

OBJECTIVE QUESTION SET

1.....is the unit name of physical quantity 'length' in SI system.

- ✓ *Metre*
- *Km*
- *Mile*
- *Furlong*

2.....is the unit name of physical quantity 'mass' in SI system.

- ✓ *Kilogram*
- *Gram*
- *Pounds*
- *Newton*

3.....is the unit name of physical quantity 'time' in SI system.

- ✓ *Second*
- *Hour*
- *Minute*
- *Degree*

4.....is the unit name of physical quantity 'plane angle' in SI system.

5. The accuracy at which a steel rule can be used to measure is.....

- ✓ *Radian*
- *Hour*
- *Minute*
- *Degree*

6. The measurement of the steel rule should be read perpendicular to avoid

- ✓ *Parallax Error*
- *Inaccuracy*
- *Precision*
- *Error*

7. One micrometer is equal tomm.

- *0.01*
- *0.0001*
- *0.1*
- ✓ *0.001*

8. One millimeter is equal to.....mts.

- ✓ *0.001*
- *0.01*
- *0.0001*
- *0.00001*

9. One barrel equals to.....liters

- 3.87
- 4.0
- 3.67
- 3.78

10. One cubic metre equals.....liters

- 7.0
- 6.65
- 8.0
- ✓ 6.2898

11. An area of 144 sq inch equalssq foot.

- 14
- ✓ 1.0
- 2.0
- 1.44

12. One US bbl equalsUS gallons.

- 56
- 52
- 46
- ✓ 42

13. Files are specified by.....

- length
- grade
- cut
- shape
- ✓ all above

14. File which removes hard materials faster.....

- curved cut
- single cut
- ✓ double cut
- rasp cut

15. File used for filing wood, rubber etc.....

- curved cut
- single cut
- double cut
- ✓ rasp cut

16. File used for filing tin, copper, lead etc.....

- ✓ curved cut
 - single cut
 - double cut
 - rasp cut
17. File used for filing brass, aluminum, bronze etc.....
- curved cut
 - ✓ single cut
 - double cut
 - rasp cut
18. Try square is used for.....
- check squareness
 - check flatness
 - mark straight lines 90° against an edge
 - set work piece at 90°
 - ✓ all above
19. One metre is equal to.....cm.
- 1000
 - 10
 - ✓ 100
 - 0.1
20. One hundred kg equals to.....quintal
- 1000
 - 100
 - 10
 - ✓ 1.0
21. Ten quintal equals tometric tonne.
- ✓ 1.0
 - 100
 - 10
 - 1000
22. Hacksaw blades are made of
- low alloy steel
 - ✓ high speed steel
 - tungsten steel
 - ni cr steel
23. The commonly used standard lengths of hacksaw aremm &.....mm.
- 200 & 300
 - 280 & 380

- ✓ 250 & 300
 - 180 & 280
24. A cut made by a hacksaw blade is wider than the thickness of the blade because of.....of the saw.
- ✓ Setting
 - Thickness
 - Curved shape
 - Length
25. The portion of the hammer which is not hardened is the.....
- Face
 - Pein
 - Wedge
 - ✓ Cheek
26. The size of the hammer is stated by it's.....
- ✓ Weight
 - Handle
 - Material
 - Shape
27. The cutting angle for chipping mild steel is.....
- 60°
 - ✓ 55°
 - 90°
 - 37.5°
28. The cutting angle for chipping cast iron is.....
- ✓ 60°
 - 55°
 - 90°
 - 37.5
29. The point angle for a standard drill is.....
- 135°
 - 60°
 - 108°
 - ✓ 118°
30. The helical angle determines the.....
- cutting angle
 - chew angle
 - ✓ rake angle
 - lip angle

31. The clearance angle of a drill is between.....
- 3° to 5°
 - ✓ 8° to 12°
 - 12° to 20°
 - 15° to 20°
32. The relief angle provided behind the cutting edge is called the.....
- point angle
 - chisel edge angle
 - helix angle
 - ✓ clearance angle
33. The least count of a Vernier caliper in which 19(19mm) main scale divisions are divided into 20 equal divisions in the vernier scale will be.....
- 0.01
 - 0.02
 - 0.019
 - ✓ 0.05
35. One division of the main scale is 0.5 mm, 25 divisions of vernier scale =24 parts of main scale, the least count would be.....
- 0.002
 - ✓ 0.20
 - 0.25
 - 0.22
36. One division on the main scale is $1/40''$, 25 division of vernier scale=24 parts of main scale, the least count would be.....
- 0.0001
 - 0.01
 - ✓ 0.001
 - 0.00001
37. The least count of a vernier bevel protractor is.....
- 1°
 - $1''$
 - 5°
 - ✓ $5'$
38. The value of each division of the vernier scale of a bevel protractor is.....
- 1°
 - $1^\circ 5'$
 - ✓ $1^\circ 55'$

- 5'
39. The process of bevelling the end of a hole is called.....
- counter boring
 - ✓ counter sinking
 - spot facing
 - reaming
40. The process of enlarging the end of a hole for accommodating the socket screw is called.....
- reaming
 - spot facing
 - ✓ counterboring
 - countersinking
41. A left hand thread is turnedto advance.
- ✓ Anticlockwise
 - Clockwise
42. Name the thread used in an assembly where the sliding force acts in one direction.
- ✓ Saw tooth thread
 - Vee thread
 - Square thread
 - Trapezoidal thread
 - Knuckle thread
43. Threads commonly used for bolts and nuts in general assembly work.
- Saw tooth thread
 - ✓ Vee thread
 - Square thread
 - Trapezoidal thread
 - Knuckle thread
44. Threads used for spindles of fly-presses and screw jack etc.
- Saw tooth thread
 - Vee thread
 - ✓ Square thread
 - Trapezoidal thread
 - Knuckle thread
45. Threads used for easy engagement and disengagement during transmission:
- Saw tooth thread
 - Vee thread
 - Square thread

