

# 103/2018

Question Booklet  
Alpha Code

A

Question Booklet  
Serial Number

Total No. of Questions: 100

Maximum : 100 Marks

Time : 75 Minutes

## 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.

103/2018-A





**103/2018**

Maximum : 100 Marks

Time : 1 hour and 15 minutes

1. What is the name of the political party founded by former Pakistan Cricket team captain Imran Khan ?  
(A) Pakistan Muslim League (B) Tehrik-i-Insaf  
(C) Pakistan Awami League (D) Pakistan People's Party
2. The city which is known as the Cultural Capital of Kerala  
(A) Thiruvananthapuram (B) Kannur  
(C) Thrissur (D) Kollam
3. Headquarters of Asian Development Bank is in  
(A) Manila (B) Kuala Lumpur  
(C) Jakarta (D) Hanoi
4. World Press Freedom Day is on  
(A) 14<sup>th</sup> April (B) 3<sup>rd</sup> May  
(C) 15<sup>th</sup> August (D) 21<sup>st</sup> October
5. The newspaper "Dawn" is published in  
(A) China (B) Sri Lanka  
(C) Pakistan (D) Bangladesh
6. The national leader who described the Non-Co-operation Movement as a Himalayan Blunder  
(A) C.R. Das (B) Jawaharlal Nehru  
(C) Dr. Ambedkar (D) Mahatma Gandhi
7. The police officer from Kerala, who served as the Director of Research and Analysis Wing (RAW)  
(A) Jacob Thomas (B) Rishiraj Singh  
(C) Hormiz Tharakan (D) T.P. Senkumar
8. The Taluk in Kerala which has the longest coastline  
(A) Thalassery (B) Ponnani  
(C) Ambalapuzha (D) Cherthala
9. Which is the smallest neighbouring country of India ?  
(A) Burma (B) Bhutan  
(C) Nepal (D) Sri Lanka
10. Gold coast is the old name of  
(A) Kenya (B) Zambia  
(C) Ghana (D) Nauru

**A****3****103/2018  
[P.T.O.]**

11. The first foreigner to become the President of Indian National Congress  
(A) William Wedderburn (B) George Yule  
(C) William Dighby (D) C.F. Andrews
12. Who coined the slogan “India For Indians” ?  
(A) Raja Rammohan Roy (B) Swami Vivekananda  
(C) Swami Dayananda Saraswathi (D) Jyotiba Phule
13. “Tsunami” is a word in which language ?  
(A) Arabic (B) Japanese  
(C) Korean (D) Chinese
14. The state which is known as the “Grannary of India”  
(A) Telangana (B) Uttar Pradesh  
(C) Punjab (D) Rajasthan
15. National Book Trust was founded in the year  
(A) 1952 (B) 1957  
(C) 1961 (D) 1968
16. Who is known as the Father of Internet ?  
(A) Glen Raikort (B) Charles Babbage  
(C) John Biard (D) Remington
17. The planet which remains very close to the Earth  
(A) Mercury (B) Mars  
(C) Venus (D) Neptune
18. The British Governor-General who prepared the first census of India  
(A) Lord Curzon (B) Lord Mayo  
(C) Lord Hardinge (D) Lord Ripon
19. Panama Canal acts as a link between which of the following oceans ?  
(A) Atlantic and Pacific (B) Mediterranean and Pacific  
(C) Arctic and Pacific (D) Red Sea and Pacific
20. The freedom fighter who was a close associate of Mahatma Gandhi during the Bardoli Satyagraha of 1928  
(A) Lal Bahadur Shastri (B) Rajendra Prasad  
(C) Vallabhbbhai Patel (D) Jawaharlal Nehru

21. The shape of an information sign is \_\_\_\_\_  
(A) Circular (B) Triangular  
(C) Square (D) Oval
22. Which one of the fire extinguishers is suitable for a live electrical fire ?  
(A) Halon (B) Water  
(C) Foam (D) Liquefied Chemical
23. Which colour code used to waste bin for segregation of plastic material ?  
(A) Blue (B) Green  
(C) Red (D) Yellow
24. A nut is to be made for a screw of M 10 × 1.5. What should be the size of drilled hole ?  
(A) 8.5 mm (B) 9.0 mm  
(C) 9.5 mm (D) 10.5 mm
25. If the zero graduation of thimble division of an outside micrometre is below the datum line, when the measuring face of the micrometre are in contact, the error is \_\_\_\_\_  
(A) Positive (B) Negative  
(C) Zero (D) None of these
26. The tailstock barrel has an internal taper, which are the following standard taper ?  
(A) Metric taper (B) Morse taper  
(C) Jerno taper (D) Brown and sharp taper
27. Which among the following parts of a lathe should have high compressive strength ?  
(A) Main spindle (B) Lead screw  
(C) Lathe bed (D) Sliding gears in head stock
28. To hold irregularly shaped workpiece on a lathe which accessories used ?  
(A) Three jaw chuck (B) Driving plate  
(C) Clutch plate (D) Face plate
29. Which of the following is not a part of a centre lathe ?  
(A) Feed rod (B) Saddle  
(C) Arbor (D) Lead screw
30. Which type of rule is used for making and measuring patterns and hot jobs handled by blacksmith ?  
(A) Narrow rule (B) Shrink rule  
(C) Hook rule (D) Short rule

