

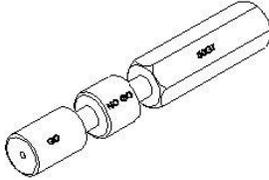
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**Multiple Choice
Practice
Questions
for
ONLINE/OMR
AITT-2020
2nd Year Fitter
Trade Theory**

FASTENERS

1. Seams are commonly used in.....
A. Sheet metal working, B. Furniture making, C. Construction work, D. Riveting.
2. The distance a screw thread advances axially in one turn is the.....
A. Lead, B. Crest, C. Turn, D. Pitch.
3. The distance from a given point on one thread to corresponding point on the next thread is called.....
A. Helix, B. Pitch, C. Lead, D. Travel.
4. This type of thread is a thread on the inside of a member.....
A. Basic thread, B. External thread, C. Internal Thread, D. Major diameter thread.
5. Root diameter of a thread is another name for.....
A. Major diameter, B. Main Diameter, C. Minor Diameter, D. Base Diameter.
6. This is the smallest diameter of a screw thread.....
A. Major diameter, B. Main Diameter, C. Minor Diameter, D. Base Diameter.
7. Bolt that is used to create a pivot point is called.....
A. Shoulder bolt, B. J-bolt, C. U-bolt, D. Carriage bolt.
8. Which type of threads are used to transmit power in one direction?
A. Square thread, B. Buttress threads, C. Both (a) & (b), D. Non of the above.
9. The most common shape of nut is.....
A. Square, B. Hexagonal, C. Round, D. Flat.
10. A small headless screw having a slot cut for a screw driver is called....
A. Grub screw, B. Set screw, C. Stud, D. Thumb screw
11. The head of a thumb screw is in shape.....
A. Hexagonal, B. Square, C. Circular, D. Triangular.
12. A key that fits into a semicircular keyway cut in the shaft is.....
A. Gib head key, B. Feather key, C. Woodruff key, D. Saddle key.
13. Which of the following threads have greater pitch and lead angle for a given nominal diameter when compared with each other?
A. Coarse thread, B. Fine thread, C. Both (a) & (b), D. Non of the above.
14. Which type of screw fasteners are threaded at both the ends?
A. Through bolt, B. Tap bolt, C. Studs, D. All of the above.
15. If threads on a bolt are left hand, threads on nut will be.....
A. Right hand with same pitch, B. Left hand with same pitch, C. Could be left or right hand, D. Right hand with fine pitch.
16. Which special file is used for narrow work?
A. Pillar file, B. Square file, C. Dread naught file, D. Swiss pattern file.
17. Why slots are provided in the slotted castle nuts?

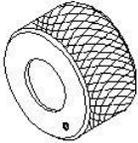
A. To fix split pins, B. For good appearance, C. Reduce the weight of nut, D. For easy removal and fitment

18. What is the name of limit gauge?



A. Plain ring gauge, B. Taper plug gauge, C. Progressive plug gauge, D. Double ended plug gauge.

19.. What is the name of gauge?



A. Ring gauge, B. Plug gauge C. Taper ring gauge, D. Taper plug gauge.

20. Which gauge is used to check the gap between the mating parts?

A. Slip gauge, B. Plug gauge, C. Feeler gauge, D. Radius gauge.

21. Which material is used to clean the slip gauge?

A. Wax, B. Kerosene, C. Soluble oil, D. Carbon tetra chloride.

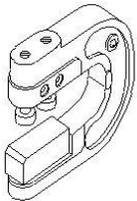
22. Which material is used to protect slip gauge from rust?

A Oil , B. Wax ,C. Kerosene, D. Petroleum jelly.

23. What is the procedure to built up the slip gauge for particular dimension?

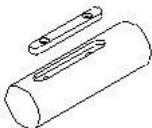
A. Start wringing with the largest slip gauges, B. Maximum number of block, C. Built with grade 0 accuracy, D. Start wringing with the small slip gauge.

24. What is the name of the gauge?



A .Plain snap gauge, B. Thread snap gauge, C. Thread pitch gauge, D. Adjustable snap gauge

25. What is the name of the key?



A. Sunk key, B. Feather key, C. Flat saddle key, D. Hollow saddle key.

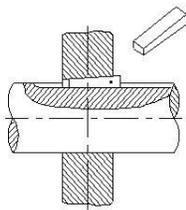
26. What is the purpose of key?

A. To transmit torque, B. Assembly purpose, C. Lock the assembly part, D. Permit clearance between mating part.

27. What is the ratio of key way taper?

A. 01:19:00, B. 01:20:00, C. 01:50:00, D. 1:100.

28. What is the name of key?



A. Taper sunk key, B. Flat saddle key, C. Parallel sunk key, D. Hollow saddle key.

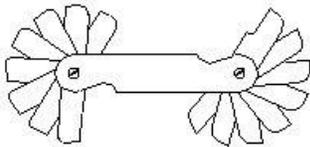
29. Which type of metal screws useful for self tapping on hard or brittle materials?

A. Self piercing, B. Thread cutting, C. Thread forming , D. Hammer driven screw.

30. What is the advantage of wing nut?

A. In coach building work, B. Heavy duty assembly work, C. Loosen and tighten without wrench, D. Provide decorative appearance.

31. What is the name of gauge?

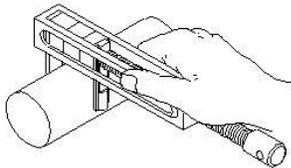


A. Pitch gauge, B. Angle gauge, C. Feeler gauge, D. Radius gauge.

32. Which gauge is used to check the accuracy of an external thread?

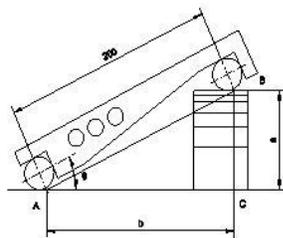
A. Snap gauge, B. Thread ring gauge, C. Thread plug gauge, D. Centre gauge.

33. What is the instrument used in measuring external diameter?



A. Vernier caliper, B. Outside caliper, C. Parallel leg caliper, D. Pair of special jaws by using slip gauge.

34. Find out the height of slip gauge 'a'?($\sin 25^\circ = 0.4226$)



A. 84.50 mm, B. 84.52 mm, C. 84.51 mm, D. 85.20 mm.

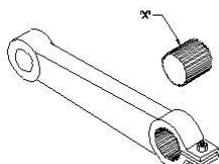
35. How many set of feeler gauges are available as per BIS?

A. Set No: 1, 2, **B.** Set No: 1, 2, 3, 4, **C.** Set No: 1, 2, 3, 4, 5, **D.** Set No: 1, 2, 3, 4, 5, 6.

36. What material is used to make radius and fillet gauge?

A. Tool steel, B. Hardened steel sheet, C. High carbon steel, D. Medium carbon steel.

37. What is the name of part marked as X?



A. Taper shaft, B. Splined shaft, C. Serrated shaft, D. Screw pitch gauge.

38. Which key has rectangular cross section is fit into keyway cut on both shaft and hub?

A. Sunk key, B. Feather key, C. Flat saddle key, D. Hollow saddle key.

39. Which key is useful for fitting on tapered shafts?

A. Feather key, B. Gib head key, C. Woodruff key, D. Flat saddle key.

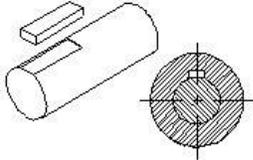
40. Where is circular taper key used?

A. Light duty transmission, B. Bi-directional rotation, C. Lengthy shaft, D. Tapered shaft.

41. How the plain bearings are kept in a position without allowing them to rotate along with the shaft?

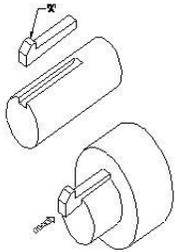
A. By clamps, B. By bolt and nut, C. By key or screws, D. By locking device.

42. What is the name of key?



A. Flat saddle key, B. Taper sunk key, C. Parallel sunk key, D. Hollow saddle key.

43. What is the name of key?



A. Sunk key, B. Feather key, C. Gib head key, D. Woodruff key.

44. What is the file for lock repair and filing hard notches in keys?

A. Pillar file, B. Flexible file, C. Warding file, D. Swiss pattern file.

45. What is the name of screw?

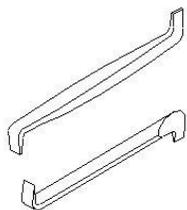


A. Grub screw, B. Driver screw, C. Self tapping screw, D. Thread cutting screw.

46. What is the advantage of lock washer?

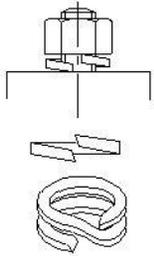
A. Provide increased bearing surface, B. Prevent the damage to the surface, C. Distribute even pressure on working surface, **D. Prevent bolt or nut from loosening under vibration.**

47. What is the name of screw driver?



A. Offset screw driver, B. Philips screw driver, C. Standard screw driver, D. Heavy duty screw driver.

48. What is the name of locking device?



A. Tab washer, B. Locking plate, C. Lock washer, D. Spring washer.

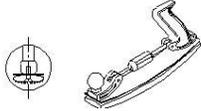
49. What is the advantage of using Gib headed key?

A. Used for tapered fittings, B. Can be withdrawn easily, C. Provides unidirectional torque. D. Good in high speed application.

50. Which file is used for finishing sharp corners?

A. Pillar file, B. Riffler file, C. Barrette file, D. Warding file.

51. What is the name of file?



A. Tinker's file, B. Crossing file, C. Swiss pattern file, D. Dread naught file.

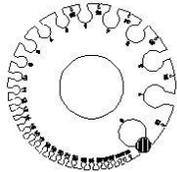
52. Which device is used to check the work piece to confirm the shape?

A. Profile gauge, B. Snap gauge, C. Caliper gauge, D. Progressive gauge.

53. What is the purpose of feeler gauge?

A. Check the depth of drilled hole, B. Check the pitch of screw thread, C. Check the radius of work piece, D. Check the gap between the mating parts.

54. What is the name of gauge?



A. Drill gauge, B. Centre gauge, C. Profile gauge, D. Standard wire gauge.

55. Which gauge is used to check the outside diameter of a cylindrical shaft?

A. Plug gauge, B. Plain ring gauge, C. Taper ring gauge, D. Progressive plug gauge.

56. What is the act of joining the slip gauges together for building up sizes?

A. Glazing, B. Pinning, C. Loading, D. Wringing.

57. What material is used to make sine bar?

A. Invar steel, B. High speed steel, C. High carbon steel, D. Stabilized chromium steel.

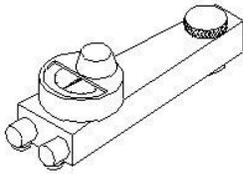
58. How the length of sine bar is specified?

A. Distance between outer point of roller, B. Distance between inner point of roller, C. Distance between centre point of rollers, D. Distance between the edges of sine bar.

59. Which one forms the hypotenuse of the triangle while checking with sine bar?

A. Surface plate, B. Sine bar width, C. Sine bar length, D. Slip gauges height.

60. What is the name of surface texture measuring instrument?



A. Dial test indicator, B. Electrical surface indicator, C. Electronic surface indicator, D. Mechanical surface indicator.

61. Which type of key used if the hub of pulley has to axially slide on the shaft to some distance?

A. Feather key, B. Flat saddle key, C. Circular taper key, D. Hollow saddle key.

62. What is the name of file?



A. Pillar file, B. Warding file, C. Dreadnaught file, D. Swiss pattern file.

63. Which nut protects the bolt end thread from damages?

A. Cap nut, B. Castle nut, C. Slotted nut, D. Knurled nut.

64. Which grade slip gauge is used for precision tool room applications?

A. Grade 00, B. Grade 0, C. Grade I, D. Grade II.

65. Which material is used to make slip gauge block?

A. Tool steel, B. Low grade steel, C. High grade steel with low thermal expansion, D. High carbon steel.

66. Which type of key is used for transmitting high torque on both direction of rotation?

A. Flat saddle key, B. Taper sunk key, C. Woodruff key, D. Tangential key.

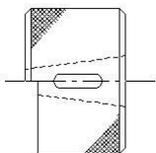
67. What is the use of ring gauge?

A. Check hole diameter, B. Check shaft diameter, C. Check tapered shaft diameter, D. Check internal thread diameter.

68. Which gauge is used to check the accuracy of an internal thread?

A. Ring gauge, B. Snap gauge, C. Thread ring gauge, D. Centre gauge.

69. What is the name of the gauge?



A. Ring gauge, B. Snap gauge, C. Taper ring gauge, D. Internal thread gauge.

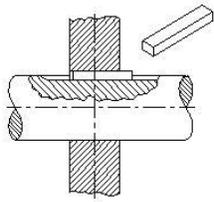
70. What is the procedure to select the slip gauge for particular dimension?

A. Built with grade accuracy, B. Minimum number of blocks, C. Maximum number of block, D. Start wringing with small size slip gauge.

71. Which type of key has one face curvature to match shaft surface?

A. Sunk key, B. Flat saddle key, C. Circular taper key, D. Hollow saddle key.

72. What is the name of key?



A. Parallel sunk key, B. Gib head key, C. Wood ruff key, D. Tapper sunk key

73. Why square head screws are provided with collar?

A. Protect work surface, B. Raise the head width, C. Provide leak proof joint, D. Provide access for tools.

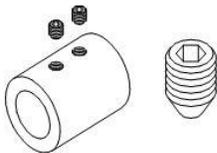
74. What is the purpose of taper plug gauges?

A. Check the hole with perfect fit, B. Check the inside threaded dia, C. Check tapered hole with perfect fit, **D. Check the taper accuracy of outside dia.**

75. What is lead of multi start thread?

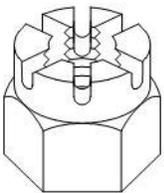
A. Pitch x no of starts, B. Lead x no of starts, C. Pitch x major diameter, D. Pitch x minor diameter

76. What is the type of screw?



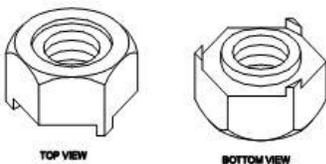
A. Hexagon head screw, B. Grub screws, C. Round head screw, D. Square head screw.

77. What is the name of the nut?



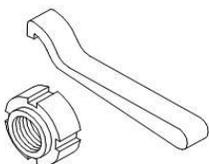
A. Castle nut, B. Slotted nut, C. T – Nut, D. Cap nut.

78. What is the name of nut?



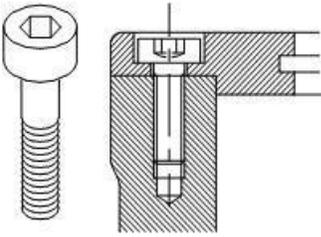
A. Castle nut, B. Hexagon weld nut, C. Hexagon nut with collar, D. Self locking nut.

79. What is the name of tool?



A. Face wrench, B. Hook spanner, C. Face pin wrench, D. Pin wrench.

80. What is the type of screw?



A. Hexagon socket head cap screws, B. Hexagon head screws, C. Counter sink head screws, D. Raised cheese head screws.

81. What is the file that is rectangular in section and parallel in width with one safe edge?

A. Dreadnaught file, B. Pillar file, C. Warding file, D. Swiss pattern file.

82. Which file has double cut on faces and single cut at edges?

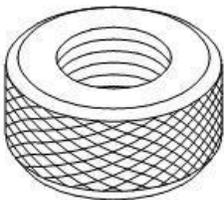
A. Pillar file, B. Single cut file, C. Rasp cut file, D. Warding file.

83. What is the name of file?



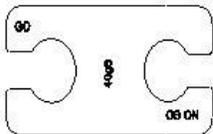
A. Pillar file, B. Warding file, C. Swiss pattern file, D. Dreadnaught file.

84. What is the name of gauge?



A. Thread plug gauge, B. Thread ring gauge, C. Caliper gauge, D. Ring gauge.

85. What is the name of gauge?

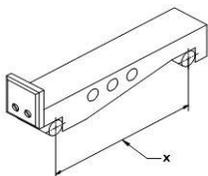


A. Taper gauge, B. Snap gauge, C. Progressive plug gauge, D. Double end plug gauge.

86. What is the use of drill gauge?

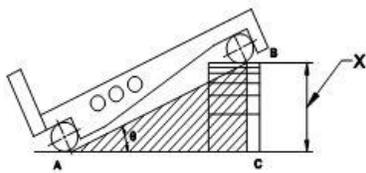
A. Check the diameter of the drill, B. Check the length of the drill, C. Check the cutting angle of the drill, D. Check the lip length.

87. What is marked as 'X'?



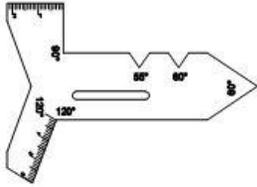
A. Length, B. Depth surface, C. Contact rollers, D. Width.

88. What is marked as 'X'?



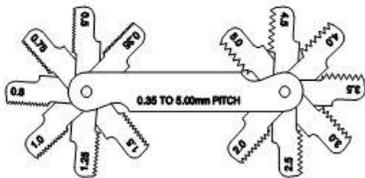
A. Height of slip gauge, B. Length of sine bar, C. Datum surface D. Adjacent side.

89. What is the name of gauge?



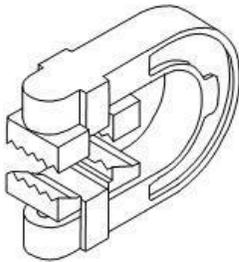
A. Screw pitch gauge, B. Angle gauge, C. Slip gauge, D. Centre gauge.

