PART – A (THEORY) (MARKS: 150)

1. If a patient does not respond to mouth to mouth resuscitation treat, a first-aider should immediately ________.
   a) Seek medical help
   b) Check the broken limbs
   c) Keep the body warm with blankets
   d) Check pupils of eyes and pulse

2. Which type of chisel is used for cutting keyways, groove and slots?
   a) Flat chisel
   b) Cross cut chisel
   c) Half round nose chisel
   d) Diamond point chisel

3. The property of a metal by which it can be drawn into thin wire ________.
   a) Elasticity
   b) Ductility
   c) Malleability
   d) Plasticity

4. The convexity of file helps ________.
   a) To file concave surface
   b) To file convex surface
   c) To prevent rounding of edges of work.
   d) The file to become straight when pressure is applied.

5. The drilling machine used for light duty work ________.
   a) Bench type sensitive
   b) Pillar type
   c) Radial
   d) Gang

6. The recommended point angle of the chisel to cut mild steel is ________.
   a) 30°
   b) 45°
   c) 55°
   d) 60°
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| 7. Which grade of file is used for removing rapidly a large quantity of metal? | a) Dead smooth file  
  b) Smooth file  
  c) Second cut file  
  d) Rough file |
| 8. A slight convexity is given in the cutting edge of the flat chisel is to | a) Cut keyway on shaft  
  b) Prevent digging of the ends  
  c) Cut curved surface  
  d) Cut sharp corners |
| 9. 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 |
| 10. Number of graduations on the thimble of a metric micrometer | a) 10  
  b) 50  
  c) 100  
  d) 1000 |
| 11. Which one of the marking media takes longer time to dry? | a) Chalk powder  
  b) Prussian blue  
  c) Copper sulphate  
  d) Cellulose lacquer |
| 12. The important elements in soft solder is | a) Tin and lead  
  b) Lead and zinc  
  c) Tin and copper  
  d) Tin and zinc |
| 13. The size of the dividers is specified by the | a) Distance between points when opened fully  
  b) Total length of the legs  
  c) Distance between the pivot and the points  
  d) Length of the legs without points |
| 14. Try square is checking for | a) Check the round surface  
  b) Check the groove surface  
  c) Check the flat surface  
  d) Check the irregular surface |
15. The value of one thimble scale division in a micrometer is ________.
   a) 1mm       c) 0.02mm
   b) 0.5mm     d) 0.01mm

16. Diluted Hydrochloric acid is used as flux for soldering ________.
   a) Copper sheets     c) Stainless steel sheets
   b) Brass sheets      d) Galvanized iron sheet

17. Least count of micrometer is ________.
   a) 0.1 mm       c) 0.2 mm
   b) 0.5 mm       d) 0.01 mm

18. What is the part used to change the range of depth micrometer?
   a) Thimble       c) Graduated sleeve
   b) Stock         d) Extension rod

19. Which work holding device support the round job, while drilling the job on a drilling machine?
   a) ‘V’ block and clamps, bolts, packing piece
   b) The machine vice and bolts, packing piece
   c) The hand vice with clamps, bolts.
   d) The pin vice with clamp, bolts

20. The best placement of the stock for heating in the forge is ________.
   a) Below the tuyere with the fire coming from deep inside
   b) On the top of the fire covered with a thin layer of coal
   c) Away from the tuyere with a thick layer of coal on the top
   d) Near the tuyere allowing the air to fall directly on the Stock

21. Micrometer is based on the principle of ________.
   a) Nut and bolt       c) Rack and pinion
   b) Differences of two scales
   d) None of these

22. Vernier caliper can be used to measure ________.
   a) Outer dia of a hole       c) Depth of blind hole
   b) Inner dia of a Hole       d) All of these
23. After hardening process, the metal becomes more ________.
   a) Malleable  c) Tough  
   b) Brittle  d) Ductile

24. Which hammer is used for sheet metal work?
   a) Ball pein Hammer  c) Cross pein Hammer
   b) Sledge Hammer  d) Soft Hammer(wood)

