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Answer Key

Duration: 30 Mins**Total Marks: 503****Q.ID: ITISKILL1325PP**

1. Which method of holding is used for lengthy work to avoid over hanging?

- A) In face plate B) In between centres
C) Angle plate D) In four jaw chuck

Answer: B) In between centres

2. What is the criteria for the selection of interchangeable anvil of a screw thread micrometer?

- A) Profile and pitch B) Major diameter
C) Root diameter D) Minor diameter

Answer: A) Profile and pitch

3. What is the preheating temperature of steel?

- A) Upto 400 Degree Centigrade B) Upto 500 Degree Centigrade
C) Upto 300 Degree Centigrade D) Upto 600 Degree Centigrade

Answer: D) Upto 600 Degree Centigrade

4. Which cutting tools have highest cutting efficiency?

- A) Carbide B) High speed steel
C) High carbon steel D) Mild steel

Answer: A) Carbide

5. The CNC keyboards have with following keys?

- A) Numerical Data based keys only B) CNC codes
C) Alphabetic control keys D) Alphanumerical control keys electronic

Answer: D) Alphanumerical control keys electronic

6. Which method of thread forming does not produce chips and used in mass production?

- A) Thread rolling B) Thread milling
C) Taps and dies D) Thread grinding

Answer: A) Thread rolling

7. Which one is the disadvantage of taper turning by compound slide method?

- A) Steep taper cannot be produced B) Only external taper can be turned
C) Damages the centre drilled holes of the work D) Taper length is limited to the movement of the top slide

Answer: D) Taper length is limited to the movement of the top slide

8. What is the depth of ACME thread of 1inch major diameter 6TPI?

- A) 0.09 B) 0.08
C) 0.084 D) 0.082

Answer: C) 0.084

9. What is the width of the tool to cut a square thread of 60 x 9 mm pitch?

- A) 8.5 mm B) 9.5 mm
C) 9 mm D) 4.5 mm

Answer: D) 4.5 mm

10. Which part of the lathe helps to give angular movement during taper turning?

- A) Saddle B) Tool Post
C) Cross slide D) Compound slide

Answer: D) Compound slide

11. Calculate the driven gear to cut 1.5mm pitch thread on a job using a lathe having lead screw of 5mm pitch with driver gear of 30 teeth?

- A) 60 B) 100
C) 120 D) 50

Answer: B) 100

12. Which carrier with V-groove provided and used to hold small diameter and square sections?

- A) Straight tail B) Safety clamp type
C) Bent tail D) Clamp type

Answer: D) Clamp type

13. Calculate the depth of buttress thread 60 mm diameter of 9 mm pitch?

- A) 6.75 mm B) 7.75 mm
C) 5.75 mm D) 4.75 mm

Answer: A) 6.75 mm

14. What will happen to the tool life if the spindle is running higher speed?

- A) Less B) Medium

C) Very less

D) More

Answer: A) Less

15. How the part programming mistakes can be avoided?

A) Both NC and CNC machine

B) CNC (Computer numerical control) machine only

C) NC (Numerical control) machine only

D) Cannot be avoided in CNC machine

Answer: B) CNC (Computer numerical control) machine only

16. What is the normal lip clearance angle for standard drill?

A) 2 Degree- 4 Degree

B) 13 Degree - 16 Degree

C) 8 Degree - 12 Degree

D) 5 Degree - 7 Degree

Answer: C) 8 Degree - 12 Degree

17. Which is four jaw chuck?

A) Self aligning chuck

B) Collect chuck

C) Independent chuck

D) Self centring chuck

Answer: C) Independent chuck

18. Which part of a lathe is used to catch thread quickly?

A) Chasing dial

B) Top slide

C) Tool post

D) Cross - slide

Answer: A) Chasing dial

19. Which type of jig is used for large awkward shaped piece part is to drilled in many directions?

A) Table jig

B) Post jig

C) Plate jig

D) Trunnion jig

Answer: D) Trunnion jig

20. Which one of the below accessory has provided U slot?

A) Angle plate

B) Driving plate

C) Catch plate

D) Face plate

Answer: C) Catch plate

21. What is the relation between pitch and lead in multistart thread?

A) Lead = Pitch

B) Lead = 1/2 pitch

C) Lead = 1/3 x pitch

D) Lead = No. start x pitch

Answer: D) Lead = No. start x pitch

22. What heat treatment process the nitriding comes under?

A) Normalizing

B) Case hardening

C) Tempering

D) Hardening

Answer: B) Case hardening

23. Which thread is used for general purpose fastening?

A) Unified

B) BSW

C) BSF

D) BA

Answer: B) BSW

24. What is the minor diameter of screw thread SQ 62 x 10.5 with depth clearance of 0.12 mm?

A) 51.26 mm

B) 46.64 mm

C) 51.00 mm

D) 51.88 mm

Answer: A) 51.26 mm

25. Which one of the following code is suitable for spindle rotation in clock wise direction?

A) G03

B) G02

C) M03

D) M04

Answer: C) M03

26. What is the term the distance moved by the tool along the work for each revolution?

A) Cutting speed

B) Depth

C) Speed

D) Feed

Answer: D) Feed

27. What is the name of chuck that hardend steel sleeve having slits cut partly?

A) Combination chuck

B) Hydraulic chuck

C) Collect chuck

D) Magnetic chuck

Answer: C) Collect chuck

28. Which material is used to make back plate of a three jaw chuck?

A) Cast steel

B) Alloy steel

C) Wrought iron

D) Cast iron

Answer: D) Cast iron

29. Which gear drives the fixed stud gear in lathe?

A) Tumbler gear

B) Norton gear box

C) Apron mechanism

D) Feed shaft

Answer: A) Tumbler gear

30. Which of the following used buttress thread?

A) General purpose nut and bolt

B) Carpentry vice

C) Screw jack

D) Lead screw of lathe

Answer: B) Carpentry vice

31. What is the type of fit for the expression Fit 25H7/p6?

A) Clearance fit

B) Running fit

C) Transition fit

D) Interference fit

Answer: D) Interference fit

32. What is the standard colour code used for identifying the bin for the metal waste material?

A) Blue

B) Red

C) Violet

D) Green

Answer: B) Red

33. How many teeth are in translating gear for cutting metric thread on British lathe?

A) 122

B) 127

C) 129

D) 125

Answer: B) 127

34. Which device is used as a reference surface for marking?

A) Anvil surface

B) Marking table

C) Lathe bed

D) Plate angle

Answer: B) Marking table

35. Which tool is used for cutting internal thread?

A) Tap

B) Drill

C) Die

D) Reamer

Answer: A) Tap

36. What is the isolating medium to prevent rapid cooling after brazing a tipped tool?

A) Wet sand

B) Water

C) Mica powder

D) Oil

Answer: C) Mica powder

37. Which of the following structures of steel is obtained due to the drastic cooling from the austenite structure?

A) Pearlite

B) Martensite

C) Ferrite

D) Cementite

Answer: B) Martensite

38. Why lapping tools are provided groove?

A) Prevent damage to tool

B) Expansion

C) Clearance

D) For accommodate lapping compound

Answer: D) For accommodate lapping compound

39. Which formula is used to find root width of a buttress thread?

A) $0.335 \times \text{pitch}$

B) $0.125 \times \text{pitch}$

C) $0.317 \times \text{pitch}$

D) $0.5 \times \text{pitch}$

Answer: B) $0.125 \times \text{pitch}$

40. Calculate pitch diameter of M16 x 2 mm square thread?

A) 16 mm

B) 15 mm

C) 15.5 mm

D) 14 mm

Answer: B) 15 mm

41. What is the purpose of lapping vehicles?

A) Smooth effective operation

B) Regulate cutting action and lubricate surface

C) Improves cutting ability

D) Improves dimensional accuracy

Answer: B) Regulate cutting action and lubricate surface

42. Which of the following property of metal is impart by annealing?

A) Hardness

B) Ductility

C) Toughness

D) Surface hardness

Answer: B) Ductility

43. What is the cut of file used for deburring the job on lathe?

A) Curved cut file

B) Single cut file

C) Rasp cut file

D) Double cut file

Answer: B) Single cut file

44. How the two halves of split bearing is joined?

A) On diameter line

B) On length vice

C) On chord line

D) On offset of shaft

Answer: A) On diameter line

45. Which material used for manufacturing a marking table?

A) Cast iron

B) Mild steel

C) Aluminium

D) Tool steel

Answer: A) Cast iron

46. What is the form of NO GO anvil of calliper gauge with roller type?

A) Truncated shaped form

B) Correct shaped form

C) Full thread form

D) Half thread form

Answer: A) Truncated shaped form

47. What does M20 stands for?

A) Metric thread 20 mm lead

B) Metric thread 20 mm length

C) Metric thread 20 mm pitch

D) Metric thread 20 mm diameter

Answer: D) Metric thread 20 mm diameter

48. What will happen if threading tool is set below centre height?

A) Difficult for catching

B) Pitch will changed

C) Major diameter will changed

D) Thread will be damaged

Answer: D) Thread will be damaged

49. Which jaw of 3 jaw chuck is used to hold hollow job?

A) Movable jaw

B) External jaw

C) Internal jaw

D) Fixed jaw

Answer: C) Internal jaw

50. What is the formula for metric thread depth?

- A) $0.75 \times \text{pitch}$
- B) $0.6134 \times \text{pitch}$
- C) $0.5 \times \text{pitch}$
- D) $0.6403 \times \text{pitch}$

Answer: B) $0.6134 \times \text{pitch}$

51. Which one of the following command the G02 code indicates?

- A) Cross sectional interpolation
- B) Circular interpolation clockwise direction
- C) Circular interpolation counter clockwise direction
- D) Linear interpolation

Answer: B) Circular interpolation clockwise direction

52. What is angle between the two faces of angle plate?

- A) 45 Degree
- B) 60 Degree
- C) 30 Degree
- D) 90 Degree

Answer: D) 90 Degree

53. Which one of the following M-code is suitable for chuck close?

- A) M13
- B) M10
- C) M11
- D) M09

Answer: C) M11

54. What is the correct sequence of the operation of a simple fire extinguisher?

- A) Aim pull sweep and squeeze
- B) Squeeze aim pull and sweep
- C) Pull, Aim squeeze & sweep
- D) Sweep Aim pull and squeeze

Answer: C) Pull, Aim squeeze & sweep

55. How is the vernier height gauge generally specified?

- A) Thickness of beam
- B) Width of beam
- C) Size of base
- D) Height of beam

Answer: D) Height of beam

56. Calculate the change gear (driven gear) if driver is 50 teeth to cut 2.5mm pitch thread on a job by lathe having a lead screw of 5mm pitch?

