

109/2017



Question Booklet
Alpha Code

A

Question Booklet
Serial Number

Total Number of Questions : 100

Time : 75 Minutes

Maximum Marks : 100

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/her 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.





1. In first angle projection
 - A) Plan appears above elevation
 - B) Plan appears below elevation
 - C) No specific positions for plan and elevation
 - D) None of the above

2. If a point lies on the HP and in front of VP, its elevation
 - A) Lies on xy line
 - B) Lies above xy line
 - C) Lies below xy line
 - D) None of the above

3. The lip angle of twist drill is
 - A) 62°
 - B) 98°
 - C) 118°
 - D) None of the above

4. In carpentry Auger is used
 - A) To plane flat surfaces
 - B) To plane curved surfaces
 - C) To cut mortises
 - D) To make holes

5. The Rip saw
 - A) is a two men saw
 - B) is used for cutting along the grains
 - C) has narrow blade with two wooden handles
 - D) all the above

6. Ferrule is
 - A) Provided in the handle of carpenters chisel to prevent it from splitting
 - B) A cutting tool used in the fitting shop
 - C) A marking tool used in carpentry
 - D) None of the above

7. Which of the following is an exogenous tree ?
 - A) Bamboo tree
 - B) Teak wood
 - C) Palm tree
 - D) Cane tree

8. Thin radial fibres extending from the pith to cambium layer is
 - A) Bast
 - B) Cortex
 - C) Heart wood
 - D) Medullary rays



17. Coefficient of discharge is equal to
- A) Theoretical discharge/actual discharge
 - B) Theoretical discharge – actual discharge
 - C) Actual discharge – theoretical discharge
 - D) Actual discharge/theoretical discharge
18. Absolute pressure is
- A) Gauge pressure – atmospheric pressure
 - B) Atmospheric pressure \times gauge pressure
 - C) Gauge pressure + atmospheric pressure
 - D) None of the above
19. Hardness may be defined as
- A) The ability to withstand forces
 - B) Ability to withstand elastic deformation
 - C) Ability to resist penetration
 - D) None of the above
20. Brass is an alloy of
- A) Copper and zinc
 - B) Copper and tin
 - C) Zinc and tin
 - D) None of the above
21. Polytropic process is represented by
- A) $PV = \text{constant}$
 - B) $PV^\gamma = \text{constant}$
 - C) $PV^n = \text{constant}$
 - D) $P/V = \text{constant}$
22. The brake power of an engine runs at a speed of 50 revolutions per second with a torque 10 Nm is
- A) 1000π watts
 - B) 500π watts
 - C) 50π watts
 - D) 2000π watts
23. The coefficient of friction is
- A) Normal reaction/limiting friction
 - B) Limiting friction \times normal reaction
 - C) Limiting friction/normal reaction
 - D) None of the above
24. The minimum horizontal force required to move a body up, which is resting on an inclined plane having an angle α , with an angle of friction ϕ is given by
- A) $W \sin (\alpha + \phi)$
 - B) $W \sin (\alpha - \phi)$
 - C) $W \tan (\alpha + \phi)$
 - D) $W \tan (\alpha - \phi)$



25. The distance between the centroid and the base of a semicircular lamina having radius 5 cm is equal to
A) $20/3 \pi$ cm B) $15/4 \pi$ cm C) $15/3 \pi$ cm D) $5/\pi$ cm
26. The moment of inertia of a triangular section having base 4 cm and height 3 cm with respect to its base is
A) 3 cm^4 B) 9 cm^4 C) $16/3 \text{ cm}^4$ D) 16 cm^4
27. Poissons ratio is equal to
A) Linear strain/lateral strain B) Linear strain \times lateral strain
C) Lateral strain/linear strain D) None of the above
28. Caulking is
A) A process to prevent leakage in riveted joints
B) A forging operation
C) A process in a sheet metal shop
D) None of the above
29. In a beam, bending moment will be maximum
A) At the middle point of the beam
B) At the end points of the beam
C) Where the shear force diagram changes its sign
D) None of the above
30. Pelton turbine has
A) Low head and high discharge
B) Low discharge and high head
C) Medium discharge and medium head
D) None of the above
31. The output power of a pump which delivers $0.1 \text{ m}^3/\text{s}$ water with a total head of 10 m is
A) 9.81 kW B) 0.981 kW
C) 98.1 kW D) None of the above
32. For a saddle key
A) No key way in the hub B) No key way in the shaft
C) Both shaft and hub have key ways D) Both shaft and hub have no key ways



