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KANAKAPURA

April 2026

Question Paper

Duration: 30 Mins

Total Marks: 503

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Student Name: _____ Roll No: _____

1. How many types of split bearing?
A) 4
B) 3
C) 2
D) 5
2. 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) $0.5 \times \text{pitch}$
3. Which G-code is suitable for thread cutting?
A) G30
B) G01
C) G34
D) G32
4. Which one of the following code is suitable for spindle rotation in clock wise direction?
A) M04
B) M03
C) G03
D) G02
5. 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) Method using slotted face plate
C) Method by moving the top slide
D) Thread chasing dial method
6. Which formula to be used to find core diameter?
A) Core diameter = Major diameter - pitch
B) Core diameter = Major diameter - depth
C) Core diameter = Major diameter - 2 depth
D) Core diameter = Major diameter - minor diameter
7. Which is the form of Trapezoidal thread?
A) BSF
B) BSW
C) ACME
D) Metric
8. What is the angle of ACME thread
A) 60 Degree
B) 45 Degree
C) 55 Degree
D) 29 Degree
9. What is the angle of saw tooth thread?
A) 30 Degree
B) 90 Degree
C) 45 Degree
D) 29 Degree
10. Which is a non-metallic tool material?
A) Diamonds
B) Stellite
C) High carbon steel
D) Carbide
11. What is the reason for providing buttress thread in carpentry vice?
A) For better appearance
B) For easy manufacturing
C) For easy use
D) Pressure acts at one flank
12. Why heat treatment of metal is necessary?
A) To increase strength of the metal
B) To produce certain desired properties
C) To make good appearance on the component
D) To make the metal rust-proof
13. Which file is used for filing surfaces at right angle on already finished surface?
A) Safe edge file
B) Needle file
C) Flat file
D) Curved cut file
14. What is the core diameter of BSW thread of 1 inch outer dia and 8 TPI
A) 0.83 Inch
B) 0.80 Inch
C) 0.84 Inch
D) 0.81 Inch
15. Which material is suitable for button die chaser?
A) Low strength material
B) H.C.S
C) H.S.S
D) High strength material
16. Which type of thread is produced by tap and die?
A) Saw - tooth thread
B) V - thread
C) ACME thread
D) Square thread
17. What is the recommended cutting speed for aluminium using H.S.S tool?

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

18. How to measure the diameter of the small end of a external taper precisely?

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

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

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

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

- A) Combination chuck B) Collect chuck
C) Magnetic chuck D) Hydraulic chuck

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

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

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

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

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

- A) 0.025" B) 0.082"
C) 0.049" D) 0.038"

24. What is the accuracy of the protractor head of a combination set?

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

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

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

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

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

27. Which part of lathe slides over the bedways between

headstock and the tailstock?

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

28. How many carriers are available in a set?

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

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

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

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

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

31. 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) 50 B) 120
C) 100 D) 60

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

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

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

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

34. What is the purpose of tail on the lathe carrier?

- A) Locate and drive the work B) Give good finish
C) Protect the work D) Protect the operator

35. What does BIS stands for?

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

36. Which diameter is maintained in a job for making threads by rolling?

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

37. Which mode execute that program continuously one block after another block?

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

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

- A) 1.5 mm
- B) 2 mm
- C) 3 mm
- D) 6 mm

39. What is the body material of bench vice?

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

40. 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) 150
- B) 120
- C) 60
- D) 100

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

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

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

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

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

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

44. 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) 150
- B) 100
- C) 60
- D) 120

45. Which device uses buttress thread?

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

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

- A) Less
- B) Medium

C) Very less

D) More

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

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

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

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

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

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

50. Where is the dead centre fixed on lathe?

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

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

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

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

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

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

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

54. What is the least count of vernier height gauge?

- A) 0.002 mm
- B) 0.001 mm
- C) 0.020 mm
- D) 0.005 mm

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

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

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

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

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

- A) Higher flexibility
- B) Reduced scrap rate
- C) Improved strength of the components
- D) Improved quality

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

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

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

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

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

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

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

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

62. 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) 51.88 mm
- D) 51.00 mm