90. What is the name of gauge?



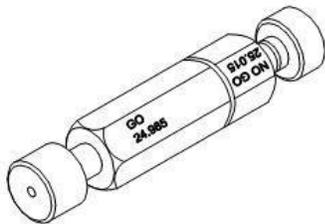
A. Centre gauge, B. Screw pitch gauge, C. Radius gauge, D. Snap gauge.

91. What is the type of gauge?



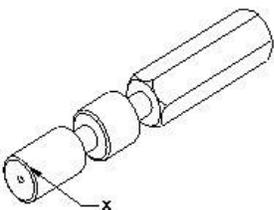
A. Thread ring gauge, B. Roller type thread caliper gauge, C. Thread plug gauge, D. Anvil type thread snap gauge.

92. What is the type of gauge?



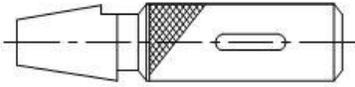
A. Double ended plug gauge, B. Progressive plug gauge, C. Taper plug gauge, D. Taper ring gauge.

93. What is marked as 'X'?



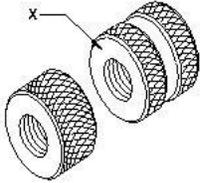
A. Double ended plug gauge - No Go, B. Progressive plug gauge – Go, C. Taper plug gauge – Go, D. Progressive plug gauge - No Go.

94. What is the gauge?



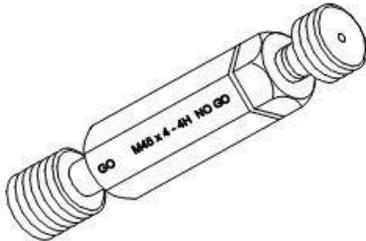
A. Snap gauge, B. Progressive plug gauge, C. Taper ring gauge, D. Taper plug gaug.

95. What is marked as 'X'?



A. Thread ring gauge – Go, B. Thread ring gauge - No Go, C. Ring gauge, D. Thread pitch gauge.

96. What is the name of gauge?



A. Thread ring gauge, B. Thread plug gauge, C. Thread pitch gauge, D. Taper plug gauge.

97. What type of screws are used in the places where frequent removal and assembling?

A. Square head screws, B. Hexagon socket head cap screws, C. Round head screws, D. Cheese head screws.

98. What type of nuts are used in coach building work?

A. Square nut, B. T-nuts, C. Wing nuts, D. Cap nuts.

99. What is the name of nut having top part in cylindrical shape and bottom part in hexagonal shape?

A. Slotted nut, B. T – Nuts, C. Cap nuts, D. Castle nuts.

100. Which type of machine screw used in heavy duty assembly work?

A. Pan head screw, B. Cheese head screw, C. Round head screw, D. Hexagon head screws.

101. Which type of machine screw is used in light assembly work?

A, Hexagon head screw, B. Cheese head screw C. Hexagon socket head cap screws, D. Square head counter sink head screws.

102. Which file with sharp and parallel teeth used on soft and non metallic materials?

A. Pillar file, B. Tinker file, C. Dreadnaught file, D. Warding file.

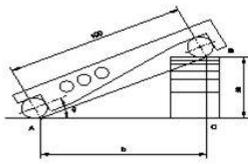
103. Which file used as finishing tool and ensure precision smoothness?

A. Swiss pattern file, B. Pillar file, C. Dreadnaught file, D. Warding file.

104. What is the thickness range of BIS set of feeler gauge?

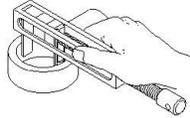
A. 0.01 mm to 1 mm in steps of 0.01 mm, B. 0.02 mm to 1 mm in steps of 0.02 mm, C. 0.03 mm to 1 mm in steps of 0.01 mm, D. 0.04 mm to 1 mm in steps of 0.01 mm.

105. What is the height of slip gauge ($q = 25^\circ = 0.4226$)?



A.41.26, B. 42.26, C. 43.26, D. 44.26

106. What is the instrument used for measuring internal diameter of work piece?

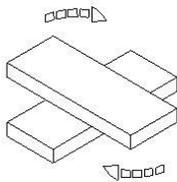


A. Parallel leg caliper, B. Outside caliper, C. Pair of special jaws by using slip gauge, D. Vernier caliper.

107. What is the calibration grade of slip gauges?

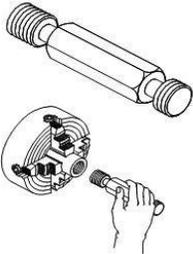
A. Grade 0, B. Grade 00, C. Grade I, D. Grade II.

108. What is the method of build of size using slip gauge?



A. Wringing, B. Sliding, C. Glazing, D. Loading.

109. What is the gauge used?



A. Thread ring gauge, B. Thread plug gauge, C, Screw pitch gauge D, Thread caliper gauge.

110. What is the purpose of ring gauge?

A. Check the outside diameter , B. Check the holes diameter, C. Check the tapered shaft diameter, D. Check the outside threads.

111. What is the range of size in individual radius gauges?

A .Step of 1mm, B. Step of 0.5mm, C. Step of 1.5mm. D, Step of 2mm.

112.Nut is a.....

A. Temporary fastener, B. Semi-permanent fastener, C. Permanent fastener, D. Non of these.

113.The standard taper of pin is

A.1:20,B.1:30,C.1:40,D.1:50.

114.Which bolt is without head?

A. Head less bolts, B. Eye bolt, C. Hook bolt. D. Rag bolt.

115.Which key has one face as curvature to match the shaft surface?

A. Sunk key, B. Flat saddle key, C. Hollow saddle key, D. Circular taper key.

116.Which type of nut will have a nylon or fibre ring insert placed in the upper part of the nut/

A. Self locking nut, B. Wire block, C. Saw nut, D. Grooved nut.

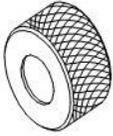
117. Maximum keys are made up of.....

A. High speed steel, B. Mild steel, C. Cast iron, D. Pig iron.

118. Where the circular taper key is used?

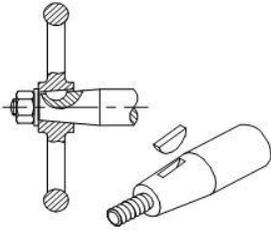
A. Light duty transmission, B. Heavy duty transmission, C. Low speed requirements, D. High speed requirements.

119. What is the gauge to check acceptable size on external diameter of a shaft?



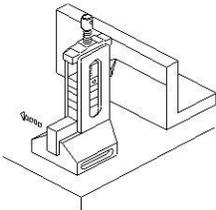
A. Ring gauge – Go, B. Plug gauge – Go, C. Ring gauge - No Go, D. Plug gauge - No Go.

120. What is the type of key?



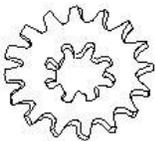
A. Feather key. B. Gib head key, C. Woodruff key, D. Flat saddle key.

121.. What is the name of instrument?



A. Depth vernier gauge, B. Vernier height gauge, C. Clamp type height gauge, D. Height gauge with slip gauge holder.

122. What is the name of washer?



A. Internal type washer, B. External type washer, C. Internal and External washer, D. Counter sunk washer.

123.. Fastening of one part of a rope to another part of the rope is known as

A. Loop B. Bight C. Knot D. Round turn.

124. Leveling bolts are used for.....

A. Supporting the load for machine B. Adjusting the height of machine C. Rigidity of machine D. None of the above

125.. The root of ISO metric thread is

A. Flat, B. Round, C. Sharp corner, D. None of the above.

Answer

CHAPTER-FASTENER

1-A,2-A,3-B,4-C,5-C,6-C,7-A,8-B,9-B,10-A,11-C,12-C,13-A,14-C,15-B,16-A,17-A,18-C,19-A,20-C, 21-B, 22-D, 23-D,24-D,25-B,26-A,27-D,28-A,29-B,30-C 31-D,32-D,33-D,34-B,35-B, 36-B, 37-C, 38-A,39-C, 40-A,41-C,42-A,43-C,44-C,45-B,46-D,47-A,48-D, 49-B,50-C,51-A,52-A,53-D,54-D,55-B, 56-D,57-D, 58-C,59-C, 60-D,61-A, 62-B,63-A,64-C,65-C, 66-D,67-B,68-C,69-C,70-D, 71-D,72-A, 73-A,74-C, 75-A,76-B,77-A,78-B,79-B,80-A,81-B,82-D, 83-C,84-B,85-B,86-A,87-A,88-A,89-D,90-B, 91-D,92-A,93-B,94-D,95-B,96-B, 97-A,98-A,99-A,100-D,101-D,102-C,103-A,104-B,105-B,106-C, 107-B,108-A,109-B,110-A, 111-A,112-A,113-A,114-A,115-C,116-D,117-B,118-A,119-A,120-C, 121-D,122-C,123-C,124-B,125-B,

SURFACE FINISH

1. Which material is to wash off the lapping plate after charging?

A. Oil, B. Kerosene, C. Coolant oil, D. Petroleum jelly

2. Which finishing process have a high degree of dimensional accuracy?

A. Filing, B. Turning, C. Grinding, D. Lapping.

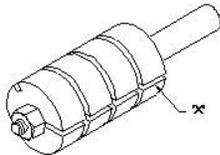
3. Which is the abrasive used for lapping soft steel and non-ferrous metals?

A. Silicon carbide, B. Diamond, C. Boron carbide, D. Fused alumina.

4. Why grooves are provided on the surface of the lapping plate?

A. To allow expansion, B. To provide clearance, C. To retain the abrasives, D. To permit minor adjustment.

5. What is the part marked as 'x' in lapping tool?

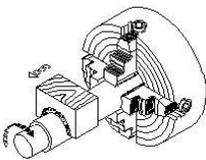


A. Slit, B. Bush, C. Sleeve, D. Groove.

6. What is the purpose of slit provided in the lapping tool?

A. For clearance, B. For expansion, C. To retain abrasive, D. To adjust the sleeve.

7. What is the name of operation?



A. Internal ring lapping, B. External ring lapping, C. Lapping internal cylinder, D. Lapping large diameter.

8. What type of abrasives are used in honing cast iron and non-ferrous materials?

A. Diamond, B. Boron carbide, C. Silicon carbide, D. Aluminium oxide.

9. What is the effect of excessive application of abrasive compound in lapping operation?

A. Developing inaccuracies, B. Bright spots will be visible, C. Obstruct component movement, D. Lapping compound will be sticky.

10. What is caused if the lap is harder than the work piece?

A. Work piece will cut the lap, B. Accuracy can't be obtained, C. Lap will cut the work piece, D. Lapping operation leaves high spots.

11. Which material is used to make small diameter laps?

A. Cast iron, B. Aluminium, C. Bronze or zinc, D. Copper or brass.

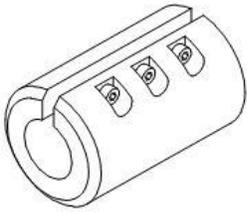
12. Why manual stroking is preferred for large quantities in honing operation?

A. To reduce cost, B. To reduce time, C. To keep close tolerance, D. To reduce maintenance cost.

13. Which operation is performed with fine abrasive particles?

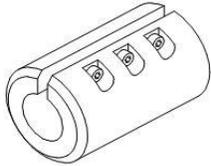
A. Filing, B. Lapping, C. Scraping, D. Polishing.

14. Which process improves the quality of fit between the mating components?
A. Filing, B. Turning, C. Grinding, D. Lapping.
15. Which abrasive is used for lapping hardened steel and cast iron?
A. Silicon carbide, B. Boron carbide, C. Aluminium oxide, D. Fused aluminum.
16. Which finishing operation is performed by the tool that rotate and reciprocate simultaneously?
A. Drilling, B. Honing, C. Lapping, D. Grinding.
17. Why holes are provided in ring type lapping?
A. Lubrication. B. Removal of heat, **C. Hold lapping compound**, D. Increase the efficiency
18. Why slots are provided in the adjustable ring lap?
A. For lubrication, B. Permit clearance, C. For expansion, D. Permit feeding of lapping compound.
19. Which abrasive has excellent cutting properties and expensive?
A. Diamond, B. Boron carbide, C. Silicon carbide, D. Aluminium oxide.
20. What is lapping?
A. Filing operation, B. Grinding operation, C. Chiseling operation, D. Precision finishing operation.
21. What is the finishing process carried out with abrasive sticks to correct the profile of internal cylindrical surfaces?
A. Lapping, B. Honing, C. Grinding, D. Filing.
22. Which lapping material used for easy charging and rapid cutting?
A. Cast iron, B. Copper and brass, C. Close grained iron, D. White cast iron.
23. Which lap material is inexpensive and can be expanded if worn out?
A. Brass, B. Cast iron, C. Lead, D. Bronze.
24. Which type of abrasive material is externally hard and used in lapping for heavy stock removal?
A. Silicon carbide, B. Aluminium oxide, C. Boron carbide, D. Diamond.
25. Which abrasive is used for lapping dies and gauges?
A. Boron carbide, B. Silicon carbide, C. Diamond, D. Aluminium oxide.
26. Which is the hardest of all abrasive material and used for lapping tungsten carbide?
A. Silicon carbide, B. Boron carbide, C. Diamond. D, Aluminium oxide.
27. What is the abrasive used for lapping accurately finishing very small holes?
A. Silicon carbide, B. Diamond, C. Boron carbide, D. Aluminium oxide.
28. What is the purpose of lapping vehicles?
A. Regulate cutting action and lubricate surface, B. Medium effective operation, C. Decrease dimensional accuracy, D. Decrease cutting ability.
29. Which lapping vehicle is used for lapping copper and its alloys?
A. Vegetable oil, B. Machine oil, C. Soluble oil, D. Petroleum jelly.
30. What is the purpose of lapping tool?



A. Lapping tool for external surface, B. Lapping tool for internal surface, C. Lapping tool for external cylindrical surface, D. Lapping tool for internal cylindrical surface.

31. What is the name of lap tool?



A. Split bush lap, B. Adjustable ring lap, C. Adjustable solid lap, D. Charging cylindrical lap.

32. Which of the following is a surface finishing operation?

A. Drilling, B. Honing, C. Milling, D. Turning

33. Which of the following is a surface finishing operation?

A. Drilling, B. Lapping, C. Milling, D. Turning

34. Which of the following material cannot be machined using electronic discharge machine?

A. Iron, B. Aluminum, C. Copper, D. Wood

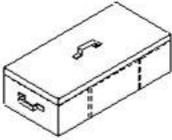
Answer

CHAPTER-SURFACE FINISH.

1-D, 2-D, 3-D, 4-C, 5-A, 6-B, 7-D, 8-C, 9-A, 10-A, 11-D, 12-C, 13-C, 14-D, 15-A, 16-B, 17-C, 18-D, 19-B, 20-D, 21-A, 22-B, 23-B, 24-A, 25-A, 26-C, 27-B, 28-A, 29-C, 30-C, 31-A, 32-B, 33-B, 34-D,

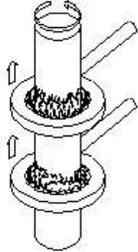
HEAT TREATMENT

1. What is the method of surface hardening?



A. Nitriding, **B. Pack – carburizing**, C. Flame hardening, D. Induction hardening.

2. What is the method of surface hardening?



A. Nitriding, B. Case hardening, C. Flame hardening, D. Induction hardening.

3. What is the name of the heat treatment process for reheating the hardened steel to a temperature below 400°C followed by cooling?

A. Annealing, B. Hardening, C. Tempering, D. Normalising.

4. Why the tempering process carried out in steel?

A. To add cutting ability, B. To relieve strain and stress, C. To refine the grain structure, D. To regulate the hardness and toughness.

5. What is the purpose of annealing in steel?

A. To add cutting ability, B. To increase wear resistance, C. To relieve the internal stress, D. To refine the grain structure of the steel.

6. Which method of surface hardening, the surface remains free from scales?

A. Nitriding, B. Case hardening, C. Flame hardening, D. Induction hardening.

7. What is the process if the steel is heated above critical temperature and soaking it for sufficient time and cooling it very slowly within furnace?

A. Annealing, B. Hardening, C. Tempering, D. Normalising.

8. What is the process to refine the structure of steel component?

A. Tempering, B. Annealing, C. Hardening, D. Normalising.

9. Which method of surface hardening is done in a heated salt bath?

A. Flame hardening, B. Gas carburizing, C. Pack carburizing, D. Liquid carburizing.

10. What is the purpose of hardening?

A. Refine the structure, B. Increase toughness, C. Increase cutting ability, D. Relieve stress and strain.

11. Which method of heat treatment to improve machinability and ductility in the job?

A. Annealing, B. Hardening, C. Tempering, D. Normalizing.

12. What is the disadvantage of flame hardening in the heat treatment process?

A. More distortion B. Long hardening time, C. Small depth of hardening, D. Not suitable for small work pieces.

13. What is the name of method in metallic coating done by rolling or drawing the layers of metal on the base metal?

A. Spraying, B. Cladding, C. Enameling, D. Molten metal bath.

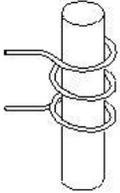
14. What is the purpose of normalizing?

A. Add cutting ability, B. Develop high hardness. C. Increase wear resistance, D. Remove stress and strain.

15. Which structure of steel contain 0% carbon?

A. Ferrite, B. Pearlite, C. Austenite, D. Cementite.

16. What is the method of surface hardening?



A. Nitriding, B. Case hardening, C. Flame hardening, D. Induction hardening.

17. Which type of cutting tool is tempered by heating upto 230°C?

A. Taps, B. Drills, C. Turning tool, D. Reamers.

18. Why normalising process is carried out in steel?

A. To add cutting ability, B. To develop high hardness, C. To remove stress and strain, D. To increase wear resistance.

19. Which heat treatment process increases the wear resistance of steel?

A. Annealing, B. Tempering, C. Hardening, D. Normalising.

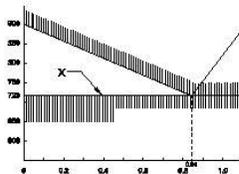
20. What is the purpose of annealing?

