



HKDSE PHYSICS – Mock Exam Paper

Set 1				
2010 HKDSE Physics Mock Exam Paper				
Part A:	Multiple Choices questions: 30 marks			
Part B:	Structured questions: 60 marks			
Total:	100 Marks			
Time Limit:	2 hours and 30 minutes			

Try this challenging paper if you are confident in your Physics knowledge!

Topics includes: Mechanics

1. Position and Movement
2. Forces and Motion
3. Work and Energy
4. Momentum
5. Projectile Motion



Part A: Multiple choices questions:

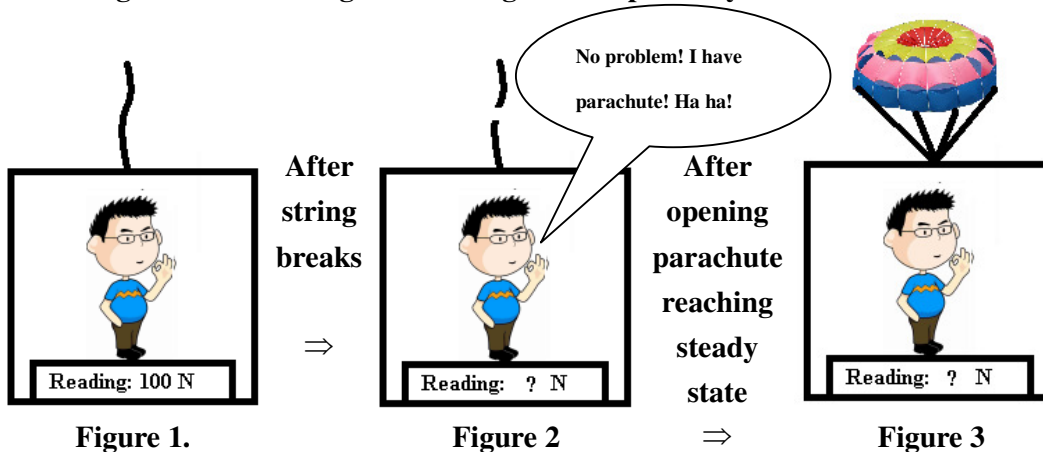
Take $g = 10ms^{-2}$ unless specified.
 Unless otherwise specified, all cells are assumed to have negligible internal resistance.

1. Which of the following is a correct unit for the corresponding physical quantity?

	<u>Physical quantity</u>	<u>Unit</u>
I.	Work	$W s^{-1}$
II.	Heat Capacity	$J kg^{-1} ^\circ C^{-1}$
III.	Electromotive Force	$W s C^{-1}$

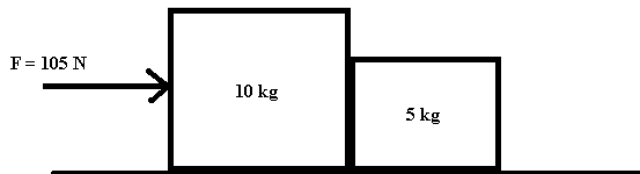
- A. I only
- B. II and III only
- C. III only
- D. None of the above

2. Andy is taking the lift downward with uniform deceleration, the reading of the scale is 100N (Figure 1). Suddenly, the string of the lift is broken, Andy, the scale and the lift is under free fall motion (Figure 2). Fortunately, the lift is designed by Andy and there is a parachute system installed. After the parachute reaching the steady state, the lift is falling down with safe uniform speed at about $1 m s^{-1}$. Which of the following is the possible reading of the scale in figure 2 and figure 3 respectively?



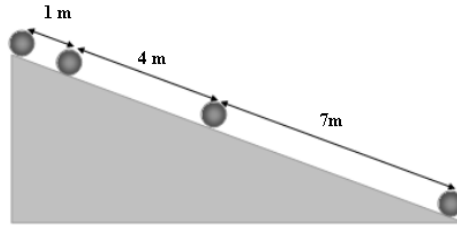
- | | Figure 2. | Figure 3. |
|----|-----------|-----------|
| A. | 120 N | 100N |
| B. | 0 N | 120N |
| C. | 0 N | 80N |
| D. | 100 N | 100N |

3. Which of the following statement is always true?
- A. Displacement travelled by a particle is always greater than the distance travelled by a particle.
 - B. If a particle is at rest now, its acceleration must be zero at that moment.
 - C. The magnitude of Andy's weight on the Earth is always equal to the magnitude of the force acting on the Earth by him.
 - D. If the body is increasing its speed on a rough surface, the friction acting on the body is always increasing accordingly.
4. Which of the following situation require zero net force acting on the body at the said moment?
- A. A man is playing bungee jump from a bridge and attains the lowest position, i.e. momentarily at rest at the lowest position.
 - B. A ball is throwing up and is now at the maximum position, i.e. momentarily at rest at the maximum point.
 - C. A car is moving with power provided by the engine with uniform speed.
 - D. A parcel is moving on a conveyor belt rounding a corner with constant speed.
5. In the figure below, there is an applied force of 105 N acting on the 10-kg block to the right. Both 10-kg and 5-kg blocks are moving to the right with constant acceleration of 5 m s^{-2} on a horizontal rough surface. Find the magnitude of the force acting between 10-kg block and 5-kg block.
(Hints: assume the friction acting on 10-kg block is double that acting on the 5-kg block.)



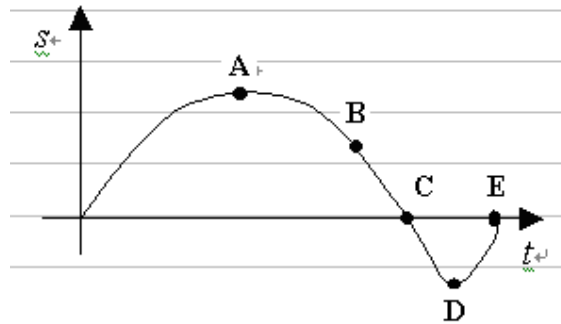
- A. 0 N
- B. 25 N
- C. 35 N
- D. 55 N

6. The following figure shows the positions of a ball when $t = 0\text{s}$, 2s , 4s and 6s respectively. What is the average acceleration of the ball of the whole journey?