- A) 100
- B) 60
- C) 150
- D) 120

Answer: A) 100

57. Where is the dead centre fixed on lathe?

- A) Cross-Stock
- B) Head stock
- C) Carriage
- D) Tail stock

Answer: D) Tail stock

58. Which material is used to make the tool maker's button?

- A) Stainless steel
- B) Tool steel

C) Cast steel

D) Hardened steel

Answer: D) Hardened steel

59. Which material is used for making lathe bed?

- A) Grey cast iron
- B) Pig iron
- C) Mild steel
- D) Nodular cast iron

Answer: A) Grey cast iron

60. How many types of split bearing?

- A) 4
- B) 5
- C) 2
- D) 3

Answer: C) 2

61. What will happen if lap material used to make laps harder than work piece?

- A) Refines surface finish
- B) Abrasives cut the lap instead of work piece
- C) Improve dimensional accuracy
- D) Improve better geometrical accuracy

Answer: B) Abrasives cut the lap instead of work piece

62. Which one of the following M-code is suitable for coolant pump ON?

- A) M08
- B) M11
- C) M09
- D) M10

Answer: A) M08

63. What is the width of the tool to cut a square thread of 60 x 9 mm pitch?

- A) 4.5 mm
- B) 9.5 mm
- C) 9 mm
- D) 8.5 mm

Answer: A) 4.5 mm

64. What is the full form of MDI?

- A) Mechanical Data Implantation
- B) Mounting of Diagonal Impact
- C) Moderated Data input
- D) Manually Data Input

Answer: D) Manually Data Input

65. What is the tool life index of cemented carbide tool for turning high carbon steel?

- A) 0.2
- B) 0.4
- C) 0.35
- D) 0.15

Answer: D) 0.15

66. How is the minor diameter of external thread checked generally?

- A) Using knife edge of vernier caliper
- B) Using screw thread gauge
- C) Using pitch gauge
- D) Using thread ring gauge

Answer: A) Using knife edge of vernier caliper

67. Which is the smallest unit of angular measurement?

- A) Seconds
- B) Minutes
- C) Radian
- D) Degree

Answer: A) Seconds

68. Which type of jig is used to hold thin and soft parts?

- A) Plat jig
- B) Trunnion jig
- C) Channel jig
- D) Sandwich jig

Answer: D) Sandwich jig

69. Which gauge is used to position the cutter before cutting in milling fixture?

- A) Feeler gauge
- B) Radius gauge
- C) Fillet gauge
- D) Screw pitch gauge

Answer: A) Feeler gauge

70. Which one is the angle of buttress thread?

- A) 30 Degree
- B) 60 Degree
- C) 45 Degree
- D) 55 Degree

Answer: C) 45 Degree

71. Which code is suitable for tool nose radius compensation at right side?

- A) G50
- B) G41
- C) G40
- D) G42

Answer: D) G42

72. Which one of the following heat treatment process produces a scale free surface on the components?

- A) Flame hardening
- B) Induction hardening
- C) Case hardening
- D) Nitriding

Answer: B) Induction hardening

73. What is the use of a sine bar?

- A) To measure the diameter of the job
- B) To determine the angle of tapered job
- C) To measure the gap
- D) To measure the length of a taper job

Answer: B) To determine the angle of tapered job

74. Which type of thread is produced by tap and die?

- A) Square thread
- B) Saw - tooth thread
- C) V - thread
- D) ACME thread

Answer: C) V - thread

75. What is the relationship between pitch and depth of a buttress thread?

- A) $\text{depth} = 0.75 \times \text{pitch}$
- B) $\text{depth} = 0.6134 \times \text{pitch}$
- C) $\text{depth} = 0.5 \times \text{pitch}$
- D) $\text{depth} = 0.6403 \times \text{pitch}$

Answer: A) $\text{depth} = 0.75 \times \text{pitch}$

76. What is the use of roller steady rest?

- A) To support long thin and thick rod
- B) To support long slender work
- C) To support the job and travel along job
- D) To support irregular job

Answer: A) To support long thin and thick rod

77. How is the filler material distributed in the joint in braze welding?

- A) By fusion
- B) By splashing
- C) By fission
- D) By capillary action

Answer: D) By capillary action

78. Which is the advantage of taper turning by compound slide method?

- A) Most suitable for duplicate taper work
- B) Long taper can be produced
- C) Thread on taper portion can be produced
- D) Steep taper can be produced

Answer: D) Steep taper can be produced

79. Which is the device that can hold, locate and guide the tool?

- A) Chuck
- B) Collet chuck
- C) Jig
- D) Fixture

Answer: C) Jig

80. Which gauge is to be selected for checking the corner radius of the job?

- A) Plug gauge
- B) Fillet gauge
- C) Feeler gauge
- D) Radius gauge

Answer: D) Radius gauge

81. What is the thread depth of square thread SQ60x9?

- A) 42 mm
- B) 9.0 mm
- C) 18 mm
- D) 4.5 mm

Answer: D) 4.5 mm

82. What is the core diameter of BSW thread of 1 inch outer dia and 8 TPI

- A) 0.83 Inch
- B) 0.81 Inch
- C) 0.80 Inch
- D) 0.84 Inch

Answer: D) 0.84 Inch

83. Which method of thread forming produce threads on non-metals?

- A) Thread rolling
- B) Thread grinding
- C) Thread milling
- D) Thread casting

Answer: D) Thread casting

84. What is the angle of metric ACME thread

- A) 29 Degree
- B) 47.5 Degree

C) 30 Degree

D) 45 Degree

Answer: C) 30 Degree

85. What is the use of BSW thread?

A) Load fitting

B) Fast movement

C) General purpose fastening

D) Used in electrical appliances

Answer: C) General purpose fastening

86. Calculate the length of metal passing by cutting tool in one revolution if the diameter of work is 75mm and cutting speed is 120m/min.

A) 295.7 mm

B) 485.7 mm

C) 235.5 mm

D) 365.3 mm

Answer: C) 235.5 mm

87. Which type of tap wrench is used to minimise the damage of taps?

A) Solid type tap wrench

B) T handle type tap wrench

C) Double ended tap wrench

D) Bar type tap wrench

Answer: A) Solid type tap wrench

88. Which gas is used in Halon extinguisher?

A) Carbon dioxide

B) Carbon monoxide

C) Carbon tetrachloride

D) Hydrogen

Answer: C) Carbon tetrachloride

89. What is the indication of 'z' axis in CNC lathe machine?

A) The diameter of the component

B) The radius of the component

C) The centre axis of the component

D) The length of the component

Answer: D) The length of the component

90. Which work holding method is to be used if, high degree of concentricity is needed?

A) Three jaw chuck

B) In between centres

C) Four jaw chuck

D) Face plate

Answer: B) In between centres

91. What is the purpose of using taper parallels in thread measurement?

A) To measure the minor diameter of internal thread

B) To measure the major diameter of external thread

C) To measure the minor diameter of external thread

D) To measure the major diameter of internal thread

Answer: A) To measure the minor diameter of internal thread

92. What are the possible surface that can be produced by form turning?

A) To generate conical surface

B) To generating concave and convex profile

C) To generating cylindrical surface

D) To generate flat surface

Answer: B) To generating concave and convex profile

93. Which material is used for making the head of soldering iron?

A) Forged copper

B) Stainless steel

C) Forged steel

D) Forged aluminium

Answer: A) Forged copper

94. How many number of teeth gear is used to as translating gear to cut metric thread on British lathe?

A) 135

B) 127

C) 100

D) 140

Answer: B) 127

95. Which of the following is not advantage of CNC machine?

A) Reduced scrap rate

B) Improved quality

C) Higher flexibility

D) Improved strength of the components

Answer: D) Improved strength of the components

96. What is the point angle of cold chisel to cut aluminium?

A) 30 Degree

B) 45 Degree

C) 60 Degree

D) 55 Degree

Answer: A) 30 Degree

97. Which is the welding process, if base metal and filler is melted to form the joint?

A) By tig welding

B) By arc welding

C) By braze welding

D) By gas welding

Answer: B) By arc welding

98. How many number of teeth in translating gear used for cutting metric thread on British lathe?

A) 63

B) 30

C) 100

D) 120

Answer: A) 63

99. Why in CNC machine tool, the part program entered in edit mode is stored into the computer memory?

A) Can be used again and again

B) Can be used only once

C) Cannot say

D) Can be used again but it has to be modified every time

Answer: A) Can be used again and again

100. Which one is example of ferrous tool material?

A) High carbon steel

B) Stellite

C) Diamonds

D) Carbide tool

Answer: A) High carbon steel

101. What type of thread can be produced by a die?

- A) External V - thread B) Internal V - thread
- C) Internal square thread D) External square thread

Answer: A) External V - thread

102. Which lap material inexpensive and can be expanded if worn out?

- A) Cast Iron B) Brass
- C) Lead D) Bronze

Answer: C) Lead

103. Calculate the change gear required to cut 4mm pitch thread in a lathe having lead screw of 4mm (lathe stud gear (driver has 50 teeth)

- A) 25 B) 100
- C) 150 D) 50

Answer: D) 50

104. What is the main disadvantage of a braze welded joints?

- A) Heavy distortion due to heat B) It take more time for repairing
- C) The joint not suitable for thicker sections D) Dissimilar metals can be joined

Answer: C) The joint not suitable for thicker sections

105. How many un-numbered divisions on the British chasing dial?

- A) 12 B) 3
- C) 4 D) 18

Answer: C) 4

106. Which method of multi-start thread cutting is depends upon the graduations marked on the dial and the number of teeth in worm wheel?

- A) Dividing the first drive method B) Thread chasing dial method
- C) Method by moving the top slide D) Method using slotted face plate

Answer: B) Thread chasing dial method

107. Which part of the lathe is locked while the form tool method is used for turning taper?

- A) Compound rest B) Tail stock
- C) Carriage D) Head stock

Answer: C) Carriage

108. Which is the advantage of CNC machine over conventional machines?

- A) High cutting speed B) Feed back control
- C) High feed D) Mass production

Answer: D) Mass production

109. Calculate the flat width of 10 mm pitch buttress thread?

- A) 4.25 mm B) 2.25 mm
- C) 3.25 mm D) 1.25 mm

Answer: D) 1.25 mm

110. Find the change gear (driven gear) to cut 2.5mm pitch thread using a lathe having lead screw of pitch 5mm with driver gear 60 teeth?

- A) 120 B) 150
- C) 100 D) 60

Answer: A) 120

111. What does AQL stands for?

- A) Aquired quality limit B) Acceptance quality level
- C) Acceptance quality limit D) Another quality limit

Answer: C) Acceptance quality limit

112. What is the included angle of acme thread?

- A) 30 Degree B) 29 Degree
- C) 45 Degree D) 55 Degree

Answer: B) 29 Degree

113. Which type of vice is used for marking of small jobs on the surface plate?

- A) Pipe vice B) Tool Makers vice
- C) Quick releasing vice D) Bench vice

Answer: B) Tool Makers vice

114. Which axis is parallel to Z - axis?

- A) Spindle axis B) X - axis
- C) Tool axis D) Y-axis

Answer: A) Spindle axis

115. What are the uses of B.S.P thread?

- A) Pipe and pipe fittings B) Load transmtion
- C) Automobile industries D) General fastening

Answer: A) Pipe and pipe fittings

116. What is the minor diameter of Trapezoidal square thread Tr 40 x 7 depth clearance of 0.01 mm?

- A) 36.49 mm B) 33.00 mm
- C) 36.50 mm D) 32.98 mm

Answer: D) 32.98 mm

117. Which is the angle of buttress thread?

- A) 30 Degree B) 55 Degree
- C) 60 Degree D) 45 Degree

Answer: D) 45 Degree

118. Which mandrels is NOT used in between lathe centres?

- A) Stepped mandrels B) Taper Shank mandrels
C) Cone mandrels D) Gang mandrels

Answer: B) Taper Shank mandrels

119. What is the purpose of preventive maintenance?

- A) Increase the cost of inspection B) Maintain machine in good working order
C) Reduce the vibration of machine D) To keep the maintenance records

Answer: B) Maintain machine in good working order

120. What is the purpose of MDI mode?

- A) Cross checking of the program graphically B) Move the axes by manually
C) For program execution D) Editing of programmable Data

Answer: B) Move the axes by manually

121. Where the fixed steady rest clamped on a lathe?

- A) On tool post B) On a carriage
C) On a saddle D) On the lathe bed

Answer: D) On the lathe bed

122. Which grade of angle plate are more accuracy and used for tool room work?

- A) Grade 2 B) Grade 4
C) Grade 3 D) Grade 1

Answer: D) Grade 1

123. Which type of vice has a trigger for opening the movable jaw?

- A) Pipe vice B) Bench vice
C) Pin vice D) Quick releasing vice

Answer: D) Quick releasing vice

124. What is an accuracy of an independent four chuck in metric system?

- A) 0.002mm B) 0.02mm
C) 0.01mm D) 0.001mm

Answer: B) 0.02mm

125. Which mode is used to move the turret in micron level?

- A) Jog mode B) MDI mode
C) Auto mode D) Incremental jog mode

Answer: D) Incremental jog mode

126. Which angle plate is used to support jobs in different angles?

- A) Box type B) Plain type
C) Adjustable type D) Slotted type

Answer: C) Adjustable type

127. Which one of the following is disadvantages of taper turning by attachments?

- A) Only limited taper angle can be turned B) Power feed can be produced
C) Both external and internal tapers can be produced D) Length taper can be produced

Answer: A) Only limited taper angle can be turned

128. Which parameter of a thread is measured by three wire method?

- A) Minor diameter B) Effective diameter
C) Pitch D) Major diameter

Answer: B) Effective diameter

129. Calculate the pitch diameter of M 64 x 6 mm square thread?

- A) 58 mm B) 61 mm
C) 60 mm D) 62 mm

Answer: B) 61 mm

130. Which part of the lathe is situated at right hand side of the lathe bed?

- A) Carriage B) Head stock
C) Tool post D) Tailstock

Answer: D) Tailstock

131. What is formula for finding depth of BSW external thread?

- A) $0.6403 \times \text{pitch}$ B) $0.7 \times \text{pitch}$
C) $0.6134 \times \text{pitch}$ D) $0.5 \times \text{pitch}$

Answer: A) $0.6403 \times \text{pitch}$

132. Calculate the amount of off-set if total length of job = 80 mm and $\tan = 5^\circ 45'$ minutes?

- A) 8 mm B) 10 mm
C) 12 mm D) 7 mm

Answer: A) 8 mm

133. Which part of the lathe is H shaped cast iron on the bed ways?

- A) Cross slide B) Top slide
C) Tail stock D) Saddle

Answer: D) Saddle

134. What is the advantage of maintenance records?

- A) Zero breakdown maintenance B) Monitor the frequent breakdown
C) Increase the cost of production D) Reduce the clerical work

Answer: B) Monitor the frequent breakdown

135. Which point in any CNC machine the position

measuring systems has a starting point to each axis?

