

Duration: 30 Mins

Total Marks: 50

Q.ID: ITISKILL2746XW

1. Which furnace is used to get pig iron from iron ore?
A) Mild steel - Rever battery B) Blast furnace
C) Electric furnace D) Cupola
Answer: B) Blast furnace

2. What is the area of a rectangle, whose length and breadth are 10cm and 8cm respectively?
A) 80 cm^2 B) 85 cm^2
C) 90 cm^2 D) 75 cm^2
Answer: A) 80 cm^2

3. What is the carbon percentage in high carbon steel?
A) 0.15% to 0.25% B) 0.25% to 0.50%
C) 0.02% to 0.03% D) 0.50% to 1.50%
Answer: D) 0.50% to 1.50%

4. What is the capacity of a conical tank of radius 2 m and height 5m?
A) 41 m^3 B) 31 m^3
C) 21 m^3 D) 11 m^3
Answer: C) 21 m^3

5. What is the rate of change of displacement of a body?
A) Velocity B) Body at motion
C) Body at rest D) Speed
Answer: A) Velocity

6. Which is the unit of resistance?
A) Ampere B) Volt
C) Ohm D) Watt
Answer: C) Ohm

7. Which metal cannot be forged?
A) Cast iron B) Steel
C) Alloy steel D) Mild steel
Answer: A) Cast iron

8. What is the primeter of scalene. Triangle having sides of 40mm, 20mm and 28mm?
A) 78 mm B) 88 mm
C) 68 mm D) 98 mm
Answer: B) 88 mm

9. What is the square root of 0.017?
- A) 0.000001 B) 0.001
C) 0.00001 D) 0.13
Answer: D) 0.13

10. What is the percentage of copper if the casting weight of copper 42.3 kg and tin weight 2.7 kg?
A) Cu 92% B) Cu 94%
C) Cu 98% D) Cu 96%
Answer: B) Cu 94%

11. What is called if a body posses only magnitude or size alone?
A) Velocity B) Scalar quantity
C) Speed D) Vector quantity
Answer: B) Scalar quantity

12. What is the filament resistance if a 6 volt bulb draws a current of 0.5 Amps?
A) 12 W B) 3 W
C) 1.2 W D) 10 W
Answer: A) 12 W

13. How many newtons for 1 kilogram?
A) 981 Newtons B) 0.981 Newtons
C) 98.1 Newtons D) 9.81 Newtons
Answer: D) 9.81 Newtons

14. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?
A) 7 ohm B) 1/17 ohms
C) 11 ohms D) 17 ohms
Answer: D) 17 ohms

15. Which is same in series connection of resistors in a circuit?
A) Resistance B) Voltage
C) Current D) Power
Answer: C) Current

16. What is the formula for velocity?
A) Distance covered/Time B) Change in velocity/Time
C) Change of momentum/Time D) Displacement/Time
Answer: D) Displacement/Time

17. What is called the ratio between the density of a substance density of water at 4 Degree Centigrade?

- A) Density
- B) Weight
- C) Specific gravity
- D) Mass

Answer: C) Specific gravity

18. How many watts for 1 horse power in British system?

- A) 746 watts
- B) 756 watts
- C) 736 watts
- D) 726 watts

Answer: A) 746 watts

19. Which law states about electromagnetic induction?

- A) Hooke's law
- B) Lenz's law
- C) Ohm's law
- D) Faraday's law

Answer: D) Faraday's law

20. What is the kinetic energy of a bullet of mass 5gm travels with a speed of 500 m/sec?

- A) 635 Joules
- B) 630 Joules
- C) 625 Joules
- D) 620 Joules

Answer: C) 625 Joules

21. What is the other name of low carbon steel?

- A) High speed steel
- B) Mild steel
- C) Low alloy steel
- D) High alloy steel

Answer: B) Mild steel

22. What is the work done in joules if a load of 15.5 kg is lifted through a height of 4.4 metres?

- A) 669 Joules
- B) 649 Joules
- C) 639 Joules
- D) 659 Joules

Answer: A) 669 Joules

23. What is the mass in gram, if a force of 15 dyres acting on a mass m producing an acceleration of 2.5 cm/sec^2 ?

- A) 7 grams
- B) 9 grams
- C) 6 grams
- D) 8 grams

Answer: C) 6 grams

24. What is the LCM of 12, 18, 6, 36?

- A) 36
- B) 12
- C) 18
- D) 42

Answer: A) 36

25. What is the volume of mercury in cm^3 , if the mass (m) of mercury is 136 grams (g) and density (r) of mercury is 13.6 g/cm^3 ?