- ✓ Trapezoidal thread
- Knuckle thread

46. Threads used to couple railway wagon.

- Saw tooth thread
- Vee thread
- Square thread
- Trapezoidal thread
- ✓ Knuckle thread

47. The thread angle of I.S.O Metric thread is.....

- ✓ 60°
- 55°
- 45°
- 30°

48. The thread angle of I.S.O inch thread (Unified screw) is.....

- ✓ 60°
- 55°
- 45°
- 30°

49. The thread angle of B.S.W thread is.....

- 60°
- ✓ 55°
- 45°
- 30°

50. The expansion of UNC is.....

- Unified continuous
- Unified certain
- ✓ Unified coarse
- Unified crest

51. The expansion of UNF is.....

- Unified face
- ✓ Unified fine
- Unified factor
- Unified fraction

52. The B.S.W thread havenumber of threads per inch for a particular diameter.

- Uncertain
- ✓ Definite

➤ Indefinite

➤ Certain

53. To convert temperature readings from °F to °C is the formula.

➤ $^{\circ}\text{C} = 5.5/9.9(\text{F}-32)$ ✓

✓ $^{\circ}\text{C} = 5/9(^{\circ}\text{F}-32)$

➤ $^{\circ}\text{F} = 9.9/5.5(^{\circ}\text{C}+32)$

➤ $^{\circ}\text{F} = 9/5(^{\circ}\text{C}+32)$

54. To convert temperature readings from °F to °C is the formula.

➤ $^{\circ}\text{C} = 5.5/9.9(\text{F}-32)$

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➤ $^{\circ}\text{F} = 9.9/5.5(^{\circ}\text{C}+32)$

✓ $^{\circ}\text{F} = 9/5(^{\circ}\text{C}+32)$

55. The cone shaped end in a drill which does the cutting is called.....

➤ Tang

➤ Shank

➤ Flutes

✓ Point

56. Part of a taper drill shank which fits in the slot of the drilling machine spindle is

➤ Shank

➤ Flutes

➤ Web

✓ Tang

57. The metal column which separates the drill i.e. its flutes (taper shank or a straight) is.....

➤ Tang

✓ Web

➤ Rake

➤ Point

58. Spiral grooves along the length of a taper shank or a straight shank drill is called.....

➤ Tang

➤ Rake

✓ Flutes

➤ Land/Margin

59. The angle of flute (helical angle) is known as.....

➤ Point angle

➤ Web angle

- Rake angle
 - Shank angle
60. The narrow strip which extends to the entire length of the flutes of a drill is.....
- Land/Margin
 - Web
 - Point
 - Flute
61. The driving end of the taper shank drill which is fitted on the machine is....
- Collet
 - Shank
 - Jarno taper
 - Metric taper
63. The part of the drill body which is reduced in diameter to cut down the friction between the drill and the hole is.....
- Sliding clearance
 - ✓ Body clearance
 - Rake clearance
 - Web clearance
65. Smaller diameter drill has to be operated at aRPM.
- Lower
 - ✓ Higher
 - Gradual
 - Steady
66. Larger diameter drill has to be operated at aRPM.
- ✓ Lower
 - Higher
 - Gradual
 - Steady
67. Mild steel drilling, cutting speed is
- ✓ 20~30 m/min
 - 35~45 m/min
 - 25~40 m/min
 - 70~100 m/min
68. The point angle of a drill bit used for drilling mild steel is.....
- 140°
 - 130°
 - 80°

➤ 118°

70. The angle of flute (helical angle) is known as

- Point angle
- Web angle
- ✓ Rake angle
- Shank angle

71. The..... angle in a drill is to prevent the friction of tool behind the cutting edge.

- Web
- ✓ Clearance
- Point
- Rake

72. The angle between the chisel edge of the cutting lip is.....

- ✓ Web angle
- Clearance angle
- Point angle
- Rake angle

73. A is a multipoint cutting tool used for enlarging by finishing previously drilled holes to accurate sizes.

- Milling cutter
- Counter bore cutter
- Tap
- ✓ Reamer

74. The rake angle in a reamer is.....

- ✓ Zero
- 1
- 2
- 5

75. is used for general purpose grind of tough materials.

- ✓ Brown aluminium oxide
- Green aluminium oxide
- White aluminium oxide
- Emery and Corronalum

76. is used for grinding very hard materials with low tensile strength such as cemented carbides.

- Brown aluminium oxide
- ✓ Green aluminium oxide
- White aluminium oxide

- 3 -
- 2 -
- Emery and Corronдум
77.is used for grinding die steels.
- Brown aluminium oxide
 - Green aluminium oxide
 - ✓ White aluminium oxide
 - Emery and Corronдум
78. The natural abrasives are..... &.....
- Brown aluminium oxide
 - Green aluminium oxide
 - White aluminium oxide
 - ✓ Emery and Corronдум
79. The reamer is used for
- Drilling holes in thin sheets
 - Drilling deep holes
 - Removing burrs
 - ✓ Enlarging and finishing holes
80. Centre drilling is an operation of.....
- Drilling and countersinking
 - Drilling and counterboring
 - Marking the centre location before drilling
 - Enlarging the diameter of a hole
81. A washer helps to.....
- Improve appearance
 - Distribute force over a larger area
 - Distribute force to the bolt
 - Cover the clearance hole of the work piece
82. The graduations of a depth micrometer are.....
- Similar to an outside micrometer
 - ✓ In the reverse direction to that of the outside micrometer both thimble and sleeve
 - In the reverse direction only on the sleeve
 - In the reverse direction only on the thimble
83. The principle of working of a dial test indicator is.....
- The linear motion is converted into a reciprocating motion, using slotted link
 - ✓ The linear motion is converted into a rotary motion, using rack and pinions
 - Magnification of small variation using lenses
 - Magnification by electronics means
84. 1 yard equals toinches.