- A) Reference mode
- B) Work zero
- C) Tool geometrical value
- D) Machine zero

Answer: D) Machine zero

136. Which angle is preventing the cutting edge from rubbing action?

- A) Clearance angle
- B) Point angle
- C) Rake angle
- D) Web angle

Answer: A) Clearance angle

137. What is 'L' in tailstock offset method?

- A) Length of the taper
- B) Length of the job
- C) Length of offset
- D) Amount taper

Answer: B) Length of the job

138. Calculate the change gear ratio to cut a thread of 7/16" lead on a lathe with lead screw of 4 TPI?

- A) 04-Jul
- B) 03-Apr
- C) 03-Jul
- D) 07-Apr

Answer: D) 07-Apr

139. What is the type of fit in expression 75 H8/j7?

- A) Interference fit
- B) Force fit
- C) Clearance fit
- D) Transition fit

Answer: D) Transition fit

140. Which is the internal part of a bench vice?

- A) Box nut
- B) Fixed jaw
- C) Handle
- D) Movable jaw

Answer: A) Box nut

141. In Which mode we can input the program command manually?

- A) Auto mode
- B) Edit mode
- C) MDI mode
- D) Jog mode

Answer: C) MDI mode

142. Which type of angle plate is used to hold work at an angle?

- A) Box
- B) Solid
- C) Slotted
- D) Swivel

Answer: D) Swivel

143. Which deviation is zero in hole basis system?

- A) Upper deviation is zero
- B) Lower deviation is zero
- C) Both upper and lower deviation is below basic size
- D) Both upper and lower deviation is zero

Answer: B) Lower deviation is zero

144. What is the reason for providing buttress thread in

carpentry vice?

- A) For better appearance
- B) For easy use
- C) Pressure acts at one flank
- D) For easy manufacturing

Answer: C) Pressure acts at one flank

145. Which M code is used to activate coolant pump in CNC machine?

- A) M09
- B) M01
- C) M06
- D) M08

Answer: D) M08

146. Which one is the golden hours related to first aid?

- A) First 20 minutes
- B) First 45 minutes
- C) First 30 minutes
- D) First 15 minutes

Answer: C) First 30 minutes

147. Which formula is used to find depth of ACME thread?

- A) $0.6403 \times \text{pitch}$
- B) $0.75 \times \text{pitch}$
- C) $0.6134 \times \text{pitch}$
- D) $0.5 \times \text{pitch}$

Answer: D) $0.5 \times \text{pitch}$

148. Which code is suitable for multiple turning cycle in FANUC CNC control system?

- A) G96
- B) G71
- C) G94
- D) G92

Answer: B) G71

149. Which formula is to find crest width of ACME thread?

- A) $0.335 \times \text{pitch}$
- B) $0.317 \times \text{pitch}$
- C) $0.5 \times \text{pitch}$
- D) $0.75 \times \text{pitch}$

Answer: B) $0.317 \times \text{pitch}$

150. Which one of the following code is used for tool nose compensation at left side?

- A) G42
- B) G41
- C) G32
- D) G40

Answer: B) G41

151. In Which case hardening process the ammonia gas is introduced?

- A) Gas nitriding
- B) Carburizing
- C) Cyaniding
- D) Induction hardening

Answer: A) Gas nitriding

152. What is the angle of ACME thread

- A) 55 Degree
- B) 60 Degree
- C) 45 Degree
- D) 29 Degree

Answer: D) 29 Degree

153. Which work holding device is used to hold irregular shaped work?

- A) Catch plate
C) 4 Jaw chuck
- B) Face Plate
D) 3 Jaw chuck

Answer: B) Face Plate

154. Which is the blank size M10 x1.5mm of external thread?

- A) 9.85mm
C) 9.65mm
- B) 10.85mm
D) 9.75mm

Answer: A) 9.85mm

155. What is the effect of reversing the machine with out disengaging the half nut in thread cutting?

- A) For avoid catching the thread in each cut
C) For the use of chasing dial
- B) For improve the productivity
D) Reduce the wear and tear of half nut

Answer: A) For avoid catching the thread in each cut

156. What is the advantage of preventive maintenance system?

- A) Reduce the life of machine
C) Reduce the cost of maintenance
- B) Reduce the manpower for the maintenance
D) Improves quantity and quality of product

Answer: D) Improves quantity and quality of product

157. Which formula is used to find depth of buttress thread?

- A) $0.5 \times \text{pitch}$
C) $0.75 \times \text{pitch}$
- B) $0.6134 \times \text{pitch}$
D) $0.6403 \times \text{pitch}$

Answer: C) $0.75 \times \text{pitch}$

158. How much times the spindle rotate the lead screw to cut 3 mm pitch thread in a 12 mm pitch lead screw?

- A) 3 times
C) 4 times
- B) 5 times
D) 6 times

Answer: C) 4 times

159. What is the least count of inside micrometer - metric?

- A) 0.02 mm
C) 0.1 mm
- B) 0.01 mm
D) 0.001 mm

Answer: B) 0.01 mm

160. What is the use of drive pin in drive plate?

- A) To turn the job
C) To locate the job
- B) To rotate the job
D) Hold the job

Answer: B) To rotate the job

161. A thread is represented as M12 x 1.5. What does represent the letter 12?

- A) Major diameter
C) Minor diameter
- B) Root diameter
D) Pitch

Answer: A) Major diameter

162. Which file is used for filing surfaces at right angle on already finished surface?

- A) Safe edge file
C) Flat file
- B) Curved cut file
D) Needle file

Answer: A) Safe edge file

163. How the roughness value is expressed?

- A) Metre
C) Millimetre
- B) Centimetre
D) Micrometer

Answer: D) Micrometer

164. What is the type of fit if minimum size of hole is larger than maximum size of shaft?

- A) Clearance
C) Transition
- B) Force
D) Interference

Answer: A) Clearance

165. Which type of trapezoidal thread is used in places there motion is to be transmitted between shafts at right angle?

- A) Saw-tooth thread
C) Acme thread
- B) Worm thread
D) Buttress thread

Answer: B) Worm thread

166. What is the ratio between the pitch diameter and number of teeth of gear?

- A) Addendum
C) Dedendum
- B) Tooth thickness
D) Module

Answer: D) Module

167. Which is the cheapest tool material?

- A) High speed steel
C) Carbide
- B) High carbon steel
D) Diamonds

Answer: B) High carbon steel

168. What is the length a spacing collar used in inside micrometer?

- A) 12 mm
C) 38 mm
- B) 25 mm
D) 13 mm

Answer: A) 12 mm

169. What is the maximum size of bore that can be checked with telescopic gauge?

- A) 31.7 mm
C) 88.9 mm
- B) 152.4 mm
D) 53.9 mm

Answer: B) 152.4 mm

170. How the turning tool is moving in tail strock offset method?

- A) Vertical to lathe axis
C) Angular to lathe axis
- B) Parallel to lathe axis
D) Perpendicular to lathe axis

Answer: B) Parallel to lathe axis

171. What is the value of tool life index for cutting cast iron by cemented carbide tool?

- A) 0.1
- B) 0.125
- C) 0.128
- D) 0.2

Answer: A) 0.1

172. What is the body material of bench vice?

- A) Wrought iron
- B) Mild steel
- C) Cast iron
- D) Hardened steel

Answer: C) Cast iron

173. Which material is used to make radius gauge?

- A) Cast steel
- B) Tool steel
- C) Stainless steel
- D) Hardened steel

Answer: D) Hardened steel

174. Which surface is finished by honing?

- A) Both external and internal surface
- B) Internal cylindrical surface
- C) External cylindrical surface
- D) Flat surface

Answer: B) Internal cylindrical surface

175. Which material is used to make the stylus of mechanical surface indicator?

- A) High carbon steel
- B) High speed steel
- C) Mild steel
- D) Diamond

Answer: D) Diamond

176. Calculated the rpm of spindle if cutting speed V is 120m/min and the diameter D of the job is 50 mm?

- A) 856 rpm
- B) 975 rpm
- C) 764 rpm
- D) 500 rpm

Answer: C) 764 rpm

177. Where will be using the angle plate and counter weight?

- A) Catch plate
- B) Four jaw chuck
- C) Face plate
- D) Driving plate

Answer: C) Face plate

178. Which part of lathe slides over the bedways between headstock and the tailstock?

- A) Feed rod
- B) Lead screw
- C) Carriage
- D) Spindle

Answer: C) Carriage

179. What is the name of gauge used to check the radius

- A) Fillet gauge
- B) Plug gauge
- C) Radius gauge
- D) Feeler gauge

Answer: C) Radius gauge

180. Which part is pivoted to the disc of vernier bevel protractor?

- A) Blade
- B) Stock
- C) Dial
- D) Disc

Answer: C) Dial

181. Which welding method is more suitable for joining dissimilar metals readily?

- A) Gas welding
- B) Tig welding
- C) Braze welding
- D) Arc welding

Answer: C) Braze welding

182. What is the minimum size of bore that can be checked with telescopic gauge?

- A) 12.7 mm
- B) 31.7 mm
- C) 13.7 mm
- D) 19.00 mm

Answer: A) 12.7 mm

183. Which heat treatment process is used to reduce internal stresses of a hardened tool?

- A) Annealing
- B) Normalizing
- C) Tempering
- D) Stabilizing

Answer: C) Tempering

184. Which is the term used to express grinding wheels to hold the abrasive particle together?

- A) Structure
- B) Bond
- C) Grain
- D) Grit

Answer: B) Bond

185. What is the heating temperature in gas nitriding process?

- A) Up 500 Degree Celsius
- B) Up 400 Degree Celsius
- C) Up 200 Degree Celsius
- D) Up 300 Degree Celsius

Answer: A) Up 500 Degree Celsius

186. What is the shape of interchangeable anvils used in screw thread micrometer?

- A) Radius shape
- B) V-shape
- C) Circular shape
- D) Square shape

Answer: B) V-shape

187. Which one of the following M-code is suitable for spindle rotation stop?

- A) M03
- B) M05
- C) M06
- D) M04

Answer: B) M05

188. How the thread are formed in thread rolling?

- A) Casting
- B) Plastic deformation

- A) 100 B) 50
C) 60 D) 150

Answer: C) 60

- A) M40 B) M38
C) M30 D) M39

Answer: C) M30

206. Which one is the cause for hazard in personal safety?

- A) Sleeve tightly rolled B) Long hair
C) Safety boots D) Buttons fastened

Answer: B) Long hair

215. What is the recommended cutting speed for turning mild steel using H.S.S tool?

- A) 40-70 m/min B) 35-50 m/min
C) 35-70 m/min D) 25-40 m/min

Answer: B) 35-50 m/min

207. What is the purpose of Square thread?

- A) To make adjustment B) To transmit power
C) For clamping D) General fastening