A. To soften the steel, B. To add cutting ability, C. To increase wear resistance, D. To refine the grain structure of the steel.

21. What is the quenching media used in heat treatment to obtain faster rate of cooling?

A. Brine solution, B. Air, C. Oil, D. Water.

22. What is marked as 'X' ?



A. Upper critical temperature, B Lower critical temperature ,C. Austenite, D. Ferrite.

23. What is the angle of elbows and bends that provide diversions?

A .90° & 45°, B. 30° & 60°, C. 20° & 40°, D. 70° & 120°.

24. What is the temperature that change of structure to austenite starts at 723° in heat treatment process?

A. Lower critical temperature, B. Upper critical temperature, C. Melting temperature, D. Critical temperature.

25. What is the process if hot steel is cooled slowly the old structure is retained and it will have fine grains that makes it easily machined?

- A. Annealing, B. Hardening, C. Tempering, D. Normalising.
26. What is the name if hot steel cooled rapidly to form a new structure ?
A. Ferrite, B. Austenite, C. Martensite, D. Pearlite.
27. What is the process to add cutting ability and wear resistance on steel?
A. Tempering, B. Annealing, C. Normalising, D. Hardening.
28. What is the heat treatment process to remove extreme brittleness and induce toughness and shock resistance in steel?
A. Tempering, B. Annealing, C. Normalising, D. Hardening.
29. What is the process of steel being heated to required temperature and held in the same temperature for a period of time?
A. Soaking, B. Heating C. Quenching D. Hardening.
30. What is the purpose of brine solution, water, oil and air used in heat treatment process?
A. Soaking, B. Quenching, C. Heating, D. Austenite.
31. What quenching media is used for special alloy steels?
A. Brine solution, B. Water, C. Oil, D. Cold Air.
32. What is the heat treatment process of reheating the hardened steel to a temperature below 400°C followed by cooling?
A. Tempering, B. Hardening, C. Annealing, D. Normalising.
33. What is the advantage of annealing ?
A. To relieve the internal stress, B. To add cutting ability, C. To refine the grain structure of the steel, D. To increase wear resistance.
34. What is the process of removing the internal defects of steel components?
A. Annealing, B. Normalising, C. Hardened, D. Tempering.
35. How the mechanical properties of steel like strength, toughness, ductility are affected?
A. By tempering, B. By hardening, C. By annealing, D. By normalizing.
36. "CYANIDING" and "NITRIDING" are two methods of
A. Hardening B. Case hardening C. Tempering D. Normalizing
37. In case of steel, through which one of the following processes, there will be no increase in hardness
A. Alloying with chromium, B. Hammering, C. Rolling, D. Heating above 600°C and slow cooling.
38. Which one of the following processes is used for hardening the surface of tool steel
A. Carburizing, B. Cyaniding, C. Induction hardening, D. Hardening.
39. While normalizing, the component should be cooled by.....
A. Dipping in water, B. Forced air, C. Quenching oil, D. Air room temperature.
40. The main purpose of annealing is.....
A. To increase the hardness, B. To increase the toughness, C. To improve the machineability. D. To remove the distortion.
41. Tempering is the process of removing the property of
A. Brittleness, B. Malleability, C. Toughness, D. Ductility.
42. Which defect arises due to faulty heat treatment?

A. Over heating and burring, B. Oxidation and decarburization. C. Cracks distortion and warping, D. All of these.

43. In general, hardening is followed by.....

A. Annealing, B. Tempering, C. Case hardening, D. None of these.

44. The transformation of austempering give the product of.....

A. Martensite, B. Bainite, C. Cementite, D. Ledeburite.

45. The term heat treatment is used to describe a process controlled by.....

A. Temperature, B. Heating, C. Cooling, D. Both (a) & (b).

46. Carbon nitriding is carried out in a gas mixture consisting of carburizing gas and.....

A. Nitrogen, B. Sulphur, C. Hydrogen, D. ammonia.

47. Annealing process is used to

A. Soften the steel, B. Refine the structure, C. Increase the hardness, D. Provide wear resistance.

48. Which defect arises due to faulty heat treatment?

A. Over heating and burring, B. Oxidation and decarburizing, C. Cracks distortion and warping, D. All of these.

49. The carburizing is done on

A. High carbon steel, B. Medium carbon steel, C. Low carbon steel. D. High speed steel.

50. The purpose of tempering a hardened steel component is for.....

A. Increasing its hardness, B. Reducing its brittleness, C. Increasing its ductility, D. Increasing its toughness.

51. The main purpose of annealing is.....

A. To improve machinability, B. To improve magnetism, C. To improve hardness, D. To increase toughness.

52. The external surface of the part made of mild steel can be hardened by.....

A. Tempering, B. Normalizing, C. Case hardening, D. Hardening.

53. After hardening process, the metal becomes more...

A. Malleable, B. Brittle, C. Tough, D. Ductile.

54. Cyaniding and nitriding are the two methods of which following process?

A. Hardening, B. Case hardening, C. Tempering, D. Normalizing.

55. Lower critical temperature of high carbon steel while hardening.....

A. 560°C , B. 723°C , C. 850°C , D. 960°C .

56. The sliding surface of lathe bed are

A. Flame hardened, B. Case hardened, C. Normalizing, D. Tempered.

57. The purpose of normalizing is to.....

A. Soften the metal, B. Increase the toughness, C. Refine the structure, D. Hardened the surface.

58. The process of heating and cooling for changing the structure of steel for obtaining the required properties is called.....

A. Hardening, B. Tempering, C. Annealing, D. Heat treatment.

59. The process of heating the steel above critical temperature and cools it in open atmospheric air is known as.....

A. Hardening, B. Tempering, C. Annealing, D. Normalizing.

60. Measuring gauge required wear resistance, which heat treatment process is required to get new properties.....

A. Normalizing, B. Case hardening, C. Annealing, D. Tempering.

61. The process of increase in percentage of carbon on the surface of low carbon steel is known as...

A. Carburizing, B. Hardening, C. Tempering, D. Nitriding.

62. Case hardening is a method of producing hard skin on the surface of.....

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

63. Mild steel can be converted into high carbon steel by using which of the following process?

A. Annealing, B. Case hardening, C. normalizing, D. None of these.

64. Annealing of steel is done to impart which one of the following property on steel?

A. Hardness, B. Toughness, C. Ductility, D. None of the mentioned.

65. Nitride made the metals.....

A. Corrosion resistant, B. Wear resistant, C. Both (a) & (b), D. None of these.

66. Which of the following structure is formed by the rapid cooling of austenite structure of steel?

A. Pearlite, B. Cementite, C. Martensite, D. None of these.

67.is done for removing more brittleness of chisel.

A. Tempering, B. Hardening, C. Carburizing, D. Annealing.

68. Induction hardening process involves.....

A. Heating surface by induction in field of invariable current, B. Case depth minimum of 2 mm are produced, C. Heating surface by induction in field of alternating current. D. None of these.

69. Annealing involves heating the component to temperature.

A. Slightly above the critical temperature, B. Equal to critical temperature, C. Slightly less than critical temperature, D. None of these.

70. Induction coil is made from material.....

A. Mild steel, B. Copper, C. Tin, D. Silver.

71. Which structure of steel contain 0% carbon?

A. Ferrite, B. Cementite, C. Pearlite, D. Hypereutectoid steel.

Answer

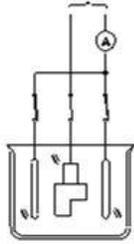
CHAPTER-HEAT TREATMENT.

1-B,2-C,3-C,4-D,5-C,6-D,7-A,8-D,9-D,10-C,11-A,12-D,13-B,14-D,15-A,16-D,17-C,18-C,19-C, 20-A, 21-A, 22-B,23-A, 24-A,25-A,26-C,27-D,28-A,29-A,30-B,31-D,32-A,33-A, 34-B, 35-B,36-B,37-D,38-C, 39-D,40-B,41-D,42-D,43-A,44-A,45-D,46-D,47-B,48-D,49-C,50-D,51-A,52-C,53-B,54-A,55-A,56-A, 57-C,58-D,59-D,60-B,61-A,62-C,63-C,64-C,65-C,66-C,67-A,68-C,69-A,70-B,71-A.

SURFACE COATING

1. Corrosion can be prevented by.....
A. Alloying, B. Tinning, C. Galvanizing, D. All of these.
2. Conditions for good electroplating is/are.....
A. High current density, B. Low temperature, C. High concentration of metal in electrolyte, D. All of these
3. Iron is galvanized by coating with.....
A. Zinc, B. Tin, C. Copper, D. Nickel.
4. Galvanizing of metal is a process of
A. Coating the metal with chromium, B. Coating the metal with zinc, C. Coating the metal with tin, D. Coating the metal with copper.
- 5.....is used for galvanizing iron sheets so that they do not rust.
A. Lead , B. Tin, C. Zinc, D. Silver.
6. In which metallic coating, chromium powder is used.....
A. Cladding, B. Sherardising, C. Calorising, D. Chromising.
7. Which galvanizing is providing a protective coating on mild steel?
A. Zinc, B. Lead, C. Tin, D. Aluminium.
8. Which metal is suitable for anodizing?
A. Copper, B. Nickel, C. Aluminium, D. Iron.
9. The process in which surface is made smooth and uniform is known as.....
A. Buffing, B. Polishing, C. Metal spinning, D. Non of these.
10. Electroplating is done on jobs to resist corrosion. Which pole of a D.C. supply is connected to the work in electroplating process?
A. Positive pole, B. Positive terminal pole, C. Negative pole, D. Negative terminal pole.
11. The process of Electroplating on metal surface is
A. Temporary, B. Semi –permanent, C. Permanent, D. All of these.
12. The metal which is use for coating sheet because it is anticorrosive metal is.....
A. Aluminium, B. Tin, C. Zinc, D. Lead.
13. Which of the following method is adopted for preventing corrosion by acids?
A. Deaeration, B. Removal by using ion-exchange resin, C. Neutralization with lime, D. Dehumidification.
14. Which of the following method is adopted for preventing corrosion by moisture?
A. Deaeration, B. Removal by using ion-exchange resin, C. Neutralisation with lime, D. Dehumidification.

15. What is the method of metal coating?



A. Cladding, B. Sherardising, C. Galvanising, D. Electroplating.

16. Which metal is used in electroplating to the metal surface to resist corrosion for long period and high polish retain?

A. Lead, B. Nickel, C. Chromium, D. Aluminium.

17. Which metal is corrosion resistant and does not crack or peel off due to temperature variation when coated?

A. Chromium, B. Nickel, C. Copper, D. Zinc.

18. Which metal is used in electroplating to the metal surface to resist corrosion for long period and to retain high polish?

A. Lead, B. Nickel, C. Chromium, D. Aluminum.

19. Which corrosion resistant metal is used in chemical plant and food processing?

A. Lead, B. Copper, C. Aluminum, D. Stainless steel.

20. What is the operation of a metal coated with other metal to obtain protecting surface?

A. Cladding, B. Galvanizing, C. Cementation, D. Electroplating.

21. Which metal powder is used in calorising process to prevent corrosion?

A. Zinc powder, B. Nickel powder, C. Chromium powder, D. Aluminum powder.

22. What is the temperature required to process the chromising for prevention of corrosion?

A. 900 to 1100°C, B. 1000 to 1100°C, C. 1100 to 1200°C, D. 1300 to 1400°C.

23. Which metal has high resistance to chemical reaction?

A. Lead, B. Nickel, C. Copper, D. Aluminum.

24. Which common application do anodizing and galvanizing serve?

A. Corrosion resistance, B. Improved surface, C. Zinc coating, D. Increased strength

25. Which organic coating is made from Lac dissolved in alcohol?

A. Lacquer, B. Shellac, C. Emulsion, D. Enamel

26. A mixture of oil and pigment in water is known as _____

A. Enamel, B. Emulsion, C. Shellac, D. Lacquer.

27. A varnish is a mixture of _____ and oil.

A. Resin, B. Pigment, C. Turpentine, D. Soybean

28. Phosphate coating and Chromate coating are classifications of _____ coatings.

A. anodic, B. cathodic, C. chemical, D. vitreous

29. Which of these methods uses a filler wire at a high-temperature flame?

A. Hot dipping, B. Metal spraying, C. Vapor plating, D. Cementation

30. The method of immersing a material into a molten bath for coating is known as _____

A. Electroplating, B. Hot dipping, C. Cladding, D. Cementation.

31. Which of the following is not a type of protective coating?

A. Metallic, B. Non-metallic, C. Organic, D. Inorganic.

32. An example of an anodic coating is _____

A. Zinc, B. Copper, C. Nickel, D. Chromium

Answer

SURFACE COATING

1-D,2-D,3-A,4-B,5-C,6-D,7-A,8-C,9-A,10-B,11-C,12-C,13-C,14-D,15-D,16-C,17-D,18-C,19-D,20-D, 21-D,22-D,23-B,24-A,25-B,26-B,27-A,28-C,29-B,30-B,31-B,32-A.

BEARING

1. Which bearing material has poor thermal conductivity?

A. Nylon, B. Teflon, C. Sintered alloys, D. Laminated phenolics

2. What is the purpose of deep groove type of ball races provided in the ball bearing?

A. To withstand shock, B. To carry journal loads, C. To withstand axial thrust, D. To withstand radial load.

3. Why the double row roller bearing is used?

A. To take axial load, B. To take radial load, C. To take heavy axial load, D. To take heavy radial load.

4. Why the melting point of bearing material should be lower than that of the shaft?

A. Prevents shaft seizure, B. Prevent damage to bearing, C. Allow the bearing to run efficiently, D. Prevent thermal expansion of shaft.

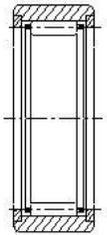
5. Which alloying metal bearing can work at higher temperature and higher load carrying capacity?

A. Cast iron, B. White metal, C. Copper lead alloys, D. Cadmium based alloy.

6. What is the purpose of thrust ball bearing?

A. Axial load, B. Radial load, C. Axial thrust load, D. Vertical thrust load.

7. What is the name of bearing?

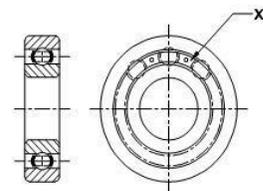


A. Needle bearing, B. Thrust ball bearing, C. Taper roller bearing, D. Angular contact ball bearing.

8. Which bearing material is used in connecting rod and electrical motors?

A. White metal, B. Sintered alloy, C. Aluminum alloy, D. Copper lead alloy.

9. What is the name of part marked 'X'?



A. Ball case, B. Inner race, C. Outer race, D. Ball separating gauge.

10. Which bearing material is used for light loading and low speed application?

A. Cast iron, B. Tin bronze, C. Cadmium based alloy, D. Copper and lead alloys.

11. What is the disadvantage of thrust ball bearing?

A. Cannot take any radial load, B. Cannot take horizontal end thrust, C. Cannot take load on both direction, D. Cannot take any vertical thrust load.

12. Why deep groove type of ball races provided in the ball bearing?

A. Withstand shock, B. Withstand axial thrust, C. Withstand radial load, D. Carry journal loads.

13. Which bearing carry the load parallel to its bearing axis?

A. Split bearing, B. Plain bearing, C. Thrust bearing, D. Radial bearing.

14. Which bearing material is best suited for hard journals?

A. Sintered alloy, B. Aluminum alloy, C. Copper lead alloy, D. Cadmium based alloy.

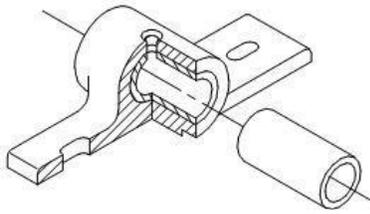
15. Which bearing material has low co-efficient of friction and high material cost?

A. Nylon, B. Teflon, C. Thrust ball bearing, D. Laminated phenolics.

16. Which type of bearing used for taking high axial thrust load?

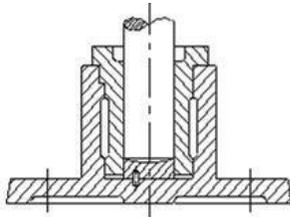
A. Roller bearing, B Tapered roller bearing, C. Self align roller bearing, D. Angular contact ball bearing.

17. What is the name of bearing?



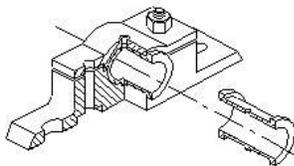
A. Split bearing, B. Solid bearing, C. Thrust bearing, D. Journal bearing.

18. What is the name of bearing?



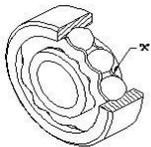
A. Ball bearing, B. Roller bearing, C. Thrust bearing, D. Journal bearing.

