

2002 HIGHER SCHOOL CERTIFICATE EXAMINATION

Biology

Section I – Part B (continued)

Marks

Question 25 (4 marks)

(a) Define the concept of *punctuated equilibrium* in evolution.

1

Refers to a rapid change in a species  
characteristics followed by an extended period of stasis.

(b) How does punctuated equilibrium differ from the process proposed by Darwin?

3

The idea of punctuated equilibrium was developed to help explain evolution. Some scientists saw that a more viable idea was that a change would occur in an animal and this change would remain unchanged for an extended period. Darwin saw that evolution would take many millions of years and that an animal was changing very slowly as selective pressures or agents changed over time. Punctuated equilibrium helps to explain evolution by stating that a change was followed by stasis.