Question Bank of ASC(Physics)-312308
Unit Test -1
SEM II for ME/CE/EE2K

1).The force applied on a body which is responsible for change of size and shape of the body is called as

(a) restoring force   **(b) deforming force**   (c) internal force   (d) regaining force

2) In the case of elastic body, if external applied force is too large and it is more than elastic limit, then there will be

(a) permanent retention   (b) more opposition   **(c) permanent deformation**   (d) less opposition

3) The property on account of which body regains its original size and shape on removal of external deforming force is called as

       (a) plasticity   **b) elasticity**   c) rigidity   d) ductility

4).Stress is defined as……..

   (a) internal elastic restoring force per unit area   (b) area per unit internal elastic restoring force
   (c) product of internal elastic restoring force and area   (d) none of these

5). Cable of lift elevator is the example of……..

   (a) longitudinal stress   (b) volume stress   (c) lateral stress   (d) shearing stress

6). Shock absorber in a vehicle is an example of……

(a) longitudinal stress   (b) tensile stress   **(c) volume stress**   (d) shear stress

7).One of the following is the example of shear stress………..˙
(a) bycycle chain   (b) shock absorber in vehicle   c) cable of lift elevator   **(d) metal sheet cutter**

8). The change in dimensions per unit original dimension is called as…..
(a) stress   **(b) strain**   (c) modulus of electricity   (d) shear stress

9).Shear strain is defined as
   (a) force per unit area   (b) area per unit force
   (c) product of lateral displacement to distance from fixed layer
   (d) ratio of lateral displacement of layer to its distance from fixed layer

10).Within elastic limit, strain is directly proportional to stress is the
   (a) Boyle's law   (b) Newton's law   (c) Pascal's law   **(d) Hooke's law**

11).The compressibility is defined as…….
   (a) reciprocal of bulk modulus of elasticity   (b) reciprocal of Young's modulus of elasticity
   (d) none of these   (c) reciprocal of modulus of rigidity

12). The relation between Young's modulus (Y), bulk modulus (K) and modulus of rigidity (ii) is given by

a) $\frac{1}{Y} = \frac{1}{3\eta} + \frac{1}{9K}$ b) $\frac{1}{3Y} = \frac{1}{\eta} + \frac{1}{9K}$ c). $\frac{1}{K} = \frac{1}{Y} + \frac{1}{\eta}$ d). $\frac{1}{Y} = \frac{1}{9\eta} + \frac{1}{3K}$

13). Poisson's ratio is defined as the
   (a) ratio of lateral strain to longitudinal strain   ((b) ratio of longitudinal strain to lateral strain
   (c) ratio of tensile strain to lateral strain   (d) product of lateral strain to longitudinal strain

14).The extension produced in a wire due to a load is 3 mm. The extension in a wire of same material and length but half the radius will be………
   (a) 10 mm   **(b)12 mm**   (c)14 mm   (d) 16 mm

15).A wire of length 2 m extends by 2 mm when a force is applied to it. Calculate stress produced in it if
      $Y = 2 \times 10^{11}$ N/m^2.

(a) 1×10^8 N/m²   **(b) 2×10^8 N/m²**   (c) 3×10^8 N/m²   (d) 4×10^8 N/m²

16).Calculate the compressibility of metal, if bulk modulus of elasticity K= 2×10^{-10} N/m².
    (a) 0.2×10^{-10} m²/N   **(b)0.5×10^{-10} m²/N**   c) 0.2×10^{-10} m²/N   (d) 0.5×10^{-10} m²/N

17).The tendency of a body to remain in a state of rest or uniform motion until and unless an external force is applied to it is called as
    (a) inertia   (b) momentum   (c) impulse   (d) reaction

18). The negative acceleration is called as
    (a) slow acceleration   **(b) retardation**   (c) uniform acceleration   (d) gravitational acceleration

19).Which of the following formulae is suitable to find tension in rope of the lift, if lift is moving up....
    (a) $T = m (g + a)$ (b) T m (g - a)   (c) $T = m (a - g)$ (d) $T= a(m-g)$

20).Which of the following formulae is suitable to find tension in rope of the lift, if lift is moving down
    (a) $T = m (g + a)$ **(b) $T = m (g - a)$**   (c) $T = m (a - g)$ (d) $T= a(m-g)$