19. What is the name of bearing?



A. Split bearing, B. Bush bearing, C. Solid bearing, D. Journal bearing.

20. What is the part marked as 'x' in the bearing?



A. Outer race, B. Ball cage, C. Inner race, D .Rolling elements,

21. Which type of bearing used for very heavy radial load?

A. Ball bearing, B, Bush bearing, C. Needle bearing, D. Double row roller bearing.

22. Which type of bearing is designed to take axial thrust as well as radial loads?

A. Ball bearing, B. Roller bearing, C. Taper roller bearing, D. Angular contact ball bearing.

23. Which type of bearing metal is self lubricated?

A. White metal, B. Sintered alloy, C. Aluminum alloy, D. Cadmium based alloy.

24. Which bearing is used in the limited space?
A. Needle bearing , B. Thrust ball bearing, C. Taper roller bearing, D. Angular contact ball bearing.
25. Which bearing loading is at right angles to the bearing axis?
A. Thrust bearing, B. Journal bearing, C. Solid bearing, D. Split bearing.
26. Which type of bearing has provision for wear adjustment?
A. Adjustable slide bearing, B. Thrust ball bearing, C. Tapered roller bearing, D. Self aligned bush bearing.
27. Which part of ball bearing do not rotate along the bearing assembly?
A. Ball cage, B. Inner race, C. Outer race, D. Rolling elements.
28. Why extra clearance is provided between bearing and journal in the aluminium alloy bearing?
A. To allow lubricant to flow freely ,B. To overcome leaner expansion, C. To over come co-efficient expansion, D. To overcome high thermal expansion.
29. How bunching up of rolling elements avoided in the bearing assembly?
A. By cage, B. By grooves, C. By out race,D. By inner race.
- 30.The plastic used for making engineering component bearing is.....
A. Polythene, B. Celluloses, C. Acryllcrein, D. Nylon
- 31.Name the material commonly used for thicker walled bearing bushes carrying hardened steel shafts.
A. Phosphor bronze, B. Brass, C. Aluminium, D. Copper.
- 32.Which type of bearing is intended to carry radial loads?
A. Ball bearing, B. Thrust ball bearing, C. Roller bearing, D. Tapered roller bearing.
- 33.Taper roller bearings can take.....
A. Axial load only, B. Radial load only, C. Both (a) & (b), D. Non of these.
- 34.The internal part of the shaft of bearing is called.....
A. Journal, B. Outer race, C. Cage. D. Inner race.
- 35.Bearing suitable for heavy radial load
A. Thrust bearing, B. Self-Aligning Ball bearing. C. Ball bearing. D. Roller bearing.
36. Bearing assembled in two parts in special plumber block.....
A. Adjustable slide bearing, B. Solid bearing, C. Split bearing, D. Self aligning ball bearing.
- 37.Bearing are used for.....
A. to move shaft freely, B. To support shaft in a fixed position, C. To guide shaft, D. All of these.
- 38.The bearing allowed to drive slightly inclined shaft is.....
A. Ball bearing, B. Roller bearing, C. Spiral bearing, C. Non of these.
- 39.Which type of fit is used in the inner race with shaft while mounting a ball bearing?
A. Precision side, B. Large clearance, C. Loose running, D. Interference.
- 40.The other name of rolling contact bearing is.....
A. Friction less bearing, B. Bush bearing, C. Pedestal bearing. D. Journal bearing.
- 41.Bearing bushes are made up
A. Brass, B. White metal, C. Gun metal, D. Copper.
42. Split bearing is also known as
A. Pedestal bearing, B. Roller bearing, C. Pivot bearing, D. Plain bearing.

43.The type of bearing is.....

A. Friction bearing, B. Anti-friction bearing, C. Both (a) & (b), D. Non of these.

44.Ball bearings are made up of metal tablets of.....

A. Non of these, B. Alloy steel, C. Copper, D. Cast iron

45.Which of the following is the characteristic of bearing?

A. Minimum friction, B. Vibration free base, C. The ability to keep the shaft on its place, D. All of these.

46.The place where bearing are fit is known as.....

A. Friction, B. Housing, C. Shell bearing, D. Ball bearing.

47.Which of the following are functions of bearing?

A. Ensure free rotation of shaft with minimum friction, B. Holding shaft in a correct position, C. Transmit the force of the shaft to the frame, D. All of these.

48.The following is the example of plain bearing.....

A. Thrust bearing, B. Linear bearing, C. Journal bearing, D. All of these.

49.A..... bearing supports the load acting along the axis of the shaft.

A. Thrust, B. Radial, C. Longitudinal, D. Transversal.

50.In angular contact bearings.....bearings are required to take thrust load in both direction.

A. 1, B. 4, C. 2, D. 3.

51.Taper roller bearing supports

A. Axial load, B. Thrust load, C. Both (a) & (b), D. Non of these.

52.Which of the following cannot take radial load?

A. Cylindrical roller bearing, B. Taper roller bearing, C. Thrust ball bearing, D. Non of these.

53.Which of the following cannot tolerate misalignment?

A. Angular contact bearing, B. Cylindrical roller bearing, C. Thrust ball bearing, D. All of these.

54.What is the cause for overheating of bearing?

A. Improper fitment, B. Improper lubrication, C. Bearing out of alignment, D. Over speed of shaft.

55.The strength decreases considerably with increase in temperature in.....

A. Cast iron, B. White metal, C. Copper lead alloy, D. Cadmium based alloy.

56.Which type of bearing is used for heavy radial load?

A. Ball bearing, B. Bush bearing, C. Needle bearing, D. Double row roller bearing.

57.....has high strength and shock resisting property.

A. Nylon, B. Teflon, C. Cast iron, D. Laminated phenolics.

58.Which type of bearing is designed to take axial thrust as well as radial loads?

A. Ball bearing, B. Roller bearing, C. Taper roller bearing, D. Angular contact bearing.

59.Which bearing material has got poor thermal conductivity?

A. Nylon, B. Laminated phenolics, C. Sintered alloys, D. Teflon.

60-What is the purpose of deep groove type of ball races provided in the ball bearing.?

A. To withstand shock, B. To withstand axial thrust, C. To carry journal loads, D. To withstand radial load.

61.Why the double row roller bearing is used?

A. To take axial load, B. To take radial load, C. To take heavy radial load, D. To take heavy axial load.

62. Why the melting point of bearing material should be lower than that of the shaft?

A. Prevent thermal expansion of shaft. B. Prevents damage to bearing, C. Allow the bearing to run efficiently, D. Prevents shaft seizure.

63. Which type of bearing has the provision for wear adjustment?

A. Solid bearing B. Split bearing C. Self-aligning bush bearing D. Adjustment slide bearing

Answer

BEARING

1-D, 2-C, 3-D, 4-A, 5-D, 6-D, 7-A, 8-D, 9-D, 10-A, 11-A, 12-B, 13-C, 14-B, 15-B, 16-B, 17-B, 18-C, 19-A, 20-B, 21-D, 22-D, 23-B, 24-A, 25-B, 26-A, 27-C, 28-D, 29-A, 30-D, 31-B, 32-D, 33-C, 34-A, 35-C, 36-C, 37-D, 38-C, 39-D, 40-A, 41-C, 42-D, 43-C, 44-B, 45-D, 46-B, 47-D, 48-D, 49-A, 50-C, 51-C, 52-C, 53-D, 54-B, 55-B, 56-D, 57-C, 58-A, 59-B, 60-B, 61-C, 62-D, 63-D,

PIPE AND PIPE FITTING

1. Pipe vice can be used to hold pipes upto -
A. 63 mm diameter, B. 60mm diameter, C. 59 mm diameter, D. 62 mm diameter
2. Which pipe vice can be folded and carried easily to any working place?
A. pipe vice, B. Portable folding pipe vice, C. Chain pipe vice, D. Bench pipe vice
3. Chain Pipe vice can be used to hold pipes upto -
A. 180mm diameter, B. 150mm diameter, C. 200mm diameter, D. 250mm diameter
4. After cutting the pipe the pipe must be reamed by pipe reamer, because -
A. to remove ridge on the inside of the pipe, B. to finish the internal diameter of pipe
C. to remove the burrs from internal hole of pipe, D. to give a good platform for make internal thread
5. Which pipe cutter is best for cutting the large diameter size pipes?
A. Pipe cutter, B. Two guided roller pipe cutter, C. multi wheel chain pipe cutter, D. Chain pipe cutter
6. After cutting the pipe by multi chain pipe cutter, the cutting wheels of pipe cutter soaked and washed out. The pipe cutters are soaked by -
A. Kerosene, B. Petrol, C. Light oil, D. Diesel
7. Which pipes are used in drainage system?
A. GI pipes, B. Mild steel pipes, C. Plastic pipes, D. CI soil pipes
8. Which pipes are used in air conditioning systems?
A. GI PIPES, B. MILD STEEL PIPES, C. COPPER PIPES, D. ALUMINIUM PIPES
9. Which standard pipe fitting provide deviations of 90° and 45° in pipe working system?
A. Elbows, B. Reducer, C. Coupling, D. Union
10. Which standard pipe fitting used for closing the end of a pipe or fitting which has an external thread?
A. Reducer, B. Coupling, C. Caps, D. Plug
11. Which standard pipe fitting used for closing a pipeline, which has an internal thread?
A. Reducer, B. Coupling, C. Caps, D. Plug
12. Which pipe fitting have internal threads to connect two same diameter pipes?
A. Eccentric reducer, B. Concentric reducer, C. Reducer, D. Coupling
13. Which pipe fitting inserted in a pipe line to permit connections with little change to the position of pipe?
A. Reducer, B. Union, C. Coupling, D. Bend
14. Which pipe fitting is used to connect two pipes with different diameters?
A. Coupling, B. Union, C. Reducer, D. Bend
15. Pipe wrenches are used to holding and gripping of pipes with diameters of -
A. 15mm to 50mm, B. 20mm to 50mm, C. 10mm to 50mm, D. 25mm to 50mm
16. Chain Pipe wrenches are used to holding and gripping of pipes with diameters of -
A. 45mm to 150mm, B. 25mm to 150mm, C. 50mm to 150mm, D. 60mm to 150mm
17. Which part of the pipe wrench gives a positive grip?
A. Jaw, B. Pivot, C. Spring, D. Adjusting nut
18. Which pipe bender have tripod stand?
A. Portable hand operated pipe bender, B. Bench type hand operated pipe bender
C. Hydraulic pipe bender, D. Portable folding pipe bender
19. Which part is designed as a groove in the bench type hand operated pipe bender?
A. Pipe guide, B. Lock nut, C. Lever, D. Inner former
20. Which pipe bender can be used for bending G.I and M.S pipes without sand filling to any direction?
A. Portable hand operated pipe bender, B. Bench type hand operated pipe bender
C. Hydraulic pipe bender, D. Portable folding pipe bender
21. Which part of the hydraulic bending machine available in various sizes and interchangeable?
A. Inner former, B. Back former, C. Operating lever, D. Base plate
22. For cutting external threads on pipe, the Pipe dies are generally available in -
A. 1/2 inch to 3 inch, B. 1/2 inch to 4 inch, C. 1/4 inch to 4 inch, D. 1/4 inch to 3 inch
23. Which die stock is required to turn the dies for cut the thread on pipes?
A. Adjustable die stock, B. Ratchet type die stock, C. Solid die stock, D. Plain solid die stock
24. What is the other name of household water tap?
A. Plain water tap, B. Plug cock, C. Stop cock, D. Screw down water tap

25. The washer of the household water tap is made of -
A. Rubber, B. Plastic, C. Asbestos, D. Teflon
26. For which cause water flowing from the tap even when firmly closed?
A. Worn out of defective washer, B. Spindle thread run out,
C. Stuffing box packing dry, D. Washer loose on valve
27. For which cause water flowing from around the spindle or stuffing box screws?
A. Worn out of defective washer, B. Spindle thread run out,
C. Stuffing box packing dry, D. Defective packing in stuffing box
28. For which cause spindle continuously slipping when turned and tap will not shut off?
A. Worn out of defective washer, B. Spindle thread run out,
C. Stuffing box packing dry, D. Washer loose on valve
29. For which cause tap hard to turn on and off?
A. Worn out of defective washer, B. Spindle thread run out,
C. Stuffing box packing dry, D. Washer loose on valve
30. Why loud noises in the tap occur?
A. Worn out of defective washer, B. Spindle thread run out
C. Stuffing box packing dry, D. Washer loose on valve
31. What are the remedies followed by us if water flowing or dripping from the tap even when firmly closed?
A. Replace washer, B. Tighten stuffing box, C. Replace packing, D. Replace stuffing box
32. What are the remedies followed by us if water flowing from around the spindle?
A. Replace washer, B. Tighten stuffing box, C. Replace tap, D. Replace stuffing box
33. Which valve has gate like disc?
A. Glove valve, B. Gate valve, C. Non return valve, D. Needle valve
34. Which valve should either be fully opened or completely closed?
A. Glove valve, B. Gate valve, C. Non return valve, D. Needle valve
35. Which valve is best suited for main supply lines and pump lines?
A. Check valve, B. Gate valve, C. Non return valve, D. Needle valve
36. Which valve allows one - way flow in water supply or drainage lines?
A. Glove valve, B. Gate valve, C. Non return valve, D. Needle valve
37. What is the other name of non return valve?
A. Needle valve, B. Check valve, C. Plug cock, D. Stop cock
38. In which valve the flow fluid or gas in one direction lift the ball, when the pressure released the ball falls against its seating.
A. Swing check valve, B. Disc type check valve, C. Ball type check valve, D. Disc type gate valve
39. Which valve has globe shaped body?
A. Gate valve, B. Globe valve, C. Check valve, D. Non return valve
40. In which valve the critical parts such as washer, seat, packing can be replaced?
A. Gate valve, B. Globe valve, C. Check valve, D. Non return valve
41. Which valve permits accurate control of the flow of water?
A. Gate valve, B. Globe valve, C. Check valve, D. Non return valve
42. Which valve can be used repeatedly, because it can be repaired easily?
A. Gate valve, B. Globe valve, C. Check valve, D. Non return valve
43. Which joint is used to connect two lengths of pipes together in piping installations?
A. Universal joint, B. Cotter joint, C. Knuckle joint, D. Flange joint
44. The functions of the valves are -
A. Stop the flow in pipeline, B. Regulate the flow in pipe line
C. Stop or regulate the flow in pipeline, D. Connect the pipes
45. Which valve is used to obtain a fine degree of control over the flow in the pipe?
A. Gate valve, B. Glove valve, C. Check valve, D. Needle valve
46. Plug cocks are suitable for -
A. High pressure application, B. Medium pressure application,
C. Low pressure application, D. In all application
47. Which valves are safety devices?
A. Gate valve, B. Globe valve, C. Relief valve, D. Check valve
48. In which valve spring is used to close or open the valve?
A. Gate valve, B. Globe valve, C. Relief valve, D. Check valve
49. Which valve is a compression type valve?
A. Gate valve, B. Globe valve, C. Stop cock, D. Check valve

50. Which valve controls the flow of water by means of a circular metal disk holder?

A. Plug cock, B. Stop cock, C. Needle valve, D. Check valve

51. In which valve the flow of fluid or gas in one direction lifts the disc and allows one way flow only?

A. Gate valve, B. Globe valve, C. Non return valve, D. Needle valve

52. In which valve the flow of a fluid or gas in direction lifts the balls and allows one way flow?

A One way flow check valve, B. Ball type check valve, C. Swing check valve D. Disc type check valve

53. Which part of the valve containing the rubber washer?

A. Stuffing box, B. Bonnet, C. Valve seat, D. Metal disk holder

54. Which part of the valve has soft graphite grease hemp packing?

A. Stuffing box, B. Bonnet, C. Valve seat, D. Metal disk holder

55. G.I iron pipes are available in sizes ranging from -

A. 1/2 inch to 4 inch, B. 1/2 inch to 5 inch, C. 1/2 inch to 6 inch, D. 1/2 inch to 7 inch

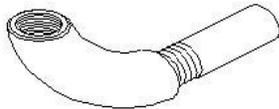
56. How much thread / inch, in a 1/2 inch pipe?

A. 12, B. 14, C. 16, D. 18

57. How much thread / inch, in a 1 inch pipe?

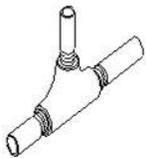
A. 12, B. 14, C. 11, D. 08

58. What is the name of the pipe fitting?



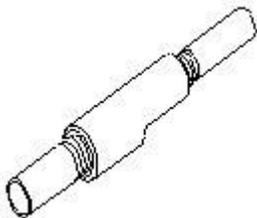
A. 45° elbow, B. Tee joint pipe, C. Short radius elbow, D. Long radius elbow.

59. What is the name of the pipe fitting?



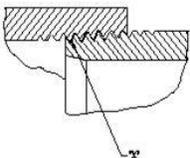
A .Tee joint, B. Eccentric reducer, C. Reducer tee joint, D. Concentric reducer.

60. What is the name of the pipe fitting?



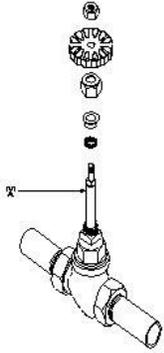
A. Coupling, B. Long nipple, C. Eccentric reducer, D. Concentric reducer.

61. What is the name of part marked as 'x' in the pipe joint?



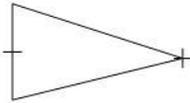
A. Outer pipe, B. Hemp packing, C. Tapered male thread, D. Parallel female thread.

62. What is the name of part marked as 'x'?



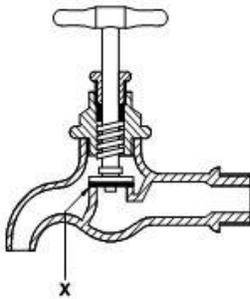
A. Bonnet, B. Packing, C. Gland nut, D. Shaft or spindle.

63. What is the name of pipe line symbol?



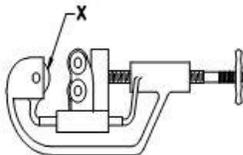
A. Socket, B. Plug or cap, C. Union screwed, D. Reducer concentric.

64. What is the name of part marked as 'X' in water tap?



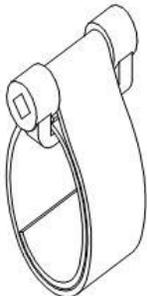
A. Handle, B. Bonnet, C. Gland nut, D. Valve seat.

