

**BACHELOR OF SCIENCE (CBCS-2018 COURSE)**  
**F. Y. B. Sc. Sem-I : WINTER :- 2021**  
**SUBJECT: ZOOLOGY : CELL BIOLOGY & GENETICS**

**Day : Thursday**  
**Date 3/2/2022**

**W-18302-2021**

Time : 10:00 AM-01:00 PM  
Max. Marks: 60

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**N.B. :**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat labeled diagrams **WHEREVER** necessary.
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**Q.1** Attempt **ANY TWO** of the following : **(12)**

- a) Give an account of ultrastructure of mitochondria. Add a note on its functions.
- b) Describe law of dominance with suitable example.
- c) Describe fluid mosaic model of plasma membrane. Write its functions.

**Q.2** Attempt **ANY TWO** of the following : **(12)**

- a) Explain law of independent assortment with suitable example.
- b) Give a detailed account structural changes in chromosome.
- c) Compare prokaryotic and eukaryotic cell.

**Q.3** Attempt **ANY TWO** of the following : **(12)**

- a) What is meant by eugenics? Explain positive and negative eugenics.
- b) Describe structure and functions of Golgi complex.
- c) Describe ultrastructure and functions of endoplasmic reticulum.

**Q.4** Attempt **ANY THREE** of the following: **(12)**

- a) Describe Down's syndrome.
- b) Write a note on polyploidy.
- c) Describe ultrastructure of nucleus.
- d) Write a note on genetic counselling.

**Q.5** Attempt **ANY FOUR** of the following: **(12)**

- a) Write a short note on incomplete dominance.
- b) Write characters of multiple alleles.
- c) Describe euploidy.
- d) Write functions of chromosome.
- e) Describe structure of ribosomes.
- f) Write functions of lysosomes.

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