

### Objective Type Questions

1. Name the iron which is an alloy of iron, carbon and silicon.  
(a) Wrought iron                      (b) Cast iron  
(c) Pig iron                              (d) All of these
2. Grey cast iron is widely used for machine tool because of its  
(a) hardness that difficult to machine  
(b) ductility, tensile strength and toughness  
(c) ability to reduce vibration and minimise tool chatter  
(d) good machinability, cashability and hardness
3. Which is the purest form of iron?  
(a) Wrought iron                      (b) Cast iron  
(c) Pig iron                              (d) Steel
4. High carbon steel whose carbon content range is  
(a) 1.4 to 1.8%                      (b) 1.3 to 1.6%  
(c) 1.2 to 1.4%                      (d) 0.7 to 1.5%
5. The addition of element ..... in the special carbon steel prevents corrosion on it.  
(a) bronze                              (b) brass  
(c) copper                                (d) aluminium
6. The steel in which tungsten and chromium are added is termed as ..... steel.  
(a) alloy steel                        (b) high carbon steel  
(c) medium carbon steel            (d) low carbon steel
7. Which one of the properties is applicable to copper metal?  
(a) Soft and malleable              (b) Malleable and ductile  
(c) Brittle in nature                (d) Soft and ductile
8. Material which offers low resistance to flow of current is a good conductor. Find material commonly used as conductor.  
(a) Glass                                (b) Copper  
(c) Ebonite                              (d) Rubber
9. Which of the following is used for contacting conductor and commutator segments?  
(a) Maganese bronze  
(b) Silicon bronze  
(c) Cadmium bronze  
(d) All of the above
10. The properties of metals are broadly classified as physical properties and mechanical properties.  
Which property of metal can be stated under mechanical property?  
(a) Specific gravity                  (b) Fusibility  
(c) Conductivity                      (d) Tenacity
11. Name the type of cast iron which contains carbon in graphite form.  
(a) White cast iron                  (b) Malleable cast iron  
(c) Nodular cast iron                (d) Grey cast iron

12. Name the non-ferrous metal which is not used as a conductor of electricity.
- (a) Aluminium (b) Copper  
(c) Lead (d) Brass
13. Which metal can be joined by soldering and brazing easily than aluminium?
- (a) Silver (b) Copper  
(c) Chromium (d) Zinc
14. Malleable cast iron increased .....
- (a) ductility (b) malleability  
(c) brittleness (d) hardness
15. Due to what reason grey cast iron is not used for making components subjected to high stress or impact loads?
- (a) Ductility and low tensile strength  
(b) Brittle and high tensile strength  
(c) Brittle and low tensile strength  
(d) Malleability and high tensile strength
16. The cast iron which has good machinability, castability, resistance to wear low melting point and hardness is .....
- (a) nodular cast iron (b) grey cast iron  
(c) white cast iron (d) malleable cast iron
17. Which non-ferrous metal is used extensively for water heating apparatus?
- (a) Copper (b) Lead  
(c) Zinc (d) Tin
18. Which non-ferrous metal is used for battery containers?
- (a) Copper (b) Hard Rubber  
(c) Zinc (d) Tin
19. Which one is not a ore of iron?
- (a) Haematite (b) Magnetite  
(c) Siderite (d) Malachite
20. Aluminium bronze is alloy of .....
- (a) copper and lead (b) copper and zinc  
(c) lead and tin (d) copper and aluminium
21. Which one of the following is a good electrical conducting material?
- (a) Brass (b) Zinc  
(c) Copper (d) Aluminium
22. Which brass cannot be machinised easily?
- (a) Muntz brass (b) Silicon brass  
(c) Admirally brass (d) Cartridge brass
23. Permanent magnets made from which one of the following materials?
- (a) Low carbon steel (b) High carbon steel  
(c) High speed steel (d) None of these
24. What is the name of the fuel burnt in a cupola?
- (a) Coke (b) Fuel oil  
(c) Coal (d) Natural gas

