

Objective questions on MET 03

1. The most abundant element in the earth's crust is

- (a) Silicon
- (b) Aluminium
- (c) Nitrogen
- (d) Oxygen

2. Which of the following is the correct arrangement of the given metals in ascending order of their reactivity?

Zinc, Iron, Magnesium, Sodium

- (a) Zinc > Iron > Magnesium > Sodium
- (b) Sodium > Magnesium > Iron > Zinc
- (c) Sodium > Zinc > Magnesium > Iron
- (d) Sodium > Magnesium > Zinc > Iron

3. Galvanisation is a method of protecting iron from rusting by coating with a thin layer of

- (a) Gallium
- (b) Aluminium
- (c) Zinc
- (d) Silver

4. Amalgam is an alloy of

- (a) Copper and Tin
- (b) Mercury
- (c) Lead and Tin
- (d) Copper and Zinc

5. Which ore can be best concentrated by froth floatation process?

- (a) Malachite
- (b) Cassiterite
- (c) Galena
- (d) Magnetite

6. Bessemer converter is used in the manufacture of

- (a) Pig iron
- (b) Steel
- (c) Wrought iron
- (d) Cast iron

7. The method of zone refining of metals is based on the principle of
- (a) greater mobility of the pure metal than that of the impurity.
 - (b) higher melting point of the impurity than that of the pure metal.
 - (c) greater noble character of the solid metal than that of impurity.
 - (d) greater solubility of the impurity in the molten state than in the solid.

8. Purest form of iron is

- (a) Cast iron
- (b) Hard Steel
- (c) Stainless steel
- (d) Wrought iron

9. Heating ore with carbon in the absence of air is known as:

- (a) reduction
- (b) carbon-reduction
- (c) smelting
- (d) Roasting

10. Cassiterite is the ore of which metal?

- (a) Mn
- (b) Sb
- (c) Sn
- (d) Ni

11. Ore of silicon is called

- a) galena
- b) zinc blend
- c) Cassiterite
- d) silica

12. Process in which some minerals are converted to the oxide by heating in the air at a temperature below their melting point is called

- a) Roasting
- b) Smelting
- c) Bessemerization
- d) concentration

13. Aluminium metal is purified by:

- a) Hoo;e's process
- b) Hall's process
- c) Serpeck's process
- d) Baeyer's process

14. Percentage of silver in the alloy german silver is

- (a) 2.5%
- (b) 1.5%
- (c) 10 %
- (d) 0%

15. The material mixed before ore is subjected for smelting in the extraction of iron are

- (a) Cake and silica
- (b) Coke and limestone
- (c) Limestone and silica
- (d) Coke, limestone and silica

16. In the alumina – thermite process, Al acts as

- (a) An oxidising agent
- (b) A flux
- (c) Solder
- (d) A reducing agent

17. The product from blast furnace is called _____

- a) Cast iron
- b) Wrought iron
- c) Pig iron
- d) Steel

18. The cupola is used to manufacture

- a) Pig iron
- b) Cast iron
- c) Wrought iron
- e) Steel

19. The cold working of metal is accomplished at

- a) below re-crystallization temperature
- b) below re-crystallization temperature
- c) re-crystallization temperature
- d) any of the above

20. Which of the following is not improved by cold working of metals?

- a) Hardness
- b) Toughness
- c) Surface finish
- d) Corrosion resistance

21. Which of the following operation can be performed on lathe?
- spinning
 - drawing
 - coining
 - swaging
22. Tubes for shaving cream and tooth paste are made by
- forward extrusion
 - backward extrusion
 - impact extrusion
 - all of the above
23. Medals are made by
- spinning
 - coining
 - embossing
 - bending
24. Which of the following is not true for cold working of metals?
- residual stresses are set up in the metal
 - stress required to cause deformation is less than hot working of metals
 - it reduces the corrosion resistance of the metal
 - distortion of grains takes place in most of the cold working processes
25. Wires are made by
- spinning
 - drawing
 - embossing
 - bending
26. Ornamental wares are made by
- spinning
 - drawing
 - embossing
 - bending
27. All processes are formed in both hot and cold working except
- forging
 - piercing
 - drawing
 - extrusion
28. Which of the following not a hot working process?
- extrusion
 - drawing
 - embossing
 - piercing