Answer: B) To transmit power

216. What is the shape of telescopic gauge?

- A) S - shaped B) C - shaped
C) U - shaped D) T - shaped

Answer: D) T - shaped

208. Find the gears for simple gear train, if pitch of lead screw is 6 mm and pitch of thread to be cut is 2 mm?

- A) 30/120 B) 40/120
C) 40/150 D) 50/120

Answer: B) 40/120

217. Which method is preferred for producing small length taper with least accuracy?

- A) Form tool method B) Compound slide method
C) Taper turning attachment method D) Tail stock offset method

Answer: A) Form tool method

209. Which of the following abrasive is preferred for lapping soft steels and non-ferrous metal?

- A) Silicon carbide B) Boron carbide
C) Natural corundum D) Aluminium oxide

Answer: D) Aluminium oxide

218. What is the use of hand chaser?

- A) Correcting and finishing a thread B) To cut new thread
C) For production job D) For making square thread

Answer: A) Correcting and finishing a thread

210. Which lathe part is used to mount the dial indicator for truing the bore?

- A) Cross slide B) Lathe bed
C) Tail stock D) Tool post

Answer: D) Tool post

219. Where the bend type lathe carrier is engaged?

- A) Driving plate B) Angle plate
C) Face plate D) Catch plate

Answer: D) Catch plate

211. Which mandrel is used for machining similar part where internal diameter vary slightly?

- A) Gang mandrels B) Taper Shank mandrels
C) Expansion stud mandrel D) Stepped mandrels

Answer: C) Expansion stud mandrel

220. Calculate the change gears to cut a worm of 0.35" lead on a lathe with a lead screw of 4TPI?

- A) Driver 30T, Driven 40 B) Driver 40T, Driven 50
C) Driver 50T, Driven 30 D) Driver 70T, Driven 50

Answer: D) Driver 70T, Driven 50

212. Which is 3 jaw chuck?

- A) Magnetic chuck B) Self centring chuck
C) Combination chuck D) 4 Jaw chuck

Answer: B) Self centring chuck

221. Which type of instrument is generally used to check eccentricity?

- A) Surface gauge B) Micrometer
C) Dial test indicator D) Vernier calipers

Answer: C) Dial test indicator

213. What is the term of thread the advancement of mating part in one complete rotation?

- A) Pitch B) Helix angle
C) Lead D) Depth

Answer: C) Lead

222. What is the relationship between pitch and lead of a single start thread?

- A) Lead is equal to pitch B) Lead is twice the pitch
C) Lead is 1/4 pitch D) Lead is half the pitch

Answer: A) Lead is equal to pitch

214. Which one of the code is used to rewind the program?

223. What percentage of cutting speed is reduced for tool life doubling?

- A) 0.082
- B) 0.084
- C) 0.083
- D) 0.081

Answer: C) 0.083

224. How the complex cutting motion involving X,Y and Z moments is carried out by CNC machining?

- A) Skill of machine operator
- B) Use of jigs, cams, templates and tracers
- C) Based on electrical power supply of the machine
- D) Combinations of co ordinates obtained from drives along the axis

Answer: D) Combinations of co ordinates obtained from drives along the axis

225. What is the purpose of normalizing steel?

- A) Soften the steel
- B) Remove induced stresses
- C) Increase the toughness and reduce brittleness
- D) Improve machinability

Answer: B) Remove induced stresses

226. What does BIS stand for?

- A) Bureau of international society
- B) Bureau of Indian society
- C) Bureau of Indian standard
- D) Bureau of international standard

Answer: C) Bureau of Indian standard

227. What is the name of precision finishing operation carried out by using fine abrasive materials?

- A) Grinding
- B) Lapping
- C) Polishing
- D) Filing

Answer: B) Lapping

228. What is the use of inside micrometer?

- A) To measure the depth of hole
- B) Measuring the external surface
- C) Determine the distance between internal parallel surface
- D) Measuring keyways and small slots

Answer: C) Determine the distance between internal parallel surface

229. Which is the chip less method of thread production?

- A) Die head
- B) Thread milling
- C) Thread rolling
- D) Thread grinding

Answer: C) Thread rolling

230. What is the hole basis system?

- A) Size of hole is constant
- B) Size of the hole is varied
- C) Size of shaft is constant
- D) Size of both hole and shaft are varied

Answer: A) Size of hole is constant

231. How many ways CNC machine tool systems can be classified?

- A) 5
- B) 2
- C) 4
- D) 3

Answer: D) 3

232. What factor is important in free hand form turning?

- A) High speed
- B) Skilled labour
- C) Unskilled labour
- D) Sharp tool

Answer: B) Skilled labour

233. What type of thread is used in screw jack machine?

- A) Square thread
- B) V-thread
- C) Acme thread
- D) Butress thread

Answer: A) Square thread

234. Which type of thread cut on the screw shaft of an independent chuck?

- A) Left hand V thread
- B) Right hand V thread
- C) Left hand square
- D) Left hand acme thread

Answer: C) Left hand square

235. Which method is used for turning steep taper?

- A) Compound slide swivel
- B) Form tool
- C) Offset tail stock
- D) Taper turning attachment

Answer: A) Compound slide swivel

236. Which accessory is used in between centre work?

- A) Face plate
- B) Four jaw chuck
- C) Catch plate
- D) Three chuck

Answer: C) Catch plate

237. What is the advantage of roller steady rest over fixed rest?

- A) It can fixed on saddle
- B) It rotates and moves along the work
- C) It can fixed on tool post
- D) Easy to rotate the work

Answer: D) Easy to rotate the work

238. How many seconds is 1 Degree?

- A) 360000%
- B) 6000%
- C) 3600000%
- D) 36000%

Answer: A) 360000%

239. Which one of the following code used to switch off the coolant pump?

- A) M07
- B) M08
- C) M30
- D) M09

Answer: D) M09

240. What is the disadvantage of fixed steady rest over follower steady rest?

- A) It rotate and moves along the work
- B) Support continuous entire length
- C) Support at one fixed place only
- D) It rotate with the job

Answer: C) Support at one fixed place only

241. What is the gear ratio if the lathe constant value is one?

- A) One
- B) Three
- C) Two
- D) Six

Answer: A) One

242. Calculate the width of flat of buttress thread 6 mm pitch?

- A) 0.75 mm
- B) 2 mm
- C) 1 mm
- D) 1.5 mm

Answer: A) 0.75 mm

243. What is the formula for finding gear ratio for fractional pitch thread?

- A) $DR/DN = \text{Leads of screw to be cut} \times \text{No. Of threads per inch of lead screw}$
- B) $DR/DN = \text{Lead of head screw} / \text{Lead of work}$
- C) $DR/DN = \text{TPI on lead screw} / \text{TPI to cut}$
- D) $DR/DN = \text{Lead of work} / \text{No. Of threads per inch}$

Answer: A) $DR/DN = \text{Leads of screw to be cut} \times \text{No. Of threads per inch of lead screw}$

244. Which lathe accessory is used to hold the previously bored job?

- A) Drive plate
- B) Catch plate
- C) Face plate
- D) Mandrel

Answer: D) Mandrel

245. Which thread is more suitable to hold the tool maker button in position?

- A) 7BA thread
- B) 5BA thread
- C) 6BA thread
- D) 4BA thread

Answer: D) 4BA thread

246. What term indicate actual size of the abrasive grain?

- A) Grit size
- B) Structure
- C) Abrasive type
- D) Grade of bond

Answer: A) Grit size

247. What is the main use of using tool maker's button for face boring?

- A) Truing is not necessary
- B) Unskilled labour can do
- C) Easy to set square to the axis of rotation
- D) Easy to use

Answer: C) Easy to set square to the axis of rotation

248. What is the name of last member in a simple gear train?

- A) Driver
- B) Driven
- C) Reversing gear
- D) Idler

Answer: B) Driven

249. Which one belongs to team work?

- A) Hard skill
- B) Technical skill
- C) Knowledge
- D) Soft skill

Answer: D) Soft skill

250. How much angle is to be added for lead angle of a square thread as clearance to the helix angle?

- A) 1 Degree 50 Minutes
- B) 1 Degree 55 Minutes
- C) 1 Degree 45 Minutes
- D) 1 Degree 30 Minutes

Answer: D) 1 Degree 30 Minutes

251. What is the angle of BSW thread?

- A) 60 Degree
- B) 29 Degree
- C) 45 Degree
- D) 55 Degree

Answer: D) 55 Degree

252. What is the term the distance from a point on thread to the corresponding point on next thread?

- A) Pitch
- B) Minor diameter
- C) Effective diameter
- D) Depth

Answer: A) Pitch

253. Which material is used for making nozzle for gas welding?

- A) Bronze
- B) High carbon steel
- C) Mild steel
- D) Copper

Answer: D) Copper

254. Which one is chief constituent of ferrous tool material?

- A) Iron
- B) Carbon
- C) Vanadium
- D) Tungsten

Answer: A) Iron

255. How much the compound rest should be tilted for cutting metric thread by compound rest?

- A) 45 Degree
- B) 15 Degree
- C) 30 Degree
- D) 60 Degree

Answer: C) 30 Degree

256. Calculate the least count of V.B.P if 23 div on main scale is divided into 12 equal parts

- A) 28 Degree
- B) 1 Degree - 50 Degree
- C) 5 Degree
- D) 100 Degree

Answer: C) 5 Degree

257. What is the schedule of lubrication for lathe bed?

- A) Frequently
- B) Daily
- C) Weekly
- D) Monthly

Answer: B) Daily

258. Which material is suitable for button die chaser?

- A) H.S.S
- B) Low strength material
- C) High strength material
- D) H.C.S

Answer: B) Low strength material

259. Select a suitable instrument for measuring angles?

- A) Vernier bevel protractor
- B) Calipers
- C) Vernier height gauge
- D) Vernier caliper

Answer: A) Vernier bevel protractor

260. Which type of thread is used in lathe head screw?

- A) Buttress thread
- B) Knuckle thread
- C) Square thread
- D) Acme thread

Answer: D) Acme thread

261. Which one of the following factor greatly causes to reduce tool life?

- A) Material
- B) Depth of cut
- C) Feed
- D) Cutting speed

Answer: D) Cutting speed

262. How many speed will obtained from a 3 stepped cone pulley headstock of lathe with back gear arrangement?

- A) 6
- B) 5
- C) 4
- D) 3

Answer: A) 6

263. Which mode is used while loading / unloading the work piece in CNC machine?

- A) Edit mode
- B) Jog mode
- C) Automatic mode
- D) Simulation mode

Answer: B) Jog mode

264. Which gauge is used to check the radius formed at the steps of component?

- A) Fillet gauge
- B) Radius gauge
- C) Plug gauge
- D) Feeler gauge

Answer: A) Fillet gauge

265. Which form of thread is widely used for fastening purpose?

- A) Square thread
- B) V - thread
- C) Saw tooth thread
- D) Knuckle thread

Answer: B) V - thread

266. Which one of the advantage of mass production?

- A) Gauges are to be used
- B) Jigs and fixture are needed
- C) Time for manufacturing of components is reduced
- D) Special purpose machinery are necessary

Answer: C) Time for manufacturing of components is reduced

267. A CNC machine tool has a continuous part control both linear and circular along x,y,z and control of table rotation about x axis and z axis, so the machine should be called?