- 40
- ✓ 36"
- 25
- 39.37"

85. One thousandth of an inch ismicrometre.

- 40
- 36"
- ✓ 25
- 39.37"

86. One millimetre isthousandth of an inch.

- ✓ 40
- 36"
- 25
- 39.37"

87. One metre isinches.

- 40
- 36"
- 25
- ✓ 39.37"

88. The equivalent of 1" in metric is

- 2.54
- ✓ 25.4
- 25.04
- 24.5

89. The feeler gauge is used for.....

- checking surface roughness
- checking the radius of work pieces
- ✓ checking the gap between mating parts
- checking the accuracy of the hole locators

90. Interchangeability between components is provided by.....

- ✓ Limits & fits
- Transition fit
- Press fit
- Interference fit

91. Drilling in a rail track in a remote place without any electrical supply.....

- Bench drill
- Radiat drilling machine
- Pillar drilling machine

- ✓ Ratchet drilling machine
92. A service petroleum pipe line flange is to be drilled, the machine used in this case is.....
- Electrical hand drilling machine
 - Pneumatic hand drilling machine
 - Sensitive drilling machine
 - Pillar drilling machine
93. Metals which contain iron as major content are called.....metals.
- Non-ferrous
 - Ferrous
 - Iron ore
 - Alloy steel
94. For effective anti-corrosion treatment, surface preparation is carried out by.....
- Painting the surface with a good quality paint
 - Removing the dirt, grease, corrosion, or mill-scale
 - Grinding the surface and providing a smooth finish
 - Filing the surface and finishing a smooth surface
95. The carbon is present in plain carbon steel up to% in a combined state.
- 1.0
 - 1.5
 - 1.1111
 - 1.8
96. The process of heating and cooling for changing the structure of steel for obtaining the required properties is called.
- Hardening
 - ✓ Heat treatment
 - Normalizing
 - Tempering
97. The process by which steel is heated to a suitable temperature depending upon its carbon content and is held at that temperature for sufficient time, and then slowly cooled to room temperature is known as.....
- ✓ Annealing
 - Hardening
 - Normalizing
 - Tempering
98. The main purpose of annealing is.....
- To increase the hardness
 - To increase the toughness

- ✓ To improve machinability
 - To remove distortion
99. The process which helps in producing a fine grain for uniformity of structure and for improved mechanical properties is known as.....
- Tempering
 - Annealing
 - Hardening
 - ✓ Normalizing
100. Which one of the following is an alloy of carbon and iron, in which carbon is in a combined state.
- ✓ Steel
 - Wrought iron
 - Cast steel
 - Pig iron
101. Carbon dissolved in the iron to form a solid solution is called
- Cementite
 - Ferrite
 - Pearlite
 - ✓ Austenite
102. A chemical compound of carbon with iron is called
- Ferrite
 - Pearlite
 - ✓ Cementite
 - Austenite
103. Cementite and Ferrite will together form a laminated structure in the steel which is called
- Martensite
 - Alloy steel
 - Austenite
 - Pearlite
104. Increase of carbon content in steel results in proportional.
- Reduction of strength
 - ✓ Increase in hardness
 - Increase in strength
 - Increase in ductility
105. Pearlite combines the good properties of both ferrite and cementite, and due to this, a certain property of steel increases with the carbon content until 0.83% carbon is reached. Which one is it?

- Hardness
 - ✓ Strength
 - Ductility
 - Malleability
106. Name the structure of steel obtained due to the drastic cooling from the austenitic structure.
- ✓ Martensite
 - Pearlite
 - Cementite
 - Austenite
107.requires less effort to roll a drum full of coal or tar than to slide it over the surface of a road.
- Static friction
 - Sliding friction
 - ✓ Rolling friction
 - Boundary friction
108. Name the two types of gases used for gas carburizing.
- Ethane & pentane
 - ✓ Methane & propane
 - Butane & pentane
 - Ethane & n-pentane
109. Name the gas used for nitriding
- Hydrogen
 - Oxygen
 - Nitrogen
 - ✓ Ammonia
110. One of the advantages of induction-hardening is that the surface remains free from.....
- Corrosion
 - ✓ Scale
 - Pitting
 - Damage
111. The threaded connection for an oxygen cylinder used in gas cutting.....
- ✓ Right hand thread
 - Left hand thread
 - Spiral thread
 - Helical thread
112. The threaded connection for an acetylene cylinder used in gas cutting.....

- Right hand thread
 - ✓ Left hand thread
 - Spiral thread
 - Helical thread
113. The gas pressure for an oxygen cylinder used in gas cutting.....
- ✓ 120 to 150 Kg/cm²
 - 102 to 105 Kg/cm²
 - 112 to 115 Kg/cm²
 - 200 to 250 Kg/cm²
114. The gas pressure for an acetylene cylinder used in gas cutting.....
- ✓ 15 to 16 Kg/cm²
 - 10 to 11 Kg/cm²
 - 8 to 9 Kg/cm²
 - 4 to 5 Kg/cm²
115. The colour of the rubber hose for oxygen
- ✓ black
 - blue
 - red
 - green
116. While extinguishing the flame of a cylinder which gas is shut off first?
- ✓ Acetylene
 - Oxygen
 - Hydrogen
 - Carbon dioxide
117. The flame temperature range of the oxy-acetylene gas flame is.....
- 2100°C to 3100°C
 - ✓ 3100°C to 3300°C
 - 1100°C to 2100°C
 - 4200°C to 5100°C
118. The four solvents used in chemical cleaning are.....
- Kerosene
 - Paraffin
 - Turpentine
 - Thinner
 - ✓ All above
119. The four mechanical cleaning methods are.....
- Wire brushing
 - Grinding

- Sand blasting
- Metal gritting
- ✓ Above all

120. Identify the weld joints among the mentioned below.....

- Butt joint
- Lap joint
- T joint
- Corner joint
- Edge joint
- ✓ All above

121. The method used for testing leakage of welded containers.

- ✓ Water, soapwater or kerosene gravity test
- Any liquid
- Application of Grease
- Air test

