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

Name of the Student:_____
Max. Marks : 20 Marks **Time : 20 Minutes**

Q1.

The Big Bang theory is one theory for the origin of the Universe.

The Big Bang theory suggests:

- the Universe had a beginning
- the Universe is still expanding.

The Steady State theory is also a theory about the origin of the Universe.

Give **one** similarity and **one** difference when comparing the Big Bang theory with the Steady State theory.

(2)

similarity

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difference

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(Total for question = 2 marks)

Q2.

This simplified diagram compares spectra of light from the Sun and two galaxies.

The light from galaxy 1 and galaxy 2 both show redshift.

Explain what these redshifts predict about the position and movement of the two galaxies.

(3)

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(Total for question = 3 marks)

Q3.

This question is about stars.

Use words from the box to complete the following sentences.

black hole		main sequence
nebula	red giant	white dwarf

(i) Stars of similar mass to our Sun were formed from a cloud of gas and dust called a ..... .

(1)

(ii) Our Sun is a ..... star.

(1)

(Total for question = 2 marks)

Q4.

Use words from the box to complete the following sentences.

galaxy	planet	satellite
solar system	star	

(3)

(i) Saturn is a ..... .
(ii) The Moon is a ..... .
(iii) Halley's Comet orbits a ..... .

(Total for question = 3 marks)

Q5.

(i) An astronomer observes light from a distant galaxy.

As the galaxy moves away from us, the spectrum of the light is

(1)

- ☒ **A** blue-shifted
- ☒ **B** green-shifted
- ☒ **C** red-shifted
- ☒ **D** violet-shifted

(ii) The shift in the spectrum of light from the distant galaxy provides evidence for the expansion of the

(1)

- ☒ **A** Earth
- ☒ **B** Milky Way Galaxy
- ☒ **C** Solar System
- ☒ **D** Universe

(Total for question = 2 marks)

Q6.

There are many other artificial satellites in orbit around the Earth.

Figure 16 shows the time taken to complete one orbit for satellites at different heights above the Earth's surface.

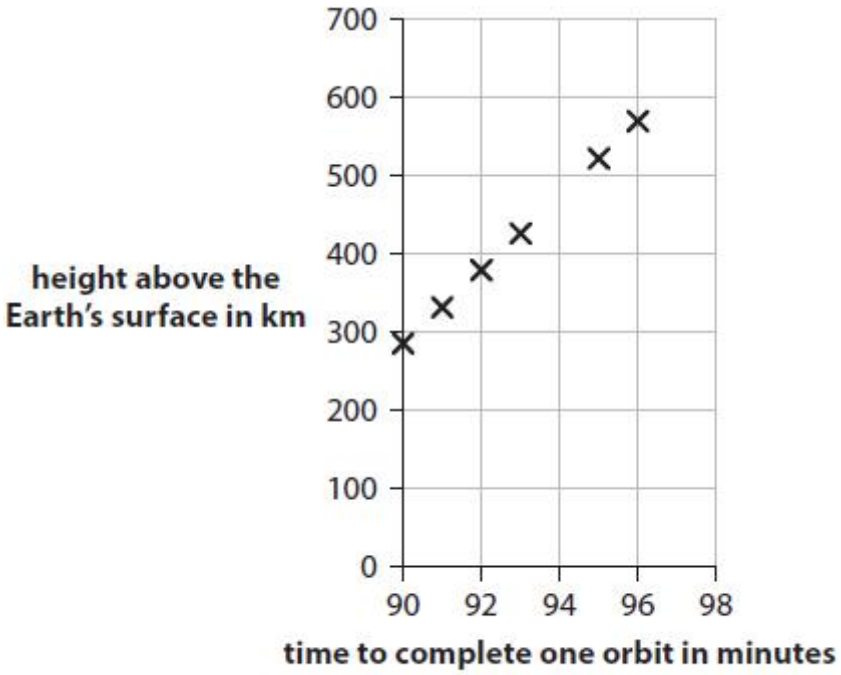

Figure 16

Describe the relationship shown in Figure 16.

(2)

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(Total for question = 2 marks)

Q7.

Describe the Solar System in terms of the Sun, the planets, and the other objects which move in the Solar System.
Your answer should include the patterns of movement of the planets and the other objects in the Solar System.
You may draw a labelled diagram if it helps your answer.

(6)

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(Total for question = 6 marks)