TANTIA UNIVERSITY, SRI GANGANAGAR

Syllabus Entrance Examination for Ph.D.

Medical Anatomy

Maximum Marks-100
Part A- 50 (Research Methodology)
Part B- 50 (Subject Wise)

PART-A
Research Methodology and Statistics

UNIT 1: Meaning of Research
Aims, nature and scope of research
Prerequisites of research

UNIT 2: Research Problem
Meaning of research problem Sources of research problem Characteristics of a good research problem
Hypothesis: Meaning and types of hypothesis. Research proposal or synopsis.

UNIT 3: Types and Methods of Research
Classification of Research
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

Unit 4: Review of Related Literature
Purpose of the review. Identification of the related literature. Organizing the related literature.

UNIT 5: Data Collection (Sampling) Sampling and Population Techniques of sampling Selection Characteristics of a good sample Types of data.

UNIT 6: Tools of Data Collection
Observation, Interview, Questionnaire, Rating scales, Attitude scales, Schedules, Characteristics of good research tools.

UNIT 7: Statistics

Concept of statistics, relevance in education, parametric and non-parametric data; graphical representation of data: histogram, frequency polygon, ogive and pie chart; Measures of Central Tendency: concept, computation and interpretation; measures of variability: concept, computation and interpretation; normal probability curve: concept, application and interpretation.

Correlation: concept, computation and interpretation- Product Moment, Rank Order, Biserial, Point Biserial, Phi, Contingency, Tetrachoric; significance of mean: concept, computation and interpretation of significance of t-test(correlated and uncorrelated, matched, paired-unpaired, matching- paired); ANOVA(One way) :concept, computation and interpretation, regression and prediction; chi square: concept, computation and interpretation (equal and normal probability).

UNIT 8: Research Report

Format of the research report Style of writing the report References and bibliography

Reference books:

1. Best John W. and James Kahn, V., 1989, Research in Education, Sixth Edition, Prentice-Hall of India Pvt.Ltd, New Delhi.
2. Sharma R.A., 1992, Fundamentals of Educational Research, Loyal Book Depot, Meerut, UP, India.
3. Kulbir Singh Sidhu, 1990, Methodology of Research in Education, Sterling Publishers Pvt. Ltd., New Delhi.
4. Lokesh Koul, 1997 Methodology of educational Research, third edition, Vikas Publishing House Pvt. Ltd. , New Delhi.
5. Kothari C.R., 1990, Research Methodology Methods and Techniques, Wiley Eastern Limited, New Delhi.
6. Borg Walter R., Gall Meridith D., 1983, Educational Research an Introduction, Fourth Edition, Longaman, New York &London.
7. Nitko Anthony J., 1983, Educational Tests and Measurement an Introduction, Harcourt Brace Jovanovich, Inc., New York.
8. Aggarwal Y.P., 1988, Statistical Methods Sterling Publishers Pvt. Ltd., New Delhi.
9. Garret Hnery E., 1985 Statistics in Psychology and Education, Viakils, Feffer and Simon, Bombay.
10. Guilford, J.P., and Benjamin Fruchter, 1982 Fundamentals of statistics in Psychology and Education, Fifth edition, Mc Graw-Hill Book Company, New York.
11. Gupta S.C. and Kapoor V.K., 1999, Fundamentals of Mathematical Statistics, Sultan Chand& Sons Educational Publishers, New Delhi.
12. Grewal P.S., Methods of Statistics Analysis, Sterling Publishers Pvt. Ltd., New Delhi.
13. Bruce W. Tuckman, Statistics in Psychology and Education.

Part-B (Subject Wise)

Medical Anatomy

Human Anatomy including Neuro Anatomy. Development Anatomy, Recent Advances and History of Anatomy. Comparative Anatomy and Evolution..

1. Introduction: Animal cell, General Consideration of bone and cartilage, articulations and muscles.

2. Embryology: General embryology- Spermatogenesis and genesis, heredity and Human Genetics, Fertilisation and Segmentation of Ovum. Foetal membranes and placenta. Development of individual system.

3. Osteology: General idea of all the bones of human skeleton.

4. Extrimities: A gross study of muscles: blood vessels, nerves and joints.

5. Thorax: Intercostal spaces, Pleura. JPericardium and contents, Mediastinum and contents, Diaphragm, Mechanism ofrespiration, Applied considerations.

6. Abdomen: Anterolateral abdominal wall with its applied importance. Abdominal cavity-its contents organs, vessels, nerves and lymphatics. Autonomic nervous system, Perineum-Male and female pelvis, its contents and its applied considerations.

7. Head and Neck: Study of the skull as a whole, orbital cavity and contents, salivary glands, blood vessels, cranial nerves, Gross study of Pharynx, Larynx, nasal cavity and ear.

8. Central nervous system: Spinal cord-Tracts, coverings and blood supply, Medulla oblongata, Pons, Cerebellum, Midbrain and its internal structure, functional significance and connections. Third, Fourth and lateral verticles. Forebrain-Internal structure functional significance and connections. Choroid plexus, Covering and blood supply of brain. Chief nerve tracts-Pyramidal and extra Pyramidal systems.

9. Autonomic nervous system: Parasympathetic and sympathetic system.

10. Ductless Glands: Gross anatomy of all the ductless glands.

11. Dissection: Dissection and study of the dissected parts to supplement the theoretical knowledge.

12. Histology: Study of the histological structure of the various tissues of the body.