

150/2014

1. The cutting angle for chipping cast iron is \_\_\_\_\_.  
(A)  $60^\circ$                       (B)  $55^\circ$                       (C)  $90^\circ$                       (D)  $37.5^\circ$
  
2. Chain hole drilling is performed \_\_\_\_\_.  
(A) Before drilling larger dia. holes    (B) Where hack sawing is not possible  
(C) To reduce the weight of the job    (D) Instead drilling pilot hole
  
3. A drift is used for \_\_\_\_\_.  
(A) Drawing a drill location  
(B) Fixing chuck on the machine spindle  
(C) Removing a broken drill from work  
(D) Removing the drill from the machine spindle
  
4. Taps are made of \_\_\_\_\_.  
(A) Mild steel                                      (B) Stainless steel  
(C) High carbon steel                              (D) Low carbon steel
  
5. The point angle for a standard drill is \_\_\_\_\_.  
(A)  $135^\circ$                       (B)  $60^\circ$                       (C)  $108^\circ$                       (D)  $118^\circ$
  
6. Which one of the following is not the part of a shaper ?  
(A) Clapper box    (B) Ram                      (C) Tool head                      (D) Cross slide
  
7. The size of the shaper is specified by \_\_\_\_\_.  
(A) Length of stroke                              (B) Size of the table  
(C) Maximum size of the tool                      (D) H.P. of motor
  
8. Which of the following is non-chip removal process ?  
(A) Spinning on lathe                              (B) Machining on shaper  
(C) Thread cutting                              (D) Gear hobbing

9. The reference surface during marking is provided by the \_\_\_\_\_.
- (A) Surface gauge (B) Workpiece  
(C) Drawing of the work (D) Marking table surface
10. Generally ratio of forward and return stroke in a shaper is \_\_\_\_\_.
- (A) 2 : 1 (B) 1 : 2 (C) 2 : 3 (D) 3 : 2
11. In shaping, compound angle may be obtained using \_\_\_\_\_.
- (A) Plain vice (B) Swivel vice  
(C) Universal vice (D) Tool marker's vice
12. Which one is the operation that cannot be done on the slotting machine \_\_\_\_\_.
- (A) Key way slotting (B) Dove tail slotting  
(C) Gear cutting (D) Thread cutting
13. The inside corner of a job should be finished by using \_\_\_\_\_.
- (A) Round nose tool (B) Key way tool  
(C) Square nose tool (D) Cornering tool
14. To slot a convex surface, the cutting tool required is \_\_\_\_\_.
- (A) Square nose tool (B) Round nose tool  
(C) Key way tool (D) Cornering tool
15. The convex surface can be slotted by using \_\_\_\_\_.
- (A) Longitudinal feed (B) Rotary feed  
(C) Cross feed (D) Vertical feed
16. The purpose of quick return mechanism in a slotting machine is to \_\_\_\_\_.
- (A) Reduce the cutting time (B) Have faster return stroke  
(C) Maintain standard cutting speed (D) Reduce idle time having faster idle stroke
17. The main feed shaft of a slotting machine is drive by \_\_\_\_\_.
- (A) Bevel gear mechanism (B) Pawl and ratchet wheel mechanism  
(C) Tumbler gear mechanism (D) Worm and worm gear mechanism

18. During turning operation measure the job when it is \_\_\_\_\_.
- (A) In motion (B) Stopped  
(C) About to stop (D) Removed from the chuck
19. Changing of speed must be done when the :
- (A) Machine is running (B) Machine is stopped  
(C) Job is removed (D) Chuck is removed
20. Surface gauge is used on lath to \_\_\_\_\_.
- (A) Draw parallel lines (B) True the job  
(C) Measure the job (D) Draw perpendicular lines
21. Centre drill is mounted on \_\_\_\_\_.
- (A) Tool post (B) Sleeves (C) Tail stock spindle (D) Four jaw chuck
22. For safe working, gap between tool rest and grinding wheel is :
- (A) 4 mm minimum (B) 5 mm maximum  
(C) 2 mm maximum (D) 3 mm minimum
23. Centre drill breaks as a result of \_\_\_\_\_.
- (A) Heavy speed and low feed (B) Heavy feed and low feed  
(C) Larger drill and smaller work (D) Larger drill and larger work
24. Chucks, Facing Plate, driving plates are mounted on \_\_\_\_\_.
- (A) Head stock spindle (B) Tail stock spindle  
(C) Tool post (D) Carriage
25. Chamfering is not meant \_\_\_\_\_.
- (A) Remove burrs and sharp  
(B) Permit for easy assembly of mating components  
(C) Reduce the weight of the component  
(D) Provide better appearance

