

**BACHELOR OF SCIENCE (CBCS-2018 COURSE)**  
**F. Y. B. Sc. Sem-I :SUMMER- 2022**  
**SUBJECT : ZOOLOGY : CELL BIOLOGY & GENETICS**

Day : Tuesday  
Date : 19-07-2022

**S-18302-2022**

Time : 11:00 AM-02:00 PM  
Max. Marks : 60

**N.B. :**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat labeled diagrams **WHEREVER** necessary.

**Q.1** Attempt **ANY TWO** of the following : **(12)**

- a) Write an essay on mitochondria.
- b) Explain law of segregation in detail.
- c) What is cytoskeleton? Add a note on functions of microtubules.

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

- a) Explain Mendel's law of dominance with suitable example.
- b) Give an account of chromosome with reference to ultrastructure and functions.
- c) Describe structure and functions of Golgi complex.

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

- a) Give an account on genetic counselling.
- b) Describe structure and functions of endoplasmic reticulum.
- c) Describe ultrastructure of eukaryotic cell.

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

- a) Write a note on Klinefelter's syndrome.
- b) Write a note on inversion in chromosome.
- c) Describe ultrastructure of ribosomes.
- d) Explain positive and negative eugenics.

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

- a) Describe co-dominance.
- b) Write functions of plasma membrane.
- c) Write characters of multiple alleles.
- d) Describe ultrastructure of nucleus.
- e) Describe euploidy.
- f) Write functions of lysosome.

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