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Dr. J. J. Magdum ITI college
sambhajipur

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Question Paper

Duration: 180 Mins

Total Marks: 34

ID: ITISKILL1638KC

Student Name: _____ Roll No: _____

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

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

2. What is the formula for acceleration?

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

3. What is the unit of speed?

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

4. 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) 32 km/hour
C) 36 km/hour D) 34 km/hour

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

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

6. 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) 659 Joules
C) 669 Joules D) 649 Joules

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

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

8. 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) 8 m/sec D) 10 m/sec

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

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

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

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

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

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

12. 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) 0.40 m/sec²
C) 0.30 m/sec² D) 0.10 m/sec²

13. 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 10⁶ kg meter
C) 12 x 10⁵ kg meter D) 12 x 10⁴ kg meter

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

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

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

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

16. What is the unit for velocity?

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

17. 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
D) 0.69 m/sec²

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

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

19. What is the formula for speed?

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

20. How many newtons for 1 kilogram?

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

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

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

22. What is the formula for kinetic energy?

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

23. 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) 3740 Joules
C) 3730 Joules
D) 3750 Joules

24. What is the work done in unit time?

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

25. 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

26. 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) 8 metre/sec²
C) 10 metre/sec²
D) 12 metre/sec²

27. How many ergs for 1 Joule?

- A) 10^5 ergs
B) 10^3 ergs
C) 10^9 ergs
D) 10^7 ergs

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

- A) 20 m
B) 30 m
C) 10 m
D) 40 m

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

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

30. 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) 1972 Joules
D) 1942 Joules

31. What is the formula for velocity?

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

32. What is the formula for potential energy?

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

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

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

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

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