070/2026

Question Booklet Alpha Code: **A**

Question Booklet Serial Number:

Total No. of questions : 100 Time : 1 Hour 30 Minutes

Maximum : 100 Marks

INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball-Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

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Maximum : 100 marks

Time : 1 hour and 30 minutes

1. Which of the following is a reduced scale?

(A) 2 : 1 (B) 1 : 1

(C) 1 : 2 (D) 1 : 0

2. Which of the following is the hardest pencil?

(A) 3 H (B) 12 H

(C) HB (D) 9 H

3. When a right-angled triangle revolves about one of its sides forming the right angle, which solid is generated?

(A) Cone (B) Pyramid

(C) Pentagon (D) Prism

4. Which angle is greater than 180° but less than 360°?

(A) Straight angle (B) Complementary angle

(C) Adjacent angle (D) Reflex angle

5. Chain thin double-dashed lines are used to indicate :

(A) Alternative and extreme positions of movable parts

(B) Hidden outlines

(C) Lines or surfaces to which a special requirement applies

(D) Leader lines

6. Which type of lettering is commonly used in engineering drawing?

(A) Script lettering (B) Arial lettering

(C) Gothic lettering (D) Italic lettering

7. What is the usual ratio of the length to the width of arrow heads used in engineering drawing?

(A) 1 : 2 (B) 1 : 3

(C) 3 : 1 (D) 1 : 1

8. _____ are solids having a base surface that may be triangular, square, or polygonal, and as many slant triangular faces as there are sides in the base.

(A) Frustums (B) Pyramids

(C) Cubes (D) Cones

9. A polygon with seven sides is called :

(A) Pentagon (B) Decagon

(C) Heptagon (D) Octagon

10. Which of the following statements about the trimmed size of drawing sheet is correct?

1. A1 is the largest drawing sheet and A5 is the smallest drawing sheet
2. The size of an A5 drawing sheet is 148×210 mm
3. The size of an A3 drawing sheet is 297×410 mm
4. The size of an A4 drawing sheet is 210×297 mm

(A) Statements 2 and 4 are correct

(B) Statement 2 is correct

(C) Statements 2, 3 and 4 are correct

(D) All statements are correct

11. A rectangular sheet of metal measures 20 cm and 10 cm. Four quadrants of circles each of radius 3 cm are cut away at corners. Find the area of the remaining portion.

(A) 161.74 cm^2 (B) 171.74 cm^2

(C) 181.74 cm^2 (D) 191.74 cm^2

12. Find the area of regular hexagon? Its one side length is 40 cm.

(A) $2400\sqrt{3}\,cm^2$ (B) $2450\sqrt{3}\,cm^2$

(C) $2460\sqrt{3}\,cm^2$ (D) $2475\sqrt{3}\,cm^2$

13. The perimeter of circle is 314 mm, What is the radius of circle?

(A) 3.5 cm (B) 4 cm

(C) 45 cm (D) 5 cm

14. Find the volume of right circle cone? Its base radius is 4 cm and height is 6 cm.

(A) $30\pi\,cm^3$ (B) $31\pi\,cm^3$

(C) $32\pi\,cm^3$ (D) $33\pi\,cm^3$

15. How many millimeters added to get one meter?

(A) 100 mm (B) 1000 mm

(C) 10000 mm (D) 100000 mm

16. How many sides in regular nanogon?

(A) 6 (B) 7
(C) 8 (D) 9

17. What does CADD stands for?

(A) Computer Aided Design and Drafting
(B) Computer Aided Drawing and Designing
(C) Computer Application Design and Drafting
(D) Computer Assisted Drawing and Drafting

18. Which is NOT a basic command in AUTOCAD?

(A) Drawing Command (B) Modifying Command
(C) ATTRIBUTE (D) View/Zoom command

19. Which command is used to move a single or a set of objects to a new location on a drawing?

(A) COPY (B) MOVE
(C) ROTATE (D) TRIM

20. Which command is used to extend the Shorter Lines to meet another object?

(A) TRIM (B) CHAMFER
(C) BREAK (D) EXTEND

21. What are the ARRAY PATTERNS available in AUTOCAD?

(A) RECTANGULAR, POLAR AND PATH
(B) LINEAR, CIRCULAR AND MIRROR
(C) MIRROR, OFFSET AND VERTICAL
(D) HORIZONTAL, VERTICAL AND LINEAR