63. How multi start threads are specified?

- A) By stating core dia and pitch
- B) By stating dia and angle of thread
- C) By stating dia, pitch, and no. of start
- D) By stating dia and pitch

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

- A) Jarno taper
- B) Metric taper
- C) Brown & sharpe taper
- D) Morse taper

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

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

66. What is the use of gap bed lathe?

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

67. How the thread are formed in thread rolling?

- A) Grinding
- B) Milling
- C) Casting
- D) Plastic deformation

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

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

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

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

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

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

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

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

72. How many fundamental deviations are recommended by BIS?

- A) 24
- B) 20
- C) 25
- D) 30

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

- A) 8.5 mm
- B) 12.8 mm
- C) 3.5 mm
- D) 10.5 mm

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

- A) Full thread form
- B) Correct shaped form
- C) Half thread form
- D) Truncated shaped form

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

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

76. Which material is used for making lathe bed?

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

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

- A) depth = 0.75 x pitch
- B) depth = 0.6134 x pitch

C) depth = 0.5 x pitch D) depth = 0.6403 x pitch

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

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

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

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

80. 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

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

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

82. How many seconds is 1 Degree?

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

83. Which material is used to make radius gauge?

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

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

- A) 52 mm B) 52.7 mm
C) 56.45 mm D) 57.4 mm

85. What is the purpose of preventive maintenance?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

95. What do you mean by MPG?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- A) On diameter line
- B) On chord line
- C) On length vice
- D) On offset of shaft

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

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

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

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

105. Which is the operation in point to point system used?

- A) Grooving
- B) Drilling
- C) Parting
- D) Facing

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

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

107. Where the taper threads are used?

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

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

- A) By gas welding
- B) By tig welding

- C) By braze welding
- D) By arc welding

109. Which is the smallest unit of angular measurement?

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

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

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

111. What is the included angle of center punch?

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

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

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

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

- A) Toughness
- B) Hardness
- C) Surface hardness
- D) Ductility

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

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

115. What is the formula for metric thread depth?

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

116. 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 the back plate on the machine
- C) To accommodate the chuck key
- D) To set chuck on machine

117. What heat treatment process the nitriding comes under?

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

118. How can the unexpected breakdowns of machines reduced?

- A) By productive maintenance
- B) By break down maintenance

C) By preventive maintenance

D) By quality maintenance

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

A) 0.1

B) 0.125

C) 0.2

D) 0.128

120. Which is used to support hollows end jobs?

A) Ball centre

B) Tipped centre

C) Female centre

D) Pipe centre

121. What is the hole basis system?

A) Size of the hole is varied

B) Size of both hole and shaft are varied

C) Size of shaft is constant

D) Size of hole is constant

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

A) 60 Degree

B) 45 Degree

C) 55 Degree

D) 30 Degree

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

A) Internal jaw

B) Fixed jaw

C) External jaw

D) Movable jaw

124. Which axis is parallel to Z - axis?

A) X - axis

B) Tool axis

C) Spindle axis

D) Y-axis

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

A) V-Thread

B) ACME

C) Saw - Tooth

D) Square

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

A) 140

B) 127

C) 100

D) 135

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

A) Support continuous entire length of work

B) It rotate with the work

C) It rotate and moves along the work

D) Support at fixed place of work

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

A) Major diameter will changed

B) Difficult for catching

C) Thread will be damaged

D) Pitch will changed

129. What is the most accepted method of representing roughness?

A) Symbol

B) Units

C) Grade number

D) Weight

130. What does M20 stands for?

A) Metric thread 20 mm lead

B) Metric thread 20 mm pitch

C) Metric thread 20 mm diameter

D) Metric thread 20 mm length

131. What defect may occur during grinding a form tool cutting edge?

A) Form tool getting broken

B) Thickness of the tool reduced

C) Clearance angle changed

D) Shape of the form gets altered

132. 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) One flank is 30 Degree and the other 45 Degree