21).Which of the following is not an application of Newton's first law of motion
    (a). half a speed, down moving bottle used to remove honey ketch up from bottle.
    (b) removing dust from bed using dust it off te^{chnique} using any tool
    (c) flying in air
    (d) while riding a skate board, you fly forward off the board when hitting a rock

22).Which of the following is not an application of Newton's second law of motion
    (a) high jumping athlete use cushion for landing   (b) playing guitar
    (c) use of stretchable seat belt in a car   (d) shock absorber in a vehicle

23). A wire rope of lift has mass 2500 kg. If lift moves with an acceleration of 0.65m/S², then tension in the rope will be --
    (a) 12345 N   **(b)26125 N**   (c)29120N   (d) 3250N

24). A wire rope of lift has mass 2500 kg. If lift moves with an acceleration of 0.65m/S², then tension in the rope will be -
    (a)12345 N   (b)13567 N   **(c)21250N**   (d) 26520N

25). As per law of conservation of momentum
    (a) $m_1m_2= v_1v_2$ (b) $m_1v_2=m_2v_1$ **(c)$m_1v_1=m_2v_2$**   (d) $m_1v_1+m_2v_2=0$

26). A two wheeler vehicle of mass 150 kg has a velocity of 6 m/s. The momentum of
    (a) 125 kg m/s   **(b) 900 kg m/s**   (c) 90 kg m/s   (d) 250 kg m/s

27). The momentum of train weighing 3000 kN moving with speed 90 km/hr will be
    (a) 10.5×10^6 Ns   (b) 25×10^6 Ns   (c)2.5×10^6 Ns   (d) 7.65×10^6 Ns

28). A bullet of mass 50 gm is fired with a velocity of 800 m/s from a gun of mass 5kg. The velocity with which the gun will recoil is
    (a) 4 m/s   (b)6 m/s   **(c) 8 m/s**   (d) 10 m/s

29).Which of the following is the application of Newton's first law of motion ?
    (a) swimming   **(b) use of seat belt in car**   (c) jumping   (d) rocket fire

30). Newton's 2nd law of motion states that the rate of change of momentum of a body is proportional to and takes place in the direction of
(a) velocity, force   (b) force, velocity   (c) displacement, velocity   **(d) applied force, force**

31).Angle subtended by radius vector when a particle in circular motion moves from one position to other is called as

    (a) displacement   **(b) angular displacement**   (c) angular velocity   (d)angular Acceleration

32).The unit of angular velocity is

    (a) s/radian   **(b) radian/s**   (c) radian-s   (d) degree/radian

33).The relation between angular velocity (0 and linear velocity (v) is given by

    (a) a = rα   (b) r = aα   (c) α = ar   (d) a = r + α

34).One revolution = ………..rad.

  (a) $\pi/3$ (b) $\pi/2$ (c) π **(d)2π**

35).1 r.p.s. is equivalent to

  (a) 1/60 rpm   **(b) 60 rpm**   (c) 1/3600 rpm   (d) 3600 rpm

36).A fly wheel is rotating at 120 rpm. Its angular velocity will be………..

  (a) 2π rad/s   **(b) 4π rad/s**   (c) $\pi/2$ rad/s   (d) $\pi/4$ rad/s

37).An electric fan rotating at 600 rpm accelerates to 1500 rpm in 5 minutes. Calculate its angular acceleration.

  (a) 0.1π rad/s   (b) 0.3π rad/s   (c) $.06\,\pi$ rad/s   (d) 0.9π rad/s

38).Periodic time of angular motion is 3 sec. Its frequency will be……

  (a) 2/3 Hz   (b) 6 Hz   (c) 3 Hz   **(d) 1/3 Hz**

39). Projectile is defined as an object thrown in air making angle with horizontal.

   (a) more than 90°   **b) more than 0°and less than 90°**   (c) less than 0°   (d) 180°

40). Motion of a projectile is

  (a) one dimensional   **(b) two dimensional**   (c) three dimensional   (d) four dimensional

41).A ball is projected making an angle of 90 degree with the horizontal, the path of the ball is

  (a) straight   (b) circular   (c) parabolic   (d) elliptical

42).Trajectory is defined as the………..traced by an object in projectile motion.

