

140/2017

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

120813

Total No. of questions : 100

Time : 75 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.

SEAL

140/2017

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. The Journal in which "Veenapoovu" by Mahakavi Kumaranasan was first published :
(A) Samadarsi (B) Mitha Vadi
(C) Rajya Samacharam (D) Prabodhakan
2. Which Article of the Constitution of India deals with Cow Slaughter Ban?
(A) Article 48 (B) Article 49
(C) Article 49 A (D) Article 48 A
3. 'Mann Ki Bath' the Radio Address of the prime minister of India was started in :
(A) October 2014 (B) January 2015
(C) January 2014 (D) October 2015
4. The Temple Entry Proclamation was prepared and written by :
(A) T.K. Madhavan (B) Dr. Palpu
(C) Ulloor S. Parameswara Iyer (D) Kumaranasan
5. The First women-friendly Grama Panchayath in Kerala :
(A) Iraviperoor (B) Mancheswaram
(C) Perumanna (D) Mararikkulam South
6. 'Jaathi Kkummi', a work critizing the caste system was written by :
(A) Dr. Palpu (B) Vagbhadanandan
(C) Ayyankali (D) Pandit Karuppan
7. The only chief Justice who bore the charge of the Acting President of India:
(A) M. Hidayathulla (B) K.G. Balakrishnan
(C) Markandeya Katju (D) B.P. Sinha

A

3

[P.T.O.]

8. The founder of 'Swadesabhimani' news paper was :
(A) Swadesabhimani Ramakrishna Pillai
(B) S. Sadanand
(C) Vakkom Abdulkhader Moulavi
(D) K.P. Kesava Menon
9. The first short story in Malayalam :
(A) Marappavakal
(B) Velutha kutti
(C) Vasana Vikruthi
(D) Kalabhaisavan
10. The first Newspaper in Kerala :
(A) Paschimodayam
(B) Rajya Samacharam
(C) Paschima tharakam
(D) Sahodaran
11. Nithya Chaithanya Yati was the disciple of :
(A) Narayana Guru
(B) Nataraja Guru
(C) Swami Bodhananda
(D) Vagbhadananda
12. The Malayalam journal founded by poet Kumaran Asan, popularly known as 'The Ezhava Gazette' :
(A) Sathyavadi
(B) Kerala Kaumudi
(C) Yukthivadi
(D) Vivekodayam
13. 'I met a real man in Malabar', these famous words by Swami Vivekanandan was about :
(A) Ayyankali
(B) K. Kelappan
(C) Chattambi Swamikal
(D) Brahmananda Sivayogi
14. The first member of Pulaya community to be nominated to Travancore Legislature Assembly :
(A) Ayyankali
(B) Pandit Karuppan
(C) P.C. Chanchin
(D) T.T. Kesavan Sasthri
15. The 'Fundamental Rights' in the Constitution of India was adopted from :
(A) Constitution of USA
(B) British Constitution
(C) Constitution of Russia
(D) Constitution of Italy

16. The main woman leader in 'Kallumala Revolt' for better living of women :
(A) Akkamma Cheriyan (B) Arya Pallam
(C) Parvathi Manazhi (D) Anna Chandi
17. The father of Literacy in Kerala is a title to :
(A) Herman Gundert (B) C. Krishnan
(C) Poikayil Yohannan (D) Blessed Elias Kuriakose Chauvara
18. The woman leader whom Mahatma Gandhi called the Jhansi Rani of Kerala :
(A) Lalitha Prabhu (B) Akkamma Cheriyan
(C) Anna Chandi (D) Rosamma Punnus
19. The number of levels in the Killer Game Blue Whale :
(A) 49 (B) 39
(C) 50 (D) 40
20. The Goods and Service Tax (GST) Bill was passed by the Indian Parliament in :
(A) April 2017 (B) August 2016
(C) October 2016 (D) October 2015
21. In standard grinding wheel marking system Letter 'B' represents :
(A) Rubber bond (B) Resinoid bond
(C) Shellac bond (D) Silicate bond
22. The angle of acme thread is :
(A) 60° (B) 55°
(C) 45° (D) 29°
23. The property of a metal by virtue of which it may permanently extent in all direction without rupture by hammering, rolling etc is :
(A) Ductility (B) Malleability
(C) Toughness (D) Elasticity
24. Antifriction bearings are made out of :
(A) Chromium steel (B) High speed steel
(C) High carbon steel (D) Phosphorous bronze