D) Two flanks are at 60 Degree

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

A) As per the knowledge of instructor

B) As per the knowledge of manager

C) As per checklist

D) As per the knowledge of trainee

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

A) Effective dia of thread

B) Core dia of thread

C) Major dia of thread

D) Depth of thread

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

A) Lathe carrier

B) Driving plate

C) Face plate

D) Catch plate

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

A) $0.6134 \times \text{pitch}$

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

C) $0.6403 \times \text{pitch}$

D) $0.75 \times \text{pitch}$

137. What is the advantage of maintenance records?

A) Increase the cost of production

B) Zero breakdown maintenance

C) Monitor the frequent breakdown

D) Reduce the clerical work

138. Which one is the angle of buttress thread?

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

139. 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) 75
- C) 291.26
- D) 38.62

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

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

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

- A) Cutting speed
- B) Speed
- C) Feed
- D) Depth

142. Calculate the change gear (driver gear) if driven gear has 120 teeth to cut 3mm pitch on a job using lathe having 6 mm pitch lead screw?

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

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

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

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

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

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

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

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

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

147. Which part of centre lathe make angular movement?

- A) Saddle
- B) Cross slide

- C) Compound slide
- D) Top slide

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

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

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

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

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

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

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

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

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

- A) Can be used again but it has to be modified every time
- B) Cannot say
- C) Can be used only once
- D) Can be used again and again

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

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

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

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

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

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

156. Which gas is used in nitriding process?

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

157. Which gas is used in Halon extinguisher?

- A) Carbon monoxide
- B) Hydrogen
- C) Carbon tetrachloride
- D) Carbon dioxide

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

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

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

- A) Pitch/3
- B) Pitch/2
- C) Pitch/4
- D) Pitch/8

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

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

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

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

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

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

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

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

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

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

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

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

166. 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

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

- A) Ferrite
- B) Martensite

C) Pearlite

D) Cementite

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

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

169. Convert 8 Degree 44 minutes into minutes?

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

170. 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

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

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

172. Which mode is used for fine positioning (Micron level) of the axis movement?

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

173. Which material used for manufacturing a marking table?

- A) Aluminium
- B) Mild steel
- C) Cast iron
- D) Tool steel

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

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

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

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

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

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

177. What is the full form of MDI?

- A) Manually Data Input
- B) Mounting of Diagonal Impact

C) Moderated Data input
D) Mechanical Data Implantation

C) Taper length is limited to the movement of the top slide
D) Only external taper can be turned

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

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

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

- A) Three jaw chuck
B) Four jaw chuck
C) In between centres
D) Face plate

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

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

188. Where multistart threads are used?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

192. Which is the cheapest tool material?

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

184. 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) 50
B) 100
C) 60
D) 80

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

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

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

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

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

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

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

- A) Damages the centre drilled holes of the work
B) Steep taper cannot be produced

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

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

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

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

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

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

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

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

199. 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) 150
- B) 100
- C) 50
- D) 25

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

- A) 63
- B) 30
- C) 120
- D) 100

201. Which angle is ground on ACME threading tool?

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

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

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

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

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

204. 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 45 teeth, Driven 60 teeth
- B) Driver 50 teeth, Driven 100 teeth
- C) Driver 60 teeth, Driven 50 teeth
- D) Driver 30 teeth, Driven 70 teeth

205. 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) 3L,2C
- B) 2C, L
- C) 5C
- D) 2L, 2C

206. Which formula is used to find crest width of a buttress

thread?

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

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

- A) Depth of thread
- B) Major dia of thread
- C) Minor dia of thread
- D) Pitch of the thread

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

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

209. Which is the angle of buttress thread?

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

210. How the cutting speed is expressed?

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

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

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

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

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

213. Which method is non metallic threads are produced?

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

214. Which device is used as datum while marking with Vernier height gauge?

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

215. What is the purpose of lapping vehicles?

- A) Improves dimensional accuracy
- B) Regulate cutting action and lubricate surface
- C) Smooth effective operation
- D) Improves cutting ability

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

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

C) Driver 40T, Driven 50 D) Driver 50T, Driven 30

A) 3

B) 4

C) 18

D) 12

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

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

227. What is the purpose of normalizing steel?

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

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

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

228. What is the use of hand chaser?

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

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

- A) 13 Degree - 16 Degree B) 5 Degree - 7 Degree
C) 8 Degree - 12 Degree D) 2 Degree - 4 Degree

