Subject Name & Code : Machining and Machine Tools (PCME503)

Exam Name : Q1

1. Why metal removal process is costly? [C]

A) More energy is required
B) Some of the material is wasted
C) Both more energy is required and some of the material is wasted
D) None of the mentioned

2. Which of the following parameters govern the value of the shear angle in continuous chip formation? [D]

A) True feed
B) Chip thickness
C) The rake angle of the cutting tool
D) All of the mentioned

3. The tool material, for faster machining, should have [D]

A) Wear resistance
B) Red hardness
C) Toughness
D) All of the mentioned

4. The factor considered for evaluation of maintainability is [D]

A) Cutting forces and power consumption
B) Tool life
C) Type of chips and shear angle
D) All of the mentioned

5. Crater wear is usually found while machining [B]

A) ductile materials.
B) Brittle material
C) high shear strength materials
D) high hardness mateials

6. Tool life is measured by the [D]

A) Number of pieces machined between tool sharpening
B) Time the tool is in contact with the job
C) The volume of material removed between tool sharpening
D) All of the mentioned

7. The tool life is said to be over if [D]

A) Poor surface finish is obtained
B) There is a sudden increase in cutting forces and power consumption
C) Overheating and fuming due to heat of friction starts
D) All of the mentioned

8. Tool life is generally better when [B]

A) The grain size of the metal is large
B) The grain size of the metal is small
C) Hard constituents are present in the microstructure of the tool material
D) None of the mentioned

9. The ratio of the cutting force to the cross-sectional area being cut is called: [A]

A) Specific cutting force B) Thrust force C) Frictional force D) None of the mentioned

10. In metal machining, the zone where the heat is generated due to friction between the moving chip and the tool face is called [A]

A) Friction zone B) Work tool contact zone C) Shear zone D) None of the mentioned

11. Cutting forces can be measured using a [D]

A) Transducer B) Dynamometer C) Load cell D) All of the mentioned

12. In determining the various forces on the chip, Merchant assumed that the [D]

A) The cutting edge of the tool is sharp and it does not make any flank contact with the work piece B) Only continuous chip without built-up edge is produced C) Cutting velocity remains constant D) All of the mentioned

13. In the oblique cutting system, the maximum chip thickness [B]

A) Occurs at the middle B) May not occur at the middle C) Depends upon the material of the tool D) None of the mentioned

14. In oblique cutting of the metals, the cutting edge of the tool is [D]

A) Perpendicular to the work piece B) Perpendicular to the direction of tool travel C) parallel to the direction of tool travel D) Inclined at an angle less than 900 to the direction of tool travel

15. In the orthogonal cutting of metals [A]

A) The cutting edge of the tool is perpendicular to the direction of tool travel B) The cutting forces occur in one direction only C) The cutting edge is wider than the depth of cut D) All of the mentioned

16. What is the maximum allowed value of VB in mm for carbide tool used with steel workpiece for a cutting condition of feed>0.3mm/rev? [C]

A) 0.5 B) 1 C) 1.7 D) 2

17. What is the maximum allowed value of VB in mm for carbide tool used with cast iron workpiece for a cutting condition of feed>0.3mm/rev? [A]

A) 1 B) 2 C) 0.5 D) 1.7

18. What is the maximum allowed value of VB in mm for the HSS tool used with cast steel work piece for rough machining? [C]

A) 2 B) 1.7 C) 1 D) 0.5

19. Flank wear occurs at [A]

A) Tool flank below the cutting edge B) Tool shank C) Tool face D) None of the mentioned

20. Which of the following is correct about crater wear? [A]

A) Occurs more in soft tool B) Occurs more hard tool C) Occurs more in brittle tool D) None of the mentioned

21. Crater wear occurs at [C]

A) Tool flank B) Tool shank C) Tool face D) None of the mentioned

22. With the passage of time, there is a loss in the weight of the tool, this phenomenon is known as: [D]

A) Thermal cracking B) Mechanical chipping C) Softening D) Gradual Wear

23. Mechanical chipping may occur in which of the following tool? [A]

A) Diamond tool B) Mild Steel tool C) HSS tool D) None of the mentioned

24. Thermal cracking of tools occurs at [B]

A) Low temperature B) High temperature C) Low cutting speed D) None of the mentioned

