

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

**Bachelor of Physiotherapy (CBCS), Second Year Semester-III
February-2020 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 Essays (Answer any Two)

2 x 10 = 20 Marks

1. Define balance. Describe in detail the evaluation of impaired balance and balance re-training
2. What are the indications and principles of massage? Describe in detail physiological and therapeutic uses of manipulations in massage
3. How is limb length measured? What are the different types of crutches? Write in detail about various crutch gaits.

Short Essays (Answer any Ten)

10 x 5 = 50 Marks

4. Explain non-equilibrium tests for co-ordination
5. Enumerate the principles of PNF
6. Write the protocol for re-education of a muscle from power 1 to 2
7. What are the effects and uses of resisted exercises?
8. Define hydrotherapy. Enumerate the precautions and contra indications of hydrotherapy
9. What are the normal and abnormal responses to acute aerobic exercise?
10. Write about Frenkels exercises for lower limb
11. Illustrate MMT for knee flexors and extensors
12. Explain petrissage manipulation
13. Define passive movements. Classify it and write down the principles for giving passive movements
14. Write briefly about the benefits of suspension therapy
15. Therapeutic gymnasium

Short Answers (Answer any Ten)

10 x 3 = 20 Marks

16. Write the principles of co-ordination exercise
17. Enumerate the mat activities
18. Define good and bad posture
19. Explain Delorme's technique
20. What is Mitchell's Relaxation Technique?
21. Write derived positions for standing.
22. List down the components of a gait cycle
23. Define stretching and its uses.
24. What is 1 RM?
25. Write any four principles of MMT
26. Define slow reversal and slow reversal hold.
27. Types of goniometers.

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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 Discuss types of necrosis with Examples

SHORT ESSAY (Answer any Three)

3 X 5 = 15 marks

2. Write differences between Benign and Malignant tumors.
3. Osteoarthritis.
4. Myasthenia Gravis.
5. Myocardial Infarction.

SHORT ANSWERS (Answer any Five)

5 X 3 = 15 marks

6. List THREE examples of hypertrophy.
7. List clinical signs of Marasmus.
8. List THREE causes of Microcytic Hypochromic anemia.
9. List THREE causes for Eosinophilia.
10. Mention THREE complication of TB osteomyelitis
11. List THREE Complications of Cirrhosis of Liver.

Section - B

Microbiology (40 marks)

QP Code : B3075

LONG ESSAY

1 X 10 = 10 marks

1. Draw a neat labelled diagram of bacterial cell. Describe the structure, types, functions and demonstration methods of flagella. (3+2+2+1+2)

SHORT ESSAYS (ANSWER ANY THREE)

3 X 5 = 15 marks

2. Autoclave: Principle, uses, controls
3. Immunoglobulin M: structure, biological functions.
4. Describe mode of infection, clinical features and prophylaxis of *Ancylostoma duodenale*
5. Map the lesions of *Salmonella typhi* on Human body

SHORT ANSWERS (ANSWER ANY FIVE)

5 X 3 = 15 marks

6. Name 3 bacterial vaccines
7. Enumerate 3 cestodes
8. Enumerate the fungi causing systemic infection
9. Enumerate 3 RNA viruses
10. Different modes of transmission of Infections
11. Bacterial growth curve.

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MAX MARKS: 80

Research Methodology and Biostatistics

*Your answers should be specific to questions asked.
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

1 X 10 = 10 Marks

1. Describe the components of computer system with help of a diagram. Discuss the use of computer applications in Research. (5+5)

SHORT ESSAY (Answer any Three)

3 X 5 = 15 Marks

2. What is 'quantitative research'? List the methods to do quantitative research. (1+4)
3. Discuss the problems faced by researchers in India.
4. Define 'sampling'. Characteristics of good sampling. (1+4)
5. Differentiate between descriptive and inferential statistics.

SHORT ANSWER (Answer any Five)

5 X 3 = 15 Marks

6. List the problems in data processing.
7. List the criteria for good research.
8. FINER criteria.
9. Randomized controlled trial.
10. List the sources for 'Secondary Data'.
11. List the principles of health care practice.

Section – B

Biostatistics (40 Marks)

QP Code : B3086

(Use separate answer booklet for section B)

LONG ESSAY

1 X 10 = 10 Marks

1. Define central tendency. Calculate 3 important measures for the following data on pain scores 20, 23, 19 .66, 22, 70. Which is ideal measure of average for the data?

SHORT ESSAY (Answer any Three)

3 X 5 = 15 Marks

2. Describe various scale of measurement with examples
3. Systematic random sampling
4. Null and alternative hypothesis
5. Correlation

SHORT ANSWER (Answer any Five)

5 X 3 = 15 Marks

6. Student t test
7. Histogram.
8. Standard deviation.
9. Arithmetic mean.
10. Confidence interval – meaning and interpretation.
11. Distinguish between primary and secondary data.

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