29. The hot working of metal, is accomplished at
- below recrystallization temperature
 - above recrystallization temperature
 - recrystallization temperature
 - any of the above
30. Following are the advantages of hot working of metals, except
- close tolerances can be maintained
 - porosity of the metal is minimized
 - grain structure of the metal is refined
 - no residual stresses are introduced
31. Which of the following process is used to convert larger sections, such as ingots into smaller sections?
- hot rolling
 - hot forging
 - hot spinning
 - hot extrusion
32. The following are true for rolling, except
- velocity of metal at exit is same as that at the entry
 - grains are elongated in the direction of rolling
 - after crossing the stress zone the grain starts refining
 - the greater the coefficient of friction more the possible reduction
33. In rolling, the pressure is maximum at
- entrance
 - exit
 - both the extremities
 - at a point somewhat between the two extremities
34. Which of the following operations involves reduction in length?
- Upsetting
 - Drawing down
 - Setting down
 - Punching
35. Swaging is another name for which smith forging operation?
- Bending
 - Punching
 - Drawing down
 - Cutting
36. Which of the following operations involves the reduction in length?
- Upsetting
 - Drawing down
 - Setting down
 - Punching

37. Which of the following material is not used as a flux in forge welding?
- a) 2 parts of borax with one part of sal-ammoniac
 - b) Quartz sand
 - c) Calcined borax
 - d) 3 parts of borax with one part of sal-ammoniac
38. In which form of weld, are the ends joined?
- a) Lap weld
 - b) Butt weld
 - c) Jump weld
 - d) Split weld
39. Which form of weld is also called as 'T' weld?
- a) Lap weld
 - b) Butt weld
 - c) Jump weld
 - d) Split weld
40. In cutting smith forging operation, up to what temperature is the steel heated?
- a) 700°C – 800°C
 - b) 850°C – 950°C
 - c) 900°C – 1000°C
 - d) 1000°C – 1100°C
41. Which form of weld is also called as 'V' weld?
- a) Lap weld
 - b) Butt weld
 - c) Jump weld
 - d) Split weld
42. Scarfing is a preparation of metals for welding.
- a) True
 - b) False
43. _____ is a process of preparing a casting.
- a) Founding
 - b) Forging
 - c) Melting
 - d) Pouring
44. Which of the following is prepared using pattern in foundry?
- a) Mould
 - b) Sand
 - c) Core
 - d) Mould, Sand and Core
45. Fettling is the last step of the foundry.
- a) True
 - b) False

46. Which of the following metal castings are used to make casting in the foundry?

- a) Brass
- b) Aluminum
- c) Iron
- d) Brass, Aluminum and Iron

47. To form castings, always virgin metal is used in foundries.

- a) True
- b) False

48. _____ tuyeres increase the melting efficiency.

- a) Single
- b) Double
- c) Auxiliary
- d) Blast

49. The foundry uses _____ process to relieve stresses produced in castings.

- a) Reforming
- b) Heat treatment
- c) Water treatment
- d) cooling

50. The product of the foundry process is _____

- a) Binders
- b) Pattern
- c) Casting
- d) Metal

51. Casting is the most versatile process in manufacturing.

- a) True
- b) False

52. Which one of the following is a solid state joining process?

- a) Gas tungsten arc welding
- b) Resistance spot welding
- c) Friction welding
- d) Submerged arc welding

53. While current is shut down in the welding circuit, what kind of voltage exists between the output terminals of the welding machine?

- a) GTAW
- b) Open air cut voltage
- c) Kerf
- d) Gouging

54. The capacity of a material to be welded under the imposed fabrication conditions into a specific, suitably designed structure and to perform satisfactorily in the intended service is known as?