31. Which type of chip formation would be the best for turning mild steel ?  
(A) Long curly chip (B) Segmented chips  
(C) I shaped chip (D) Spiral chip
32. The function of the cutting fluid in the lathe operation is  
(A) Cleaning and lubricating  
(B) Chip removal and lubricating  
(C) Better finish and lubricating  
(D) Cooling and flushing chip away from the cutting tool
33. Which type of a chisel is used for squaring material at the corner of a job ?  
(A) Web chisel (B) Cross cut chisel  
(C) Round nose chisel (D) Diamond point chisel
34. Punch used for punching on marking line is  
(A) Bell punch (B) Prick punch  
(C) Dot punch (D) Centre punch
35. A file card is used for  
(A) Cleaning the workpiece (B) Cleaning the file teeth  
(C) Renewing the file teeth (D) Cleaning the chip
36. By using taper turning attachment taper can be turned with a setting angle upto  
(A)  $10^\circ$  (B)  $20^\circ$   
(C)  $25^\circ$  (D)  $30^\circ$
37. Which one of the following standard taper is self holding type ?  
(A) Morse taper (B) Metric taper  
(C) Brown and sharp taper (D) Jerno taper
38. How the blank size for external thread is decided ?  
(A) Blank diameter greater than  $1/10$  of the pitch of the thread  
(B) Blank diameter equal to the nominal diameter of the thread  
(C) Blank diameter is less than  $1/10$  of the pitch of the thread  
(D) Major diameter of the thread
39. Least count of Vernier Bevel protractor is \_\_\_\_\_  
(A) 1 MSD – 1 VSD (B) 1 VSD – 1 MSD  
(C) 1 VSD – 2 MSD (D) 2 MSD – 1 VSD

40. The different diameters are turned on different axis, it is said to be \_\_\_\_\_.  
(A) Eccentric (B) Concentric  
(C) Taper (D) Plane
41. The distance from one point of the thread to the other point of next corresponding thread is called  
(A) Lead (B) Angle  
(C) Crest (D) Pitch
42. A fixture is used for \_\_\_\_\_.  
(A) Grinding the tool (B) Holding the workpiece  
(C) Setting the workpiece (D) None of the above
43. The least count of Vernier height gauge in the metric system is \_\_\_\_\_.  
(A) 0.05 mm (B) 0.1 mm  
(C) 0.02 mm (D) 0.001 mm
44. What kind of welding machine are used in site welding ?  
(A) DC welding generator (B) AC welding generator  
(C) AC/DC welding generator (D) Oil cooled generator
45. The electrode holder is made of \_\_\_\_\_.  
(A) Copper (B) Fibre  
(C) Plastic (D) Rubber
46. Which type of thread are used for transmitting power ?  
(A) 'V' thread (B) BSW thread  
(C) Square thread (D) BA thread
47. In lathe form tools are used to produce \_\_\_\_\_.  
(A) Cylindrical surface  
(B) Tapered surface  
(C) Thread  
(D) The surfaces which are neither cylindrical nor tapered
48. The chemical formula of Acetylene is \_\_\_\_\_.  
(A)  $C_2H_4$  (B)  $CH_3$   
(C)  $C_2H_6$  (D)  $C_2H_2$
49. For making purpose, a vernier height gauge must be used on the \_\_\_\_\_.  
(A) Bed of machine tool (B) Square block  
(C) Surface plate (D) Any flat surface