25. Which of the following will have a maximum amount of chips during machining? [A]

A) Ductile material B) Brittle material C) Cast iron D) None of the mentioned

26. Which of the following assumption is not valid for the merchant circle diagram? [B]

A) Continuous Chips B) Discontinuous chips C) Cutting edge remains sharp D) No built-up edge

27. Force exerted by the tool on-chip normal to tool face is known as [B]

A) Cutting force B) Frictional resistance C) Backing up force D) Shear force

28. Force exerted by workpiece on-chip in the normal direction of the shear plane is known as [D]

A) Frictional resistance B) Shear force C) Cutting force D) Backing up force

29. Metal resistance to shear during chip formation is known as [A]

A) Shear force B) Backing up force C) Frictional resistance D) Cutting force

30. The horizontal force exerted by the tool on the workpiece is known as [B]

A) Backing up force B) Cutting force C) Shear force D) Frictional resistance

31. If t1 denotes the uncut chip thickness and t2 denotes cut chip thickness ratio then, which of the following equation is correct about chip thickness ratio ‘r’? [A]

A) r=t1/t2 B) r=t2/t1 C) r=t1 x t2 D) None of the mentioned

32. Which of the following is correct about the chip thickness ratio ‘r’? [A]

A) r<1 B) r=1 C) r>1 D) None of the mentioned

33. What is the optimum value of side cutting edge in degrees for maximum tool life? [D]

A) 20 B) 22 C) 25 D) 30

34. With an increase in rake angle of the tool, tool life will [D]

A) Increase B) Decrease C) Remains constant D) First, increase then decrease

35. With an increase in side cutting edge angle keeping the width of cut constant, depth of cut will [A]

A) Decrease B) First, increase then decrease C) Increase D) Remains constant

36. Which of the following tool will give the best result for machining of brass? [C]

A) Large positive rake angle tools B) Large negative rake angle tools C) Zero rake angle tools D) Small point angle tools

37. For machining of carbide material which of the following tool will be preferred? [A]

A) Large negative rake angle tools B) Small point angle tools C) large positive rake angle tools D) Zero rake angle tools

38. What is the optimum value of positive rake angle in degrees for maximum tool life? [C]

A) 10 B) 12 C) 15 D) 20

39. Negative back rake angle is given for machining of: [A]

A) Brittle and hard material B) Soft material C) Ductile material D) Soft and ductile material

40. Positive rake angle is given for machining of [B]

A) Brittle material B) Ductile material C) Both hard and soft material D) None of the mentioned

41. Which of the following will give large friction during chip flow? [B]

A) Positive back rake angle tool B) Negative back rake angle tool C) Zero back rake angle tool D) Small lip angle tool

42. Which of the following will give a better chip flow? [D]

A) Small lip angle tool B) Zero back rake angle tool C) Negative back rake angle tool D) Positive back rake angle tool

43. For large negative back rake angle, tool will be [B]

A) Weaker B) Stronger C) Smoother D) Harder

44. For large positive back rake angle, the tool will be [C]

A) Smoother B) Harder C) Weaker D) Stronger

45. The angle between side cutting edge and end cutting edge in the top surface plane of tool. [D]

A) Side rake angle B) Side relief angle C) Side cutting edge angle D) Nose angle

46. The angle between end cutting edge and axis of the tool is known as [B]

A) Back rake angle B) End cutting edge angle C) Side relief angle D) Side rake angle

47. Angle between side cutting edge and axis of tool is known as [A]

A) Side cutting edge angle B) Back rake angle C) Side rake angle D) End cutting edge angle

48. The angle between the rake face flank of tool and perpendicular line drawn from cutting point to base of tool is known as: [C]

A) End cutting edge angle B) Side cutting edge angle C) Side relief angle D) Back rake angle

