

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

Day : Wednesday

Time : 10:00 AM-01:00 PM

Date : 21-12-2022

W-18302-2022

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) What is cytoskeleton? Describe structure and functions of microtubules.
- b) Give an account of ultrastructure of mitochondria. Add a note on its functions.
- c) Define eugenics. Explain positive and negative eugenics.

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

- a) Describe law of dominance with suitable example.
- b) Give detailed account of numerical changes in chromosomes.
- c) Describe structure and functions of Golgi complex.

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

- a) Give an account of multiple alleles and explain it with reference to ABO blood groups in man.
- b) Compare prokaryotic and eukaryotic cell.
- c) Describe the fluid mosaic model of plasma membrane.

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

- a) Describe Turner's syndrome.
- b) Write a note on deletion in chromosome.
- c) Describe ultrastructure of nucleus in brief.
- d) Describe structure and functions of lysosomes.

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

- a) Write short notes on co-dominance.
- b) Write functions of ribosomes.
- c) Write short note on back cross.
- d) Write functions of nucleus.
- e) Describe Down's syndrome.
- f) Write functions of endoplasmic reticulum.