



MAHARSHI DAYANAND UNIVERSITY ROHTAK

(A State University established under Haryana Act No.XXV of 1975)

'A' Grade University Accredited by NAAC

DEPARTMENT OF EDUCATION SCHEME OF EXAMINATIONS FOR Ph.D. COURSE WORK (EDUCATION) 2016-17

Programme Structure

The M. Phil. course shall comprise of two Semesters in which there shall be three compulsory theory papers in both the 1st and 2nd Semesters along with dissertation.

1st Semester

Sr. No.	Paper Code	Nomenclature of the Paper	Theory	Internal Assessment	Max Marks	Time	Credit
1	17EDPHDC1	Paper-1 Research Methodology	80	20	100	3 Hrs	4
2	17EDPHDC2	Paper-II Statistics in Education	80	20	100	3 Hrs	4
3	17EDPHDC3	Paper-III Computer Applications	80	20	100	3 Hrs	4

Grand Total= 300

INTERNAL ASSESSMENT

There shall be an internal assessment of 20 marks in each theory paper. Internal assessment in each paper will be based on two assignments and one seminar presented by each candidate and their participation. 65 percent attendance in compulsory.

Syllabus of Ph.D. Course Work (Education) 2016-17 Paper Code (17EDPHDC1)

PAPER-I: RESEARCH METHODOLOGY

Time: 3 Hours

Max. Marks: 100

Theory: 80

Internal Assessment: 20

Note: Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.

- Q. No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type notes of 4marks each to be selected from the entire syllabus.
- Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long answer questions will carry 16 marks each.

COURSE CONTENTS

Unit-1 Formulation of Research Problem

- Sources of identifying the problem
- Review of Related Literature : purpose and significance for a researcher
- Hypothesis – Importance, Characteristics and Formulation of Hypothesis, Forms of Hypotheses
- Hypotheses in various types of Research

Methods of Educational Research and where to use these

- Philosophical Research
- Historical Research
- Descriptive Research
- Experimental Research

Unit-2 Nature and Scope of Educational Research

- Sources of Knowledge and Research
- Scientific Inquiry and Theory Development
- Nature and types of Educational Research
- Scope of Educational Research

Sampling

- The concept of Population
- Characteristics of a good Sample
- Methods of Sampling
- Choice of Sampling Method

Unit-3 Data Collection

- Characteristics of a Good Research Tool – Validity, Reliability, Usability
- Types of Tools and Techniques and their Uses:-
 - i. Questionnaire
 - ii. Interview
 - iii. Rating Scale
 - iv. Attitude Scale
 - v. Tests- Intelligence, Aptitude, Creativity, Achievement
 - vi. Projective Techniques
 - vii. Observation
 - viii. Socio-metric Techniques
 - ix. Non-Projective Techniques

Unit-4

Qualitative Research

- Meaning, Characteristics and Themes of Qualitative Research
- Qualitative Research Strategies: Document or Content Analysis, Case Study, Ethnographic Studies
- Data Collection Techniques
- Data Analysis in Qualitative Research

Developing a research proposal

Reporting Research

- The Beginning
- The Main Body
- The End
- How to Evaluate a Research Report?

Selected Readings

- Ary. D., Lucy C. Jacobs and A. Razavich (1972) Introduction to Research in Education, New York: Holt, Rinehart and Winston Inc
- Best, John W and Kahn, James V (2001), Research in Education, New Delhi: Prentice Hall of India.
- Buch, M.B (1991) Surveys Research in Education, New Delhi, NCERT
- Coffey, A and At Kinson, P (1996), Making Sense of Qualitative Research: Complementary Research Strategies, Thousand Oaks, CA: Sage
- Desai H.G. (1979) Style manual for dissertation thesis, Rajkot Saurashtar University.
- Denzin, N.K. and Lincoln, Y.S. (1994) Introduction: Entering the Field of Qualitative Research in N.K. Denzin and Y.S. Lincoln (Eds), Handbook of Qualitative Research Thousand Oaks, CA: Sage, 1-17
- Edward, A.L (1957) Techniques of Attitude Scale Construction, New York: Appleton Century Crofts Inc
- Festinger, U & Katz, Research Method in Behavioural Science, New York Bold Dryen
- Finchjanel (1986) Research and Policy the use of qualitative methods in Social Education Research Falmer Press
- Fox, David J (1969) The Research Process in Education, New York: Holt, Rinchart and Winston Inc
- Good, Center V (1966) Essentials of Educational Research: Methodology and Design, New York: Applenton Century Crafts Inc
- Kerlinger, Fred N (1978) Foundation of Behavioural Research, New Delhi: Surneet Publication
- Koul, Lokesh (2007) Methodology of Educational Research, Vikas Publishing House Pvt Ltd., Third Revised Edition
- Turabian, K. L (1973), A Manual for Writers of Term Papers, Theses and Dissertation, Chicago, University of Chicago Press.