25. Which ferrous metal possesses the property of brittleness?  
 (a) Wrought iron (b) Grey cast iron  
 (c) Dead mild steel (d) Medium carbon steel
26. To which property the cores of dynamo in electrical industries are manufactured by wrought iron?  
 (a) Corrosion resistant (b) Fibrous structure  
 (c) No reaction in salt water (d) Will not retain magnetism
27. Name the metal having iron, carbon, silicon and carbon content ranges from 2% to 4%.  
 (a) Cast iron (b) Wrought iron  
 (c) Pig iron (d) Steel
28. Hypalon rubber is  
 (a) natural rubber (b) synthetic rubber  
 (c) hard rubber (d) soft rubber
29. Solder is an alloy of .....  
 (a) zinc and lead  
 (b) lead and aluminium  
 (c) tin and lead  
 (d) tin and aluminium
30. Which is a non-ferrous alloy?  
 (a) Aluminium (b) Copper  
 (c) Lead (d) Brass
31. Which property of the metal is called physical property?  
 (a) Fusibility (b) Plasticity  
 (c) Tenacity (d) Elasticity
32. Which furnace is used for the manufacture of wrought iron?  
 (a) Open hearth furnace  
 (b) Electric furnace  
 (c) Puddling furnace  
 (d) Bessemer converter
33. Adding the manganese with steel name the property obtained.  
 (a) Hardness (b) Brittleness  
 (c) Toughness (d) Elasticity
34. The main part of cupola furnace is/are  
 (a) spark arrestor (b) charging floor  
 (c) wind box (d) All of these
35. Which of the following metal is used to make bullet?  
 (a) Tin (b) Iron  
 (c) Aluminium (d) Lead
36. Which of the following steel is also known as mild steel?  
 (a) Hard carbon steel (b) Low carbon steel  
 (c) Medium carbon steel (d) All of these
37. Name the property of metal by which it will not break on bending and twisting.  
 (a) Hardness (b) Toughness  
 (c) malleability (d) Tensile strength

38. Stainless steel has a property of  
(a) hardness (b) rigidity  
(c) acid resistant (d) All of these
39. Duraluminium is mainly an alloy of  
(a) deuterium (b) aluminium  
(c) copper (d) zinc
40. What is an alloy?  
(a) An alloy is a homogeneous mixture of metals  
(b) An alloy is a heterogeneous mixture of non-metals  
(c) An alloy is a heterogeneous mixture of metals  
(d) None of the above
41. ALNICO metal is used to make  
(a) temporary magnet  
(b) permanent magnet  
(c) Both (a) and (b)  
(d) Neither (a) nor (b)
42. Spring steel is an alloy of  
(a) iron (b) copper  
(c) tin (d) manganese
43. Which metal is mostly used to make aeroplane and automobile industries?  
(a) Aluminium (b) Iron  
(c) Duraluminium (d) Spring steel
44. Which of the following metal has no effect of an acid?  
(a) Cu (b) Sn  
(c) Fe (d) Zn
45. Which type of strength is increased by doing hardening?  
(a) Magnetic behaviour (b) Malleability  
(c) Brittleness (d) Ductility
46. The commonly used proportions of alloying elements in high speed steel are  
(a) 18% of W, 4% of Cr and 1% of V  
(b) 18% of Cr, 4% of W and 1% of V  
(c) 18% of V, 4% of Cr and 1% of W  
(d) 18% of W, 4% of V and 1% of Cr
47. Which one of the following properties offers resistance to abrasion?  
(a) Hardness (b) Toughness  
(c) Both (a) and (b) (d) Neither (a) nor (b)
48. A solder wire is used in electronic soldering melts at  
(a) 100°C (b) 150°C (c) 200°C (d) 300°C
49. Which one of the following properties is most essential for the metals in the process of casting, welding, brazing and soldering?  
(a) Fusibility (b) Stiffness  
(c) Brittleness (d) Malleability
50. Which one among the following properties of a metal is the power of returning to its original shape after deformation when the load is removed?  
(a) Toughness (b) Fusibility  
(c) Elasticity (d) All of these
51. Cartridge brass, used for cartridge cases has composition percentage of copper and zinc respectively  
(a) 30 and 70 (b) 60 and 40  
(c) 70 and 30 (d) 75 and 25
52. Which of the following has maximum percentage of copper?  
(a) Phosphorus bronze (b) Leaded bronze  
(c) Admiralty gun-metal (d) Leaded gun metal