  (a) angle   (b) height   **(c) path**   (d) horizontal line

43).Angle of projection in projectile motion is given by formula

  (a) $\theta = \tan(\frac{4H}{R})$ **(b) $\theta = \tan^{-1}(\frac{4H}{R})$**   (c) $\theta = \tan(\frac{R}{4H})$ (d) $\theta = \tan^{-1}(\frac{R}{4H})$

44) Maximum vertical distance covered by a projectile from ground level is called height of projectile and is given by

  (a) $H = \frac{v^2 Sin^2\theta}{2g}$ (b) $H = \frac{v^2 Sin^2\theta}{g}$ (c) $H = \frac{VSin\theta}{2g}$ (d) $H = \frac{VSin\theta}{g}$

45).Total horizontal distance covered by a projectile is called range of projectile is given by….

  (a) $R = \frac{v^2 Sin\theta}{2g}$ (b) $R = \frac{v^2 Sin2\theta}{2g}$ (c) $R = \frac{2VSin^2\theta}{2g}$ **(d) $R = \frac{v^2 Sin2\theta}{g}$**

46). A player kicks a ball at an angle θ with the horizontal. The maximum horizontal range corresponds to

An angle of……..
(a) 30°   **(b) 45°**   (c) 60°   (d) 75°

47). The total time in which the projectile covers the entire trajectory is called time of flight (T) and is given by

a) $T = \dfrac{2VSin\theta}{g}$ (b) $T = \dfrac{VSin2\theta}{g}$ (c) $T = \dfrac{VSin\theta}{2g}$ (d) $T = \dfrac{VSin2\theta}{2g}$

48).A ball is thrown with a velocity of 80 m/s making an angle of 30° with the horizontal, time of flight will be
(a) T = 2.4 sec   (b) T = 6.15 sec   (c) T = 4.5 sec   **(d) T = 8.16 sec**

49). A ball is thrown with a velocity of 80 m/s making an angle of 30° with the horizontal, time taken by a ball to reach maximum height will be
(a)20.4 sec   (b)50.2 sec   **(c)40.81 sec**   (d) 81.6 sec

50). A bullet is fired with velocity 100 m/s at an angle 30° with the horizontal. The bullet will return to ground after a time interval (g = 10 m/s2)
(a)50s   **(b)10 sec**   (c)200 s   (d)100 sec

51). The maximum height to which a person can throw is 'h'. The maximum distance to which he can throw will be
(a) h   **(b) 2h**   (c) 3h   (d) 4h

52).The maximum distance to which a person can throw is 'R'. The maximum height to which he can throw will be
(a) h = 2R   (b) h = 3R   **(c) h = R/2**   (d) h = R/4

53).In projectile which of the following parameter remains constant……………
(a) momentum **(b) horizontal component of velocity** (c) vertical component of velocity (d) kinetic energy

54).The capacity of doing work is called as……….

(a) power   **(b) energy**   (c) force   (d) displacement

55).Power is defined as
(a) time per work done   **(b) rate of work done w.r.t. time**
(c) amount of work done   (d) work done per unit mass

56)..Work-energy principle states that work done by a system of forces acting on a body between any two points is equal to
(a) change in P.E.   (b) additions of K.E.   **(c) change in K.E**.   (d) additions of P.E.

57). Efficiency of a pump is given by
(a) efficiency = $\dfrac{input\ power}{output\ power}$ **(b) efficiency = $\dfrac{output\ power}{input\ power}$**
(c) efficiency = output power × input power   (d) efficiency = output power + input power

58). Force of 10 N applied on a body produces displacement of 10 m, the work done will be
(a) 1 J   **(b) 100J**   (c)20J   (d) 200J

59). A lift of weight 500 N is being raised with uniform velocity of 2 m/s. Power involved in it will be
(a) 1 kN   **(b) 10 kN**   (c) 100 kN   (d) 200 kN

60). Work of 1.5 x10^6 J is done in half hour. If the efficiency of the pump is 70%, the power of the pum$^{p\ required}$ will be
(a) 1190 watt   (b) 510 watt   (c) 1510 watt   (d) 2090 watt

61). A rocket motor exerts a thrust of 2 MN at a speed of 250 m/s. Power developed in this case will be

        (a) 100 MW   **(b) 500 MW**   (c) 1000 MW   (d) 1500 MW

62). A vehicle of mass 100 kg is moving with a speed of 36 km/hr. Its kinetic energy will be

        (a) 2000 J   **(b) 5000 J**   (c) 7000 J   (d) 8006J

63). A force of 24 N is used to lift an object over a height of 3 m. Potential energy gained by the object will be

