

115/2017

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

Total Number of Questions : 100

Time : 75 Minutes

Maximum Marks : 100

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.

115/2017

1. "Perinad lahala" is also known as :
(A) Kunnam kulam samaram (B) Kallumala samaram
(C) Pidiyari samara (D) Paliyam samaram
2. The famous work which greatly influenced Gandhiji and develop the concept of joint family and set up an ashram at Johannas Burg :
(A) The Kingdom of God is Within You
(B) Anna Karenina
(C) War and Peace
(D) Resurrection
3. 'Subarayan' is the original name of :
(A) Ayya Vaikundar (B) Shivayogi
(C) Sree Narayana Guru (D) Thycaud Ayya
4. Article 25 to 28 of the Indian Constitution give concrete shape to :
(A) Federalism (B) Secularism (C) Sovereignty (D) Democracy
5. The new chairman of International Fertilizer Association (IFA) :
(A) CJ Dawson (B) Vinodh Bhut (C) Medha Patkar (D) Rakesh Kapoor
6. The social reformer who related to Nedumangad Chandha Lahala ?
(A) Ayyankali (B) Sahodaran Ayyappan
(C) C.V. Kunjuraman (D) Swami Ananda Theerthan
7. Diwan of Tiruvithamkur during the time of exile of Swedheshabhimani Ramakrishna Pillai :
(A) Velu Tampi (B) C. Rajagopalachari
(C) Paliyathachan (D) C.P. Ramaswami

8. The author of "Advaita chintha padhathi" :
- (A) Dr. Ayyathan Gopalan (B) G.P. Pillai
(C) Chattampi Swamikal (D) V.T. Bhattathiripad
9. The social reformer in Kerala who wanted the freedom of opressed class to be attained before the nation achieved freedom ?
- (A) C. Krishnan (B) K.P. Keshavamenon
(C) T.K. Madhavan (D) K. Kelappan
10. The new secretary of the Central Board of Secondary Education :
- (A) Nilam Gupta (B) Himanta Sarma
(C) Anurag Tripathy (D) Krishna Mourya
11. The Directive Principles of State Policy contained in :
- (A) Part 3rd of Indian Constitution (B) Part 4th of Indian Constitution
(C) Part 5th of Indian Constitution (D) Part 6th of Indian Constitution
12. The person who called Kumaran Ashan as "Viplavathinte Sukranakshatharam" ?
- (A) P.P. Raveendran (B) Kesari Balakrishnapillai
(C) Gopalakrishnan P.K. (D) Joseph Mundassery
13. The Tamil leader who participated in Vaikkom satyagraha from beginning to end ?
- (A) E.V. Ramaswami Naikker (B) Veerasalingam
(C) Subramanya Iyer (D) Parmeswara Iyer
14. "Paccha Malayalam" the literary movement is related to :
- (A) Kerala Varma Valiya Koyi Thampuran
(B) Kodungallur Kunhikuttan Thampuran
(C) Kumaran Ashan
(D) Kesav Dev

15. Dhola-Sadiya, India's longest river bridge constructed across the river :
(A) Godavari (B) Ganga (C) Yamuna (D) Brahmaputhra
16. Which city is the world's most densely populated city according to UN Habitat Data :
(A) Dhaka (B) Mumbai (C) Kolkata (D) Lagos
17. The first country in the world to band metal mining in nation wide :
(A) Haiti (B) El Salvador (C) Peru (D) Brazil
18. As per Indian Constitution the number of Ministers including the Chief Minister in a State shall not be less than :
(A) 14 (B) 15 (C) 12 (D) 11
19. The person who related to Thali Kshethra Samaram ?
(A) K.P. Kesava Menon (B) Jayaprakash Narayan
(C) K. Kelappan (D) T.K. Madhavan
20. Which cricket team has won the 2017 Deodhar Trophy ?
(A) Maharashtra (B) Tamil Nadu (C) Kerala (D) Goa
21. Warning signs are _____ in shapes with black sign and black border.
(A) Square (B) Round (C) Rectangle (D) Triangle
22. The factors in a fire triangle are Oxygen, heat and _____.
(A) Water (B) Fuel
(C) Both (A) and (B) (D) None of these
23. WWW is developed by :
(A) Tim Berners-Lee (B) Charles Babbage
(C) Thomas Alva Edison (D) Faraday

