

PANJAB UNIVERSITY, CHANDIGARH-160014 (INDIA)

(Estd. under the Panjab University Act VII of 1947—enacted by the Govt. of India)

FACULTY OF EDUCATION

SYLLABI

FOR

M.ED. EDUCATIONAL TECHNOLOGY (E.T.) (SEMESTER SYSTEM) EXAMINATION, 2011-2012

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APPLICABILITY OF REGULATIONS FOR

THE TIME BEING IN FORCE

Notwithstanding the integrated nature of course spread over more than one academic year, the regulations in force at the time a student joins a course shall hold good only for the examinations held during or at the end of the academic year. Nothing in these regulations shall be deemed to debar the University from amending the regulations subsequently and the amended regulations, if any, shall apply to all students whether old or new.

OUTLINES OF TEST, SYLLABI AND COURSES OF READING FOR THE DEGREE OF M.Ed EDUCATIONAL TECHNOLOGY SEMESTER SYSTEM FOR THE EXAMINATION OF 2011-12

M.ED (EDUCATIONAL TECHNOLOGY)

ONE YEAR REGULAR COURSE CREDIT BASED SEMESTER SYSTEM

Objectives for the Course:

The M.Ed. (Educational Technology) has been designed to realize the following objectives. After completing the course, going through the relevant references and completing the course assignments and the prescribed practicals, the students are supposed to:

- Identify points of consonance and dissonance in today's educational practices and educational expectations.
- Develop ability to design courses for specified purposes and specified levels along with the capability to monitor their institutionalization.
- Develop capability to design instructions applying scientific principles of instructional designs.
- Develop insight into the vast array of teaching and learning processes for individual classroom and non formal settings.
- Develop working competence with popularly used instruments in classrooms.
- Develop Capability of conducting and reporting classroom research.

RULES AND REGULATIONS FOR ADMISSION:

Eligibility

A candidate who has passed B.Ed./B.Ed. (Yoga)/B.Ed.(Special Education) Exam of this University or any other university recognized as equivalent shall be eligible to apply for the course, provided he/she has secured at least 55% of the marks in aggregate. In the case of SC/ST students, this percentage of marks shall be at least 50%, subject to revision by the university from time to time. Admission should be based on Entrance Test or any other criteria determined by admission committee of university from time to time. Intake of the courses shall be guided by NCTE norms and PU rules from time to time.

NOTE FOR ADMITTED CANDIDATES:

Admitted candidates are required to complete successfully study of 6 papers including one dissertation which is also compulsory course to satisfy the criteria of NCTE for award of degree of M.ED (E.T). The student has to obtain 60 credits towards fulfilment of course completion criteria. The University allows for CBCS and the student is free to explore feasibility for study of courses of his/her choice without compromising on attendance and course requirements. Further:

- 1. A student is required to have a minimum of 75% attendance in each paper in each semester to be eligible to appear in end semester exams.
- 2. A student earns credits in each paper if he / she obtains the minimum 40% pass marks in each course.
- 3. Each course of 5 credits will have teaching sessions of five hours (including Lectures, Tutorials, Practicals, Sessional work) per week.
- 4. There would be three compulsory papers, two optional papers, one compulsory Dissertation and compulsory Field based experiences. Dissertation and Field based experiences will be evaluated at the end of Semester II.

- 5. There will be provision of reappear maximum in two papers. Reappear candidates will be allowed to appear as per Panjab University Norms/ Calendar.
- Date of submission for Synopsis will be 30th November and for Dissertation, it will be 31st May of the respective session.

Fee Structure

The fee structure for this course is as prescribed by university from time to time.

M.ED. EDUCATIONAL TECHNOLOGY (SEMESTER-I)

PROG. CODE: MEDET-I

PROGRAMME OUTLINE, LIST OF COURSES AND EVALUATION

S. No.	Course Code	Course Title	Credits	Evaluation				
				External	Internal	Sessional Work	Practical	Total
1.	C01-PSF-I	THEORETICAL BASES OF EDUCATIONAL PROCESS-I (Philosophical and Sociological Foundations)-I	5	60	20	20	-	100
2.	C02-PLI-I	PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-I	5	60	20	20	-	100
3.	C03-RSA-I	RESEARCH IN EDUCATION AND STATISTICAL ANALYSIS-I	5	80	20	-	-	100
4.	C04-CID-I	PROCESS OF COURSE DESIGNING – I	5	60	20	20	-	100
5.	C05-DII-I	DESIGNING INDIVIDUALIZED INSTRUCTIONS-I	5	60	20	20	-	100
6.	C06-ICU-I	INSTRUMENTS FOR CLASSROOM USE AUDIO VISUAL AND COMPUTERS-I	-	-	-	-	-	-
7.	C07-DIS-I	DISSERTATION/ RESEARCH PROPOSAL	-	-	-	-	-	-

Note*: Assessment of Dissertation /Research Project would be done at the end of Semester-

Aggregate of Semester-I: Total Marks = 500

Credits = 25

M.ED. EDUCATIONAL TECHNOLOGY (SEMESTER-II)