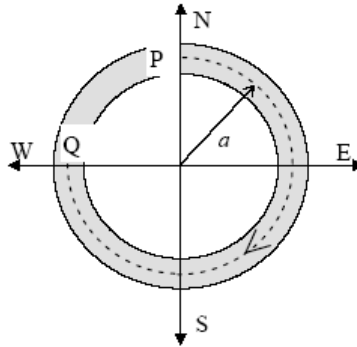
- A. 0.375 m s^{-2}
- B. 0.75 m s^{-2}
- C. 1 m s^{-2}
- D. 2 m s^{-2}

7. Which of the descriptions about the motion of a car in the graph is correct? (Hints: BC is a straight line.)

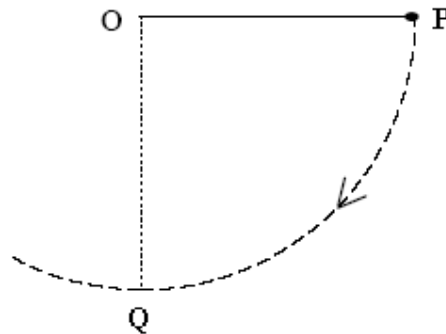


- A. Before point A, the car accelerates uniformly and attains maximum speed at A.
- B. From point B to point C, the car moves with uniform velocity.
- C. At point C, the car changes its direction.
- D. At point D, the car is moving with maximum speed.

8. Andy is driving his car on a circular track of radius a , as shown in the figure below. When his car has traveled clockwise from P to W, what is the displacement from P to Q?

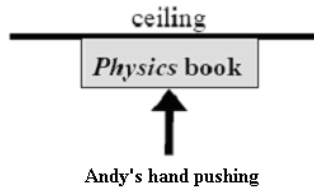


- A. $a\sqrt{2}$ southwest.
 B. $a\sqrt{2}$ northeast.
 C. $\frac{3\pi a}{2}$ southwest.
 D. $\frac{3\pi a}{2}$ northeast.
9. A particle of mass m is suspended from a fixed point O by a light, inextensible cord. The particle is moving from P to Q by a motor with uniform speed. It moves in an arc of a circle as shown in the figure below. Which of the following statement is correct? (Assume there is no air resistance acting on the particle during the motion.)



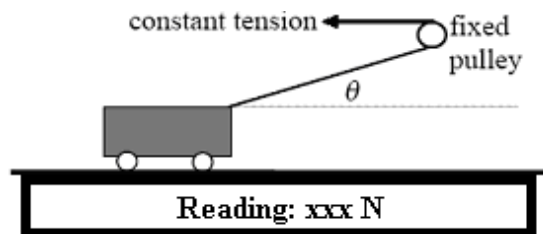
- A. The particle moves with constant velocity from P to Q.
 B. All the loss in potential energy of the particle from P to Q is converted to the kinetic energy of the particle at Q.
 C. There is work done against friction between the parts inside the motor.
 D. Total mechanical energy of the particle is conserved when it move from P to Q.

10. Andy pushes a book up against the horizontal ceiling of his tutorial center as shown in the figure. The book weighs 40 N and he pushes upwards with a force of 50 N. Which of the following pair of forces are correctly matched?



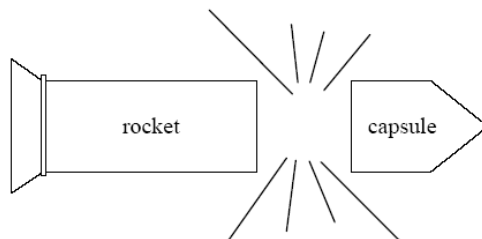
	<u>Force between the ceiling and the book</u>	<u>Force between his hand and the book</u>
A.	10 N	50 N
B.	5	90 N
C.	50 N	50 N
D.	10 N	90 N

11. In the figure below, A cart is pulled along a horizontal rough surface by a rope that passes over a fixed smooth pulley. A electronic scale is placed on the road. As the cart is moving to the right, which of the following description about its acceleration and reading of the scale is correct? (Assume the tension in the string and the friction acting on the cart remains unchanged during its motion.)



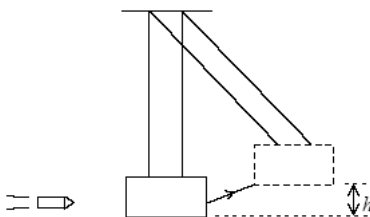
	<u>Acceleration</u>	<u>Reading of the scale</u>
A.	Increasing	Increasing
B.	Increasing	Decreasing
C.	Decreasing	Increasing
D.	Decreasing	Decreasing

12. After the rocket fuel is used up, the rocket stopped moving. After a while, a small explosion is used to separate a space capsule of mass m_c from its rocket of mass m_r where $m_c < m_r$. Which of the following statements is/are correct?



- I. After explosion, the magnitude of the momentum of the capsule is larger than that of the rocket.
- II. The total kinetic energy of the capsule and the rocket is conserved before and after the explosion.
- III. The kinetic energy of the capsule is larger than that of the rocket after explosion,
- A. I and II only
- B. II and III only
- C. III only
- D. None of the above

13. The figure shows a “ballistic pendulum” arrangement used to determine bullet speeds. A bullet is fired into a block suspended from cords and the block with the embedded bullet swings as far as the position shown below. The measured quantities are the masses of the bullet and the block and the maximum height h to which the block rises after the impact. To calculate the speed with which the bullet struck the block, what principle(s) or law(s) should be applied in this situation?