26. A centre gauge is used to \_\_\_\_\_.
- (A) Check the pitch of the thread      (B) Set the tool at the correct centre height  
(C) Check the fit of the thread      (D) Check the angle of threading tool
27. 100 mm dia. work runs at 250 RPM on a lathe, the cutting speed is \_\_\_\_\_.
- (A) 25 m/min.      (B) 121 m/min.      (C) 78.5 m/min.      (D) 50 m/min.
28. Knurling is done on \_\_\_\_\_.
- (A) Flat Surface      (B) Cylindrical Surface  
(C) Concave Surface      (D) Convex Surface
29. The included angle of the morse taper is \_\_\_\_\_.
- (A) 1°      (B) 3°      (C) 2° 30'      (D) 5°
30. Chip breaker is provided to \_\_\_\_\_.
- (A) Avoid tool setting blunt      (B) Reduce heat generation  
(C) Minimise tool life      (D) Metal continuous chip formation
31. The morse standard taper is available in \_\_\_\_\_.
- (A) 20 Nos      (B) 12 Nos      (C) 10 Nos      (D) 08 Nos
32. A mandril is used \_\_\_\_\_.
- (A) In a chuck for moving the jaws  
(B) For taper turning only  
(C) For holding the dead centre  
(D) For turning a bored workpiece over the whole length
33. Top rake angle of a parting tool is \_\_\_\_\_.
- (A) Between 5° - 6°      (B) 2°      (C) 30° - 45°      (D) 0°
34. Quick return mechanism in a planner is necessary to \_\_\_\_\_.
- (A) Have Smooth Surface      (B) Avoid dulling of the tool point  
(C) Reduce operation time      (D) Increase operation time

35. For feeding the tool for planing vertical and angular surface use \_\_\_\_\_.  
 (A) Tool head (B) Clapper box (C) Cross rail (D) Table
36. Least Count of Vernier bevel protractor is \_\_\_\_\_.  
 (A) 5° (B) 0.5' (C) 5' (D) 5"
37. In a planing machine the feed is provided intermittently at the \_\_\_\_\_.  
 (A) Forward stroke (B) Return stroke  
 (C) Speed changing time (D) At the middle of forward stroke
38. For ordinary clamping purpose the following type of bolts are used \_\_\_\_\_.  
 (A) T head bolts (B) Square head bolts  
 (C) Stud bolts (D) Round head bolts
39. The above cutter is used for \_\_\_\_\_.  
 (A) Machining flat surface (B) Face milling  
 (C) Milling recesses (D) Milling narrow grooves
40. The least count of a vernier height gauge in the British system is \_\_\_\_\_.  
 (A) 0.05" (B) 0.002" (C) 0.001" (D) 1"
41. The quality of surface finish that can be achieved in good operation condition on a milling machine is \_\_\_\_\_.  
 (A) N4 to N8 (B) N3 to N6 (C) N2 to N4 (D) N1 to N12
42. While mounting a parallel shank cutter, select a spring collet whose dia. is \_\_\_\_\_.  
 (A) More than the dia. of shank (B) Equal to the dia. of cutter  
 (C) Equal to the dia. of shank (D) Smaller than the dia. of shank
43. Built up edge is formed on the cutting edge of cutter if material to be milled is \_\_\_\_\_.  
 (A) Tough (B) Ductile (C) Malleable (D) Soft
44. The above cutter is used for \_\_\_\_\_.  
 (A) Key way cutting (B) Cutting thin slots  
 (C) Angle milling (D) Cutting off to length

