Duration: 30 Mins   Total Marks: 25   **Q.ID: ITISKILL7203M0**

1. What is the formula for kinetic energy?

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

Answer: A) $(1/2)\ mv^2$ joule

2. What is the formula for speed?

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

Answer: B) Distance covered/Time

3. 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/sec^2
B) 10 metre/sec^2
C) 12 metre/sec^2
D) 8 metre/sec^2

Answer: C) 12 metre/sec^2

4. What is the unit for velocity?

A) Metre/second
B) Metre/hour
C) Metre/second^2
D) Metre/minute

Answer: A) Metre/second

5. What is the specific gravity of the metal, if the piece of metal weighs 150 grams in air and 125 grams in water?

A) 25
B) 6
C) 15
D) 10

Answer: B) 6

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

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

Answer: B) Velocity

7. What is the work done in unit time?

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

Answer: B) Power

8. What is the volume (V) of mercury in cm3, if mass (m) of mercury is 1 kg and density (r) is 13.6 g/cm^3?

A) 73.53 cm^3
B) 73.33 cm^3
C) 73.43 cm^3
D) 73.23 cm^3

Answer: A) 73.53 cm^3

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

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

Answer: A) 735.5 watts

10. 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/sec^2
B) 0.10 m/sec^2
C) 0.20 m/sec^2
D) 0.30 m/sec^2

Answer: D) 0.30 m/sec^2

11. What maximum height a stone will reach if it is thrown upwords with a velocity of 20m/sec?(g = 10m/sec^2)

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

Answer: B) 20 m

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

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

Answer: A) Energy

13. How many newtons for 1 kilogram?

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

Answer: C) 9.81 Newtons

14. What is the unit of speed?

A) Metre/hour
B) Metre/minute
C) Metre/second^2
D) Metre/second

Answer: D) Metre/second

15. What is the weight force of a car has a mass of 800 kg?(Take g = 9.81m/sec)

A) 7848 Newton
B) 7748 Newton
C) 7487 Newton
D) 7847 Newton

Answer: A) 7848 Newton

16. 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) 34 km/hour
B) 36 km/hour
C) 32 km/hour
D) 30 km/hour

Answer: B) 36 km/hour

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

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

Answer: B) 75 kg.m/sec

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18. What is the mass in gram, if a force of 15 dyres acting on a mass m producing an acceleration of 2.5 cm/sec^2?

A) 9 grams
B) 7 grams
C) 6 grams
D) 8 grams

Answer: C) 6 grams

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19. What is the formula for acceleration?

A) Metre/hour
B) Metre/minute
C) $Metre/second^2$
D) Metre/second

Answer: C) $Metre/second^2$

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20. 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

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

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

Answer: C) 1 Joule

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22. 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/sec^2
B) 0.059 m/sec^2
C) 0.59 m/sec^2
D) 0.69 m/sec^2

Answer: A) 0.069 m/sec^2

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

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

Answer: A) Body at motion

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

A) $Metre/second^2$
B) Metre/second
C) Metre/minutes
D) $Metre/minutes^2$

Answer: A) $Metre/second^2$

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25. What is the formula for velocity?

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

Answer: C) Displacement/Time