

**112/2018**

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Which one is class 'C' fire?  
(A) kerosene fire (B) wood fire  
(C) gas fire (D) electric fire
2. What is purpose of settings of teeth in hacksaw blade?  
(A) cutting surface in very smooth  
(B) allow free movement of the blade  
(C) long life in blade  
(D) avoid heating in blade
3. Which chisels in used to separate metal after chain drilling?  
(A) web chisel (B) diamond point chisel  
(C) flat chisel (D) cross cut chisel
4. The cutting angle of twist drills bits in general purpose :  
(A) 100° (B) 110°  
(C) 60° (D) 118°
5. Whit worth thread has an included angle of :  
(A) 55° (B) 60°  
(C) 45° (D) 90°
6. Which is the Blank size of M12 × 1.75 mm?  
(A) 10.25 mm (B) 11.82 mm  
(C) 11.25 mm (D) 10.5 mm
7. 30 H7/g6; \_\_\_\_\_ is represented by 'g'.  
(A) Hole (B) Grade  
(C) Shaft (D) Clearance

8. What is the formula of calculating drill size for reamer?
- (A) Reamed size – (Undersize + oversize)  
 (B) Reamed size – (Undersize × oversize)  
 (C) Reamed size – (oversize – Undersize)  
 (D) Reamed size + (Undersize – oversize)
9. The included angle of 'V' block :
- (A) 90° (B) 60°  
 (C) 55° (D) 80°
10. Lip clearance angle in twist drill :
- (A) 10° – 12° (B) 8° – 12°  
 (C) 11° – 12° (D) 7° – 8°
11. Benchvice is specified :
- (A) Distance of two jaws (B) Length of jaw  
 (C) Width of jaw (D) Length of vice
12. In 5 S concept, 5 'S' stands for \_\_\_\_\_.
- (A) Sort, Set, Smooth, Shine, Standardize  
 (B) Sort, Show, Shine, Standardize, Sustain  
 (C) Sort, Set, Show, Shine, Sustain  
 (D) Sort, Set, Shine, Standardize, Sustain
13. External thread cutter is known as :
- (A) die (B) tap  
 (C) die nut (D) reamer
14. In marking of grinding wheel the shellac bond is represented by which letter :
- (A) S (B) E  
 (C) B (D) Y
15. The least count of vernier micrometer :
- (A) 0.01 mm (B) 0.01 inch  
 (C) 0.001 mm (D) 0.1 mm

16. The difference between maximum limit of size and the minimum limit of size is called :
- (A) actual size (B) upper deviation  
(C) lower deviation (D) tolerance
17. What is the equation of find the least count of vernier bevel protractor?
- (A)  $1\text{MSD}-1\text{VSD}$  (B)  $1\text{MSD}-2\text{VSD}$   
(C)  $2\text{MSD}-1\text{VSD}$  (D)  $2\text{MSD}-2\text{VSD}$
18. The single cut file has rows of teeth cut in angle of :
- (A)  $50^\circ$  (B)  $60^\circ$   
(C)  $75^\circ$  (D)  $80^\circ$
19. Which of the following letter represented a grinding wheel of medium grade?
- (A) D (B) H  
(C) Y (D) A
20. The top surface of joint the flank of the same thread is :
- (A) Root (B) Flank  
(C) Pitch (D) Crest
21. A tumbler gear is provided for :
- (A) Change the direction of feed  
(B) Change the direction of the chuck  
(C) Change the spindle speed  
(D) None of these
22. Which soluble cutting oil gives good performance in hard water?
- (A) SERVO CUT 'S' (B) SERVO SYNTH5  
(C) SERVO CUT XL (D) SERVO CUT CLEAR
23. Oblique cutting is most suitable for :
- (A) Finish turning (B) Knurling  
(C) Facing (D) Rough turning

