

071/2017

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 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.

071/2017

1. How many times the Preamble of Indian Constitution amended ?
(A) 1 (B) 2 (C) 3 (D) Not amended
2. Article 17 of Indian Constitution refers to _____ .
(A) Equality before law (B) Freedom of expression
(C) Abolition of untouchability (D) Right against exploitation
3. Food Security Act was passed in the year _____ .
(A) 1991 (B) 2001 (C) 2011 (D) 2013
4. In 1836 Vaikunta Swamikal founded the *Samathwa Samajam* at _____ .
(A) Thiruvananthapuram (B) Suchindram
(C) Kannamula (D) Varkala
5. Who was the first Vice President of SNDP Yogam ?
(A) Dr. Palpu (B) Sri Narayanaguru
(C) Kumaranasan (D) None of these
6. Guruvayur Satyagraha started on _____ .
(A) 1st October, 1931 (B) 1st November, 1931
(C) 1st December, 1931 (D) 31st December, 1931
7. The basic philosophy of the Indian Constitution can be found in the _____ .
(A) Preamble (B) Fundamental Rights
(C) Directive Principles (D) Fundamental Duties
8. Who wrote the book *Kairaleekauthukam* ?
(A) Thycaud Ayya (B) Pandit Karuppan
(C) Ayyankali (D) Sahodaran Ayyappan

9. Adam's Peak is located in _____ .
(A) Syria (B) India (C) Iran (D) Srilanka
10. Which among the following is the smallest state in India ?
(A) Sikkim (B) Goa (C) Tripura (D) Manipur
11. D. Udayakumar, who created the symbol of Rupee is from _____ .
(A) Karnataka (B) Andhra Pradesh
(C) Telangana (D) Tamil Nadu
12. Who among the following started the publication *Yukthivadi* in 1928 ?
(A) Sahodaran Ayyappan (B) Vakkom Moulavi
(C) Pandit Karuppan (D) Ayyankali
13. Chandu Menon's novel *Sarada* illustrates _____ .
(A) the craze for English education (B) the craze for womens freedom
(C) the craze for political power (D) the craze for litigation
14. Who wrote the novel *Manninte Maril* ?
(A) O.V. Vijayan (B) C. Radhakrishnan
(C) Cherukad (D) G. Vivekanandan
15. Kumaranasan got immortal fame as a great poet or *Mahakavi* for his _____ .
(A) Veenapoovu (B) Nalini (C) Lila (D) Prarodanam
16. The credit for having laid the foundations of western education in the Malabar area goes to _____ .
(A) C.M.S. (B) L.M.S. (C) B.E.M. (D) None of these
17. Virat Kohli scored his fourth consecutive double century in test cricket format against _____ .
(A) England (B) West Indies (C) New Zealand (D) Bangladesh

18. Wagon tragedy took place on _____ .
(A) 20th August, 1920 (B) 20th November, 1920
(C) 20th August, 1921 (D) 20th November, 1921
19. Who among the following met with a tragic death in the police lathi charge on the 100th day of Paliyam Satyagraha ?
(A) A.G. Velayudhan (B) A.K. Gopalan
(C) P. Krishna Pillai (D) A.K. Velayudhan
20. Schedule 1 of Indian Constitution refers to _____ .
(A) Division of powers between Union and States
(B) Anti defection laws
(C) India and it's States
(D) Languages of India and it's States
21. The teeth angle of a single cut file is :
(A) 51 degree (B) 71 degree (C) 60 degree (D) 61 degree
22. Which is not a purpose of annealing ?
(A) to relieve strain and stresses (B) to add cutting ability
(C) to eliminate strain and harness (D) to soften steel
23. The file used for bringing the material closer to the finished size is :
(A) Rough file (B) Rasp cut file
(C) Dead smooth file (D) Second cut file
24. The ratio of pitch circle diameter to the number of teeth of a spur gear is called :
(A) circular pitch (B) addendum circle (C) land (D) module
25. The purpose of clapper box in shaping machine is :
(A) to lift the tool during return stroke
(B) to hold the tool rigidly
(C) for giving depth of cut
(D) none of these

