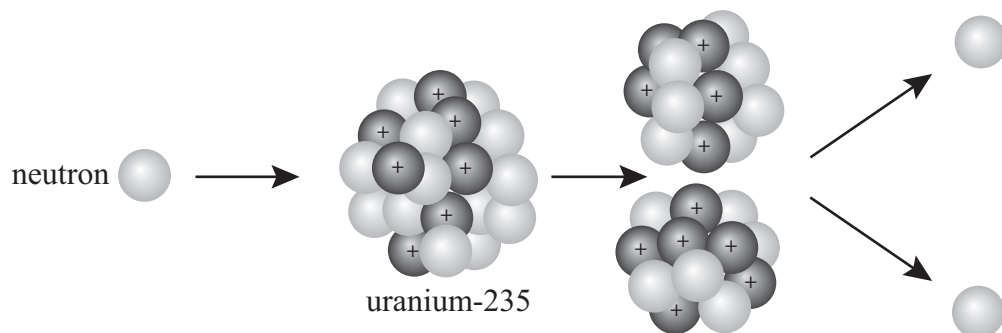


- 6 The diagram shows a neutron colliding with a nucleus of uranium-235, producing a number of products.



- (a) Name the process shown in the diagram.

(1)

- (b) Explain how the process shown in the diagram can lead to a chain reaction.

(3)

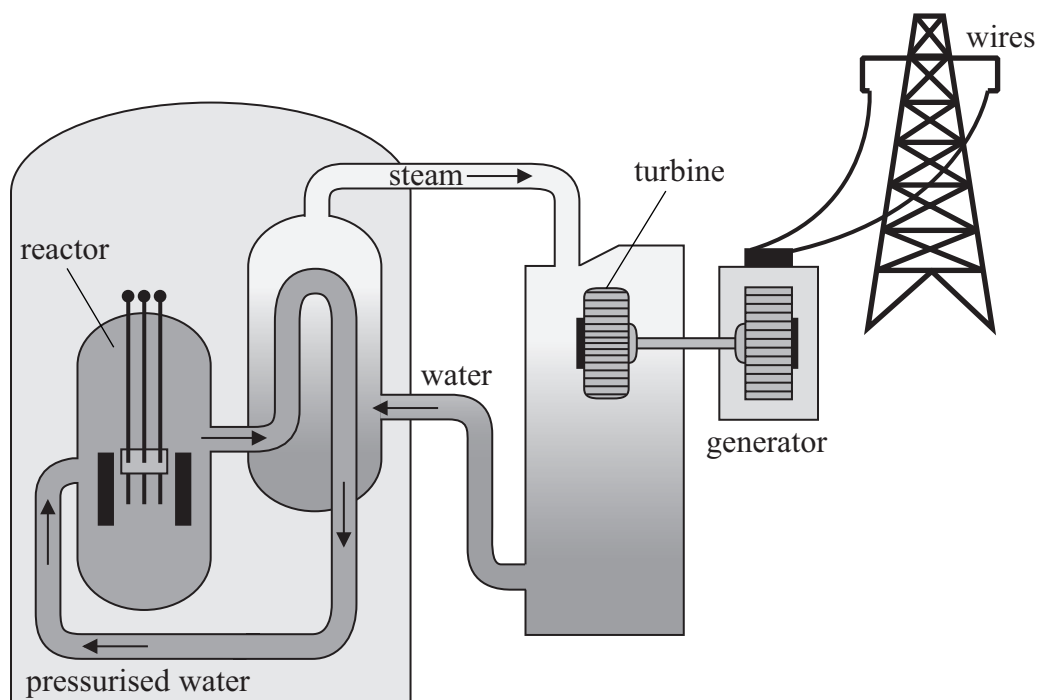
- (c) This process releases energy.

Explain the form that this energy takes.

(2)



(d) The energy released in this process can be used in a nuclear power station.



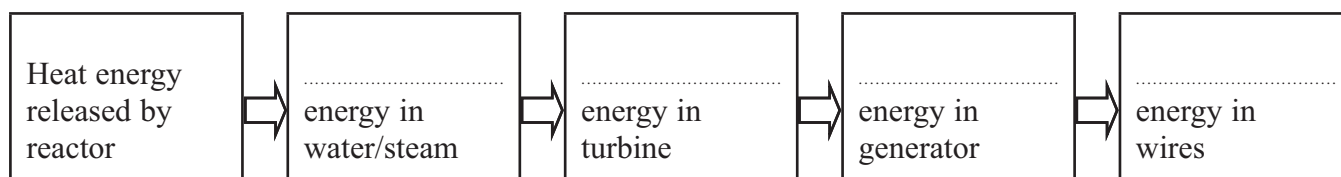
(i) The pressurised water acts as a coolant. It also acts as a moderator.

What is the purpose of a **moderator**?

(1)

(ii) Complete the chart below to show the main useful energy transfers in a nuclear power station.

(4)



(Total for Question 6 = 11 marks)