24. The cause for this defect is the tool's cutting edge being blunt or getting blunt during its travel and the carriage not being locked; which defect is this?
- (A) Pip in centre (B) Convex face  
(C) Concave face (D) Rough finish in turning
25. It is advisory that the tool to be used for finishing; the tool should have :
- (A) Sharper nose  
(B) Larger nose radius than normal  
(C) Flat nose  
(D) Flat nose than normal
26. The recommended cutting speed for turning medium carbon steel is :
- (A) 35 to 50 m/min (B) 30 to 40 m/rev  
(C) 30 to 35 m/min (D) 35 to 50 mm/min
27. When carbide tools are used ————— higher cutting speed than that of the HSS tools may be chosen.
- (A) 4 to 5 times (B) 5 to 6 times  
(C) 1 to 2 times (D) 3 to 4 times
28. Which component is used for turning lengthy hexagonal bars along with fixed steady rest?
- (A) Angle plate (B) Mandrel  
(C) Cat head (D) Magnetic chuck
29. The percentage of carbon in high carbon steel is :
- (A) 0.3 to 0.7 (B) 0.15 to 0.3  
(C) 0.4 to 0.6 (D) None of these
30. Choose the correct factor about malleable cast iron :
- (A) High brittle and low ductile (B) Difficult for machining  
(C) Cheaper than grey cast iron (D) No self-lubricating property
31. Which material is used mostly for making crane hooks?
- (A) Mild steel (B) Wrought iron  
(C) Cast iron (D) Plain carbon steel

32. Which determines the hardness or softness of abrasive wheel?  
(A) Strength of abrasive (B) Structure  
(C) Grade of Bond (D) Grit
33. The selection of grinding wheel having hard graded bond for grinding hard metal which may results :  
(A) Heavy reduction of material (B) Heavy reduction from wheel  
(C) Grooving (D) Glazing
34. Which is the example of splash method of lubrication?  
(A) Wick feed (B) Stauffer screw  
(C) Ring oiling (D) Winkley oiler
35. Which type of milling cutter is used for milling deep narrow slots and keyways?  
(A) Staggered teeth side milling cutter  
(B) Interlocking side milling cutter  
(C) Half side milling cutter  
(D) Helical side and face milling cutter
36. Which factor is correct about Up-Milling?  
(A) The feed direction of cutting Tool is same to its rotation  
(B) The chip thickness is zero in starting  
(C) The chip thickness is minimum towards the end of cut  
(D) The main radial force which gives downward pressure and better holding of work
37. In Milling Machine which is the following provides extra stability to the machine?  
(A) Brace (B) Over arm  
(C) Knee (D) Column
38. Thin cut-off wheels are made with :  
(A) Organic Bond (B) Inorganic Bond  
(C) Chemical Bond (D) None of these
39. Choose the correct RPM for turning a job having diameter 50 mm and cutting speed is 62.85 m/min :  
(A) 350 (B) 400  
(C) 450 (D) 300

40. Which is heat treatment process produces a scale free surface on work piece?  
(A) Induction hardening (B) Nitriding  
(C) Cyaniding (D) Flame hardening
41. A closed loop control system is also known as :  
(A) Point to point control system (B) Straight line control system  
(C) Feedback control system (D) Non Feedback control system
42. Which of the following is the advantages of CNC machine?  
(A) High maintenance cost (B) High investment cost  
(C) High accuracy and repeatability (D) High training cost
43. Basic elements or components of NC system are  
(A) Program of instruction  
(B) Machine control unit  
(C) Mechanical tool or processing unit  
(D) All of the above
44. Compared to open control system a closed control system is :  
(A) Less accurate (B) Less expensive  
(C) More accurate (D) None of these
45. The CNC command G 01 means :  
(A) Linear interpolation (B) Circular interpolation  
(C) Positioning in rapid (D) None of these
46. Several machines are controlled by central computer is called :  
(A) CNC (B) NC  
(C) DNC (D) None of these
47. The CNC command M 08 is for :  
(A) Coolant off (B) Coolant on  
(C) Chuck close (D) Door close