229. 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

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

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

230. 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

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

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

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

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

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

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

232. What is the swing over bed?

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

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

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

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

- A) $0.6134 \times 1/10$ Inch B) $0.6304 \times 1/10$ Inch
C) $0.6403 \times 1/10$ Inch D) $0.6314 \times 1/10$ Inch

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

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

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

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

225. 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) For good appearance D) To check eccentricity

235. What is the advantage of jig?

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

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

236. How many gears are assembled in tumbler gear mechanism?

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

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

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

238. What does AQL stands for?

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

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

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

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

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

241. What is the shape of telescopic gauge?

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

242. 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;
C) G02 x 42.0 z 0.0 F 0.1;
- B) G01 x 42.0 z 0.0 F 0.1;
D) G03 x 42.0 z 0.0 F 0.1;

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

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

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

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

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

- A) Running fit
C) Interference fit
- B) Clearance fit
D) Trasition fit

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

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

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

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

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

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

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

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

250. What is lapping?

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

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

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

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

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

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

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

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

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

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

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

256. Which one belongs to team work?

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

257. 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 decreases
 C) Diameters decreases helix angle increases
 D) No change in helix angle diameter decreases

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

- A) To generating cylindrical surface
 B) To generate conical surface
 C) To generating concave and convex profile
 D) To generate flat surface

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

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

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

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

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

- A) Bastard file
 B) Dead smooth file
 C) Smooth file
 D) Second cut file

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

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

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

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

264. Where the knuckle threads are used?

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

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

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

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

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

267. What is the representation IT in limits and fits?

- A) Tolerance grade
 B) Tolerance
 C) Tolerance unit
 D) Tolerance number

268. What is direction of finishing in surface texture?

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

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

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

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

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

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

- A) MDI mode
 B) Reference mode
 C) Jog mode
 D) Automatic mode

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

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

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

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

274. What is the angle of BSW thread?

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

275. Calculate the gear ratio to cut a 1/4 inch lead on a lathe with lead screw of 2TPI?

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

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

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

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

- A) Power feed can be given
 B) External taper thread can be produce

C) Only external taper can be turned
D) Good surface finish can be obtained

278. Which point in any CNC machine the position measuring systems has a starting point to each axis?

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

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

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

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

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

281. What is the angle of saw tooth thread?

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

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

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

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

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

284. What is the disadvantage of chaser?

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

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

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

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

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

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

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

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

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

289. 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 of thread
B) Core dia = Measurement over prisms + Height of prisms + Single depth
C) Core dia = Measurement over prisms + Height of prisms + Two depth
D) Core dia = Measurement over prisms + Height of prisms + Single depth

290. What is the depth of square thread 60 x 5 mm pitch?

A) 4 mm
B) 3 mm
C) 2.5 mm
D) 5 mm

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

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

292. What is the angle of metric ACME thread

A) 29 Degree
B) 45 Degree
C) 30 Degree
D) 47.5 Degree

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

A) Top slide
B) Cross - slide
C) Tool post
D) Chasing dial

294. Which gauge is generally used to check internal threads?

A) Thread ring gauge
B) Thread plug gauge
C) Thread calliper gauge
D) Thread snap gauge

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

A) 122
B) 127
C) 129
D) 125

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

A) 90 Degree
B) 50 Degree
C) 60 Degree
D) 30 Degree

297. What is the purpose of using thread micrometer?

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

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

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

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

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

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

- A) Taper turning is possible when work held between centre only
- B) Taper length is limited
- C) Only hand feed can be given
- D) External threads on taper can't produce

301. 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

302. Where the driver pin is used?

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

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

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

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

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

305. Which wheel is used for grinding tough materials?

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

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

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

307. Which material is used to make angle plate?

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

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

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

309. Select a suitable instrument for measuring angles?

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

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

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

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

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

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

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

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

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

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

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

315. Which one of the advantage of mass production?

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

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

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

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

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

318. Which is 3 jaw chuck?

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

319. What is the use of BSW thread?

- A) General purpose fastening
- B) Load fitting
- C) Used in electrical appliances
- D) Fast movement

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

- A) Combination set
- B) Angle gauge
- C) Vernier bevel protractor
- D) Bevel gauge

321. 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

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

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

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

- A) Table jig
- B) Plate jig
- C) Trunnion jig
- D) Post jig

324. Which tool is used for cutting internal thread?

- A) Reamer
- B) Tap
- C) Die
- D) Drill

325. Which of the following used buttress thread?

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

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

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

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

- A) 16 mm
- B) 14 mm
- C) 15 mm
- D) 15.5 mm

328. What is protected by providing pieces between work

and carrier while clamping?