49. The angle between the rake face and plane perpendicular to rake face is known as: [D]

A) Side relief angle B) back rake angle C) End relief angle D) side rake angle

50. Which of the following is not the type of cutting tool material? [D]

A) carbon steel B) stellites C) diamond D) None of the mentioned

51. For general purpose, which type of cutting tool is used in lathe? [A]

A) Single point B) Multi point C) Grinding D) None of the mentioned

52. Which of the following tool material has excessive wear? [C]

A) carbon steel B) high speed steel C) carbon steel and high speed steel both D) None of the mentioned

53. Which of the following can machine the metals effectively? [C]

A) diamonds B) ceramics C) both diamonds and ceramics D) None of the mentioned

54. Carbides are used in [C]

A) rapid stock removal B) higher speeds C) rapid stock removal and higher speed both D) None of the mentioned

55. “Light finishing cuts inexpensive forming tools”- this quality is applicable to [D]

A) carbides B) ceramics C) stellites D) None of the mentioned

56. Which of the following is easy to grind and generally used for intermittent cut? [D]

A) carbon steel B) stellites C) diamond D) High Speed Steel

57. High speed steel has an excessive wear on [C]

A) castings B) hard materials C) casting and hard materials both D) None of the mentioned

58. Which of the following is not the disadvantage of diamonds? [C]

A) incompressible B) readily conducts heat C) the rigid machine is required D) All of the mentioned

59. Which of the following tool material is not suitable for small diameters? [B]

A) carbon steel B) carbides C) carbon and carbides both D) None of the mentioned

60. Small nose radius [D]

A) increases tool life
B) decreases tool life
C) produces chipping and decreases tool life
D) results in excessive stress concentration and greater heat generation

61. The lip angle is the angle [A]

A) between the tool face and the ground end surface of the flank
B) made by the face of the tool and the plane parallel to the base of the cutting tool
C) between the face of the tool and a line tangent to the machined surface at the cutting point
D) None of the mentioned

62. The cutting fluid mostly used for machining steel is [B]

A) water
B) soluble oil
C) dry
D) heavy oils

63. n a single point turning operation with a cemented carbide and steel combination having a Taylor exponent of 0.25 if the cutting speed is halved, then tool life will become ----times [D]

A) 0.5
B) 2
C) 8
D) 16

64. Which of the following statement is correct for the orthogonal cutting system? [D]

A) The cutting edge of the tool is perpendicular to the direction of tool travel.
B) The cutting edge clears the width of the workpiece on either end.
C) The chip flows over the tool face and the direction of the chip flow velocity is normal to the cutting edge.
D) All of the mentioned

65. Larger than 15° side cutting edge angle [C]

A) increases tool life
B) decreases tool life
C) produces chipping and decreases tool life
D) results in excessive stress concentration and greater heat generation

66. The angle on which the strength of the tool depends is [A]

A) rake angle
B) cutting angle
C) clearance angle
D) lip angle

67. n metal cutting, use of low feeds and high cutting speeds is desired when the objective is [D]

A) the high metal removal rate
B) dry machining
C) use of the soft cutting tool
D) surface finish

68. An important geometrical quantity in the cutting of metals which can be used as a criterion for machinability of metals is [C]

A) cutting speed
B) feed rate
C) shear angle
D) tool geometry

69. The factor responsible for the formation of continuous chips with built-up edge is [B]

A) low cutting speed and large rake angle B) low cutting speed and small rake angle C) high cutting speed and large rake angle D) high cutting speed and small rake angle

70. Crater wear is predominant in [B]

A) carbon tool steels B) tungsten carbide tools C) high-speed steel tools D) ceramic tools

71. In machining metals, chips break due to _____ of work material. [D]

A) toughness B) ductility C) elasticity D) work hardening

72. The binding material used in cemented carbide tools is [D]

A) tungsten B) chromium C) silicon D) cobalt

73. The angle between the shear plane and _____ is called the shear angle. [A]

A) work surface B) tool face C) normal to the tool axis D) flank

74. The correct sequence of tool materials in increasing order of their ability to retain their hot hardness is [C]

A) carbide, ceramic, cermet, borazon B) ceramic, carbide, borazon, cermet C) cermet, carbide, ceramic, borazon D) borazon, ceramic, carbide, cermet

