vidya Mandir of Paunar was established by:
   (A) Vivekananda    (B) Arabindo Ghosh
   (C) Dayanand Saraswati    (D) Vinoba Bhave

89. B.R. Ambedkar was associated with:
   (A) Republican Party    (B) Swatantra Party
   (C) Justice Party    (D) Socialist Party

90. Founder of United Patriotic Association:
   (A) Abdul Kalam Azad    (B) Muhammed Ali
   (C) Syed Ahamed Khan    (D) Salimullah Khan

91. Vanar Sena – an organization of youth which assisted Indian freedom struggle was founded by:
   (A) Kamala Nehru    (B) Vijayalakshmi Pandit
   (C) Aruna Asaf Ali    (D) Indira Gandhi
92. The rain–shadow region of Kerala:
   (A) Palakkad
   (B) Chinnar
   (C) Punalur
   (D) Lekkidi

93. Social reformer who was honored with the title “Bharata Kesari”?
   (A) K.P. Kesava Menon
   (B) T.K. Madhavan
   (C) K. Kelappan
   (D) Mannathu Padmanabhan

94. The First secretary of SNDP yogam:
   (A) Sri Narayana Guru
   (B) Dr. Palpu
   (C) Kumaran Asan
   (D) Sahodaran Ayyappan

95. “Jaathikkummi” is a poem by:
   (A) K.P. Karuppan
   (B) T.K.C. Vatuthala
   (C) Kumaran Asan
   (D) Chattambi Swami

96. “Kanneerum Kinavum” is the autobiography of:
   (A) K.P. Kesava Menon
   (B) V.T. Bhattathirippad
   (C) Lalithambika Antharjanam
   (D) K. Saraswathi Amma

97. Magnus Carlson belongs to:
   (A) Russia
   (B) USA
   (C) Belgium
   (D) Norway

98. Dilma Rousseff elected President of Brazil as a candidate of:
   (A) Democratic movement
   (B) Workers party
   (C) Social democratic party
   (D) Republican party

99. Rohit Sharma scored his second Double Century in ODI for India against:
   (A) Sri Lanka
   (B) West Indies
   (C) Bangladesh
   (D) England

100. Headquarters of “New Development Bank”:
    (A) Cape Town
    (B) Moscow
    (C) Shanghai
    (D) Rio-de-Janeiro