

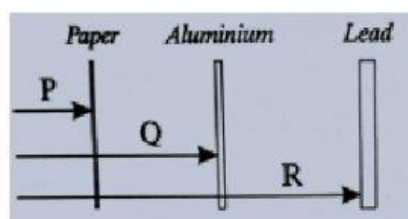
8.3 Ionising Radiation and Non-ionising Radiation

1. Complete the following statement:

High energy	man-made	background	joule	environment	dose
kilogram	natural	Solar system	nuclear accident	microsievert/hour	galaxy

- a) The sources of ionising radiation in the environment can be divided into natural and _____ sources.
- b) The examples of natural source of ionising radiation in the environment include :
- i) Cosmic radiation ii) _____ radiation
- c) The examples of man-made source of ionising radiation in the environment include:
- i) nuclear test ii) _____
- d) Cosmic radiation is _____ radiation emitted by sources outside the _____ or another _____.
- e) Background radiation is the ionising radiation from _____ which consists of _____ and man-made sources.
- f) The quantity used to measure biological effects from ionising radiations to our body is called _____.
- g) Dose 1 Sv = 1 _____ of ionising radiation energy absorbed by 1 _____ of living tissues.
- h) The S.I. unit used to measure background radiation dose is _____.

2. State the types of radioactive radiation, P, Q and R based on its penetrating power.



P : _____

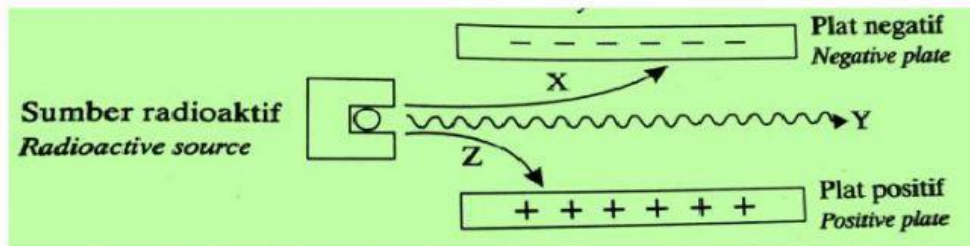
Q : _____

R : _____

3. Example of ionising radiation : _____

4. Example of non-ionising radiation : _____

5. Diagram below shows the effect of electrical field on radioactive rays. Fill in the blanks with the correct answer.



- a) X is _____ ray that is _____ charged and will deflect towards the _____ plate.
- b) Y is _____ ray that is _____, thus it is not deflected by the electrical field.
- c) Z is _____ ray that is _____ charged and will deflect towards the _____ plate.
6. Write 'A' for sources of natural ionising radiation and 'B' for sources of man-made ionising radiation.
- a) The explosion of nuclear power plant .
- b) Radioactive materials that exist in soil and rock.
- c) The use of radioisotopes for medicine.
- d) Nuclear weapons test.
7. Diagram below shows two individuals who have different occupations. State the source of ionising radiation received by both individuals.



radioactive radiation

Cosmic radiation