75. Larger end cutting edge angle _____ tool life. [A]

A) increases B) decreases C) does not effect D) None of the mentioned

76. which angle on tools is provided to control of chip flow? [D]

A) clearance angle B) relief angle C) lip angle D) side rack angle

77. The average cutting speed for turning brass with a high speed steel tool is [C]

A) 15 to 19 m/min B) 25 to 31 m/min C) 60 to 90 m/min D) 90 to 120 m/min

78. The lip angle of a single point tool is usually in degrees [C]

A) 20 to 40 B) 40 to 60 C) 60 to 80 D) None of the mentioned

79. The rake angle required to machine brass by high-speed steel tool is [A]

A) 0 B) 20 C) 40 D) 110

80. The tool made of cemented carbide wear out faster at [A]

A) slow speeds B) medium speeds C) fast speeds D) very fast speeds

81. Which type of surface is produced by turning operation in a lathe machine? [B]

A) flat B) cylindrical C) taper D) None of the mentioned

82. What is the necessary condition for turning? [B]

A) the material of workpiece should be harder than the cutting tool B) cutting tool should be harder than the material of the workpiece C) the hardness of the cutting tool and material of piece should be the same D) None of the mentioned

83. Which type of surface can be produced by lathe? [D]

A) Flat B) Cylindrical C) Curvilinear D) All of the mentioned

84. Traversing of tool parallel to the axis of the job is termed as [B]

A) cross feed B) longitudinal feed C) both cross feed and traversing feed D) None of the mentioned

85. Woodworking lathe is the type of [C]

A) engine lathe B) center lathe C) speed lathe D) special-purpose lathe

86. The geared lathe is the type of [D]

A) special-purpose lathe B) speed lathe C) center lathe D) engine lathe

87. Belt driven lathe is the type of [D]

A) speed lathe B) engine lathe C) Wood lathe D) center lathe

88. Which of the following is the base of the lathe machine? [A]

A) Bed B) Tailstock C) Headstock D) chuck

89. Which of the following is fitted on the bed? [C]

A) Headstock B) Tailstock C) Headstock and Tailstock both D) None of the mentioned

90. Which of the following is not part of the bed? [D]

A) Vee Slide B) Tailstock C) Carriage D) None of the mentioned

91. Which of the following provides the foundation for the whole machine? [B]

A) Tailstock B) Bed C) Headstock D) Carriage

92. Which type of bed design offers more rigidity and thermal stability? [A]

A) True slant bed B) Flatbed C) Conventional bed D) None of the mentioned

93. In which slant angles, the slant bed design is offered? [C]

A) 30 and 60 B) 60 & 45 C) 30, 60 and 45 D) 30 and 45

94. In which type of bed, length of the guide rail is bounded to the deepness of the casting? [B]

A) True slant bed B) Flatbed C) Conventional bed D) None of the mentioned

95. Which of the following is supported by the headstock? [D]

A) Spindle B) Spindle bearing C) Speed change mechanism D) All of the mentioned

96. Which of the following method is used to vary the speed of a lathe spindle? [C]

A) gear out B) gear in C) both gear out and gear in D) None of the mentioned

97. Which type of end does the tapered bar have? [C]

A) Pointed B) Projected C) Pointed or Projected D) None of the mentioned

98. Which of the following lathe part serves as a housing for the back gear, driving pulley, etc? [B]

A) Tailstock B) Headstock C) Bed D) Chuck

99. Spindle is fitted with [C]

A) chucks B) faceplates C) chucks or faceplates D) None of the mentioned

100. The spindle was directly driven by_____ in lathe machine. [B]

A) flat belt pulley B) gearbox C) flat belt pulley and gearbox both D) None of the mentioned

