

Duration: 60 Mins

Total Marks: 38

Q.ID: ITISKILL0394GS

1. 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) 32 km/hour D) 36 km/hour

Answer: D) 36 km/hour

2. 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 107 kg meter B) 12 x 104 kg meter
C) 12 x 105 kg meter D) 12 x 106 kg meter

Answer: C) 12 x 105 kg meter

3. What is the work done in unit time?

- A) Energy B) Acceleration
C) Force D) Power

Answer: D) Power

4. What is the formula for potential energy?

- A) mgh joule B) $\frac{1}{2}$ mgh joule
C) $mgh \times 2$ joule D) $\frac{2}{3}$ mgh joule

Answer: A) mgh joule

5. What is the unit for velocity?

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

Answer: B) Metre/second

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

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

Answer: D) 8 m/sec

7. What is the formula for velocity?

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

Answer: B) Displacement/Time

8. 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) 75.57 KJ D) 74.57 KJ

Answer: B) 73.57 KJ

9. 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) 639 Joules
C) 659 Joules D) 649 Joules

Answer: A) 669 Joules

10. What is the unit of speed?

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

Answer: C) Metre/second

11. What is the formula for kinetic energy?

- A) $\frac{2}{3}$ mv joule B) $\frac{1}{2}$ mv² joule
C) $\frac{2}{3}$ mv² joule D) $\frac{1}{2}$ mv joule

Answer: B) $\frac{1}{2}$ mv² joule

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

- A) 725.5 watts B) 755.5 watts
C) 745.5 watts D) 735.5 watts

Answer: D) 735.5 watts

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

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

Answer: D) 75 kg.m/sec

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

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

Answer: A) Velocity

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

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

Answer: A) Efficiency

16. Which machine converts mechanical energy into electrical energy?

- A) Iron box B) Battery
C) Heater D) Generator

Answer: D) Generator

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

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

Answer: B) 1 Joule

18. What is called if a body possesses both magnitude and direction of velocity?

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

Answer: A) Vector quantity

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

- A) Power B) Force
C) Energy D) Acceleration

Answer: C) Energy

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

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

Answer: D) Body at motion

21. 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 B) 14
metre/sec² metre/sec²
C) 12 D) 10
metre/sec² metre/sec²

Answer: C) 12 metre/sec²

22. Which is the unit of resistance?

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

Answer: B) Ohm

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

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

Answer: D) 0.30 m/sec²

24. 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) 3730 Joules B) 3740 Joules
C) 3720 Joules D) 3750 Joules

Answer: D) 3750 Joules

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

- A) 1952 Joules B) 1962 Joules
C) 1942 Joules D) 1972 Joules

Answer: B) 1962 Joules

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

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

Answer: C) Body at rest

27. 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) 0.59 m/sec² B) 0.69 m/sec²
C) 0.069 D) 0.059
m/sec² m/sec²

Answer: C) 0.069 m/sec²

28. How many ergs for 1 Joule?

- A) 10⁷ ergs B) 10³ ergs
C) 10⁹ ergs D) 10⁵ ergs

Answer: A) 10⁷ ergs

29. Which is the unit of current?

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

Answer: A) Ampere

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

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

Answer: B) 746 watts

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

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

Answer: D) Metre/second²

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

- A) 30 m B) 20 m

C) 10 m

D) 40 m

Answer: B) 20 m

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

A) 620 Joules

B) 635 Joules

C) 625 Joules

D) 630 Joules

Answer: C) 625 Joules

34. What is the formula for speed?

A) Change in momentum/Time

B) Distance covered/Time

C) Distance in definite direction /Time

D) Change in velocity/Time

Answer: B) Distance covered/Time

35. What is the formula for acceleration?

A) Metre/second²

B) Metre/hour

C) Metre/second

D) Metre/minute

Answer: A) Metre/second²

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

A) Velocity

B) Scalar quantity

C) Vector quantity

D) Speed

Answer: B) Scalar quantity

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

A) Voltage

B) Resistance

C) Current

D) Power

Answer: C) Current

38. How many newtons for 1 kilogram?

A) 981 Newtons

B) 9.81 Newtons

C) 0.981 Newtons

D) 98.1 Newtons

Answer: B) 9.81 Newtons