48. For the spindle rotation in clockwise, the CNC code is :
- (A) M 04 (B) M 01  
(C) M 03 (D) M 02
49. Which of the mode is selected to feed manually in CNC program?
- (A) Jog mode (B) MDI mode  
(C) Auto mode (D) Edit mode
50. Which of the following is non feedback control system?
- (A) Open loop control system (B) Point to point system  
(C) Contouring system (D) Close loop control system
51. The G code for constant surface speed in CNC milling operation :
- (A) G 96 (B) G 95  
(C) G 94 (D) G 97
52. CNC machine operations are controlled by using a :
- (A) Cam (B) Gear  
(C) Belt (D) Program
53. In CNC machine MDA mode means :
- (A) Machine data automatic (B) Manual data automatic  
(C) Manual data action (D) Machine data action
54. In drilling operation which control system is suitable :
- (A) Open loop control system (B) Closed control system  
(C) Contouring control system (D) Point to point control system
55. Which of the following is the disadvantages of CNC machine?
- (A) High accuracy (B) High investment  
(C) Lower tooling cost (D) Increased productivity
56. What you mean by MPG in CNC machine?
- (A) Manual pulse generator (B) Machine pulse generator  
(C) Manual program guide (D) Machine program guide

57. The instruction describing miscellaneous or auxiliary functions in CNC program is by :
- (A) M code (B) N code  
(C) G code (D) W code
58. In PTP control system feed drive is only in :
- (A) Imaginary axis (B) X axis  
(C) Y axis (D) Z axis
59. In CNC programming G code is a :
- (A) Auxiliary function code (B) Miscellaneous function code  
(C) Preparatory function code (D) None of these
60. In CNC programming each Line of program is known :
- (A) Address (B) Block  
(C) Part (D) None of these
61. Cutting speed is expressed in :
- (A) Metre per second (B) Millimetre per second  
(C) Millimetre per minute (D) Metre per minute
62. For rough and heavy cut suitable speed is :
- (A) High speed (B) Medium speed  
(C) Super speed (D) Low speed
63. The storage symbol used in process chart is :
- (A) Circle (B) Triangle  
(C) Square (D) Arrow
64. If depth of hole is more than 10 times diameter drill then the drilling is called :
- (A) Plain drilling (B) Deep hole drilling  
(C) Centre drilling (D) None of these
65. The process chart shows the :
- (A) Operation of work (B) Sequence of operation  
(C) Inspection method (D) None of these

66. Which of the following operation work in slow speed?  
 (A) Taper turning (B) Thread cutting  
 (C) Chamfering (D) Grinding
67. The hydraulic system use a :  
 (A) Compressible fluid (B) Incompressible fluid  
 (C) Compressed air (D) None of these
68. What you mean by TPM?  
 (A) Total productive maintenance (B) Total product maintenance  
 (C) Total preventive maintenance (D) None of these
69. The method of calculating the various quantities and expenditure in particular job or process is called :  
 (A) Planning (B) Processing  
 (C) Estimation (D) None of these
70. Breakdown maintenance is also called :  
 (A) Productive maintenance (B) Preventive maintenance  
 (C) Corrective maintenance (D) None of these
71. In turning centre the spindle axis designated as :  
 (A) X axis (B) Y axis  
 (C) Imaginary axis (D) Z axis
72. In CNC machine operation work offset is also known as :  
 (A) Geometrical offset (B) Wear offset  
 (C) Zero offset (D) None of these
73. The CNC lathe bed ways are made of :  
 (A) Cast Iron (B) Wrought Iron  
 (C) High speed steel (D) None of these
74. The carbon percentage in high carbon steel is :  
 (A) 0.1 to 0.25% (B) 0.3 to 0.7%  
 (C) 0.15 to 0.3% (D) 0.7 to 1.4%

