

056/2018



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. The constitutional writ issued to restrain a person from holding a public office to which he is not entitled
  - A) Quo Warranto
  - B) Certiorari
  - C) Habeas Corpus
  - D) Prohibition
  
2. Which term is not related to democracy ?
  - A) Consent
  - B) Accountability
  - C) Participation
  - D) Absolutism
  
3. Maximum number of SC population in India is in which State ?
  - A) Madhya Pradesh
  - B) Uttar Pradesh
  - C) Himachal Pradesh
  - D) Maharashtra
  
4. The vacancy in the office of the President must be filled within
  - A) 90 days
  - B) 60 days
  - C) 6 months
  - D) One year
  
5. Which Act established the post of Governor General in India ?
  - A) Indian Councils Act, 1861
  - B) Indian Councils Act, 1893
  - C) Minto Morley Reforms, 1909
  - D) Regulating Act, 1773
  
6. Father of Local Self Government in India
  - A) Lord Lytton
  - B) Lord Dalhousie
  - C) Lord Ripon
  - D) Lord Bentinck
  
7. Maximum strength of Lok Sabha
  - A) 600
  - B) 552
  - C) 550
  - D) 500



8. Who founded 'Nizhal Thankals' as worshipping centres for low caste people ?
- A) Vaikunta Swamikal                      B) Thycaud Ayya  
C) Vagbhatananda                          D) Agamananda
9. Early name of Brahmananda Sivayogi
- A) Vayaleri Kunjikkannan  
B) Ramakrishna Menon  
C) Karattu Govindankutty  
D) Thycaud Ayya
10. Who was the author of "Kristhumatha Niroopanam" ?
- A) Sri Narayana Guru                      B) Father Chavara  
C) Francis Xavier                          D) Chattampi Swamikal
11. Founder of Advaita Asramam in Aluva
- A) Sri Narayana Guru                      B) Chattampi Swamikal  
C) Vagbhatananda                          D) Agamananda
12. The mouth piece of SNDP yogam was
- A) Mangalodayam                          B) Vivekodayam  
C) Yogakshemam                          D) Sujana Nandini
13. Editor of the newspaper Mitavadi
- A) T.K. Madhavan                          B) C.Krishnan  
C) C. Kesavan                              D) C.V. Kunjuraman
14. Who started the newspaper Ezhava Kaumudi ?
- A) C. Krishnan                              B) C. Kesavan  
C) C.V. Kunjuraman                      D) R. Sankar



15. Who was arrested after Kozhencherry speech ?
- A) C. Kesavan  
B) C. Krishnan  
C) T.K. Madhavan  
D) G.P. Pillai
16. Which poem of Kumaran Asan has the theme of intercaste marriage ?
- A) Chandala bhikshuki  
B) Veena poovu  
C) Prarodanam  
D) Duravastha
17. The author of the Sarcastic poem 'Jatikkummi'
- A) Pandit K.P. Karuppan  
B) K.P. Vallon  
C) Sri Narayana Guru  
D) Sahodaran Ayyappan
18. Who was the founder of Atmavidya Sangham ?
- A) Agamananda  
B) Vagbhatananda  
C) Vaikunta Swamikal  
D) Thycaud Ayya
19. Who started the newspaper 'Velakkaran' ?
- A) Velukkutty Arayan  
B) Charathan Solomon  
C) Sahodaran Ayyappan  
D) P.C. Chanchan
20. Who wrote the drama 'Adukkalayil Ninum Arangathekku' ?
- A) Premji  
B) MRB  
C) EMS  
D) V.T. Bhattathirippad



21. The Furnace used to produce copper  
A) Guilding furnace  
B) Muntz furnace  
C) Reverberatory furnace  
D) Open hearth furnace
22. The melting temperature range of gray cast iron  
A) 1100°C – 1130°C  
B) 1150°C – 1230°C  
C) 1400°C – 1520°C  
D) 960°C – 1010°C
23. Austempering for iron done in  
A) Open hearth forge  
B) Salt bath furnace  
C) Die castings  
D) Induction furnace
24. Instrument used for measuring furnace temperature  
A) Pyrometer  
B) Watch glass  
C) Tachometer  
D) Galvanometer
25. In low carbon steel the carbon found in the form of  
A) Graphite  
B) Hematite  
C) Pearlite  
D) None of these
26. The presence of which element makes an alloy easily machinable ?  
A) Chromium  
B) Molybdenum  
C) Cobalt  
D) Silicon
27. Tempering temperature of a cold chisel  
A) 280°C  
B) 230°C  
C) 210°C  
D) 430°C
28. Tempering colour of turning tools  
A) Purple  
B) Palestraw  
C) Brown  
D) Blue
29. Metal which cannot be used for any forging operations  
A) Wrought iron  
B) Aluminium alloy  
C) Mildsteel  
D) Cast iron