22. Shortcut key for ORTHO MODE IN AUTOCAD :

(A) F7 (B) F3
(C) F8 (D) F1

23. What does 1200-dpi accuracy mean for Printer/Plotter?

(A) 1200 pages printed per minute
(B) 1200 dots printed in every inch
(C) 1200 lines printed per inch
(D) 1200 colours printed

24. What are the two separate sets of functions in the data output model?

(A) Draw and Edit
(B) System Control and Data Storage
(C) View-Display Functions and Print/Plot Functions
(D) Layers and 3D

25. What line is represented as space between two red lines in the field book?

(A) offset line
(B) chain line
(C) object line
(D) survey line

26. What is the correction for refraction for a distance of 800 meters?

(A) 0.07168 m
(B) 0.007168 m
(C) 0.05024 m
(D) 0.005024 m

27. Which angle is very useful in open traverse by theodolite such as alignment of highways, railways etc.?

(A) vertical angle
(B) depression angle
(C) horizontal angle
(D) deflection angle

28. What is the nature of earth work if the G.L. is 218 and F.L. is 220?

(A) cutting
(B) filling
(C) levelling
(D) drilling

29. Which of the following method is used to find the radial distance in total station?

(A) reference line
(B) tie distance
(C) free station
(D) resection

30. What least angle capable of measuring with best quality total station?

(A) 0.2 arc second
(B) 0.5 arc second
(C) 0.6 arc second
(D) 0.8 arc second

31. Which is a good projection for plotting airline connections?

(A) conic
(B) azimuthal
(C) cylindric
(D) planar

32. Which is the principle of GPS?

(A) resection
(B) trilateration
(C) trisection
(D) traversing

33. Which is the height of satellite from the earth?

(A) 20,200 km (B) 20,000 km
(C) 20,100 km (D) 20,250 km

34. Which of the following types of rocks is dolerite classified as?

(A) Plutonic rock (B) Volcanic rock
(C) Hypabyssal rock (D) Metamorphic rock

35. What is added to fat lime to improve its hydraulic property?

(A) Marble powder (B) Surki
(C) Crushed stone (D) Gypsum

36. Which of the following kilns is traditionally used for the burning and manufacturing of clay tiles?

(A) Bull's Trench Kiln (B) Sialkot Kiln
(C) Hoffman's Kiln (D) Clamp burning

37. Which ingredient in brick earth helps to mold the bricks into the required shape?

(A) Silica (B) Lime
(C) Iron Oxide (D) Alumina

38. The type of cement produced by grinding clinkers formed by calcining a mixture of bauxite and lime is :

(A) High Alumina Cement (B) Rapid Hardening Cement
(C) Portland Pozzolana Cement (D) Blast Furnace Slag Cement

39. The foundation in which a cantilever beam is used to connect two footing is called :

(A) Strip footing (B) Combined footing
(C) Strap footing (D) Stepped footing

40. The horizontal distance between the vertical joints in successive courses is termed as :

(A) Lap (B) Perpends
(C) Arrises (D) Frog

41. Small blocks of wood which are fixed on the trusses to prevent the sliding of purlin is called?

(A) Dragon beam (B) Battens
(C) Gable (D) Cleats

42. Which type of scaffolding is supported on movable ladders, tripods, or frames mounted on wheels, and used for minor repairs or painting inside a room?

(A) Cantilever scaffolding
(B) Suspended scaffolding
(C) Trestle scaffolding
(D) Patented scaffolding

43. Which of the following types of flooring is specifically preferred when a noiseless floor is required in a building?

(A) Marble flooring
(B) Cork flooring
(C) Terrazzo flooring
(D) Granolithic flooring

44. The minimum size of paper on which all plans are drawn :

(A) 210×297 mm
(B) 297×420 mm
(C) 420×594 mm
(D) 594×841 mm

45. The colour scheme for indicating drainage sewerage work in building drawing while submitting plan for permit :

(A) Red dotted line
(B) Black outline
(C) Green line
(D) Brown dotted line

46. As per KPBR, the minimum height of latrine or bathroom is :

(A) 1.80 m
(B) 2.00 m
(C) 2.10 m
(D) 2.50 m

47. The percentage provided for centage charges while preparing estimate is :

(A) 1-2% of estimated cost
(B) 3-5% of estimated cost
(C) 5-10% of estimated cost
(D) 10-15% of estimated cost

48. Unit of measurement in MKS system for the work of brick work of thin partition wall :

(A) metre
(B) sq.m
(C) cu.m
(D) no.

