

**SECOND SEMESTER B.A./B.Sc. DEGREE EXAMINATION, APRIL 2020**

(CBCSS—UG)

Genetics

GEN 2B 02—CELL BIOLOGY

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

**Part A***Answer Short Questions.**2 marks each.*

1. Comment on apoptosis.
2. What is autophagy ?
3. Comment on lyonization.
4. Describe tight junction.
5. Define meiosis.
6. What are lamp brush chromosomes ?
7. Write any four differences between prokaryotic cell and eukaryotic cell.
8. What are two types of chromatins ?
9. Mention the structure of centriole.
10. Comment on tumor suppressor genes.
11. What is nucleation ?
12. Explain the cell theory.

(Ceiling 20 marks)

**Part B***Answer Paragraph Questions.**5 marks each.*

13. Briefly explain the features of intermediate filaments.
14. Differentiate between rough and smooth endoplasmic reticulum.
15. Write brief notes on fluorescent microscope.
16. Explain protein sorting of endoplasmic reticulum.

**Turn over**

17. Briefly explain the fluid mosaic model of plasma membrane.
18. Describe the characteristics features of cancer cells.
19. Briefly explain the structure and functions of chloroplast.

(Ceiling 30 marks)

### Part C

*Answer any **one** of the following.*

*10 marks.*

20. Write an essay on nucleus, nuclear envelop and nuclear pore complex.
21. Write an essay on the structure, component and application of a compound microscope.

(1 × 10 = 10 marks)