- A) 2C, L
- B) 3L,2C
- C) 2L, 2C
- D) 5C

Answer: B) 3L,2C

268. Calculate the depth of buttress thread diameter 30 mm of pitch 3mm?

- A) 1.5 mm
- B) 1.25 mm
- C) 2.25 mm
- D) 3.00 mm

Answer: C) 2.25 mm

269. Which terms are needed to calculate tool life index?

- A) Cutting speed and feed
- B) Cutting speed time and index
- C) Cutting speed and rpm of job
- D) Depth of cut and rpm

Answer: B) Cutting speed time and index

270. Where the grinding attachment is mounted in centre lathe?

- A) Lathe bed
- B) Tailstock
- C) Rear tool post
- D) Compound rest

Answer: D) Compound rest

271. Which one is used for producing a bore to a high degree of positional accuracy?

- A) Drill
- B) Reamer
- C) Boring tool
- D) Tool maker's button

Answer: D) Tool maker's button

272. Where the driver pin is used?

- A) Angle plate
- B) Driving plate
- C) Face plate
- D) Catch plate

Answer: B) Driving plate

273. What is the recommended cutting speed for aluminium using H.S.S tool?

- A) 35 m/min - 50 m/min
- B) 25 m/min - 40 m/min
- C) 70 m/min - 100 m/min
- D) 50 m/min - 80 m/min

Answer: C) 70 m/min - 100 m/min

274. Which type of centre is used in the end of the job if no counter sink hole is permitted?

- A) Revolving centre
- B) Insert type centre

C) Ball centre

D) Female centre

Answer: D) Female centre

275. Which method of holding is used for lengthy work to avoid over hanging?

A) In face plate

B) In four jaw chuck

C) In between centres

D) Angle plate

Answer: C) In between centres

276. Find the gears required to cut 4.5mm pitch on a lathe having a lead screw of 4 TPI. Gears available from 20 to 120 teeth by 5 teeth with a special gear of 127T.

A) 60T on driver and 127T on driven

B) 127T on driver and 60T on driven

C) 90T on driver and 127T on driven

D) 127T on driver and 90T on driven

Answer: C) 90T on driver and 127T on driven

277. What is the core dia of square thread 62 x 10 mm pitch?

A) 57.4 mm

B) 52 mm

C) 56.45 mm

D) 52.7 mm

Answer: B) 52 mm

278. What is the width of the tool to cut square thread of 30 x 3 mm pitch?

A) 3 mm

B) 1.5 mm

C) 6 mm

D) 2 mm

Answer: B) 1.5 mm

279. What is protected by providing pieces between work and carrier while clamping?

A) Live centre

B) Carrier

C) Job surface

D) Dead centre

Answer: C) Job surface

280. What is the lead of M 24 x 3.5 triple start thread?

A) 12.8 mm

B) 3.5 mm

C) 10.5 mm

D) 8.5 mm

Answer: C) 10.5 mm

281. Calculate the change gear to cut 6 mm pitch on a work having a lead screw of 5 mm pitch. Gears available from 20 to 120 teeth by 5 teeth range.

A) Driver 40 driven 20

B) Driver 85 teeth driven 60 teeth

C) Driver 100 teeth driven 25 teeth

D) Driver 60 driven 50

Answer: D) Driver 60 driven 50

282. Which instrument can measure angle upto an accuracy of 5 minutes?

A) Angle gauge

B) Combination set

C) Vernier bevel protractor

D) Bevel gauge

Answer: C) Vernier bevel protractor

283. Which grade of file is used for heavy reduction of material?

A) Smooth file

B) Dead smooth file

C) Bastard file

D) Second cut file

Answer: C) Bastard file

284. Which material used for manufacturing crown wheel of a three jaw chuck?

A) Alloy steel

B) Cast iron

C) High carbon steel

D) Chrome vanadium steel

Answer: A) Alloy steel

285. Which parameter will decide the driver and driven gear ratio to cut thread on lathe?

A) Root dia of work

B) Angle of thread

C) Pitch

D) Major dia of work

Answer: C) Pitch

286. Which type taper is provided at the hollow end of the tailstock barrel/spindle?

A) Brown & sharpe taper

B) Jarno taper

C) Morse taper

D) Metric taper

Answer: C) Morse taper

287. What is the advantage of follower steady rest over fixed steady rest?

A) It rotate and moves along the work

B) Support continuous entire length of work

C) Support at fixed place of work

D) It rotate with the work

Answer: B) Support continuous entire length of work

288. Which type of chisel is used to cut key ways?

A) Diamond point chisel

B) Cross cut chisel

C) Half round nose chisel

D) Flat chisel

Answer: B) Cross cut chisel

289. What is the depth of cut for 10TPI BSW thread?

A) 0.6403 x 1/10 Inch

B) 0.6304 x 1/10 Inch

C) 0.6134 x 1/10 Inch

D) 0.6314 x 1/10 Inch

Answer: A) 0.6403 x 1/10 Inch

290. What is the inclined angle of dead centre conical point?

A) 90 Degree

B) 30 Degree

C) 60 Degree

D) 50 Degree

Answer: C) 60 Degree

291. Calculate the gear ratio to cut a 1/4 inch lead on a lathe

with lead screw of 2TPI?

- A) (3/4)
- B) (2/3)
- C) (1/2)
- D) (1/4)

Answer: C) (1/2)

292. What is the name of the centre accommodates in the main spindle sleeve?

- A) Live centre
- B) Pipe centre
- C) Dead centre
- D) Half centre

Answer: A) Live centre

293. Which work holding device of lathe is require to balance for irregular job?

- A) Catch plate
- B) Face plate
- C) 3 Jaw chuck
- D) Four Jaw chuck

Answer: B) Face plate

294. What is the reason for using ACME thread in lathe lead screw?

- A) Easily available
- B) Manufacturing cost is less
- C) Suitable for big diameter thread
- D) Enable easy engagement

Answer: D) Enable easy engagement

295. Which angle is provided on the metric screw thread micrometer anvil?

- A) 55 Degree
- B) 30 Degree
- C) 60 Degree
- D) 47.5 Degree

Answer: C) 60 Degree

296. Which axis the tool moves in taper turning attachment?

- A) Vertical to lathe axis
- B) Angular to lathe axis
- C) Parallel to lathe axis
- D) Perpendicular to lathe axis

Answer: B) Angular to lathe axis

297. How we can protect the surface of marking table to maintain accuracy?

- A) By applying thin layers of oil
- B) Provide a stand
- C) Providing plastic coating
- D) By providing a guard

Answer: A) By applying thin layers of oil

298. What is the angle of saw tooth thread?

- A) 30 Degree
- B) 90 Degree
- C) 45 Degree
- D) 29 Degree

Answer: A) 30 Degree

299. What is the purpose of change gear train in centre lathe?

- A) Connecting lead screw to changing dial
- B) Connecting spindle gear to fixed stud gear

- C) Connecting quick change gear box to lead screw
- D) Connecting fixed stud gear to quick change gear box

Answer: D) Connecting fixed stud gear to quick change gear box

300. What is the purpose of back gear unit in cone pulley headstock of a lathe?

- A) For helping step turning
- B) To get increased spindle speed
- C) To get reduced spindle speed
- D) To double the spindle speed

Answer: C) To get reduced spindle speed

301. Which part is assembled in compound rest other than compound slide?

- A) Apron
- B) Cross slide
- C) Swivel base
- D) Saddle

Answer: C) Swivel base

302. What is the thread form cut by using chasers?

- A) Trapezoidal thread
- B) External square thread
- C) Internal square thread
- D) External and internal V - Thread

Answer: D) External and internal V - Thread

303. How many carriers are available in a set?

- A) 4 numbers
- B) 8 numbers
- C) 10 numbers
- D) 6 numbers

Answer: C) 10 numbers

304. What is the name of first member in a simple gear train?

- A) Reverible gear
- B) Driver
- C) Driven
- D) Idler

Answer: B) Driver

305. Calculate the pitch diameter of M 36 x 4 mm square thread?

- A) 35 mm
- B) 32 mm
- C) 34 mm
- D) 33 mm

Answer: C) 34 mm

306. What is the included angle of prick punch used for marking light punch marks needed to position dividers?

- A) 45 Degree
- B) 60 Degree
- C) 90 Degree
- D) 30 Degree

Answer: D) 30 Degree

307. Calculate the depth of buttress thread 60 mm diameter and 9 mm pitch?

- A) 5.75 mm
- B) 7.75 mm
- C) 4.75 mm
- D) 6.75 mm

Answer: D) 6.75 mm

308. What is the disadvantage of chaser?

- | | |
|-------------------------------|---------------------------------|
| A) To cut knuckle thread only | B) To cut trapezoid thread only |
| C) To cut V-thread only | D) To cut square thread only |

Answer: C) To cut V-thread only

309. What is the specific use of tool maker's button in lathe operation?

- | | |
|---|---|
| A) For producing a tool to high degree accuracy | B) For producing a button to a high degree of positional accuracy |
| C) For producing tool to a high degree of positional accuracy | D) For producing bore to a high degree of positional accuracy |

Answer: D) For producing bore to a high degree of positional accuracy

310. Which mode is used to edit the program?

- | | |
|--------------|--------------|
| A) Edit mode | B) Auto mode |
| C) Jog mode | D) MDI mode |

Answer: A) Edit mode

311. Which material is used to make angle plate?

- | | |
|-----------------|---------------|
| A) Cast iron | B) Tool steel |
| C) Wrought iron | D) Mild steel |

Answer: A) Cast iron

312. What is the lead of M 10 x 1.5 double start thread?

- | | |
|---------|-----------|
| A) 2 mm | B) 3.5 mm |
| C) 4 mm | D) 3 mm |

Answer: D) 3 mm

313. Which one of the following CNC control systems are used on CNC machines?

- | | |
|-------------------------------|-----------------------------|
| A) Siemens and FANUC | B) MS office only |
| C) Adobe reader and Microsoft | D) Excel and MS power point |

Answer: A) Siemens and FANUC

314. Which metal is to be case hardened?

- | | |
|----------------------------|---------------------------|
| A) Cast iron (heavy parts) | B) Low carbon steel parts |
| C) Alloy steel parts | D) High carbon steel |

Answer: B) Low carbon steel parts

315. What is the purpose of using v prism method in thread measurement?

- | | |
|------------------------------------|-------------------------------|
| A) Measure the pitch of the thread | B) Measure effective diameter |
| C) Measure minor diameter | D) Measure major diameter |

Answer: C) Measure minor diameter

316. What is the purpose of square slot provided on the top of the pinion of a 3 jaw chuck is?

- | | |
|--|---|
| A) To set the body of the chuck in spindle | B) To set chuck on machine |
| C) To accommodate the chuck key | D) To set the back plate on the machine |

Answer: C) To accommodate the chuck key

317. Which one of the following code is suitable for rapid traverse?

- | | |
|--------|--------|
| A) G02 | B) G03 |
| C) G00 | D) G04 |

Answer: C) G00

318. What is the swing over bed?

- | | |
|--|---|
| A) Perpendicular distance from lathe and to the carriage | B) Distance between centres |
| C) Length of the bed | D) Perpendicular distance from lathe axis to top of bed |

Answer: D) Perpendicular distance from lathe axis to top of bed

319. Calculate the depth of buttress thread diameter 30 mm pitch 3 mm?

- | | |
|------------|------------|
| A) 1.5 mm | B) 1.25 mm |
| C) 2.25 mm | D) 3.00 mm |

Answer: C) 2.25 mm

320. How the cutting speed is expressed?

- | | |
|--------------|-------------------|
| A) Meter/min | B) Foot/min |
| C) Meter/sec | D) Revolution/min |

Answer: A) Meter/min

321. Which type of thread have higher mechanical advantage?

- | | |
|----------------|--------------------|
| A) Acme thread | B) Square thread |
| C) V- thread | D) Buttress thread |

Answer: B) Square thread

322. Where the taper threads are used?

- | | |
|---------|---------------|
| A) Stud | B) Bolt |
| C) Nut | D) Wood screw |

Answer: D) Wood screw

323. What will be the effect in helix angle if diameter changes for a given lead?

- | | |
|---|--|
| A) No change in helix angle if diameter increases | B) Diameters decreases helix angle increases |
| C) Diameters decreases helix angle decreases | D) No change in helix angle diameter decreases |