50. The purpose of chasing dial on lathes is to achieve \_\_\_\_\_  
 (A) cutting on tapered threads  
 (B) picking up the thread accurately at the beginning of each cut  
 (C) cutting on multiple threads  
 (D) plunge cut
51. The melting point of copper is \_\_\_\_\_  
 (A) 1083 °C (B) 1150 °C  
 (C) 659 °C (D) 850 °C
52. Which of the following tools is most suitable for very hard and brittle material ?  
 (A) H.S.S. (B) Cast-Cobalt alloy  
 (C) Carbide (D) None of the above
53. A soldering iron bit is made of \_\_\_\_\_  
 (A) Brass (B) Tin  
 (C) Steel (D) Copper
54. High speed steels are most suitable for \_\_\_\_\_.  
 (A) High positive rake angle tools  
 (B) High negative rake angle tools  
 (C) Zero rake angle tools  
 (D) None of the above
55. Ceramic tools are made of \_\_\_\_\_ in a mould.  
 (A) Chromium, vanadium and molybdenum  
 (B) Aluminium oxide powder  
 (C) Carbon, cobalt and tungsten  
 (D) None of these
56. Which of the top rake angle of cutting tool, cutting in bronze ?  
 (A) 30° (B) 13°  
 (C) 8° (D) 10°
57. The lathe cutting tool is set above the centre line of the job. What is the reason ?  
 (A) Smooth finish (B) Rough finish  
 (C) Fine smooth finish (D) None of these
58. Segmental chips are formed during machining ?  
 (A) Mild steel (B) High carbon steel  
 (C) High speed steel (D) Cast iron
59. Which type of cutting tools have wide application on lathes ?  
 (A) Single point (B) Multi point  
 (C) Both single point and multi point (D) None of the mentioned



60. The flux commonly used in brazing is  
(A) Zinc chloride (B) Borax  
(C) Rosin (D) Ammonium chloride
61. As per BIS TCVM 12 03 06 is the standard specification of carbide inserts, in this letter C stands for  
(A) Shape of inserts (B) Tolerance class  
(C) Chip breakers characteristics (D) Clearance angle
62. An example of splash feed lubrication system  
(A) Wick feed lubrication (B) Oil cup  
(C) Ring oiling (D) Grease gun
63. Which grinding wheel used grind hard material ?  
(A) Soft grade wheel (B) Medium grade wheel  
(C) Hard grade wheel (D) None of these
64. As per BIS A16P5VBE is standard marking of grinding wheel, in this letter P stands for  
(A) grade of wheel (B) type of bond  
(C) structure of wheel (D) abrasive type
65. Glazing is the one of the defects found while grinding, cause of this defects is  
(A) using soft grade wheel on hard material  
(B) using hard grade wheel on hard material  
(C) using hard grade wheel on soft material  
(D) None of these
66. An example of semi fluid lubricant  
(A) Graphite (B) Soluble oil  
(C) Grease (D) Wax
67. To convert the linear motion of the plunger of a dial test indicator to rotary motion of the pointer, which one of the following mechanisms used ?  
(A) Quick return mechanism  
(B) Rack and pinion mechanism  
(C) Screw thread mechanism  
(D) Hydraulic mechanism

68. Which of the following is a type of maintenance ?  
(A) Preventive (B) Predictive  
(C) Corrective (D) All of the above
69. Lead of the 3 start thread is 4.5 mm; Pitch of the thread is \_\_\_\_\_  
(A) 1.5 mm (B) 4.5 mm  
(C) 3 mm (D) 13.5 mm
70. While using a three point internal micrometre, before taking measurement the zero setting has to be done with \_\_\_\_\_  
(A) Slip gauge (B) Setting ring  
(C) Dial test indicator (D) Setting spanner
71. Which screw is used to hold the tool makers button in position on the workpiece ?  
(A) Self tapping screw (B) M8 screw thread  
(C) 4 BA thread screw (D) All of above
72. Vice like device which can be set in place of compound rest. It has vertical feed and graduated dial for swivelling  
(A) Grinding attachment  
(B) Taper turning attachment  
(C) Copying attachment  
(D) Milling attachment
73. For getting high degree of positional accuracy while boring \_\_\_\_\_ device used for setting the job.  
(A) Dial test indicator (B) Surface gauge  
(C) Tool makers button (D) Plunger dial
74. By which method multi start thread cuts on lathe ?  
(A) split die (B) using chaser  
(C) die (D) single point tool
75. Which operation cannot performed with copying attachment in lathe ?  
(A) Thread cutting (B) Forming turning  
(C) Taper turning (D) Radius grooving