30. The percentage of iron contained in a magnetic iron ore  
A) 85%    B) 65%  
C) 53%    D) 45%
31. The ultimate tensile strength of the metal  
A) Toughness                                      B) Hardness  
C) Tenacity                                         D) Elasticity
32. Typical normalizing temperature for malleable iron  
A) 970°C – 1120°C                              B) 810°C – 870°C  
C) 280°C – 310°C                               D) 1200°C – 1280°C
33. The tool used to put coal in fire pit  
A) Poker    B) Dolly    C) Gouge    D) Swoop
34. The property of metal to withstand sudden load  
A) Stiffness                                         B) Hardness  
C) Conductivity                                     D) Creep
35. The ultimate tensile strength of cast iron  
A) 120 to 300 Newton/sq mm                  B) 600 to 700 Newton/sq mm  
C) 60 to 95 Newton/ sq mm                  D) 20 to 45 Newton/sq mm
36. The temperature at preheating zone of a blast furnace  
A) 360°C to 650°C                              B) 700°C to 950°C  
C) 200°C to 350°C                               D) 110°C to 180°C
37. Name the process that steel is heated to a certain temperature in zinc dust.  
A) Cladding                                         B) Metal spraying  
C) Anodising                                        D) Sherardizing



38. The flux used in the production of pig iron from iron ore
- A) Sal ammonia   B) Lime stone  
 C) Borax   D) Dry sand
39. Least count of vernier micrometer
- A) 0.02 mm   B) 0.001 mm  
 C) 0.04 mm   D) 0.02 inch
40. The maximum furnace temperature in working chamber of a hearth furnace
- A) 350°C                                 B) 120°C                                 C) 1100°C                                 D) 600°C
41. The body of twist drill has a helical grooves called
- A) Shank                                 B) Heel                                 C) Lip                                 D) Flute
42. Furnace used to produce wrought iron
- A) Blast furnace   B) Cupola furnace  
 C) Puddling furnace   D) None of these
43. The gas used for welding copper
- A) Ammonia   B) Argon  
 C) Nitrogen   D) Helium
44. The cutting angle of a hot chisel
- A) 30°   B) 75°   C) 45°   D) 60°
45. Setting down process done in a hot job, the thickness of job
- A) Reduce   B) Smelt  
 C) Increase   D) None of these
46. The melting point of lead
- A) 260°C   B) 327°C   C) 483°C   D) 637°C





47. The coating of zinc on ferrous metal by passing it through a bath of molten zinc
- |                |                |
|----------------|----------------|
| A) Diffusion   | B) Anodising   |
| C) Dip coating | D) Galvanising |
48. An electrical property of metal
- |                |                         |
|----------------|-------------------------|
| A) Porosity    | B) Corrosion resistance |
| C) Resistivity | D) Heat resistance      |
49. The melting point of solder which composed 65% tin and 35% lead
- |          |          |          |          |
|----------|----------|----------|----------|
| A) 260°C | B) 203°C | C) 183°C | D) 168°C |
|----------|----------|----------|----------|
50. The tool used for external threading
- |            |         |        |            |
|------------|---------|--------|------------|
| A) Trammel | B) Dies | C) Tap | D) Groover |
|------------|---------|--------|------------|
51. Tempering temperature of forge sets
- |          |          |          |          |
|----------|----------|----------|----------|
| A) 230°C | B) 300°C | C) 270°C | D) 540°C |
|----------|----------|----------|----------|
52. The ability of metal to withstand scratching
- |             |               |
|-------------|---------------|
| A) Hardness | B) Elongation |
| C) Tenacity | D) Elasticity |
53. The flux used for forge welding purpose of cast steel
- |                    |                 |
|--------------------|-----------------|
| A) Clay            | B) Rosin        |
| C) Sodium chloride | D) Glass powder |
54. A mild steel heating for forge welding, it may heat upto a temperature of
- |          |           |          |           |
|----------|-----------|----------|-----------|
| A) 810°C | B) 1350°C | C) 960°C | D) 1440°C |
|----------|-----------|----------|-----------|
55. The tool used for necking down process in Smithy
- |            |           |
|------------|-----------|
| A) Swages  | B) Hotset |
| C) Flatter | D) Fuller |



56. The percentage of graphite carbon in pig iron  
A) 3.5%                      B) 0.03%                      C) 9%                      D) 1.5%
57. During casting pig iron the chemical combination of carbon and iron in the form of  
A) Cementite                      B) Puddling  
C) Graphite                      D) None of these
58. The undesirable property of snapping without warning known as  
A) Hardness                      B) Relative density  
C) Brittleness                      D) Ductility
59. The average calorific value of peat  
A) 8600 kilo calory/kg                      B) 3600 kilo calory/kg  
C) 4200 kilo calory/kg                      D) 5500 kilo calory/kg
60. The chisel used to cut holes in boiler plates  
A) Firmer chisel                      B) Diamond point chisel  
C) Cross cut chisel                      D) Flat chisel
61. Name the furnace used for heating the end of a steel bar.  
A) Slot type furnace  
B) Box type furnace  
C) Continuous heat furnace  
D) High frequency heat furnace
62. Melting temperature of aluminium oxide  
A) 428°C                      B) 660°C                      C) 1624°C                      D) 1926°C
63. A solid solution of ferrite and iron carbide in gamma iron  
A) Cementite                      B) Amorphous                      C) Austenite                      D) Sorbite



