Practice Question Set For A-Level
Subject : Physics
Paper-1 Topic : 2 (Mechanics)

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Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Mark Schemes

Q1.

Question Number	Acceptable Answers	Reject	Mark
	D		**1**

Q2.

Question Number	Answer	Mark
	B momentum	**1**
	Incorrect Answers: **A** – scalar quantity **C** – scalar quantity **D** – scalar quantity	

Q3.

Question Number	Answer	Mark
	B distance	**1**
	Incorrect Answers: A – acceleration is a vector quantity C – momentum is a vector quantity D – velocity is a vector quantity	

Q4.

Question Number	Acceptable Answer	Additional Guidance	Mark
	D		**1**

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Q5.

Question Number	Acceptable answers	Additional guidance	Mark
	The only correct answer is A -1.0 | 0.5	B,C and D are incorrect as for each, momentum is not conserved.	1

Q6.

Question Number	Answer	Mark
	B	1

Q7.

Question Number	Answer	Mark
	C	1

Q8.

Question Number	Acceptable Answers	Reject	Mark
	A		1

Q9.

Question number	Acceptable answers	Additional guidance	Mark
	D		1

Q10.

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Question Number	Acceptable answers	Additional guidance	Mark
	The only correct answer is A B is not correct as the rebound velocity wil be about $0.7 \times v_{\text{initial}}$ C is not correct as the velocity must switch sign on rebound D is not correct as the velocity must switch sign on rebound		**1**

Q11.

Question Number	Answer	Mark
	B	1

Q12.

Question Number	Answer	Mark
	C	**1**

Q13.

Question Number	Answers	Mark
	The only correct answer is A ***B** is incorrect because the drag force increases as the skydiver falls through the air* ***C** is incorrect because the drag force increases as the skydiver falls through the air* ***D** is incorrect because the drag force increases as the skydiver falls through the air*	**1**

Q14.

Question Number	Acceptable Answers	Reject	Mark
	C		**1**

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Q15.

Question Number	Answer	Mark
	C 190 kJ	1
	Incorrect Answers: A – The velocity was not squared when using the formula $E_k = ½ mv^2$ e.g. $½ (1.2 \times 10^3)(18) = 11$ kJ B – The velocity was not squared and the ½ was omitted when using the formula $E_k = ½ mv^2$ e.g. $(1.2 \times 10^3)(18) = 22$ kJ D – The ½ was omitted when using the formula $E_k = ½ mv^2$ e.g. $(1.2 \times 10^3)(18)^2 = 390$ kJ	

Q16.

Question Number	Acceptable answers	Additional guidance	Mark
	A		1

Q17.

Question Number	Acceptable answers	Additional guidance	Mark
	B		1

Q18.

Question Number	Answer	Mark
	C	1

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