

Reg. No. : .....

Name : .....

I Semester M.Sc. Degree (CBCSS – OBE – Regular) Examination, October 2023  
(2023 Admission)  
**ZOOLOGY**  
**MSZGY01C03 : Cell Biology and Genetics**

Time : 3 Hours

Max. Marks : 60

**PART – A****(Knowledge and Understand Level)**Answer **any five** of the following. **Each** question carries **3** marks.

1. Write notes on induced pluripotent stem cells.
2. Write notes on the role of lysosomes in ageing.
3. Comment on entosis.
4. Comment on Paleogenetics.
5. What is a chromosome map ?
6. Comment on LTR transposons.

**PART – B****(Evaluate and Creative Level)**Answer **any three** of the following. **Each** question carries **6** marks.

7. Explain the pathway of G protein coupled receptor signal transduction.
8. Explain different types of stem cells.
9. Explain briefly ploidy changes.
10. Comment on the different recombination methods.
11. Comment on the transposons in drosophila.

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**PART – C****(Apply and Analyse Level)**Answer **any three** questions. **Each** question carries **9** marks.

12. Elaborate your understanding of ageing and the mechanisms behind it.
13. What is karyotyping ? Discuss the processes involved and the common genetic syndromes detected by karyotyping.
14. Discuss epigenome concept and the external modifications in DNA.
15. Elaborate extra cellular matrix and its molecules.
16. Explain the cell cycle in detail and their regulatory mechanisms.