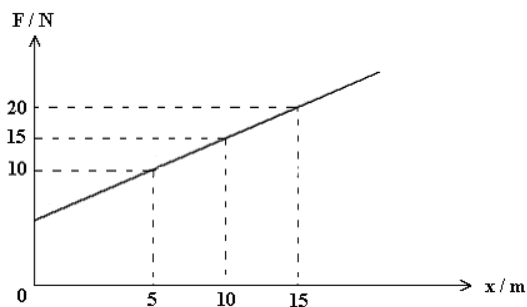
- A. Newton’s second laws, Conservation of energy and momentum only
- B. Newton’s second laws and Conservation of energy only
- C. Conservation of energy and momentum only
- D. Conservation of energy only

14. In the figure below, an oil tanker is accelerating uniformly. However, its oil tank is broken with a big hole and the oil is leaking into the sea. Which of the following descriptions about the oil tanker must be correct?



- A. The normal reaction acting on the tanker remains unchanged.
- B. The net force acting on the tanker is decreasing.
- C. The air friction acting on the tanker is constant.
- D. The rate of change of momentum of the tanker is increasing.

15. The graph below shows the variation of the force F with the displacement x of a particle. What is the total work done by the force F when the particle moves from $x = 5m$ to $x = 15m$ and then back to $x = 10m$?



- A. 62.5 J
- B. 87.5 J
- C. 150 J
- D. 237.5 J

16. A chocolate is dropped into a cylinder of syrup. Which of the following correctly describes its motion before the terminal speed is reached?

	Magnitude of its velocity	Magnitude of its acceleration
A.	Increase	Increase
B.	Increase	Decrease
C.	Increase	10 ms^{-2}
D.	remain unchanged	10 ms^{-2}

17. When given a slight push, a toy car moves freely with constant velocity down a plane inclined at 30° to the horizontal. If the mass of the car is 1 kg, what is the minimum force to pull the car up the same plane with constant velocity.

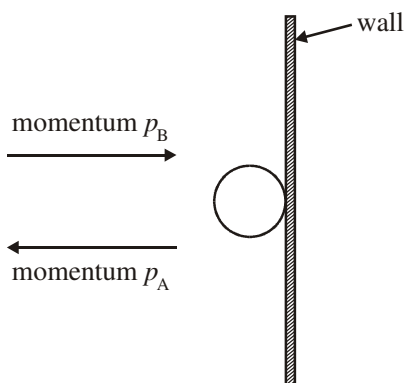
- A. 5 N
- B. 10 N
- C. 15 N
- D. 20 N

18. Two small cannon A and B of masses 1 kg and 2 kg respectively are released from rest at heights $2h$ and h above the ground respectively. Which of the following statements is/are correct? (Assume air resistance is negligible)

- (1) The acceleration of sphere A doubles that of sphere B.
- (2) The separation between sphere A and sphere B will increase as they are falling down to the ground.
- (3) The kinetic energy of sphere A when reaching the ground is the same of that of sphere B.

- A. (1) only
- B. (3) only
- C. (2) and (3) only
- D. None of the above

19. A sphere of mass m strikes a vertical wall and bounces off it, as shown below.



The magnitude of the momentum of the sphere just before impact is p_B and just after impact is p_A . The sphere is in contact with the wall for time t . The magnitude of the average force exerted by the wall on the sphere is

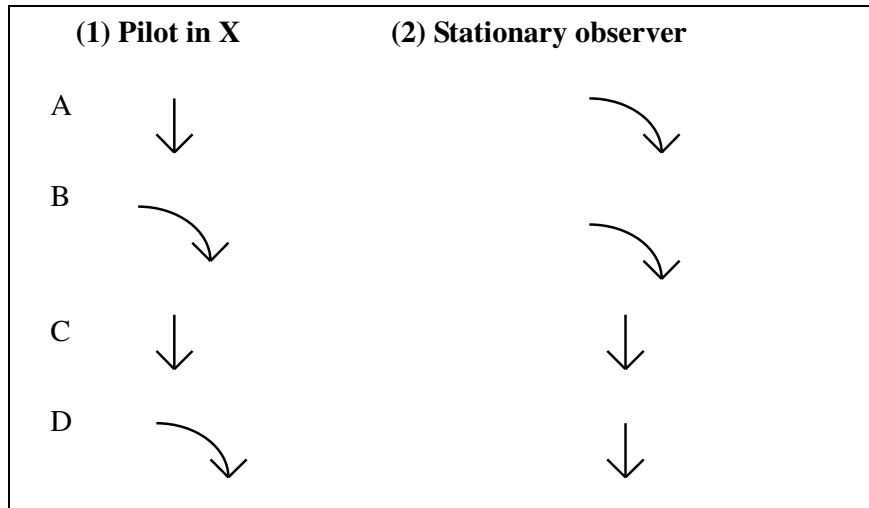
- A. $\frac{(p_B - p_A)}{t}$. B. $\frac{(p_B + p_A)}{t}$. C. $\frac{(p_B - p_A)}{mt}$. D. $\frac{(p_B + p_A)}{mt}$.

20. The two arms of a beam balance are of slightly different lengths. An unknown mass is weighed first on the left pan and then on the right pan. The two measurements are 20 kg and 5 kg respectively. What is the actual mass?

- A. 5 kg. B. 12.5 kg. C. 15 kg. D. 10 kg.

21. A nuclear bomb is dropped from F16 fighting falcon flying horizontally at constant velocity. Which of the following correctly represents the path of the bomb as seen by

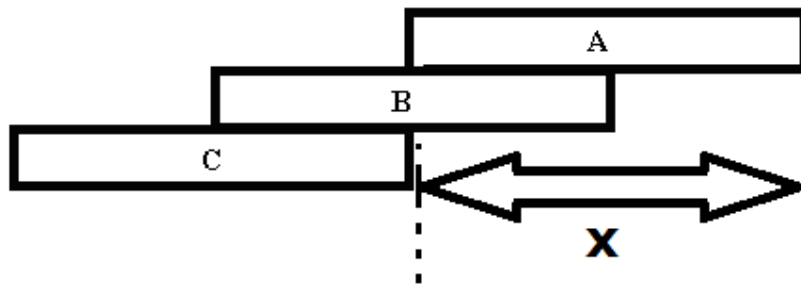
- (1) the pilot in another plane X travelling at the same velocity as that F16 fighting falcon.
- (2) a stationary observer on the ground to the right of the F16 fighting falcon?