- A) Live centre
- B) Dead centre
- C) Carrier
- D) Job surface

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

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

330. Which deviation is zero in hole basis system?

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

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

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

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

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

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

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

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

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

335. Which deviation is zero in shft basis system?

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

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

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

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

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

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

- A) Stepped mandrels
- B) Taper Shank mandrels

- C) Cone mandrels D) Gang mandrels

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

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

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

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

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

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

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

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

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

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

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

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

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

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

346. Which of the following feed back devices can sense both speed and position?

- A) Tachometer B) Motor
C) Encoder D) Resolver

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

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

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

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

349. 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) 40/150 B) 50/120
C) 30/120 D) 40/120

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

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

351. 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 127 teeth Driven 90 teeth B) Driver 20 teeth Driven 60 teeth
C) Driver 90 teeth Driven 127 teeth D) Driver 60 teeth Driven 20 teeth

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

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

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

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

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

- A) Major dia of work B) Angle of thread
C) Root dia of work D) Pitch

355. What does QA and QC stand for?

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

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

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

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

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

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

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

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

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

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

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

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

- A) Revolving centre B) Female centre
C) Insert type centre D) Ball centre

362. Which thread has only one helical formation?

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

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

- A) Double ended tap wrench B) Bar type tap wrench
C) Solid type tap wrench D) T handle type tap wrench

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

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

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

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

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

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

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

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

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

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

369. Which cutting tools have highest cutting efficiency?

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

370. Which surface is finished by honing?

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

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

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

372. What is the use of maintenance records?

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

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

- A) Apron mechanism B) Feed shaft
C) Norton gear box D) Tumbler gear

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

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

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

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

376. What does the letter Y stands in the formula $d = Y \cdot 2(s+r)$ in taper measurement?

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

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

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

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

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

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

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

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

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

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

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

382. 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) 5 times
- B) 6 times
D) 4 times

383. What is the purpose of G28 code based on FANUC CNC control system?

- A) Circular interpolation clockwise
C) Circular interpolation counter clockwise
- B) Tool has to return from reference point
D) Tool has return to reference point

384. Calculate the amount of off-set if total length of job = 80 mm and $\tan = 5$ Degree 45 minutes?

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

385. Which command activates in automatic mode?

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

386. What is the effect, if the cutting speed is more than the recommended?

- A) Normal tool life
C) Better finish
- B) Reduce the tool life
D) Accurate dimension

387. Where the bend type lathe carrier is engaged?

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

388. Which thread is used for general purpose fastening?

- A) Unified
C) BA
- B) BSF
D) BSW

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

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

390. What is the representation of zero line in limit and fits?

- A) Tolerance size
C) Actual size
- B) Nominal size
D) Basic size

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

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

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

- A) Red
C) Blue
- B) Green
D) Violet

393. What is the purpose of Square thread?

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

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

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

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

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

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

- A) Rasp cut file
C) Single cut file
- B) Double cut file
D) Curved cut file

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

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

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

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

399. Which metal is to be case hardened?

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

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

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

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

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

402. 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

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

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

404. Which type of thread have higher mechanical advantage?

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

405. What is the specification for shape of file?

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

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

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

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

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

408. What is the use of a sine bar?

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

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

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

410. Which one is example of ferrous tool material?

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

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

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

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

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

413. What is the formula for finding the depth of a BIS metric thread?

- A) $0.6431 \times \text{pitch}$
C) $0.6043 \times \text{pitch}$
- B) $0.6403 \times \text{pitch}$
D) $0.6134 \times \text{pitch}$

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

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

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

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

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

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

417. What is the included angle of acme thread?

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

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

- A) Thread rolling
B) Thread milling

C) Thread casting

D) Thread grinding

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

A) Minimum friction

B) Easy setting

C) Minimum wear and strain

D) Economical

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

A) Marking table

B) Anvil surface

C) Lathe bed

D) Plate angle

421. 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) 90T on driver and 127T on driven