Syllabus of Ph.D. Course Work (Education) 2016-17
Paper Code (17EDPHDC2)

PAPER-II: STATISTICS IN EDUCATION

Time: 3 hours

Max. Marks: 100

Theory: 80

Internal Assessment: 20

Note: Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.

- Q. No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type notes of 4 marks each to be selected from the entire syllabus.
- Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long answer questions will carry 16 marks each.

COURSE CONTENTS

Unit-I: Analysis of Data

- Types of Data
- Quantitative Data
 - i) Tabulation of Quantitative Data
 - ii) Analysis of Quantitative Data
 - Graphical Representation
 - Measures of Central Tendency
 - Measures of Variability
 - Measures of Relationship
 - iii) Qualitative Data
 - Analysis of Qualitative Data
 - Criticism of Historical Data
 - Content Analysis
 - Inductive Analysis

Unit-2: Statistical Testing of Hypothesis-I

- Classification of Statistical Test: Parametric and Non-Parametric Tests
 - i) Parametric Test
 - Sampling Distribution of Means
 - a) Large Samples
 - b) Confidence Interval
 - c) Levels of Significance
 - d) Small Samples
 - e) Degree of Freedom

ii) Application of Parametric Test

a) Application of Z-Test

b) Application of T-Test

Unit-3: Statistical Testing of Hypothesis-II

- Application of F-test (One Way and Two Way ANOVA)
- Non-Parametric Tests and Application of Chi-Square Test
- Non-Parametric Tests
 - a) When to use Parametric and Non-Parametric Tests
 - b) Chi-square
 - Use of Chi-square as a Test of 'Goodness of Fit'
 - Use of Chi-square
 - c) Contingency Coefficient
 - d) Sign Test
 - e) Median Test

Unit-4:

- The Normal Curve and its Application
- Analysis of Covariance (One Way ANCOVA) Concept, Assumption and Uses
- Factor Analysis: Extraction of Centroid Factors and Orthogonal Rotation

Selected Readings

Edwards, A.L.(1967) Statistical Methods for the Behavioural Sciences, New York: Holt, Rinehart and Winston

Garrett, H.E (1979): Statistics in Psychology and Education, 9th Indian Reprint Bond bay, Vakils, Feffer and Simon.

Guilford, J.P (1973) Fundamental Statistics in Psychology and Education, New York, McGraw Hill Book Company.

Lindquist, E.F (1970) Statistical Analysis in Educational Research, New Delhi, Oxford and IBH

Siegel, Sidney (1956), Non-Parametric Statistics for the Behavioural Sciences, International Student Edition, New York, McGraw Hill.

Walker, H.M and J. Lev (1965) Statistical Inference, Calcutta, Oxford and IBH Publishing House.

Syllabus of Ph.D. Course Work (Education) 2016-17
Paper Code (17EDPHDC3)

PAPER-III: COMPUTER APPLICATIONS

Time: 3 hours

Max. Marks: 100

Theory: 80

Internal Assessment: 20

Note: Paper setters will set 9 questions in all, out of which students will be required to attempt 5 questions.

- Q. No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type notes of 4 marks each to be selected from the entire syllabus.
- Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long answer questions will carry 16 marks each.

COURSE CONTENTS

Unit-I: Computer Basics

- History of Computers: Types of Computer, Flow Diagram of Computer and its components
- Operating system: Meaning, Need Types and Functions
- Artificial Intelligence and Education.

Unit-II: Net working and Internet

- Computer Networking and Education, Internet, Internet tools, E-mail, Evaluating Internet Resources
- Browser (Basics)
- Visiting Web sites

Unit-III: Application Oriented Information

- MS- Word-Introduction of word processor, creating & saving documents.
- MS-Excel-Introduction to excel, need of spreadsheet, creating, opening & saving workbook, editing worksheet, using links, applying different views, Types of functions.
- MS-Power Point – Introduction of slides, speaker notes, media clips, graphs, Picture, web pages, adding different kind of slides, working with Power Point, inserting text objects, formatting Text.

Unit-IV: Educational Multimedia

- Multimedia-Meaning, Scope, Tools and Use of Multimedia in Education
- E-books and virtual library
- What is Plagiarism and how to avoid it?

Selected Readings

Cox, J. And Urban, P. "Quick Course in Microsoft Office. Galgotia Publications, New Delhi, 1990.

Jain, Satish: "Introduction to Computer Science and basic Programming." BPB Publications, New Delhi, 1990.

Rajaraman, V., "Fundamental of Computers", Prentice Hall of India, New Delhi, 1996.

Saxena, S., "A First Course in Computers", Vikas Publishing House Pvt. Ltd., New Delhi, 1998.

Sinha, P.K. "Computer Fundamentals: BPB Publications, New Delhi, 1990.

Taneenbaum, A.S. "Computer Networks", Prentice Hall of India, New Delhi, 1998.