Section A
Answer ALL questions (100 marks)

Question 1:
Describe the different types of natural archives (deposits or records) that are available for palaeo-environmental research. (25 marks)

Question 2:
Describe the process taking place in the above diagram. Provide examples to illustrate your response. (25 marks)
Question 3:
With the aid of examples, discuss the potential biophysical ‘triggers’ that have caused Quaternary instability. 

(25 marks)

Question 4:
Is it all just a matter of scale and timing? Respond to this statement outlining and debating the issues of phyletic gradualism versus punctuated equilibrium; and allopatric versus sympatric speciation.

(25 marks)

Section B
Answer Question 5 and Question 6 (either a or b). Each question carries 100 marks.

Question 5:
When Wallace asked Darwin whether he planned to include evidence from humans in The Origin, he answered; ‘I think I shall avoid the whole subject, as so surrounded with prejudices; though I fully admit that it is the highest and most interesting problem for the naturalist’.
Outline and describe the impact that humankind has had upon evolutionary and extinction processes. Focus, with examples, on both pre-historic and historical time periods.

Question 6:

OR

 b. “Conservation biologists are acutely aware of the challenges that will be posed by shifting species’ distributions in the face of climatic change. Compared to the risks posed to biodiversity by habitat loss and degradation, the climate-change challenge is a relatively new one” (Hockey et al., 2011).

Discuss the implications of projected climatic changes for conservation and reserve design. In your discussion, provide examples of species and habitat types which may be particularly vulnerable to climate change.