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|-------|------------------------|----------|
| (i)   | Homologous structures. | (1 mark) |
|       | Example.               | (1 mark) |
| (ii)  | Analogous structures.  | (1 mark) |
|       | Example.               | (1 mark) |
| (iii) | Vestigial structures.  | (1 mark) |
|       | Example.               | (1 mark) |

Candidates were required to bring out the differences between Darwinian and Lamarckian theories of evolution. They were also expected to know the terms Analogous, Homologous and Vestigial structures.

### Weaknesses

Distinction between the theories proved difficult. Description of analogous, homologous and vestigial was equally difficult to the candidates.

### Expected Response

- a) Lamarckian - inheritance of acquired characteristics;  
 Darwinian - inheritance of genetically acquired characteristics;
- i) Homologous structures have a common (embryonic) origin but are modified to perform different functions;  
 Vertebrate fore limb;
- ii) Analogous structures have different (embryonic) origins but have evolved to perform similar functions; wings of insects and birds/eye structure in humans/octopus;
- iii) Vestigial structures have ceased to function and are thus greatly reduced in size; Human appendix/Kiwi (flightless bird) with reduced wings/vestigial tail in human/absence of hind limb in python and whale;

### Question 15

- (a) Give the differences between the following structures in wind and insect pollinated flowers. (3 marks)
- (i) Anther.  
 (ii) Pollen grains.  
 (iii) Stigma.
- (b) What is the importance of cross pollination? (1 mark)