122. The preheating temperature for gas-cutting steel is.....

- 1000°C
- ✓ 900°C
- 1200°C
- 1100°C

123. The two types of filler rods suitable for welding cast iron.

- ✓ Manganese bronze or medium nickel bronze
- Medium nickel bronze-type S-c9
- Silver flux
-

124. The current setting for 5.0mm Ø electrode is.....

- ✓ 130-270 amps
- 120-170 amps
- 280-290 amps
- 90-130 amps

125. The current setting for 4.0mm Ø electrode is.....

- 130-270 amps
- ✓ 120-170 amps
- 280-290 amps
- 90-130 amps

126. The current setting for 3.2mm Ø electrode is.....

- 130-270 amps
- 120-170 amps

- 280-290 amps
 - ✓ 90-130 amps
127. While arc welding standing on a damp or wet placeis possible.
- Leakage
 - ✓ Electrocutation
 - Fire
 - Earthing
128. The clothes of the welder should be free of oil and grease while welding to avoid.....
- Inconvenience
 - Electrocutation
 - ✓ Fire
 - Earthing
129. The correct angle during arc-welding between the electrode and the welding line is.....
- 90°
 - 40-50°
 - ✓ 70-80°
 - 45°
130. A welding transformer is used to convert the.....
- D.C main supply into an A.C welding supply
 - A.C main supply into an D.C welding supply
 - ✓ A.C main supply into an A.C welding supply
 - D.C main supply into an D.C welding supply
131. A welding rectifier is used to.....
- ✓ Convert an A.C welding supply into an D.C welding supply
 - Generate a D.C welding supply
 - Convert a D.C welding supply into an A.C welding supply
 - Convert a D.C main supply into an A.C main supply
132. If the main electric supply is not available, we can do arc welding with.....
- Motor generator set
 - Transformer
 - ✓ Engine generator set
 - Rectifier set
133. The necessity of root gap in the joint is to.....
- Eliminate oxygen
 - Keep the pieces in alignment
 - ✓ Obtain complete penetration

- Get better weld appearance
134. The necessity of tack welding in a joint is to.....
- Join two pieces of plates
 - Join two pieces of pipes
 - ✓ Control distortion during welding
 - Elimination spatters
135. The cause of slag inclusion are.....
- Current too high
 - Using of normal arc
 - Improper cleaning of base metal
 - ✓ Incorrect electrode motion
136. The testing of weld joint without damaging it is called
- Joint testing
 - ✓ Non-destructive testing
 - Surface testing
 - Destructive testing
137. A dye-penetrant test is used to detectdefects only.
- ✓ Surface
 - Metals
 - Weld
 - Radiographic
138. For testing boilers and high pressure vessels.....test is used.
- Surface
 - Metals
 - Weld
 - ✓ Radiographic
139. Magnetic tests are used to detect surface defects inmetals only.
- Non-ferrous
 - ✓ Ferrous
140. Intesting, the welded joint is pulled apart to check its strength and quality.
- Non-destructive
 - ✓ Destructive
 - Temporary
 - Surface
141. The other name of a 'T' joint is.....
- Lap joint
 - ✓ Fillet joint

- Butt joint
 - 'U' butt joint
142. The weld deposited on a lap joint is called
- Fillet weld
 - ✓ Lap weld
 - Butt weld
 - Corner weld
143. The speed at which the tool cutting edge passes over the material being turned is called.....
- Feed speed
 - Cross speed
 - Uniform speed
 - ✓ Cutting speed
144. The distance a tool moves along the work during each rotation of the work is called.....
- ✓ Feed
 - Cross speed
 - Uniform speed
 - Cutting speed
145. In mass production, where accuracy is not the criteria the method of taper turning used is.....
- The off-setting tailstock method
 - The swivelling compound slide method
 - ✓ 'Form' tool plunging method
 - A combination of both lathe cross-slide and compound slide movements
146. The most common method employed for turning steep tapers is.....
- The off-setting tailstock method
 - ✓ The swivelling compound slide method
 - 'Form' tool plunging method
 - A combination of both lathe cross-slide and compound slide movements
147. External and internal taper turning can be done by.....
- The off-setting tailstock method
 - ✓ The swivelling compound slide method
 - 'Form' tool plunging method
 - A combination of both lathe cross-slide and compound slide movements
148. For external taper of MT4 in mass production, the most useful method of taper turning is.....
- The off-setting tailstock method

- The swivelling compound slide method
 - 'Form' tool plunging method
 - ✓ Taper turning attachment nut
149. For turning lengthy tapers with a small taper angle.....
- ✓ The off-setting tailstock method
 - The swivelling compound slide method
 - 'Form' tool plunging method
 - A combination of both lathe cross-slide and compound slide movements
150. Standard taper pins will haveratio of taper.
- ✓ 1:50
 - 1:25
 - 1:40
 - 1:45
151. The taper angle of Morse taper for all the numbers is.....
- ✓ 3°
 - 5°
 - 6°
 - 2°
152. The tailstock is offset by.....
- ✓ The body of the tail stock
 - The spindle of the tailstock
 - The base of the tailstock
 - The whole tailstock as an unit
153. The taper expressed is 1:100 ratio and the length of the job is 100 mm the offset will be.....
- ✓ 5mm
 - 10mm
 - 20mm
 - 1.0mm
154. The basic function of cutting fluids are.....
- cleaning & lubrication
 - facilitating chip removal and lubrication
 - ✓ cools the tool & the workpiece
 - cooling & flushing chips away from the cutting area
155. Cast iron is normally turned
- by applying soluble oil as a coolant
 - ✓ dry
 - by applying straight cutting oil as a coolant