26. A screw thread micrometer measures which portion of a screw thread ?
(A) major diameter of thread (B) depth of thread
(C) core diameter of thread (D) pitch diameter of thread
27. Device which holds, support, locates and guide the tool during cutting operation is :
(A) fixture (B) jig (C) stopper (D) none of these
28. Bearings made to take thrust from one direction are classifieds as :
(A) needle bearing (B) roller bearing
(C) tapered roller bearing (D) ball bearing
29. Which type of caliper used for locating centre of round jobs ?
(A) leg and point caliper (B) outside caliper
(C) spring joint caliper (D) inside caliper
30. The part which is not essential for thread cutting operation in a centre lathe is :
(A) lead screw (B) tailstock (C) change gear unit (D) halfnut
31. Point angle of general purpose twist drill is :
(A) 120 degree (B) 45 degree (C) 119 degree (D) 118 degree
32. Softest part of a hammer head is known as :
(A) cheek (B) face (C) pein (D) handle
33. Device used for holding larger diameter taper shank drill to a machine spindle is known as :
(A) drift (B) socket (C) chuck (D) sleeve
34. What is the use of a cross cut chisel ?
(A) cutting key ways and grooves
(B) corner squaring
(C) for separating metals after chain drilling
(D) none of these

35. What is the least count of a metric outside vernier micrometer ?
(A) 0.01 mm (B) 0.02 mm (C) 0.001 mm (D) 0.002 mm
36. Function of coolant in a metal cutting operation is :
(A) to prevent corrosion
(B) flush the chips from cutting edge
(C) to carry away heat generated during cutting operation
(D) all of these
37. The process of shaping of the grinding wheel is known as :
(A) dressing (B) truing (C) cleaning (D) loading
38. How much is the least count of a vernier bevel protractor ?
(A) 5 minutes (B) 5 seconds (C) 1 minute (D) 1 degree
39. Which process produces a flat seat for bolt head, washer or nut at the opening of a drilled hole ?
(A) chamfering (B) spot facing (C) counterboring (D) reaming
40. For a three start thread pitch is equal to :
(A) one third of the lead (B) three times the lead
(C) half of the lead (D) equal to lead
41. What is the included angle of a worm thread ?
(A) 60 degree (B) 55 degree (C) 45 degree (D) 29 degree
42. Plug tap is used for :
(A) making thread in a blind hole (B) for starting a thread
(C) for making left hand thread (D) for making fine thread

43. If a clearance fit is obtained in a hole basis system, the tolerance zone of the shaft must be :
- (A) above the tolerance zone of the hole
 - (B) same as the tolerance zone of the hole
 - (C) below the tolerance zone of the hole
 - (D) above or equal to the tolerance zone of the hole
44. Carbon content of cast iron ranges from :
- (A) 1 to 4 percentage
 - (B) 0.8 to 1.5 percentage
 - (C) 2 to 4 percentage
 - (D) 0.8 to 3 percentage
45. The jig generally used to drill a number of holes on a component from different angles is :
- (A) sandwich jig
 - (B) box jig
 - (C) table jig
 - (D) post jig
46. Which is not an advantage of taper turning by attachment ?
- (A) both internal and external tapers can be produced
 - (B) power feed can be given
 - (C) large angle tapers can be produced
 - (D) threads on taper portion can be produced
47. The process of dividing the periphery of a workpiece into any number of equal parts is known as :
- (A) peripheral milling
 - (B) parting off
 - (C) knurling
 - (D) indexing
48. The slope between front of the cutting edge to a line perpendicular to the axis of the tool drawn downwards is :
- (A) relief angle
 - (B) rake angle
 - (C) clearance angle
 - (D) point angle
49. The bearing surface angle of a centre drill is :
- (A) 60 degree
 - (B) 120 degree
 - (C) 45 degree
 - (D) 30 degree
50. White metal is an alloy of :
- (A) copper, tin and zinc
 - (B) copper and zinc
 - (C) tin, copper and antimony
 - (D) copper and tin