101. The spindle was directly driven by_____ in the older machine. [B]

A) flat belt pulley and gearbox both B) flat belt pulley C) gearbox D) None of the mentioned

102. Which of the following is not true regarding tailstock? [B]

A) The tailstock is also known as the loose headstock B) It is a fixed unit on the bed ways C) It provides support to the other end of the work when it is being machined D) None of the mentioned

103. For performing which kind of operations, it (tailstock) holds a tool? [D]

A) Drilling B) Reaming C) Tapping D) All of the mentioned

104. The body of the tailstock can be adjusted by clamping with the help of [C]

A) bolts B) plates C) bolts and plates both D) None of the mentioned

105. The upper casting of the body can be moved_____ from the operator. [C]

A) toward B) away C) toward or away both D) None of the mentioned

106. Offset of tailstock is done for [A]

A) taper turning B) straight turning C) both turning of taper type and straight type D) None of the mentioned

107. Realign of tailstock center is done for [B]

A) taper turning B) straight turning C) taper turning and straight turning D) None of the mentioned

108. Which type of rotation of the handwheel causes the spindle to be drawn inward? [B]

A) clockwise B) anticlockwise C) either anticlockwise or clockwise D) None of the mentioned

109. What does happen during the overload in the cone? [B]

A) number of steps in cone pulley increases B) belt slips off C) nothing happens D) None of the mentioned

110. which machine called father of the machine tools [C]

A) Drilling Machine B) Milling Machine C) lathe Machine D) Boring machine

111. Which of the following operates the forks of the sliding gears? [A]

A) Lever B) Spindle C) Clutch D) None of the mentioned

112. Which of the following is not true regarding the all gear drive? [C]

A) the headstock having all gear drive is known as all geared headstock B) the nose of the spindle is designed to accommodate the work holding devices C) the nose of the spindle is inside the headstock casting D) the tone of the mentioned

113. The back gear unit has a shaft, which carries [C]

A) a gear B) a pinion C) gear and a pinion both D) None of the mentioned

114. How many types of movements are possible in the carriage? [C]

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

115. The swivel base is assembled to the_____ of the cross slide. [A]

A) top B) middle C) bottom D) None of the mentioned

116. Which type of feed is always done perpendicular to the axis of work? [C]

A) Longitudinal feed B) Angular feed C) Crossfeed D) None of the mentioned

117. Which of the following is not true for compound rest? [A]

A) The swivels base is provided with a dovetail on its bottom surface B) The top slide has a dovetail groove C) The assembly of the top slide to the swivel base is done by a tapered jib D) None of the mentioned

118. In compound rest, the screw-rod is fitted with [C]

A) a handwheel B) a graduated collar C) a handwheel and a graduated collar both D) None of the mentioned

119. Which type of feed is necessary for the function of the cross slide? [C]

A) hand feed B) automatic feed C) either by hand feed or by automatic feed D) None of the mentioned

120. Carriage Slides on [A]

A) Guideways B) headstock C) tailstock D) None of the mentioned

121. In a single way tool post, the center height of the tooltip can be adjusted with the help of [C]

A) rocket arm B) ring base C) rocket arm and ring base both D) None of the mentioned

122. The four-bolt tool post is held in position by____ straps and _____ bolts. [A]

A) 2 & 4 B) 4 & 2 C) 2 & 2 D) 4 & 4

123. The four-way tool post is also known as as [C]

A) square tool post B) indexing type tool post C) square tool post and indexing type tool post both D) None of the mentioned

124. In apron, which type of feed is used to operate the carriage? [C]

A) Hand-feed B) Power feed C) Hand feed and Power feed both D) None of the mentioned

125. With the help of how many half nuts, apron provide power feed to the carriage at the time of thread cutting? [B]

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

126. In which position, the section lever can be kept? [B]

A) up and down B) up, down and neutral C) only neutral D) None of the mentioned

127. In Apron, power is transmitted from spindle to [C]

A) Lead screw B) Feed rod C) Lead screw and feed rod both D) None of the mentioned