Answer: B) Diameters decreases helix angle increases

324. Which G-code is suitable for thread cutting?

- A) G30
- B) G01
- C) G32
- D) G34

Answer: C) G32

325. Calculate the change gears necessary to cut a thread of 7/16" lead on a lathe with a lead screw of 4TPI?

- A) Driven 30T, Driver 40T
- B) Driven 70T, Driver 40T
- C) Driver 70T, Driven 40T
- D) Driver 30T, Driven 40T

Answer: C) Driver 70T, Driven 40T

326. What is the angle of a BIS metric thread?

- A) 60 Degree
- B) 45 Degree
- C) 27.5 Degree
- D) 55 Degree

Answer: A) 60 Degree

327. What is the roughness value of grade No N1?

- A) 12.5 microns
- B) 6.3 microns
- C) 0.4 microns
- D) 0.025 microns

Answer: D) 0.025 microns

328. Which one of the below is a work holding device?

- A) Catch plate
- B) Driving plate
- C) Face plate
- D) Four jaw chuck

Answer: D) Four jaw chuck

329. What does QA and QC stand for?

- A) Quality adjustment and quality complete
- B) Quality assurance and quality control
- C) Quality assurance and quenching control
- D) Quality assurance and quenching control

Answer: B) Quality assurance and quality control

330. What is the angle between the adjustable jaws of a three jaw chuck?

- A) 119 Degree
- B) 90 Degree
- C) 120 Degree
- D) 118 Degree

Answer: C) 120 Degree

331. How many numbers of gears having in a simple gear train?

- A) 2
- B) 4
- C) 3
- D) 5

Answer: C) 3

332. What is the only thread form cut using diehead is turret lathe?

- A) Saw - Tooth
- B) ACME
- C) V-Thread
- D) Square

Answer: C) V-Thread

333. Why the thread chaser is used to form threads?

- A) To reduce labour
- B) To get proper, crest, flat, root radius and profile
- C) To time saving
- D) For easy thread cutting

Answer: B) To get proper, crest, flat, root radius and profile

334. Why the ball centre is preferred in tail stock offset method?

- A) To avoid damage to the centre drilled hole of the job
- B) For accurate setting
- C) For good surface finish
- D) For provide power feed

Answer: A) To avoid damage to the centre drilled hole of the job

335. Which method is non metallic threads are produced?

- A) Thread grinding
- B) Thread chasing
- C) Thread casting
- D) Thread milling

Answer: C) Thread casting

336. Which one of the following is possible in edit mode?

- A) Preparation of new programmable Data and correction / Alteration of an earlier program
- B) Simulation of the program
- C) Can read only the program
- D) Execute the program

Answer: A) Preparation of new programmable Data and correction / Alteration of an earlier program

337. Which formula to be used to find core diameter?

- A) Core diameter = Major diameter - depth
- B) Core diameter = Major diameter - 2 depth
- C) Core diameter = Major diameter - pitch
- D) Core diameter = Major diameter - minor diameter

Answer: B) Core diameter = Major diameter - 2 depth

338. What is the use of CNC code of M05 to develop the command?

- A) The spindle rotation has to stop
- B) Tool returns from reference point to work place
- C) Rewind the program once again
- D) The cutting tool has to be changed

Answer: A) The spindle rotation has to stop

339. Which formula to be used to find depth of buttress thread?

- A) $0.6134 \times \text{pitch}$
- B) $0.6403 \times \text{pitch}$
- C) $0.5 \times \text{pitch}$
- D) $0.75 \times \text{pitch}$

Answer: D) 0.75 x pitch

340. What is the shape of buttress thread flank?

- A) One flank is 30 Degree and the other 45 Degree
- B) One flank is 90 Degree and the other 45 Degree

- C) Two flanks are at 60 Degree
D) One flank is 60 Degree and the other 45 Degree

Answer: B) One flank is 90 Degree and the other 45 Degree

341. What is 7 with expression of fit 30H7/g6?

- A) Shaft tolerance grade
B) Shaft and hole tolerance
C) Hole tolerance grade
D) Shaft and hole allowance

Answer: C) Hole tolerance grade

342. Calculate the minor diameter of M 20 x 2.5 pitch thread?

- A) 16.933
B) 15.933
C) 17.933
D) 18.933

Answer: A) 16.933

343. How much percentage of cutting speed could be increased by using super HSS tools?

- A) 15% to 20%
B) 10% to 15%
C) 5% to 10%
D) 20% to 25%

Answer: A) 15% to 20%

344. What is the type of fit if minimum size of the shaft is larger than maximum size of hole?

- A) Transition
B) Running
C) Interference
D) Clearance

Answer: C) Interference

345. What is the name of work holding device were the irregular work could hold in lathe?

- A) Face plate
B) Catch plate
C) Driving place
D) B-Jaw chuck

Answer: A) Face plate

346. What is the expanded form of ABC in first aid?

- A) Aspiration, blood and circulation
B) Airway, breathing and circulation
C) Aspiration, breathing and circulation
D) Airway, blood and circulation

Answer: B) Airway, breathing and circulation

347. What is the formula used to find flat width of a buttress thread?

- A) Pitch/2
B) Pitch/4
C) Pitch/8
D) Pitch/6

Answer: C) Pitch/8

348. What is the advantage of jig?

- A) Hold and locate the work
B) It holds the job
C) Hold, locate and guide the tool
D) Cost is very low

Answer: C) Hold, locate and guide the tool

349. What is calculated by formula $0.75 \times \text{pitch}$?

- A) depth of buttress thread
B) depth of metric thread
C) depth of acme thread
D) depth of square thread

Answer: A) depth of buttress thread

350. What is the special benefit of using a fixture?

- A) Faster rate of production
B) Slower rate of production
C) Skilled worker required
D) Suitable for small batch production

Answer: A) Faster rate of production

351. What is the formula to calculate the core dia of the square thread?

- A) Major dia - Depth of thread
B) Major dia - 2 x depth
C) Major dia - Pitch dia
D) Major dia - minor dia

Answer: B) Major dia - 2 x depth

352. Which mode the program will be executed continuously one block after another block?

- A) Manual mode
B) Edit mode
C) Auto mode
D) Jog mode

Answer: C) Auto mode

353. Which mechanism is used for converting linear motion into rotary motion in plunger dial gauge?

- A) Rack and pinion mechanism
B) Scroll and pinion mechanism
C) Rack and scroll mechanism
D) Lever and scroll mechanism

Answer: A) Rack and pinion mechanism

354. Which method is suitable for measuring minor diameter of internal thread?

- A) By using slip gauge and precision roller
B) By using three wire method
C) By using screw thread micrometer
D) By using precision rollers and vernier calliper

Answer: A) By using slip gauge and precision roller

355. Which mode execute the program continuously one block after another block?

- A) Auto mode
B) Edit mode
C) Jog mode
D) MPG mode

Answer: A) Auto mode

356. What does Sq 60 x 9 IS 4694-1968 means?

- A) Acme thread 60 mm dia x 9 mm pitch
B) Buttress thread 60 mm dia x 9 mm pitch
C) Worm thread 60 mm dia x 9 mm pitch
D) Square Thread 60 mm dia, 9 mm pitch

Answer: D) Square Thread 60 mm dia, 9 mm pitch

357. Which punch is used for locating center of the hole?

- A) Hollow Punch
- B) Center punch
- C) Dot punch
- D) Prick punch

Answer: B) Center punch

358. Which is the cause of small particles of the material become embedded in the space between the grains of the grinding wheel?

- A) Glazing
- B) Dressing
- C) Loading
- D) Grooving

Answer: C) Loading

359. What does BIS stands for?

- A) Bureau of International Standard
- B) Bereau of Indian Society
- C) Bureau of International Society
- D) Bureau of Indian Standard

Answer: D) Bureau of Indian Standard

360. What is the name of the centre with a carbide tip is brazed into an ordinary steel shank?

- A) Half centre
- B) Tipped centre
- C) Insert type centre
- D) Ball centre

Answer: B) Tipped centre

361. Which lathe accessory is used to clamp the fixture?

- A) Face plate
- B) Collet chuck
- C) 3 jaw chuck
- D) 4 jaw chuck

Answer: A) Face plate

362. What should be the heights of gauge block to be built to check the work angle of 30 Degree using 150 mm sine bar?

- A) 145.63
- B) 291.26
- C) 75
- D) 38.62

Answer: C) 75

363. Where the knuckle threads are used?

- A) Dead screw of lathe
- B) Railway carriage couplings
- C) Screw jack
- D) Carpentry vice

Answer: B) Railway carriage couplings

364. Which victim has given CPR immediately?

- A) Difficulty in breathing
- B) Severe head injury
- C) Dehydration
- D) Severe blood loss

Answer: A) Difficulty in breathing

365. How may roughness grade number are used?

- A) N1 to N20
- B) N1 to N30
- C) N1 to N12
- D) N1 to N25

Answer: C) N1 to N12

366. Which safety practice refers, Do not wear the ring?

- A) Road safety
- B) Personal safety
- C) Machine safety
- D) General safety

Answer: B) Personal safety

367. Calculate the spindle speed to turn a 40mm dia M.S rod using a cemented carbide tool it cutting speed is 92mm/min?

- A) 508 rpm
- B) 731 rpm
- C) 685 rpm
- D) 950 rpm

Answer: B) 731 rpm

368. Which portion of a hammer head is not hardened or left soft?

- A) Cheek
- B) Cross pein
- C) Face
- D) Pein

Answer: A) Cheek

369. Which is main criteria to increase the tool life?

- A) Feed
- B) Depth of cut
- C) Cutting speed
- D) Material

Answer: C) Cutting speed

370. Which is used to mark the center of a round rod?

- A) Inside caliper
- B) Divider
- C) Jenny caliper
- D) Outside caliper

Answer: C) Jenny caliper

371. Which is a non-metallic tool material?

- A) Diamonds
- B) Stellite
- C) High carbon steel
- D) Carbide

Answer: A) Diamonds

372. Which G-code is suitable for data input in mm?

- A) G27
- B) G21
- C) G20
- D) G28

Answer: B) G21

373. Which code suitable for circular interpolation counter clockwise direction?

- A) G01
- B) G03
- C) G04
- D) G02

Answer: B) G03

374. Which chuck is mainly used for getting a very effective grip over the job?

- A) Magnetic chuck
- B) Push - out chucks
- C) Hydraulic chuck
- D) Collect chuck

Answer: C) Hydraulic chuck

375. What is the types of fit for the expression 20H7/g6?

- A) Transition fit B) Clearance fit
C) Interference fit D) Force fit

Answer: B) Clearance fit

376. Which material is used to make body of three jaw chuck?

- A) Alloy steel B) Cast steel
C) Hardened steel D) Cast iron

Answer: B) Cast steel

377. How can the unexpected breakdowns of machines be reduced?

- A) By productive maintenance B) By break down maintenance
C) By quality maintenance D) By preventive maintenance

Answer: D) By preventive maintenance

378. Which is the commonly used method to produce thread in nut?

- A) Thread casting B) Tapping
C) Thread milling D) Thread grinding

Answer: B) Tapping

379. Which one of the following is disadvantage of tailstock offset method?

- A) Power feed can be given B) Only external taper can be turned
C) External taper thread can be produced D) Good surface finish can be obtained

Answer: B) Only external taper can be turned

380. Which type of tool is suitable to produce form surface in mass production activities?

- A) Using single point cutting tool B) Using carbide tipped form tool
C) High speed steel cutting tool D) High carbon steel tool

Answer: B) Using carbide tipped form tool

381. Which part of the lathe gives perpendicular movement to the tool?

- A) Carriages B) Cross slide
C) Tailstock D) Apron

Answer: B) Cross slide

382. How to measure the diameter of the small end of an external taper precisely?

- A) Vernier calipers B) Sine bar
C) Precision roller with slip gauge D) Screw gauge

Answer: C) Precision roller with slip gauge

383. What is removing dull grain in order to make grinding wheel sharp?

- A) Dressing B) Loading
C) Glazing D) Trueing

Answer: A) Dressing

384. Calculate the driven gear to cut 1.5mm pitch thread on a job using a lathe having lead screw of 4mm pitch with driver gear 30 teeth?