25. Limit gauge used to check the outside diameter of a circular shaft is :
- (A) Plug gauge (B) Ring gauge
(C) Snap gauge (D) Adjustable caliper gauge
26. If the toleranced size of a hole is 20 H8, what will be the minimum limit of size?
- (A) 20.06 mm (B) 20.80 mm
(C) 19.92 mm (D) 20.00 mm
27. Bronze is an alloy of copper and :
- (A) Zinc (B) Tin
(C) Lead (D) Aluminium
28. Which of the following jig locates from bore?
- (A) Box jig (B) Channel jig
(C) Sandwich jig (D) Post jig
29. Which type of bearing is used where there is a limited bearing space in housing?
- (A) Ball bearing (B) Roller bearing
(C) Needle bearing (D) Thrust bearing
30. In the following, which is the jig without base plate?
- (A) Plate jig (B) Box jig
(C) Sandwich jig (D) Leaf jig
31. Melting point of Aluminium is :
- (A) 1083°C (B) 760°C
(C) 660°C (D) 430°C
32. Universal surface gauge can be used for scribing parallel lines from any datum edge with the help of:
- (A) Vee groove (B) Snug
(C) Rocker arm (D) Guide pin
33. Name of the metal column which separates the flutes of drill bit is :
- (A) Tang (B) Margin
(C) Body clearance (D) Web

34. The least count of metric vernier micrometer is :
(A) 0.1 mm (B) 0.01 mm
(C) 0.001 mm (D) 0.0001 mm
35. Soft metal particles getting clogged in the pores of a grinding wheel is called :
(A) Dressing (B) Glazing
(C) Loading (D) Truing
36. The micrometer works on the principle of :
(A) Screw and nut (B) Difference between scales
(C) Rack and pinion (D) Lever
37. Grade 'A' V blocks are available only up to a length of :
(A) 300 mm (B) 200 mm
(C) 100 mm (D) 50 mm
38. For grade number N12 what is the equivalent surface roughness value in microns?
(A) 50 (B) 25
(C) 0.05 (D) 0.025
39. A rasp cut file is mainly used to remove material from :
(A) Steel (B) Cast iron
(C) Brass (D) Wood
40. The point angle of flat chisel for chipping mild steel is :
(A) 50° (B) 55°
(C) 60° (D) 65°
41. Which of the following device is used to hold a parallel shank twist drill having 10 mm diameter?
(A) Sleeve (B) Socket
(C) Drill chuck (D) Drift
42. The coolant used for machining cast iron is :
(A) Machine dry (B) Kerosene
(C) Water (D) Soluble oil

43. The angle of drill grinding gauge is :
(A) 59° (B) 90°
(C) 118° (D) 121°
44. What is the clearance angle generally provided on a twist drill?
(A) $2^\circ-4^\circ$ (B) $8^\circ-10^\circ$
(C) $25^\circ-30^\circ$ (D) $55^\circ-60^\circ$
45. An ordinary vernier caliper works on the principle of :
(A) Difference between two different scales
(B) Rack and pinion
(C) Screw and nut
(D) Pitch and lead
46. What is the least count of vernier caliper with 9 divisions on the main scale (1 MSD = 1 mm) is divided in to 10 equal parts on vernier scale?
(A) 0.02 mm (B) 0.05 mm
(C) 0.10 mm (D) 0.01 mm
47. A feeler gauge is used to check :
(A) Radius of work pieces (B) Angles
(C) The gap between two mating parts (D) None of the above
48. Which of the following thread has got pitch equal to lead?
(A) Right hand thread (B) Single start thread
(C) Double start thread (D) Multi start thread
49. Which type of gear is used to transmit power at 90 degree angle?
(A) Bevel gear (B) Helical gear
(C) Spur gear (D) Herringbone gear
50. Which of the following power transmitting method is a positive drive?
(A) Flat belt drive (B) V belt drive
(C) Rope drive (D) Gear drive