65. What is the name of part marked as X?



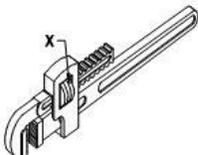
A. Cutter wheel, B. Adjusting screw, C. Guide rollers, D. Hand lever.

66. What is the type of wrench?



A. footprint wrench, B. strap wrench, C. chain pipe wrench, D. pipe wrench.

67. What is the part marked as 'x'?



A. Pivot, B. Spring, C. Movable jaw, D. Adjusting nut.

68. What is the pipe fitting?



A. Reducer, B. Nipple, C. Cap, D. Plug.

69. What is the pipe fitting?



A. Caps, B. Plug, C. Coupling, D. Reducer.

70. What is the angle of deviations provided on elbows and bends in pipe works?

A. 90° and 45° , B. 30° and 60° , C. 20° and 40° , D. 60° and 45° .

71. 206. How the water flow is stopped from the valve around the stuffing box?

A. Replace the spindle, B. Tightening the bonnet, C. Tightening the hand wheel, D. Packing with asbestos hemp.

72. What is the position of eccentric reducer are used in pipe lines?

A. Vertical position, B. Angular position, C. Radius position, D. Horizontal position.

73. What is the remedial measure to stop the dripping of water from house hold tap even after firmly closed?

A. Replace the tap, B. Replace washer, C. Renew tap spindle, D. Tighten stuffing box.

74. How pipes are classified?

A. Uses, B. Colour, C. Shapes, D. Material.

75. Which standard pipe fitting is used to close a pipe line having internal thread?

A. Plug, B. Cap, C. Reducer, D. Coupling.

76. Which type of wrench is used for more than 50 mm diameter pipe to tight with heavy gripping?

A. Strap wrench, B. Foot print wrench, C. Chain pipe wrench, D. Stillson pipe wrench.

77. What is the remedy if the spindle rotates continuously so that the gate valve is not closed?

A. Replace the valve, B. Tighten the gland nut, C. Replace the worn out part, D. Renew the gland packing.

78. Which type of pipe joint take branch at 90° ?

A. Coupling, B. Tee branch, C. Eccentric reducer, D. Concentric reducer.

79. What is the name of the plumber tool to assemble or dismantle pipes of 50 mm to 150 mm diameter?

A. Strap wrench, B. Chain pipe wrench, C. Stillson pipe wrench, D. Foot point pipe wrench.

80. What is the type of visual pipe inspection at 30° angle between the plane of vision and surface?

A. Direct visual testing, B. Remote visual testing, C. Translucent visual testing, D. Transparent visual testing.

81. Where concentric reducer is used in pipeline?

A. Vertical, B. Horizontal, C. Reduce the pressure, D. Drive the flow direction.

82. Which valve is used to permit fluid flow in one direction only?

A. Plug-cock, B. Needle valve, C. Non-return valve, D. Pressure regulator valve.

83. Which type of wrench is used on finished tubular surface?

A. Strap wrench, B. Foot point wrench, C. Chain pipe wrench, D. Stillson pipe wrench.

84. What is the capacity of the pipe vice to hold pipes diameter in mm?

A. 68 mm, B. 65 mm, C. 63 mm, D. 72 mm.

85. What is the minimum diameter of pipe used with chain wrench?

A. A .25 mm, B. 50 mm, C .30 mm, D ,45 mm .

86. What is the range of external pipe threads cut by pipe dies?

A. $\frac{1}{2}$ " to 4", B. $\frac{1}{4}$ " to 4", C. $\frac{1}{8}$ " to 2", D. $\frac{1}{4}$ " to 6".

87. Which pipe fitting is used to divert the flow direction of pipe?
 A. Union, B. Plug, C. Elbow, D. Coupling.
88. What is the pipe fitting of 90° and its branches may be equal in diameter?
 A. Tee joint, B. Elbow joint, C. Coupling joint, D. Union joint.
89. Which valve is used to control flow and is only kept in either open or closed position?
 A. Gate valve, B. Globe valve, C. Needle valve, D. Non-return valve.
90. Where universal coupling is used?
 A. Automobile vehicles, B. Textiles mills, C. Engineering machines, D. Large angle drive.
91. Which type of coupling is used on vehicle propeller shaft?
 A. Plate coupling, B. Clamp coupling, C. Slip type coupling, D. Universal coupling.
92. What is the radius size for long radius elbow?
 A. Equal the bore the pipe, B. 1 ½ times bore of the pipe C. 3 time bore of the pipe, D. 2 times bore of the pipe.
93. What is the radius size for the short radius elbow?
 A. 1 ½ time bore of the pipe, B. Equal to bore of the pipe, C. 3 time bore of the pipe, D. 2 time bore of the pipe.
94. Which is used to divert at 45° in pipeline?
 A. Elbow, B. Coupling, C. Reducer, D. Branch.
95. Which standard fitting is used for joining pipeline of different diameter?
 A. Plug, .Caps, C. Reducer, D. Coupling.
96. What type of fitting is used in straight pipeline to connect two pipes of external threads?
 A. Reducer, B. Coupling, C. Cap, D. Nipple.
97. What is the cause of water dripping from the tap even after closed?
 A. Defective washer, B. Spindle thread worn-out, C. Bend spindle, D. Loose valve.
98. What causes loud noise in the tap if turned ON?
 A. Spindle bend, B. Spindle thread worn-out, C. Stuffing box packing dry, D. Valve loose on spindle.

ANSWER

PIPE FITTING

1-A,2-B,3-C,4-A,5-C,6-A,7-B,8-C,9-A,10-C,11-D,12-D,13-B,14-C,15-A,16-C,17-A,18-A,19-D,20-C,21-A,22-C,23-B,24-D,25-A,26-A,27-D,28-B,29-C,30-D,31-A,32-B,33-B,34-B,35-B,36-C,37-B,38-C,39-B,40-B,41-B,42-B,43-D,44-C,45-D,46-A,47-C,48-C,49-C,50-B,51-C,52-B,53-D,54-A,55-C,56-B,57-C,58-A,59-C,60-C,61-B,62-D,63-D,64-D,65-A,66-B,67-D,68-C,69-D,70-A,71-D,72-D,73-B,74-D,75-A,76-C,77-C,78-B,79-B,80-A,81-A,82-C,83-A,84-C,85-B,86-B,87-C,88-A,89-A,90-A,91-B,92-B,93-B,94-A,95-C,96-B,97-A,98-D.

JIGS AND FIXTURES

- 1) Which among the following is a locator used for location from internal diameter?
a) Solid supports b) Nest locator c) Pin type locator d) Vee locator
- 2) Jigs and fixtures are the production devices used to manufacture duplicates parts accurately. Which one of the following statements is NOT correct with respect to jig?
a) It holds the work piece b) It holds the tool c) It locates the tool and the work piece
d) It guides the tool
- 3) Jigs and Fixtures are used for
a) Mass production b) Identical parts production c) Both 'a' and 'b'
d). None of the above
- 4) The use of jigs and fixtures
a) Facilitates deployment of less skilled labour for production
b) Eliminates pre-machining operations like marking, measuring, laying out etc.
c) reduced manual handling operations
d) All of the above
- 5) The following is the function of a jig
a) Holding b) Locating c) Guiding d) All of the above
- 6) A fixture does not
a) Holds the workpiece b) Locate the workpiece c) Guide the tool
d). All of the above
- 7) Jigs are not used in
a) Tapping b) Reaming c) Drilling d) Milling
- 8) Fixtures are used in
a) Milling b) Shaping c) Turning d) All of the above
- 9) The following holds the workpiece securely in a jig or fixture against the cutting forces
a) Guiding device b) Clamping device c) Indexing device
d). Locating device
- 10) The following is a quick acting clamp
a) Edge clamp b) Cam operated clamp c) Hinged clamp
d). Bridge clamp

11) IDENTIFY THE TYPE OF CLAMP USED IN FIXTURE



- a) Heel clamp b) Bridge clamp c) Latch clamp d) Cam clamps

12) IDENTIFY THE TYPE OF CLAMP USED IN FIXTURE



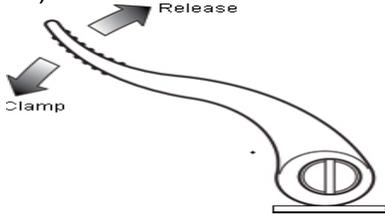
- a) Bridge clamp b) Cam clamps c) Heel clamp d) Latch clamp

13) IDENTIFY THE TYPE OF CLAMP USED IN FIXTURE5



- a) Bridge clamp b) Cam clamps c) Latch clamp d) Heel clamp

14) IDENTIFY THE TYPE OF CLAMP USED IN FIXTURE5



- a) Bridge clamp b) Heel clamp c) Cam clamps d) Latch clamp

15) The following material is commonly used for making locating and clamping devices

- a) Die steel b) High speed steel c) Low carbon steel d) High carbon steel

16) The following type of jig is used for machining in more than one plane

- a) Box type jig b) Open type jig c) Plate type jig d) Template jig

17) The jigs and fixtures can be constructed through

- a) Casting b) Fabrication c) Welding d) All of the above

18) The device which place the workpiece in the same position, in jig and fixture, cycle after cycle is called as

- a) locating device b) fixing device c) placing device d) positioning device

19) Which fixtures are used for machining parts which must have machined details evenly spaced?

- a) Profile fixtures b) Duplex fixtures c) Indexing fixtures d) None of the above

20) With the use of Jigs and fixture quality control expenses will

- a) Reduce b) Increases c) Jigs and fixture are not used in any production process
d) None of the mentioned

21) Which one of the following is used to guide the tool and hold the job in mass production?

- a) Fixture b) Gauge c) Jig d) Housing

22) Which one of the following is used to clamp the job in relation to the tool in mass production?

- a) Housing b) Gauge c) Fixture d) Jig

23) Which among the following locators is best suitable for location of a round shaped job?

- a) Wedge type locator b) Adjustable stop locator c) Vee locator
d). Pin type locator

24) Usually drill jig is not clamped to the drilling machine table. Which among the following is the reason for this?

- a) It is rigid enough for this operation
b) It is a more time consuming device
c) It is easy for operation
d) Number of holes of various sizes are normally being drilled in different setting

25) Drill jig bushings are generally made of

- a) Cast steel b) Tool steel c) Cast iron d) Mild steel

- 26) Which among the following is the purpose for providing bushing in a drill jig ?
- For locating accurately and guiding the drill for precise drilling operation
 - For determining the size of the hole to be drilled
 - For getting good finished surface in the drilled holes
 - For easy drilling
- 27) Drill jig bushings are normally hardened to
- Guide the tool so that it does not go inclined
 - Ensure prolonged life without wear and tear so as to guide the tool accurately
 - Protect the jig from damage
 - Allow the chips to come out easily
- 28) Plain drill jig bushings are generally secured in the body of jig so that the bushings should not
- Rotate when the tool is rotating
 - Vibrate, rotate and be withdrawn while in operation.
 - Vibrate while in operation
 - Get withdrawn with the tool
- 29) Fixed renewable bushings are used when
- Many a holes of various sizes are to be drilled on a jig in different settings
 - More than one operation has to be performed through the same location of the jig
 - One operation is to be performed in each hole but several bushings must be used during the life of the jig
 - No bushing change is required
- 30) Slip renewable bushings are used when
- Many a hole of various sizes are to be drilled on a jig in different settings
 - More than one operation has to be performed through the same location on the jig
 - One operation is to be performed but several bushings must be used during the life of the jig
 - No bushing change is required
- 31) Which one of the following bushings is used to locate the renewable bushings?
- Liner bushing
 - Press fit bushing
 - Special bushing
 - Knurled bushing
- 32) Tolerance on jig should be
- 5% of the tolerance on the job
 - 10% of the tolerance on the job
 - 20 to 50% of the tolerance on the job
 - 100% of the tolerance on the job
- 33) Which among the following statements is NOT correct?
- Jig is used for planning operations
 - Jig is used for boring operation
 - Jig is used for drilling operation
 - Jig is used for indexing operation
- 34) Lathe mandrels can be termed as a
- Template
 - Gauge
 - Fixture
 - Jig
- 35) Jig is a device which
- Locates the workpiece
 - Holds and supports the workpiece
 - Guides the cutting tool
 - Does all the above
- 36) Drill jigs are used for

- a) Guiding the tool only
- b) Drilling operations only
- c) Clamping the job when drilling
- d) Drilling, reaming, tapping and other allied operations

37) Fixture is a production device which

- a) Holds the work piece
- b) Locates the work piece
- c) Holds and locates the work piece
- d) Neither holds nor locates the work piece

38) Which among the following jigs is used for location from a bore?

- a) Solid jig
- b) Plate jig
- c) Box jig
- d) Post jig

39) Which one of the following jigs consists of drill plate, which rests on the component to be drilled?

- a) Box Jig
- b) Plate Jig
- c) Post Jig
- d) Solid Jig

40) Which one of the following devices is used for the convenience of fabrication of a job by welding which is set in this 360° as per requirement?

- a) Jig
- b) Fixture
- c) Gauge
- d) template

41) A fixture is a device used for ...

- a) guiding the tool
- b) loosening the work piece
- c) Holding the work piece
- d). tightening tool

42) Which of the following can hold the work, locate the work and guide the drill at the desired position?

- a) Drill bush
- b) V-block
- c) Drill jig
- d) Drill fixture

43) Typical locating device for cylindrical job used in jigs and fixtures are

- a) angle plate
- b) drill jigs
- c) mandrels
- d) v - blocks

44) V-block (vee locators) are used for clamping as well as locating when faces are inclined upto:

- a) 12°
- b) 30°
- c) 9°
- d) 3°

45) Name the type of jig in which a base plate is not available,

- a) Plate jig
- b) Latch jig
- c) Box jig
- d) Trunnion jig

46) The use of jigs and fixtures

- a) Facilitates deployment of less skilled labour for production
- b) Eliminates pre-machining operations like marking, measuring, laying out etc.
- c) Reduces manual handling operations
- d) All of these

47) Fixtures are used in

- a) Milling
- b) Shaping
- c) Turning
- d) All of these

48) The following holds the work piece securely in a jig or fixture against the cutting forces

- a) Locating device
- b) Clamping device
- c) Guiding device
- d) Indexing device

49) The following material is commonly used for making locating and clamping devices

- a) Die steel b) Low carbon steel c) High carbon steel d) High speed steel

50) The following type of jig suits best for drilling of holes in hollow cylindrical components, with relatively smaller outside and inside diameters, such as bushes

- a) Solid type jig b) Open type jig c) Pot type jig d) Box type jig

51) The following type of jig is used to drill a series of equidistant hole along a circle

- a) Plate type jig b) Index jig c) Open type jig d) Pot type jig

52) The jigs and fixtures can be constructed through

- a) Casting b) Fabrication c) Welding d) All of these

53) Metal of drill jig bushing used

- a) Cast iron b) Tool steel c) Mild steel d) Cast steel

54) A jig is special device

- a) Which hold the job
b) Which locate the cutting tool
c) Which guide the tool
d) Which hold, support, and locate the job and guides the tool

55) A fixture is a production tool, that

- a) Locates the component
b) Hold the component
c) Controls the cutting tool
d) Locates and holds the component

56) Which of the following can hold the work, locate the work and guide the tool at the desired position?

- a) Drill bush b) Drill fixture c) V – block d) Drill jig

57) The application of pressure pads in fixtures is to

- a) increase the vibration
b) increase the weight
c) absorb shocks
d) increase the shocks

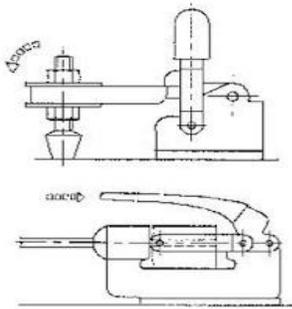
58) Drilling jigs are used for

- a) drilling, reaming tapping and other allied operations
b) clamping the job while drilling
c) sharpening drill to correct angle
d) drilling operation only

59) Jigs and Fixtures are

- a) Machining tools b) Precision tools c) both (a) & (b) d) none of these

- 60) Bushing in jig is used
- a) To locate and guide the tool b) To locate the tool
c). To guide the tool d) None of these
- 61) Fixture is used for
- a) To hid the job b) To hold and locate the job c) To locate the job
d). None of these
- 62) Which jig is used for location in bore?
- a) Solid Jig b) Box Jig c) Plate Jig d) Post Jig
- 63) To locate the renewable bushing in jig bush is used.
- a) Liner b) Press Fit c) Knurled d) Special
- 64) Which part of jig provides correct location to drill?
- a) Liner Bush b) Guide Bush c) Jig plate d) Setting Block
- 65) Which jig is used for drilling in thin sheets?
- a) Solid Jig b) Post Jig c) Sandwich Jig d) Table Jig
- 66) What is the name of clamp?



