

APRIL 2001

[KD 602]

MASTER OF PHYSIOTHERAPY DEGREE
EXAMINATION.

Third Semester

Paper II — BIOSTATISTICS AND RESEARCH
METHODS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. Define biostatistics. Explain the concepts of statistics and principles of scientific enquiry in analysing results of physiotherapy practice. (20)
2. Explain the various measures of central tendency and uses. Define correlation with an example of physiotherapy data. (20)
3. Describe the various steps in testing of hypothesis and briefly explain about its uses. (20)
4. How do you frame a research study? Explain the various steps in preparing a scientific report. (20)

5. Write short notes on :

(4 × 5 = 20)

- (a) Sampling
 - (b) Review of literature
 - (c) Pilot study
 - (d) Presentation of data.
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NOVEMBER 2001

[KE 602]

Sub. Code : 8002

**MASTER OF PHYSIOTHERAPY DEGREE
EXAMINATION.**

**Paper II — BIO-STATISTICS AND RESEARCH
METHODS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. Discuss various diagrammatic and graphic forms of presenting data. (20)
2. Discuss on Health Statistics in the practise of physiotherapy. (20)
3. Enumerate on Basic principles and methods of Research designs. (20)
4. Discuss the history of physiotherapy research from 1950 – present. (20)

5. Short notes on :

(4 × 5 = 20)

- (a) Methods of recording Health Statistics
- (b) Data collection methods
- (c) Selection of samples
- (d) Hypothesis testing.

MARCH 2002

[KG 602]

Sub. Code : 8002

**MASTER OF PHYSIOTHERAPY
DEGREE EXAMINATION.**

Second Year — New Regulations

**Paper II — BIO-STATISTICS AND RESEARCH
METHODS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. Discuss the uses of Statistical methods in P.T. (20)
 2. Discuss the basic principles and methods of research design. (20)
 3. Discuss the vital and health statistics. (20)
 4. Describe the history of present P.T. research. (20)
 5. Write short notes : (4 × 5 = 20)
 - (a) Variables and their measurement
 - (b) Sampling methods
 - (c) Pilot study
 - (d) Statistical data.
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SEPTEMBER 2002

[KH 602]

Sub. Code : 8002

**MASTER OF PHYSIOTHERAPY (MPT) DEGREE
EXAMINATION.**

Second Year — New Regulations

**Paper II — BIO-STATISTICS AND RESEARCH
METHODS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. Describe research methodology and procedures. (20)
 2. Discuss practical implications of Research in P.T. (20)
 3. Discuss Assessment tool with reference to sensitivity, specificity and reproducibility. (20)
 4. Describe graphical representation of presentation of Data. (20)
 5. Write short notes on : (4 × 5 = 20)
 - (a) Uses of statistical methods in P.T.
 - (b) Review of literature
 - (c) Critique of P.T. studies
 - (d) Limitations of clinical studies.
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APRIL 2003

[KI 602]

Sub. Code : 8202

**MASTER OF PHYSIOTHERAPY (MPT) DEGREE
EXAMINATION.**

Second Year — New Regulations

**Paper II — BIO-STATISTICS AND RESEARCH
METHODS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. What is Statistical Inference? Discuss the importance of estimation and testing of hypothesis with suitable examples in physiotherapy practice. (20)
 2. Define vital statistics. Briefly explain the different measures of fertility and mortality. (20)
 3. Discuss the steps in Research Process and basic principles of experimental design. (20)
 4. Explain the role of computers in physiotherapy practice. (20)
 5. Write short notes on : (4 × 5 = 20)
 - (a) Variables and measurement
 - (b) Regression and prediction
 - (c) Conceptual framework
 - (d) Ethics of research.
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[KR 602]

Sub. Code : 8202

II. Short notes :

(6 × 5 = 30)

**MASTER OF PHYSIOTHERAPY (MPT) DEGREE
EXAMINATION.**

Second Year — New Regulations

Paper II — BIO-STATISTICS AND RESEARCH METHODS

Time : Three hours	Maximum : 100 marks
Descriptive : Two hours and forty minutes	Descriptive : 80 marks

Objective : Twenty minutes **Objective : 20 marks**

Answer ALL questions.

I. Essay questions :

- (1) Explain the various measures of Central Tendency and its uses. Define Correlation with an example of Physiotherapy data. (20)
- (2) Explain the various methods of collecting data. What do you mean by reliability and validity? (15)
- (3) Explain the basic principles and methods of research design. (15)

- (a) Hypothesis
- (b) Probability Sampling methods
- (c) Role of Computers in data analysis
- (d) Selection of Statement of Problem
- (e) Measurement scales
- (f) Surveys in research.