51. What is the formula for velocity ratio of gear train?
- (A) $N_1T_1 = N_2T_2$ (B) $N_1T_2 = N_2T_1$
 (C) $N_1T_1/T_2 = N_2T_2/T_1$ (D) $N_1T_1 = N_2T_2/N_1$
52. Which method is used to finish circular bores with high degree of dimensional and geometrical accuracy?
- (A) Lapping (B) Honing
 (C) Grinding (D) Turning
53. Percentage of carbon in high carbon steel is :
- (A) 0.1 to 0.3 (B) 0.3 to 0.8
 (C) 0.8 to 1.4 (D) 1.5 to 2.0
54. Which of the following process is used to finish the top surface of cast iron surface plate?
- (A) Milling (B) Grinding
 (C) Lapping (D) Scraping
55. Which is the clamp used along with V blocks as an accessory?
- (A) C clamp (B) U clamp
 (C) Parallel clamp (D) Tool maker's clamp
56. One yard is equal to :
- (A) 12 inches (B) 24 inches
 (C) 36 inches (D) 72 inches
57. The smallest drill in letter drill series is 'A'. Its diameter is :
- (A) 0.350 mm (B) 1.500 mm
 (C) 5.944 mm (D) 10.490 mm
58. How many fundamental deviations are there as per BIS system?
- (A) 16 (B) 18
 (C) 25 (D) 26
59. Difference between the maximum limit and minimum limit is known as
- (A) Deviation (B) Tolerance
 (C) Clearance (D) Interference

60. Telescopic gauges are used to measure holes from diameter :
- (A) 1 mm to 100 mm (B) 3 mm to 13 mm
(C) 8 mm to 150 mm (D) 50 mm to 300 mm
61. The furnace used for smelting iron ore is :
- (A) Blast furnace (B) Cupola furnace
(C) Puddling furnace (D) Bessemer converter
62. Generally case hardening process is done on steel with a carbon content of :
- (A) 0.15% (B) 0.9%
(C) 1.2% (D) 1.5%
63. Name of the forging operation by which the cross section of work piece is reduced and the length is increased is :
- (A) Drawing out (B) Upsetting
(C) Jumping (D) Twisting
64. In forging method what is the tool used for enlarging a previously punched hole?
- (A) Punch (B) Drift
(C) Bolster (D) Reamer
65. Which tool is used to support head of the rivet which is already formed?
- (A) Dolly (B) Rivet snap
(C) Rivet set (D) Caulking tool
66. Which is the instrument used to scribe a circle or arc with large diameters?
- (A) Divider (B) Wing Compass
(C) Trammel (D) Jenny caliper
67. Which is the punch used to drive locating pins, dowels and rivets out of their holes?
- (A) Prick punch (B) Centre punch
(C) Hollow punch (D) Pin punch

68. Flame temperature of oxy-acetylene gas flame is :
- (A) 1800°C to 2200°C (B) 2400°C to 2600°C
(C) 2600° to 2800°C (D) 3100°C to 3300°C
69. The included angle of VEE groove in 'V' block is :
- (A) 60° (B) 75°
(C) 90° (D) 120°
70. In gas cutting, width of the cut created by the cutting operation is called :
- (A) Drag (B) Kerf
(C) Bevel (D) Gouge
71. Medium coated welding electrodes will have a coating factor of :
- (A) 1.4 to 1.6 (B) 1.6 to 2.2
(C) 2.2 to 2.4 (D) 2.4 to 2.6
72. Which of the following lathe centre is used for supporting heavy jobs and jobs revolving with high speeds?
- (A) Ball centre (B) Tipped centre
(C) Insert type centre (D) Revolving centre
73. Measuring errors which are due to the measuring instrument are known as :
- (A) Contact error (B) Systematic error
(C) Random error (D) Geometrical error
74. Which of the following machine reamer is designed to cut with its-end cutting edge?
- (A) Machine jig reamer (B) Jobber reamer
(C) Shell reamer (D) Rose chucking reamer
75. Which nut has got provision in the form of slots for fixing split pins for locking nuts?
- (A) Sawn nut (B) Grooved nut
(C) Castle nut (D) Simmonds nut