45. Vertical milling operations are carried out by mounting the vertical milling attachment on \_\_\_\_\_.
- (A) Vertical milling machine                      (B) Slotting machine  
(C) Universal milling machine                      (D) Horizontal milling machine
46. Precision grinders are used to maintain close tolerances upto \_\_\_\_\_.
- (A) 0.020 mm              (B) 0.002 mm              (C) 0.010 mm              (D) 0.001 mm
47. The operation of sharpening a wheel is called \_\_\_\_\_.
- (A) Truing                      (B) Aligning                      (C) Dressing                      (D) Balancing
48. Which one is not the cause for "glazing" of grinding wheel ?
- (A) Hard wheel in place of soft wheel  
(B) Higher wheel speed than recommended  
(C) Dirty coolant  
(D) Improper dressing
49. The recommended depth of cut for roughing is \_\_\_\_\_.
- (A) 0.015 to 0.050 mm                      (B) 0.015 to 0.030 mm  
(C) 0.010 to 0.020 mm                      (D) 0.020 to 0.040 mm
50. The rotary table is mainly used for the vertical milling machine to mill \_\_\_\_\_.
- (A) Flat Surfaces                      (B) Circular Surfaces  
(C) Gear teeth                      (D) Serrations
51. In the BIS system 25 holes deviations are specified by \_\_\_\_\_.
- (A) Small letters                      (B) Small letters with number's  
(C) Small letters with tolerance                      (D) Capital letters
52. Galvanizing process the components are dipped in \_\_\_\_\_.
- (A) Copper sulphate                      (B) Molten zinc  
(C) Sulphuric acid                      (D) Zinc chloride

53. A job is to be faced holding it between centres. For supporting the job. Which of the following centres, would you suggest ?
- (A) Half Centre (B) Ball Point Centre  
(C) Revolving Centre (D) Pipe Centre
54. What do you understand by the term "HARDNESS" of a grinding wheel ?
- (A) A grinding wheel to grind hard material.  
(B) The strength of the bond to hold the abrasive grains together  
(C) The ability of a grinding wheel to separate the abrasive particles easily  
(D) The Brinell hardness of the grinding wheel
55. To improve productivity in manufacturing jigs and fixtures are used \_\_\_\_\_.
- (A) Guides the tool while cutting  
(B) Is used only for drilling and boring operations  
(C) Only small components can be held by this  
(D) It helps to hold the workpiece in the correct position
56. You have to mill an aluminium job which one of the following feature of the cutter is suitable for this ?
- (A) Straight teeth cutter with larger wedge angle  
(B) Helical teeth cutter with zero rake angle  
(C) More number of cutting edges with more chip space  
(D) Less number of cutting edges with more chip space
57. It is required to machine single start worm of 2 module (m) and 60 mm pitch diameter. The speed ratio is 40 : 1.
- (A) 29.3 mm (B) 33.3 mm (C) 21 mm (D) 14.6 mm
58. A gear wheel has 20 teeth (Z) and 3 mm module (m) its pitch diameter (pd) is \_\_\_\_\_.
- (A) 12 mm (B) 60 mm (C) 75 mm (D) 108 mm
59. What is the advantages of helical fluted taps ?
- (A) Drilling to minor diameter (B) Tapping on slotted hole  
(C) Lubrication is easy (D) Self alignment of tap is possible

60. What is the main purpose of using coolant while drilling ?
- (A) To avoid colouring of the chips
  - (B) To avoid the corrosion of polished machine parts
  - (C) To cool the tool edge and lubricate the chips
  - (D) To use it as a cleaning medium and finish the chips
61. A point-to-point control system is suitable only for one of the following applications :
- (A) Grinding
  - (B) Jig boring
  - (C) Turning
  - (D) Milling profile
62. The temperature to which a workpiece is heated depends on the materials and the type of forging process. The temperature range for forging high carbon steel is \_\_\_\_\_.
- (A) 700°C - 800°C
  - (B) 800°C - 1300°C
  - (C) 900°C - 1150°C
  - (D) 950°C - 1100°C
63. Which one of the following is the characteristic of a shaping machine relating to cutting process ?
- (A) Tool cuts on both forward and return stroke
  - (B) Tool cuts during forward stroke
  - (C) Tool kept stationary
  - (D) Tool cuts during return stroke
64. In which of the following cases do you use higher "rpm" while turning ?
- (A) Large diameter of work with higher feed rate
  - (B) Fine finish on small diameter of work
  - (C) Hard and tough work material
  - (D) High rate of metal removed
65. The grade of a grinding wheel is specified by the letters from A to Z.
- (A) E
  - (B) J
  - (C) P
  - (D) Y
66. Find the normal module of a helical gear. Having an angle of 25° and real module (m) 6.62.
- (A)  $6.62 \times \sin 25^\circ$
  - (B)  $6.62 \times \cos 25^\circ$
  - (C)  $6.62 \times \tan 25^\circ$
  - (D)  $6.62 \times \cot 25^\circ$