PSC Draftsman Grade I / Town Planning Surveyor Grade I - Town And Country Planning Examination Previous Year Question Paper

Exam Name: ***Draftsman Grade I / Town Planning Surveyor Grade I - Town And Country Planning***

Date of Test : 15.10.2015

Question Paper Code: 196/2015

Medium of Questions: English

196/2015

1. Structural steel sections are conforming to :
   (A) IS 432 - 1982 (B) IS 1139 - 1966 (C) IS 1786 - 1985 (D) IS 226 - 1975

2. The minimum ultimate tensile strength of cold-twisted bar is :
   (A) 425 N/mm^2 (B) 495 N/mm^2 (C) 565 N/mm^2 (D) 595 N/mm^2

3. For an over reinforced section :
   (A) $n_a > n_c$ (B) $n_a < n_c$ (C) $n_a = n_c$ (D) $n_a \neq n_c$

4. Minimum shear reinforcement in the form of stirrups shall be provided in accordance with the relation :
   (A) $\frac{A_{sv}}{b \times S_v} \geq \frac{f_y}{0.4}$ (B) $\frac{A_{sv}}{b \times S_v} \geq \frac{0.4}{f_y}$ (C) $\frac{A_{sv} \times b}{S_v} \geq \frac{f_y}{0.4}$ (D) $\frac{A_{sv} \times f_y}{S_v} \geq \frac{b}{0.4}$

5. The development length Ld for bars in tension is given by :
   (A) $\frac{\sigma_s \times \phi}{4 \tau_{bd}}$ (B) $\frac{\sigma_s \times d}{S \tau_{bd}}$ (C) $\frac{\sigma_s \phi}{\tau_{bd}}$ (D) $\frac{\sigma_s}{4 \tau_{bd}}$

6. Maximum horizontal distance between tension bars in case of beams for mild steel :
   (A) $\not>$ 180 mm (B) $\not>$ 300 mm (C) $\not>$ 150 mm (D) $\not>$ 200 mm

7. For the design of one way slab, main steel reinforcement A_{st} is obtained by :
   (A) $\frac{M \sigma_{st}}{jd}$ (B) $\frac{M j d}{\sigma_{st}}$ (C) $\frac{M}{\sigma_{st} jd}$ (D) $\frac{\sigma_{st} jd}{M}$

8. For two way slab long span, short span ratio should be :
   (A) $= 2$ (B) ≤ 2 (C) $\neq 2$ (D) ≥ 2

9. The minimum number of longitudinal bars provided in a circular column :
   (A) 4 (B) 5 (C) 6 (D) 8

10. The diameter of longitudinal bars in column should not be less than :

(A) 8 mm (B) 10 mm (C) 12 mm (D) 16 mm

11. The way in which the force is acting :

(A) Magnitude (B) Direction (C) Point of application (D) Sense

12. When the forces in a force system lie in the same plane and have the same line of action, then the force system is called :

(A) Coplanar non-concurrent (B) Coplanar parallel

(C) Coplanar concurrent (D) Coplanar collinear

13. The maximum angle of inclination of the plane at which a body remain in equilibrium under the action of friction only :

(A) Angle of repose (B) Cone of friction

(C) Angle of friction (D) Angle of inclination

14. The area of a semi-circle is :

(A) $\frac{\pi d^2}{4}$ (B) $\frac{\pi d^2}{2}$ (C) $\frac{\pi d^2}{8}$ (D) $\frac{\pi d^2}{16}$

15. The centre of gravity of a hemisphere from the base is at a distance of :

(A) $\frac{2r}{8}$ (B) $\frac{3r}{8}$ (C) $\frac{4r}{8}$ (D) $\frac{6r}{8}$

16. If the load applied on a steel wire of diameter 4 mm is 40 N, then the stress in the body is equal to :

(A) $\frac{40}{\pi}$ N/mm^2 (B) $\frac{10}{\pi}$ N/mm^2 (C) $40\,\pi$ N/mm^2 (D) $\frac{\pi}{40}$ N/mm^2

17. Volumetric strain of a rectangular body subjected to an axial force is :

(A) $e\left(1-\frac{2}{m}\right)$ (B) $e\left(2-\frac{2}{m}\right)$ (C) $e\left(p-\frac{2}{m}\right)$ (D) $e\left(1-\frac{1}{m}\right)$

18. If the linear strain is 0.00045 and lateral strain is 0.00015, the poisson's ratio is equal to :

(A) 0.0006 (B) 0.0003 (C) 3 (D) $\frac{1}{3}$

19. The maximum strain energy stored in a body is known as :

(A) Proof resilience (B) Modulus of rupture

(C) Resilience (D) Modulus of resilience

20. The maximum deflection for a singly supported beam with a central concentrated load is :

(A) $\frac{Wl^2}{16EI}$ (B) $\frac{Wl^3}{16EI}$ (C) $\frac{Wl^2}{48EI}$ (D) $\frac{Wl^3}{48EI}$