- by applying water as a coolant
156. A tool which is used to enlarge a drilled hole is called.....
- facing tool
 - ✓ boring tool
 - right hand turning tool
 - form tool
157. Drawing wire from a metal is possible because of the metals
- ✓ Ductile
 - Malleable
 - Brittle
 - Elastic
158.is ferrous metal but is not attracted by magnet.
- Tin
 - Chromium
 - ✓ Stainless steel
 - Brass
159. The melting point of tin is
- 330°
 - ✓ 232°
 - 370°
 - 230°
160. The melting point of tungsten is
- 3330°
 - ✓ 3370°
 - 2370°
 - 2330°
- 161.....is the property of permanently extending in all directions without rupture by hammering, rolling etc to change its size and shape.
- Hardness
 - ✓ Malleable
 - Ductile
 - Elastic
162.is a measure of a metals ability to withstand scratching, abrasion,& penetration.
- ✓ Hardness
 - Brittleness
 - Toughness
 - Tenacity

163.is a property of metals which prevents no permanent distortion before breaking.
- Hardness
 - ✓ Brittleness
 - Toughness
 - Tenacity
164.is the property of metals to withstand shock and impact.
- Hardness
 - Brittleness
 - ✓ Toughness
 - Tenacity
165.of a metal is its ability to resist the effect of tensile forces without rupture.
- Hardness
 - Brittleness
 - Toughness
 - ✓ Tenacity
166.of a metal is its power of retrieving to its original shape after the applied force is released
- Hardness
 - Brittleness
 - Toughness
 - ✓ Elasticity
167. The process of reduction of the iron from the ore to pig-iron is known as.....
- Annealing
 - ✓ Smelting
 - Normalizing
 - Nitriding
168. The ferrous metal & alloys used commonly are.....
- Pig-iron
 - Cast-iron
 - Wrought-iron
 - Steels & alloys steels
 - ✓ All above
169. The chief iron-ores used to extract pig-iron are
- Magnetite
 - Hematite
 - Limonite

- Carbonate
 - ✓ All the above
170. The carbon from coke in the form of combines with iron ore to reduce it to iron.
- Carbon di-oxide
 - ✓ Carbon monoxide
 - Carbon trioxide
 - Carbon tetra-oxide
171. is the most commonly used flux in the blast furnace.
- Sand stone
 - ✓ Limestone
 - Silicon
 - Manganese
172. The temperature in the blast furnace of the melting zone is between to
- 500° to 600°
 - ✓ 1000° to 1700°
 - 1100° to 1600°
 - 1500° to 1880°
173. The temperature in the cupola furnace of the melting zone is between to
- 500° to 600°
 - 1000° to 1700°
 - ✓ 1100° to 1600°
 - 1500° to 1880°
174. Cast iron is an alloy of iron, carbon & silicon. The ranges from.....to.....
- 3% to 4%
 - ✓ 2% to 4%
 - 1% to 4%
 - 0.15% to 0.25%
175. The following are the types of cast iron.
- Grey cast iron
 - White cast iron
 - Malleable cast iron
 - Nodular cast iron
 - All the above
176. The wrought iron is the purest form of iron with carbon content betweento

- 0.1% to 0.2%
- ✓ 0.02% to 0.03%
- 0.0022% to 0.0033%
- 0.20% to 0.30%

177. Due to the property of wrought iron it is used to make

- Permanent magnet
- ✓ Temporary magnet

178. A steel that contains upto of carbon is called Hypo eutectoid.

- 0.9%
- ✓ 0.8%
- 0.7%
- 0.6%

179. A steel that contains just 0.8% of carbon is called.....

- Hypo eutectoid
- ✓ Eutectoid or Pearlite
- Hyper eutectoid
- Austenite

180. A steel that contains carbon content between 0.8% to 2.1% is called

- Hypo eutectoid
- Eutectoid or Pearlite
- ✓ Hyper eutectoid
- Austenite

181. The temperature at which Austenite is formed is

- 700°C
- ✓ 723°C
- 623°C
- 693°C

182. The temperature at which the formation of Austenite is total is called the

- The lower critical point (heating)
- ✓ The upper critical point (heating)
- The lower critical point (cooling)
- The upper critical point (cooling)

183. Annealing is done to

- To obtain softness
- To improve machinability
- To increase ductility
- To refine the grains

- ✓ All the above
184.is done to produce a fine grain for uniformity of structure and for improved mechanical properties.
- Annealing
 - ✓ Normalizing
 - Hardening
 - Quenching
185. Suitable quenching medium transforms the austenite into needle-like fine structure called.....
- Hypo eutectoid
 - Eutectoid or Pearlite
 - ✓ Martensite
 - Austenite
186.is carried out for modifying the mechanical properties of hardened steel.
- Annealing
 - Normalizing
 - Hardening
 - Quenching
 - ✓ Tempering
187. The various types of surface hardening process are.....
- Case hardening
 - Nitriding
 - Flame hardening
 - Induction hardening
 - ✓ All the above
188.is the heat treatment in which the core is refined and the surface hardened.
- ✓ Case hardening
 - Nitriding
 - Flame hardening
 - Induction hardening
189.is the process suitable for all alloyed, unalloyed steels and cast iron.
- Case hardening
 - ✓ Nitriding
 - Flame hardening
 - Induction hardening
190. Large work pieces are hardened bymethod

- Case hardening
 - Nitriding
 - ✓ Flame hardening
 - Induction hardening
191.hardening method is used in mass production jobs.
- Case hardening
 - Nitriding
 - Flame hardening
 - ✓ Induction hardening
192.is a fuel gas composed of carbon 92.3% and hydrogen 7.7%.
- Oxyacetylene
 - ✓ Acetylene
 - Propylene
 - Ethylene
193. At certain times, during flame lighting or gas welding a small explosion occurs at the tip of the torch is called.....
- Flash point
 - Pour point
 - ✓ Back fire
 - Flashback
194. Sometimes, during back fire, the flame goes off and the burning gases travel backward in the blow pipe, towards the regulator or cylinders is called.....
- Flash point
 - Pour point
 - Back fire
 - ✓ Flashback
195. The melting point of mild steel is between..... to.....
- 2100°C to 3100°C
 - 1100°C to 2100°C
 - 900°C to 1000°C
 - ✓ 1500°C to 1530°C
196. The melting point of cast iron is
- 2100°C
 - 1100°C
 - 900°C
 - ✓ 1150°C
197. The melting point of copper is.....
- 2100°C