128. The layout of the_____ includes an interlocking device. [C]

A) saddle B) cross slide C) apron D) swivel base

129. Which of the following mechanism is used for the purpose of power transmission from the spindle? [C]

A) spindle gear arrangement B) tumbler gear arrangement C) spindle gear arrangement and tumbler gear arrangement both D) None of the mentioned

130. Which type of feeding does feed mechanism enable? [A]

A) automatic B) manual C) automatic and manual both D) None of the mentioned

131. Which of the following is the part of the feed mechanism? [D]

A) spindle gear B) tumbler gear unit C) apron mechanism D) All of the mentioned

132. What happens if feed increases? [B]

A) cutting time increases B) cutting time decreases C) no effect on cutting time D) None of the mentioned

133. The feed mechanism enables feed for the tool_____ whenever needed. [C]

A) Longitudinally B) Transversely C) Longitudinal and Transversely both D) None of the mentioned

134. A chuck is attached to [A]

A) lathe spindle B) lathe apron C) lathe tool post D) None of the mentioned

135. Three jaw chuck is also known as [C]

A) universal chuck B) self-centering chuck C) a universal or self-centering chuck D) None of the mentioned

136. Which type of work should be held in three-jaw chuck? [C]

A) Perfectly round work B) Work with equally spaced flats C) Perfectly round work and work with equally spaced D) None of the mentioned

137. Which of the following is not true regarding four jaw chuck? [B]

A) Each jaw can be adjusted independently. B) The movement of jaw is irreversible. C) Movement of the jaw is done by the help of square threaded screw D) The movement of jaw is reversible.

138. In four jaw chuck, a workpiece can be set to run_____ by suitable adjustment of the jaws. [C]

A) TRUE B) eccentric C) true or eccentric D) None of the mentioned

139. Which of the following is not the part of four jaw chuck? [C]

A) body B) shaft chunk key C) pinion D) all of the mentioned

140. Faceplates are used with_____ accessories [D]

A) Clamps B) T- bolts C) Stepped block D) All of the mentioned

141. For holding workpieces, which cannot be conveniently between centers, _____ is used. [C]

A) three-jaw chuck B) four jaw chuck C) faceplates D) all of the mentioned

142. Which of the following is not true for faceplates? [B]

A) a faceplate consists of a circular disc bored out B) the workpiece includes casting and jigs may not be clamped by using faceplates C) faceplates are used as an alternative option of chucks D) None of the mentioned

143. Faceplates has_____ for holding work by bolts and clamps. [C]

A) radial plain B) slots of T type C) both radial plain and T slots D) None of the mentioned

144. The workpiece can be held on a faceplate by_____ [C]

A) bolts B) clamps C) both bolts and clamps D) None of the mentioned

145. How many machined faces do angle plates have? [B]

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

146. Which of the following is provided on the faces of angle plates? [C]

A) Holes B) Slots C) Holes and Slots both D) None of the mentioned

147. Faces of angle plates are_____ to each other. [B]

A) parallel B) perpendicular C) inclined D) None of the mentioned

148. which one of the following is a work-holding device in lathe? [D]

A) Tool Post B) Bed C) Carriage D) Chuck

149. Why lathe centers are made of very hard materials? [C]

A) to resist deflection B) to resist wear C) to resist deflection and wear both D) None of the mentioned

150. Which of the following is the type of lathe centers? [D]

A) Ordinary center B) Tipped center C) Ball center D) All of the mentioned

151. Less common but the very often used method is [C]

A) parallel mandrel B) threaded cone mandrel C) both parallel mandrel and threaded cone mandrel D) None of the mentioned

152. Which of the following mandrels are most commonly used? [A]

A) Plain mandrels B) Stepped mandrels C) Collar mandrels D) All of the mentioned

153. The plain mandrel is suitable for_____ size of the bore [A]

A) only one B) two C) more than two D) None of the mentioned

154. _____is a lathe accessory used to give extra support for long slender workpieces. [A]