33. Example of rigid coupling
A) Oldhams coupling
B) Universal coupling
C) Sleeve coupling
D) All the above
34. In cams, dwell period
A) Is the period at which the cam is stationery
B) Is the period at which the follower is stationery
C) Is the period at which both the cam and follower are stationery
D) None of the above
35. Centrifugal tension in belt drives having velocity of belt 'v' m/s and mass of belt 'm' kg/m is determined by
A) $\frac{1}{2} mv^2$ Newtons
B) $2 mv^2$ Newtons
C) mv^2 Newtons
D) none of the above
36. COP of a vapour compression refrigeration system is
A) Refrigerating effect/work input of compressor
B) Work input of compressor/refrigerating effect
C) Difference in enthalpy of refrigerant in and out of compressor
D) Difference in enthalpy of refrigerant in and out of evaporator
37. One ton refrigeration means
A) Total weight of the refrigerator
B) One tonne refrigerant is used
C) One tonne of water is converted into ice
D) Capacity to freeze one tonne of water from and at 0°C in 24 hours
38. CPM stands for
A) Critical Process Method
B) Common Planning Method
C) Critical Path Method
D) Combined Process Method
39. Surface roughness can be indicated by
A) Numerical values
B) Grade numbers
C) Symbols
D) All the above
40. In hole basis system
A) The minimum limit of hole is equal to the basic size
B) The minimum limit of shaft is equal to the basic size
C) The maximum limit of shaft is equal to the basic size
D) The maximum limit of hole is equal to the basic size



41. Which scale can be measured in three dimensions is known as ?
A) Vernier scale
B) Chord scale
C) Diagonal scale
D) Plain scale
42. An anallatic lens is
A) Concave
B) Convex
C) Plano-concave
D) Plane
43. What is the average value of coefficient of refraction is taken as ?
A) 0.07
B) 0.007
C) 0.70
D) 7.0
44. The representative fraction 1/2500 means that the scale is 1 cm equal to
A) 0.25 m
B) 2.5 m
C) 2.5 km
D) 25 m
45. How many number of bricks are required for 1M^3 of brick masonry ?
A) 450
B) 500
C) 550
D) 400
46. Which portion of a brick cut cross to that of a full brick is ?
A) Closer
B) King closer
C) Queen closer
D) Squint brick
47. How much amount of gypsum is added in the manufacture of cement is ?
A) 0.10 to 0.50%
B) 0.50 to 1.0%
C) 1.0 to 3.0%
D) 3.0 to 5.0%
48. Plywood is specified as
A) Thickness
B) Weight
C) Volume
D) None of these
49. The least bearing capacity of soil is that of
A) Hard rocks
B) Moist clays
C) Soft rocks
D) Laminated rocks



50. Which loads are considered in the design of partition wall ?
A) Live loads
B) Dead loads
C) Wind loads
D) No external loads
51. The highest point of an arch is
A) Deck
B) Crown
C) Zenith
D) Haunch
52. What is the weight of one cubic metre of mild steel contains ?
A) 1000 kg
B) 3625 kg
C) 7850 kg
D) 12560 kg
53. The standard width of asbestos cement corrugated sheet is
A) 0.9 m
B) 1.0 m
C) 1.05 m
D) 1.25 m
54. In which material expected to the highest value of modulus of elasticity ?
A) Steel
B) Copper
C) Brass
D) Aluminium
55. The bending moment on a section is maximum, where the shear force is
A) Minimum
B) Zero
C) Maximum
D) Changing sign
56. The valuation of a building depends on
A) its structure and durability
B) size, shape and type
C) quality of material used
D) all the above
57. The size of modular bricks are
A) $10 \times 10 \times 9$ cm
B) $19 \times 9 \times 9$ cm
C) $22.5 \times 10 \times 8.5$ cm
D) $22.5 \times 8 \times 9$ cm