PROG. CODE: MEDET-II

PROGRAMME OUTLINE, LIST OF COURSES AND EVALUATION

S. No.	Course Code	Code Course Title Credits Evaluation			n			
				External	Internal	Sessional Work	Practical	Total
1.	C01-PSF-II	THEORETICAL BASES OF EDUCATIONAL PROCESS-II (Philosophical and Sociological Foundations)-I	5	60	20	20	-	100
2.	C02-PLI-II	PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-II	5	60	20	20	-	100
3.	C03-RSA-II	RESEARCH IN EDUCATION AND STATISTICAL ANALYSIS-II	5	80	20	-	-	100
4.	C04-CID-II	PROCESS OF COURSE DESIGNING AND INSTRUCTIONAL DESIGNING- II	5	60	20	20	-	100
5.	C05-DII-II	DESIGNING INDIVIDUALIZED INSTRUCTIONS-II	5	60	20	20	-	100
6.	C06-ICU-II	INSTRUMENTS FOR CLASSROOM USE AUDIO VISUAL AND COMPUTERS-II	5	50	50	-	-	100
7.	C07-DIS	DISSERTATION/ RESEARCH REPORT	5	75	25	-	-	100

Aggregate of Semester-II: Total Marks= 600

Dissertation = 100

Total = 700

Credits = 35

Grand Total = Semester-I + Semeter-II (500 + 700) = 1200

Credits = (25 + 35) = 60

EVALUATION

- The following are the guidelines, mode of testing and evaluation for Continuous Internal Assessment of students. It may include written assignment, snap tests, participation in discussion in the class, term papers, attendance etc.
- In order to incorporate an element of Continuous Internal Assessment of students, the Colleges/Departments will conduct one written test and one snap test as quantified below:

1.	Written Test	:	50 marks
2.	Snap Test	:	15 marks
3.	Participation in Class discussion	:	10 marks
4.	Term Paper/ Assignment/		
	Presentation	:	15 marks
5.	Attendance	:	10 marks

Total : 100 (reduced to 20)

• Weightage of 2 marks for attendance component out of 20 marks for Continuous Assessment shall be available only to those students who attend 75% and more of classroom lectures. The break-up of marks for **attendance component** for theory papers shall be as under:

Attendance Component	Marks for Theory Paper		
a) 75% and above up to 85%	1		
b) Above 85%	2		

PRACTICALS

All practicals will be jointly evaluated by external and internal examiners.

Duration of each paper in the semester end examinations will be of three hours.

OUTLINES OF TESTS, SYLLABI AND COURSES OF READING FOR M.ED

EDUCATIONAL TECHNOLOGY (SEMESTER SYSTEM)

FOR THE EXAMINATION OF 2011-2012

SEMESTER-I

Prog. Code. M.Ed. (ET-I)

PAPER-I COURSE CODE: C01-PSF-I COURSE TITLE: THEORETICAL BASES OF EDUCATIONAL PROCESS-I (Philosophical and Sociological Foundations)-I

> Credits= 5 Total Marks= 100 External= 60 Internal Assessment= 20 Sessional Work=20

COURSE OBJECTIVES

On the completion of the course, after studying the relevant references and finishing course assignments, the students shall be able to:

- Identify the aims as suggested by the Western Schools of Philosophy.
- Identify the aims as suggested by the Indian Schools of Philosophy.
- Derive goals and instructional objectives from the list of specified aims.
- Explain the Bloom's taxonomy of educational objectives (Three Domains)
- Write instructional objectives based on various models of writing instructional objectives.
- Derive the course content for its contribution in the realization of objectives.
- Derive the methods of education from different Western and Indian philosophical schools and national documents.

COURSE CONTENT

Unit-I

- a) Western schools of philosophy: Idealism, naturalism, pragmatism, existentialism and logical empiricism with reference to their metaphysics, epistemology and axiology.
- b) Educational implications for aims, content and methods according to these philosophies.

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Unit-II

- a) Indian schools of philosophy: Sankhya, Vendanta and Buddhism traditions with reference to nature of knowledge, values.
- b) Educational implications for aims, content and methods according to these philosophies.

Unit-III

- a) Derivation of objectives from aims and goals: Their forms, types and taxonomy of educational objectives.
- b) Models of formulating instructional objectives, Miller, Mager and Gagne.

Unit-IV

- a) Derivation of courses of study and curriculum transactional approaches from different (i) Western and (ii) Indian schools of philosophy
- b) National documents in present day Indian social context.

Sessional Work:

• Text Book Evaluation

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc. 20 marks for Sessional work will include evaluation of a text book of class X.

- 1. Bhushan, A. and Ahuja, M. (2003): Educational Technology: Theory and Practice, Bawa Publishers, Patiala, (2nd edition)
- 2. Bloom, B.S. and Others (1971): Handbook of Summative and Formative Evaluation Student Learning, New York, McGraw Hill.
- 3. Bouanchand, B. (1997): The Essence of Yoga, Delhi: Satguru Publications.
- 4. Broudy, H.S. (1965): Building a Philosophy of Education, 2nd ed., Prentice Hall, Inc. 1962, Economy Ed., New Delhi.
- 5. Eraut, M. (1996): The International Encyclopedia of Educational Technology, Great Britain: Pergamon Press.
- 6. Jukes, I., Dasaj, A. and Macdonald, B. (2000): Net Savvy: Building Information Literacy in the Classroom, California: Corwin Press, Inc.
- 7. Mehra, V. (2010): A Text Book of Educational Technology, New Delhi, Sanjay Prakashan.