22. A horizontal force F is applied to a car of mass M on a rough horizontal surface. The acceleration of the block is a . If the force is changed to $2F$ and the frictional force remains unchanged, then the acceleration of the block will be

- A. greater than $2a$
- B. equal to $2a$
- C. between a and $2a$
- D. equal to a

23. Each uniform-brick as shown in the figure is of length L . How would you stack 3 bricks so the top brick has the maximum horizontal overhang (x) above the bottom brick?

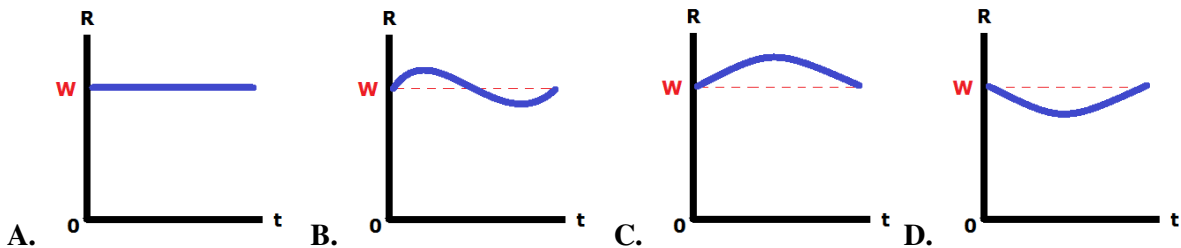


- A. $\frac{1}{3}L$
- B. $\frac{2}{3}L$
- C. $\frac{1}{2}L$
- D. $\frac{3}{4}L$

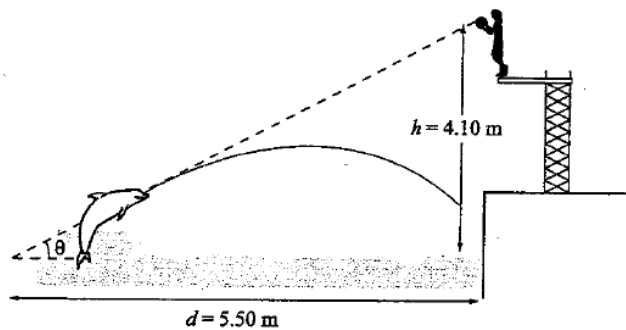
24. Two bodies P and Q on a frictionless horizontal surface are connected by a light cord. The mass of P is greater than that of Q. A force F is applied to Q accelerating the bodies to the right. What is the magnitude of the tension in the light cord connecting P and Q?



- A. zero. B. less than F but not zero. C. equal to F . D. greater than F .
25. Consider Andy is taking a lift accelerating upwards from the ground floor to the 7th floor. He is standing on a scale weighing his weight. What of the following graph BEST describes the change in reading of the scale during the upward motion of the lift? Assuming his weight is equal to W and the reading of the scale is R .



26. A trained dolphin leaps from the water with an initial speed of 12.0 ms^{-1} . It jumps directly toward a ball held by the trainer a horizontal distance of 5.50 m away and a vertical distance of 4.10 m above the water. In the absence of gravity, the dolphin would move in a straight line to the ball and catch it, but because of gravity the dolphin follows a parabolic path well below the ball's initial position, as shown. If the trainer releases the ball the instant the dolphin leaves the water, show that when (t) the dolphin and the falling ball meet.



- A. 0.47 s B. 0.57 s C. 0.67 s D. 0.77 s

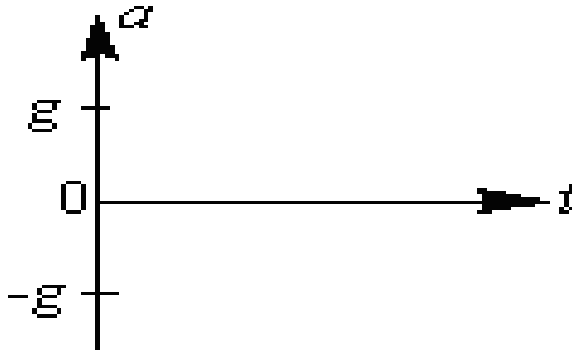
27. In projectile motion, the motion in horizontal direction and vertical direction is independent because
- A. the acceleration due to gravity affects both horizontal direction and vertical direction.
 - B. the weight cannot be resolved a component of force which is perpendicular to the direction of the weight.
 - C. the motion of the horizontal direction is in uniform motion.
 - D. We assume there is no air resistance for both horizontal direction and vertical direction.
28. Andy is projecting a javelin of mass 1 kg at an angle of 45° to the horizontal with an initial velocity 20 m s^{-1} . Assume air resistance is negligible, when the stones is halfway up, its kinetic energy is
- A. 50 J. B. 100 J. C. 150 J. D. 141 J
29. The uniform plank, XY , is supported by initially equal forces of 120 N at X and Y . If the point of application of the force at X is now moved to Z (half-way to the centre) and the plank is still to be at rest and horizontal the force at Y must now be
- A. 240 N B. 120 N C. 80 N D. 60 N E. 40 N
30. Consider a man standing of a scale inside a lift which is accelerating upwards. Which of the following statement is correct?
- i. The reading of the scale is measuring the force acting on the scale by his body.
 - ii. The reading of the scale is always equal to the normal reaction force acting on him.
 - iii. The reading of the scale is always equal to his weight.
- A. ii. only
 - B. i. and ii. Only
 - C. iii. Only
 - D. All of the above.

The end of part A.

Part B: Structured questions

1. Andy jump vertically upward from a 1000-meter platform above the ground. He experiences an air resistance proportional to his speed opposing his motion.
 - a. Sketch the graph, Andy's acceleration, a , with time, t , starting from the moment when he jumps up to the time when it returns to the ground. State the time, t_{\max} , where he reaches the highest point. (Take downward as positive.)

