Ph. D Programme in Medicine, Dentistry, Ayurveda and Homeopathic Medicine

Syllabus for:
Research Methodology Examination (Paper I)

UNIT : 1

1. Research
   - Definition, types & the steps in research
2. Clinical Epidemiology
   - Definition, understanding of terms commonly used in clinical epidemiology.
3. Study designs in Medical Research
   - Descriptive, Analytic & Experimental

UNIT : 2

1. Statistical data
   - Definition, Sources, Types, Methods of presentation – Tabulation & Diagrammatic presentation such as Bar diagram, Pie diagram & line diagram, Histogram, Frequency polygon, Frequency curve & cumulative Frequency polygon.
2. Sampling Design
   - Types, Advantages, Disadvantages.
3. Measures of central Tendency
   - Arithmetic Mean, Median, Mode
4. Measures of Dispersion
   - Range, Mean Deviation, Standard Deviation.

UNIT : 3

1. Testing of Hypothesis (Tests of Significance)
   - Steps in testing
   Common Statistical tests
   a. Large sample test (Z test)
   b. Small Sample test
      Student 't' test, Paired 't' test, Chi-square test
      Analysis of variance or ANOVA.
UNIT 4

1. Biomedical Communication - Criteria to assess standards of a publication

2. Ethical issues in research

3. Scientific Research Report Writing

Scheme of Examination

Subject: RESEARCH METHODOLOGY (PAPER I)
(Ph.D in Medicine, Dentistry, Ayurveda & Homeopathic Medicine)

Written examination:

Number of Paper – 1
Number of Parts – 1
Maximum Marks – 100
Duration – 3 hrs
Total number of questions – 8
Question to be answered – Any 5
Each question carries 20 marks

Prescribed Books

1. Dr. Sivathan’s Statistics in Medicine

2. Methods in Biostatistics for Medical Students and Research Workers
   B. K. Mahajan