- 1100°C
- 900°C
- ✓ 1083°C

198. The melting point of aluminum is.....

- 1200°C
- 1100°C
- 900°C
- ✓ 659°C

199. The melting point of brass & bronze is between.....to.....

- ✓ 850°C to 950°C
- 1100°C to 2100°C
- 900°C to 1000°C
- 1500°C to 1530°C

200. The melting point of zinc is.....

- 500°C
- 600°C
- 900°C
- ✓ 419°C

201. The melting point of tin is.....

- ✓ 232°C
- 110°C
- 300°C
- 150°C

202. The melting point of lead is.....

- 210°C
- 113°C
- ✓ 327°C
- 150°C

203. Welding is the ancient method of nearly.....years old, of joining two metals permanently.

- 1000
- 2000
- 3000
- ✓ 1500

204. Magnetic effect that disturbs the arc is called

- Flash point
- Fire point
- ✓ Arc blow

- Flux
205. Thestabilizes the arc by ionizing the air.
- Flash point
 - Fire point
 - Arc blow
 - ✓ Flux
206. Drying oven is used to dry theaffected electrodes at 150°C for 2hrs.
- Rust
 - Moisture
 - ✓ Porosity
 - De-scaled
207.test is used to detect surface defects(cracks) in ferrous and non-ferrous metals.
- Radiography
 - Magnetic
 - ✓ Dye penetration
 - Destructive
208.test is used to detect surface defects(cracks) in ferrous metals.
- Radiography
 - ✓ Magnetic
 - Dye penetration
 - Destructive
209.test is used to detect defects on high quality jobs like boiler and high pressure vessels.
- ✓ Radiography
 - Magnetic
 - Dye penetration
 - Destructive
210.are used in assemblies which are to be separated frequently.
- Bolts
 - ✓ Studs
 - Screws
 - Fasteners
211.are used in places where fixing and removal of components are frequent.
- Bolts
 - Studs

- Screws
- ✓ Thump screws

212. All taper pins havetaper within a dimensional tolerances of h10.

- ✓ 1:50
- 1:40
- 1:60
- 1:20

213.pins are used in assemblies with wide tolerances.

- Split pins
- Taper pins
- Dowel pins
- ✓ Spring pins

214. Commonly used corrosion resistant coatings on metals are.....

- Hot dipping
- Electroplating
- Cladding
- Metal spraying
- Cementation
- ✓ All the above

215.....is done on bolts, nuts, pipes and wires as corrosion resistant coatings.

- ✓ Hot dipping (galvanizing)
- Electroplating
- Cladding
- Metal spraying
- Cementation

216. Metals like copper, chromium, cadmium, nickel, silver etc are used for.....

- Hot dipping
- ✓ Electroplating
- Cladding
- Metal spraying
- Cementation

217. is the slow and continuous eating away of metallic components by chemical or electrochemical action.

- ✓ Corrosion
- Erosion
- Etching (undetermined)

- Moisture
218. When copper is exposed to atmospheric pollution for a long time, the surface develops a green coating or.....
- White oxide film
 - Electroplating
 - ✓ 'PATINA'
 - 'Money metal'
219. When Aluminum is exposed to atmosphere, the surface quickly develops a thin, transparent film of aluminum oxide known as.....
- White oxide film
 - 'Alumina'
 - 'PATINA'
 - 'Money metal'
220. When Lead is exposed to atmospheric, the surface develops a thin sheathing film called.....
- ✓ White oxide film
 - Electroplating
 - 'PATINA'
 - 'Money metal'
221.used extensively in chemical plant and food processing equipment.
- Copper
 - Brass
 - Bronze
 - ✓ Stainless steel
222. Nickel when alloyed with Copper in the proportion of 2:1 produces an extremely corrosion resistant material.
- 'PATINA'
 - ✓ 'Money metal'
 - White oxide
 - 'Alumina'
223.is highly resistant to corrosion and it retains its high polish and colour for a long period.
- Copper
 - Brass
 - Bronze
 - ✓ Chromium
224.is used for finishing of bores in ferrous and non-ferrous metals.
- Boring

- Reaming
- ✓ Honing
- Grinding

225. The melting point of tungsten is

- 3350°C
- ✓ 3380°C
- 2380°C
- 3280°C

226. The melting point of cobalt is

- 1450°C
- 1380°C
- 1280°C
- ✓ 1495°C

227. The melting point of MOLYBDENUM is

- 3450°C
- 2380°C
- 2280°C
- ✓ 2620°C

228. The melting point of Cadmium is

- 450°C
- ✓ 320°C
- 280°C
- 495°C

228. The bearings made ofare used in places where lubricating is difficult.

- PATINA'
- 'Money metal'
- White oxide
- ✓ 'Sintered alloys'

229. Plastics of different types are used as bearing because of the following reasons

- Good resistance to corrosion
- Silent operation
- Ability to be moulded in different shapes easily
- Elimination of the need for lubrication
- All the above

230! An alloy made of lead, tin, copper and antimony is called.....

- PATINA'
- 'Money metal'
- ✓ 'Babbitt metal'

➤ 'Sintered alloys'

231. The chain wrench is used for holding or grippingdiameter pipes.

- Small
- Medium
- ✓ Large
- Finished tubular

232. The strap wrench is used for holding or grippingpipes.

- Small
- Medium
- Large
- ✓ Finished tubular

233. Theare used for gripping and turning pipes and round stocks in confined places.

- ✓ Foot print wrench
- Pipe wrench
- Monkey pliers
- Strap wrench

234.is a cobalt based alloy containing chromium and tungsten with little or no iron. It can retain hardness even at 700°C during cutting.