64. Flux used for brazing
- A) Sal ammonia                      B) Borax  
C) Dry sand                              D) None of these
65. Jumping operation applied in a hot workpiece to increase
- A) Length                                B) Diameter  
C) Flatness                                D) Hardness
66. The melting point of Beryllium
- A) 1486°C                      B) 1160°C                      C) 2470°C                      D) 1283°C
67. The heating colour for hardening alloy steel
- A) Orange red                              B) Black red  
C) Yellow white                              D) Bluish red
68. Tool used for rounding operation while hand forging
- A) Fuller                                      B) Flatter  
C) Swages                                      D) Set hammer
69. Point angle of Dot punch
- A) 90°                                      B) 25°                                      C) 60°                                      D) 30°
70. The temperature range of an optical pyrometer
- A) 1200°C to 2300°C  
B) 2210°C to 4400°C  
C) 1400°C to 2600°C  
D) 800°C to 4000°C
71. Tool used to finish a hole in hot condition
- A) Punch                                      B) Reamer                                      C) Gouge                                      D) Drift



72. Element used for galvanising mild steel  
A) Aluminium      B) Nickel      C) Zinc      D) Lead
73. Temperature for hardening high speed steel  
A) 1259°C      B) 815°C      C) 871°C      D) 1372°C
74. Melting point of plutonium  
A) 330°C      B) 640°C      C) 480°C      D) 1570°C
75. Which metal is best for cold spinning process ?  
A) Stainless steel      B) Magnesium  
C) Tin      D) Aluminium
76. An example for metal joining process  
A) Honing      B) Tumbling  
C) Sintering      D) Scraping
77. Annealing temperature of high carbon steel  
A) 760°C to 780°C      B) 875°C to 925°C  
C) 840°C to 910°C      D) 640°C to 730°C
78. Process involves increasing the thickness of an iron rod  
A) Swaging      B) Fullering  
C) Upsetting      D) Setting down
79. Tempering temperature of alloy tool steel  
A) 820°C      B) 230°C      C) 360°C      D) 680°C
80. Solid fuel contains more carbon and burns slowly while open forging  
A) Anthracite coal      B) Ammonia gas  
C) Wood      D) Charcoal



81. Melting point of Tin  
A) 323°C  
B) 406°C  
C) 232°C  
D) 196°C
82. Property of metal, change to thin wires  
A) Ductility  
B) Rigidity  
C) Malleability  
D) Brittleness
83. Which element used to improve hardness of steel ?  
A) Copper  
B) Aluminium  
C) Zinc  
D) Carbon
84. Hardening temperature of high speed steel  
A) 920°C  
B) 1280°C  
C) 1100°C  
D) 610°C
85. A die used in  
A) Casting process  
B) Forging process  
C) Extrusion process  
D) All of these
86. The percentage of antimony in bearing metal  
A) 10%  
B) 15%  
C) 3%  
D) 4.8%
87. Following operations which is related to Smithy  
A) Arc welding  
B) Forge welding  
C) Casting  
D) Drilling
88. The point angle of a twist drill  
A) 45°  
B) 180°  
C) 118°  
D) 99°



89. The alloy used to make automotive fittings
- A) Zinc base alloy
  - B) Aluminium base alloy
  - C) Copper base alloy
  - D) Stainless steel base alloy
90. Furnace used for smelting the ore to pig iron
- A) Blast furnace
  - B) Salt bath furnace
  - C) Puddling furnace
  - D) Cupola furnace
91. Melting point of cast iron
- A) 1160°C
  - B) 2100°C
  - C) 1320°C
  - D) 890°C
92. In Geometrical construction the angle less than 90° known as
- A) Obtuse angle
  - B) Reflex angle
  - C) Acute angle
  - D) Right angle
93. A cumulative effect of corrosive environment and static tensile strength on the metal
- A) Recrystallisation
  - B) Season cracking
  - C) Distortion
  - D) Work hardening
94. In Smithy section which hammer is commonly used ?
- A) Ball peen hammer
  - B) Cross peen hammer
  - C) Sledge hammer
  - D) Claw hammer



95. The melting range of BS-1845-Type5-Silver solder
- A) 640°C to 690°C
  - B) 700°C to 775°C
  - C) 310°C to 520°C
  - D) 920°C to 980°C
96. The percentage of carbon in low carbon steel
- A) 0.3% to 0.8%
  - B) 0.8% to 1.5%
  - C) 2% to 3.03%
  - D) 0.15% to 0.3%
97. The amount of phosphorus added in a phosphor bronze
- A) 15%
  - B) 0.15%
  - C) 0.95%
  - D) 0.5%
98. The instrument used to find the centre of a circular job
- A) Jenny caliper
  - B) Inside caliper
  - C) Try square
  - D) Outside caliper
99. The electrolyte used for anodising process
- A) Boric acid
  - B) Sulfuric acid
  - C) Cadmium
  - D) Hydrochloric acid
100. A natural solid fuel
- A) Charcoal
  - B) Ethane
  - C) Coke
  - D) Peat
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Space for Rough Work