24. _____ signs indicate necessity of work shown in signs and are in circular shapes.
 (A) Information signs (B) Prohibition signs
 (C) Mandatory signs (D) None of these
25. List of Luminous intensity in S.I. Systems is _____.
 (A) Ampere (B) Candela (C) Volt (D) Ohm
26. Outside micrometer is also known as _____.
 (A) Plug gauge (B) Feeler gauge (C) Screw gauge (D) Vernier Caliper
27. Formula for finding least count of vernier caliper is :
 (A) $1 \text{ MSD} - 1 \text{ VSD}$ (B) $1 \text{ mm} - \text{least count}$
 (C) $1 \text{ cm} - 1 \text{ mm}$ (D) None of these
28. For squaring small holes which chisel is used :
 (A) Firmer chisel (B) Diamond point chisel
 (C) Cross cut chisel (D) All of the above
29. The length of a file from point to :
 (A) Tip (B) Tang (C) Face (D) Heel
30. Usually files are made up of :
 (A) High grade steel (B) High speed steel
 (C) Low carbon steel (D) Mild steel
31. _____ cut files are used for soft metal.
 (A) Smooth (B) Second cut (C) Rough (D) Super smooth
32. The number of cuts over a length of 10 mm for a bastard file of 300 mm is :
 (A) 4 (B) 11 (C) 13 (D) 9

33. For harder metals, excellent file for good finish for many pieces of fitting work is :
(A) Second cut (B) Rough (C) Smooth (D) Dead Smooth
34. Filing narrow slots, notches and grooves _____ files is used.
(A) Triangular file (B) Knife edge file (C) Half round file (D) Flat file
35. Cuts of files are divided into _____ groups.
(A) Two (B) Three (C) Three (D) Four
36. Files are classified and named according to three principal factors :
(A) Size (B) Shape
(C) Both (A) and (B) (D) None of these
37. For making thread on hole _____ is used.
(A) Broach (B) Die and die stock
(C) Centre drill (D) Tap and tap wrench
38. The length of a hacksaw blade is usually _____.
(A) 200 mm (B) 300 mm (C) 350 mm (D) 300 cm
39. For measuring the pitch of thread _____ is used.
(A) Feeler gauge (B) Standard wire gauge
(C) Limit gauge (D) Screw pitch gauge
40. Checking the clearance between two mating parts, _____ is used.
(A) Feeler gauge (B) Radius gauge
(C) Standard wire gauge (D) Pressure gauge
41. A _____ is used to remove little metal from the hole and to bring it to the correct size.
(A) Scriber (B) Tap
(C) Combination centre drill (D) Reamer

42. Engineer's parallel jaw bench vice is also called :
(A) Bench vice (B) Pipe vice (C) Pin vice (D) Lag vice
43. For holding round section metal, tubes, pipes, etc. _____ vice is used.
(A) Bench vice (B) Pipe vice (C) Leg vice (D) None of these
44. Metal which contain iron as base are called _____.
(A) Ferrous metal (B) Non-ferrous metal
(C) Both (A) and (B) (D) None of these
45. The purest form of Iron is :
(A) Cast iron (B) Pig iron (C) Mild steel (D) Wrought iron
46. Steel is an alloy of _____ and _____.
(A) Copper and iron (B) Iron and carbon
(C) Carbon and tin (D) Manganese and sulphur
47. The process of reduction of iron ore to pig iron is called :
(A) Cyaniding (B) Hardening (C) Forging (D) Smelting
48. The product of blast furnace is :
(A) Cast iron (B) Gray iron (C) Pig iron (D) Alloy steel
49. In grey cast iron carbon contained in the form of _____.
(A) Spheroidal (B) Nodules (C) Iron carbide (D) Graphite flakes
50. The flux used in cupola furnace is :
(A) Charcoal (B) Lime stone (C) Coke (D) Borax