75. The property of material to retain its hardness at elevated temperature is known as :
- (A) Vickers hardness (B) Cold hardness  
(C) Brinell hardness (D) Red hardness
76. Milling cutter is mounded on :
- (A) Spindle (B) Arbor  
(C) Tool post (D) Saddle
77. Which feed is used for rough cutting?
- (A) Large feed (B) Small feed  
(C) Moderate feed (D) None of these
78. High speed steel contain :
- (A) 18% chromium 4% tungsten 1% vanadium  
(B) 18% tungsten 4% chromium 1% vanadium  
(C) 18% tungsten 4% vanadium 1% chromium  
(D) 18% vanadium 4% tungsten 1% chromium
79. If  $D$  is the initial diameter  $d$  is the finished diameter in lathe work, then the depth of cut is
- (A)  $(D - d)/2$  (B)  $(D + d)/2$   
(C)  $(d - D)/2$  (D) None of these
80. Which of the following factors effect the cutting speed?
- (A) Cutting tool material (B) Types of coolant  
(C) Kind of material being cut (D) All of these
81. The highest peak in the Eastern Ghats :
- (A) Anamudi (B) Mahendragiri  
(C) Doda Betta (D) Dhaulagiri
82. Which is the largest coastal salt water lake in India?
- (A) Gobind Sagar (B) Loletak  
(C) Chilka (D) Wular Lake

83. The largest inhabited riverine island in the world is :
- (A) Majuli (B) Umananda  
(C) Kampala (D) Marajo
84. The only large river in the Indian Desert region :
- (A) Ravi (B) Beas  
(C) Jhelum (D) Luni
85. The meeting place of the rivers Ganga and Yamuna :
- (A) Lucknow (B) Ahmedabad  
(C) Faridabad (D) Allahabad
86. Which state is known as the 'Jewel of India'?
- (A) Jammu and Kashmir (B) Manipur  
(C) Punjab (D) Orissa
87. 'Anushilam' was an organisation during British rule in India, based on :
- (A) Extremist ideas (B) Radical ideas  
(C) Revolutionary terrorism (D) Moderate principles
88. The Chauri Chaura incident happened during the Non-cooperation Movement was held on :
- (A) 5 February, 1922 (B) 28 January, 1922  
(C) 8 March, 1922 (D) 8 February, 1922
89. In the following tourist attractions, which place is not in Idukki District?
- (A) Blossom Park (B) Cheeyappara Water Falls  
(C) Pothamedu View Point (D) Padinjarathara Dam
90. In the following rivers, which river falls in the Paravoor Lake :
- (A) Kallada (B) Karuvannoor  
(C) Ithikkara (D) Kaariyamkoda
91. "Vedadikara Niroopanam" is a book written by :
- (A) Sree Narayana Guru (B) Chattambi Swamikal  
(C) Bodheswaram (D) A.R. Rajaraja Varma

92. Nakalapuram is the birth place of :  
(A) Thycand Ayya (B) Ayya Vaikundar  
(C) Brahmananda Sivayogi (D) Vagbhatananda
93. Sahodaran Ayyappan launched 'Mishrabhojanam' programme at Cherai in the year :  
(A) 1915 (B) 1916  
(C) 1917 (D) 1918
94. Who led the first organized strike of agricultural labourers in Travancore?  
(A) P. Krishna Pillai (B) Ayyankali  
(C) E.M.S. Namboothiripad (D) Poikayil Yohannan
95. Kumaranasan National Institute of culture at Thonnakkal was founded in the year :  
(A) 1957 (B) 1962  
(C) 1965 (D) 1958
96. Who is the author of the book 'Pakishtan : Beyond the Crisis States'?  
(A) Amir Mir (B) M.J. Akbar  
(C) Khuram Iqbal (D) Anupam Kher
97. The winner of the Australian Open 2018, Men's Singles :  
(A) Rafael Nadal (B) Roger Federer  
(C) Marin Cilic (D) Oliver Marach
98. Who won the Ezhuthachan Award 2017?  
(A) K. Satchidanandan (B) Vaisakhan  
(C) C. Radhakrishnan (D) Prabha Varma
99. The Malayalam novel, "Daivathinte Pusthakam" is written by :  
(A) T.D. Ramakrishnan (B) C. Radhakrishnan  
(C) K.P. Raman Unni (D) Perumbadavan Sreedharan
100. Malayalam actor Indrans won the Best Actor Award for the film :  
(A) Ottamuri Velicham (B) Kinar  
(C) Bhayanakam (D) Aalorukkam

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