

Tantia University
Sri Ganganagar
Ph.D. Course Work Syllabus
(Revised as Per UGC Regulation 2022)
Medical Physiology

Maximum Marks-120

Minimum Marks-66

PART-A

Part A- 60 Marks

Total Credits = 6

Total Hours=6x45= 270 Hours

Introduction to Research

Introduction of Research, Research methodology, Defining Research problem and formulation of hypothesis, research design, sampling design, measuring and scaling techniques, methods of data collection.

Pure and Applied Research, Exploring or Formulative Research, Descriptive Research, Diagnostic Research/Study, Evaluation Research/Studies, Action Research, Experimental Research, Historical Research, Surveys, Case Study, Field Studies

Research Ethics: Characteristics and format of research paper, article, thesis writing, review of Related Literature, Purpose of the review, Identification of the related literature. Organizing the related literature.

Statistics

Concept of statistics, relevance in research, parametric and non-parametric data; graphical representation of data: histogram, frequency polygon, ogive and pie chart; Measures of Central Tendency, Correlation, t-test chi square test

Computer Application

Basic and fundamental knowledge of Computer and its Applications. Introduction, Application Area, Operating System, Windows, Office, Internet.

PART-B

Part B- 60 Marks (Subject based)

Total Credits = 6

Total Hours=6x45= 270 Hours

1. Techniques required for the selected field of studies.
2. Biochemical Tehniques: Spectrophotometry, Chromatography, ELISA, CLIA.

3. Molecular Biology Techniques: DNA/RNA Isolation, Conventional PCR, RT PCR, Gel Electrophoresis, SDS PAGE, Gel analysis.

4. Animal Handling

5. Tissue Processing and Staining.

6. Laboratory Safety Guidelines

7. Recent Advances in Physiology

8. Candidate must learn any one of the following techniques beside his/her selected filed.

A. Cardiovascular Physiology techniques

B. Respiratory Physiology Techniques

C. Neurophysiology techniques

D. Autonomic Physiology