

Duration: 30 Mins

Total Marks: 25

ID: ITISKILL6124VO

Student Name: _____ Roll No: _____

1. A motor cycle tyre is sold for Rs 300/- what is the purchase price if 25% profit is added to it.

- A) Rs 200 B) Rs 260
C) Rs 220 D) Rs 240

2. What is the block weighs (W) in kg, if volume (V) is 320 cm³ and density 8.9 g/cm³?

- A) 2.448 B) 2.648 kg
C) 2.848 kg D) 2.948 kg

3. What is the density of aluminium?

- A) 5.7 g/cm³ B) 4.7 g/cm³
C) 3.7 g/cm³ D) 2.7 g/cm³

4. Which law states that at constant temperature the current passing through a closed circuit is directly proportional to the potential difference and inversely proportional to the resistance?

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

5. What is the area of a sector of a circle of radius 5 cm and its angle is 96 Degree?

- A) 20.89 cm² B) 20.93 cm²
C) 20.98 cm² D) 20.39 cm²

6. What is the formual for induced emf?

- A) $B^2 V \sin \alpha$ volts B) $B^2 L \sin \alpha$ volts
C) BLV sinq volts D) BL sinq volts

7. Which property of a metal possessed by it melts when heat is applied?

- A) Fusibility B) Tenacity
C) Malleability D) Conductivity

8. What is the length of each part is a copper wire of 225 metre long is cut into 900 equal parts?

- A) 0.25 metre B) 0.23 metre
C) 0.28 metre D) 0.29 metre

9. What is the diagonal of a square plate whose side is 28 cm?

- A) 39.29 cm B) 39.59 cm
C) 39.49 cm D) 39.39 cm

10. How much watt second in 1 watt hour?

- A) 2000 watt sec B) 1000 watt sec
C) 4000 watt sec D) 3600 watt sec

11. Simplify: $(17.49 \times 5.2) / (6.5)$

- A) 13.79 B) 13.69
C) 13.89 D) 13.99

12. What is the ratio of power output to power input?

- A) Work B) Acceleration
C) Energy D) Efficiency

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

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

14. Which property of material enables to formation of permanent deformation without fracture?

- A) Brittleness B) Plasticity
C) Ductility D) Elasticity

15. How much power does it consumes if an electric heater draws a current of 10 amps at 200 volts?

- A) 2020 watts B) 2030 watts
C) 2000 watts D) 2010 watts

16. Which cast iron cannot be welded?

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

17. What is the area of a (A) semicircle whose dia is 20 cm (d)?

- A) 177.1 cm^2 B) 157.1 cm^2
C) 147.1 cm^2 D) 167.1 cm^2

18. What is the speed of a train of 80 metre long train passes a railway station platform of 120 metres length in 20 seconds?

- A) 30 km/hour
- B) 34 km/hour
- C) 36 km/hour
- D) 32 km/hour

19. How many liters of water a cylindrical tank of radius 75 cm and height 100 cm can hold?

- A) 1767.25 liters
- B) 1768.25 liters
- C) 1769.25 liters
- D) 1766.25 liters

20. Find the total surface area of a cast iron bar whose length, width and height are 20m, 15m and 12m.

- A) 1540 m^2
- B) 1640 m^2
- C) 1340 m^2
- D) 1440 m^2

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

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

22. What is the perimeter of a rectangle whose length and breadth are 20 cm and 18 cm?

- A) 56 cm
- B) 76 cm
- C) 86 mm
- D) 66 cm

23. 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) 330 mm^2
- D) 320 mm^2

24. Which is the unit electrical power?

- A) Ampere
- B) Watts
- C) Ohms
- D) Volts

25. Which property of a substance is opposing the flow of electric current?

- A) Voltage
- B) Resistance
- C) Current
- D) EMF