- 8. Naseema, C. and Alam, M.A. (2004): From Blackboard to the Web. Integrating Technology and Education, New Delhi: Kanishka Publishers, Distributors.
- 9. National Educational Commission, 1964-66.
- 10. National Policy of Education (1986): Ministry of Human Resource and Development, Department of Education, New Delhi.
- 11. Pophams, W.J. (1973): Evaluating Instruction, New York, Prentice Hall.
- 12. Sharma, Y.K. (2002): Fundamental Aspects of Educational Technology, New Delhi: Kanishka Publishers, Distributors.
- 13. Taneja, V.R. (2002): Foundation of Education (Philosophical and Sociological), Chandigarh: Abhishek Publications.
- 14. Unwin, D. (Ed.) (1969): Media and Methods: Instructional Technology in Higher Education, McGraw Hill, London.
- 15. Weerasinghe, S.G.M. (1993): The Sankhya Philosophy, A Critical Evaluation of its Origin and Development, Delhi: Satguru Publications.
- 16. Brubacher, J.S.(1962) Modern Philosophy of Education, Prentice Hall Inc. Englewood Cliffs, N.J.
- 17. Aggarwal, J.C. (2005) Theory & Principles of Education, New Delhi, Vikas Publication House Pvt. Ltd.
- 18. Banerjee, A.C. & Sharma S.R. (1999): Sociological & Philosophical Issues in Education, Book Enclave, Jaipur.
- 19. Dewey, J. (1963): Democracy & Education, New York, The Macmillan Company.

PAPER-II

COURSE CODE: C02-PLI-I

COURSE TITLE : PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-I

Credits= 5 Total Marks= 100 External= 60 Internal Assessment= 20 Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course work, practical teaching and observation of lessons, the students shall be able to:

- Describe the meaning of learning with emphasis on S-R learning theories and cognitive field theories.
- Explain the type and conditions of learning.
- Describe process of teaching of concepts, rules and problem solving.
- Describe the meaning, historical development and types of Educational Technology.
- Explain the concept, phases and operations of teaching
- Explain the meaning, elements and families of models of teaching.

COURSE CONTENT

Unit-I

- a) Concept of Learning: Different points of view about learning (Theoretical positions) with emphasis on S-R theories (Pavlov, Thorndike, Skinner & Hull)
- b) Cognitive field theories (Kohler and Tolman).

Unit-II

- a) Types of learning (Gagne's hierarchy of learning). Conditions of learning.
- b) Teaching and learning for different types of learning: concepts, principles and problem solving.

Unit-III

- a) Concept and historical development of Educational Technology.
- b) Types of Educational Technology
- c) Concept of teaching, phases and operations in each phase of teaching
- d) Relationship of Teaching and learning.

Unit-IV

- a) Models of Teaching, elements and families of models of teaching.
- b) Basic Teaching Model, Bruner's, Ausubel's and Suchman's Models of Teaching.

Sessional Work:

Designing teaching learning process for concepts, rules and problem solving

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION:

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc. 20 marks for Sessional work will include designing instructions for concept learning, rule learning and problem solving.

- 1. Bhushan, A., Ahuja, M. (2003): Educational Technology, Theory & Practice, Bawa Publishers, (2nd edition)
- 2. Briggs, A.R. J. and Sommefeldt, D. (2002): Managing Effective Teaching and Learning. London: Paul Chapman Publishing.
- 3. Dandekar, W.N. and Makhija, S.M. (2002): Psychological Foundations of Education, New Delhi: Macmillan India Ltd.
- 4. Decceco, John P. (1968): The Psychology of Learning and Instruction, Prentice Hall of Indian Pvt. Ltd., New Delhi.
- 5. Eggen, Paul, D. (1988): Strategies for Teachers Teaching Contact and Thinking Skills, New Jersey: Prentice Hall, Englewood Cliffs,.
- 6. Hill, Winfred, F. (1968): Learning: A Survey of Psychological Interpretations, London, Methuen.
- 7. Joyce, B. Calhoun, E. and Hopkins, D. (2002): Models of Learning Tools for Teaching. Philadelphia: Open University Press.
- 8. Joyce, B., Weil, M. and Calhoun E. (2009): Models of Teaching, New Delhi, Prentice Hall of India Private Ltd.
- 9. Mehra, V. (2004): Educational Technology, New Delhi, S.S. Publishers.
- 10. Michel, J. Dunken (1987): The International Encyclopedia of Teaching and Teacher Education, Oxford.: Pergamon Press.
- 11. Ober, Richard L. (1971): Systematic Observation of Teaching, An Interaction Analysis Instructional Strategy Approach, Englewood Cliffs, Prentice Hall.
- 12. Skinner, B.F. (1968): Technology of Teaching, New York, McGraw Hill.
- 13. Tickton, S. (Ed.) (1970): To Improve Learning I II, New York, Baw Kev.
- 14. Vishnoi, U. (2007): Psychological Foundations of Education, New Delhi: KSK Publishers and Distributors
- 15. Anastasi, A. and Urbia, S. (1997): Psychological Testing. Delhi: Pearson Education Inc.
- 16. Dandekar, W.N. and Makhija, S.M. (2002) :Psychological Foundations of Education (3rd ed.), New Delhi: Macmillan.
- 17. Woolfolk, A. (2004) Educational Psychology, New Delhi: Pearson Education.
- 18. Rao, U. (2008); Advanced Educational Psychology. Mumbai: Himalaya Publishing House.