- A) 10.6 cm^3
- B) 10.0 cm^3
- C) 13.6 cm^3
- D) 136 cm^3

Answer: B) 10.0 cm^3

26. Which property of metal has its power of returning to its original shape after the applied force is released?

- A) Plasticity
- B) Malleability
- C) Tenacity
- D) Elasticity

Answer: D) Elasticity

27. What is the cross sectional area of a circular ring of $D = 38 \text{ mm}$ and $d = 32 \text{ mm}$?

- A) 340 mm^2
- B) 350 mm^2
- C) 320 mm^2
- D) 330 mm^2

Answer: D) 330 mm^2

28. What is the potential energy, if a body of mass 250 kg is at a height of 30 metre?

- A) 74.57 KJ
- B) 73.57 KJ
- C) 75.57 KJ
- D) 72.57 KJ

Answer: B) 73.57 KJ

29. What is called if a body changes its position with respect to its surroundings?

- A) Velocity
- B) Body at rest
- C) Speed
- D) Body at motion

Answer: D) Body at motion

30. Which metal is widely used for making casting of machinery parts?

- A) Wrought iron
- B) Grey cast iron
- C) Malleable cast iron
- D) White cast iron

Answer: B) Grey cast iron

31. What is called if a body posses both magnitude and direction of velocity?

- A) Speed
- B) Velocity
- C) Vector quantity
- D) Scalar quantity

Answer: C) Vector quantity

32. How much is 8% of 40 kg?

- A) 2.2 kg
- B) 4.2 kg
- C) 5.2 kg
- D) 3.2 kg

Answer: D) 3.2 kg

33. Which is the example for statically induced emf?

- A) Motor
- B) Refrigerator
- C) Transformer
- D) Generator

Answer: C) Transformer

34. What is the ore of aluminium?

- A) Mallatite
- B) Bauxite
- C) Hematite
- D) Lemonite

Answer: B) Bauxite

35. What is the name of furnace to obtained cast iron?

- A) Steel - Rever battery B) Mild steel - Blast furnace
C) Alloy metal - Electric furnace D) Cupola

Answer: D) Cupola

36. What is the force with which a body is attracted by the earth towards its centre?

- A) Volume B) Weight
C) Mass D) Density

Answer: B) Weight

37. What is velocity of a body travels a distance of 168 metres in a line in 21 seconds?

- A) 6 m/sec B) 12 m/sec
C) 10 m/sec D) 8 m/sec

Answer: D) 8 m/sec

38. Which property of a metal enables it by which it can be drawn out into wires under tension without rupture?

- A) Malleability B) Brittleness
C) Hardness D) Ductility

Answer: D) Ductility

39. What is the volume (V) of mercury in cm³, if mass (m) of mercury is 1 kg and density (r) is 13.6 g/cm³?

- A) 73.43 cm³ B) 73.23 cm³
C) 73.33 cm³ D) 73.53 cm³

Answer: D) 73.53 cm³

40. What is the area of an ellipse if the major and minor axes are 5 cm and 3 cm respectively?

- A) 27 cm² B) 47 cm²
C) 57 cm² D) 37 cm²

Answer: B) 47 cm²

41. What is the formula for acceleration?

- A) Metre/second² B) Metre/minute
C) Metre/hour D) Metre/second

Answer: A) Metre/second²

42. How much work done in one hour, if a pump can raise 100 liters of water through a height of 200 meters in one minutes?

- A) 12 x 104 kg meter B) 12 x 107 kg meter
C) 12 x 106 kg meter D) 12 x 105 kg meter

Answer: D) 12 x 105 kg meter

43. What is the current Flow in the bulb?
 P = 550 watts

 R = 22 Ohms
 I = ____Amps

- A) 3 Amps B) 2 Amps
C) 4 Amps D) 5 Amps

Answer: D) 5 Amps

44. What is termed as the quantity of matter contained in a body?

- A) Specific gravity B) Mass
C) Volume D) Density

Answer: B) Mass

45. What is the square root of 529?

- A) 12 B) 33
C) 43 D) 23

Answer: D) 23

46. Which cast iron cannot be welded?

- A) Malleable cast iron B) White cast iron
C) Grey cast iron D) Nodular cast iron

Answer: B) White cast iron

47. What is the specific gravity of the metal, if the weighs 6.5 kgf in air and 3.5 kgf in water?

- A) 6.166 B) 1.166
C) 3.166 D) 2.166

Answer: D) 2.166

48. What is the voltage of the immersion heater?
P = 500 watts
 I = 2.27 Amps
 V = ____Volts

- A) 230.3 volts B) 200.3 volts
C) 210.3 volts D) 220.3 volts

Answer: D) 220.3 volts

49. Which mechanical property of a metal offers resistance to elastic deformation in a cutting tool?

- A) Ductility B) Malleability
C) Hardness D) Toughness

Answer: C) Hardness

50. Which metal contains iron as a major content?

- A) Ferrous metal B) Zinc
C) Brass metal D) Bronze metal

Answer: A) Ferrous metal