21. The distance between 2 points measured by a 20 m chain was recorded as 80 m. If the chain used was 10 cm too long, correct distance is :

(A) 79.1 m (B) 79.9 m (C) 80.4 m (D) 80.1 m

22. Correction for pull is obtained by the equation :

(A) $C_p = \frac{(P_a - P_s)L}{AE}$ (B) $C_p = \frac{(P_s - P_a)L}{AE}$ (C) $C_p = \frac{(P_a - P_s)E}{AL}$ (D) $C_p = \frac{(P_a - P_s)A}{LE}$

23. If the length of two parallel sides of a trapezium are 40 m and 60 m respectively and its perpendicular distance is 15 m, then its area is :

(A) 375 m^2 (B) 750 m^2 (C) 1500 m^2 (D) 160 m^2

24. If the whole circle bearing of a line is 332° 25' its quadrantal bearing is :

(A) N 62° 25' W (B) S 27° 35' W (C) S 62° 25' W (D) N 27° 35' W

25. If the bearings of two lines OA and OB meeting at 'O' is N 25° 40' E and S 45° 25' E, its included angle is :

(A) 109° 20' (B) 109° 40' (C) 109° (D) 108°

26. If the backsight reading on a B.M 50 m is 1.725 m and foresight reading on a point A is 2.265 m, the reduced level of A is :

(A) 49.460 m (B) 53.990 m (C) 50.340 m (D) 50.540 m

27. The levelling used to determine the difference of elevation between two points which are quite apart and it is not possible to set up the levelling instrument mid way between the point is :

(A) Profile levelling (B) Differential levelling

(C) Check levelling (D) Reciprocal levelling

28. If the length of a line is 30 m and its reduced bearing is 60°, its lattitude is :

(A) 15 (B) $30\sqrt{3}$ (C) 60 (D) $30\sqrt{2}$

29. The length of a curve is obtained by the equation :

(A) $\frac{\pi R}{180^\circ \phi}$ (B) $\frac{\pi R \phi}{180^\circ}$ (C) $\frac{R\phi}{180^\circ \pi}$ (D) $\frac{\pi \phi}{180^\circ R}$

30. A curve whose radius varies gradually from infinity to finite value equal to the radius of circular to be connected is known as :

(A) Super elevation (B) Compound curve

(C) Reverse curve (D) Transition curve

31. Unit of payment for damp proof course is :

(A) Sq. cm (B) Sq. m (C) Cu. m (D) Cu. cm

32. The quantity of P.C.C. required for the foundation of a room of size 3 m × 3 m with a wall thickness 20 cm and P.C.C. concrete footing width 1 m and depth 25 cm is :

(A) 3.1 m^3 (B) 3 m^3 (C) 3.4 m^3 (D) 3.2 m^3

33. The centre line length of a hall of size 6 m × 4 m with 30 cm wall thickness is :

(A) 21.2 m (B) 20 m (C) 20.8 m (D) 20.6 m

34. If the total span upto the edge of the Varandah rafter is 3 m, then the total length of the rafter including 15 cm insertion into the wall is approximately :

(A) 3.15 m (B) 3 m (C) 3.3 m (D) 3.45 m

35. For 45° bent up bar, the additional length of one bent up is :

(A) d (B) 0.45 d (C) 0.9 d (D) 9 d

36. The Prismoidal formula for determining the quantity of earthwork is :

(A) $\frac{A_1+A_2}{2}\times L$ (B) $(Bd+Sd^2)\times L$

(C) $\frac{L}{6}(A_1+A_2+2\,Am)$ (D) $\frac{L}{6}(A_1+A_2+4\,Am)$

37. When a work is partially abandoned and the estimated cost of the remaining work is less than 95% of the original work, then the competent authority have to prepare :

(A) Revised Estimate

(B) Supplementary Estimate

(C) Supplementary and Revised Estimate

(D) Detailed Estimate

38. The liveable area is known as :

(A) Carpet Area (B) Plinth Area (C) Built up Area (D) Floor Area

39. The value of a property or structure become loss by it becoming out of date in style, in structure in design etc., is :

