

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

M.Sc. Molecular Biology & Human Genetics (Semester-II)

May – 2016 Examination

Time : 3.00 Hrs.

[Max. Marks : 100]

Paper-I

CELL BIOLOGY

Q.P Code : MBHG - 110

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Give a detail account on structure and functions of DNA and t-RNA.
2. Describe the composition, organization and dynamics of transportation across the plasma membrane.

SHORT ESSAY

10 X 5 = 50 Marks

3. Explain the structural organization of chromatin.
4. Discuss the phases of meiosis.
5. Describe the regulation of cell cycle.
6. Write a note programmed cell death.
7. Comment on cytoskeleton.
8. Explain the structure and functions of ETC complexes.
9. Discuss the properties of cancer cells.
10. Write a note on chromosomal domains.
11. Describe cell surface receptors.
12. Explain the mechanism of endocytosis.

SHORT NOTE

10 X 3 = 30 Marks

13. Mitochondria is the powerhouse of a cell, justify the comment.
14. Describe the structure and functions of flagella.
15. Write a note on RNA splicing.
16. Structure of interphase nucleus.
17. Write a note on telomere structure.
18. Write the structure and any two functions of endoplasmic reticulum.
19. Comment on discovery of a cell.
20. Enlist the functions of peroxisomes.
21. What are DNA binding proteins? State their role in DNA stabilization.
22. Write labeled diagrams of subunits of prokaryotic and eukaryotic ribosomes.