51. Cast iron alloyed with 10% nickel and _____ become non-magnetic called no-mag.
(A) 2% Cobalt (B) 3% Aluminum (C) 6% Chromium (D) 6% Manganese
52. The ore of lead is _____.
(A) Galena (B) Copper pyrites (C) Bauxite (D) Calamine
53. Gun metal contains _____% tin, _____% Cu and 2% Zinc.
(A) 12 and 90 (B) 10 and 88 (C) 8 and 80 (D) 11 and 90
54. Bell metal contains _____% tin and rest copper.
(A) 30 (B) 20 (C) 25 (D) 35
55. The alloy of copper and tin is called :
(A) Brass (B) Gun metal (C) Babbitt metal (D) Bronze
56. The alloy of _____ with _____ is called nichrome.
(A) Nickel, Chromium (B) Tungsten, iron
(C) Copper, Aluminum (D) Cobalt, copper
57. _____ is the heaviest of common metals.
(A) Tin (B) Aluminum (C) Copper (D) Lead
58. The melting point of zinc is :
(A) 210°C (B) 419°C (C) 300°C (D) 280°C
59. The term 18/8 refers to :
(A) 18% Ni and 8% Chromium (B) 18% vanadium and 8% tungsten
(C) 18% copper and 8% sulphur (D) 18% Lead and 8% tin
60. The specific gravity of Aluminum is :
(A) 1.72 (B) 3.16 (C) 2.98 (D) 2.65

61. Alloy steels are usually quenched in _____.
- (A) Oil (B) Water (C) Lime (D) Ash
62. In normalizing, cooling is done in :
- (A) Lime (B) Air (C) Ash (D) Water
63. Tap drill size is determined by the formulae :
- (A) Outside diameter – Inside diameter
(B) Outside diameter – 2 depth
(C) Outside diameter – Pitch
(D) None of these
64. An oxidizing flame is one in which there is an excess of _____.
- (A) Hydrogen (B) Oxygen (C) Nitrogen (D) Carbon dioxide
65. By oxyacetylene welding method the metal plates upto _____ mm thickness can be welded.
- (A) 30 mm (B) 25 mm (C) 40 mm (D) 50 mm
66. In forward gas welding the blow pipe is held at an angle of _____ to the plane of weld.
- (A) 40° - 45° (B) 60° - 70° (C) 50° - 60° (D) 70° - 80°
67. Oxygen cylinders are charged with a pressure of about :
- (A) 164 kgf/cm² (B) 122 kgf/cm² (C) 135 kgf/cm² (D) 154 kgf/cm²
68. Usually acetylene cylinder hoses are _____ in colour.
- (A) Black (B) Maroon (C) Blue (D) Yellow
69. Galvanized iron means coating of _____ on iron.
- (A) Tin (B) Nickel (C) Zinc (D) Lead

70. The special stake used for riveting is :
- (A) Bevel edge stake (B) Double seaming stake
(C) Beak horn stake (D) Square stake
71. Circles and arcs beyond the limit of dividers :
- (A) Trammel points (B) Rope and nail
(C) Spring dividers (D) Ordinary dividers
72. The ingredients of solders are :
- (A) Lead and copper (B) Lead and tin
(C) Tin and copper (D) Zinc and lead
73. In soldering the flux used is :
- (A) Salamonia (B) Borax
(C) Copper sulphate (D) All of the above
74. Tolerance is the difference between maximum limit of size and _____ size.
- (A) Minimum limit (B) Basic
(C) Upper deviation (D) Lower deviation
75. The measured size is known as _____.
- (A) Nominal size (B) Basic size (C) Actual size (D) Minimum limit
76. The algebraic difference between actual size (maximum etc.) and the corresponding basic size is called _____.
- (A) Tolerance (B) Basic size (C) Nominal size (D) Deviation
77. In a push fit one can be assembled into the other with :
- (A) A medium pressure (B) Light hand pressure
(C) No pressure (D) All of the above

