

Faculty of Social Sciences
Aligarh Muslim University, Aligarh
Syllabus for Ph.D. Admission Test, 2022-23 onwards

Section-A

(Common to all Departments of the Faculty)

Research Aptitude/ Research Methodology

Objectives: The main objective is to assess the research aptitude and capabilities of the candidates. Candidates are expected to possess and exhibit cognitive abilities, which include comprehension, analysis, evaluation, understanding the structure of arguments, deductive and inductive reasoning. The candidates are also expected to have a general awareness about teaching and learning processes in higher education system. Further, they should be aware of interaction between people. Environment, natural resources, and their impact on the quality of life.

Research Aptitude

- Research: Meaning: Types and characteristics. Positivism and Post positivistic Approach to research.
- Methods of Research: Experimental. Descriptive. Historical. Qualitative and Quantitative methods.
- Steps of Research.
- Application of ICT in research.

- Research ethics.

Comprehension

- A passage of text be given. Questions be asked from the passage to be answered.

Communication

- Communication: Meaning, types and characteristics of communication.
- Effective communication : Verbal and Non-verbal. Inter-Cultural and group communication. Classroom communication.
- Barriers to effective communication.
- Mass-Media and Society.

Mathematical Reasoning and Aptitude

- Types of reasoning.
- Number series. Letter series. Codes and Relationships.
- Mathematical Aptitude (Fraction, Time & Distance. Ratio. Proportion and percentage. Profit and Loss. Interest and Discounting. Averages etc.

Logical Reasoning

- Understanding the structure of arguments: argument forms, structure of categorical proposition. Mood and Figure. Formal and Informal fallacies. Uses of language. Connotations and denotations of terms. Classical square of opposition.
- Evaluating and distinguishing deductive and inductive reasoning.
- Analogies
- Venn diagram: Simple and multiple use for establishing validity of arguments.
- Indian Logic: Means of knowledge.
- Pramanas: Pratyaksha (Perception), Anumana (Inference), Upamana (Comparison). Shabda (Verbal testimony) Arthapatti (Implication) and Anupalabdhi (Non-apprehension).
- Structure and kinds of Anumana (inference), Vyapti (Invariable relation). Hetvabhasas (fallacies of inference).

Data interpretation

- Sources, acquisition and classification of Data.
- Quantitative and Qualitative Data
- Graphical representation (Bar-chart. Histograms. Pie-Chart, Table-Chart and Line-chart) and mapping of Data)
- Data Interpretation,
- Data and Governance.

Information and Communication Technology (ICT)

- ICT: General abbreviations and terminology
- Basics of Internet. Intranet. E-mail. Audio and Video Conferencing.
- Digital initiatives in higher education
- ICT and Governance

People, Development and Environment.

- Development and environment: Millennium development and Sustainable development goals.
- Human and environment interaction: Anthropogenic activities and their impacts on environment
- Environmental issues: Local. Regional and Global: Air pollution. Water pollution. Soil pollution. Noise pollution. Waste (solid, liquid, biomedical, hazardous, electronic) climate change and its Socio-Economic and Political Dimensions.
- Impact of pollutants on human health,
- Natural and energy resources: Solar: Wind: Soil: Hydro: Geothermal: Biomass. Nuclear and Forests.
- Natural hazards and disasters: Mitigation strategies.
- Environmental Protection Act (1986). National Action Plan on Climate Changes International agreements/efforts- montreal Protocol. Rio Summit. Convention on Biodiversity: Kyoto, Protocol. Paris Agreement, international Solar Alliance.

Higher Education System

- Institutions of higher learning and education in ancient India
- Evolution of higher learning and research in Post Independence India.
- Oriental Conventional and Non-conventional learning programmes in India
- Professional: Technical and Skill Based education
- Policies. Governance and Administration.
- Value education and environmental education.