        (a) 8 J   (b) 12 J   **(c) 72 J**   (d) 92 J

64). Porter lifts a suitcase weighing 25 kg from the platform and puts on his head 2 m above the platform. Work done by the porter on the suitcase will be

        (a) 110 J   (b) 220J   (c) 390 J   **(d) 490J**

65).Longitudinal sound wave travel in the form of alternate ………..   CO2

    a) Crest and trough   **b) compression and rarefactions**

    c) crest and compression   d) trough and rarefaction

66).The maximum displacement of particle (in S.H.M.) from its mean position is called as------

    a) Frequency   b) period

    c) wavelength   d) amplitude

67). The relation between velocity, frequency and wavelength is……..

    a) $n = v \lambda$ **b) $v = n \lambda$**

    c) $v = n/\lambda$ d) $v = \lambda/n$

68).Ultrasonic are the sound waves having frequency-----

    a) more than 20 kHz   b) more than 20 Hz

    c) less than 20 Hz   d) less than 20 kHz

69) The sound wave of frequency less than 20 Hz are known as-------

    a)infrasonic   b) audible sound

    c)ultrasonic   d)supersonic

70) The sound wave of frequency between 20 Hz to 20 kHz is known as-------

    a)infrasonic   **b) audible sound**

    c)ultrasonic   d)supersonic

1. The product from a blast furnace in metallurgy of iron is known as--
(a) cast iron   (b) wrought iron   (c) **pig iron**   (d) steel

2. The process of separating metal from its ore is called as--
(a) magnetic separation (b) froth floatation   (c) **metallurgy**   (d) polymerization

3. Naturally occurring metallic compounds are called---
(a) metalloids   (b) **minerals**   (c) hard solids   (d) matrix

4. The process of converting an ore into its oxide is called as--
(a) smelting   (b) **roasting**   (c) refining   (d) bessemerisation

5. In magnetic separation, magnets are used to separate---
(a) **ore and gangue**   (b) metal and mineral   (c) metal and gangue   (d) iron and steel

6. The material having metallic characteristics and made up of two or more elements one of which is a metal---
(a) element   (b) properties   (c) fusion   (d) **alloy**

7. The contents of an alloy in terms of what elements are present and in what amount is---
(a) fusion   (b) properties   (c) **composition** (d) application

8 The science and technology of extracting metals from their ores, refining them and preparing them for use is known as--
(a) alloying   (b) **metallurgy**   (c) hardening   (d) all of these

9. The property which enables metals to be drawn into wire is known as---
(a) malleability (b) **ductility**   (c) tensile strength   (d) plastic deformation

10. A solder consists of---
(a) **lead and tin** (b) tin and white metal (c) zinc and tin   (d) tin and antimony

11. The flux used in a blast furnace while melting iron ore is--
(a) carbon   (b) oxygen   (c) **lime stone**   (d) coke

12. Brass is an alloy of--
(a) copper and tin   (b) **copper and zinc**   (c) copper and lead   (d) copper and nickel

13. Bronze is an alloy of---
(a) copper, lead and tin (b) **copper and tin**   (c) copper and zinc   (d) zinc, nickel and tin

14. The naturally occurring minerals from which metals can be extracted profitably are called--
(a) alloys   (b) flux   (c) **ore**   (d) matrix

15. The rocky impurities associated with the ore are called as---
(a) alloy (b) flux   (c) slag (d) **matrix**

16. What are the major steps involved in the extraction of a metal after its ore is mined?
(a) concentration of the ore   (c) refining of impure metal
(b) reduction of metallic oxide   (d) **all of these**

17. The removal of impurities associated with the ore is called as---
(a) reduction of the ore   (b) floatation of the ore
(c) **concentration of the ore**   (d) roasting of the ore

18. The method used to separate magnetic ore from non-magnetic gangue is---
(a) chemical method   (c) calcination   (b) **magnetic separation**   (d) roasting

19. The method used for separating ore and gangue by preferential wetting with oil and water is
(a) **froth floatation**   (b) gravity separation   (c) chemical method   (d) magnetic separation

20. Froth floatation method is applied for---
(a) oxide ores   (b) **sulphide ores**   (c) aluminium ores   (d) zinc ores

