

Duration: 30 Mins

Total Marks: 25

Q.ID: ITISKILL3333IL

1. 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
C) 40 m D) 30 m

Answer: B) 20 m

2. 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) 0.069 m/sec² B) 0.69 m/sec²
C) 0.059 m/sec² D) 0.59 m/sec²

Answer: A) 0.069 m/sec²

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

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

Answer: B) 669 Joules

4. 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

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

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

Answer: A) Metre/second²

6. What is the formula for velocity?

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

Answer: B) Displacement/Time

7. 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

8. 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

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

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

Answer: C) 75 kg.m/sec

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

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

Answer: D) Vector quantity

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

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

Answer: D) 73.57 KJ

12. 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) 32 km/hour B) 36 km/hour
C) 30 km/hour D) 34 km/hour

Answer: B) 36 km/hour

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

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

Answer: C) Energy

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

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

Answer: A) 735.5 watts

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

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

Answer: A) 1 Joule

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

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

Answer: A) Efficiency

17. 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) 14 metre/sec²
- B) 10 metre/sec²
- C) 12 metre/sec²
- D) 8 metre/sec²

Answer: C) 12 metre/sec²

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

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

Answer: B) 625 Joules

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

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

Answer: B) Velocity

20. What is the formula for speed?

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

Answer: B) Distance covered/Time

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

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

Answer: B) 746 watts

22. What is the unit for velocity?

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

Answer: D) Metre/second

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

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

Answer: B) 1962 Joules

24. What is the formula for kinetic energy?

- A) $(1/2) mv$ joule
- B) $(2/3) mv$ joule
- C) $(2/3) mv^2$ joule
- D) $(1/2) mv^2$ joule

Answer: D) $(1/2) mv^2$ joule

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

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

Answer: D) 8 m/sec