- A) 60 B) 100
C) 50 D) 80

Answer: D) 80

385. Which mode is used for moving the turret in X and Z direction?

- A) Jog mode B) Edit mode
C) MDI mode D) Auto mode

Answer: A) Jog mode

386. Find the gear required to cut 3 mm pitch in a lathe having a lead screw of 6 TPI gear available from 20 to 120 teeth by 5 teeth with a special gear of 127 teeth?

- A) Driver 90 teeth Driven 127 teeth B) Driver 127 teeth Driven 90 teeth
C) Driver 60 teeth Driven 20 teeth D) Driver 20 teeth Driven 60 teeth

Answer: A) Driver 90 teeth Driven 127 teeth

387. Which lapping material is used for easy charging and rapid cutting?

- A) Copper and brass B) Close grained iron
C) White cast iron D) Cast iron

Answer: A) Copper and brass

388. What is the reason for using dial indicator instead of scribe point in Vernier height gauge?

- A) For accurate marking B) For accurate measuring
C) To check eccentricity D) For good appearance

Answer: C) To check eccentricity

389. Which gas is used in nitriding process?

- A) Hydrogen B) Ammonia
C) Carbon dioxide D) Helium

Answer: B) Ammonia

390. Which formula is used to find root width of a buttress thread?

- A) $0.125 \times \text{pitch}$ B) $0.5 \times \text{pitch}$
C) $0.317 \times \text{pitch}$ D) $0.335 \times \text{pitch}$

Answer: A) $0.125 \times \text{pitch}$

391. What is the accuracy of the protractor head of a

combination set?

- A) 5 Degree
- B) 1 Degree
- C) 1 Degree
- D) 1 Degree

Answer: B) 1 Degree

392. Which part of the universal surface gauge is used for fine adjustment?

- A) Guide pin
- B) Rocker arm
- C) Scriber
- D) Spindle

Answer: B) Rocker arm

393. Calculate the driven gear required to cut 4mm pitch thread is a lathe having lead screw of 4mm with driven gear of 60 teeth?

- A) 50
- B) 60
- C) 100
- D) 120

Answer: B) 60

394. What is the material of jaws of 3 jaw chuck?

- A) High carbon steel
- B) Alloy steel
- C) Medium carbon steel
- D) Cast iron

Answer: A) High carbon steel

395. What type of taper provided on the shank of lathe center?

- A) Metric
- B) Brown & sharp
- C) Jarno
- D) Morse

Answer: D) Morse

396. What is the specification for shape of file?

- A) Cross section
- B) Length
- C) Cut
- D) Grades

Answer: A) Cross section

397. How metric chasing dial differ from British chasing dial?

- A) One worm wheel and one dial
- B) One worm wheel and different dial
- C) Same as British chasing dial
- D) More than one worm wheel and different dial

Answer: D) More than one worm wheel and different dial

398. How is the 'length of sine bars' specified?

- A) Length of datum surface
- B) Distance between the centres of the rollers
- C) Length of the rollers
- D) Total length of the sine bar

Answer: B) Distance between the centres of the rollers

399. What is 1.25 stands for a metric thread designated as M12 x 1.25?

- A) Minor dia of thread
- B) Depth of thread

- C) Major dia of thread
- D) Pitch of the thread

Answer: D) Pitch of the thread

400. What are the standard diameters of tool maker's button?

- A) 8mm, 10mm, 12mm
- B) 20mm, 22mm, 24mm
- C) 14mm, 16mm, 18mm
- D) 2mm, 4mm, 6mm

Answer: A) 8mm, 10mm, 12mm

401. Which thread has only one helical formation?

- A) Triple start
- B) Quadrapple
- C) Single start
- D) Double start

Answer: C) Single start

402. What is the core dia of square thread 75 x 11 mm pitch?

- A) 65.8 mm
- B) 64 mm
- C) 60 mm
- D) 70 mm

Answer: B) 64 mm

403. Which mechanism is also called as reversing gear unit?

- A) Tumbler gear
- B) Change gear unit
- C) Apron mechanism
- D) Quick change box

Answer: A) Tumbler gear

404. What is the relationship between pitch and depth of a square thread?

- A) Depth is 1/2 pitch
- B) Depth is equal to pitch
- C) Depth is 3/4 pitch
- D) Depth is 1/4 pitch

Answer: A) Depth is 1/2 pitch

405. What is the use of gap bed lathe?

- A) To turn larger diameter work
- B) To turn small diameter work
- C) To turn lengthy work
- D) To turn irregular shaped work

Answer: A) To turn larger diameter work

406. What does the letter 's' stands in the equation $d = Y - 2(s + r)$ in taper measurement?

- A) Diameter over the rollers at small end
- B) Diameter over the roller at large end
- C) Distance from the centre of the roller to the end of the component
- D) Radius of the rollers

Answer: C) Distance from the centre of the roller to the end of the component

407. Which is used to prevent concentration of abrasives on lapping surface?

- A) Vehicle
- B) Retainer
- C) Absorber
- D) Holder

Answer: A) Vehicle

408. What is the roughness value of grade No N:12?

- A) 25 microns
- B) 12.5 microns
- C) 0.1 microns
- D) 50 microns

Answer: D) 50 microns

409. Which wheel is used for grinding tough materials?

- A) Ceramic
- B) Aluminium oxide
- C) Cemented carbide
- D) Silicon carbide

Answer: B) Aluminium oxide

410. What is the angle of saw tooth thread?

- A) 45 Degree
- B) 30 Degree
- C) 90 Degree
- D) 29 Degree

Answer: B) 30 Degree

411. What do you mean by MPG?

- A) Manually Pulse Generator
- B) Manual Program Graphics
- C) Manual Procedure to Calculate Geometrical Values
- D) Manually Procure the Digital Graphics

Answer: A) Manually Pulse Generator

412. What is the material of files?

- A) Cast iron
- B) Mild steel
- C) High carbon steel
- D) Low alloy steel

Answer: C) High carbon steel

413. Which method of threading is used in mass production?

- A) Use single point cutting tool
- B) Thread rolling
- C) Thread grinding
- D) Using taps and dies

Answer: B) Thread rolling

414. What is the tool life index of cemented carbide tool for turning high carbon high chromium die steel?

- A) 0.2
- B) 0.15
- C) 0.4
- D) 0.35

Answer: B) 0.15

415. Calculate the driven gear to cut 2mm pitch on a job using a lathe having lead screw of 4mm pitch with driven gear 50 teeth?

- A) 120
- B) 50
- C) 60
- D) 100

Answer: D) 100

416. Which device uses buttress thread?

- A) Lead screw of lathe
- B) Screw jack
- C) Carpentry vice
- D) General purpose nut and bolt

Answer: C) Carpentry vice

417. How many adjusting bearing pad in fixed steady rest?

- A) Four
- B) Five
- C) Three
- D) Two

Answer: C) Three

418. Which thread is recommended for pipe and pipe fittings?

- A) BSF thread
- B) BA thread
- C) BSP thread
- D) BSW thread

Answer: C) BSP thread

419. Which work holding device is more suitable for accurate boring using tool maker's button?

- A) Collect
- B) 3-Jaw chuck
- C) Face plate
- D) Magnetic chuck

Answer: C) Face plate

420. What is the recommended feed rate for turning cast iron (grey) using H.S.S tool?

- A) 0.15-0.7 mm/rev
- B) 0.08-0.03 mm/rev
- C) 0.2-1.5 mm/rev
- D) 0.2-1.00 mm/rev

Answer: A) 0.15-0.7 mm/rev

421. What is the depth of buttress thread if the pitch is 1.8 mm of 45 Degree angle?

- A) 1.35 mm
- B) 0.910 mm
- C) 0.42 mm
- D) 1.23 mm

Answer: A) 1.35 mm

422. What is the purpose of the beveled edges of the rule in a vernier bevel protractor?

- A) Checking squareness
- B) Checking 45 Degree and 60 Degree
- C) Checking parallelism
- D) Checking flatness

Answer: B) Checking 45 Degree and 60 Degree

423. Which part of screw rod of 4 jaw chuck permits the screws to rotate but not to advance?

- A) Finger pin
- B) Taper pin
- C) Locating pin
- D) Pinion

Answer: A) Finger pin

424. Which part of the combination set is used for measuring the angles?

- A) Centre head
- B) Protractor head
- C) Rule
- D) Square head

Answer: B) Protractor head

425. Which mode, the cutting tool returns back to its home position?

- A) MDI mode
- B) Automatic mode

C) Reference mode D) Jog mode

Answer: C) Reference mode

426. Calculate pitch diameter of f 24 x 3 mm square thread?

- A) 21 mm B) 21.5 mm
C) 24 mm D) 22.5 mm

Answer: D) 22.5 mm

427. What is the indication of 'x' axis in CNC lathe machine?

- A) The length of the component B) The radius of the component
C) The diameter of the component D) Centre axis of the component

Answer: C) The diameter of the component

428. Which type thread is used in lathe lead screw?

- A) Metric B) ACME
C) Buttress D) Square

Answer: B) ACME

429. What is the use of Goo activates the command?

- A) Tool returns from reference point B) Linear interpolation
C) Return to reference point D) Rapid traverse

Answer: D) Rapid traverse

430. Which formula is used to find crest width of a buttress thread?

- A) $0.317 \times \text{pitch}$ B) $0.5 \times \text{pitch}$
C) $0.335 \times \text{pitch}$ D) $0.125 \times \text{pitch}$

Answer: D) $0.125 \times \text{pitch}$

431. Where the follower is fixed to produce from turning?

- A) Top slide B) Tail stock
C) Cross slide D) Tool part

Answer: C) Cross slide

432. What is direction of finishing in surface texture?

- A) Waviness B) Roughness
C) Flaw D) Lay

Answer: D) Lay

433. How can measure the minor diameter of a internal thread?

- A) By vernier caliper B) By three wire method
C) Using slip gauge pack D) By screw thread micrometer

Answer: A) By vernier caliper

434. Which type of jig locates the piece part from its face?

- A) Solid jig B) Post jig

C) Plate jig

D) Table jig

Answer: D) Table jig

435. Which heat process is increase the toughness and decrease the brittleness?

- A) Case hardening B) Normalizing
C) Annealing D) Tempering

Answer: D) Tempering

436. What is the activity of code M06 based on FANUC CNC control system?

- A) End of the program with rewind B) The cutting tool has to be changed
C) Switch of the coolant pump D) Spindle rotation in counter clockwise direction

Answer: B) The cutting tool has to be changed

437. What is the formula used to find flat width of a buttress thread?

- A) $\text{Pitch}/2$ B) $\text{Pitch}/4$
C) $\text{Pitch}/8$ D) $\text{Pitch}/3$

Answer: C) $\text{Pitch}/8$

438. What is the name of thread producing method by cold forging and by plastic deformation?

- A) Thread casting B) Thread rolling
C) Thread milling D) Thread grinding

Answer: B) Thread rolling

439. What is thread element that determine the direction of rotation on screw thread?

- A) Hand of thread B) Lead of thread
C) Pitch of thread D) Depth of thread

Answer: A) Hand of thread

440. What is the accuracy of measurement by a try square?

- A) 0.2 mm / 1000 mm length B) 2 mm / 1 mm length
C) 0.02 mm / 100mm length D) 0.002 mm / 10mm length

Answer: D) 0.002 mm / 10mm length

441. What is the process of increasing carbon percentage on the surface of low carbon steel?

- A) Tempering B) Hardening
C) Carburizing D) Nitriding

Answer: C) Carburizing

442. Which mandrel is manufactured in order to reduce the number of mandrel?

- A) Threaded mandrel B) Gang mandrel
C) Stepped mandrel D) Solid mandrel

Answer: C) Stepped mandrel

443. What is the drill point angle for drilling brass?

- A) 120 Degree
- B) 118 Degree
- C) 130 Degree
- D) 140 Degree

Answer: B) 118 Degree

444. What is the use of maintenance records?

- A) To analyse the function maintenance department
- B) To analyse the periodic inspection
- C) To analyse the purchase
- D) To analyse the cause fault and rectification