73. Flow irrigation is done from
- A) Canals
B) Wells
C) Tube wells
D) None of these
74. Duty of the canal water is expressed in
- A) Cumec
B) Centimeters
C) Millimeters
D) ha per cumec
75. Rabi crops pertain to
- A) Summer season
B) Winter season
C) Monsoon season
D) All the above
76. What is the command for clear the screen ?
- A) Wipe out
B) Clear
C) Clean
D) Cls
77. The technique which is activity oriented is
- A) PERT
B) CPM
C) Both of the above
D) LCES
78. Which of the following is an activity ?
- A) Concrete cured
B) Walls plastered
C) Excavation for foundation
D) All of the above
79. The capacity of flushing cisterns for urinals is generally
- A) 40 litres
B) 15 litres
C) 1 litre
D) 0.5 litre
80. What is the value of minimum depth of water seal in a good trap ?
- A) 2.5 to 7.5 cm
B) 10 to 15 cm
C) 15 to 25 cm
D) 30 to 35 cm



81. In which year Sahodaran Ayyappan organised 'Misra bhojanam' ?
A) 1917 B) 1918 C) 1919 D) 1920
82. "I am the leader; shoot me first before you kill others" these words shouted by
A) Akkamma Cheriyan B) Ammu Swaminathan
C) Anna Chandi D) Arya Pallam
83. Jawahar Rozgar Yojana was launched on
A) 1989 April 1 B) 1989 Nov. 1
C) 1989 May 1 D) 1989 Jan. 1
84. National Rural Employment Guarantee Programme was launched during the period of
A) 7th Five Year Plan B) 8th Five Year Plan
C) 9th Five Year Plan D) 10th Five Year Plan
85. Abstention Movement was in the year
A) 1930 B) 1931 C) 1932 D) 1933
86. Which is the symbol of a product without child labour ?
A) Rugmark B) Agmark
C) Ecomark D) Segmark
87. In India, Domestic Violence Act came into force in
A) 2005 October 26 B) 2006 October 26
C) 2005 September 26 D) 2005 September 26
88. Name the person also known as Shanmugadasan.
A) V. T. Bhattathirippad B) Chattampi Swamikal
C) Pampadi John Joseph D) Mannathu Padmanabhan
89. 'Abinava Keralam' written by
A) Vagbadananda B) K. P. Kesavamenon
C) C. Krishnan D) K. Ramakrishna Pilla
90. The first Malayalee who associated with Indian National Congress
A) C. Sankaran Nair B) Barrister G. P. Pillai
C) K. Madhavan Nair D) T. K. Madhavan



91. A secret journal called 'Swatantra Baratam' related to
 A) Kayyoor riot
 B) Keezhariyur Bomb case
 C) Punnapra vayalar
 D) Karivalloor riot
92. Which Part of Indian Constitution deals with citizenship ?
 A) Part II
 B) Part III
 C) Part IV
 D) Part I
93. 'An Essay on Understanding' written by
 A) V. V. Giri
 B) Dr. S. Radhakrishnan
 C) Zakir Husain
 D) Venkitta Raman
94. Steering committee of Indian Constitution headed by
 A) Dr. B. R. Ambedkar
 B) Jawaharlal Nehru
 C) Sardar Vallabhbhai Patel
 D) Rajendra Prasad
95. First Chairperson of Kerala Vanitha Commission
 A) Sugatha Kumari
 B) K. A. Thulasi
 C) Noorbeena Rasheed
 D) Lissy Jose
96. A project of Homeopathy department of Kerala Govt. related to women upliftment
 A) Ujjawala
 B) Seethalaya
 C) Mangalya
 D) Smrithilaya
97. Indian Constitution adopted the institution of speaker from
 A) France
 B) Britain
 C) Canada
 D) Germany
98. 'Kadora Kodaram' written by
 A) Makti Thangal
 B) Vakkam Abdul Kadar Maulavi
 C) Zainuddin Makhdoom
 D) Ali Musliyar
99. Who was the heroine of 'Tholuviraku Samaram' ?
 A) M. V. Kuttimalu Amma
 B) Kunhi Lekshmi Amma
 C) Karthyani Amma
 D) Kunhikkav Amma
100. Who wrote the famous book 'Jatikkummi' ?
 A) Chattampi Swamikal
 B) Brahmananda Sivayogi
 C) Sahodaran Ayyappan
 D) Pandit K. Karuppan



Space for Rough Work



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