B) 60T on driver and 127T on driven

C) 127T on driver and 60T on driven

D) 127T on driver and 90T on driven

422. 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 50 teeth Driven 60 teeth

B) Driver 80 teeth Driven 25 teeth

C) Driver 60 teeth Driven 35 teeth

D) Driver 40 teeth Driven 20 teeth

423. Which mode is used to edit the program?

A) Jog mode

B) MDI mode

C) Edit mode

D) Auto mode

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

A) External square thread

B) Internal square thread

C) External and internal V - Thread

D) Trapezoidal thread

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

A) Cast iron

B) High carbon steel

C) Alloy steel

D) Medium carbon steel

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

A) 31.7 mm

B) 19.00 mm

C) 13.7 mm

D) 12.7 mm

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

A) G40

B) G50

C) G42

D) G41

428. What does BIS stand for?

A) Bureau of Indian standard

B) Bureau of international society

C) Bureau of international standard

D) Bureau of Indian society

429. How the roughness value is expressed?

A) Metre

B) Millimetre

C) Centimetre

D) Micrometer

430. What is the purpose of MDI mode?

A) Move the axes by manually

B) Editing of programmable Data

C) For program execution

D) Cross checking of the program graphically

431. 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) $0.335 \times \text{pitch}$

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

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

A) Face Plate

B) 4 Jaw chuck

C) Catch plate

D) 3 Jaw chuck

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

A) Execute the program

B) Preparation of new programmable Data and correction / Alteration of an earlier program

C) Can read only the program

D) Simulation of the program

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

A) Cross pein

B) Face

C) Pein

D) Cheek

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

A) Acme thread

B) Saw-tooth thread

C) Buttress thread

D) Worm thread

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

A) Grade of bond

B) Structure

C) Abrasive type

D) Grit size

437. 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 85 teeth driven 60 teeth

