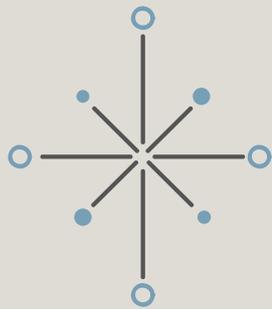
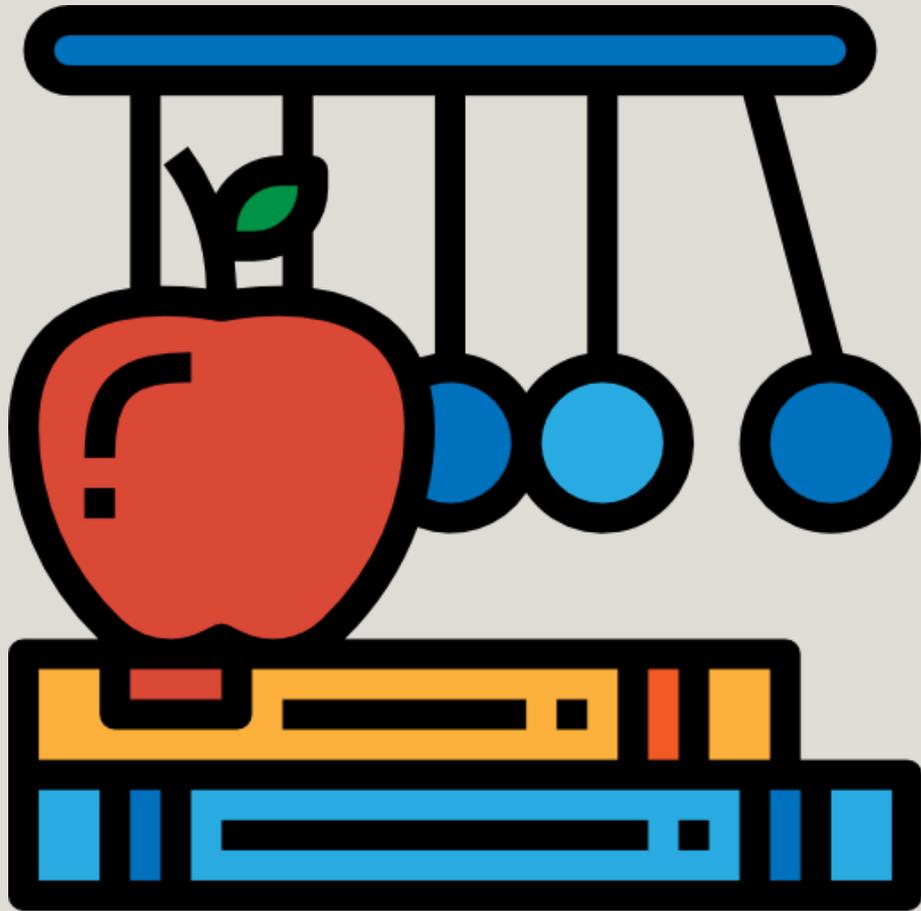


Physics Archive

Mid -2022

Done by:



1. Which of the following is a scalar quantity?

- A) Force
- B) Mass
- C) Acceleration
- D) Velocity

Answer: b

2. Which of the following is the correct combination of dimensions for energy?

- A) ML^2/T^2
- B) LT^2 /M
- C) M^2L^3T
- D) ML/T^2

Answer:a

3. The weight of an object that has a mass of 50 Kg is equal to

- A) 50 N
- B) 500 N
- C) 1000 N
- D) 250 N

Answer:b

4. Two cars are initially 150 kilometers apart and traveling toward each other. One car is moving at 60 km/h and the other is moving at 40 km/h. In how many hours will they meet?

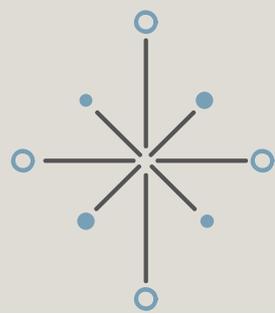
- A) 2.5 h
- B) 2.0 h
- C) 3.0 h
- D) 1.5 h

Answer:d

5. A car accelerates from rest and travels a distance $d=100$ m to reach a speed of 20 m/s, its acceleration is:

- A) 2 m/s^2
- B) 4 m/s^2
- C) 7 m/s^2
- D) 6 m/s^2

Answer:A



6. The position of a particle on a straight line is given by the equation: $x(t) = 12 + 8t - 3t^2$, (x in meter and t in second). The initial velocity of the particle is:

