



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

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

April 2024 Examination

Time : 3 Hrs.

[Max. Marks :100]

Cell Biology

Q.P Code : M1510

*Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.*

LONG ESSAY

2 X 20 = 40 Marks

1. Explain the organization and functions of plasma membrane
2. Define hormone responsive elements Explain Vitamin D induced cell signaling with special emphasis on mechanism and cellular response

SHORT ESSAY

6X 10 = 60 Marks

3. Describe the structure and functions of flagella.
4. Describe the structure and functions of centromere and telomere.
5. Define proteoglycan and give two examples. Describe their biological significance in extracellular matrix.
6. Explain the role of cyclins and cyclin-dependent kinases in cell cycle regulation.
7. Describe the classification of cell receptors.
8. Explain the role of telomere in cell senescence.



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**M.Sc. Molecular Biology & Human Genetics (Semester-I)
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Time: 3.00 Hrs

[Max. Marks: 100]

Anatomy

Q.P Code : M1530

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAYS

2X20=40Marks

1. Describe Tongue under the following headings a) Gross features b) Muscles c) Nerve supply d) Applied Aspects
2. Describe the sulci and gyri with functional areas on Supero lateral surface of Cerebrum with applied aspects

SHORT NOTES

6X10=60Marks

3. Describe and illustrate the anterior relations of right and left kidneys with clinical significance
4. Describe the course and tributaries of Great saphenous vein with applied aspects
5. Describe the gross features, blood supply and lymphatic drainage of mammary gland with applied aspects
6. Describe the external and internal features of right atrium with applied aspects
7. Discuss briefly the process of fertilization and its effects.
8. Describe the boundaries with illustration, contents and applied aspects of Middle ear