B) Driver 40 driven 20 teeth

C) Driver 60 driven 50

D) Driver 100 teeth driven 25 teeth

438. Which method of brazing is commonly used to braze of carbide tip on a shank?

A) Induction brazing

B) Arc brazing

C) Torch brazing

D) Furnace brazing

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

A) Taper pin

B) Finger pin

C) Locating pin

D) Pinion

440. What is the use of inside micrometer?

A) To measure the depth of hole

B) Determine the distance between internal parallel surface

C) Measuring the external surface

D) Measuring keyways and small slots

441. Which method is used for turning steep taper?

A) Offset tail stock

B) Compound slide swivel

C) Form tool

D) Taper turning attachment

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

A) Driven 70T, Driver 40T

B) Driver 70T, Driven 40T

C) Driven 30T, Driver 40T

D) Driver 30T, Driven 40T

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

A) Spindle rotation in counter clockwise direction

B) The cutting tool has to be changed

C) Switch of the coolant pump

D) End of the program with rewind

444. What is the value of tool life index for a cemented carbide tip to machine cast iron component?

A) 0.1

B) 0.128

C) 0.2

D) 0.125

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

A) Major dia - minor dia

B) Major dia - Depth of thread

C) Major dia - Pitch dia

D) Major dia - 2 x depth

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

A) Solid jig

B) Plate jig

C) Post jig

D) Table jig

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

A) In four jaw chuck

B) In face plate

C) Angle plate

D) In between centres

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

A) Solid

B) Swivel

C) Slotted

D) Box

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

A) To measure the minor diameter of external thread

B) To measure the major diameter of external thread

C) To measure the major diameter of internal thread

D) To measure the minor diameter of internal thread

450. Which victim has given CPR immediately?

A) Dehydration

B) Severe blood loss

C) Severe head injury

D) Difficulty in breathing

451. What is the material of files?

A) Cast iron

B) Low alloy steel

C) Mild steel

D) High carbon steel

452. What is the preheating temperature of steel?

A) Upto 500 Degree Centigrade

B) Upto 400 Degree Centigrade

C) Upto 300 Degree Centigrade

D) Upto 600 Degree Centigrade

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

A) Tail stock

B) Cross side

C) Lathe bed

D) Tool post

454. Which one of the following is the solid carburizing material?

A) Petrol

B) Ammonia

C) Charcoal

D) Kerosene

455. Which is the angle of inclination in the thread to the imaginary perpendicular line?

A) Helix angle

B) Right angle

C) Obtuse angle

D) Acute angle

456. How may roughness grade number are used?

A) N1 to N20

B) N1 to N12

C) N1 to N30

D) N1 to N25

457. 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

458. 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

459. Find out the R.P.M of spindle for a 50mm bar (D) and cutting speed is 25m/min.

- A) 168rpm
- B) 250rpm
- C) 159rpm
- D) 100rpm

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

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

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

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

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

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

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

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

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

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

465. What is the shape of buttress thread flank?

- A) One flank is 90 Degree and the other 45 Degree
- B) One flank is 30 Degree and the other 45 Degree
- C) One flank is 60 Degree and the other 45 Degree
- D) Two flanks are at 60 Degree

466. What do you mean by simulation?

- A) Finding out of work offset values
- B) Editing of related part program
- C) Finding out of tool geometrical values
- D) Cross checking of programmable DATA

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

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

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

- A) Wet sand
- B) Water
- C) Mica powder
- D) Oil

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

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

470. Which is four jaw chuck?

- A) Independent chuck
- B) Self aligning chuck
- C) Self centring chuck
- D) Collect chuck

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

- A) Forged aluminium
- B) Forged steel
- C) Stainless steel
- D) Forged copper

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

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

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

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

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

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

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

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

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

- A) Lead = 1/2 pitch
C) Lead = Pitch

- B) Lead = No. start x pitch
D) Lead = 1/3 x pitch

- A) h
C) BH

- B) H
D) Bh

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

- A) Channel jig
C) Sandwich jig

- B) Plat jig
D) Trunnion jig

478. Why lapping tools are provided groove?

- A) For accommodate lapping compound
C) Expansion

- B) Clearance
D) Prevent damage to tool

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

- A) Blade
C) Disc

- B) Stock
D) Dial

480. The CNC keyboards have with following keys?

- A) Alphanumerical control keys electronic
C) Numerical Data based keys only

- B) Alphabetic control keys
D) CNC codes

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

- A) ACME
C) Metric

- B) Buttress
D) Square

482. 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) 60
C) 100

- B) 50
D) 120

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

- A) 0.42 mm
C) 0.910 mm

- B) 1.35 mm
D) 1.23 mm

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

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

- B) Diameter over the roller at large end
D) Radius of the rollers

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

- A) Cross cut chisel
C) Diamond point chisel

- B) Flat chisel
D) Half round nose chisel

486. Which letter represents basic hole?

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

- A) 8.5 mm
C) 4.5 mm

- B) 9.5 mm
D) 9 mm

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

- A) Tipped centre
C) Insert type centre

- B) Ball centre
D) Half centre

489. 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) 365.3 mm
C) 235.5 mm

- B) 295.7 mm
D) 485.7 mm

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

- A) Swivel base
C) Apron

- B) Saddle
D) Cross slide

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

- A) Compound slide
C) Tool Post

- B) Cross slide
D) Saddle

492. Which accessory is used in between centre work?

- A) Three chuck
C) Face plate

- B) Four jaw chuck
D) Catch plate

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

- A) Pull, Aim squeeze & sweep
C) Aim pull sweep and squeeze

- B) Sweep Aim pull and squeeze
D) Squeeze aim pull and sweep

494. How is the vernier height gauge generally specified?

- A) Thickness of beam
C) Width of beam

- B) Size of base
D) Height of beam

495. What is the nose cutter width of the square threads tool?

- A) 2 x Pitch
C) equal to pitch

- B) 0.5 x Pitch
D) Pitch / 0.5

496. What is the type of fit if minimum size of the shaft is

larger than maximum size of hole?

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

497. 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 30 Minutes
- D) 1 Degree 45 Minutes

498. How many precision rollers required for measuring angle of tapered component?

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

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

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

500. What is the purpose of back gear unit in cone pulley

headstock of a lathe?

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

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

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

502. 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

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

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