- a) Cam clamp b) Wedge clamp c) Screw clamp d) Toggle clamp
- 67) Which device is used to hold, support, locate and also guide the cutting tool during machining operation?
- a) Fixture b) Jig c) 'C' clamp d) Machine vice
- 68) What is the purpose of setting blocks used in fixture?
- a) Position the fixture and work
b) Position the balancing weight
c) Position the cutter with fixture
d) Position the clamp and locators
- 69) This type of jig is employed on multi-spindle machines
- (A) Index jig (B) Universal jig (C) Open type jig (D) Multi-station jig
- 70-The following is(are) the advantage(s) of cast jigs or fixtures
- (A) No heat treatments are required for the cast jigs and fixtures
(B) It prevents the occurrence of tool chatter in milling
(C) if cast jigs or fixture drops down, they don't get misaligned or de-shaped, although it may break
(D) All of the above

ANSWER:-

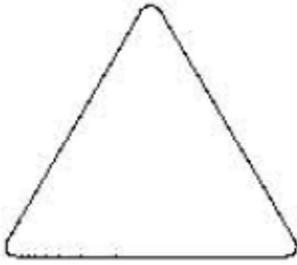
JIGS & FIXTURES

1-C,2-B,3-C,4-D,5-D,6-C,7-D, 8-D,9-B,10-B, 11-B,12-D,13-D, 14-C,15-D,16-A,17-D,18-A,19-C,20-A,21-C,22-C,23-B,24-A,25-B,26-A,27-B,28-B,29-C,30-B,31-A,32-C,33-A,34-C,35-D,36-D,37-C,38-D,39-B,40-B,41-B,42-C,43-D,44-B,45-A,46-D,47-D,48-B,49-C,50-C,51-B,52-D,53-B,54-D,55-D,56-D,57-C,58-A,59-C,60-A,61-B,62-D,63-A,64-B,65-C,66-D,67-B,68-D,69-D,70-D

Installation Maintenance and Overhauling

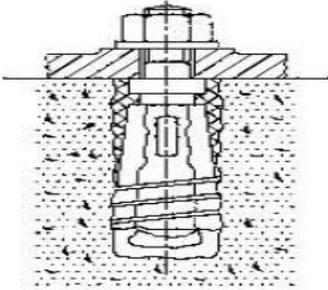
- 1) The curved end of a crowbar is used as
 - a) first-class lever
 - b) second-class lever
 - c) third-class lever
 - d) None of the above
- 2) Crowbars are also known as
 - a) press bars
 - b) wedge bars
 - c) pry bars
 - d) split bars
- 3) Why do masons prefer to use plumb bob with nylon string?
 - a) It is cheap
 - b) It is more accurate
 - c) It can stand dampness
 - d) It is easy to carry
- 4) Which one of the following is not a basic component of wire rope?
 - a) Wires
 - b) Strands
 - c) Core
 - d) Base
- 5) Preventive maintenance is
 - a) the overall lubrication and repair work carried out by the maintenance section in advance of the machine coming to breakdown.
 - b) the maintenance work for any fault noticed during working.
 - c) done to prevent the maintenance of machines.
 - d) none of the above
- 6) Leveling bolts are used for
 - a) supporting the load for machine
 - b) adjusting the height of machine
 - c) rigidity of machine
 - d) none of the above
- 7) Which one of the following tests is carried out after overhauling and reconditioning of machines?
 - a) Periodic acceptance test
 - b) Geometrical test only
 - b) Performance test only
 - c) None of the above
- 8) The permissible deviation for leveling of machine is
 - a) 0.03 / 100 mm
 - b) 0.03 / 200 mm
 - c) 0.03 / 300 mm
 - d) 0.03 / 400 mm
- 9) Which one of the following is used for checking run out of the internal taper of machine spindle?
 - a) Dial test indicator
 - b) Test mandrel and dial test indicator
 - c) Precision height gauge
 - d) Test mandrel and precision height gauge
- 10) The sensitivity of precision spirit level is
 - a) 0.02 to 0.05 / 100 mm
 - b) 0.02 to 0.05 / 200 mm
 - c) 0.02 to 0.05 / 500 mm
 - d) 0.02 to 0.05 / 1000 mm
- 11) A concrete mixture ratio is given as 1 : 2 : 4. Which one of the following indicates the numbers?
 - a) One part cement, two parts sand and four parts stone
 - b) One part stone, two parts cement and four parts sand
 - c) One part sand, two parts stone and four parts cement
 - d) One part cement, two parts stone and four parts sand
- 12) How many type of maintenance are there?
 - a) Two
 - b) Three
 - c) Four
 - d) Five

- 13)is necessary for continuous better production.
- Routine maintenance
 - Breakdown maintenance
 - Preventive maintenance
 - None of these
- 14) Spirit level is used for
- While foundation of machine
 - Testing of machine
 - For starting of machine
 - While machine is erected
- 15) Crowbar is made by
- Copper
 - Steel
 - Brass
 - Cast iron
- 16) Name the fixed type foundation bolt that is usually forged and filled up with lead and cement?
- bent type bolt
 - Ordinary bolt
 - Eye bolt
 - Rag bolt
- 17) Which type of crow bar is easier to handle and the point will fit into a narrow gap?
- Short crow bar
 - Long crow bar
 - Single ended crow bar
 - Double ended crow bar
- 18) The sensitiveness of the spirit level depends upon the
- type of liquid filled in the glass tube
 - size of the bubble
 - curvature of the glass tube
 - length of the glass tube
- 19) The spirit level is used for checking the level of machine when
- shifting the machine
 - grouting the machine
 - erecting the machine
 - lifting the machine
- 20) Fastening of one part of rope to other point of rope is known as
- Loop
 - Bight
 - Knot
 - Round turn
- 21) Preventive maintenance is carried Out
- Before failure of machine
 - After failure of machine
 - Both (a) & (b)
 - None of these
- 22) Block spirit level is used to check
- Horizontal level
 - Vertical level
 - Both (a) & (b)
 - Only angular measurement
- 23) Spirit level is used for
- Foundation of machine
 - Testing for machine
 - For starting of machine
 - While machine is erected
- 24) What is the frequency of maintenance symbol?



- a) Daily b) Weekly c) Monthly d) Frequently

25) What is the name of foundation bolt?



- a) Expanding conical washer bolt b) Rawl bolt c) Bent type eye bolt
d). Removable bolt

26) Which type of rope knot is used for lifting light load?

- a) Slip knot b) Square knot c) Bowline knot d) Clove hitch knot

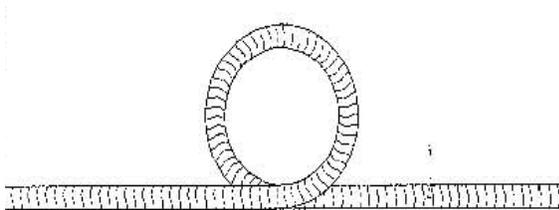
27) What is the purpose of clove hitch knot?

- a) Secure rope to small pipe or ring
b) Secure rope to pipe or post
c) Joins two pieces of ropes
d) For lifting light loads

28) Which wire rope strands are twisted in the opposite direction?

- a) Combined lay rope b) Regular rope c) Land lay rope d) Rigid lay rope

29) Name the rope binding method.

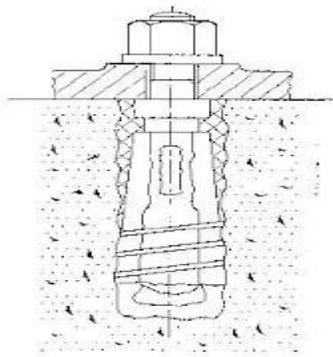


- a) Round turn b) Knot c) Bight d) Loop

30) What material is used as a grouting for steam turbines?

- a) Clay, lime, brick grout b) Sulphur c) Lead
d). Cement concrete grout

31) What is the name of the foundation bolts?



- a) Rawl bolt b) Cotter bolt c) Bent bolt d) Rag bolt

32-Maintenance consist of the following action(s)

- (A) Replace of component (B) Repair of component (C) Service of component
(D) All of the above

33-The time elapsed from the point the machine fails to perform its function to the point it is repaired and brought into operating condition is known as

- (A) Down time (B) Break Down time (C) Both (A) and (B) (D) Idle time

34-The down time cost consists of

- (A) Loss of production (B) Wages paid to the workers (C) Reduction in sales
(D) All of the above

35-The following is not a classification of maintenance

- (A) Corrective maintenance (B) Timely maintenance (C) Scheduled maintenance
(D) Preventive maintenance

36-Belt of an electric motor is broken, it needs

- (A) Corrective maintenance (B) Scheduled maintenance (C) Preventive maintenance
(D) Timely maintenance

37-The following is (are) scheduled maintenance

- (A) Overhauling of machine (B) Cleaning of tank (C) Whitewashing of building
(D) All of the above

38-Scheduled maintenance is _____ between breakdown maintenance and the preventive maintenance.

- (A) Joint (B) Compromise (C) Bridge (D) In

39-Equipment history cards are meant to record

- (A) The way equipment behaves (B) Total down time of the equipment
(C) The rate at which different components wear off (D) All of the above

41-With the increase in preventive maintenance cost, breakdown maintenance cost

- (A) Increases (B) Decreases (C) Remain same (D) Any of the above

42-A systematic approach for maintenance is

- (A) Problem – Cause – Diagnosis – Rectification
(B) Problem– Diagnosis – Cause – Rectification
(C) Problem – Measure – Diagnosis – Rectification
(D) Problem– Diagnosis – Measure – Rectification

43-(Down time in hours / Available hours) =

- (A) Maintenance effectiveness (B) Frequency of breakdown
(C) Effectiveness of maintenance planning (D) None of the above

44-(Number of breakdowns / Available machine hours) =

- (A) Maintenance effectiveness (B) Frequency of breakdown
(C) Effectiveness of maintenance planning (D) None of the above

45-Total productive maintenance aims at

- (A) Less idle time (B) Increase in productivity (C) Zero down time
(D) None of the above

46-Total Productive maintenance (TPM) approach has the potential of providing almost a seamless integration between

- (A) Production and Quality (B) Quality and Maintenance (C) Production and Maintenance
(D) All of the above

ANSWERS:

Installation Maintenance and Overhauling

1-A, 2-C, 3-C 4-D, 5-A, 6-B, 7-A, 8-C, 9-B,10-D,11-A,12-B,13-C,14-A,15-B,16-D,17-A, 18-C,19-C,20-C,21-A, 22-C, 23-A, 24-B, 25-B,26-A, 27-B,28-B, 29-D,30-C,31-A, 32-(D), 33-(C), 34-(D), 35-(B), 36-(A), 37-(D), 38-(B), 39-(D), 40-(C), 41-(B), 42-(A), 43-(A), 44-(B), 45-(C), 46-(C)

Belt, Rope and Chain drive

- 1) Which flat belt drive system has two pulleys mounted on driven shaft and one pulley on driving shaft? *
- a) Multiple belt drive b) Cone pulley drive c) Fast and loose pulley drive
d) None of the above
- 2) Which of the following are used to run chains? *
- a) Trunions b) Couplings c) Sprockets d) Splines
- 3) In a 'V' belt the angle between the side is
- a) 10° b) 20° c) 30° d) 40°
- 4) If, in a belt drive, the sense of rotation of both the pulleys is the same, the drive used is
- a) open belt drive b) cross belt drive c) open or cross belt drive
d) neither open nor cross belt drive
- 5) Which one of the following statements is NOT true about cross belt drive?
- a) Belts wear very fast
b) Pulleys rotate in opposite directions
c) Belt angle on both the pulleys is equal
d) Used for transmission of speed at high power
- 6) In belt drive, pulleys are made a slightly convex surface (rather than flat). This convex surface is called
- a) Peak b) spot c) crown d) hump
- 7) Which one of the following statements is NOT true about timing belts?
- a) They are toothed belts.
b) The driving and driven shafts remain synchronized.
c) There is no slippage.
d) They make too much noise.
- 8) Which one of the following belt materials can withstand acidic and wet conditions?
- a) Leather b) Balata c) Rubber d) Cotton
- 9) In a belt drive, the outer surface of the pulley is made in convex form. Which one of the following statements is NOT true about this convex surface? *
- a) It causes excessive belt wear.
b) It prevents the belt from slipping from the edge of the pulley.
c) It keeps the belt in the centre when it is in movement.
d) It is called crown.
- 10) Which of the following statements are false for belt drives?
1. Belt drive is used in applications having constant speed drive
2. Belt drives can be used at extremely high speeds
3. Belt drives have low power transmitting capacity
4. Belt drives need continuous lubrication
- a. 1 and 2 b. 1, 2 and 3 c. 2, 3 and 4
d. 1, 2 and 4
- 11) What is the purpose of using steel chains?
- a) To avoid slipping b) To avoid friction) To avoid accelerated motion
d) To avoid jerks
- 12) The toothed wheels in chain drives are known as _____
- a) Sprockets b) Sprockers c) V-belt d) V- chain

13). Which of the following is true regarding chain drives?

- a) The chain drives may be used when the distance between the shafts is less.
- b) The production cost of chains is relatively low.
- c) The chain drive needs low maintenance.
- d) The chain drive has no velocity fluctuations.

14) The diameter of the circle on which the hinge centres of the chain lie is known as _____

- a) Pitch
- b) Pitch circle diameter
- c) Sprocket length
- d) Sprocket diameter.

15) Which of the following chain is used to provide elevation continuously?

- a) Conveyor chains
- b) Power transmitting chains
- c) Hoisting chains
- d) Hauling chains

16) Which of the following chains are used for transmission of power, when the distance between the centers of shafts is short?

- a) Chain with oval links
- b) Closed joint chain
- c) Detachable chain
- d) Block chain

17) The centrifugal tension in belts

- a) increases power transmitted
- b) decreases power transmitted
- c) have no effect on the power transmitted
- d) increases power transmitted upto a certain speed and then decreases

18) In a cone pulley, if the sum of radii of the pulleys on the driving and driven shafts is constant, then

- a) open belt drive is recommended
- b) crossed belt drive is recommended
- c) both open belt drive and crossed belt drive is recommended
- d) the drive is recommended depending upon the torque transmitted

19) When two pulleys of different diameters are connected by means of an open belt, the angle of contact at the _____ pulley must be taken into consideration.

- a) smaller
- b) larger
- c) medium
- d) none of the mentioned

20) The power transmitted by a belt is maximum when the maximum tension in the belt is _____ of centrifugal tension.

- a) one-third
- b) two-third
- c) double
- d) three times

21) The advantages of the V-belt drive over flat belt drive are

- a) The V-belt drive gives compactness due to the small distance between the centres of pulleys.
- b) The drive is positive, because the slip between the belt and the pulley groove is negligible.
- c) Since the V-belts are made endless and there is no joint trouble, therefore the drive is smooth.
- d) all of the mentioned

22. The disadvantages of the V-belt drive over flat belt drive are

- a) The V-belt drive cannot be used with large centre distances.
- b) The V-belts are not so durable as flat belts.
- c) The construction of pulleys for V-belts is more complicated than pulleys for flat belts.
- d) all of the mentioned

23. The advantages of the V-belt drive over flat belt drive are

- a) It provides longer life, 3 to 5 years.
- b) It can be easily installed and removed.
- c) The operation of the belt and pulley is quiet.
- d) all of the mentioned

24. The disadvantages of the V-belt drive over flat belt drive are

- a) Since the V-belts are subjected to certain amount of creep, therefore these are not suitable for constant speed application such as synchronous machines, and timing devices.
- b) The belt life is greatly influenced with temperature changes, improper belt tension and mismatching of belt lengths.
- c) The centrifugal tension prevents the use of V-belts at speeds below 5 m/s and above 50m/s.
- d) all of the mentioned

25. Which one of the following is a positive drive?

- a) Crossed flat belt drive
- b) Rope drive
- c) V-belt drive
- d) Chain drive

26. The chain drive transmits _____ power as compared to belt drive.

- a) more
- b) less
- c) equal
- d) none of the mentioned

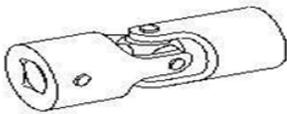
ANSWER:-

Belt, Rope and Chain drive

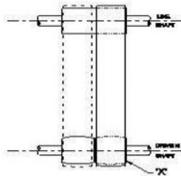
1-C, 2-C, 3-A,4-A, 5-D, 6-C, 7-D, 8-B, 9-A, 10-D, 11-A 12-A, 13-B, 14-A, 15-A, 16-D, 17-C, 18-B, 19-A, 20-D, 21-D, 22-D, 23-D, 24-D, 25-D, 26-A

PULLEY, COUPLING , GEAR & CLUTCHES

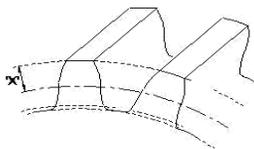
- Which type of gear drive changes rotary movement to linear movement?
 - Hypoid
 - Herring bone
 - Rack and pinion
 - Helical gear
- Why the small steel wedge is tapped under the machine in lifting operation?
 - To prevent vibration
 - To reduce the weight
 - To accept the crowbar
 - To balance the machine
- How to adjust the tension of belt between two fixed pulleys?
 - By sliding the pulley
 - By fixing idler pulley
 - By adjusting the length of belt
 - By adjusting the screw of pulley
- What is the name of the coupling?
 - Slip coupling
 - Plate coupling
 - Clamp coupling
 - Universal coupling



- Slip coupling
 - Plate coupling
 - Clamp coupling
 - Universal coupling
- Why the face of pulley is "Crowned" in power transmission?
 - Increase the tension
 - Decrease the tension
 - Keep the belt centralised
 - Allow the pulley free rotation
 - Which graphical representation of the activities performed during manufacturing?
 - Job card
 - Process chart
 - Batch record form
 - Batch processing form
 - What is the name of the part marked X in fast and loose pulley assembly?
 - Fast pulley
 - Loose pulley
 - Crown pulley
 - Flat drive pulley



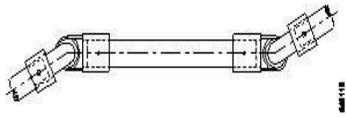
- Fast pulley
 - Loose pulley
 - Crown pulley
 - Flat drive pulley
- Which coupling is used in the place for slight relative movement is required?
 - Chain coupling
 - Flange coupling
 - Flexible coupling
 - Muff coupling
 - Which is the imaginary circle on two matting gears?
 - Root circle
 - Pitch circle
 - Base circle
 - Addendum circle
 - What is the name of radial distance between the pitch circle and root circle in gears?
 - Land
 - Addendum
 - Dedendum
 - Working depth
 - How to improve the gripping property of the dried belt?
 - Jockey pulley
 - Apply powdered resin
 - Reduce the distance between pulleys
 - Increase the distance between pulleys
 - What is the name of the part marked as 'x' of gear?
 - Flank
 - Addendum
 - Face width
 - Root circle



- Flank
- Addendum
- Face width
- Root circle

13. Which is the following designed to operate at 90 degrees.
- | | |
|----------------|-----------------------------|
| A. Mitre gear | B. Bevel gear |
| C. Hypoid gear | D. Worm shaft and worm gear |

14. What is the name of the coupling?

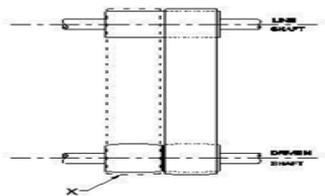


- | | |
|-------------------|-----------------------|
| A. Slip coupling | B. Plate coupling |
| C. Clamp coupling | D. Universal coupling |

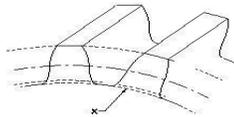
15. Which ore is extraction of aluminium?

