Question number			Answer	Notes	Marks
12	(a)	(i)	Any **two** sources: MP1. radiation from rocks/buildings/radon gas; MP2. cosmic radiation / radiation from the Sun / stars; MP3. radiation from medical sources; MP4. nuclear waste / accidents; MP5. some foods e.g. coffee, bananas;	Ignore : cosmic microwave (background) radiation /cmbr allow named radioactive isotopes accept fire / smoke detector	2
		(ii)	Any three of MP1. Remove the radioactive source; MP2. Measure the (background) count rate; MP3. Repeat the measurement / measure for a long time; MP4. Background radiation is 30 (counts per minute); MP5. Subtract this value from (each) reading(s);	Accept standard abbreviations e.g. cpm Allow for 2 marks: measure the count rate without the source	3