- A) -6 m/s
- B) 8 m/s
- C) 6 m/s
- D) 12 m/s

Answer: B

7. Given $A = -3x + 2y$ and $B = x - 3y$. The magnitude of $2A - B$ is

- A) 9.9
- B) 12.5
- C) 8.1
- D) 5.7

Answer: a

8. A ball is dropped vertically from rest from a height h above the ground. It requires 2 s to reach the ground. The height h is :

- A) 30 m
- B) 25 m
- C) 20 m
- D) 15 m

Answer: c

9. A Particle starts from the origin with initial velocity of $3 \hat{y}$ m/s and moves in the xy -plane with a constant acceleration of $4 \hat{x}$ m/s². At the instant the x coordinate of the particle is 32 m, what is the value of its y coordinate?

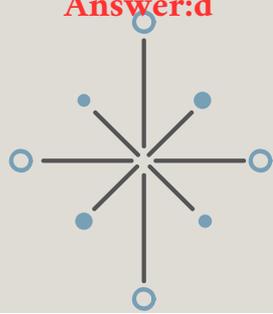
- A) 40 m
- B) 24 m
- C) 36 m
- D) 12 m

Answer: d

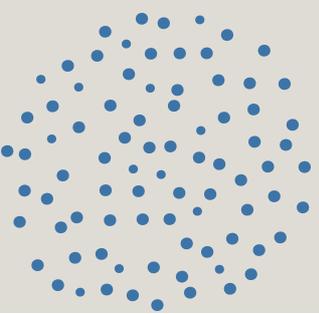
10. An object is subjected to two forces: $F_1 = 2\hat{x} - 3\hat{y}$ and $F_2 = 12\hat{x} - 5\hat{y}$. The net force is:

- A) $F_{net} = 12\hat{x} + 8\hat{y}$
- B) $F_{net} = -10\hat{x} + 2\hat{y}$
- C) $F_{net} = 14\hat{x} + 2\hat{y}$
- D) $F_{net} = 14\hat{x} - 8\hat{y}$

Answer: d



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11. An object of mass 0.8 kg is tied to the end of a 2 m string swings as pendulum. At the lowest point of its swing, the object has a kinetic energy of 10 J. What is the tension in the string at the lowest point?

- A) 18 N
- B) 4N
- C) 15N
- D) 8N

Answer:A

12. A car of mass 1200 kg accelerates uniformly from rest to a speed of 8 m/s in 4s. The average power delivered by the engine in this time interval is

- A) 4800 W
- 13) 9600 W
- C) 7200 W
- D) 2400 W

Answer:b

13. The total mechanical energy of a football of mass 2 Kg in its highest level of 30 m above the ground is

- A) 600 J
- B) 1200 J
- C) 1000J
- D) 800 J

Answer:A

14. ball is thrown horizontally from a height of 20 m and hits the ground with a speed that is three times its initial speed. What is the initial speed of the ball?

- A) 7.1 m/s
- B) 12 m/s
- C) 9.8 m/S
- D) 5.8 m/s

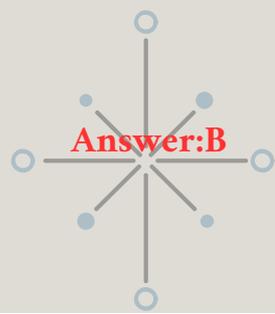
Answer:A

15. A man moves a box horizontally by exerting on it a force of 90 N directed at 60° above the horizontal. If the work done on the box is 450 J, the displacement of the box is

- A) 20 m
- B) 10 m
- C) 5 m
- D) 15 m

Answer:B

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16. A box is sliding down an incline that is 30° above the horizontal. If the coefficient of kinetic friction between the block and the surface is 0.4, the magnitude of its acceleration is

- A) 5.6 m/s^2
- B) 1.53 m/s^2
- C) 8.8 m/s^2
- D) 2.3 m/s^2

Answer: B

الطبيب والجراحة

لبننة

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Answer:a

1. Which of the following is a scalar quantity?

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

2. Which of the following is the correct combination of dimensions for power?

- A) ML^2/T^2
- B) LT^2/M
- C) ML^2/T^3
- D) ML/T^2

Answer:c

3. The weight of an object that has a mass of 25 Kg is equal to

- A) 25 N
- B) 500 N
- C) 100 N
- D) 250 N

Answer:d

4. Two cars are initially 200 kilometers apart and traveling toward each other. One car is moving at 60 km/h and the other is moving at 40 km/h. In how many hours will they meet?