- | | |
|------------|------------|
| A. Pyrites | B. Galena |
| C. Blends | D. Bauxite |

16. What is the part marked as 'x'?



- | | |
|-----------------|----------------------|
| A. Fast pulley | B. Crown pulley |
| C. Loose pulley | D. Flat drive pulley |
17. What is the name for elements of gear marked X ?



- | | |
|---------------|----------------|
| A. Flank | B. Root circle |
| C. Face width | D. Addendum |

18. What is the purpose of jockey pulley in belt drive?

- | | |
|------------------------------|----------------------------------|
| A. To maintain the tension | B. To decrease the tension |
| C. Keep the belt centralised | D. Allow free rotation of pulley |

19. Which power drive will transmit motion at constant velocity without creep and slippage?

- | | |
|-----------------|----------------|
| A. Rope drive | B. Gear drive |
| C. Pulley drive | D. Chain drive |

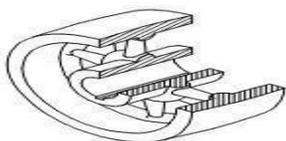
20. Which coupling provides rigid connection between two shafts?

- | | |
|--------------------|-----------------------|
| A. Fast coupling | B. Clamp coupling |
| C. Safety coupling | D. Universal coupling |

21. Which pulley can transmit the power to shaft different heights and at varying distance?

- | | |
|---------------------|---------------------------|
| A. Flat pulleys | B. Rope pulleys |
| C. V groove pulleys | D. Fast and loose pulleys |

22. What is the name of pulley?



- | | |
|--------------------|--------------------------|
| A. Step pulley | B. Flat pulley |
| C. V groove pulley | D. Fast and loose pulley |

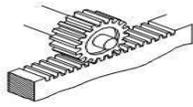
23. Which gear run more silently?

- | | |
|---------------|-----------------|
| A. Spur gear | B. Mitre gear |
| C. Bevel gear | D. Helical gear |

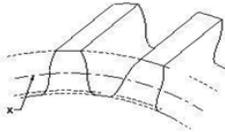
24. Which documentation record is used to know batch number, date of allocation, product identify and size of batch?

- | | |
|------------------------|----------------------------|
| A. Processing chart | B. Job card |
| C. Operation flowchart | D. Batch processing record |

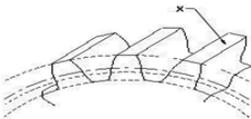
25. What is the name the of gear mechanism?



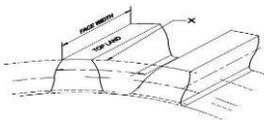
- A. Mitre gear
B. Bevel gear
C. Rack and pinion
D. Worm and worm gear
26. Which coupling will have disengaging provision?
A. Clamp coupling
B. Slip type coupling
C. Universal coupling
D. Plate coupling
27. Which drive is used for long distance and larger amount of power transmission?
A. Belt drive
B. Gear drive
C. Rope drive
D. Chain drive
28. What is the marked as 'X' in gear?



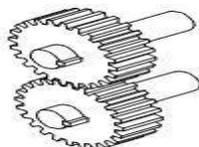
- A. Root circle
B. Base circle
C. Pitch circle
D. Outside circle
29. Which gear is symmetrical to each other and transmit motion at right angle?
A. Spur gear
B. Mitre gear
C. Helical gear
D. Hypoid gear
30. What is marked as 'X' in gear?



- A. Flank
B. Top land
C. Fillet
D. Face
31. How the shifting of belt is enabled from fast to loose pulley?
A. By crowned face of pulley
B. By sliding the loose pulley
C. By adjusting the tension of belt
D. By belt dressing
32. Where helical gears are used?
A. Lathe machine
B. Drilling machine
C. Grinding machine
D. Automobile vehicles
33. Where universal coupling used?
A. Textiles mills
B. Large angle drive
C. Automobile vehicles
D. Engineering machines
34. What is the element of gear marked as 'X'?

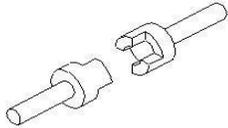


- A. Pitch line
B. Face width
C. Addendum circle
D. Dedendum circle
35. Which type of drive is used for shortest distance and for large amount of power transmission?
A. Belt drives
B. Gear drive
C. Rope drives
D. Chain drives
36. What is the name of gear?



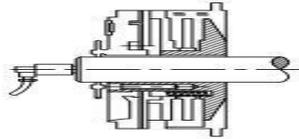
- A. Spur gear
B. Mitre gear
C. Bevel gear
D. Hypoid gear

37. What is the name of the clutch?



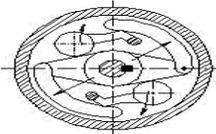
- A. Cone clutch
- B. Single plate clutch
- C. Air clutch
- D. Dog clutch

38. What is the name of clutch?



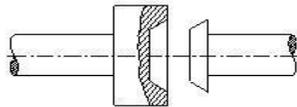
- A. Air clutch
- B. Multiplate
- C. Cone clutch
- D. Over riding clutch

39. What is the name of clutch?



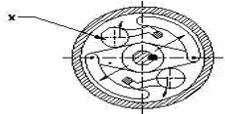
- A. Air clutch
- B. Cone clutch
- C. Centrifugal clutch
- D. Overriding clutch

40. What is the name of the clutch?



- A. Dog clutch
- B. Cone clutch
- C. Air clutch
- D. Centrifugal clutch

41. What is the name of the part marked as 'X'?



- A. Inner piece
- B. Outer piece
- C. Rubbing surface
- D. Centrifugal weight

42. Shifting of power machine from one place to another place is known as _____?

- A. Power transmission
- B. Electric power
- C. Working system
- D. All of these

43. Pulley fitted on motor shaft is called _____ pulley ?

- A. Wood pulley
- B. Time pulley
- C. Split pulley
- D. All of these

44. Running of many machines by one motor in the workshop is called _____ drive ?

- A. Single
- B. Double
- C. Group
- D. All of these

45. The size of plate belt is measured from its width and _____?

- A. Thickness
- B. Length
- C. Weight
- D. All of these

46. Round belt used in _____ pulley ?

- A. Split
- B. Two piece
- C. Half round groove
- D. Round pulley

47. In very long distance drive _____ is used ?

- A. Rope drive
- B. Belt drive

48. Drum pulley has more _____?
- A. Width of face
B. Crowning of pulley
C. Tension of belt
D. All of these
49. The face pulley is in _____ shape ?
- A. Convex
B. Concave
C. Taper
D. Elliptically
50. Ball in ball bearing produces motion speed by _____?
- A. Power
B. Friction
C. Puss
D. All of these
51. Line shaft is also called _____?
- A. Short shaft
B. Sub shaft
C. Main shaft
D. All of these
52. Spline is used where _____ is more ?
- A. Shaft
B. Cotter pin
C. Split pin
D. Serrited
53. To connect and disconnect two shafts frequently _____ coupling is used ?
- A. Loose
B. Fast
C. Fixed
D. All of these
54. In scooter _____ coupling is used ?
- A. Safety
B. Flexible
C. Muff
D. Friction plate
55. Power is transmitted from one shaft to another shaft by belt on _____?
- A. Gear
B. Chain
C. Pulley
D. All of these
56. Gear drive is a kind of _____ drive ?
- A. Negative
B. Positive
C. Neutral
D. All of these
57. Worm gear is used with _____?
- A. Bevel
B. Metre
C. Worm
D. Helical
58. Oldhems is a _____ coupling ?
- A. Safety
B. Flexible
C. Muff
D. Claw
59. Pitch scale of gear is _____ circle ?
- A. Major
B. Minor
C. Effective
D. Periphery
60. _____ system of power transmission there is no slipness ?
- A. By rope
B. By chain
C. By gear
D. By belt
61. Chain drive is used in _____?
- A. . Increase power
B. Chain link
C. Misalignment
D. Coupling
62. _____ is used to protect from slipping in place of belt ?
- A. Step pulley
B. "V" groove pulley
C. Drum pulley
D. Jockey pulley
63. Gear of set used in lathe machines is called _____?
- A. Intermediate gear
B. Gear train
C. Bevel gear
D. Spur gear
64. _____ method is used for power transmission in cotton mill ?
- A. Cam
B. Friction
C. Rope
D. Clutch
65. Which power transmission has slippage?
- A. In gears
B. In chains
C. In sprockets
D. In belts

66. At what angle groove is made on "V" groove pulley _____ ?
 A. 60° B. 45°
 C. 40° D. 30°
67. What is speed ratio of teeth in big wheel is 50 and small wheel 25 _____ ?
 A. $\frac{1}{2}$ B. 1250
 C. 2 D. None of these
68. How much technical capacity chain and sprocket gives _____ ?
 A. 50% B. 70%
 C. 80% D. 98%
69. Which device is used to give support to lengthy shaft _____ ?
 A. Gear B. Bearing
 C. Clutch D. Capacity
70. Third gear is used to rotate two gears in one direction and that is called _____ ?
 A. Idler gear B. Bevel gear
 C. Rake and pinion D. Spur gear
71. Pulley fitted on motor shaft or spindle is called Pulley.
 (a) Driver (b) Driven
 (c) Jockey (d) All of these
72. Pulley rotates in belt drive by
 (a) Friction (b) Power
 (c) Drive pulley (d) Driven pulley
73. Two idler pulleys is inbelt drive.
 (a) Acute angle (b) Abtuse angle
 (c) Right angle (d) All of these
74. Convex face of pulley is called
 (a) Convex shape (b) Concave shape
 (c) Crowning (d) Round shape
75. The pulley is used to drive a machine on different speed.
 (a) Jockey (b) Step
 (c) Split (d) Round
76. "V" belt is available in And internal periphery size.
 (a) Split (b) Jockey
 (c) Cross section (d) Adjustable
77. From crowning belt and is in centre.
 (a) Rope (b) Belt
 (c) Chain (d) Pulley
78. In half muff coupling the diameter and length of muff is equal to
 (a) Shaft (b) Cotter pin
 (c) Split pin (d) Seritted
79. Male cone on one shaft and on second shaft is fitted in cone friction clutch.
 (a) Female cone (b) Unnecessary
 (c) All cone (d) None of these
80. Grooves are made on the face of a Clutch.
 (a) Flexible (b) Safety
 (c) Muff (d) Claw
81. Circular pitch of gear is measured on In round.
 (a) Dia circle (b) Pitch circle
 (c) Major circle (d) Minor circle
82. Coupling has two flanges having holes in it.
 (a) Flanged (b) Washer
 (c) Cotter (d) Dome
83. Flexible coupling can bear
 (a) Power (b) Friction
 (c) Strokes (d) All of these
84. Pressure angle of gear teeth is normally
 (a) 14 $\frac{1}{2}$ " (b) 10"

- (c) 12 ½" (d) 13 ½"
85. is to be used where machine has to switch on or off frequently.
 (a) Drum pulley (b) Jockey pulley
 (c) Loose and fast pulley (d) Step pulley
86. is used for power transmission at 90° angle.
 (a) Bevel gear (b) Helical gear
 (c) Spur gear (d) Rake and pinion
87. Gear used in sliding machines
 (a) Bevel gear (b) Rake and pinion
 (c) Helical gear (d) Spur gear
88. Gear is used in Indexim Instrument
 (a) Helical gear (b) Spur gear
 (c) Worm gear (d) Worm wheel gear
89. Follower is a.....
 (a) Moving part (b) Feeder
 (c) Gear train (d) Idler gear
90. Which part of gear having height of teeth on pitch circular of gear.....
 (a) Module (b) Addendum
 (c) Dedendum (d) Chordal pitch
91. method is used for power transmission in cotton mill.
 (a) Cam (b) Friction
 (c) Rope (d) Clutch
92. When the applied loading is always in one direction the type of thread preferred is _____
 (a) Acme (b) Square
 (c) BSW (d) Buttress
93. Which type of thread is considered strong and frequently used for power transmission?
 A. BSW B. BSF
 C. Acme D. Buttress
94. If it is required to bring the driven shaft to spend in a gradual manner, which type of device will be used?
 A. Coupling B. Clutch
 C. Gear D. Belt drive
95. If in a belt drive the sense of rotation of both the pulleys is the same, the drive used is
 A. open belt drive B. cross belt drive
 C. Both A & B D. None of these
96. Which one of the following statements is NOT true about cross belt drive?
 A. Pulley rotate in opposite directions
 B. Belt angle on both the pulleys is equal
 C. Belt wear very fast
 D. Used for transmission of speed at high power
97. In belt drive, pulleys are made a slightly convex surface (rather than flat). This convex surface is called
 A. Hump B. Peak
 C. Crown D. Spot
98. Which one of the following statements is not true about timing belts?
 A. they make too much noise.
 B. They are toothed belts.
 C. There is no slippage.
 D. The driving and driven shafts remain synchronized.
99. Which one of the following belt materials can withstand acidic and wet conditions?
 a. leather b. balata
 c. cotton d. rubber
100. In a belt drive, the outer surface of the pulley is made in convex form. Which one of the following statements is not true about this convex surface?
 a. It is called crown
 b. It keep the belt in the centre when it is in movement.
 c. it causes excessive belt wear
 d. It prevents the belt from slipping from the edge of the pulley.

101. Fast and loose pulley drive configuration is used when
- distance between driving and drive shaft is too large
 - velocity ratio is too large
 - it required to start or stop driven shaft without disturbing driving shaft
 - low noise is required
102. An example of use of stepped pulley drive is in
- lathe
 - milling machine
 - shaper
 - planer
103. Which one of the following statements is not true about coupling?
- it connects two in-line shaft
 - it can be rigid or flexible
 - it drives driving and driven shafts at same speed
 - it can engage and disengage driving and driven shafts as a normal operation
104. It is a long cylindrical coupling bored and keyed to fit over both shafts. It is called
- rigid coupling
 - muff coupling
 - spider coupling
 - fluid coupling
105. Which one of the following types of couplings gives a soft start?
- rigid coupling
 - muff coupling
 - spider coupling
 - fluid coupling
106. a coupling which has a yoke on each shaft is called
- universal couple
 - muff coupling
 - rigid coupling
 - spider coupling
107. Which type of coupling is used in the propeller shaft of a vehicle?
- spider coupling
 - universal couple
 - rigid coupling
 - fluid coupling
108. Normally a gear meshes with another gear. But gear can also mesh with a non-rotating toothed part called
- rack
 - worm
 - sheave
 - yoke
109. When the situation is such that power has to be transmitted at an angle, the gear used are
- spur gear
 - helical gears
 - bevel gear
 - herringbone gear
110. Herringbone gears resemble twogears that have been placed side by side
- spur
 - bevel
 - helical
 - face
111. The sun and planet gearing used in differentials is of the type
- worm and worm wheel
 - rack and pinion
 - hypoid
 - epicyclic
112. With worm-and-gear sets very high gear ratio can be obtained. It can be as high as
- 10:1
 - 50:1
 - 100:1
 - 500:1
113. gears resemble spiral bevel gears except that the shaft axes do not intersect
- Hypoid
 - Worm
 - Epicyclic
 - Face
114. Which of the following are used to run chains?
- Splines
 - Sprockets
 - Couplings
 - Trunions
115. In a pair of gears the amount of clearance between mated gear teeth is called
- addendum
 - dedendum
 - flank
 - backlash
116. In a gear, addendum+ dedendum is equal to
- whole depth
 - working depth
 - nominal depth
 - standard depth
117. The radial distance between the pitch diameter and the outside diameter of a gear is called

- | | | | |
|-----|---------------------|-----|---------------------|
| (a) | addendum | (b) | dedendum |
| (c) | addendum + dedendum | (d) | addendum - dedendum |