A) steady rests B) tool post C) mandrels D) Spindle

155. Rests are used when support from_____ end cannot be given for drilling, reaming, tapping, etc. [B]

A) Head Stock B) Tail Stock C) Apron D) Collar mandrels

156. The rest are fixed to prevent the vibration set up due to [B]

A) own weight B) chattering forces C) own weight and chattering forces both D) none of the mentioned

157. In fixed steady rest, a fixed steady can be clamped [C]

A) parallel to lathe bed B) perpendicular to lathe bed C) at any desired position on the lathe bed D) none of the mentioned

158. Follower steady rest consists of _____ like a frame. [B]

A) D B) C C) S D) F

159. Spinning can be done by [A]

A) centers B) faceplates or angle plates C) special attachments D) none of the mentioned

160. Which of the following is not the method of taper turning? [D]

A) Compound rest method B) Tailstock offset method C) Attachment method D) All of the mentioned

161. In the compound slide method, one part of compound rest is swiveled to_____ the included angle of the taper. [B]

A) The same as B) Half C) Double D) None of the mentioned

162. In the compound slide method, which of the following is swiveled? [A]

A) top slide B) swivel base C) apron D) none of the mentioned

163. In the attachment method, cross-slide must be made_____ the lead screw. [B]

A) fixed with B) free from C) can't say anything D) none of the mentioned

164. In thread cutting, which type of feed motion is possible? [C]

A) engaging B) disengaging C) either engaging or disengaging D) none of the mentioned

165. Which of the following can be used as job holding device in slotting machine? [D]

A) Cross rail B) Column C) Ram D) Vice

166. Which of the following part of slotting machine is used to hold the tool? [B]

A) Vice B) Tool Head C) Cross rail D) Ram

167. Which of the following part of slotting machine carries tool head? [A]

A) Ram B) Vice C) Column D) Cross rail

168. Cutting of material during shaping operation takes place in [A]

A) Forward stroke B) Backward stroke C) Both forward and backward stroke D) None of the mentioned

169. Which of the following part of slotting machine hold and supports the work piece? [D]

A) Tool Head B) Cross rail C) Vice D) Table

170. In shaper machine [B]

A) tool is stationary while workpiece reciprocates B) workpiece is stationary while tool reciprocates C) both the tool and workpiece reciprocates D) both the tool and workpiece rotates

171. Following shape(s) is (are) produced with shaper machine [D]

A) v. block B) dove tail C) guide gib D) All of the mentioned

172. The ram head of shaper machine does not consist of [D]

A) swivel. head plate B) tool slide C) clapper box D) clutch lever

173. In shaper, during working (cutting) stroke the tool block rests on the [A]

A) clapper box B) tool slide C) tool base D) swivel head plate

174. The return stroke of shaper machine is called [D]

A) static stroke B) dynamic stroke C) cutting stroke D) idle stroke

175. Which of the following mechanism is used in shaper machine [C]

A) Beam engine B) Pantograph C) Crank and Slotted lever quick return motion mechanism D) watts indicator

176. Planer is ___ shaper in size. [A]

A) larger than B) smaller than C) equal to D) All of the mentioned

177. In a planer [D]

A) both workpiece and tool rotates B) both tool and workpiece reciprocates C) tool reciprocates and workpiece is stationary D) workpiece reciprocates and tool is stationary

178. The maximum number of tool heads in planer can be [C]

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

179. The standard clamping device(s) used on planer machine is (are) [D]

A) planer jack B) angle plate C) T. holders D) All of the mentioned

180. The size of the planer is specified by the [A]

A) maximum length of the stroke B) height of tool post C) height of its bed D) All of the mentioned

181. Which of the following type of planer has two work tables [C]

A) double housing planer B) open side planer C) divide type planer D) All of the mentioned

182. In a shaper_____ movement of the drive is converted into _____ movement. [A]

A) rotary, reciprocating B) reciprocating, rotary C) rotary, rotary D) None of the mentioned