- A) 2.0 h
- B) 1.5 h
- C) 3.0 h
- D) 2.5 h

Answer:a

5. A car accelerates from rest and travels a distance $d=25$ m to reach a speed of 15 m/s, its acceleration is:

- A) 2.8 m/s²
- B) 6.6 m/s²
- C) 7 m/s²
- D) 4.5 m/s²

Answer:d

6. The position of a particle on a straight line is given by the equation: $x(t)=12+6t-4t^2$, (x in meter and t in second). The initial velocity of the particle is:

- A) -6 m/s
- B) 6 m/s
- C) 8 m/s
- D) 12 m/s

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Answer:b

7. Given $A = -3x + 2y$ and $B = x - 3y$. The magnitude of $A - 2B$ is

- A) 7.9
- B) 12.5
- C) 8.1
- D) 9.43

Answer:d

8. A ball is dropped vertically from rest from a height h above the ground. It requires 3 s to reach the ground. The height h is

- A) 45 m
- B) 25 m
- C) 30 m
- D) 15 m

Answer:A

9. A Particle starts from the origin with initial velocity of $4y$ m/s and moves in the xy -plane with a constant acceleration of $4x$ m/s². At the instant the x coordinate of the particle is 32 m, what is the value of its y coordinate?

- A) 40 m
- B) 16 m
- C) 36 m
- D) 12 m

Answer:b

10. An object is subjected to two forces: $F_1 = 2x + 3y$ and $F_2 = 12x - 5y$. The net force is:

- A) $F_{net} = 12x + 8y$
- B) $F_{net} = 14x - 2y$
- C) $F_{net} = 14x + 2y$
- D) $F_{net} = 14x - 8y$

Answer:B

11. An object of mass 0.8 kg is tied to the end of a 2.5 m string swings as pendulum. At the lowest point of its swing, the object has a kinetic energy of 10 J. What is the tension in the string at the lowest point?

- A) 16 N
- B) 18 N
- C) 15 N
- D) 12 N

Answer:A

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12. A car of mass 1000 kg accelerates uniformly from rest to a speed of 8 m/s in 4 s. the average power delivered by the engine in this time interval is

- A) 4800 W
- B) 8000 W
- C) 7200 W
- D) 9600 W

Answer:b

13. The total mechanical energy of a football of mass 2.5 Kg in its highest level of 30 m above the ground is

- A) 600 J
- B) 750 J
- C) 1000 J
- D) 950 J

Answer:b

14. ball is thrown horizontally from a height of 20 m and hits the ground with a speed that is two times its initial speed. What is the initial speed of the ball?

- A) 7.1 m/s
- B) 11.3 m/s
- C) 9.8 m/s
- D) 5.8 m/s

Answer:b

15. A man moves a box horizontally by exerting on it a force of 90 N directed at 60° above the horizontal. If the work done on the box is 900 J, the displacement of the box is

- A) 20 m
- B) 10 m
- C) 3 m
- D) 15 m

Answer:a

16. A box is sliding down an incline that is 30° above the horizontal. If the coefficient of kinetic friction between the block and the surface is 0.5, the magnitude of its acceleration is

- A) 0.67 m/s²
- B) 1.53 m/s²
- C) 8.8 m/s²
- D) 0.23 m/s²

Answer:a

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Which of the following is a scalar quantity?

- A) Work
- B) Force
- C) Acceleration
- D) Velocity

Answer:a

2. Which of the following is the correct combination of dimensions for force?

- A) ML^2/T^2
- B) ML/T^2
- C) M^2L^3T
- D) ML^2/T

Answer:b

3. The weight of an object that has a mass of 40 Kg is equal to

- A) 50 N
- B) 500 N
- C) 40 N
- D) 400 N

Answer:d

4. Two cars are initially 250 kilometre's apart and traveling toward each other. One car is moving at 60 km/h and the other is moving at 40 km/h. In how many hours will they meet?

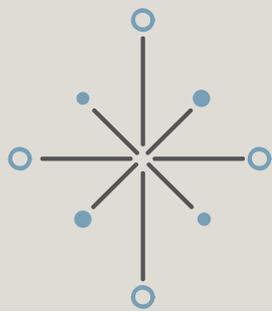
- A) 2.0 h
- B) 2.5 h
- C) 3.0 h
- D) 1.5 h

Answer:b

5. A car accelerates from rest and travels a distance $d=75$ m to reach a speed of 20 m/s, its acceleration is:

- A) 2.67 m/s^2
- B) 4.5 m/s^2
- C) 7.43 m/s^2
- D) 6.2 m/s^2

Answer:a



6. The position of a particle on a straight line is given by the equation: $x(t) = 12 + 9t - 3t^3$, (x in meter and t in second). The initial velocity of the particle is:

- A) -6 m/s
- B) 8 m/s
- C) 6 m/s
- D) 9 m/s

Answer:d

7. Given $A = -3x + 2y$ and $B = x - 3y$. The magnitude of $2A + B$ is:

- A) 9.9
- B) 12.5
- C) 5.1
- D) 7.7

Answer:c

8. A ball is dropped vertically from rest from a height h above the ground. It requires 4 s to reach the ground. The height h is

- A) 80 m
- B) 25 m
- C) 60 m
- D) 40 m

Answer:a

9. A Particle starts from the origin with initial velocity of $5y$ m/s and moves in the xy -plane with a constant acceleration of $4x$ m/s². At the instant the x coordinate of the particle is 32 m, what is the value of its y coordinate? At the instant the x coordinate of the particle is 32 m, what is the value of its y coordinate?

- A) 40 m
- B) 24 m
- C) 36 m
- D) 20 m

Answer:d

10. An object is subjected to two forces: $F_1 = 2x - 3y$ and $F_2 = 10x - 5y$. The net force is:

- A) $F_{net} = 12x + 8y$
- B) $F_{net} = -10x + 2y$
- C) $F_{net} = 12x - 8y$
- D) $F_{net} = 14x - 8y$

Answer:c

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11. An object of mass 0.8 kg is tied to the end of a 1.5 m string swings as pendulum. At the lowest point of its swing, the object has a kinetic energy of 10 J. What is the tension in the string at the lowest point?

- A) 21.3 N
- B) 17.6 N
- C) 15.2 N
- D) 8.4 N

Answer:a

12. A car of mass 900 kg accelerates uniformly from rest to a speed of 8 m/s in 4 s. The average power delivered by the engine in this time interval is

- A) 4800 W
- B) 9600 W
- C) 2400 W
- D) 7200 W

Answer:d

13. The total mechanical energy of a football of mass 2 Kg in its highest level of 40 m above the ground is

- A) 600 J
- B) 1200 J
- C) 1000 J
- D) 800 J

Answer:d

14. ball is thrown horizontally from a height of 20 m and hits the ground with a speed that is four times its initial speed. What is the initial speed of the ball?

- A) 7.1 m/s
- B) 12 m/s
- C) 9.8 m/s
- D) 5.2 m/s

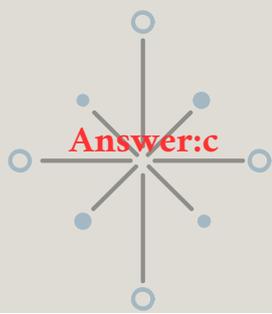
Answer:d

15. A man moves a box horizontally by exerting on it a force of 90 N directed at 60° above the horizontal. If the work done on the box is 675 J, the displacement of the box is

- A) 20 m
- B) 10 m
- C) 15 m
- D) 5 m

Answer:c

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16. A box is sliding down an incline that is 30° above the horizontal. If the coefficient of kinetic friction between the block and the surface is 0.3, the magnitude of its acceleration is

- A) 5.6 m/s^2
- B) 1.53 m/s^2
- C) 2.4 m/s^2
- D) 4.3 m/s^2

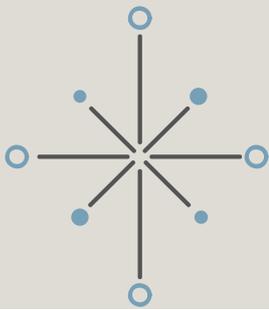
Answer:c

الطب والجراحة

لما أبّش بالمادة ليلة الإمتحان وعقلي يوقف عند نقطة مو فاهمها :



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1. Which of the following is a scalar quantity?

- A) Force
- B) Velocity
- C Acceleration
- D) speed

Answer:d

2. Which of the following is the correct combination of dimensions for work?

- A) ML^2 / T^2
- B) ML^2/T
- C) M^2L^3T
- D) ML/T^2

Answer:A

3. The weight of an object that has a mass of 50 Kg is equal to

- A) 50 N
- B) 500 N
- C) 1000 N
- D) 250 N

Answer:B

4. Two cars are initially 120 kilometers apart and traveling toward each other. One car is moving at 60 km/h and the other is moving at 40 km/h. In how many hours will they meet?