51. When the angle between the shaft is 90 degree and two gears of a pair are equal, they are called :
- (A) spur gear (B) spiral gear (C) helical gear (D) mitre gear
52. The method of removing metal by pushing or pulling an elongated cutting tool with a number of teeth in though hole or along a surface is known as :
- (A) broaching (B) boring (C) lapping (D) hobbing
53. The grinding or abrading process mostly used for finishing round holes with the help of bonded abrasive stone is called :
- (A) lapping (B) buffing (C) honing (D) hot dipping
54. The advantage of centerless grinder is :
- (A) the workpiece being supported throughout its length
(B) no centre holes is required
(C) the size of workpiece is easily controlled
(D) all of these
55. The perpendicular distance measured from the machined surface to unmachined surface is called :
- (A) feed (B) depth of cut (C) chamfer (D) taper
56. The device used for holding and rotating a hollow workpiece that has been previously drilled is :
- (A) mandrel (B) collet (C) driving plate (D) centre
57. The operation of machining several surfaces of a workpiece simultaneously by feeding table against a number of cutters is known as :
- (A) straddle milling (B) profile milling (C) saw milling (D) gang milling
58. Which of the heat treatment gives a scale free surface to the component ?
- (A) flame hardening (B) nitriding
(C) induction hardening (D) tempering

59. Which is not an essential property of a good lubricant ?
(A) viscosity (B) adhesiveness (C) oiliness (D) flashpoint
60. Which is not a part of center lathe ?
(A) Carriage (B) Cross rail (C) Apron (D) Bed
61. Accuracy of inside micrometer is _____ .
(A) 0.01 mm (B) 0.01 cm (C) 0.001 mm (D) 0.02 mm
62. Example of non ferrous tool materials is _____ .
(A) Tungsten (B) High speed steel
(C) Ceramic (D) High carbon steel
63. The chemical symbol of Acetylene gas is _____ .
(A) C_2H_2 (B) H_2SO (C) H_2F (D) H_2F_2
64. _____ files is used in causes where a heavy reduction of materials is required.
(A) Smooth file (B) Second cut file (C) Rough file (D) Bastard file
65. The size of the bench vice is stated by _____ .
(A) Overall length (B) Length of jaw
(C) Width of jaw (D) Moving length of jaw
66. Try squares are specified by _____ .
(A) Length of stock (B) Length of blade (C) Width of stock (D) Width of blade
67. One micrometer is equal to _____ .
(A) 100 mm (B) 0.001 mm (C) 0.0001 mm (D) 0.01 mm
68. Steel rules are made of _____ .
(A) Stainless steel (B) High carbon steel
(C) High speed steel (D) All of these

69. Jenny caliper also called _____ .
(A) Outside caliper (B) Vernier Caliper
(C) Firm joint calipers (D) Hermaphrodite caliper
70. The angle of the point of centre punch is _____ .
(A) 60° (B) 30° (C) 45° (D) 90°
71. The accuracy of bevel protractor is _____ .
(A) $\pm 1^\circ$ (B) $\pm 0.5^\circ$ (C) 5" (D) 5'
72. Standard length of hacksaw blade is _____ .
(A) 100 mm (B) 300 mm (C) 200 mm (D) 400 mm
73. For cutting high speed steel _____ mm pitch hacksaw blade is used.
(A) 1.8 mm (B) 0.8 mm (C) 1 mm (D) 1.4 mm
74. _____ chisel is used for squaring materials at the corner, joints.
(A) Web chisel (B) Diamond point chisel
(C) Cross cut chisel (D) Flat chisel
75. The weight of an engineer hammer used for marking purposes is _____ .
(A) 250 gram (B) 500 gram (C) 125 gram (D) 750 gram
76. Current range of 5 mm diameter electrode size is _____ .
(A) 40 - 60 A (B) 90 - 130 A (C) 130 - 270 A (D) 60 - 80 A
77. _____ property is a measure of metals ability to withstand scratching, wear, abrasion.
(A) Malleability (B) Hardness (C) Brittleness (D) Tenacity
78. The shape of woodruff key is _____ .
(A) Rectangular (B) Square (C) Round (D) Half round