118. The accurate spacing of teeth in a gear blank requires the use of _____ ?
- | | | | |
|----|--------------------------|----|-----------------|
| A. | Dividing head | B. | An index plate |
| C. | A differential mechanism | D. | Universal table |
119. Helical gears can be cut on which type of milling machine ?
- | | | | |
|----|-----------|----|------------|
| A. | Plain | B. | Horizontal |
| C. | Universal | D. | Drum type |
120. Which clutch can be engaged progressively when one or both the elements are rotating ?
- | | | | |
|----|---------------------|----|-------------|
| A. | Single plate clutch | B. | Cone clutch |
| C. | Centrifugal clutch | D. | Dog clutch |
121. The radial distance between the pitch circle and the root circle is called _____ ?
- | | | | |
|----|----------------------------|----|--------------------------|
| A. | Dedendum | B. | Addendum |
| C. | Working depth of the teeth | D. | Whole depth of the teeth |
122. What is the function of a dog clutch ?
- | | |
|----|--|
| A. | It can be engaged progressively when one or both the elements are rotating |
| B. | It can only be engaged when two elements of the clutch are stationary |
| C. | When the speed is reduced the clutch opens by itself |
| D. | Contact force is produced by springs |
123. In which clutch, the pressure plate is used?
- | | | | |
|----|-----------------------|----|--------------------|
| A. | Multiple plate clutch | B. | Dog clutch |
| C. | Over riding clutch | D. | Centrifugal clutch |
124. Determine power rating of an electric motor if it runs at 1440 r.p.m. and line shaft transmits torque of 75 Nm. Assume reduction ratio?
- | | | | |
|----|----------|----|---------|
| A. | 10.36 kW | B. | 11.3 kW |
| C. | 7.068 kW | D. | 9.12 kW |
125. In simple gear trains the direction of rotation of driven gear is opposite to the direction of rotation of driving gear only if _____ ?
- | | | | |
|----|--|----|---------------------------------------|
| A. | Even number of idler gears are present | B. | Odd number of idler gears are present |
| C. | Any number of idler gears are present | D. | None of these |
126. Why is an idler gear used in gear trains?
- | | |
|----|--|
| A. | To obtain minimum center distance between driving and driven shaft |
| B. | To have required direction of rotation |
| C. | Both a and b |
| D. | None of these |
127. Determine torque transmitted on the pinion shaft if torque transmitted on gear shaft is 20 Nm consider gear ratio =4
- | | | | |
|----|-------|----|-------|
| A. | 8 Nm | B. | 5 Nm |
| C. | 80 Nm | D. | 16 Nm |
128. Which of the following statements is/are true for gear drives ?
- | | |
|----|--|
| A. | They can be used for long center distances |
| B. | They are used to transmit power between non-intersecting and parallel shafts |
| C. | They cannot be used for high reduction ratios |
| D. | All of these |
129. Which gears are used to connect two intersecting shaft axes ?
- | | | | |
|----|----------------------|----|---------------------|
| A. | Crossed helical gear | B. | Worm and worm wheel |
| C. | Bevel gears | D. | All of these |
130. What is meant by gear ratio ?
- | | |
|----|--|
| A. | The ratio of pinion speed and gear speed |
| B. | The ratio of number of teeth on pinion and number of teeth on gear |
| C. | Both (a) and (b) |
| D. | None of these |
131. Transmission angle is the angle between _____ ?
- | | | | |
|----|-------------------------|----|----------------------------|
| A. | Input link and coupler | B. | Input link and fixed link |
| C. | Output link and coupler | D. | Output link and fixed link |

132. Module of a gear is _____ ?
 A. D/T B. T/D
 C. 2D/T D. 2T/D
133. When bevel gears connect two shafts whose axes intersect at an angle greater than a right angle and one of the bevel gears has pitch angle of 90° , then they are known as _____ ?
 A. Internal bevel gears B. Angular bevel gears
 C. Crown bevel gears D. Mitre gears
134. Where a large speed reduction is desired, which type of a gear is used ?
 A. Worm and worm wheel B. Helical bone gear
 C. Hypoid gear D. Herringbone gear
135. Gears having their teeth element parallel to the rotating shafts are known as _____ ?
 A. Worm gear B. Spur gear
 C. Helical gear D. Herringbone gear
136. Clutch used to transmit less power is _____ ?
 A. Plate clutch B. Cone clutch
 C. Dog clutch D. Centrifugal clutch
137. Gear drive used to change rotary motion into linear motion is _____
 A. Spur gear drive B. Bevel gear drive
 C. Worm and worm gear drive D. Rack and pinion gear drive
138. Depth of teeth space below the itch circle in a gear is known as _____ ?
 A. Dedendum B. Addendum
 C. Crest D. Root
139. The size of gear is usually specified by _____ ?
 A. Pressure angle B. Circular pitch
 C. Diametrical pitch D. PCD
140. Radial distance of a gear tooth from the pitch circle to the top of the tooth is known ?
 A. Addendum B. Dedendum
 C. Module D. Pitch
141. Pitch circle of gear & height of gear tooth is called _____ ?
 A. Addendum B. Dedendum
 C. Centre distance D. Face
142. Which gear arrangement is used to change the circular motion of horizontal to vertical without change in speed ratio?
 A. Two spur gear B. Two helical gear
 C. Two bevel gear D. Worm and worm gear
143. A gear wheel has 36 teeth and 3 mm module, its pitch diameter is?
 A. 12 mm B. 75 mm
 C. 80 mm D. 108 mm
144. The main purpose of using worm and worm wheel drives in machines and their accessories is to ?
 A. Transmit large torque
 B. Provide large speed reduction from worm shaft to worm wheel
 C. Transmit higher speeds
 D. provide large speed reduction from worm wheel to worm shaft
145. What is the name of part marked 'X' gear?
 A. Face width B. Tooth depth
 C. Addendum D. Dedendum
146. What is the name of gear drive?
 A. Mitre gear B. Bevel gear
 C. Helical gear D. Hypoid gear
147. Which gear is symmetrical to each other and is used to transmit motion at right angle?
 A. Spur gear B. Mitre gear
 C. Helical gear D. Hypoid gear
148. A flange coupling is used _____ .
 a. For intersecting shafts b. For collinear shafts
 c. For small shafts rotating at slow speeds d. For parallel shafts
149. While designing a flange coupling, care is taken so that _____

- a. Shaft is the weakest component b. Bolts are the weakest component
c. Key is the weakest component d. The flange is the weakest component
150. A bushed-pin type flange coupling is used
a. For intersecting shafts
b. When the shafts are not in exact alignment
c. For small shafts rotating at
d. For parallel shafts slow speeds |
151. A muff coupling is _____.
a. Rigid coupling b. Flexible coupling
c. Shock absorbing coupling d. None of the above
152. In case of clamp coupling, power is transmitted by means of _____.
a. Friction force b. Shear resistance
c. Crushing resistance d. None of the above
153. A pulley rigidly attached to a shaft is called a _____.
a. Loose pulley b. Fast pulley
c. Stepped pulley d. None of them g
154. _____ are grooved to carry one or more ropes by means of which power is transmitted to shafts at different heights and at varying distances.
a. Stepped pulley b. Jockey pulley
c. Rope pulley d. V-belt pulley
155. A _____ is used when the speed of the driven shaft is to be changed very frequently as in the case of machine tools, such as lathe, drilling machine, etc.
a. Stepped cone pulley b. Split pulleys
c. Built up pulleys d. C.I belt pulleys
156. Choose the correct statement.
a. A machine can be easily stopped or started whenever required by the use of a pair of fast and loose pulleys.
b. When the driving belt from the main shaft is on the fast pulley, the counter-shaft is in motion.
c. If the belt is shifted from the fast pulley on to the loose pulley, the counter-shaft will stop rotating.
d. All are correct
157. In rope pulleys, the diameter of the pulley is kept at least _____ times the diameter of the rope.
a. 5 b. 13
c. 15 d. 30
158. _____ transmits power from engine to gearbox, gearbox to propeller shafts.
a. Gear b. Thread
c. Pipe joint d. Cam
159. In _____ teeth are cut parallel to the axis of the shaft.
a. Spur gears b. Helical gears
c. Double helical d. Herringbone gear
160. The radial distance from pitch circle to the outside diameter is _____.
a. Dedendum b. Addendum
c. Pitch d. None of the above
161. A circle representing imaginary friction wheels is known as _____.
a. Dedendum circle b. Addendum circle
c. Pitch circle d. None
162. The teeth of spur gears are _____ to the axis.
a. Inclined and parallel b. Straight and parallel
c. Straight and inclined d. None of the above
163. The gear with smaller number of teeth in a gear train is called _____.
a. Wheel b. Pinon
c. Rack d. None of the above
164. Gears are used in _____.
a. Watches b. Machines
c. Both the above d. None

165. In a gear, addendum + dedendum is equal to
 a. Whole depth
 b. Working depth
 c. Nominal depth
 d. Standard depth
166. The radial distance between the pitch diameter and outside diameter of a gear is called
 a. Addendum
 b. Dedendum
 c. Addendum + dedendum
 d. Addendum - dedendum
167. In a pair of gears the amount of clearance between mated gear teeth is called
 a. Addendum
 b. Dedendum
 c. Flank
 d. Backlash
168. In _____, teeth are cut an angle to the axis of the shaft.
 a. Spur gears
 b. Helical gears
 c. Double helical
 d. Herringbone gear
169. When the situation is such that power has to be transmitted at an angle, the gears used are.
 a. Spur gears
 b. Helical gears
 c. Bevel gears
 d. Herringbone gears
170. Herringbone gears resemble two _____ gears that have been placed side by side.
 a. Spur
 b. Bevel
 c. Helical
 d. Face
171. In which type of gear the teeth are cut at an angle to the axis of gear ?
 a. Spur gear
 b. Helical gear
 c. Bevel gear
 d. Worm gear
172. In which among the following gearing the greater ratio may be implied ?
 a. Bevel gearing
 b. Spur gearing
 c. Helical gearing
 d. Worm gearing
173. Helical gears are used in _____.
 a. Steam turbines
 b. Watch
 c. Cycle
 d. None of the above
174. Smooth and noiseless drive is better available in _____ ?
 a. Spur gear
 b. Spiral gear
 c. Bevel gear
 d. Rack and pinion
175. Double helical gears are called as _____.
 a. Herringbone gear
 b. Spur gear
 c. Bevel gear
 d. Worm gear

ANSWER

PULLEY, COUPLING, GEAR & CLUTCHES

1- C	2- C	3- B	4- B	5- C	6- B	7- D
8- C	9- B	10- C	11- B	12- B	13- C	14- D
15- D	16- C	17- B	18- A	19- D	20- A	21- B
22- B	23- D	24- B	25- C	26- C	27- C	28- C
29- B	30- B	31- C	32- D	33- C	34- C	35- B
36- A	37- B	38- A	39- C	40- B	41- D	42- A
43- B	44- C	45- A	46- C	47- A	48- A	49- A
50- B	51- C	52- A	53- A	54- D	55- C	56- B
57- C	58- B	59- C	60- C	61- C	62- B	63- B
64- C	65- D	66- B	67- C	68- D	69- B	70- A
71- D	72- A	73- C	74- C	75- B	76- C	77- D
78- A	79- A	80- D	81- B	82- A	83- C	84- A
85- C	86- B	87- B	88- C	89- A	90- B	91- C
92- D	93- C	94- B	95- A	96- D	97- C	98- A
99- B	100- C	101- C	102- A	103- D	104- B	105- D
106- A	107- B	108- A	109- C	110- C	111- D	112- D
113- A	114- B	115- D	116- A	117- A	118- A	119- C
120- B	121- A	122- B	123- D	124- C	125- A	126- B
127- B	128- B	129- C	130- A	131- C	132- A	133- C
134- A	135- B	136- B	137- D	138- A	139- D	140- A
141- A	142- C	143- D	144- B	145- C	146- D	147- B
148- B	149- C	150- B	151- A	152- A	153- B	154- C
155- A	156- D	157- D	158- A	159- A	160- B	161- C
162- A	163- B	164- C	165- A	166- A	167- D	168- B
169- C	170- C	171- B	172- D	173- A	174- B	175- A

Technical Terms used in Industry

1. A chart may be a diagram, a picture or a graph which gives an overall view of the situation is
 - a. Flow chart
 - b. Process Chart
 - c. Travel chart
 - d. Operation Chart
2. A diagram showing the path followed by men and materials while performing a task is known as ____.
 - a. String diagram
 - b. Flow process chart
 - c. Travel chart
 - d. Flow diagram
3. Which of the following charts are used for plant layout design?
 - a. Operation process chart
 - b. Man machine chart
 - c. Travel chart
 - d. All of them
4. Which one of the following chart gives simultaneously information about the progress of work and machine loading?
 - a. Process chart
 - b. Machine load chart
 - c. Man-machine chart
 - d. Gantt chart
5. Which of the following is not a type of flow process chart?
 - a. Material
 - b. Method
 - c. Machine
 - d. Man
6. In a _____ Layout all machines or process of the same type are grouped together.
 - a. Fixed position
 - b. Factory
 - c. Process
 - d. Product
7. _____ process chart is a graphic representation of the sequence of all the operations and inspections involved in a process or procedure.
 - a. Operation
 - b. Outline
 - c. Travel
 - d. Flow process
8. Which of the following is not type of process chart?
 - a. Operator chart
 - b. SIOM Chart
 - c. Multiple activity chart
 - d. X chart
9. Two handed Process chart does not use the following element of hand work?
 - a. Operation
 - b. Suggestion
 - c. Delay
 - d. Hold
10. The analysis and estimation method of cost by classifying cost accounts as fixed or variable with respect to specific output level is considered as .
 - a. Price analysis method
 - b. Manufacturing analysis method
 - c. Unit analysis method
 - d. Account analysis method
11. The method of estimation of cost function by making the opinions and analysis about cost and cost drivers is classified as
 - a. Conference method
 - b. Inference method
 - c. Pricing method
 - d. Manufacturing method
12. The work measurement method of cost estimation is also called ?
 - a. Price engineering method
 - b. Industrial engineering method
 - c. Unit engineering method
 - d. Measuring engineering method
13. The cost analysis method which uses mathematical method to use fit between past data observations and cost functions is classified as.
 - a. Quantitative analysis method
 - b. Qualitative analysis method
 - c. Account analysis method
 - d. Conference analysis method
14. The floating position of the holding fixture in a rotary transfer device is used to _____?
 - a. Improve the accuracy of location
 - b. Improve upon the acceleration and deceleration characteristics
 - c. Reduce the tendency to over-index
 - d. Reduce the cycle time

15. The production scheduling is simpler and high volume of output and high labour efficiency are achieved in the case of ?
- Product layout
 - Process layout
 - Fixed position layout
 - A combination of line and process layout
16. Process layout is employed _____?
- Where low volume of production is required
 - Where similar jobs are manufactured on similar machines
 - Where machines are arranged on functional basis
 - None of them
17. In time study, the rating factor is applied to determine _____?
- Standard time of a job
 - Merit rating of the worker
 - Fixation of incentive rate
 - Normal time of a worker
18. Production cost refers to prime cost plus _____?
- Factory overheads
 - Factory and administration overheads
 - Factory, administration and sales overheads
 - Factory, administration, sales overheads and profit
19. A systematic job improvement sequence will consist of _____?
- Motion study
 - Time study
 - Job enrichment
 - None of them
20. Work sampling is applied for _____?
- Estimation of the percentage utilisation of machine tools
 - Estimating the percentage of the time consumed by various job activities
 - Finding out time standards, specially where the job is not repetitive and where time study by stop watch method is not possible
 - All of them
21. When slack of an activity is negative _____?
- It represents a situation where extra resources are available and the completion of project is not delayed.
 - It represents that a programme falls behind schedule and additional resources are required to complete the project in time
 - The activity is critical and any delay in its performance will delay the completion of whole project.
 - All of them
22. The procedure of modifying work content to give more meaning and enjoyment to the job by involving employees in planning, organisation and control of their work, is termed as.
- Job enlargement
 - Job enrichment
 - Job rotation
 - Job evaluation
23. Probabilistic time for completion of any activity can be found out from _____?
- Optimistic time
 - Pessimistic time
 - Most likely time
 - All of them
24. The determination of standard time in a complex job system is best done through _____?
- Job card
 - Productivity report
 - Cycle time
 - None of them
25. Which is used to allocate direct labour and material costs?
- Job card
 - Productivity report
 - Cycle time
 - None of them
26. Technical terms are important aspects of _____?
- Technical writing
 - Scientific writing
 - Both (a) and (b)
 - None of the above
27. What is machine cycle time ?
- Time taken for loading, unloading, replacing and changing the parts of the machine for the machining and turning
 - Time taken by the machine for making single unit of parts
 - Time taken for making the machine parts
 - Time for which the machine part is prepared when the machine runs automatically

28. Product enquiry form is used to _____ ?
 A. Place the order
 B. Request for quotation
 C. To enquire for the required product
 D. To register the details of finished goods
29. Which tool is used for performing drilling operation ?
 A. Counter bore tool
 B. Countersink tool
 C. Drill
 D. Reamer
30. What is tooling cost ?
 A. Cost of manufacturing
 B. Profit of the firm
 C. Both (a) and (b)
 D. Estimated cost of jigs and fixtures used in production process
31. What percentage of profit is accumulated in the cost of the product?
 A. 5-6%
 B. 10-15%
 C. 0%
 D. 8%
32. What is the permissible variation in size or dimension technical known as?
 A. Reaming
 B. Tolerance
 C. Counter boring
 D. Threading
33. What is the other name for two handed process ?
 A. Operator activity chart
 B. Outline process chart
 C. Flow process chart
 D. Storage process chart
34. Activity log is _____?
 A. Written record how you spend time
 B. Measure of procreativity
 C. To check the movement
 D. None of these
35. Process chart shows _____?
 A. Operation to be used
 B. Sequence of operation
 C. Worker's name
 D. Inspection method
36. Cycle time means.....
 A. Starting time of job
 B. Time to complete job
 C. Completion time of job
 D. Waiting time of job
37. A process chart shows
 A. Operation to be used
 B. Sequence of operations
 C. Worker's name
 D. Inspection method
38. Which one of the following is not among the standard process chart symbols?
 A. Operation
 B. Inspection
 C. Storage
 D. Operator

ANSWER

Technical Terms used in Industry

1- b	2- d	3- d	4- b	5- b	6- c	7- a
8- d	9- b	10-d	11-a	12-b	13-a	14-d
15-a	16-d	17-c	18-a	19-d	20-d	21-b
22-b	23-d	24-d	25-a	26-c	27-c	28-c
29-c	30-d	31- b	32-b	33-a	34-a	35-b
36- c	37-b	38- d				