



General Certificate of Secondary Education
2010–2011

Science: Single Award (Modular)

Road Safety, Radioactivity
and Earth in Space

Module 6

Foundation Tier

[GSC61]

FRIDAY 20 MAY 2011, AFTERNOON

Centre Number

71

Candidate Number



TIME

45 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Answer **all six** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 45.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

For Examiner's
use only

Question Number	Marks
1	
2	
3	
4	
5	
6	

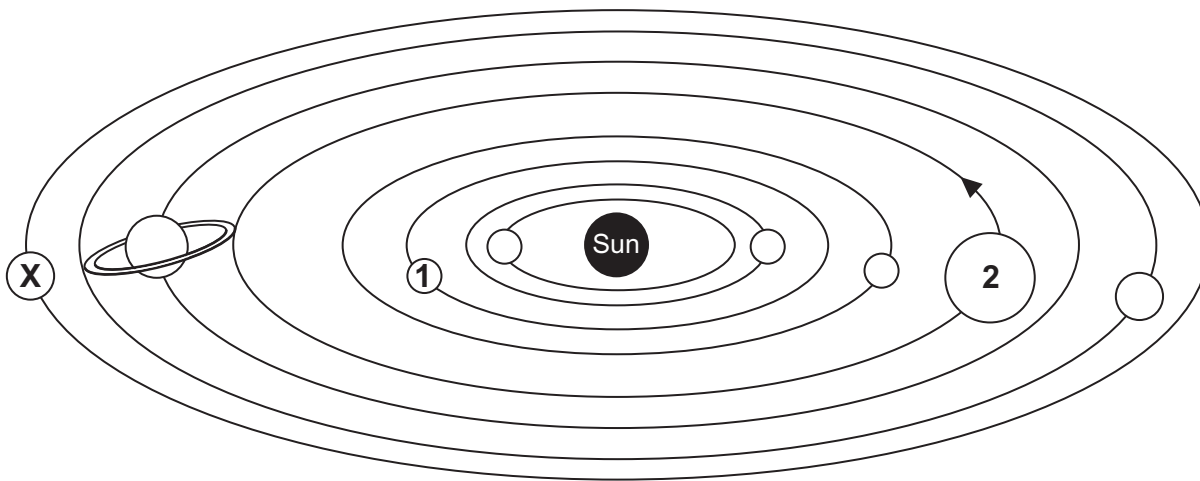
Total
Marks

- 1 (a) Given below are names and descriptions used in the study of space. Using lines match each name to its correct description.

Name	Description
Milky Way	A galaxy
Sun	A planet
Uranus	A star

[2]

- (b) The diagram below shows the Sun and its planets.



- (i) Name the planet labelled X.

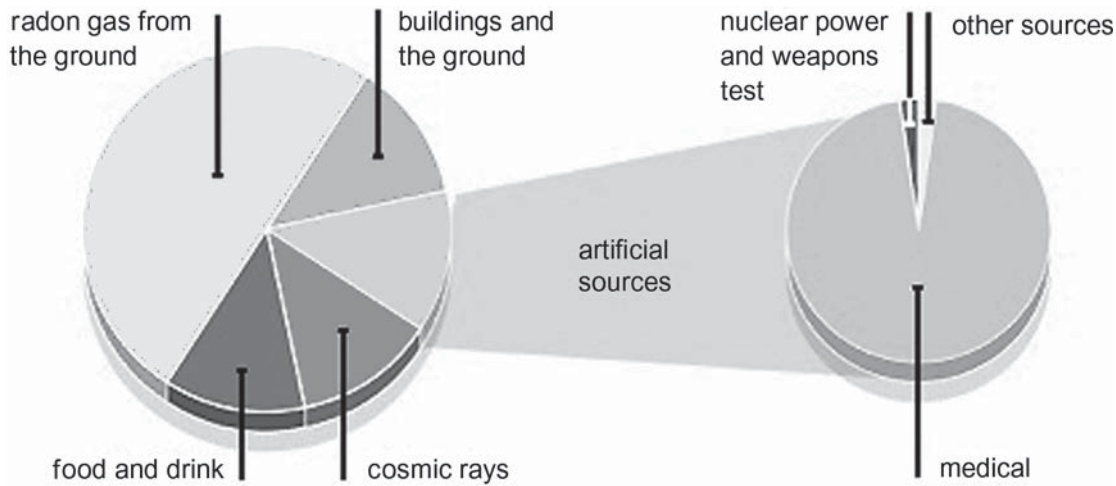
[1]

- (ii) The movement of planet 2 is shown on the diagram with an arrow. Mark on the diagram the movement of planet 1.