25. Drill chuck is used to hold ________.
   a) Straight shank drill  c) Arbor
   b) Taper shank drill  d) Drill socket

26. The purpose of the rivet set used in riveting is ________.
   a) To bring the sheet closely together  
   b) To straighten the sheet before riveting  
   c) To remove the burr between the sheets  
   d) To align the rivet in correct position

27. Striking portion of the hammer is called ________.
   a) Eye  c) Handle
   b) Peen  d) Cheek

28. More spatters are used for ________.
   a) Slow speed  c) More speed
   b) Excess current  d) Bigger gauge of electrode

29. A micrometer has negative error 0.03mm shows a reading of 25.52mm. The correct dimensions is ________.
   a) 25.50 mm  c) 25.57 mm
   b) 25.55 mm  d) 25.60 mm

30. Temperature of hotness of workpiece in a forge is judged approximately ________.
   a) Color  c) Structure
   b) Weight  d) Smell
31. After threading a hole by a tap, it was found that the crest of the thread was not formed completely. Why?
   a) Hole size slightly more than the tap drill
   b) Insufficient coolant supply
   c) Broken the tip of cutting edge of the tap.
   d) Hole size slightly less than the tap drill size.

32. Anvil is made of ________.
   a) Mild steel
   b) Cast iron
   c) Copper
   d) Ceramic

33. Which type of non destructive test is suitable to check the internal defects of weld in high pressure boiler welding?
   a) Visual Test
   b) Liquid penetrant test
   c) Magnetic particle test
   d) Radiographic test

34. A new hacksaw blade after a few strokes become loose because of the ________.
   a) Wing nut thread being worn out
   b) Improper selection of the set of screw
   c) Stretching of the blade
   d) Wrong pitch of the blade

35. Length of file is measured from tip to ________.
   a) Edge
   b) Heel
   c) Face
   d) Tang

36. The sizes of a wing compass range between ________.
   a) 0 to 50mm
   b) 50 to 200 mm
   c) 200 to 500 mm
   d) 500 to 1000 mm

37. Fire clay, dinas and talc bricks are main refractory material employed in Forge. What is the melting point of natural talc ________.
   a) 1000°C
   b) 1200°C
   c) 1500°C
   d) 1700°C
38. The swage is a tool used in forge shop which is made of________.
   a) High carbon steel          c) Medium Carbon steel
   b) Malleable Cast iron        d) Low carbon steel

39. The type of Hammer used in forge shop weigh from 1 to 2 kgs and is fitted with short
    wooden handle is_________.
   a) Hand Hammer                c) Ball pane hammer
   b) Sledge Hammer              d) Straight pane hammer

40. Drawing out process is done on anvil. Name the part on operation is done_________.
    a) Face                       c) Tail
    b) Beak                      d) Round Hole

41. Already formed head of rivet is supported by_________.
    a) Rivet Set                  c) Snap
    b) Dolly                      d) Drift

42. Name the cutting tool fixed in the Anvil square hole_________.
    a) Hot set                   c) Cold set
    b) Hard Die                  d) Anvil

43. While normalizing the component should be cooled by_________.
    a) Dipped in water           c) Quenching in oil
    b) FORCED air               d) In still air to room temperature

44. Shapes of file is specified by its_________.
    a) Length                    c) Cross section
    b) Width                     d) Thickness

45. Scribers are made of_________.
    a) Mild steel                c) Brass
    b) High carbon steel         d) Cast Iron
46. Solder used for cooking utensils__________
   a) Copper
   b) Zinc
   c) Tin
   d) Lead

47. The acetylene gas cylinder is painted__________
   a) Black
   b) Maroon
   c) Red
   d) Blue

48. Protect eyes from welding spark__________
   a) Hydrochloric Acid
   b) Zinc Chloride
   c) Phosphoric acid
   d) Resin

49. The preferred material for soldering bit is__________
   a) Lead
   b) Tin
   c) Copper
   d) Zinc

50. The type of brush used to remove coarse rust in a sheet metal before painting is__________
   a) Wooden brush
   b) Nylon brush
   c) Wire Brush
   d) Painting brush

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