49. The multiplying factor used while calculating quantities of painting for flush door :

(A) $2\frac{1}{4}$ times one surface area, for both sides
(B) 1 times one surface area, for both sides
(C) 2 times one surface area, for both sides
(D) 3 times one surface area, for both sides

50. The expenses comes under general overhead cost :

(A) Handling of materials (B) Travelling expenses
(C) Amenities of labour (D) Workmen's compensation

51. The approximate quantity of work or out turn for an average artisan per day for the work of RCC work is :

(A) 1 cu.m (B) 2 cu.m
(C) 3 cu.m (D) 4 cu.m

52. Value at the end of utility period without being dismantled is called :

(A) Scrap value (B) Salvage value
(C) Book value (D) Market value

53. The clear headroom beneath and above the mezzanine floor shall not be less than :

(A) 2.20 m (B) 2.10 m
(C) 2.00 m (D) 2.30 m

54. The maturing capacity of one cumec of irrigation water, when it is supplied to the crop continuously throughout its period is called _____.

(A) Delta (B) Duty
(C) Base period (D) None of the above

55. Example of diversion dam is _____.

(A) Gravity dam (B) Arch dam
(C) Weir (D) None of the above

56. Permanent canals are also termed as _____.

(A) Permanent canal (B) Feeder canal
(C) Conveyance canal (D) Perennial canal

57. When the drain is over the canal, such cross drainage work is called _____.

(A) Aqueduct (B) Spill way
(C) Super passage (D) None of the above

58. _____ is a solid obstruction put across the river to rise the water level and divert the water into the canal.

(A) Dam (B) Weir
(C) Barrage (D) None of the above

59. _____ is a structure constructed at the head of a canal talking off from a reservoir behind a weir or dam.

(A) Cross regulator
(B) Under sluices
(C) Canal head regulator
(D) None of the above

60. The ratio of specific weight of fluid to the specific weight of standard fluid (that is generally taken as water at 4 degree celcius is known as _____.

(A) Density
(B) Specific gravity
(C) Viscosity
(D) None of the above

61. Pascals law indicates that pressure intensity at any point in a static liquid is _____ in all directions.

(A) Unequal
(B) Different
(C) Perpendicular
(D) Equal

62. The energy possessed by a fluid, by virtue of its position is called _____.

(A) Kinetic energy
(B) Pressure energy
(C) Potential energy
(D) None of the above

63. Articles or components which belong to the class of prisms having a constant and uniform cross sections throughout their length may be developed by the _____ method.

(A) parallel line method
(B) radial line method
(C) triangulation method
(D) geometrical construction method

64. What is the development of the curved surface of a cone?

(A) arc of a parabola
(B) segment of an ellipse
(C) sector of a circle
(D) segment of a circle

65. The process of unfolding all the surfaces of an object on a plane is called _____

(A) stretch
(B) development
(C) layout
(D) none of the above

66. The intersection of two plane surfaces is a _____ line.

(A) curved
(B) hidden
(C) zig zag
(D) straight

67. How many methods are there for determining the line of intersection between surfaces to interpenetrating solids?

(A) 2
(B) 4
(C) 3
(D) 6

68. What is the inner most portion of an external thread and the outermost portion of an internal thread?

(A) lead (B) crest
(C) root (D) depth of thread

69. What is the angle of British association thread?

(A) 27° (B) 47.5°
(C) 60° (D) 32°

70. What is the width of hexagonal nut between flats?

(A) 1.30 d + 5 mm (B) 1.30 d + 3 mm
(C) 1.50 d + 8 mm (D) 1.50 d + 3 mm

71. Weld symbols are grouped into _____.

(A) 4 (B) 6
(C) 2 (D) 5

72. From the following which one is necessary for positioning of welding symbols?

(A) dashed line (B) an arrow line per joint
(C) a continuous line (D) all the above

73. Foundation bolts are available from _____

(A) M8 to M72 (B) M10 to M50
(C) M100 to M500 (D) M75 to M100

74. Which type of lock nut has a closed cavity on one end and a fiber ring is fitted inside it?

(A) slotted nut (B) sawn nut
(C) castle nut (D) simmond's nut

75. From the following which one is used for joining number of parts together and dismandling without damaging any parts :