- (A) Weldment
- (B) Weld tab
- (C) Weldability
- (D) Tack weld

55. In which type of welding a gas shield, a consumable electrode is used and the welding can be done in all positions.

- (A) ARC welding
- (B) Submerged ARC welding
- (C) TIG welding
- (D) MIG welding

56. In a metal arc welding process, metal transfer across the arc may take place by a method of material transfer where the metal transfers across the arc in larger drops. This is at the rate of 100 drops/sec or less, what is this known as

- (A) Globular transfer
- (B) Spray transfer
- (C) GMAW practice
- (D) Dip transfer

57. What is the type of shielding gas for GTAW (Gas Tungsten Arc Welding) used for carbon steels only called?

- (A) Argon H
- (B) Argon CO
- (C) Argon Helium
- (D) Helium

58. A type of welding flows, which is the result of a perfect proportion and mixture of acetylene and oxygen and is used for fusion welding of steel and cast iron, is

- (A) Carburizing flame
- (B) Oxidizing flame
- (C) Oxy-acetylene flame
- (D) Neutral flame

59. Which of the following is an example of fusion welding?

- (A) Atomic hydrogen welding
- (B) Flash welding
- (C) Seam welding
- (D) Spot welding

60. What is the name of the device used in arc welding circuits for the purpose of modifying the rate of current change when the weld rod is varied rapidly?

- (A) Reactor
- (B) Kerf
- (C) Inductor
- (D) Cone

61. Two 1 mm thick steel sheets are to be spot welded at a current of 5000 A. Assuming effective resistance to be 200 μm and current flow time of 0.2 second, heat generated during the process will be

- (A) 0.2 Joule
- (B) 1 Joule
- (C) 5 Joule
- (D) 1000 Joule

62. As compared to the arc welding, the gas welding takes

- (A) considerably less time for the metal to heat up
- (B) considerably more time for the metal to heat up
- (C) approximately same time for the metal to heat up as arc welding
- (D) unpredictable

63. Which of the following statement is correct regarding grinding of high carbon steel?

- (A) Grinding at high speed results in the reduction of chip thickness and cutting forces per grit.
- (B) Aluminium oxide wheels are employed.
- (C) The grinding wheel has to be of open structure.
- (D) All of the above

64. In Oxyacetylene gas welding, temperature at the inner cone of the flame is around

- (A) 3500°C
- (B) 3200°C
- (C) 2900°C
- (D) 2550°C

65. Which of the following arc welding processes does not use consumable electrodes?

- (A) GMAW
- (B) GTAW
- (C) Submerged Arc Welding
- (D) None of these

66. Two plates of the same metal having equal thickness are to be butt welded with electric arc. When the plate thickness changes, welding is achieved by

- (A) Adjusting the current
- (B) Adjusting the duration of current
- (C) Changing the electrode size
- (D) Changing the electrode coating

67. If a gas metal arc process uses a low arc voltage and the arc is continuously interrupted as the molten electrode metal fills up the arc gap is known as

- (A) ARC
- (B) Short ARC
- (C) ARC length
- (D) ARC blow

68. Which one among the following welding processes uses non-consumable electrode?

- (A) Gas metal arc welding
- (B) Submerged arc welding
- (C) Gas tungsten arc welding
- (D) Flux coated arc welding

69. What type of fusion welding process is used for welding sheet metals of all engineering metals (except Cu, Ag) in automobile and air craft industries, pipe and tubing production?

- (A) Thermit welding
- (B) Electroslag welding
- (C) Resistance welding
- (D) Submerged arc Welding

70. When two main plates are kept in alignment butting each other and riveted with cover plate on both sides of the main plates with two rows of rivets in each main plate, the joint is known as _____ double cover butt joint.

- (A) Single riveted
- (B) Double riveted
- (C) Both (A) and (B)
- (D) None of these

71. In a metal arc welding process, a gas metal arc welding with magnetized flux is used and can be done in all the positions i.e. flat position, vertical position or inclined position.

- (A) Globular transfer
- (B) Spray transfer
- (C) GMAW practice
- (D) Dip transfer

72. In a particular type of welding, flux is prepared in the form of a coarse powder and granulated flux is spread over the joint. What is this type of welding process called?

- (A) Electric arc welding
- (B) Submerged arc welding
- (C) MIG welding
- (D) TIG welding

73. The common welding error that occurs due to shrinkage of weld metal, faulty clamping of parts, faulty penetration or overheating at joints is called?

