WORKSHOP CALCULATION AND SCIENCE

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MOCK TEST -07

Q. ID: ITISKILL2746XW

GOVT ITI HOLENARASIPURA

Question Paper

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Score: 0/50 (0.00%)

Code: 9028

1. Which is the unit of resistance?

A) Ampere B) Volt
C) Ohm D) Watt

2. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?

A) 11 ohms B) 7 ohm
C) 17 ohms D) 1/17 ohms

3. Which is same in series connection of resistors in a circuit?

A) Current B) Voltage
C) Resistance D) Power

4. What is the filament resistance if a 6 volt bulb draws a current of 0.5 Amps?

A) 12 W B) 10 W
C) 3 W D) 1.2 W

5. What is the voltage of the immersion heater?

P = 500 watts

I = 2.27 Amps

V = _____Volts

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

6. Which law states about electromagnetic induction?

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

7. Which is the example for statically induced emf?

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

8. What is the current Flow in the bulb?

P = 550 watts

R = 22 Ohms

I = _____Amps

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

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

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

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

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

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

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

12. 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) 73.53 cm³ B) 73.43 cm³
C) 73.33 cm³ D) 73.23 cm³

13. What is the mass in gram, if a force of 15 dyres acting on a mass m producing an acceleration of 2.5 cm/sec²?

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

14. What is the volume of mercury in cm3, if the mass (m) of mercury is 136 grams (g) and density (r) of mercury is 13.6 g/cm3?

A) 136 cm³ B) 13.6 cm³
C) 10.6 cm³ **D) 10.0 cm³**

15. 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) 3.166
C) 2.166 D) 1.166

16. Which metal contains iron as a major content?

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

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

A) Ductility B) Malleability

C) Hardness D) Toughness

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

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

19. Which cast iron cannot be welded?

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

20. Which metal cannot be forged?

A) Alloy steel B) Mild steel
C) Steel **D) Cast iron**

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

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

22. Which furnace is used to get pig iron from iron ore?

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

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

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

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

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

25. What is the carbon percentage in high carbon steel?

A) 0.02% to 0.03% B) 0.15% to 0.25%
C) 0.25% to 0.50% **D) 0.50% to 1.50%**

26. What is the ore of aluminium?

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

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

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

28. What is the area of a rectangle, whose length and breadth are 10cm and 8cm respectively?

A) 75 cm² **B) 80 cm²**
C) 85 cm² D) 90 cm²

29. What is the primeter of scalene. Triangle having sides of 40mm, 20mm and 28mm?

A) 68 mm B) 78 mm
C) 88 mm D) 98 mm

30. What is the cross sectional area of a circular ring of D = 38 mm d = 32mm?

A) 320 mm² **B) 330 mm²**
C) 340 mm² D) 350 mm²

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

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

32. What is the capacity of a conical tank of radius 2 m and height 5m?

A) 11 m³ **B) 21 m³**
C) 31 m³ D) 41 m³

33. What is the formula for velocity?

A) Distance covered/Time **B) Displacement/Time**
C) Change in velocity/Time D) Change of momentum/Time

34. What is called if a body posses only magnitude or size alone?

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

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

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

36. What is the rate of change of displacement of a body?

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

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

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

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

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

39. What is the formula for acceleration?

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

40. How many newtons for 1 kilogram?

A) 981 Newtons
B) 98.1 Newtons
C) 9.81 Newtons
D) 0.981 Newtons

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

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

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 105 kg meter
C) 12 x 106 kg meter
D) 12 x 107 kg meter

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

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

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

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

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

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

46. What is the square root of 0.017?

A) 0.001
B) 0.13
C) 0.00001
D) 0.000001

47. How much is 8% of 40 kg?

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

48. 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 96%
D) Cu 98%

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

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

50. What is the square root of 529?

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