



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

**Bachelor of Physiotherapy, Second Year Semester-III**  
**September 2023 Examination.**

**TIME - 3 HRS**

**MAX MARKS:100**

**EXERCISE THERAPY**

**Q.P. CODE: B3060**

*Your answers should be specific to questions asked.*

*Draw neat labelled diagrams wherever necessary*

**LONG ESSAY (Answer any Two)**

**2 X 10 = 20 Marks**

1. Explain D1 flexion and extension pattern for upper extremity with stick diagram.
2. Explain the tests of coordination. Describe the frenkles exercise program for lower limbs in co ordination
3. List the types of posture.explain the principles of postural re-education.

**SHORT ESSAY(Answer any Ten)**

**10 X 5 = 50 Marks**

4. Discuss the components of exercise program
5. Describe Delorme's technique with example.
6. Discuss the indications and contraindications of hydrotherapy
7. Explain open and closed kinematic chain exercise with example
8. Explain SAID principle
9. Write about the indications and various types of stretching technique.
10. Write the causes for in co ordination and what exercises should be given.
11. Write the principles and training with Walking aids
12. Write the Classification and uses of active exercises
13. What are the Indications and contraindications of massage
14. Enumerate the indications for suspension therapy
15. Define and comparejacobson's&mitchel' relaxation technique

**SHORT ANSWER (Answer any Ten)**

**10 X 3 = 30 Marks**

16. Define endurance and its types
17. Define slow reversal
18. Define Petrissage
19. Define flexibility
20. Define1 Repetition maximum
21. Define Muscle tone
22. What is stretching?
23. List the causes for impaired balance
24. Give the uses of Pulleys
25. Define V02 Max.
26. What is active vs inactive posture.
27. BRIME

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**TIME – 2.30 Hrs.**

**MAX MARKS: 80**

**Pathology & Microbiology**

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

**Section - A**

**Pathology ( 40 marks )**

**QP Code : B3076**

*(Use Separate answer booklet for Section A & B)*

**LONG ESSAY**

**1 X 10 = 10 marks**

1. Define Necrosis and describe the types of necrosis

**SHORT ESSAYS (ANSWER ANY THREE)**

**3 X 5 = 15 marks**

2. Secondary Syphilis
3. Pathogenesis Disseminated intravascular coagulation
4. Nephrotic syndrome
5. Enumerate the Organism causing Pyogenic osteomyelitis. Add a note on pathogenesis

**SHORT ANSWERS (ANSWER ANY FIVE)**

**5 X 3 = 15 marks**

6. Enumerate causes of leukopenia.
7. Enumerate the most common occupational lung diseases and their causes.
8. Classification of shock
9. Clinical features of vitamin A deficiency.
10. Differentiate between marasmus and kwashiorkor.
11. laboratory features of Sick cell anaemia

**Section - B**

**Microbiology ( 40 marks )**

**QP Code : B3075**

**LONG ESSAY**

**1 X 10 = 10 marks**

1. Define & Classify Sterilization. Draw a neat labeled diagram of the Hot air oven. and describe its principle, uses, controls used (2+3+2+1+1+1)

**SHORT ESSAYS (ANSWER ANY THREE)**

**3 X 5 = 15 marks**

2. Describe the structure, functions, methods of detection and clinical significance of bacterial Spores
3. Describe different sources and modes of transmission of infection with examples
4. Describe the principle, uses of Autoclave and add a note on controls used.
5. Describe the mechanisms of Auto immune diseases.

**SHORT ANSWERS (ANSWER ANY FIVE)**

**5 X 3 = 15 marks**

6. Define natural passive immunity with examples.
7. Mention six steps of hand hygiene.
8. Mention the types of vaccines with examples.
9. Enumerate three skin antiseptics.
10. Name any three scientists & their contributions to Microbiology.
11. Name three intestinal nematodes.



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**MAX MARKS: 80**

**Research Methodology and Biostatistics**

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*Draw neat labelled diagrams wherever necessary.*

**Section - A**

**Research Methodology ( 40 marks )**

**QP Code : B3085**

*(Use Separate answer booklet for Section A & B)*

**LONG ESSAY**

**1X 10 = 10 Marks**

1. What is sampling design? Discuss various types of sampling & their suitability with examples.

**SHORT ESSAY (Answer any Three)**

**3X 5 = 15 Marks**

2. Explain method of collecting primary data. Add a note on merits & Demerits.
3. Explain criteria for Good Research.
4. Mention the differences between Questionnaire & Schedules.
5. Explain Steps in writing report.

**SHORT ANSWER (Answer any Five)**

**5X 3 = 15 Marks**

6. Probability Sampling.
7. List the problems in data processing.
8. Randomised control trial
9. SMART Criteria
10. Difference between Case Control & Cohort study.
11. List types of consent.

**Section – B**

**Biostatistics (40 Marks)**

**QP Code : B3086**

*(Use separate answer booklet for section B)*

**LONG ESSAY**

**1X 10 = 10 Marks**

1. Discuss various types of frequency distribution with examples. Mention basic principles of frequency distribution

**SHORT ESSAY (Answer any Three)**

**3X 5 = 15 Marks**

2. Statistical Averages
3. Parametric Tests of significance
4. Explain scatter diagrams with examples
5. Student t test and its role in data analysis

**SHORT ANSWER (Answer any Five)**

**5X 3 = 15 Marks**

6. Correlation
7. Stratified sampling
8. Confidence Interval
9. Standard deviation as a measure of dispersion 'Justify.'
10. Methods of data collection
11. Histogram