- (A) Distortion
- (B) Warping
- (C) Porous weld
- (D) Poor fusion

74. The object of caulking in a riveted joint is to make the joint

- (A) Free from corrosion
- (B) Stronger in tension
- (C) Free from stresses
- (D) Leak-proof

75. Calculate the weld per minute, work speed of circular electrode of 220 mm diameter for carrying out seam welding at 4 welds per cm on 1.6 mm thick mild steel tube. Welding cycle consists of 3 cycles 'on' and 2 cycles 'off' Power supply is at 50 Hz.

- (A) 3000 welds/min, 75 mm/min
- (B) 600 welds/min, 1500 mm/min
- (C) 500 welds/min, 1250 mm/min
- (D) 22 welds/min, 55 mm/min

76. What is the method of brazing used to join relatively small assemblies made from materials that either do not oxidize at the brazing temperature or can be protected from oxidation with a flux?

- (A) Torch brazing
- (B) Dip brazing
- (C) Resistance brazing
- (D) Furnace brazing

77. In DC arc welding, if leads are arranged in work as Negative pole of the welding arc and electrode as Positive pole of the welding arc, the arrangement is known as

- (A) Fusion
- (B) Reverse polarity
- (C) Forward welding
- (D) Direct polarity

78. What is the welding defect caused due to improper control and poor removal of slog between passes called?

- (A) Mismatch
- (B) Under fill
- (C) Crack
- (D) Porosity

79. The common welding error that occurs due to wrong speed, faulty preparation, and high / low current, improper electrode size is called?

- (A) Distortion
- (B) Warping
- (C) Porous weld
- (D) Poor fusion

80. What is the type of welding defect caused due to shrinkage during solidification and by weld stresses called?

- (A) Incomplete fusion
- (B) Lamellar tearing
- (C) Mismatch
- (D) Shrinkage void

81. What is the type of welding defect is caused due to stresses on heating and cooling called?

- (A) Incomplete penetration
- (B) Shrinkage void
- (C) Slag Entrapment (Inclusions)
- (D) Incomplete fusion

82. What is the type of welding defect caused due to poor deposition of weld rod is called?

- (A) Porosity
- (B) Undercut
- (C) Under fill
- (D) Crack

83. What is the type of welding defect caused due to poor manipulation of weld rod or a dirty joint called?

- (A) Porosity
- (B) Undercut
- (C) Under fill
- (D) Crack

84. What is the type of joining process called, where the parts to be welded are kept in contact and rotated relative to each other and axial pressure is applied when the desired temperature is obtained?

- (A) Ultrasonic welding
- (B) Forge welding
- (C) Electron beam welding
- (D) Friction welding

85. If the flame of the welding torch is directed towards the progress of welding, then what will you call the welding technique?

- (A) Forehand welding
- (B) Flux cored ARC welding
- (C) Electro slag welding
- (D) Pulsed spray welding

86. The process of joining two pieces of metal with a different fusible metal applied in a molten state is called as

- (A) Welding
- (B) Soldering
- (C) Both a. and b.
- (D) None of the above

86. The metal joined is never brought to a molten stage in

- (A) pressure welding
- (B) fusion welding
- (C) thermit welding
- (D) none of the above

87. Lathe bed is usually made of.....
- A. Structural steel
 - B. Stainless steel
 - C. Cast iron
 - D. Mild steel
 - E. All of the above
88. Lathe spindle has got.....
- A. Internal threads
 - B. External threads
 - C. Taper threads
 - D. No threads
 - E. None of the above
89. Lathe centres are provided with the following standard taper.....
- A. Morse
 - B. British
 - C. Metric
 - D. Sharpe
 - E. Any taper
90. Internal or external tapers on a turret lathe can be turned by.....
- A. Face turning attachment
 - B. Taper turning attachment
 - C. Sliding attachment
 - D. Morse taper attachment
 - E. Offsetting tailstock
91. Which of the following lathe operations requires that the cutting edge of a tool bit be placed exactly on the work center line.....
- A. Boring
 - B. Drilling
 - C. Facing
 - D. Turning
 - E. Chamfering
92. In lathe, the carriage and tail stock are guided on.....
- A. Same guide ways
 - B. Different guide ways
 - C. Any of the above
 - D. Not guided on guide ways
 - E. None of the above
93. Half nut is connected with.....
- A. Milling machine
 - B. Locking device
 - C. Jigs and fixture
 - D. Thread cutting on
 - E. Quick engaging and disengaging devices

