

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2016****(CUCSS)**

General Biotechnology

**GB 1C 1— CELL BIOLOGY**

Time : Three Hours

Maximum : 36 Weightage

**Section A (Very Short Answers)***Answer **all** questions.**Each question carries weightage 1.*

1. Cadherins.
2. Heterochromatin.
3. Glycophorin.
4. Leucoplast.
5. Tight junctions.
6. Glucose transporter.
7. GABA.
8. Synaptonemal complex.
9. P<sup>53</sup> gene.
10. Prions.

(10 x 1 = 10 weightage)

**Section B (Short Answer Type Questions)***Answer any **seven** questions.**Each question carries weightage 2.*

11. CDKs and Cyclins in DNA replication.
12. Explain translation in Chloroplasts and Mitochondria.
13. Discuss in brief cell theory and explain its salient features.
14. Give the reason why viruses are not true cells.
15. What are the transmembrane proteins? How are they distributed in biomembranes.
16. Explain the methods for transport of large molecules.
17. Give an account of lysosomes and their role in cell metabolism.

**Turn over**

18. Discuss protein sorting and vesicular traffic from endoplasmic reticulum to Golgi.
19. Summarize the chemiosmotic theory of ATP production.
20. Write a note on check points of cell cycle.

(7 x 2 = 14 weightage)

**Section C (Essay Type Questions)**

*Answer any **two** questions.*

*Each question carries weightage 6.*

21. Explain post translational modifications and protein uptake of eukaryotes.
22. Write an essay on cellular energy transactions.
23. Discuss different types of oncogenes and molecular events of Cancer.

(2 x 6 = 12 weightage)