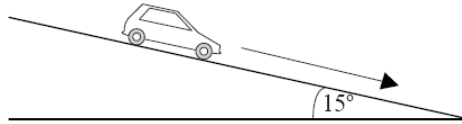
(4 marks)



- b. *During his falling journey, Andy opens a parachute when he is falling down with constant speed. Finally, he safely lands on the ground. Briefly explain why the parachute can let him land on the ground safely.

(5 mark)

2. A car of mass 960 kg is free-wheeling down an incline at a constant speed of 9.0 m s^{-1} . The slope makes an angle of 15° with the horizontal.



- a. Find the average resistive force acting on the car.

(2 marks)

The driver now applies the brakes and the car comes to rest in 15 m.

- b. Calculate the average braking force exerted on the car in coming to rest.

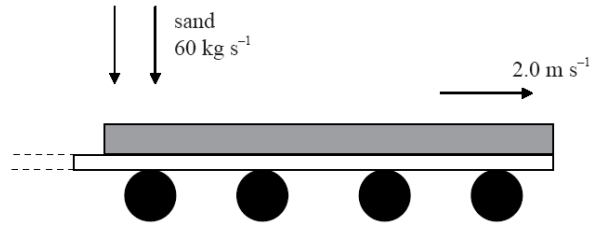
(2 marks)

The same braking force is applied to each wheel of the car. The heat capacity of each brake is $4680 \text{ J } ^\circ\text{C}^{-1}$. Assume only 2 wheels have brakes.

- c. Estimate the rise in temperature of a brake as the car comes to rest. Assume there is no energy lost to surroundings. (Hints: Energy = Heat Capacity x Temperature rise)

(2 marks)

5. Sand falls vertically on to a horizontal conveyor belt at a rate of 60 kg s^{-1} . The conveyor belt that is driven by an engine, moves with speed 2.0 m s^{-1} . When the sand hits the conveyor belt, its horizontal speed is zero.



- a. Calculate the power, P , required to move the conveyor belt at constant speed.

(2 marks)

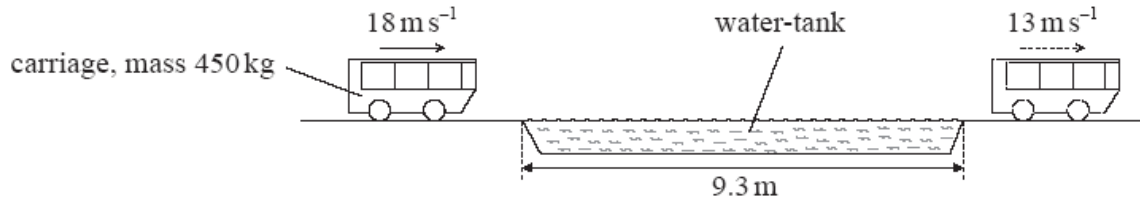
- b. Determine the rate of change of kinetic energy, K , of the sand.

(2 marks)

- c. Explain why P and K are not equal.

(2 marks)

6. In a ride in a pleasure park, a carriage of mass 450 kg is traveling horizontally at a speed of 18 m s^{-1} . It passes through a shallow tank containing stationary water. The tank is of length 9.3 m. The carriage leaves the tank at a speed of 13 m s^{-1} . As the carriage passing through the water-tank, the carriage loses momentum and causes some water to be pushed forwards with speed of 19 m s^{-1} in the direction of motion of the carriage.



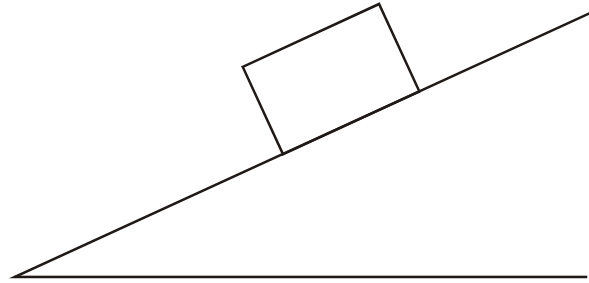
- a. Calculate the mass of water moved in the direction of motion of the carriage. (3 marks)

- b. Calculate the mean value of the magnitude of the acceleration of the carriage in the water. (3 marks)

c. Andy claims that there may be some water thrown “sideways”. Explain whether Andy’s claim is reasonable or not by showing suitable calculations.

(6 marks)

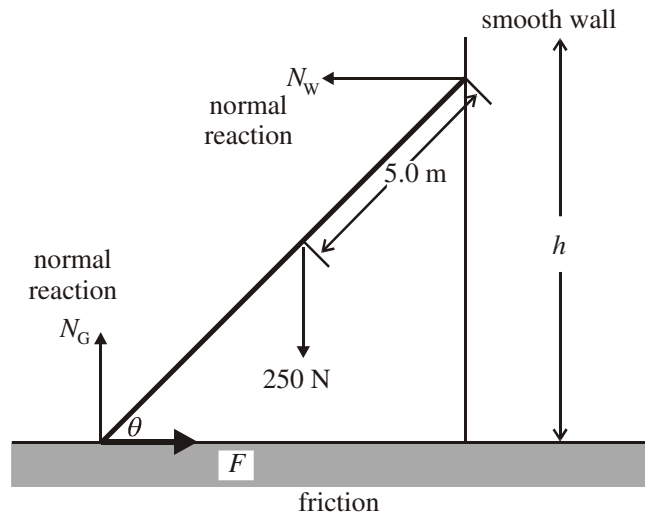
7. The diagram below shows a wooden block that is at rest on an inclined plane.



- a. On the diagram above, draw arrows to represent the forces acting on the block. Label each arrow with the name of the force that it represents.

(3 marks)

- b. A uniform ladder of weight 250 N and length 10 m rests against a smooth wall. The forces acting on the ladder are shown in the diagram below.



In the position shown, the foot of the ladder makes an angle θ with the ground and the ladder is just about to slip. Assume the friction force $F = 0.4 N_G$.

i. Prove that $N_W = \frac{125}{\tan \theta}$.

