Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic : 7_ Astronomy

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Name of the Student:_____
Max. Marks : 19 Marks **Time : 19 Minutes**

Mark Schemes

Q1.

Question number	Answer	Mark
(i)	B	(1)

Question number	Answer	Mark
(ii)	B	(1)

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Q2.

Question number	Answer	Additional guidance	Mark
(i)	accept any temperature between 5500 and 7500 (K) (1)		(1)

Question number	Answer	Additional guidance	Mark
(ii)	the greater the temperature the higher the brightness	or reverse argument allow luminosity for brightness allow heat for temperature	(1)

Question number	Answer	Additional guidance	Mark
(iii)	the greater the mass the higher the brightness	or reverse argument allow luminosity for brightness allow bigger/ heavier for greater mass in this context	(1)

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Q3.

Question number	Answer	Additional guidance	Mark
(i)	1050 ± 20 (km/s)		(1) AO3

Question number	Answer	Additional guidance	Mark
(ii)	attempt at $\frac{\Delta y}{\Delta x}$ (1) evaluation (1) 70 ± 5 unit (1) km/s/Mpc	could be seen on graph award 2 marks for correct answer without working independent mark km/s Mpc s^{-1} or per second	(3) AO3

Question number	Answer	Additional guidance	Mark
(iii)	an explanation linking: points are scattered widely about the line (on graph) (1) giving wide range of possible gradients (1)	 there are many possible best fit lines	(2) AO3

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Q4.

Question number	Answer	Mark
	The only correct answer is **D** the discovery of cosmic microwave background (CMB) radiation **A** is not correct because it does not indicate the Universe had a beginning **B** is not correct, it is evidence against the geocentric model of the Universe **C** is not correct, it is evidence for other solar systems	**(1)** **AO1**

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Q5.

Question	Answer	Additional guidance	Mark
(i)	50-70 (nm) inclusive		1 AO1.2

Question	Answer	Additional guidance	Mark
(ii)	explanation linking (red shift means) <u>galaxies</u> must be moving away from Earth /us (1) more distant galaxies have bigger red shift (1) more distant galaxies moving faster (1)	<u>galaxies</u> getting further apart ORA	3 AO1.1

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Q6.

Question number	Answer	Additional guidance	Mark
	An explanation to include any three from: nebula as a cloud of gas/dust (1) gas / atoms pulled together / towards each other (1) by gravitational force (1) temperature increase (1) hot enough for nuclear fusion (1)	 density increase gravity (acting) (resultant) heating	**(3)**

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