94. Chip breakers are used to
A. increase tool life
B. remove chips from bed
C. break the chips into short segments
D. to minimise heat generation

95. The factor responsible for the formation of discontinuous chips is
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

96. In lathe work, when the tool is fed parallel to the rotation of job work, it will produce
(A) Cylindrical surface
(B) Spherical surface
(C) Tapered surface
(D) All of the above

97- The following type of Lathe is operated through Cams and Cam plate.
(A) Precision Lathe
(B) Crankshaft Lathe
(C) Screw cutting Lathe (Automatic)
(D) Duplicating Lathe

98- The following part of Lathe serves as housing for the driving pulleys and back gears
(A) Head stock
(B) Tail stock
(C) Bed
(D) Carriage

99- In Lathe, the back gears are used for affecting _____ in spindle speeds, thereby facilitating wider range of speeds
(A) Increase
(B) Reduction
(C) Increase or reduction
(D) None of the above

100- The following acts as driving shaft in Lathe.
(A) Countershaft
(B) Spindle shaft
(C) Lead screw
(D) None of the above

101-A desired speed of _____ can be obtained by selecting the suitable change gears having proper number of teeth.

- (A) Lead screw
- (B) Countershaft
- (C) Spindle
- (D) Feed gear box

102-The Lathe carriage serves the following purpose of the tool

- (A) Guiding
- (B) Feeding
- (C) Supporting
- (D) All of the above

103-The following is also known as Tool rest

- (A) Saddle
- (B) Cross slide
- (C) Compound rest
- (D) Tool post

104-The following is used in Magnetic chucks

- (A) Electromagnet
- (B) Permanent magnet
- (C) Both 'A' and 'B'
- (D) None of the above

105-The following is used for holding bored parts for machining their outside surfaces on Lathe.

- (A) Mandrel
- (B) Dogs
- (C) Driving plate
- (D) Angle plate

106-In lathe, form tools are used to produce

- (A) Cylindrical surfaces
- (B) Tapered surfaces
- (C) The surfaces which are neither cylindrical nor tapered
- (D) Threads

107.In cutting Right hand threads, the spindle and lead screw rotates in the

- (A) Same direction
- (B) Opposite direction
- (C) Same or Opposite direction
- (D) Spindle rotates but lead screw does not rotate

108-The axial advancement in one rotation of the screwed part is known as _____ of the threads.

- (A) Pitch
- (B) Lead
- (C) Pitch diameter
- (D) Helix

109-External threads can be produced by means of

- (A) Taps
- (B) Dies
- (C) Lathe machine
- (D) All of the above

110-The following is taper turning method on lathe

- (A) Tail stock set-over method
- (B) By swivelling the compound rest
- (C) Using a broad nose tool
- (D) All of the above

111-Which of the following attachments can be used on Centre lathe?

- (A) Grinding
- (B) Milling
- (C) Copying
- (D) All of the above

112-The following is used to support too flexible job very close to the cutting edge.

- (A) Steady rest
- (B) Follower rest
- (C) Compound rest
- (D) All of the above

113-The following is used to turn very long job between centers on a lathe.

- (A) Steady rest
- (B) Follower rest
- (C) Compound rest
- (D) All of the above

114-Which of the following is not a part of Drilling machine?

- (A) Spindle
- (B) Head
- (C) Column
- (D) Mandrel

115-Which of the following drilling machine can rotate in all three axis (x, y and z)?

- (A) portable drilling machine
- (B) radial drilling machine
- (C) pillar type drilling machine
- (D) all of the above

116-Which of the following drilling machine is suitable for a job with multiple hole

- (A) portable drilling machine
- (B) radial drilling machine
- (C) gang drilling machine
- (D) all of the above

117-Following drilling machine can drill numbers of workpiece at a time

- (A) gang drilling machine
- (B) pillar type drilling machine
- (C) multi station drilling machine
- (D) all of the above

118-___ is provided in drill for the passage of chips and cutting fluid.

- (A) shank
- (B) flutes
- (C) tang
- (D) clearance

119-Following drills are made of one piece of material.

