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Score: 32/38 (84.21%)

Code: 7475

1. Which machine converts mechanical energy into electrical energy?

- A) Battery
C) Heater
B) **Generator (Correct)**
D) Iron box

2. Which is the unit of current?

- A) **Ampere (Correct)**
C) Ohm
B) Volt
D) Watt

3. Which is the unit of resistance?

- A) Ampere
C) **Ohm**
B) Volt (Incorrect)
D) Watt

4. What is the flow of electrons in any conductor?

- A) Voltage
C) Resistance
B) **Current (Correct)**
D) Power

5. What is the formula for speed?

- A) **Distance covered/Time (Correct)**
C) Distance in definite direction /Time
B) Change in velocity/Time
D) Change in momentum/Time

6. What is the unit of speed?

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

7. What is the formula for velocity?

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

8. What is the unit for velocity?

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

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

- A) Speed
C) Vector quantity
B) Velocity
D) **Scalar quantity (Correct)**

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

- A) Speed
C) **Vector quantity (Correct)**
B) Velocity
D) Scalar quantity

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

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

12. What is called if a body does not change its position with respect to its surroundings?

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

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

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

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

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

15. 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
C) 34 km/hour
B) 32 km/hour
D) **36 km/hour (Correct)**

16. What is the formula for acceleration?

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

17. What is the unit of acceleration of an object?

- A) Metre/second
C) Metre/minutes
B) **Metre/second² (Correct)**
D) Metre/minutes²

18. What is the acceleration of a car if the speed of the car has increased from 25 km per hour to 40 km per hour in one minute?

- A) 0.059 m/sec²
B) 0.59 m/sec²
C) **0.069 m/sec² (Correct)**
D) 0.69 m/sec²

19. What is the retardation of a car moving with a velocity of 50 km/hr is brought to rest in 45 seconds?

- A) 0.40 m/sec²
B) **0.30 m/sec² (Correct)**
C) 0.20 m/sec²
D) 0.10 m/sec²

20. What is the acceleration of an aeroplane taking off from landing field has to run 700 metres if it leaves the ground in 10 seconds from the start?

- A) 8 metre/sec²
B) 10 metre/sec²
C) **12 metre/sec²**
D) 14 metre/sec² (Incorrect)

21. What maximum height a stone will reach if it is thrown upwards with a velocity of 20m/sec?(g = 10m/sec²)

- A) 10 m
B) **20 m (Correct)**
C) 30 m
D) 40 m

22. What is the work done in unit time?

- A) Energy
B) **Power (Correct)**
C) Force
D) Acceleration

23. What is the capacity of a body to do work is called?

- A) **Energy (Correct)**
B) Power
C) Acceleration
D) Force

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

- A) Work
B) Energy
C) **Efficiency (Correct)**
D) Acceleration

25. What is called if a force of 1Newton acts on a body and moves it through a distance of 1 metre?

- A) **1 Joule (Correct)**
B) 10 Joules
C) 1 dyne
D) 10 dynes

26. How many ergs for 1 Joule?

- A) 10³ ergs
B) 10⁵ ergs
C) **10⁷ ergs (Correct)**
D) 10⁹ ergs

27. How many newtons for 1 kilogram?

- A) 981 Newtons
B) 98.1 Newtons (Incorrect)
C) **9.81 Newtons**
D) 0.981 Newtons

28. How many watts for 1 horse power in metric system?

- A) 725.5 watts
B) **735.5 watts (Correct)**
C) 745.5 watts
D) 755.5 watts

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

- A) 726 watts
B) 736 watts
C) **746 watts (Correct)**
D) 756 watts

30. What is the equivalent unit for 1 horse power in metric system?

- A) **75 kg.m/sec (Correct)**
B) 76 kg.m/sec
C) 77 kg.m/sec
D) 78 kg.m/sec

31. What is the formula for potential energy?

- A) **mgh joule (Correct)**
B) mgh² joule
C) 1/2 mgh joule
D) 2/3 mgh joule

32. What is the formula for kinetic energy?

- A) (1/2) mv joule (Incorrect)
B) **(1/2) mv² joule**
C) (2/3) mv² joule
D) (2/3) mv joule

33. 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 (Incorrect)
B) **12 x 105 kg meter**
C) 12 x 106 kg meter
D) 12 x 107 kg meter

34. What is the work done, if a force of 250 newtons acted upon a body and the body has been moved through a distance of 15 metres?

- A) 3720 Joules
B) 3730 Joules
C) 3740 Joules
D) **3750 Joules (Correct)**

35. 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 (Correct)**
C) 74.57 KJ
D) 75.57 KJ

36. What is the potential energy in a body of mass 10 kg kept on the top of a pole 20 metres height?

- A) 1942 Joules
B) 1952 Joules (Incorrect)
C) **1962 Joules**
D) 1972 Joules

37. 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 (Correct)

38. 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 (Correct)

C) 630 Joules

D) 635 Joules