

Date of Exam: 07.12.2020

Kishore Bharati Bhagini Nivedita College (Co-Ed.)

(Affiliated to the University of Calcutta)

2020

ZOOLOGY – GENERAL

Paper : CC-4 (Genetics & Evolutionary Biology)

Full Marks : 50

Time : 2 Hrs.

The figures in the margin indicates full marks.

Candidates are required to give their answers in their own words as far as practicable.

Send PDF of the Answer Script to **kbbnczoology@gmail.com**

Answer **question no. 1** and **any three** questions from the rest.

1. Write short notes on **any four** from the following: 5×4
 - a) Holiday model
 - b) Thalassaemia
 - c) Incomplete dominance and codominance
 - d) Aneuploidy
 - e) Homologous and analogous organs
 - f) Darwin's Finches
 - g) Neo-Darwinism
 - h) Sympatric & Allopatric speciation

2. Describe different types of chromosomal aberration. 10

3. State those two laws of Mendelian principles of inheritance. What is complete and incomplete linkage? 5+5

4. Describe the process of sex determination and dosage compensation of *Drosophila* sp. 5+5

5. What do you mean by isolating mechanism? Describe different types of isolating mechanism. Discuss isolation as a factor of evolution. 2+5+3

6. What is natural selection? Describe Darwin's theory of the origin of species.

3+7

7. Give an account of Lamarckism. Why it is also called the theory of inheritance of acquired characters?

5+5