76. The microstructure generally found in hardened steel is  
(A) Austenite (B) Martensite  
(C) Pearlite (D) Cementite
77. To obtain fine grains and uniform structure cold worked steel and casting are subjected to which heat treatment process ?  
(A) Normalizing (B) Annealing  
(C) Tempering (D) Case hardening
78. In which of the following heat treatment process localized heating is possible ?  
(A) Annealing  
(B) Hardening  
(C) Induction hardening  
(D) Austempering
79. The surface roughness value of 12.5 microns indicates by the corresponding roughness grade symbol  
(A) N12 (B) N1  
(C) N10 (D) N11
80. A steel which contains just 0.8% carbon is called  
(A) Eutectoid steel  
(B) Hypoeutectoid steel  
(C) Hypereutectoid steel  
(D) Ferrite steel
81. When irregular shaped workpiece mounted in the lathe spindle with the help of a face plate, the work has to be properly balanced otherwise it will result  
(A) Poor surface finish of the job  
(B) Excessive vibration  
(C) Excessive power consumption  
(D) Both (A) and (B)

- 82.** Dead stops and trips on Capstan and Turret lathes are used to
- (A) Control the movement of the cutting tools
  - (B) Increase the cutting speed
  - (C) Reduces the tools needed
  - (D) Improve the surface finish
- 83.** The type of tool holder used for external diameter turning with good surface finish in a Capstan and Turret lathe is
- (A) Knee turning tool
  - (B) Roller steady turning tool holder
  - (C) Flanged tool holder
  - (D) Quick acting tool holder
- 84.** Name the Turret lathe tool holder, which can hold a boring bar, drill, reamer etc.
- (A) Box steady turning tool holder
  - (B) Straight cutting tool holder
  - (C) Multiple cutter holder
  - (D) Flange tool holder
- 85.** The component of surface texture on which the roughness is super imposed is called
- (A) Surface finish
  - (B) Secondary texture
  - (C) Primary texture
  - (D) Waviness
- 86.** Which of the following collet can maintain exact length of component while machining on Capstan and Turret lathe ?
- (A) Draw back type
  - (B) Push out type
  - (C) Push length type
  - (D) Master collet
- 87.** Gun metal widely used for making bearing, it contains
- (A) Copper, Tin and Zinc
  - (B) Copper, Lead and Zinc
  - (C) Copper, Aluminium and Zinc
  - (D) Copper, Nickel and Zinc

88. The action not possible in Manual Data Input (MDI) function mode in a CNC machine is
- (A) Execution of M. Code
  - (B) Axis movement
  - (C) Spindle rotation
  - (D) Automatic operation of any machining program
89. The preparatory function code G03 indicates
- (A) Linear interpolation
  - (B) Circular interpolation CCW
  - (C) Circular interpolation CW
  - (D) Automatic return to reference point
90. The auxiliary function M05 indicates
- (A) Program stop
  - (B) Work clamp
  - (C) Spindle rotation stop
  - (D) Spindle stop
91. Which of the following is not available in the CNC Lathe machine ?
- (A) Re circulating ball bearing
  - (B) Non-metallic liners
  - (C) Servo motors
  - (D) Tail stock
92. The dimensional value entered to position tool cutting edge in relation to programmed point in a CNC machine program is called
- (A) Tool offset
  - (B) Machine offset
  - (C) Machine home position
  - (D) Operator offset
93. Which of the following work holding device helps to bring each hole accurately below the drill spindle axis one by one for drilling operation in a pillar type drilling machine ?
- (A) Box type table
  - (B) Machine vise
  - (C) Plain table with T slots
  - (D) Compound table
94. The cylindrical enlargement to a certain depth of a drilled hole to accommodate socket head screw is called
- (A) Counter boring
  - (B) Spot facing
  - (C) Counter sinking
  - (D) Reaming

- 95.** Normally the length of a spanner is about
- (A) 8 times the width of jaw opening
  - (B) 10 times the width of jaw opening
  - (C) 12 times the width of jaw opening
  - (D) 15 times the width of jaw opening
- 96.** The type of screw driver preferred to use in limited space and have little access areas :
- (A) Ratchet screw driver
  - (B) Philips screw driver
  - (C) Stumpy screw driver
  - (D) Light duty screw driver
- 97.** When two parts are joined with an adhesive bonding, the strength of the adhesive bond depends upon
- (A) Adhesion
  - (B) Cohesion
  - (C) Both (A) and (B)
  - (D) Amount of heat applied
- 98.** Which of the following bolt is used in machine tool tables ?
- (A) Hexagonal headed bolt
  - (B) T-Headed bolt
  - (C) Hook bolt
  - (D) Eye bolt
- 99.** Set screws used to prevent relative movement between two pieces have thread
- (A) throughout its length
  - (B) on bottom half portion only
  - (C) at the top, bottom and plain middle portion
  - (D) on the top half portion only
- 100.** The nut widely used in steam engines and locomotives which are subjected to sudden shock loads
- (A) Slotted nut
  - (B) Simmon's lock nut
  - (C) Castle nut
  - (D) Grooved nut
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**SPACE FOR ROUGH WORK**

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