78. The fundamental deviation symbol 'H' represents :
- (A) Hole (B) Shaft
(C) Both (A) and (B) (D) None of these
79. Acme thread has an included angle of :
- (A) 39° (B) 29° (C) 27° (D) 37°
80. For cutting thread on a lathe gear ratio can be calculated by :
- (A) $\frac{DR}{DN} = \frac{\text{Pitch to be cut}}{\text{Pitch of the lead screw}}$ (B) $\frac{DR}{DN} = \frac{\text{Pitch of the lead screw}}{\text{Pitch to be cut}}$
(C) Both (A) and (B) (D) None of these
81. In gun breeches which thread is used ?
- (A) Butters threads (B) Acme thread (C) Square thread (D) Worm thread
82. For general purpose sawing a _____ blade will be used.
- (A) 18 pitch (B) 10 pitch (C) 15 pitch (D) All of these
83. The rotary motion in a power backsaw machine is converted into linear motion by :
- (A) Chain drive (B) Gear drive
(C) Crank mechanism (D) Slotted lever mechanism
84. While machine reaming the work is revolved at _____.
- (A) High speed (B) Very slow speed
(C) Medium speed (D) None of these

85. _____ caliper has a turn leg.
- (A) Inside (B) Outside
(C) Jennifer Caliper (D) None of these
86. $100^{\circ}\text{C} = \text{_____}^{\circ}\text{C}$.
- (A) 100° (B) 180° (C) 120° (D) -40°
87. Which gauge is used during the use of sine bar ?
- (A) Roller gauge (B) Ring gauge (C) Screw gauge (D) Slip gauge
88. The part of vernier bevel protractor on which main scale marked is called ?
- (A) Dial (B) Disc (C) Scale (D) Vernier
89. In a wheel the deference between abrasive and bond is known as :
- (A) Grid (B) Structure (C) Grit (D) Bond
90. What is mean by 'V' in WA46K4V16 written on grinder ?
- (A) Structure (B) Type of abrasive
(C) Type of bond (D) Grid
91. Surface speed of grinding wheel is find out by the formulae :
- (A) $\frac{DN}{1000}$ m/sec (B) $\frac{\text{Pitch of screw}}{\text{Pitch to be cut}}$
(C) Both (A) and (B) (D) $\frac{\pi DX \text{ rpm}}{1000}$

92. Some _____ is given while making edges and seams.
 (A) Cutting (B) Folding (C) Measuring (D) Allowance
93. In a bend prepared by folding machine the radius of internal angle is _____ times of thickness of metal.
 (A) 2 (B) 3.5 (C) 1.5 (D) 2.5
94. Thickness of rubber wheel is :
 (A) 0.08 mm (B) 0.03 mm (C) 0.07 mm (D) 1 cm
95. Grade of silicon carbide is :
 (A) Soft (B) Hard
 (C) (A) and (B) (D) Very hard and brittle
96. Conical clutch is a :
 (A) Dog clutch (B) Match plate clutch
 (C) Friction clutch (D) All of the above
97. 'V' belts are classified in _____ classes.
 (A) 6 (B) 3 (C) 4 (D) 5
98. In _____ method, the lubricant given to machine by drops.
 (A) Splash (B) Gravity feed
 (C) Force pressure (D) Ring oiling
99. Lard oil is a _____ lubricant.
 (A) Liquid (B) Solid (C) Semi solid (D) All of the above
100. 'II' this symbol indicates which type of weld ?
 (A) Seam weld (B) Spot weld (C) Fillet weld (D) Square butt weld

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SPACE FOR ROUGH WORK

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