- (A) composite drills
- (B) tipped solid drills
- (C) solid drills
- (D) all of the above

120-Back taper is a

- (A) slight decrease in diameter from front to back in the body of the drill
- (B) slight decrease in diameter from back to front in the body of the drill
- (C) slight decrease in diameter from front to back in the shank of the drill
- (D) slight decrease in diameter from back to front in the shank of the drill

121-The failure of chips to pass through the flute during cutting action is called

- (A) built up edge
- (B) chip packing
- (C) chipping
- (D) none of the above

122-The space provided to eliminate undesirable contact between the drill and the workpiece.

- (A) clearance
- (B) clearance diameter
- (C) cutter sweep
- (D) none of the above

123-The angle between the leading edge of the land and the plane containing the axis of the drill is called

- (A) helix angle
- (B) lip relief
- (C) lip relief angle
- (D) none of the above

124-The central portion of the tool by which it is held or driven is called

- (A) shank
- (B) tongue
- (C) body
- (D) none of the above

125-The rate at which the drill advances into the material, generally measured in distance per flute is called

- (A) depth of cut
- (B) feed
- (C) speed
- (D) thrust

126-The value (optimum) of helix angle in a drill is

- (A) 15°
- (B) 30°
- (C) 45°
- (D) 60°

127-The point angle in a standard ground drill is

- (A) 75°
- (B) 90°
- (C) 100°
- (D) 118°

128- On drilling machine, which process is known as reaming?

- a. Enlargement of existing hole
- b. Hole made by removal of metal along the hole circumference
- c. Smoothly finishing and accurately sizing a drilled hole
- d. All of the above

129-The process of chamfering the entrance of a drilled hole is known as_____

- a. counter-boring
- b. counter-sinking
- c. counter-fillet
- d. trepanning

130. It is desired to perform the operations like drilling, reaming, counter-boring etc. on a work piece. Which of the following machine will be used?

- a. Sensitive drilling machine
- b. Radial drilling machine
- c. Gang drilling machine
- d. Multiple spindle drilling machine

131. Which of the following operation is first performed?

- a. Spot Facing
- b. Boring
- c. Tapping
- d. Drilling

132-In shaper machine

- (A) Tool is stationary while work piece reciprocates
- (B) work piece is stationary while tool reciprocates
- (C) Both the tool and work piece reciprocates
- (D) Both the tool and work piece rotates

133-Following shape(s) is (are) produced with shaper machine

- (A) v-block
- (B) dove tail
- (C) guide gib
- (D) all of the above

134-The ram head of shaper machine does not consist of

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

135-In shaper, during working (cutting) stroke the tool block rests on the

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

136-The return stroke of shaper machine is called

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

137. Which of the following mechanism is used in shaper machine

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

138. Planer is ___ shaper in size.

- (A) larger than
- (B) smaller than
- (C) equal to
- (D) any of the above

139. in a planer

- (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

140-The maximum number of tool heads in planer can be

- (A) one
- (B) two
- (C) three
- (D) four

141-The standard clamping device(s) used on planer machine is (are)

- (A) planer jack
- (B) angle plate
- (C) T-holders
- (D) all of the above

142-The size of the planer is specified by the

- (A) maximum length of the stroke
- (B) height of tool post
- (C) height of its bed
- (D) all of the above

143-Which of the following type of planer has two work tables

- (A) double housing planer
- (B) open side planer
- (C) divide type planer
- (D) all of the above

144.Which of the following is used for machining larger jobs?

- a) shaper
- b) planer
- c) can't say anything
- d) none of the mentioned

145. Which of the following is used for machining smaller jobs?

- a) shaper
- b) planer
- c) can't say anything
- d) none of the mentioned

146. Which of the following operation can be performed in shaper?

- a) gear cutting
- b) keyways cutting
- c) curvilinear contours
- d) all of the mentioned

147. In shaper, the job is kept_____

- a) stationary
- b) rotating
- c) reciprocating
- d) none of the mentioned

148. Which stroke is idle stroke in shaper?

- a) forward
- b) return
- c) can't say anything
- d) none of the mentioned

149. At the end of one cycle, job is given a feed motion_____ to the direction of tool movement.

- a) parallel
- b) perpendicular
- c) anti-parallel
- d) none of the mentioned

150-Following is an abrasive cutting

- (A) Milling
- (B) Grinding
- (C) Laser beam machining
- (D) All of the above

151-Grinding is best suited to the machining of

- (A) Soft material
- (B) Very hard material
- (C) Both (A) and (B)
- (D) None of the above

