

Syllabus for Entrance Examination for Pre-Ph. D. for the Session 2024-25  
(Winter Term)

Sr. No.	Name of Topic	Question No. Range
1.	Technique of Printing Process	Question No. :-1 -50
2.	Technology of Typography and Typesetting	
3.	Printer's science	
4.	Pre-Press Technology	
5.	Graphic Design	
6.	Design and Planning for Printing Production	
7.	Technology of Flexography	
8.	Printing and Packaging Materials	
9.	Methodology of Computer in Printing	
10.	Reproduction Technology	
11.	Technology of Gravure	
12.	Sheet Fed Offset Technology	
13.	Printing Image Generation Technology	
14.	Print Media Ethics	
15.	Advertising and Multimedia	
16.	Printing Management	
17.	Print Finishing Techniques	
18.	Printing Substrates	
19.	Printing Ink Technology	
20.	Web offset Technology	
21.	Entrepreneurship Development	
22.	Quality control in Printing and Packaging	
23.	Colour Separation Techniques	
24.	Computer Graphics in Printing	
25.	Book Publishing Systems	
26.	Continuous Stationery and Security Printing	
27.	Packaging Technology	
28.	Printing Machinery Maintenance	
29.	Newspaper Technology	
30.	Printer's Costing and Estimating	
31.	Digital Printing Techniques	
32.	Printing Plant Layout	
33.	Computer Graphics in Printing and Packaging	
34.	Entrepreneurship Development	
35.	Creative Print Finishing and Converting	
36.	Advanced Printing Machines and Processes	
37.	Digital Imaging Techniques	
38.	Quality Control Systems	
39.	Technology Management for Printing	
40.	Advance Security Printing	
41.	Recent Development in Printing and Packaging	
42.	Research Methodology (Common Syllabus Available on University Website)	Question No. :- 51-100

*Pris* 18/02/25  
*AK* 18/02/2025  
*MP* 18/2/25  
*AB* 18/02/25  
*AS* 18/02/25  
*AT.3* 18/2/25

# Research Methodology Syllabus for Ph.D. Entrance Exam 2025

## Unit-I Research Aptitude

Research: Meaning, Types, and Characteristics, Positivism and Postpositivistic approach to research. Methods of Research: Experimental, Descriptive, Historical, Qualitative and Quantitative methods. Steps of Research. Thesis and Article writing: Format and styles of referencing. Research ethics.

## Unit-II 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.).

## Unit-III Logical Reasoning

Understanding the structure of arguments: argument forms, structure of categorical propositions, 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.

## Unit-IV 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.

## Unit-V Information and Communication Technology (ICT)

ICT: General abbreviations and terminology. Basics of Internet, Intranet, E-mail, Audio and Video-conferencing. Digital initiatives in research. ICT and Governance. Application of ICT in research.

## Unit-VI 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. Impacts of pollutants on human health. Natural and energy resources: Solar, Wind, Soil, Hydro, Geothermal, Biomass, Nuclear and Forests. Natural hazards and disasters: Mitigation strategies.

*Amshank*  
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Chairperson (FT)

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