[1]

Examiner Only	
Marks	Remark

(c) The pie charts below show some sources of radiation in the atmosphere.



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(i) Name the biggest source of radiation in the atmosphere.

_____ [1]

(ii) Name one source of radiation caused by humans.

_____ [1]

(iii) Complete the following sentence.

Choose from:

background : foreground : surround

The small amount of radiation always in the atmosphere is called

_____ radiation. [1]

(d) Give **one** harmful effect of radiation.

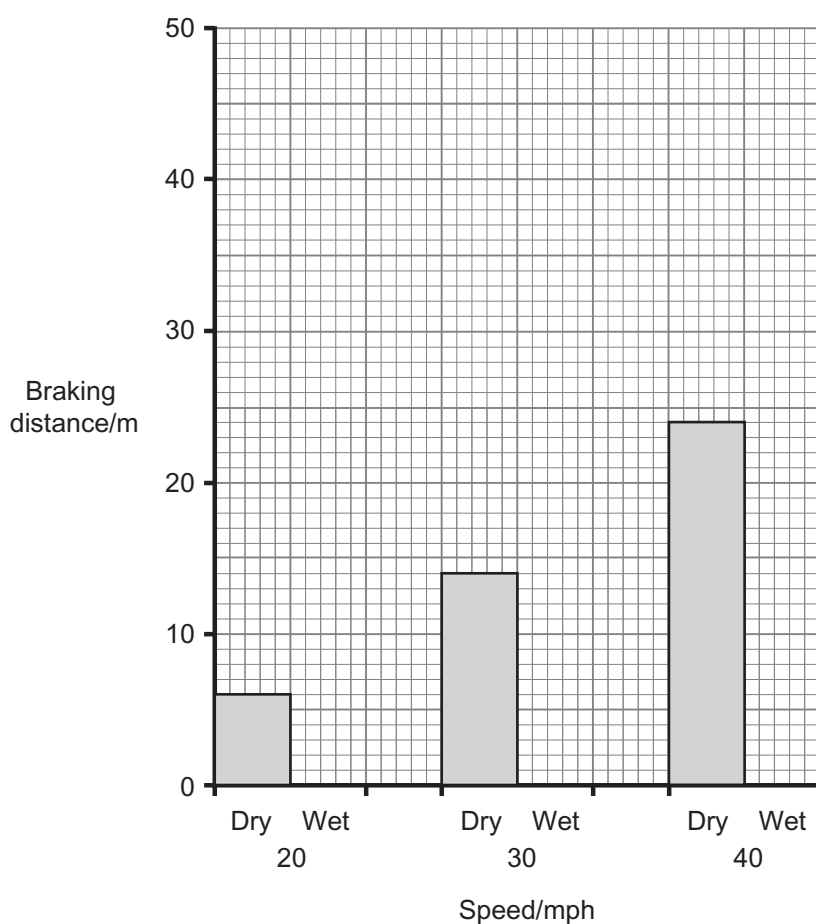
_____ [1]

Examiner Only	
Marks	Remark

- 3 (a) The information below shows the braking distance in wet and dry conditions at different speeds.

Speed/mph	Braking distance/m	
	dry	wet
20	6	12
30	14	27
40	24	49

- (i) Complete the bar chart below to show the braking distance in **wet** conditions.



[2]

- (ii) Use the information to state how the braking distance changes when it rains.

_____ [1]

Examiner Only	
Marks	Remark

(iii) In what way, if any, does a wet road affect the thinking distance?

_____ [1]

(b) During a car crash the driver's head can hit the steering wheel, causing serious injury. Name two safety features which prevent the driver's head from hitting the steering wheel.

1. _____

2. _____ [2]

Examiner Only	
Marks	Remark

(b) The table below describes the frictional forces that act when a bicycle is ridden. Friction can be **useful** or be a **nuisance**. Complete the table below by writing either useful or nuisance for each description.

Description	Useful or Nuisance
Friction on the rider from air	
Friction on the wheel rim when using the brakes	
Friction on the feet from the pedals	
Friction on the tyre from the road	

[2]

Examiner Only	
Marks	Remark

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