183. The change of the movement of the drive is done by the mechanism contained within the _____of the machine. [B]

A) crossrail B) column C) toolhead D) None of the mentioned

184. To reduce the total cutting time, the standard shaper is designed to complete forwardstroke [A]

A) slowly B) faster C) at moderate speed D) None of the mentioned

185. To reduce the total cutting time, the standard shaper is designed to complete returnstroke [A]

A) faster B) at moderate speed C) slowly D) None of the mentioned

186. Quick return mechanism and reciprocating movement of the ram is obtained in _____mechanism. [D]

A) crank and slotted link mechanism B) whithworth quick return mechanism C) hydraulic shaper mechanism D) All of the mentioned

187. In crank and slotted link mechanism, an electric motor [A]

A) rotates at constant speed B) rotates at variable speed C) doesn’t rotates D) None of the mentioned

188. According to the type of mechanism used for giving reciprocating motion to the ram, shaper can beclassified as [C]

A) crank type B) geared type C) both crank type and geared type D) None of the mentioned

189. Push type shaper is type of shaper according to [C]

A) design of the table B) position and travel of the ram C) type of cutting stroke D) None of the mentioned

190. horizontal type shaper is type of shaper according to [B]

A) design of the table B) position and travel of the ram C) type of cutting stroke D) None of the mentioned

191. Which type of cutting parameters are there in shaper? [D]

A) feed B) depth of cut C) machining time D) All of the mentioned

192. If n=number of strokes of the ram per minute or rpm of the bull wheel, l=length of the cuttingstroke in mm, m= the ratio between return time to cutting time, then find the formula for cuttingstroke. [B]

A) (n*m*l)/100 B) (n*(m+1)*l)/100 C) (m*l)/(100*N) D) (n*m*l)

193. If the length of the cutting stroke is 10 mm and time required by the cutting stroke is 5 second,then find the value of cutting speed in mm/second. [A]

A) 2 B) 0.5 C) 4 D) 8

194. If l=5, b=5, t=0.4, v=3 and m= 2. Find the value of s. l=length of the cutting stroke in mm,b=width of the work in mm, s=feed in mm, v=cutting speed in mm/minute, m=the ratio betweenreturn time to cutting time and t=machining time in minute. [C]

A) 0.025 B) 0.0125 C) 0.00625 D) 0.0625

195. If n=rpm of the bull wheel=2, l= length of the cutting stroke in mm=2.5mm and cutting speed =0.5 mm/minute. m= the ratio between return time to cutting time. Then find the value of m. [A]

A) 9 B) 99 C) 999 D) 0

196. If n=rpm of the bull wheel=4 ,cs =cutting speed=3mm/minute and m= the ratio between returntime to cutting time= 5. Then find the value of length of cutting stroke (l) in mm. [C]

A) 25 B) 50 C) 12.5 D) 6.24

197. If l=15, b=4, s=3, m=2 and t= 1. Find the value of v. l=length of the cutting stroke in mm, b=widthof the work in mm, s=feed in mm, v=cutting speed in mm/minute, m=the ratio between return timeto cutting time and t=machining time in minute [A]

A) 0.06 B) 0.03 C) 0.12 D) 0.012

198. If n=rpm of the bull wheel=2, l= length of the cutting stroke in mm=3mm and m= the ratiobetween return time to cutting time= 5. Then find the value of cutting speed in mm/minute. [B]

A) 0.3 B) 0.36 C) 0.4 D) 0.26

199. If l=20, t=5, s=4, v=3 and m= 2. Find the value of b. l=length of the cutting stroke in mm,b=width of the work in mm, s=feed in mm, v=cutting speed in mm/minute, m=the ratio betweenreturn time to cutting time and t=machining time in minute [C]

A) 10 B) 100 C) 1000 D) 1

200. If t=0.10, b=5, s=4, v=1 and m= 2. Find the value of l. l=length of the cutting stroke in mm,b=width of the work in mm, s=feed in mm, v=cutting speed in mm/minute, m=the ratio betweenreturn time to cutting time and t=machining time in minute. [A]

A) 26.66 B) 53.33 C) 3.33 D) 13.33