PAPER-III

COURSE CODE: C03-RSA-I

COURSE TITLE: RESEARCH IN EDUCATION AND STATISTICAL ANALYSIS-I

Credits= 5 Total Marks= 100 External= 80 Internal= 20

COURSE OBJECTIVES:

After completing the course, going through the relevant references and doing the necessary practice for numerical skills, the students are supposed to:

- Define educational research.
- Explain need and importance of educational research and types of research.
- Describe different areas of research in Education
- Explain steps of educational research with special emphasis on defining, identifying research problem and variables of research.
- Explain the concept, types, significance and formulation of research hypotheses.
- Represent research data.
- Describe the concept and application of Normal Distribution curve.
- Elaborate the concept of significance of difference and analyse given data for differences in means.
- Describe the concept and calculation of Correlation (Product moment, partial and multiple)

COURSE CONTENT:

Unit-I

a) Educational Research: Concept, Need, types and Importance

Unit-II

- a) Areas of research and defining research problem, identifying and specifying the variables of research.
- b) Concept, types, significance and formulation of research hypotheses.

Unit-III

- a) Normal distribution and its application
- b) Product Moment Method of correlation

Unit-IV

- a) Significance of Mean
- b) Significance of Difference between Means.

Evaluation

The students will be evaluated through external exam in theory of 3 hours duration part I and II on the portion of:

- (a) Research methods (Weightage 40 marks)
- (b) Statistical Analysis (Weightage 40 marks)

Eight questions will be set by the external examiner, 4 from part I and 4 from part II. The students will be required to attempt 4 questions in all, selecting at least two from each of the parts I and II. All questions will carry equal marks, 20 marks are for internal assessment which is based on performance of house test, attendance, seminar snap test etc.

BOOKS RECOMMENDED

- 1. Begdan, R. Taylor, J. (1978): Introduction to Qualitative Research Methods, New York, John Wiley and Sons.
- 2. Blaxter, L., Huges, C. and Tight, M. (2002): How to Research, UK: Open University Press.
- 3. Creswell, J.W. (2002): Educational Research Planning, Conducting and Evaluating Quantitative and Qualitative Research, New Jersey: Pearson Education.
- 4. Gakhar, S.C. (2010): Statistics in Education and Psychology Panipat, NM Publications.
- 5. Garrett, H.E. (1966): Statistics in Psychology and Education, Vakils, Feffer and Simons Pvt. Ltd., Mumbai.
- 6. Kaul, L. (2000): Methodology of Educational Research, New Delhi , Vikas Publishing House.
- 7. National Seminar on Emerging Issues in Methodology of Educational Research CASE, M.S. University of Baroda, 1982.
- 8. Report of Seminar on Quantitative and Qualitative Approaches in Educational Research Center of Advanced Studies in Education, M.S. University of Baroda, 1983.
- 9. Myers, J.L. and Well, A.D. (2003). Research Design and Statistical Analysis, New Jersey : Lawrence Erlbam Associates Publishers.
- 10. Ferguson, G.A. and Takane, Y. (1989). Statistical Analysis in Psychology and Education, NY: Mc Graw Hill Book Company.

PAPER-IV

COURSE CODE: C04-CID-I

COURSE TITLE: PROCESS OF COURSE DESIGNING – I

Credits= 5 Total Marks= 100 External= 60 Internal Assessment= 20 Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course work and Sessional work, the students shall be able to:

- Define curriculum and explain its foundations.
- Explain the principles of curriculum construction.

- Explain need of theory of curriculum design.
- Explain the eclectic model of course design.
- Explain Taba's Model of curriculum design.

COURSE CONTENT:

Unit-I

- a) Curriculum: Concept and approaches.
- b) Foundations of Curriculum: Epistemological, Social and Psychological. Learner and learning theories.

Unit-II

a) Principles of Curriculum construction: Principles of formulating aims, specifying content, defining teaching learning experiences and evaluation procedures.

Unit-III

- a) Need of theory of curriculum design and development.
- b) Eclectic model of course design.

Unit-IV

- a) Taba's model of curriculum development
- Diagnosis of needs.
- Formulating course objectives.
- Selecting content
- Organizing content
- Selecting learning experiences
- Organizing learning experiences
- Evaluation
- Checking for balance and sequence

Sessional Work:

Taba's course design = 20 marks

OUTLINE FOR INSTRUCTION:

Instruction for the course will be conducted through lectures, seminars and group discussion.