(2 marks)

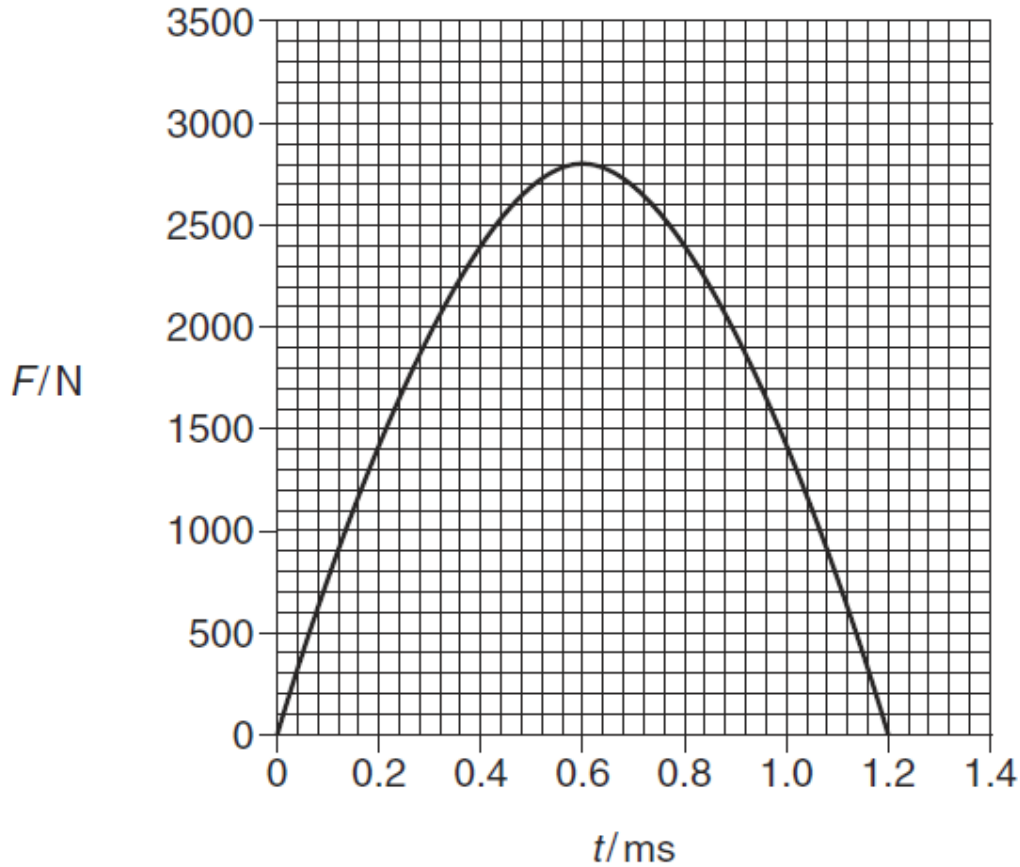
ii. Hence determine the height h of the top of the ladder above the ground.

(4 marks)

iii. Explain whether the height h should be decreased or increased in order to prevent the ladder slipping.

(4 marks)

9. A golfer uses a golf club to hit a stationary golf ball off the ground. The figure below shows how the force F on the golf ball varies with time t when the club is in contact with the ball. (Take $g = 9.8 \text{ m s}^{-2}$)



- Estimate the area under the graph by any reasonable method. State the unit. (2 marks)
- Name the physical quantity represented by the area under the graph in (a). (1 mark)
- Find the speed of a golf ball with mass 0.046 kg once leaving the golf club. (2 marks)
- The ground is level. The ball leaves the ground at a velocity of 50 m s^{-1} at an angle of 42° to the horizontal. Determine the horizontal distance travelled by the ball before it hits the ground. State one assumption that you make in your calculations. (4 marks)

The End.

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Part A: M.C. Answers:

1.	C	2.	C	3.	C	4.	C	5.	C
6.	B	7.	B	8.	A	9.	C	10.	A
11.	D	12.	C	13.	C	14.	B	15.	A
16.	B	17.	B	18.	B	19.	B	20.	D
21.	A	22.	A	23.	D	24.	B	25.	B
26.	A	27.	B	28.	C	29.	C	30.	B

Part B: Structured Questions

1.

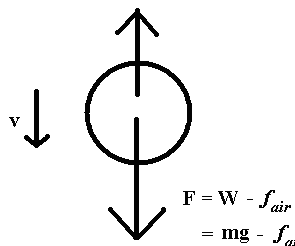
As the Andy is falling down from its highest position, the air resistance will act on it upwards to oppose the motion. by Newton's 2nd Law of motion, the resultant force is less than Andy's weight and so he will accelerate downwards with acceleration less than g.

The acceleration of the Andy will decreases as the air resistance will increases with the velocity.

When the air resistance equals Andy's weight, Andy will no longer accelerate and it will keep moving down will constant velocity.

This is so-called Terminal Velocity.

Remarks: Mathematical deviation is as follows: (For reference only)



$$F = ma$$

$$ma = W - f_{air}$$

$$a = \frac{mg - f_{air}}{m}$$

$$a = g - \frac{f_{air}}{m} < g$$

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2.

a.

$F = mg \sin \theta$	1M
$F = 960 \times 10 \times 0.26$	
$F = 2.4 \times 10^3 \text{ N}$.	1A

b.

Lost in K.E. = Work done against friction	
$\frac{1}{2}mv^2 = fs$	1M
$\frac{1}{2} \times 960 \times 9^2 = f \times 15$	
$\therefore f = 2.6 \times 10^3 \text{ N}$	1A

c.

Lost in K.E. = Internal Energy	1M
$\frac{1}{2} \times 960 \times 9^2 = 4680 \times (\Delta T) \times 2$	
$\Delta T = 4.15 \text{ }^\circ\text{C}$.	1A
Remarks: Assuming only two wheels have brakes.	

