

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

The concept of punctuated equilibrium states that evolution takes place rapidly, but then settles to a steady pace.

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

3

Darwin proposed that evolution is a result of adaptive radiation or isolation which leads to divergent or convergent evolution. This process is slow and takes a lot of time compared to the concept of punctuated equilibrium which states that evolution happens quickly but then settles. Darwin also proposed that evolution is a constant process, which once again differs to the concept of 'punctuated equilibrium'.