

Chemistry

Section I – Part B (continued)

Marks

Question 19 (5 marks)

(a) Describe the conditions under which a nucleus is unstable.

2

The conditions when ~~there~~ there is low
temperature, and unstable structure.
~~low high~~ low pressure.

.....

.....

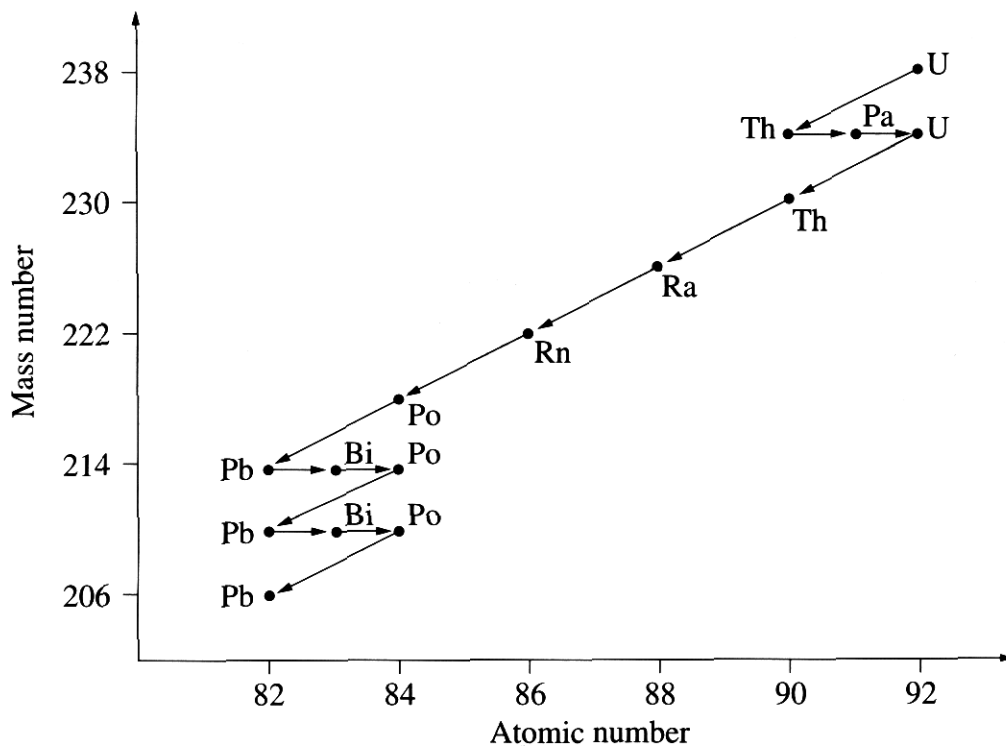
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Question 19 continues on page 14

Question 19 (continued)

- (b) The following is a flow diagram showing the sequence of products released during the decay of uranium.

3



Use examples from the flow diagram to describe processes by which an unstable isotope undergoes radioactive decay.

We can see when the atomic number.....
 increase, the mass number is also.....
 increase. Except ~~between~~ the atomic.....
 numbers between 82-84 and 90-92.....
 when the atomic number is at 92, it's
 stable.

End of Question 19