3. *

Consider an applied force F acting on a block of mass m moved the block over a displacement s along a smooth horizontal surface.	1A
By Law of conservation of energy,	
Workdone by the applied force = increase in Kinetic energy	
$\uparrow K.E. = Fs$	
$= ma\left(\frac{v^2 - u^2}{2a}\right)$ (By equations of motion, $v^2 - u^2 = 2as$.	1M
$= \frac{1}{2}mv^2 - \frac{1}{2}mu^2$	1M
If the body is at rest initially, i.e. $u = 0 \Rightarrow K.E. = \frac{1}{2}mv^2$	1M
*Effective Communication	1C
Remarks: Work done by the applied force + Newton's 2nd Law + Equation of motion.	

4.

<p>Work Done by the applied force from the ground to the height h, i.e. Work Done = Fh</p>	1A
<p>If keeping the speed of the body constant during the motion \Rightarrow Resultant Force acting on the body = 0 N $\Rightarrow F = mg$</p>	1A
<p>By Law of conversation of energy, \therefore Work Done by the applied force = \uparrow P.E. (\because K.E. is kept constant) $= Fh$ $= mgh$</p>	1M 1A

5.

a.

<p>Power = Force x Velocity $= 60 \times (2.0 - 0) \times 2$ $= 240W$</p>	1M 1A
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b.

<p>$\frac{K.E.}{t}$ $= \frac{1}{2} \frac{m}{t} v^2$ $= \frac{1}{2} (60)(2)^2$ $= 120W$</p>	1M 1A
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c.

<p>The sand on the conveyor belt must slip to be accelerated;</p>	1A
<p>In slipping kinetic energy is dissipated / lost as internal energy / heat in the sand and conveyor belt;</p>	1A
<p>Or</p>	
<p>There is friction between the sand and conveyor belt;</p>	1A
<p>Therefore kinetic energy is dissipated / lost as internal energy / heat in the san and conveyor belt;</p>	1A

6.

a.

By Law of conversation of momentum,

$$m_1u_1 + m_2u_2 = m_1v_1 + m_2v_2$$

$$450 \times 18 + 0 = 450 \times 13 + m \times 19$$

$$m = 118.42$$

$$m = 118 \text{ kg}$$

1M

1A

1A

b.

$$u = 0, v = 19, s = 9.3.$$

$$v^2 - u^2 = 2as$$

$$a = \frac{381}{2(9.3)}$$

$$a = 8.33 \text{ ms}^{-2}$$

1M

1M

1A

c.

$$\text{Loss in K.E. of the carriage} = \frac{1}{2}mv^2 - \frac{1}{2}mu^2 = \frac{1}{2}(450)(18^2 - 13^2) = 34875 = 34900J$$

$$\text{Gain in K.E. of the water} = \frac{1}{2}mv^2 - 0 = \frac{1}{2}(118)(19^2) = 21299 = 21300J < 34900J$$

**The difference in K.E. account for some water gain K.E. and move in other direction.
i.e. Some water is thrown sideways. Those water will not have any forward momentum
or Equal masses of water to the left and right.**

Effective Communication

1M

1A

1A

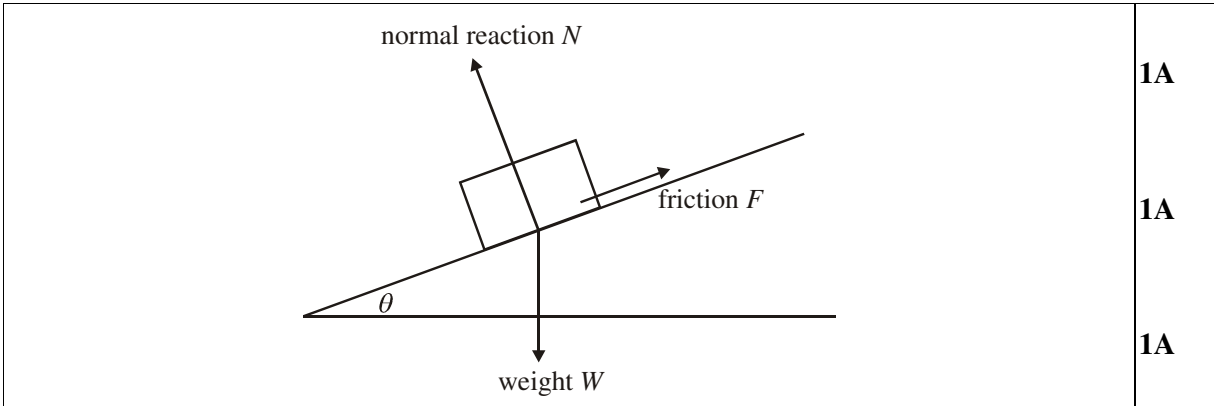
1A

1A

1C

7.

a.



b.

i.

$5 \times 250 \cos \theta = 10 \times N \sin \theta;$	1A
$N = \frac{125 \cos \theta}{\sin \theta} = \frac{125}{\tan \theta}$	1A

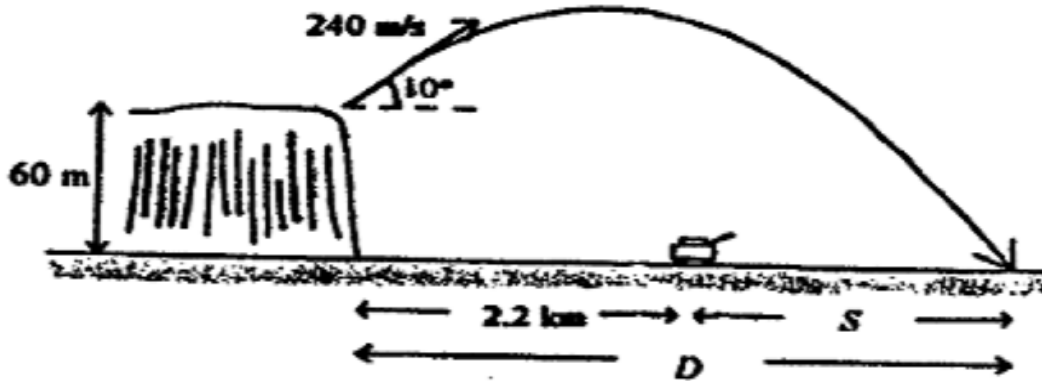
ii.

resolve vertically $N \cos \theta = 250$; resolve horizontally $N \sin \theta = 0.40N \cos \theta$; therefore $\tan \theta = 0.40 \times 250 = 100 \cot \theta$; therefore $\theta = \cot^{-1}(0.80) = 51^\circ$; $h = 10 \sin \theta$; $= 7.8 \text{ m}$; 	1A
resolve vertically $N \cos \theta = 250$; resolve horizontally $N \sin \theta = 0.40N \cos \theta$; therefore $\tan \theta = 0.40 \times 250 = 100 \cot \theta$; therefore $\theta = \cot^{-1}(0.80) = 51^\circ$; $h = 10 \sin \theta$; $= 7.8 \text{ m}$; 	1A

iii.