(A) Rateable value (B) Obsolescence (C) Scrap value (D) Salvage value

40. The rights and privilages which one owner of a property enjoys through or over the property of another is :

(A) Free hold property (B) Lease hold property

(C) Easement (D) Occupation lease

41. A cementing material is :
(A) Stone (B) Brick (C) Iron (D) Lime

42. Granite is an example for :
(A) Volcanic rock (B) Plutonic rock
(C) Sedimentary rock (D) Metamorphic rock

43. The water absorption capacity of a good stone should not be more than :
(A) 20% (B) 15% (C) 10% (D) 5%

44. Good brick earth should contain 20 to 30% of :
(A) Silica (B) Lime (C) Alumina (D) Magnesia

45. The number of compartment in Hoffman's Kiln is :
(A) 5 (B) 7 (C) 9 (D) 12

46. The percentage of gypsum added to cement clinkers is :
(A) 7% (B) 3% (C) 10% (D) 15%

47. The percentage of moisture content required for maximum bulking is :
(A) 30% to 40% (B) 20% to 30% (C) 5% to 6% (D) 10% to 15%

48. The body of the oil paint is provided by :
(A) Base (B) Vehicle
(C) Colouring pigment (D) Inert filler

49. The slump required for vibrated concrete is :
(A) 30 to 50 mm (B) 50 to 100 mm (C) 100 to 150 mm (D) 12 to 25 mm

50. The defect caused by the rupture of tissues resulting in partial or complete separation of the fibres along the grain is :
(A) Shakes (B) Rind gall (C) Knots (D) Burl

51. A footing supports two column is :

(A) Combined footing (B) Continuous footing

(C) Raft footing (D) Grillage footing

52. Depth of foundation is obtained by the formulae :

(A) $D = \frac{W}{P}\left(\frac{1-\sin\phi}{1+\sin\phi}\right)^2$ (B) $D = \frac{W}{P}\left(\frac{1+\sin\phi}{1-\sin\phi}\right)^2$

(C) $D = \frac{P}{W}\left(\frac{1+\sin\phi}{1-\sin\phi}\right)^2$ (D) $D = \frac{P}{W}\left(\frac{1-\sin\phi}{1+\sin\phi}\right)^2$

53. The foundation suitable for the structures built on expansive soils having differential movement by the alternate swelling and shrinkage of the soil is :