152-Following process (es) is (are) subset(s) of grinding

- (A) Honing
- (B) Lapping
- (C) Sanding
- (D) All of the above

153-The work holding device in surface grinding is known as

- (A) Chuck
- (B) Mandrel
- (C) Tool post
- (D) None of the above

154-Grinding is commonly used on

- (A) Aluminium
- (B) Brass
- (C) Plastic
- (D) Cast Iron

155-Which of the following material(s) tend to clog the cutting wheel

- (A) Aluminium
- (B) Brass
- (C) Plastic
- (D) All of the above

156-Following is (are) the type of cylindrical grinding

- (A) Outside diameter grinding
- (B) Plunge grinding
- (C) Centerless grinding
- (D) All of the above

157-In cylindrical grinder, how many centers hold the workpiece?

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

158-Most cylindrical grinding machines include a ____ to allow the forming of tapered piece.

- (A) Grinding dog
- (B) Swivel
- (C) Center driver
- (D) None of the above

159- In cylindrical grinding, the abrasive wheel and the workpiece are

- (A) Rotated by separate motors and at different speeds.
- (B) Rotated by separate motors and at same speed.
- (C) Rotated by single motor and at same speed.
- (D) Any of the above

160-In which of the grinding methods, rate of material removal is high?

- (A) Surface grinding
- (B) Cylindrical grinding
- (C) Creep feed grinding
- (D) All of the above

161-In which of the following grinding methods, grinding wheel never need dressing

- (A) High efficiency deep grinding
- (B) Continuous dress creep feed grinding
- (C) Surface grinding
- (D) All of the above

162-During milling, the cutter usually moves

- (A) Perpendicular to its axis
- (B) Parallel to its axis
- (C) Inclined to its axis
- (D) Any of the above

163- The speed at which the piece advances through the cutter is called

- (A) Cutting speed
- (B) Feed rate
- (C) Depth of cut
- (D) None of the above

164-In _____, the cutting action occurs primarily at the end corners of the milling cutter.

- (A) Face milling
- (B) Peripheral milling
- (C) Both (A) and (B)
- (D) None of the above

Ans A

165-Peripheral milling is well suited to the cutting of

- (A) Deep slots
- (B) Threads
- (C) Gear teeth
- (D) All of the above

Ans D

166-A milling cutter may have surfaces made of

- (A) High speed steel
- (B) Cemented carbide
- (C) Aluminium oxide
- (D) Both (A) and (B)

Ans D

167-The use of coatings on milling cutters will increase the _____ of the tool.

- (A) Surface hardness
- (B) Corrosion resistance
- (C) Surface finish
- (D) Melting point

Ans A

168-Following coating(s) is (are) for milling cutters

- (A) Titanium nitride (TiN)
- (B) Titanium Carbonitride (TiCN)
- (C) Aluminium Titanium Nitride (AlTiN)
- (D) All of the above

169-Gang milling refers to the use of two or more milling cutters mounted on the _____ arbor in a _____ milling set up.

- (A) Same, vertical
- (B) Same, horizontal
- (C) Different, vertical
- (D) Different, horizontal

170-In the vertical mill, milling cutters are held in the _____ and _____

- (A) spindle, rotates on its axis
- (B) spindle, reciprocates
- (C) Arbor, rotate on its axis
- (D) Arbor, reciprocates

171-Following is (are) the type(s) of vertical mill

- (A) Bed mill
- (B) Turret mill
- (C) Both (A) and (B)
- (D) None of the above

172-A turret mill has a _____ spindle and the table is moved _____ to the spindle axis to accomplish cutting.

