



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

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

March 2024 Examination

Time : 3 Hrs.

[Max. Marks :100]

Physiology
Q.P Code : M2560

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

LONG ESSAY

2 X 20 = 40 Marks

1. Define Anemia classify on the basis of morphology and etiology and explain the causes for the same
(2+5+5+8=20)
2. Define neuromuscular junction Draw a neat labelled diagram, explain the transmission in the form of flow chart .Add a note on the Myasthenia gravis and NMJ blockers
(2+5+8+5=20)

SHORT ESSAY

6X 10 = 60 Marks

3. Explain the counter current mechanism and the countercurrent multiplier system
4. What is the normal Ca^{2+} ion concentration in blood? Name the hormones which regulate the Ca^{2+} ion concentration Name the target organs where it acts. List three functions of calcium
5. Name the Parts of the male reproductive system. List the functions of testosterone
6. Define Blood pressure. Explain Baroreceptor mechanism on blood pressure regulation
7. Define surfactant give its chemical nature list the functions of the same and add a note on the clinical significance
8. Name the ascending tracts and list the sensation carried by it.
Draw a neat labeled diagram of any one tract

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M.Sc. MB&HG (Semester-II)
March 2024 Examination

[Max. Marks: 100]

Time : 3 Hrs.

Subject: Microbiology
Q.P Code : M2570

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

LONG ESSAY

2 X 20 = 40 Marks

1. List the different classes of immunoglobulins. Describe the structure of IgM with a diagram and its biological functions
2. Classify sterilization. Describe in detail the working principle of autoclave with a diagram. List the sterilization controls used in the autoclave

SHORT ESSAY

6X 10 = 60 Marks

3. Describe acquired immunity and its different types with examples.
4. Enumerate the RNA viruses. Describe the morphology, source and modes of infection of Rabies
5. Classify fungal infections. Describe the diseases caused by *Candida albicans*.
6. Explain the mechanism and applications of Agglutination reactions.
7. Enumerate DNA viruses. Describe the modes of transmission, serological markers of Hepatitis B virus infection.
8. Describe the structure, types and functions of Bacterial flagella.

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