(A) Composite pile (B) Steel pile

(C) Under reamed pile (D) Pedestal pile

54. The short vertical joints between two bricks is known as :

(A) Quoin (B) Perpend (C) Closer (D) Frog

55. A piece of stone projecting from a wall to support a structural member is :

(A) Cornice (B) Coping (C) Corbel (D) Template

56. The outer curve of the arch is known as :

(A) Intrados (B) Extrados (C) Soffit (D) Crown

57. Vertical face of a window or door opening which supports the frame is :

(A) Jamb (B) Reveal (C) Mullion (D) Transome

58. The door used in places where frequent opening and closing of a door is to be avoided :

(A) Sliding door (B) Rolling shutters (C) Folding door (D) Revolving door

59. Horizontal distance between the faces of any two consecutive riser :

(A) Rise (B) Run (C) Walk way (D) Tread

60. Couple roofs are used for span upto :

(A) 2.5 m (B) 4.5 m (C) 3.5 m (D) 5.5 m

61. The horizontal clearance of building for low and medium voltage line is :

(A) 2.4 m (B) 1.2 m (C) 1.85 m (D) 3.7 m

62. One of the essential ideals of town planning is :

(A) Beauty (B) Space (C) Stability (D) Form

63. One of the principle of zoning is :

(A) Density (B) Height (C) Use (D) Flexibility

64. Sky scrapers have :

(A) More than 3 storey (B) More than 5 storey

(C) More than 7 storey (D) More than 10 storey

65. Suggested number of lanes for a traffic capacity of 600 vehicles/hr/lane is :

(A) 2 lanes (B) 4 lanes (C) 6 lanes (D) 8 lanes

66. Assembly buildings belong :

(A) Group A (B) Group B (C) Group C (D) Group D

67. Type 2 construction offer :

(A) 1 hour fire resistance (B) 2 hour fire resistance

(C) 3 hour fire resistance (D) 4 hour fire resistance

68. The headroom at any point in the bathroom and W.C. should not be less than :

(A) 2.2 m (B) 2.4 m (C) 2 m (D) 1.8 m

69. Town planning mainly deals with the utilization of :

(A) Available land (B) Road system

(C) Transport facilities (D) Housing

70. The building activity expands along the sides of main roads is known as :

(A) Concentric spread (B) Ribbon development

(C) Satellite growth (D) Scattered growth

71. Various stages of coal is :

(A) Wood → Peat → Lignite → Bituminous coal → Anthracite

(B) Wood → Lignite → Anthracite → Peat → Bituminous coal

(C) Wood → Lignite → Peat → Anthracite → Bituminous coal

(D) Wood → Anthracite → Peat → Lignite → Bituminous coal

72. Activated sludge process is a :

(A) Preliminary treatment (B) Primary treatment

(C) Secondary treatment (D) Tertiary treatment

73. Permanent reduction of the risk of a disaster is :

(A) Emergency (B) Vulnerability

(C) Preparedness (D) Mitigation

74. A renewable energy resource is :

(A) Water (B) Petrol (C) Mineral (D) Coal

75. The features of Human development index are :

(A) Increased longevity, increase in knowledge

(B) Increase in knowledge, enhancement of income

(C) Increased longevity, enhancement of income

(D) Increased longevity, increase in knowledge, enhancement of income

76. A major mine which cause very high sulphur contamination of ground water is :

(A) Jharia coal mines - Jharkhand

(B) Sukinda chromite mine - Orissa

(C) Kudremukh iron ore mine - Karnataka

(D) North - Eastern coal fields - Assam

77. Eutrophication indicate :

(A) High yielding varities (B) Nitrate pollution

(C) Over nurishment (D) Fertilizer problem

78. Red Tides are developed in the Sea due to :

(A) Clogging of gills (B) Phyto planken

(C) Oil sick (D) Organic waste

79. Prenatal toxicity characterized by structural or functional defect in the developing embryo or fetus is :

(A) Mutation (B) Teratogenesis

(C) Nausea (D) Convulsion

80. A natural disaster is :

(A) Building collapse (B) Soil degradation

(C) Avalanchus (D) Forest fire

81. Author of the book 'The End of History and the Last Man' :

(A) George Bernard Shaw (B) Nirad C. Choudhari

(C) Francis Fukoyama (D) Mikhail Sholokhov

82. 'Kuruva' Island in Wayanad is in the :

(A) Kabani River (B) Bhavani River

(C) Kadalundipuzha (D) Kunthipuzha

83. The first Indian woman President of Indian National Congress :
(A) Annie Besant (B) Sarojini Naidu
(C) Indira Gandhi (D) Padmaja Naidu

84. Father of Kerala police :
(A) F.S. George (B) C.B. Cunningham
(C) L.A. Bishop (D) O.M. Bensly

85. 'Wandering in Many Worlds' is the autobiography of :
(A) V.R. Krishnayyar (B) M.N. Paloor
(C) Jayasree Mishra (D) P.N. Bhagavathi

86. Who founded the 'All India Scheduled Caste Federation' ?
(A) Gandhiji
(B) Jayaprakash Narayan
(C) Ambedkar
(D) Federal Democratic Republic of Ethiopia Binobabave

87. Global Toilet Day :
(A) September 19 (B) November 19
(C) October 19 (D) August 19

88. Screenplay of Malayalam film 'Chemmeen' :
(A) Thakazhi (B) Thoppil Bhasi
(C) Ramu Kariat (D) S.L. Puram Sadanandan

89. Sexual Harassment in the workplace is a violation of articles _____ of the Indian Constitution.
(A) 15 and 21 (B) 28 and 29 (C) 38 and 39 (D) 8 and 9

90. 'Sunny Days' is the autobiography of :
(A) Sachin Tendulkar (B) David Bekkam
(C) Sunil Gavaskar (D) Kapil Dev

91. Author of 'Kundalinipattu' :
(A) Unnaiwarrior (B) Sree Narayana Guru
(C) Padmanabha Kurup (D) A.R. Rajaraja Varma

92. Founder of PRDS (Prathyaksha Raksha Daiva Sabha) :
(A) Poikayil Kumaragurudevan (B) Pandit Karuppan
(C) Thycad Ayya (D) Vakkam Maulavi

93. Sahodaran Ayyappan was born at :
(A) Iraviperoor (B) Varkala (C) Kannanmoola (D) Cherai

94. 'Treatment of Thiyyas in Travancore' written by :
(A) Kumaranasan (B) Vagbhadanandan
(C) Dr. Palpu (D) Sivayogi

95. Birth place of Kuriakose Elias Chavara :
(A) Kainakari (B) Mannanam (C) Kudamaloor (D) Pallipuram

96. The present Vice Chairman of NITI Aayog :
(A) Aravind Kejiriwal (B) Aravind Panagaria
(C) Aravind Ranjan (D) Narendra Modi

97. 'Run Kerala Run' was officially flagged off by :
(A) Oommen Chandy (B) Thiruvanchoor Radhakrishnan
(C) K.C. Joseph (D) P. Sadasivam

98. Official name of Ethiopia :
(A) Federal Democratic Republic of Ethiopia
(B) Democratic Republic of Ethiopia
(C) Republic of Ethiopia
(D) Federal Republic of Ethiopia

99. Which commission was appointed to probe the solar scam in Kerala ?
(A) Shah Commission (B) Labba Commission
(C) Sivarajan Commission (D) Varma Commission

100. The chemical name of Ajinomoto :
(A) Disodium Glutamate (B) Sodium chloride
(C) Potassium chloride (D) Monosodium Glutamate

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