21. The compound of metal found with earthy impurities is called as---
(a) ores (b) **minerals** (c) gangue (d) slag
22. Oxidation is combination of an element and---
(a) hydrogen (b) ozone (c) helium (d) **oxygen**
23. Froth floatation method uses---
(a) **pine oil** (b) alcohol (c) acid (d) alkali
24. The hardness is the property of a material due to which it---
(a) can be rolled or hammered into thin sheets (b) can be drawn into wires
(c) breaks with little permanent distortion (d) **can cut another metal**
25. Pig iron is extracted from---
(a) **haematite** (b) magnetite c) sinderite (d) feldspar
26. The coke in the charge of a blast furnace---
(a) **supplies heat to reduce ore and melt the iron** (b) acts as an iron bearing mineral
(c) controls the grade of pig iron (d) forms a slag by combining with impurities
27. Blister copper is--
(a) pure copper (b) **impure copper** (c) alloy of copper (d) ore of copper
28. The materials mixed before ore is subjected for smelting in the extraction of iron are---
(a) coke and silica (b) **coke and lime stone**
(c) lime stone and silica (d) coke, lime stone and silica
29. Slag is a product formed when
(a) **gangue reacts with flux** (b) flux reacts with ore
(c) gangue reacts with ore (d) flux reacts with mineral
30. The ability of a metal to cut by cutting tools is
(a) **machinability** (b) weldability (c) tensile strength (d) toughness
31. The ability of a metal to resist deformation in response to an applied force is---
(a) castability (b) refractoriness (c) **stiffness** (d) machinability
32. Weakening of metal due to repeatedly applied load is---
(a) stiffness (b) specific heat (c) density (d) **fatigue**
33. Ferrous alloys contain---
(a) copper as major element (b) **iron as major element**
(c) iron as alloying element (d) none of these
34. Wood's metal and solders are prepared by---
(a) fusion method (b) **compression method** (c) smelting (d) oxidation
35. Plain carbon steel is classified on the basis of---
(a) percentage of iron present (b) **percentage of carbon present**
(c) both (a) and (b) (d) none of these
36. Bronze is a---
(a) ferrous alloy (b) tin alloy (c) **copper alloy** (d) zinc alloy
37. ---alloy is used for making parts of aeroplanes.
(a) Brass (b) Bronze (c) **Duralumin** (d) Wood's metol
38. Wood's metal is a---
(a) tough alloy (b) hard alloy (c) **fusible alloy** (d) all of these
39. Tinmann's solder is an alloy of---
(a) Pb + Zn (b) Pb + Ni (c) Pb + Cu (d) **Pb + Sn**
40. Steel is used in railway engineering because of---
(a) low carbon steel (b) **medium carbon steel** (c) high carbon steel (d) all of these
41. Which is closest to the purest form of the iron?

(a) caste iron   (b) pig iron   (c) **wrought iron**   (d) steel

42. The process in which some minerals are converted to oxide by heating in air at the temperature below the melting point is called---

(a) **roasting**   (b) bessemerization   (c) smelting   (d) concentration

43. Metallic compounds that occur naturally are called---

(a) metal oxides (b) ores (c) **minerals**   (d) none of these

44. In the alumino-thermite process, Al acts as

(a) an oxidizing agent   (b) a flux   (c) solder   (d) **a reducing agent**

45. An alloy which does not contain copper is---

(a) bronze   (b) **duralumin**   (c) brass   (d) bell metal

46. In the electrolytic refining of copper, Ag and Au are found---

(a) on anode   (b) in electrolyte solution   (c) **in anode mud**   (d) in cathode mud

47. The most abundant element on the earth's crust is---

(a) hydrogen   (b) **oxygen**   (c) silicon   (d) carbon

48. Silicon is main constituent of---

(a) alloys   (b) **rocks**   (c) animal   (d) vegetables

49. A mineral is called an ore if---

(a) metal present in mineral is precious   (b) metal can be extracted from it

(c) **metal can be extracted profitably from it**   (d) metal cannot be extracted from it

50. Composition of Azurite mineral is---

(a) $CuCO_3.CuO$ (b) $Cu(HCO_3).Cu(OH)_2$ (c) **$2CuCO_3.Cu(OH)_2$**   (d) $CuCO_3.2Cu(OH)_2$