Look for these main points: $N \cos \theta = 250$ so if θ is larger N is smaller; since $N \sin \theta = F$, F becomes smaller; if friction decrease then ladder will slip; to increase θ , h needs to be increased; 	1A
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8.



For vertical motion:

$$y = ut + \frac{1}{2}at^2$$

$$-60 = 240\sin 10^\circ t - \frac{1}{2}(-9.8)t^2$$

$$t = 9.76s$$

$$D = (u \cos \theta)t = 2306m$$

$$S = D - 2200 = 106.8m$$

Therefore, the time needed for a tank to travel 106.8 m is given by:

$$106.8 = (0)t + \frac{1}{2}(0.9)t^2$$

$$t = 15.4s$$

Therefore, the time the gun crew must wait:

$$t = 15.4 - 9.8 = 5.6s$$

1M

1M

1M

1M

1M

1A

9.

a.

Area: Number of squares correctly counted: 20 – 24	1A
(2.0 – 2.4 N s)	1A

b.

Impulse	1A
---------	----

c.

Impulse = Change in momentum or $Ft = mv - mu$	1M
$2.2 = (0.046)v - (0.046)(0)$	
$v = 47.8 \text{ m s}^{-1}$	1A

d.

Initial horizontal velocity = $50\cos 42 = 37.2 \text{ m s}^{-1}$	
Initial vertical velocity = $50\sin 42 = 33.5 = 37.2$	1A
Time taken to reach maximum height = $33.5 / 9.8 = 3.41$	1A
Total time to reach ground = $2 \times 3.41 = 6.82 \text{ s}$	1A
Therefore, the distance = $50\cos 42 \times 6.82 = 253 \text{ m}$	1A
Assumption: Horizontal velocity is constant / vertical and horizontal motion are independent and does not affect each other.	1A

The end.

To me, if you get:

Grade A: 80% ↑ (Excellent!)

Grade B: 70% ↑ (Quite Good!)

Grade C: 60% ↑ (Need revision!)

Grade E: 40% ↓ (Ask for Help! Haha!)





黎 Sir 教室 A Lai Learning Center

HKCEE / HKALE / HKDSE / F.1 - F.7 / MO

AP / SAT / IB / GCSE / IGCSE / GCE / HSC

資深中學補習導師 小組補習 事半功倍!!!

黎 sir 簡介

- ◇ 畢業於香港中文大學，黎 sir 教室創辦人之一。
- ◇ 多年教授會考 / 高考 / 中學文憑 / IB Diploma / SAT / AP / GCSE / IGCSE / GCE / HSC 課程經驗，信心保證。
- ◇ 現於黎 sir 教室及中學任教補習班，學生就讀於英文中學，中文中學，國際學校及英國留學生。
- ◇ 熟悉近年出題趨勢，教授考試取分技巧；鼓勵同學獨立思考，增強同學理解能力
- ◇ 善用生活化例子講解，教法生動，增加學習趣味；深入淺出，明白學生學習上的困難和需要。
- ◇ 中英對照筆記，適合中文和英文中學學生就讀；精心編制練習和試題，協助同學盡快掌握答題技巧。
- ◇ 黎 sir 在中學和大學時代已是一名傑出學生，曾獲取多項學業上和運動上的獎學金及獎項；曾代表香港參加國際性運動比賽，取得優異成績，「又讀得又玩得」，絕不是死讀書的書呆子。
- ◇ 黎 sir 在就讀大學時曾於全球最大美資電腦公司任實習生超過一年，大學畢業後旋即於全港最大英資電腦公司，負責主理該公司所代理的全球最大美資電腦公司儲存系統銷售業務(當時黎 sir 只得 24 歲)。
- ◇ 於短短半年內將該產品線銷售業績提升超過 50%。同時更被公司評選為"傑出表現員工 Outstanding Performer"，成功將書本上的知識靈活運用於工作上。
- ◇ 黎 sir 為了教學理想，毅然辭去工作，全身投入教學事業，希望將自己的一套獨特的學習方法教授學生
- ◇ 黎 sir 學生於 2009 年公開考試成績優異，包括：
 - ◇ 兩位學生成功拔尖，入讀港大科學系和中大法律系；
 - ◇ 國際預科文憑 (IB Diploma) 經濟科獲取最高等級 (7 級) 成績；
 - ◇ 多位學生於英國普通教育文憑(GCE)及英國普通中學教育文憑(GCSE)獲取 A/A*成績；
 - ◇ 2009 年度 8 位學生參加香港中學會考，6 位取得 20 分以上佳績，並且所有科目皆取得 ABC 等等級，其中 1 位文科生更獲取 26 分佳績，整體 ABC 率達 78%，整體合格率達 100%。名符其實是小班教學，事半功倍。

課程特色

- ◇ 小組教學(1-6 人)，導師親身教學；照顧每位學生需要，事半功倍。
- ◇ 精心編制筆記，練習以近 20 年本地和外國公開試題為藍本。
- ◇ 概念理解，取分技巧並重；協助同學盡快掌握答題技巧。
- ◇ 歡迎自由組合小組上課，時間及課程內容編排更有彈性。
- ◇ 時間及課程請瀏覽以下網址：www.andylai.hk

上課地址：香港九龍旺角煙廠街 9 號興發商業大廈 706 室



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