- ✓ Stellite
- Magnetite
- Austenite
- Ferrite

235.are preferred for making hand cutting tools(knives) and rotating tools running at low speed.

- Stellite
- Ceramics
- High speed steels
- ✓ High carbon steel
- Tungsten carbide

236.are preferred for making cutting tools which can retain hardness even at 600°C, used to mfg drills,reamers,taps,milling cutters etc.

- Stellite
- Ceramics
- ✓ High speed steels
- High carbon steel
- Tungsten carbide

237.are hard and brittle and preferred for cutting cast iron

and materials which have relatively low tensile strength.

- Stellite
- Ceramics
- High speed steels
- High carbon steel
- ✓ Tungsten carbide

238.are three times harder than high speed steel and commonly used for finishing cuts at high speed and fine feeds.

- Stellite
- ✓ Ceramics
- High speed steels
- High carbon steel
- Tungsten carbide

239.are the hardest known substance and commonly used for finish machining.

- ✓ Diamonds
- Ceramics
- High speed steels
- High carbon steel
- Tungsten carbide

240. The alloy used for brazing is known as.....(combination of copper and zinc).

- Stellite
- ✓ spelter
- High speed steels
- High carbon steel
- Tungsten carbide

241. The most popular methods for testing hardness is.....

- Brinell method
- Vicker method
- Rockwell method
- Shore method
- ✓ All the above

242. The major purpose of using lubricants is.....

- Reduce friction
- Prevents wear
- Prevents corrosion
- Cools the moving elements
- ✓ All the above

243.is the fluidity of the oil by which it can withstand high pressure or load without squeezing out from the bearing surface.
- Gravity
 - ✓ Viscosity
 - Oiliness
 - Thickness
244.refers to a combination of wettability, surface tension and slipperiness.(the capacity of oil to leave an oily skin on metal)
- Gravity
 - Viscosity
 - ✓ Oiliness
 - Greasiness
245. The temperature at which the vapour is given off from the oil is called....
- Pour point
 - ✓ Flash point
 - Fire point
 - Splash point
245. The temperature at which the oil catches fire and continues to be in flame is called....
- Pour point
 - Flash point
 - ✓ Fire point
 - Splash point
246. The temperature at which the lubricant is able to flow when poured is called....
- ✓ Pour point
 - Flash point
 - Fire point
 - Splash point
247.is known as the tendency of oil to mix with water.
- De-emulsion
 - ✓ Emulsion
 - Separation
 - Impulsion
248.is known as the readiness with which subsequent separation occurs.
- ✓ De-emulsion
 - Emulsion
 - Separation
 - Impulsion

249. When the load is removed the metal will not spring back to its original length. This is called its.....

- Break point
- ✓ Yield point
- Fatigue point
- Tensile point

250. Thehoist has two blocks one upper block and one working block.

- Screw-gear
- Spur-gear
- ✓ Differential
- Come along chain
- Fork lift

251. Thehoist uses two separate chains, one of it is endless chain.

- ✓ Screw-gear
- Spur-gear
- Differential
- Come along chain
- Fork lift

252. Thehoist has a gear reduction driven by the pocket sheave. (Driven by endless chain)

- Screw-gear hoist
- ✓ Spur-gear hoist
- Differential hoist
- Come along chain hoist
- Fork lift

253. The ratchet-operated hoist is known as.....

- Screw-gear hoist
- Spur-gear hoist
- Differential hoist
- ✓ 'Come along hoist'
- Fork lift

254. Theis used for lifting loads and shifting them in and around the factory

- Screw-gear hoist
- Spur-gear hoist
- Differential hoist
- 'Come along hoist'
- ✓ Fork lift

255. Normally these cranes are used where heavy loads are lifted/shifted.

- ✓ Jib cranes
- Traveling cranes
- Gantry cranes
- 'Come along hoist'

256. Normally these cranes are traveling cranes which is a moveable overhead.

- Jib cranes
- ✓ Traveling cranes
- Gantry cranes
- 'Come along hoist'

257. Normally these cranes are larger than overhead traveling cranes.

- Jib cranes
- Traveling cranes
- ✓ Gantry cranes
- 'Come along hoist'

258. It is the best-suited valve for main supply lines and pump-lines.

- ✓ Gate-valve
- Globe-valve
- Needle-valve
- Plug-valve

259. It allows only one-way flow valve for main supply lines and pump-lines.

- Gate-valve
- Globe-valve
- Needle-valve
- ✓ Non-return valve

260. It is the valve used controlling air, steam and water lines.

- Gate-valve
- ✓ Globe-valve
- Needle-valve
- Plug-valve

261. The.....valve resembles the globe valves and used to obtain a fine degree of control.

- Gate-valve
- Globe-valve
- ✓ Needle-valve
- Plug-valve

262. It is the best-suited valve for high-pressure lines.

- Gate-valve
- Globe-valve
- Needle-valve
- ✓ Plug-valve

263. It valve is held closed by a spring until a preset pressure is reached.

- Gate-valve
- Globe-valve
- Needle-valve
- ✓ Relief valve

264. The..... gears are used to transmit power between to parallel shafts

- Helical gear
- ✓ Spur gear
- Bevel gear
- Mitre gear
- Hypoid gear
- Rack and pinion
- Worm and worm-wheel gear

265. The..... gears are used to transmit power between to parallel shafts, but it runs silently.

- ✓ Helical gear
- Spur gear
- Bevel gear
- Mitre gear
- Hypoid gear
- Rack and pinion
- Worm and worm-wheel gear

266. The..... gears are used to transmit motion between shafts at various angles to each other.

- Helical gear
- Spur gear
- ✓ Bevel gear
- Mitre gear
- Hypoid gear
- Rack and pinion
- Worm and worm-wheel gear

267. The two bewel gears are symmetrical to each other and transmit motion at right angles.

- Helical gear

- Spur gear
- Bevel gear
- ✓ Mitre gear
- Hypoid gear
- Rack and pinion
- Worm and worm-wheel gear