76. Which of the following key has got a curvature to match with that of the shaft surface?
(A) Sunk key (B) Flat saddle key
(C) Hollow saddle key (D) Circular taper key
77. Pyrite is the ore of :
(A) Copper (B) Aluminium
(C) Lead (D) Zinc
78. Name of the pipe fitting which is used to connect two pipes with different diameters is :
(A) Coupling (B) Reducer coupling
(C) Union (D) Pipe nipple
79. Which type of scraper is suitable for scraping small diameter holes, deburring of holes and removing metal from intricate corners?
(A) Flat scraper (B) Triangular scraper
(C) Hook scraper (D) Bull nose scraper
80. The bearing which can take axial thrust as well as radial load is :
(A) Roller bearing (B) Needle bearing
(C) Thrust bearing (D) Angular contact-ball bearing
81. What is the angle of diamond pyramid indentation tool used in Vicker hardness testing machine?
(A) 90° (B) 120°
(C) 126° (D) 136°
82. What is the dielectric fluid used in Electro Discharge Machining?
(A) Kerosene (B) Soluble oil
(C) Salt bath (D) Water
83. Which of the following is a removable type foundation bolt?
(A) Eye foundation bolt (B) Rag bolt
(C) Bent type bolt (D) Rawl bolt

84. What is the tap drill size of the thread $M10 \times 1.5$?
- (A) 8 mm (B) 8.2 mm
(C) 9 mm (D) 10 mm
85. In belt drive horizontal drive is converted into vertical drive using :
- (A) Guide pulleys (B) Jockey pulley
(C) Fast pulley (D) Cone pulley
86. Which of the following material is suitable for making springs?
- (A) High speed steel (B) Stainless steel
(C) Cast iron (D) Lead
87. Which of the following belt fastner is used on heavy duty machines?
- (A) Wire type (B) Lagrelle type
(C) Jackson type (D) Crescent plate type
88. Density of mild steel is :
- (A) 6.48 gm/cc (B) 7.85 gm/cc
(C) 10.20 gm/cc (D) 13.20 gm/cc
89. Crowned face of the flat belt pulley helps to :
- (A) Keep the belt centralized (B) Increase the belt life
(C) Transmit more power (D) Avoid slip
90. Which type of coupling is used to transmit power at large angles?
- (A) Safety coupling (B) Plate coupling
(C) Clamp coupling (D) Universal coupling
91. In galvanizing process mild steel is coated with :
- (A) Nickel (B) Tin
(C) Zinc (D) Chromium
92. Operation of beveling end of a drilled hole is called :
- (A) Boring (B) Counterboring
(C) Counter sinking (D) Spot facing

3. Which of the following seal can be used as a dynamic seal?
(A) Rubber gasket (B) Oil proof paper
(C) Graphite impregnated cloth (D) O. Ring
94. Percentage of carbon in Cast Iron is :
(A) 2.0 to 4.0 (B) 1.4 to 2.0
(C) 0.8 to 1.4 (D) 0.15 to 0.8
95. Files are specified according to their :
(A) Length (B) Shape
(C) Grade (Cut) (D) All of the above
96. Name of the chisel used for cutting keyways, grooves and slots is :
(A) Cross cut chisel (B) Flat chisel
(C) Diamond point chisel (D) Web chisel
97. What is the value of one vernier scale division in vernier bevel protractor?
(A) 2° (B) $1^\circ 55'$
(C) 1° (D) $5'$
98. Which is the material used to make lathe bed?
(A) High speed steel (B) Stainless steel
(C) Mild steel (D) Cast iron
99. In a drawing thread is specified as M16 \times 2. What does it mean?
(A) Metric thread with major diameter 16 mm in two positions
(B) Metric thread of 16 mm major diameter having 2 mm depth
(C) Metric thread of 16 mm major diameter having 2 mm pitch
(D) Metric thread with minor diameter 16 mm and pitch 2 mm
100. Plain carbon steel which contain more than 0.8% is called :
(A) Hypereutectoid steel (B) Hypoeutectoid steel
(C) Eutectoid steel (D) Low carbon steel