EVALUATION:

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc; 20 marks will be based on a course design of Taba.

- 1. Bloom, B.S., Hastings, J.T. and Madaus, G.F. (1971): Handbook of Formative and Summative Evaluation Student Learning, New York, McGraw Hill.
- 2. Bruner, J.S. (1966): Towards a Theory of Instruction, Cambridge, Mass, Harvard University Press.
- 3. Cropper, G.L. (1974): Instructional Strategies, Englewood Cliff, N.J. Educational Technology Publications.
- 4. Davis, I.K. (1971): The Management of Learning, London, McGraw Hill.
- 5. Forsyth, I., Jolliffe, A. and Stevens, D. (1999): Evaluating a Course, Practical Strategies for Teachers, Lectures and Trainers, London: Kogan Page.
- 6. Forsyth, I., Jolliffee, A. and Stevens, D. (1999): Planning a Course. Practical Strategies for Teachers, Lectures and Trainers, London: Kogan Page.
- 7. Gagne, R.M. (1965): The Conditions of Learning, New York, Holt Rinehart and Winston, N.
- 8. Gagne, R.M. and Briggs, L.J. (1979): Principles of Instructional Design, New York: Holt, Rinehart and Winston.
- 9. Mehra, V. (1992): Instructional System Design: An Innovation in Educational Technology, New Delhi, S.S. Publishers.
- 10. Mehra, V. (2010): A Text Book of Educational Technology, New Delhi, Sanjay Prakashan.
- 11. Murrit, M.D. (Ed.) (1971): Instructional Design, Englewood Cliffs, N.J., Prentice Hall.
- 12. National Curriculum Framework (2005): New Delhi: NCERT.
- 13. Ornstein, A.C. and Hunkins, F.P. (1988): Curriculum: Foundations, Principles and Issues, Prentice Hall International Ltd., London.
- 14. Popham, J.M. and Baker, E.L. (1970): Systematic Instruction, Prentice Hall, Inc. Englewood Cliffs, New Jersey.
- 15. Pratt, David (1980): Curriculum Design and Development, N.Y., Harcourt,.
- 16. Romiszowski, A.J. (1986): Designing Instructional Systems, London: Kogan Page.
- 17. Taba, H. (1962): Curriculum Development: Theory and Practice, Harcourt Brace and World Inc., N.Y.
- 18. Taylor, P. (2003): How to Design a Training Course, A Guide to Participatory Curriculum Development, London: Continuum.
- 19. Zais, R.S. (1977): Curriculum: Principles and Foundations, London, Harper and Row Publishers.

PAPER- V

COURSE CODE: C05-DII-I

COURSE TITLE: DESIGNING INDIVIDUALIZED INSTRUCTIONS-I

Credits= 5 Total Marks= 100 External= 60 Internal Assessment= 20 Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course, after going through the relevant references and completing the assignments, the students are supposed to:

- Describe the surviving principles of programmed instruction.
- Identify the characteristic features of different programming styles.
- Select the styles for the given content and specified level of learners according to the characteristic features of programming with some frames of linear, branching and mathetic styles.
- Differentiate between Linear and Branching Programme with respect to various characteristics.
- Develop and Validate linear style of programmes.

COURSE CONTENT

Unit-I

- a) Psychological Basis of Programmed Instruction: Skinner's Theory of operant conditioning, schedules of reinforcement, shaping of behaviour through successive approximation and gradual Progression.
- b) Concept and principles of programmed instruction.

Unit-II

- a) Different Styles of Programming: Their characteristic features, advantages, applicability and limitations.
 - Linear,
 - Branching and
 - Mathetics
 - Differences between linear and branching programmes.

Unit-III

- a) Developing of a programme (Preparation stage): Concept and specification of terminal behaviour, classification of objective (Bloom's taxonomy). Mager's approach to operational target behaviour and pre-requisite skills and developing tests for external behaviour and terminal behaviour.
- b) Writing Stage: Components and types of frames, primes and prompts, designing and sequencing of frames, editing programmes

Unit-IV

a) Try out and Validation of Programme: Internal and external criteria of testing, viz., error rate, programming density, sequence progression, 90/90 standard, attitude coefficient etc.

Sessional Work

The students will prepare a linear programme of approximately 150 frames on a topic of their choice.

20 marks

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc. Students will be assessed on their Sessional work by producing a linear programme of approximately 150 frames on a topic of their choice (20 marks).

BOOKS RECOMMENDED

- 1. Ahuja, M. (2007): Mastery Learning a Practical Approach, Vivek Publishers, Meerut.
- Bhushan, A. and Ahuja, M. (2003): Educational Technology: Theory and Practice, Bawa Publishers, Patiala, (2nd edition)
- 3. Block, J.H. and Anderson, L.W. (1974): Mastery Learning in Classroom Instruction: New York. Macmillan.
- 4. Deva, V. (2003): E-knowledge. New Delhi: Commonwealth Publishers.
- 5. Espich, I.E. and Williams (1967): Developing Programme Instructional Materials, Pitman, London.
- 6. Mager, R.T. (1961): Preparing Objectives for Programmed Instruction, San Francisco, Fearson.
- 7. Maier, P. and Warren. A. (2000): Integrating Technology in Learning and Teaching. London: Kogan Page.
- 8. Markle, S.M. (1969): Good Frames and Bad, New York, Wiley.
- 9. Mayer, R.E. (2001): Multimedia Learning. USA: Cambridge University Press.