Answer: D) To analyse the cause fault and rectification

445. Which one is the example for transmission of motion using thread

- A) Rack and pinion
- B) Crank and slotted link
- C) Bevel gearing
- D) Worm and worm shaft

Answer: D) Worm and worm shaft

446. Encodor is used in CNC machine tool to sense and control?

- A) Table position
- B) Work position
- C) Spindle speed
- D) Spindle position

Answer: A) Table position

447. Calculate the change gear to cut 8 mm pitch on a work having a lead screw of 4 mm pitch gear 20 to 120 teeth by 5 teeth range

- A) Driver 80 teeth Driven 25 teeth
- B) Driver 50 teeth Driven 60 teeth
- C) Driver 40 teeth Driven 20 teeth
- D) Driver 60 teeth Driven 35 teeth

Answer: C) Driver 40 teeth Driven 20 teeth

448. Which bonding material is not affected by water, acid or normal temperature?

- A) Rubber
- B) Vetrified
- C) Resinoid
- D) Backlite

Answer: B) Vetrified

449. What is the included angle of center punch?

- A) 45 Degree
- B) 60 Degree
- C) 90 Degree
- D) 30 Degree

Answer: C) 90 Degree

450. Calculate change gears to cut a three start thread having a pitch of 1.5 mm; the lead screw has a pitch of 6 mm.

- A) Driver 30 teeth, Driven 70 teeth
- B) Driver 60 teeth, Driven 50 teeth
- C) Driver 45 teeth, Driven 60 teeth
- D) Driver 50 teeth, Driven 100 teeth

Answer: C) Driver 45 teeth, Driven 60 teeth

451. What is the purpose of using thread micrometer?

- A) Measure major diameter
- B) Measure minor diameter
- C) Measure pitch of the thread
- D) Measure effective diameter

Answer: D) Measure effective diameter

452. What is the name of the pattern of work surface caused by the movement of cutting tool?

- A) Roughness
- B) Surface texture
- C) Roughness facing
- D) Waviness

Answer: B) Surface texture

453. What is the purpose of slots milled on two planes of angle plate?

- A) Good appreance
- B) Maintain accuracy
- C) Clamp the job
- D) Reduce the weight

Answer: C) Clamp the job

454. Which formula is used to find crest width of a buttress thread?

- A) $0.125 \times \text{pitch}$
- B) $0.335 \times \text{pitch}$
- C) $0.317 \times \text{pitch}$
- D) $0.5 \times \text{pitch}$

Answer: A) $0.125 \times \text{pitch}$

455. What is the thread depth of square thread SQ60x9?

- A) 42 mm
- B) 4.5 mm
- C) 9.0 mm
- D) 18 mm

Answer: B) 4.5 mm

456. Where multistart threads are used?

- A) For easy engagement
- B) For quick transmission
- C) For easy alignment
- D) For general fastening

Answer: B) For quick transmission

457. What is the advantage of using idler gear in simple gear train?

- A) Change the speed
- B) Easy to engage
- C) Affect gear ratio
- D) Does not affect gear ratio

Answer: D) Does not affect gear ratio

458. Which is the form of Trapezoidal thread?

- A) BSF
- B) Metric
- C) BSW
- D) ACME

Answer: D) ACME

459. Which one is the disadvantage of using tail stock offset method?

- A) Taper length is limited
- B) Taper turning is possible when work held between centre only

- C) Only hand feed can be given D) External threads on taper can't produce

Answer: B) Taper turning is possible when work held between centre only

460. Which angle determines the rake angle at the cutting edge of twist drill?

- A) Helix angle B) Point angle
C) Clearance angle D) Wedge angle

Answer: A) Helix angle

461. What is the meaning of M24 in M 24 x 3 single start thread?

- A) Depth of thread B) Major dia of thread
C) Core dia of thread D) Effective dia of thread

Answer: B) Major dia of thread

462. How does periodic inspection of the machines and equipments is carried out in preventive maintenance?

- A) As per checklist B) As per the knowledge of instructor
C) As per the knowledge of manager D) As per the knowledge of trainee

Answer: A) As per checklist

463. Convert 8 Degree 44 minutes into minutes?

- A) 536 B) 524
C) 428 D) 424

Answer: B) 524

464. What is lapping?

- A) Grinding operation B) Precision finishing operation
C) Filing operation D) Chiseling operation

Answer: B) Precision finishing operation

465. Which part of carriage is only for possible manual operation?

- A) Apron B) Cross slide
C) Saddle D) Top slide

Answer: D) Top slide

466. Which angle is ground on ACME threading tool?

- A) 60 Degree B) 45 Degree
C) 55 Degree D) 29 Degree

Answer: D) 29 Degree

467. Which type of chisel is used for squaring materials at the corners and joints?

- A) Cross cut chisel B) Flat chisel
C) Web chisel D) Diamond point chisel

Answer: D) Diamond point chisel

468. Where the milling attachment is mounted in centre lathe?

- A) Cross - slide B) Tailstock
C) Compound rest D) Rear tool post

Answer: A) Cross - slide

469. What is the formula for pitch diameter of thread?

- A) Major diameters - 2 depth B) Major diameter - Pitch
C) Major diameters - single depth D) Major diameters - minor diameter

Answer: C) Major diameters - single depth

470. Why the ball centre is used in taper turning by offset method?

- A) Easy setting B) Minimum wear and strain
C) Minimum friction D) Economical

Answer: B) Minimum wear and strain

471. Which deviation is zero in shft basis system?

- A) Both upper and lower deviation is zero B) Both upper and lower deviation is below basic size
C) Lower deviation is zero D) Upper deviation is zero

Answer: D) Upper deviation is zero

472. How can measure the minor diameter of a internal thread accurately?

- A) By screw thread micrometer B) By plug gauge
C) By three wire method D) By using slip gauge and precision rollers

Answer: D) By using slip gauge and precision rollers

473. Which type of thread is used in screw jack spindle?

- A) BSF thread B) BSW thread
C) Square thread D) Worm thread

Answer: C) Square thread

474. How many standard wires are used to check effective diameter very accurately?

- A) Four wire B) One wire
C) Three wire D) Two wire

Answer: C) Three wire

475. Which letter represents basic hole?

- A) h B) BH
C) H D) Bh

Answer: A) h

476. What is the depth of 0.5 inch BSW 13TPI single start thread?

- A) 0.082" B) 0.038"

C) 0.025" D) 0.049"

Answer: D) 0.049"

477. Find the lead of a 2 start thread having pitch 1.5 mm?

- A) 4.50 mm B) 6.00 mm
C) 1.50 mm D) 3.00 mm

Answer: D) 3.00 mm

478. Which is the method to produce accurate internal thread?

- A) Thread chasers B) Thread milling
C) Using dies D) Thread rolling

Answer: B) Thread milling

479. What is the purpose of idler gear in simple gear train?

- A) Transmit power between driver and driven gears B) Reduce spindle speed
C) Reduce gear ratio D) Increase spindle speed

Answer: A) Transmit power between driver and driven gears

480. What will be the effect in helix angle if lead changes for a give diameter work?

- A) Lead decreases helix angle increases B) Lead decreases helix angle decreases
C) Helix angle have no change when lead decreases D) Helix angle have no change when lead increases

Answer: B) Lead decreases helix angle decreases

481. What is the name of device used to drive the work during turning between centres?

- A) Catch plate B) Lathe carrier
C) Face plate D) Driving plate

Answer: B) Lathe carrier

482. Which command activates in automatic mode?

- A) Program simulation B) Program executed
C) Work offset settings are taken D) Tool changes automatically

Answer: B) Program executed

483. What is the unit of deviation in limits and fits?

- A) Millimeter B) Mill micron
C) Micron D) Centimeter

Answer: C) Micron

484. Calculate the least count of V.B.P if 23 div on main scale is divided into 12 scale divisions

- A) 4 minutes B) 5 minutes
C) 3 minutes D) 2 minutes

Answer: A) 4 minutes

485. Which mode is used for five positioning (Micron level) of the axis movement?

- A) MDI mode B) Auto mode
C) Edit mode D) Incremental Jog mode

Answer: D) Incremental Jog mode

486. What is the depth of square thread 60 x 5 mm pitch?

- A) 2.5 mm B) 3 mm
C) 4 mm D) 5 mm

Answer: A) 2.5 mm

487. Which method of brazing is commonly used to braze of carbide tip on a shank?

- A) Arc brazing B) Furnace brazing
C) Torch brazing D) Induction brazing

Answer: C) Torch brazing

488. What does the letter Y stands in the formula $d = Y \sqrt{2(s+r)}$ in taper measurement?

- A) Diameter over rollers at small end B) Diameter over rollers at big end
C) Radius of the roller D) Distance from the centre of the roller to the end of the component

Answer: A) Diameter over rollers at small end

489. Which device is used as datum while marking with Vernier height gauge?

- A) Driving plate B) Angle plate
C) Surface plate D) Face plate

Answer: C) Surface plate

490. Which diameter is maintained in a job for making threads by rolling?

- A) Root diameter B) Minor diameter
C) Major diameter D) Pitch diameter

Answer: D) Pitch diameter

491. What is the shape of buttress thread flank?

- A) One flank is 90 Degree and the other 45 Degree B) One flank is 60 Degree and the other 45 Degree
C) Two flanks are at 60 Degree D) One flank is 30 Degree and the other 45 Degree

Answer: A) One flank is 90 Degree and the other 45 Degree

492. Which part of centre lathe make angular movement?

- A) Cross slide B) Top slide
C) Saddle D) Compound slide

Answer: D) Compound slide

493. How multi start threads are specified?

- A) By stating dia and pitch B) By stating dia, pitch, and no. of start
C) By stating core dia and pitch D) By stating dia and angle of thread

Answer: B) By stating dia, pitch, and no. of start

494. Which is used to support hollows end jobs?

- A) Female centre B) Ball centre
C) Tipped centre D) Pipe centre

Answer: D) Pipe centre

495. What is the most accepted method of representing roughness?

- A) Symbol B) Units
C) Grade number D) Weight

Answer: C) Grade number

496. What is the representation IT in limits and fits?

- A) Tolerance number B) Tolerance unit
C) Tolerance D) Tolerance grade

Answer: D) Tolerance grade

497. Which is the angle of inclination in the thread to the imaginary perpendicular line?

- A) Helix angle B) Right angle
C) Acute angle D) Obtuse angle

Answer: A) Helix angle

498. Which one of the program block may suitable to move the cutting tool 'x' axis 42.0 'z' axis 0.0 with the feed of 0.1 mm?

- A) G00 x 42.0 z 0.0 F 0.1; B) G03 x 42.0 z 0.0 F 0.1;
C) G01 x 42.0 z 0.0 F 0.1; D) G02 x 42.0 z 0.0 F 0.1;

Answer: C) G01 x 42.0 z 0.0 F 0.1;

499. Which one of the following is the solid carburizing material?

- A) Charcoal B) Kerosene
C) Petrol D) Ammonia

Answer: A) Charcoal

500. How many gears are assembled in tumbler gear mechanism?

- A) 4 gears B) 3 gears
C) 5 gears D) 2 gears

Answer: B) 3 gears

501. What is the effect, if the cutting speed is more than the recommended?

- A) Better finish B) Normal tool life
C) Reduce the tool life D) Accurate dimension

Answer: C) Reduce the tool life

502. What is the formula to find out core diameter of external thread by using prisms and micrometer?

- A) Core dia = Measurement over prisms ? Height of prisms + Single depth B) Core dia = Measurement over prisms ? Height of prisms ? Single depth of thread
C) Core dia = Measurement over prisms + Height of prisms ? Single depth D) Core dia = Measurement over prisms ? Height of prisms + Two depth

Answer: B) Core dia = Measurement over prisms ? Height of prisms ? Single depth of thread

503. What is the purpose of tail on the lathe carrier?

- A) Protect the work B) Locate and drive the work
C) Give good finish D) Protect the operator

Answer: B) Locate and drive the work