- A) 1.2 h
- B) 2.2 h
- C) 3.0 h
- D) 4.5 h

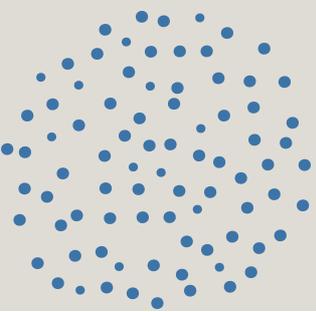
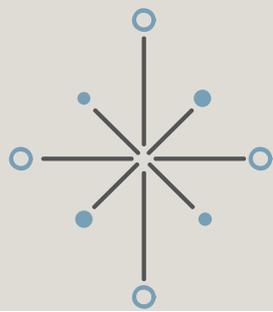
Answer:A

5. A car accelerates from rest and travels a distance $d=100$ m to reach a speed of 30 m/s, its acceleration is:

- A) 2.5 m/s^2
- B) 4.5 m/s^2
- C) 3 m/s^2
- D) 6 m/s^2

Answer:B

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6. The position of a particle on a straight line is given by the equation: $x(t) = 2 + 12t - 3t^3$, (x in meter and t in second. The initial velocity of the particle is:

- A) -6 m/s
- B) 8 m/s
- C) 6 m/s
- D) 12 m/s

Answer:D

7. Given $A = -3x + 2y$ and $B = x - 3y$. The magnitude of $A + 2B$ is

- A) 9.9
- B) 4.1
- C) 8.2
- D) 5.7

Answer:B

8. A ball is dropped vertically from rest from a height h above the ground. It requires 1s to reach the ground. The height h is

- A) 5 m
- B) 25 m
- C) 20 m
- D) 15 m

Answer:A

9. A Particle starts from the origin with initial velocity of $6y$ m/s and moves in the xy -plane with a constant acceleration of $4x$ m/s. At the instant the x coordinate of the particle is 32 m, what is the value of its y coordinate? At the instant the x coordinate of the particle is 32 m, what is the value of its y coordinate?

- A) 40 m
- B) 24 m
- C) 36 m
- D) 12 m

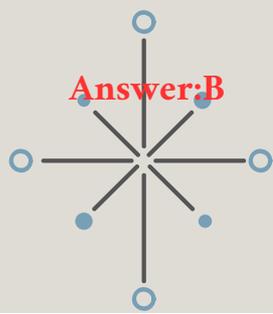
Answer:b

10. An object is subjected to two forces: $F_1 = 2x - 3y$ and $F_2 = 8x - 5y$ The net force is:

- A) $F_{net} = 12x + 8y$
- B) $F_{net} = 10x - 8y$
- C) $F_{net} = 14x + 2y$
- D) $F_{net} = 14x - 8y$

Answer:B

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11. An object of mass 0.8 kg is tied to the end of a 2 m string swings as pendulum. At the lowest point of its swing, the object has a kinetic energy of 10 J. What is the tension in the string at the lowest point?

- A) 18 N
- B) 4 N
- C) 15 N
- D) 8 N

Answer:a

12. A car of mass 800 kg accelerates uniformly from rest to a speed of 8 m/s in 4 s. The average power delivered by the engine in this time interval is

- A) 4800 W
- B) 9600 W
- C) 7200 W
- D) 6400 W

Answer:d

13. The total mechanical energy of a football of mass 2.5 Kg in its highest level of 20 m above the ground is

- A) 600 J
- B) 1200 J
- C) 500 J
- D) 800 J

Answer:c

14. ball is thrown horizontally from a height of 20 m and hits the ground with a speed that is three times its initial speed. What is the initial speed of the ball?

- A) 9.8 m/s
- B) 12 m/s
- C) 7.1 m/s
- D) 5.8 m/s

Answer:c

15. A man moves a box horizontally by exerting on it a force of 90 N directed at 60° above the horizontal. If the work done on the box is 225 J, the displacement of the box is

- A) 20 m
- B) 10 m
- C) 15 m
- D) 5 m

Answer:d

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16. A box is sliding down an incline that is 30° above the horizontal. If the coefficient of kinetic friction between the block and the surface is 0.2, the magnitude of its acceleration is

- A) 5.6 m/s²
- B) 1.53 m/s²
- C) 8.8 m/s²
- D) 3.3 m/s²

Answer:d

فاسْتَعِنِ بِاللّٰهِ يَا صَاحِبِيّٰ وَاعْلَمْ أَنَّ لِكُلِّ سَاعٍ مَا سَعَىٰ
وَأَنَّ اللّٰهَ لَا يُكَلِّفُ نَفْسًا إِلَّا وُسْعَهَا، وَالَّذِي كَلَّفَكَ هَذَا
قَدِيرٌ أَنْ يُعِينِكَ عَلَيْهِ؛ فَلَا تَيْأَسْ وَحَاحِلٍ حَتَّىٰ تَصِلَ.