51. Thermite welding is used for making---

(a) window grill (b) **rail tracks**   (c) polymers   (d) rubber

52. Galena is an ore of---

(a) zinc (b) **aluminium**   (c) lead (c) Pig iron

53. Which of the following is not an ore?

(a) Bauxite   (b) Haematite   (c) **Pig iron**   (d) Zinc blende

54. Brass and bronze alloys are respectively made up of

(a) carbon, zinc and copper, tin   (b) **copper, tin and copper, zinc**

(c) copper, zinc and copper, tin   (d) copper, zinc and copper, aluminium

55. A naturally occurring substance found in earth's crust which contains metal in free state or combined state is---

(a) ore   (b) **mineral**   (c) gangue   (d) flux

56. Impurities in an ore are called---

(a) ores (b) minerals   (c) **matrix**   (d) flux

57. The substances used to remove unwanted impurities associated with ore (gangue) are known as---

(a) minerals   (b) gangue   (c) **flux** (d) slag

58. The fusible (easily melting) chemical compound formed by the reaction of gangue and added flux is known as---

(a) mineral   (b) gangue   (c) flux   (d) **slag**

59. The process of removal of gangue /matrix/ impurities from ore is---

(a) oxidation   (b) reduction   (c) **concentration**   (d) smelting

60. Which of the following process of extraction gives pure metal?

(a) **refining**   (b) reduction   (c) concentration   (d) crushing (pulverisation)

61. The process used for concentration of sulphide ore is---

(a) gravity separation   (b) magnetic separation (c) **froth floatation**   (d) calcination

62. The copper pyrite ore is concentrated by---

a) gravity separation   (b) magnetic separation (c) calcination   (d) **froth floatation**

63. The copper pyrite ore is concentrated by a chemical process---

(a) **roasting**   (b) smelting   (c) magnetic separation (d) calcination

64. For concentration, ore is heated in the absence of air in---

(a) roasting   (b) smelting   (c) **calcination**   (d) copper

65. For concentration ore is heated in the presence of air in --- process.

(a) **roasting**   (b) smelting   (c) calcination   (d) concentration

66. In the process of calcination---

(a) sulphide ore is converted into sulphate and oxide

(b) oxide ore is converted into hydroxide ore or carbonate ore

(c) **carbonate and hydroxide ore is converted into oxide**

(d) only hydroxide ore is converted into oxide

67. In the process of roasting---

(a) sulphide ore is converted into only oxide

(b) **sulphide ore is converted into sulphate and oxide**

(c) carbonate and hydroxide ore is converted into oxide

(d) oxide ore is converted into hydroxide ore or carbonate ore

68. The sequence of steps involved in metallurgy/extraction process is---

(a) Crushing—>Reduction--->Concentration---> Refining

(b) **Crushing---> Concentration---> Reduction---> Refining**

(c) Crushing---> Concentration---> Refining---> Reduction

(d) Crushing---> Refining---> Concentration---> Reduction

69. The chemical formula of haematite ore is---

(a) Fe_3O_4 (b) **Fe_2O_3**   (c) FeO (d) $FeCO_3$.

70. In melting the ingredients roasted ore, coke and limestone are added to blast furnace for the extraction of metal in the ratio---

(a) **8:4:1**   (b)8:1:4 (c) 4:1:8   (d) 4:1:8

71. In the process of electrolytic refining, pure copper is made us---

(a) **cathode**   (b) anode   (C) electrolyte   (d) anode mud

72. In the process of electrorefining of blister copper, the electrolyte used is---

(a) $CuSO_4$ (b) H_2SO_4 (C) **$CuSO_4$ and traces of H_2SO_4**   (d) $CuFeS_2$

73. The base metal of brass alloy is---

(a) carbon   (b) **copper**   (c) zinc (d) tin

74. Constituents of Duralumin alloy is---

(a) **Al, Cu, Mg, Mn**   (b) Bi, Sn, Pb, Cd   (c) Al, Cu, Zn, Cd   (d) Al Cu, Pb, Sn

75. Constituents of Woods metal is---

(a) Al, Cu, Mg, Mn   (b) **Bi, Sn, Pb, Cd**   (c) Al, Cu, Zn, Cd   (d) Al Cu, Pb, Sn

