

Received only part B.

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Bou 2101 - Genetics and Evolution¹¹

Part B

NBT (No Book Test)

Registration Number:

Q. 2.

(i). Name the two persons whose work contributed to develop Darwin's 'theory of Natural Selection'

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(ii) Darwin's explanation of evolution in terms of natural selection depends upon five basic assumptions. List these five assumptions.

1.

2.

3.

4.

5.

(iii) Why was it necessary to form a new 'Synthetic theory of Evolution' later, to explain Darwin's 'theory of Natural Selection'?

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(iv) Name the three scientists who worked to formulate the 'Synthetic theory of Evolution'.

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(v) One way of creating variation among the individuals in a population is due to the occurrence of mutations in the genome. What are the two main categories of mutations that can occur in the genome of an individual?

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I(vi) Briefly explain the types of mutation that come under the two main categories separately.

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Q. 3

(i) What is the group name given to the most primitive arboreal primates?

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(ii). Give three primate characters possessed by them.

1.
2.
3.

(iii). Name two new world monkeys and two old world monkeys.

New world monkeys: 1. 2.

Old world monkeys: 1. 2.

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(iv). Fill the table given below to compare the new world monkeys with the old world monkeys

Character	New world Monkey	Old world Monkey
1. Distribution in the world		
2. Size of the animal		
3. Nature of nose and its openings		
4. Thumb finger		
5. Premolars and molars in half of a jaw		
6. Nature of tail		

(v). Give 5 main characteristics which distinguish apes and man from the rest of the Primates.

1.
2.
3.
4.
5.

(vi). Name the ape to which the human beings are closely related, based on globin and mitochondrial DNA sequences.

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