- (A) Stationary, perpendicular
- (B) Moving, parallel
- (C) Stationary, both perpendicular and parallel
- (D) Moving, perpendicular

173-In the bed mill, the table moves _____ to the spindle's axis

- (A) Only parallel
- (B) Only perpendicular
- (C) Both perpendicular and parallel
- (D) Inclined

174-Following milling machine is used to cut gears

- (A) Horizontal milling machine
- (B) Vertical milling machine
- (C) Both (A) and (B)
- (D) None of the above

175-Following type of gear(s) can be cut on milling machine

- (A) Worm
- (B) Spiral bevel
- (C) Spur
- (D) All of the above

176-Jig borer are

- (A) Built to bore holes
- (B) Very light slot or face milling
- (C) Typically bed mills with a long spindle throw
- (D) All of the above

Ans D

177-Most CNC milling machines are

- (A) Computer controlled vertical mills
- (B) Used in diesinking
- (C) Used in engraving applications
- (D) All of the above

178-Pocket milling is extensively used in

- (A) Aerospace industry
- (B) Shipyard industry
- (C) Both (A) and (B)
- (D) Agriculture industry

179. In end mill cutter, flutes of the milling bit are

- (A) Deep helical grooves running up the cutter
- (B) Sharp blade along the edge
- (C) Holes
- (D) None of the above

180. Which of the following is un-conventional machining process?

- (A) Grinding
- (B) Milling
- (C) Turning
- (D) Electro chemical machining

181. When the metal is removed by erosion caused by rapidly recurring spark discharges between the tool and work, the process is known as

- (A) electro-chemical machining
- (B) electro-discharge machining
- (C) ultra-sonic machining
- (D) none of these

182. In electro-discharge machining, dielectric is used to

- (A) help in the movement of the sparks
- (B) control the spark discharges
- (C) act as coolant
- (D) all of these

183. In which of the following methods, an electrolyte is used?

- (A) Ultrasonic Machining
- (B) Electro chemical Machining
- (C) Abrasive Jet Machining
- (D) Laser Beam Machining

184. Electrolytes used in ECM must possess

- (A) Low electrical conductivity
- (B) Low chemical stability
- (C) High electrical conductivity
- (D) None of the mentioned

185. LASER stands for

- (A) Light amplification by stimulated emission of radiation
- (B) Light amplification by stimulated erosion of reaction
- (C) Light amplification by stimulated erosion of radiation
- (D) Light amplification by stimulated emission of reaction

186. In laser beam machining process lens is used to

- (A) deflect laser beams
- (B) diverge laser beams
- (C) converge laser beams
- (D) none of the mentioned

187. In ultra-sonic machining, the tool is made of

- (A) tungsten carbide
- (B) brass or copper
- (C) diamond
- (D) stainless steel

188. In ultra-sonic machining, the metal is removed by

- (A) using abrasive slurry between the tool and work
- (B) direct contact of the tool with the work
- (C) maintaining an electrolyte between the work and tool in a very small gap between the two
- (D) erosion caused by rapidly recurring spark discharges between the tool and work

189. The element of the machine which is used to convert high-frequency electrical impulse into mechanical vibration in USM is known as

- (A) tool
- (B) feeding unit
- (C) transducer
- (D) none of the mentioned

190. Chemical milling operation is performed

- (A) on a universal milling machine
- (B) on a plain milling machine
- (C) in a tank containing an etching solution
- (D) any one of these

191. In Electron beam machining, workpiece is held in

- (A) vacuum chamber
- (B) dielectric medium
- (C) electrolyte
- (D) none of these

192. Abrasive jet machining process can be used for

- (A) Conductors
- (B) Insulators
- (C) Metals
- (D) All of the mentioned

193. Which type of materials can be machined using Abrasive jet machining?

- (A) Glass
- (B) Ceramics
- (C) Hard materials
- (D) All of the mentioned

194. Which of the following is a conventional process of machining?

- (A) Electro chemical machining
- (B) Electron beam machining
- (C) Water jet machining process
- (D) None of the mentioned

195. In chemical machining is material removal takes by?

- a) Chemical reaction
- b) Erosion
- c) Electron removal
- d) None of the mentioned

196. Non-Traditional machining is recommended when we need which of the following features?

- a) Complex shapes
- b) High surface quality
- c) Low-rigidity structures
- d) All of the mentioned

197. Which of the following non-traditional machining process will have inferior surface finish as compared to the remaining processes?

- a) Ultrasonic machining
- b) Plasma Arc Machining
- c) Electro discharge machining
- d) Electron Beam Machining