(A) welded joint (B) screwed fastening
(C) rivetted joint (D) soldering

76. The pitch diameter in millimeter divided by the number of teeth is called :

(A) Pitch line (B) Module
(C) Root circle (D) Pitch point

77. When the angle between the shafts is 90° and two gears of a pair are equal, the gears are called?

(A) Spiral gear
(B) Worm gear
(C) Helical gear
(D) Mitre gear

78. The radial height from the pitch circle to the tip of the tooth is called :

(A) Addendum
(B) Dedendum
(C) Tooth surface
(D) Clearance

79. The localised movement of a belt on a pulley, resulting from the elastic stretch where it tends to stretch on the driving pulley and shorten on the driven pulley, is known as _____.

(A) Slip
(B) Crowning
(C) Creep
(D) Camber

80. The distance between the rivet center and plate edge is called _____.

(A) Margin
(B) Pitch
(C) Back pitch
(D) Gauge line

81. Which formula is generally used for determine the maximum diameter of solid rivet?

(A) T
(B) 2T
(C) 3/4T
(D) 3T

82. Which is used to support the head of the rivet which is already formed and also to prevent damage to the shape of the rivet head?

(A) Snap
(B) Rivet set
(C) Hand riveter
(D) Dolly

83. What type of joint is made in cast iron pipe?

(A) Socket and spigot
(B) Solvent cement
(C) Screwed
(D) Adhesive

84. Which fitting is commonly used to provide flexibility in long pipelines?

(A) Tee
(B) Expansion loop
(C) Coupling
(D) Plug

85. The center part of a pulley is called :

(A) Rim (B) Spoke
(C) Groove (D) Boss

86. Velocity ratio of a chain drive is given by _____.

(A) Driven teeth/Driver teeth (B) Driver teeth/Driven teeth
(C) Driver speed/chain length (D) Driven speed/Chain length

87. In a cross belt drive, the direction of rotation of the driving and driven shaft is :

(A) Same (B) Opposite
(C) Perpendicular (D) Independent of each other

88. In pneumatic system, a fluid system operated with :

(A) Oil (B) Solid
(C) Air (D) Water

89. Which element of pneumatic system to convert static energy of air into linear or rotary motion?

(A) Direction control valve (B) Accutator
(C) Pilot valve (D) Regulator

90. Which one of the following component is not a part of hydraulics system?

(A) Compressor (B) Filter
(C) Acutator (D) Pump

91. Which type fluid is typically used in the system of hydrulic jacks?

(A) Water (B) Compressed air
(C) Specialized hydraulic oil (D) Gasoline

92. In drawing surface roughness is represented by _____.

(A) Triangles (B) Squares
(C) Circles (D) Dots

93. What is the term allowance refers to the system of limits & fits?

(A) Minimum clearence between shaft & hole
(B) Maximum clearence between shaft & hole
(C) Difference between maximum & minimum size of hole
(D) Difference between maximum & minimum size of shaft

94. What is an interchangeable system of manufacturing?

(A) Highly skilled labour is needed to operate the machine
(B) Individual fittings takes place
(C) Components can be produced on traditional machines
(D) The components assemble together at random

95. Which one of the fit is interference fit?

(A) Slide fit
(B) Running fit
(C) Force fit
(D) Shrink fit

96. Which of the following control valves are direction control valve in hydraulic system?

(i) Non return valve
(ii) Solenoid control valve
(iii) Pilot chock valve

(A) Only (i) & (ii)
(B) Only (i) & (iii)
(C) Only (ii) & (iii)
(D) All of the above (i), (ii) & (iii)

97. Which of the following bearing is sliding contact bearing?

(A) Needle bearing
(B) Roller bearing
(C) Collar bearing
(D) Ball bearing

98. Which one of the following type friction occurs in an unlubricated journal bearing?

(A) sliding friction
(B) dry friction
(C) rolling friction
(D) fluid friction

99. In the following advantage of rolling contact bearing over sliding contact bearing :

(A) Low starting friction
(B) Generally less expensive
(C) Requires any of the lubricants
(D) Design of bearing is simple

100. Which of the following properties are should posses material selected for bearing?

(i) Wear and corrosion resistance
(ii) High coefficient of friction
(iii) High thermal conductivity

(A) Only (i) & (ii)
(B) Only (i) & (iii)
(C) Only (ii) & (iii)
(D) All of the above (i), (ii) & (iii)

SPACE FOR ROUGH WORK

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