Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic: Atomic Structure (Standard Demand)

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Name of the Student:_____
Max. Marks : 16 Marks **Time : 16 Minutes**

Q1.

A simple spark counter can be used to detect charged particles. It is made by having two wires close together with a large voltage across them. When a charged particle passes through the gap between the wires a spark is seen.

(a) Give the names and symbols of **two** particles which will cause a spark.

(i) Name _____ Symbol _____

(ii) Name _____ Symbol _____

(4)

(b) A radioactive source was placed within 2 cm of the spark counter and lots of sparks were seen. A piece of paper was slid between the source and the counter. The sparking stopped.

(i) What type of radiation was being given off?

_____

(1)

(ii) The paper was removed and the source slowly moved away from the spark counter. Describe what will happen to the sparking.

_____

_____

_____

(2)

(c) A radioactive source gave a high reading using a Geiger-Müller tube and counter, but did not cause sparking when brought near to the spark counter. Why?

_____

_____

(1)

(Total 8 marks)

Q2.

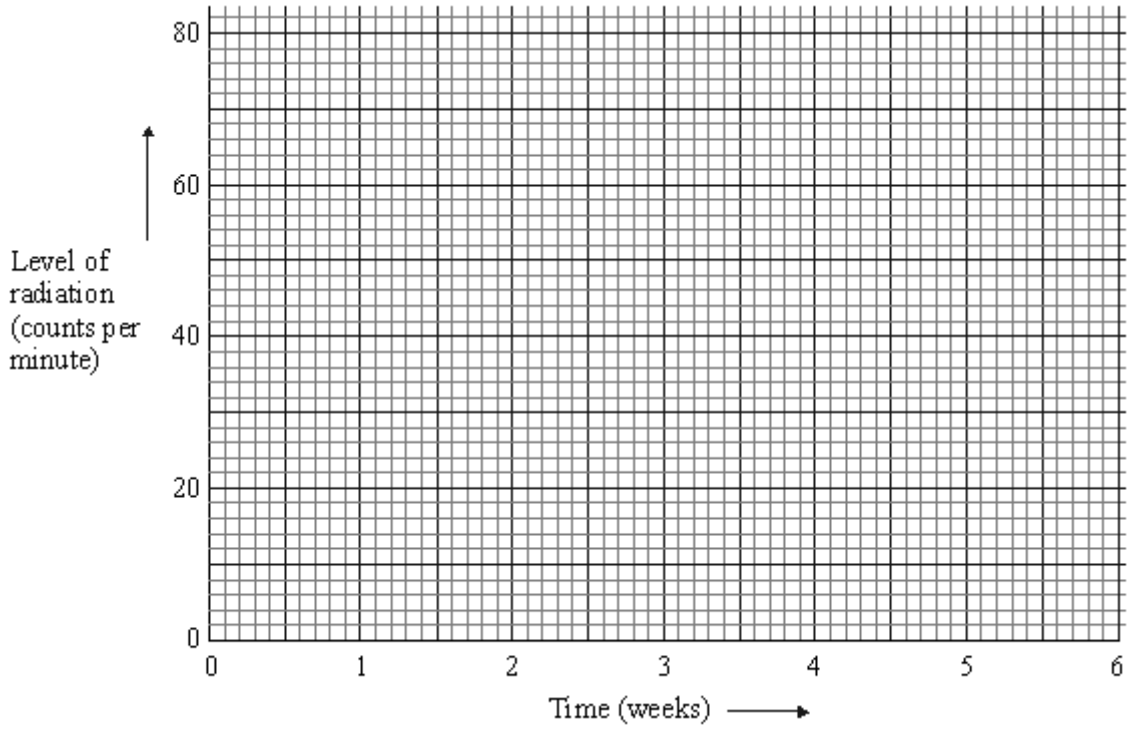
Some students measure the level of radiation from a radioactive source during the same lesson each week over a period of six weeks.

Here are the results. (They have been corrected for background radiation.)

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Time (weeks)	start	1	2	3	4	5	6
Level of radiation (average counts per minute)	66	44	34	29	16	12	8

(a) Using the graph paper below, display these results in the most appropriate way.



(5)

(b) What overall pattern is there in the students' results?

_____

_____

_____

(3)

(Total 8 marks)

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