PAPER-VI

COURSE CODE: C06-ICU-I

COURSE TITLE: INSTRUMENTS FOR CLASSROOM USE AUDIO VISUAL AND COMPUTERS-I

Credits= 2.5 Total Marks= 50 Practical External= 25 Practical Internal=25

COURSE OBJECTIVES

After completing the course work and the practicals in the application and use of instruments to aid teaching and learning in classroom, the students are supposed to:

- Describe theory behind working of each Instrument
- Identify different components of each instrument.
- Draw the activity sequence diagrams for each instrument.
- Operate upon each instrument and practice it at the autonomous level.
- Diagnose minor failure of each instrument.
- Prepare manual for at least one instrument.

COURSE CONTENT:

The students will be introduced to components, activity sequences, diagrams, operation and diagnosing minor failures of the following instruments.

- Audio-cassette recorder
- Overhead projector
- Voice Recorder
- CD Player
- LCD Projector
- Video Cassette recorder
- Practice in handling and working with computers.

OUTLINE FOR INSTRUCTION:

It is a practical course where the students will learn to operate upon above mentioned instruments and develop mastery in their use for a variety of purposes. Each instrument will be introduced verbally followed by practical demonstration of its application by the Incharge teacher of the practicals. All the students will operate repeatedly for the variety of modes of their application until they develop mastery on the practical use of these instruments. For recording practical work, they will

- Prepare a practical file to report and record operations.
- Prepare at least ten different types of transparencies.
- Prepare at least two different video recordings.

EVALUATION:

Students will be evaluated practically by the External examiner in a lab situation for the operation of instruments. The practical will be followed by a comprehensive viva-voce test. The competence in use of the appliances will carry 50 marks and the comprehensive viva will carry 50 marks.

BOOKS RECOMMENDED

- 1. Anderson, R.H. (1976): Selection and Developing Media Instruction, New York ,Van Nostrand Reinhold Company.
- 2. Brown, J.W., Lewis, R.B. and Harcle Road, F.F. (1985): AV Instruction Technology, Media and Methods, USA: Mc-Graw Hill, Book Company.
- 3. Dean, C. and Quentin, W. (1984): A Handbook of Computer Based Training, London, Logon Page.
- 4. Heibert Pay Eldon and Others (ed.) (1982): Mass Media III: An Introduction to Modern Communication, N.Y., Longman.
- 5. Heinich, R. M., Micheal Russeil J. (1993): Instructional Media and New Technologies of Instruction, N.Y., Macmillan Publishing, Co.
- 6. Kemp, J. E. (1975): Planning and Producing Audio-Visual Materials, 3rd Ed. Thomas Y. Crowell, Inc. N.Y.
- 7. Schramm, W., (1985): Big Media, Little Media, Tools and Technologies for Instruction, Sage California.
- 8. Sleeman, P., J. and D.M. Rockwell (Ed.) (1976): Instructional Media and Technology: A Professional's Resource, Pennsylvania., Denden Hutching on and Ross, Inc..
- 9. Taxali, R.K. (2002): PC Software for Windows 98 Made Simple, New Delhi., Tata McGraw Hill Publishing Ltd.

PAPER-VII:

COURSE CODE : C07-DIS-I

COURSE TITLE : DISSERTATION/RESEARCH PROPOSAL PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-I

COURSE OBJECTIVES:

Through this paper, the students are supposed to:

- Orient themselves into the process of research.
- Identify a problem for undertaking the research project
- Prepare a synopsis on which they will conduct research in II Semester.

COURSE REQUIREMENT:

A research project will be taken up by each candidate under the supervision of a guide allotted to them by the Department's Academic Committee. They will follow steps of preparing a synopsis and report to their guides for its finalization. The students will submit synopsis on specified date.

Evaluation

It will be internal evaluation by the guide. No marks will be given in Semester I.

SEMESTER-II

PAPER I:

COURSE CODE: C01-PSF-II

COURSE TITLE: THEORETICAL BASES OF EDUCATIONAL PROCESS (PHILOSOPHICAL AND SOCIOLOGICAL FOUNDATIONS)-II

Credits= 5 Total Marks= 100 External= 60 Internal Assessment= 20 Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course, the students shall be able to:

- Relate education with society, community and family.
- Explain social stratification, social mobility and social change in Indian context.
- Relate education with politics, religion and culture with reference to democracy and secularism.
- Explain the educational implications of major commissions, committees and national documents.
- Systematically analyse the teaching learning process.
- Discriminate between formative and summative evaluation for accountability of educational programmes.

COURSE CONTENT:

Unit I

- a) Relationship of education with society, community and family influence of education on social stratification, social mobility and social change in the Indian context.
- b) Relationship of education with politics, religion and culture. Education and democracy.

