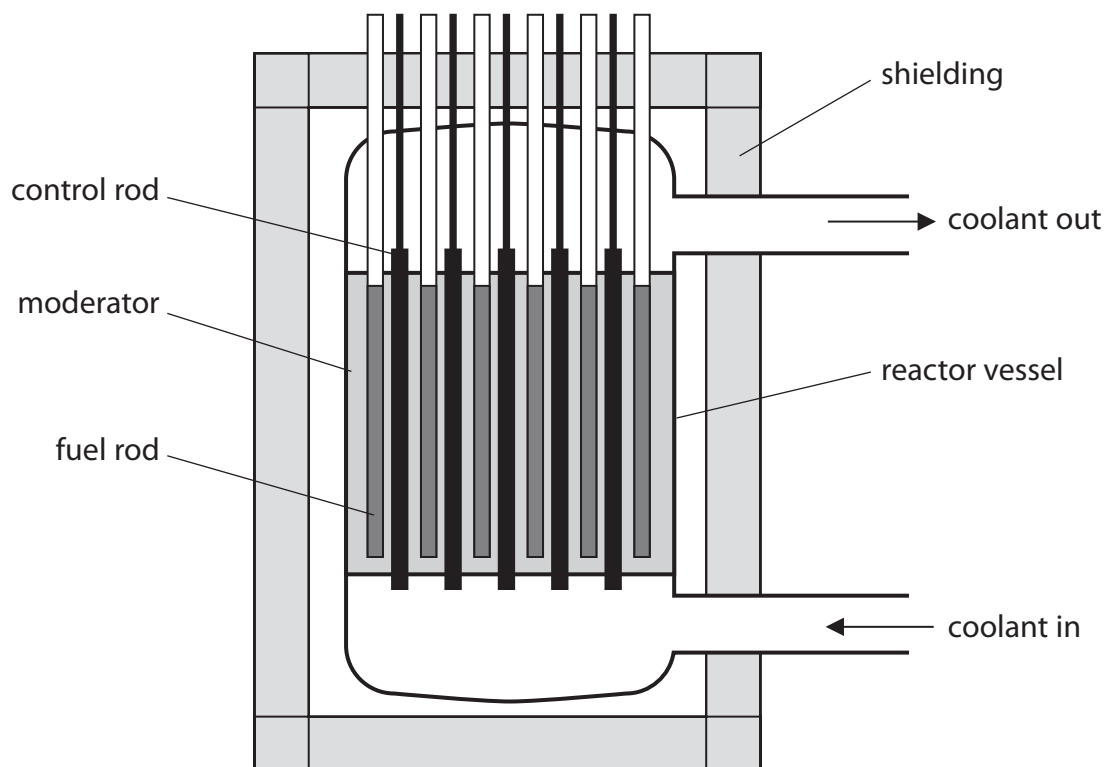


12 The diagram shows the main parts of a nuclear reactor.



(a) Draw a straight line linking each part of the reactor to its correct purpose.

(4)

part of reactor		purpose
control rod	•	absorbs neutrons
coolant	•	transfers thermal energy
fuel rod	•	keeps radioactive material inside the reactor
moderator	•	slows the neutrons
reactor vessel	•	contains uranium

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(b) Which of these is a nuclear fission product?

(1)

- ☐ A alpha particles
- ☐ B electrons
- ☐ C neutrons
- ☐ D uranium nuclei

(c) Describe the process of nuclear fission.

(4)

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(d) State three ways in which nuclear fission differs from radioactive decay.

(3)

1

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2

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3

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(Total for Question 12 = 12 marks)