268. These gears are widely used for speed reduction.

- Helical gear
- Spur gear
- Bevel gear
- Mitre gear
- Hypoid gear
- Rack and pinion
- ✓ Worm and worm-wheel gear

269. These gears are used to transmit rotary motion into linear movement.

- Helical gear
- Spur gear
- Bevel gear
- Mitre gear
- Hypoid gear
- ✓ Rack and pinion
- Worm and worm-wheel gear

270. These gears are used in automotive differential gearboxes.

- Helical gear
- Spur gear
- Bevel gear
- Mitre gear
- ✓ Hypoid gear
- Rack and pinion
- Worm and worm-wheel gear

271. The static seal used between the two smooth surfaces to prevent leakages.

- ✓ Paper
- PTFE
- Rubber gaskets
- Graphite impregnated
- Metallic
- Varnished paper

272. The static seal used to seal hot water and steam joints.

- Paper
- PTFE
- Rubber gaskets
- ✓ Graphite impregnated
- Metallic
- Varnished paper

273. This static seal is suitable for use at very low temperature application.

- Paper
- ✓ PTFE cord seal
- Rubber gaskets
- Graphite impregnated
- Metallic
- Varnished paper

274. The static seal is good for sealing flanges of cold-water connections.

- Paper
- PTFE
- ✓ Rubber gaskets
- Graphite impregnated
- Metallic
- Varnished paper

275. The static seal made of steel, copper or beryllium are used for high pressure joints commonly in hydraulic system.

- Paper
- PTFE
- Rubber gaskets
- Graphite impregnated
- ✓ Metallic
- Varnished paper

276. The static seal used between the two smooth surfaces in high temperature applications.

- ✓ Asbestos covered with copper sheet gasket
- PTFE
- Rubber gaskets
- Graphite impregnated
- Metallic
- Varnished paper

277. The static seal used between the two smooth surfaces where

paper seal would observe the liquids.

- Paper
- PTFE
- ✓ Varnish paper
- Graphite impregnated
- Metallic
- Varnished paper

278. The dynamic seal required to work under more exacting conditions i.e. high pressure conditions with circular or non-circular cross-section to prevent leakages.

- Radial lip seals
- ✓ 'O' rings
- Flange seals
- Spring loaded seal
- Wiper seals
- 'V' seals
- Labyrinth seals

279. The dynamic seal used primarily to retain lubricants in equipments with rotating, reciprocating or oscillating shafts.

- ✓ Radial lip seals
- 'O' rings
- Flange seals
- Spring loaded seal
- Wiper seals
- 'V' seals
- Labyrinth seals

280. These dynamic seals are used to retain low viscosity lubricants such as oils at speeds up to 1000m/min.

- Radial lip seals
- 'O' rings
- Flange seals
- ✓ Spring loaded seal
- Wiper seals
- 'V' seals
- Labyrinth seals

281. These dynamic seals are used in rotary and sliding operating conditions and are used to prevent dust or grit entering shaft bearings.

- Radial lip seals

- 'O' rings
- Flange seals
- Spring loaded seal
- ✓ Wiper seals
- 'V' seals
- Labyrinth seals

282. These are dynamic seals made of fabric reinforced or leather suitably used for high pressure conditions.

- Radial lip seals
- 'O' rings
- Flange seals
- Spring loaded seal
- Wiper seals
- ✓ 'V' seals
- Labyrinth seals

283. These dynamic seals are often used to form the seal between piston and cylinder assemblies in hydraulic equipments.

- Radial lip seals
- 'O' rings
- ✓ Flange seals
- Spring loaded seal
- Wiper seals
- 'V' seals
- Labyrinth seals

284. These dynamic seals are used primarily to seal gases in compressors and team turbines.

- Radial lip seals
- 'O' rings
- Flange seals
- Spring loaded seal
- Wiper seals
- 'V' seals
- ✓ Labyrinth seals

285. The act of joining slip gauges together is termed as.....

- Pickling
- Crippling
- Stamping
- ✓ Wringing

286. A jig is a special device.....

- Which holds the job
- Which locates the cutting tool
- Which guides the tool
- ✓ Which holds, support, locates and also guides the cutting tool

287. A fixture is a production tool that.....

- Which locates the component
- Which holds the components
- Which controls the cutting tool
- ✓ Which locates and holds the component

288. The portion of the shaft carried in the bearing is often referred to as..

- Cage
- Thrust
- ✓ Journal
- Race

289. In a plain bush bearing, to prevent the rotation of bush in the housing, it should be fitted by means of.....

- Soldering
- ✓ Key or screw
- Brazing
- Welding

290. The sensitiveness of the spirit level depends upon the

- Size of the bubble
- Length of the glass tube
- Type of liquid filled in the glass tube
- ✓ Curvature of the glass tube

291. S.W.L related to cranes means.....

- Safety while loading
- Swift work load
- ✓ Safe working load
- Swinging work lift

292. The included angle of a pipe thread is.....

- 60°
- 47°
- ✓ 55°
- 45°

293. The valve used to control flow is the

- ✓ Globe

- Gate
- Check
- Relief

294. In globe valves the pressure is usually

- On the left side
- Against the stem
- On the right side
- ✓ Under the seat

295. The minimum cranking speed required in petrol engines is.....

- 50 to 60 rpm
- ✓ 60 to 80 rpm
- 20 to 30 rpm
- 100 to 200 rpm

296. The device used for reducing the exhaust noise is called

- Silencer
- Flame arrestor
- ✓ Muffler
- Exhaust pipes

297. The self starter motor for automobiles is aseries motor.

- A.C
- ✓ D.C

298. An automobile radiator is filled withwater.

- Potable
- Fresh
- Soft
- Hard

299. The bore of the hydraulic cylinder is finished by.....

- Grinding
- Boring
- ✓ Honing
- Broaching

300. The energy that body has by virtue of its position or configuration is called.....

- ✓ Potential energy
- Kinetic energy
- Solar energy
- Nuclear energy