Unit II

 a) National documents such as Indian constitution, its educational implications and reports of the major commissions, University Education Commission(1948-49), Secondary Education Commission(1952-53), Indian Education Commission(1964-66), National Policy of Education (1980) and CABE (1992) committees on Indian education with special emphasis on aims of education.

Unit III

a) Systems analysis of teaching learning process. Effect of change in socio-environmental climate on all the decision fields-problems of maintaining and establishing consonance across the system

Unit IV

a) Introduction of formative and summative evaluation processes for accountability of educational programmes and their impact on learners.

Sessional Work:

• Group Presentation

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc. 20 marks for Sessional work will include group presentations.

- Bhushan, A. and Ahuja, M. (2003): Educational Technology: Theory and Practice, Bawa Publishers, Patiala, (2nd edition)
- 2. Bloom, B.S. and Others (1971): Handbook of Summative and Formative Evaluation Student Learning, New York, McGraw Hill.
- 3. Bouanchand, B. (1997): The Essence of Yoga, Delhi: Satguru Publications.
- Broudy, H.S. (1965): Building a Philosophy of Education, 2nd ed., Prentice Hall, Inc. 1962, Economy Ed., New Delhi.
- 5. Eraut, M. (1996): The International Encyclopedia of Educational Technology, Great Britain: Pergamon Press.
- 6. Jukes, I., Dasaj, A. and Macdonald, B. (2000): Net Savvy: Building Information Literacy in the Classroom, California: Corwin Press, Inc.
- 7. Mehra, V. (2010): AText Book of Educational Technology, New Delhi, Sanjay Prakashan.
- 8. Naseema, C. and Alam, M.A. (2004): From Blackboard to the Web. Integrating Technology and Education, New Delhi: Kanishka Publishers, Distributors.
- 9. National Educational Commission, 1964-66.
- 10. National Policy of Education (1986): Ministry of Human Resource and Development, Department of Education, New Delhi.
- 11. Pophams, W.J. (1973): Evaluating Instruction, New York, Prentice Hall.
- 12. Sharma, Y.K. (2002): Fundamental Aspects of Educational Technology, New Delhi: Kanishka Publishers, Distributors.
- 13. Taneja, V.R. (2002): Foundation of Education (Philosophical and Sociological), Chandigarh: Abhishek Publications.

- 14. Unwin, D. (Ed.) (1969): Media and Methods: Instructional Technology in Higher Education, McGraw Hill, London.
- 15. Weerasinghe, S.G.M. (1993): The Sankhya Philosophy, A Critical Evaluation of Its Origin and Development, Delhi: Satguru Publications.

PAPER-II

COURSE CODE: C02-PLI-II

COURSE TITLE: PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-II

Credits= 5 Total Marks= 100 External= 60 Internal Assessment= 20 Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course work and Sessional work, the students shall be able to:

- Describe the process of physical, social, emotional and intellectual development of the learner.
- Explain the theories and measurement of intelligence.
- Explain the psychology of individual differences with special reference to exceptional children.
- Explain the teaching and learning process for memory, understanding and reflective levels of learning outcomes.
- Analyse interaction in the classroom through Flanders, RCS and ETC systems of interaction Analysis.
- Explain the importance of modification of teacher behaviour through micro teaching and simulation.

COURSE CONTENT:

Unit I

a) Process of development of child and adolescent with respect to – Physical, social, emotional and intellectual factors affecting each type of development.

Unit II

- a) Intelligence: Concept, Theories (Spearman, Thurstone, Guilford, Gardner and Sternberg) and measurement.
- b) Psychology of individual differences Types of exceptional children, gifted, backward and others with special needs. Determinants of individual differences, Education of exceptional children.

Unit III

a) Teaching and learning at memory, understanding and reflective levels.

Unit IV

- a) Analysis of classroom interaction : Flanders, RCS and ETC: Coding, Decoding process of each one of these.
- b) Modification of teaching skills through Micro teaching and simulation.

Sessional Work

Microteaching (10 lessons) Observation of lessons (10 lessons)

OUTLINE FOR INSTRUCTION:

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc. Sessional work for 20 marks will include micro lessons (10) and ten observations through Flanders Interaction Analysis.