79. The purpose of annealing is _____ .
 (A) To add cutting ability
 (B) To soften the steel
 (C) To refine the structure of the steel
 (D) To induce toughness
80. The difference between maximum limit of size to its corresponding basic size of a component is _____ .
 (A) Actual deviation (B) Tolerance
 (C) Upper deviation (D) Clearance
81. If the plug gauge have Go and No Go same side then it is called _____ .
 (A) Progressive plug gauge (B) Double ended plug gauge
 (C) Taper ring plug gauge (D) Thread plug gauge
82. A steel which contains just 0.8% carbon then it is called _____ .
 (A) Hypo eutectoid steel (B) Eutectoid steel
 (C) Hyper eutectoid steel (D) Plain carbon steel
83. High carbon steel contain _____ % of carbon.
 (A) 0.3 to 0.8 (B) 0.1 to 1.5 (C) 0.8 to 1.4 (D) 0.15 to 0.3
84. At the time of arc welding _____ is used to protect the body.
 (A) Dankry (B) Coat (C) Glass (D) Apron
85. Which machine is used to convert the AC main supply into an AC welding supply ?
 (A) AC welding transformer (B) DC welding transformer
 (C) Rectifier (D) Motor generator set
86. Zinc coated iron is known as _____ .
 (A) Black iron (B) Galvanized iron
 (C) Stainless steel (D) Wrought iron

87. The most commonly used rivet head is _____ .
(A) Pan head (B) Counter sunk head
(C) Conical head (D) Snap head
88. _____ is the lower critical temperature for plain carbon steel.
(A) 723°C (B) 750°C (C) 900°C (D) 695°C
89. _____ are used to produce internal threads.
(A) Die (B) Chaser (C) Thread roller (D) Tap
90. _____ is a forming operation in a lathe.
(A) Turning (B) Facing (C) Knurling (D) Threading
91. What is the grade of angle plate used for general machine shop work ?
(A) Grade 1 (B) Grade 2 (C) Grade 3 (D) Grade 0
92. Density of steel is _____ .
(A) 7.85 gm/cm² (B) 8.85 gm/cm² (C) 7.75 gm/cm² (D) 7.55 gm/cm²
93. The point angle of a chisel for chipping cast iron is _____ .
(A) 55° (B) 37.5° (C) 60° (D) 65°
94. What is the correct tap drill size for tapping M10 ?
(A) 8.5 mm (B) 7.5 mm (C) 9 mm (D) 10 mm
95. The purpose of _____ is to restore the correct cutting action of the grinding wheel.
(A) Loading (B) Glazing (C) Dressing (D) Truing
96. _____ is the difference between the maximum limit of size and the minimum size of limit.
(A) Deviation (B) Size (C) Tolerance (D) Clearance

97. The No : 80 drill means _____ mm.
 (A) 5.791 (B) 3.264 (C) 1.016 (D) 0.35
98. What is the formula for finding the spindle speed of a lathe ?
 (A) $\frac{\pi DN}{1000}$ (B) $\frac{Cs * 1000}{\pi D}$ (C) $\frac{\pi D}{1000 * Cs}$ (D) $\frac{100 * Cs}{\pi D}$
99. The abrasive used for honing of non ferrous metal is _____ .
 (A) Diamond (B) Boron carbide
 (C) Aluminium oxide (D) Silicon carbide
100. Tempering temperature of screw driver is _____ .
 (A) 230°C (B) 280°C (C) 320°C (D) 250°C

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SPACE FOR ROUGH WORK

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