76. Which of the following alloy is used in electric fuses?

(a) Duralumin   (b) Brass   (c) Bronze   (d) **Wood's metal**

77. Which of the following alloy is used in medals and statues?

(a) Duralumin   (b) Brass   (c) **Bronze**   (d) Wood's metal

78. The composition of Tinmann's solder is---

(a) 66% Pb and 34% Sn   (b) **66% 5n and 34% Pb**

(c) 75% Bi and 25% Sn   (d) none of these

79. The percentage of carbon in low carbon steel (Mild Steel/MS) is---

(a) **0.05 to 0.3**   (b) 0.3 to 0.6   (c) 0.6 to 1.5   (d) less than 0.05

80. The percentage of carbon in medium carbon steel is---

(a) 0.05 to 0.3   (b) **0.3 to 0.6**   (c) 0.6 to 1.5   (d) less than 0.05

81. The percentage of carbon in high carbon steel is---

(a) 0.05 to 0.3   (b) 0.3 to 0.6   (c) **0.6 to 1.5**   (d) less than 0.05

82. Which of the steel is not weldable?

(a) low carbon steel   (b) medium carbon steel

(c) **high carbon steel**   (d) none of these

83. The chemical formula of gypsum is---

(a) $CaSO_4$ (b) **$CaSO_4.2H_2O$** (c) Cu_2O (d) $Cu(OH)_2$

84. The base metal of Tinmann's solder alloy is---

(a) carbon   (b) lead   (c) zinc (d) **tin**

85. The melting point of Tinmann's solder alloy is---^{0}C.

(a) **180**   (b) 71   (c) 1089   (d) 232

86. The melting point of Wood's metal alloy is---^{0}C.

(a) 180   (b) **71**   (c) 1089   (d) 232

87. Which of the following alloy contains 12.5% Sn?

(a) Duralumin   (b) Brass   (c) Tinmann's solider   (d) **Wood's metal**

88. Which of the following alloy contains 66% Sn?

(a) Duralumin   (b) Brass   (c) **Tinmann's solider**   (d) Wood's metal

89. Duralumin alloy has --- base metal

(a) copper   (b) zinc (c) calcium   (d) **aluminium**

90. Which of the following constituent makes steel hard?

(a) sulphur   (b) **carbon**   (c) phosphorus (d) manganese

91. The property of a metal by which they can be beaten into sheet is called---

(a) **malleability** (b) ductility   (c) expansion   (d) stiffness

92. Which metal is found in liquid state at room temperature?

(a) Fe   (b) Zn   (c) **Hg**   (d) Al

93. Which of the following statements is correct?

(a) **all metals are ductile**   (b) all non-metals are ductile

(c) generally, all metals ore non-ductile   (d) some metals are ductile

94. ---is the process of uniting two pieces of metals by means of heat---

(a) casting   (b) forging   (c) **welding**   (d) brazing

95. The process of joining two thin wires by introducing a molten non-ferrous alloy between them below 400°C is known as---

(a) brazing   (b) **soldering**   (c) welding   (d) both (a) and (b)

96. If a metal is --- it can be drawn into wire.

(a) conductive   (b) malleable   (c) magnetic   (d) **ductile**

97. The process of converting carbonate ore into its oxide is called as---

(a) smelting   (b) **roasting**   (c) refining   (d) bessemerisation

98. The process of separating metal from its ore is called as---

(a) magnetic separation (b) froth floatation   (c) **metallurgy**   (d) polymerisation

99. In magnetic separation, magnets are used to separate---

(a) **magnetic ore and non-magnetic gangue**   (b) non-magnetic are and non-magnetic gangue

(c) metal and gangue   (d) iron and steel

100. The science and technology of extracting metals from their ores, refining them and preparing them for use is known as---

(a) alloying   (b) **metallurgy**   (c) hardening   (d) all of these

101. Blister copper is---

(a) pure copper (b) **impure copper**   (c) alloy of copper   (d) ore of copper

102. Haematite ore is concentrated by---

(a) **magnetic separation** (b) froth floatation (c) amalgamation (d) all of these

103. Select the proper reaction from the following---

(a) slag+ gangue = flux (b) **flux + gangue = slag**

(c) flux + slag = gangue (d) gangue + matrix = slag

104. The process of removing magnetic impurities from ore is called---

(a) magnetism (b) **magnetic separation** (c) froth floatation (d) smelting

105. An alloy used for soldering the articles of tin is---

(a) plumber solder (b) **Tinmann's solder** (c) Wood's metal (d) duralumin

106. Which of the following is not an alloy?

(a) steel (b) **copper** (c) brass (d) bronze

107. An alloy can be---

(a) **homogeneous** (b) heterogeneous (c) colloidal (d) all of these