- 1. Bhushan, A., Ahuja, M. (2003): Educational Technology, Theory & Practice, Bawa Publishers, (2nd edition).
- 2. Briggs, A.R. J. and Sommefeldt, D. (2002): Managing Effective Teaching and Learning, London: Paul Chapman Publishing.
- 3. Dandekar, W.N. and Makhija, S.M. (2002): Psychological Foundations of Education, New Delhi: Macmillan India Ltd.
- 4. Decceco, John P. (1968): The Psychology of Learning and Instruction, Prentice Hall of Indian Pvt. Ltd., New Delhi.
- 5. Eggen, Paul, D. (1988): Strategies for Teacher Teaching Contact and Thinking Skills, Prentice Hall, Englewood Cliffs, New Jersey.
- 6. Hill, Winfred, F. (1968): Learning: A Survey of Psychological Interpretations, London, Methuen.
- Joyce, B. Calhoun, E. and Hopkins, D. (2002): Models of Learning Tools for Teaching. Philadelphia: Open University Press.
- 8. Mehra, V. (2004): Educational Technology, New Delhi, S.S. Publishers.
- 9. Skinner, B.F. (1968): Technology of Teaching, New York, McGraw Hill.
- 10. Tickton, S. (Ed.) (1970): To improve Learning I II, New York, Baw Kev.
- 11. Vishnoi, U. (2007): Psychological Foundations of Education. New Delhi: KSK Publishers and Distributors.
- 12. Anastasi, A. and Urbia, S. (1997) : Psychological Testing. Delhi: Pearson Education Inc.
- 13. Dandekar, W.N. and Makhija, S.M. (2002) Psychological Foundations of Education (3rd ed.) New Delhi: Macmillan.
- 14. Woolfolk, A. (2004) : Educational Psychology, New Delhi: Pearson Education.
- 15. Rao, U (2008) Advanced Educational Psychology, Mumbai: Himalaya Publishing House.

PAPER III: COURSE CODE: C03-RSA-II

COURSE TITLE: RESEARCH IN EDUCATION AND STATISTICAL ANALYSIS-II

Credits= 5 Total Marks= 100 External= 80 Internal= 20

COURSE OBJECTIVES

After completing the course, going through the relevant references and doing the necessary practice for numerical skill, the students are supposed to:

- Discuss Characteristics and application of different research tools (Test, Questionnaire, interviews, scales, checklists, observations)
- Explain concept, Need and Types of sampling
- Describe steps, importance and application of experimental, Historical and descriptive research.
- Explain steps of writing a report.
- Enumerate assumptions of analysis of variance and apply ANOVA on the given data.
- Explain concept and application of Non Parametric statistics: Chi-square test, Wilcoxon sign rank test, Mann Whitney's test.

COURSE CONTENT

Unit I

- a) Research tools/instruments: Tests, Questionnaire, inventories, scales, checklists, interviews, observations.
- b) Sampling: Need, Types of sampling.

Unit II

- a) Research Methods: Experimental, Historical and Descriptive Research.
- b) Writing a report.

Unit III

- a) Analysis of variance: Concept and assumptions and computation for one way analysis of variance.
- b) Partial and multiple correlation.

Unit IV

- a) Non Parametric statistics: Chi-square test
- b) Wilcoxon sign rank test, Mann Whitney's Test.

Evaluation

The students will be evaluated through external written exam based on theory of 3 hours duration of part I and II on the portion of:

- (i) Research methods (Weightage 40 marks)
- (ii) Statistical Analysis (Weightage 40 marks)

Eight questions will be set by the external examiner, 4 from part I and 4 from part II. The students will be required to attempt 4 questions in all, selecting at least two from each of the parts I and II. All questions will carry equal marks.

BOOKS RECOMMENDED

- 1. Blaxter, L., Huges, C. and Tight, M. (2002): How to Research, UK: Open University Press.
- 2. Creswell, J.W. (2002): Educational Research Planning, Conducting and Evaluating Quantitative and Qualitative Research, New Jersey: Pearson Education.
- 3. Garrett, H.E. (1966): Statistics in Psychology and Education, Vakils, Feffer and Simons Pvt. Ltd., Mumbai.
- 4. Kaul, L. (2000): Methodology of Educational Research, New Delhi , Vikas Publishing House.
- 5. National Seminar on Emerging Issues in Methodology of Educational Research CASE, M.S. University of Baroda, 1982.
- 6. Report of Seminar on Quantitative and Qualitative Approaches in Educational Research Center of Advanced Studies in Education, M.S. University of Baroda, 1983.
- 7. Myers, J.L. and Well, A.D. (2003). Research Design and Statistical Analysis, New Jersey: Lawrence Erlbam Associates Publishers.
- 8. Ferguson, G.A. and Takane, Y. (1989). Statistical Analysis in Psychology and Education, NY: Mc Graw Hill Book Company.

Paper – IV:

COURSE CODE: C04-CID-II

COURSE TITLE: PROCESS OF COURSE DESIGNING AND INSTRUCTIONAL DESIGNING-II

Credits= 5 Total Marks= 100 External= 60 Internal Assessment= 20 Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course work after studying the relevant references and finishing the course assignments, the students are supposed to:

- Explain the concept of instruction, system, instructional system and systems approach.
- Explain Gagne's Model of instructional design.
- Explain principles of Instructional Design.

- Understand curriculum issues and trends.
- Outline features of National Framework of Curriculum 2005.

COURSE CONTENT

Unit-I

a) Concept of instruction, System, instructional system components, systems approach and instructional design.

Unit-II

- a) Principles of instructional design.
- i. Five categories of learning outcomes, viz. intellectual skills, cognitive strategies, verbal information, attitudes, motor skills.
- ii. Outcomes of instruction and learning: behavioral objectives, components of operational descriptions of objectives.
- iii. External conditions of learning and internal capabilities of the learner.
- iv. Designing instructional sequences.
- v. Events of instruction.
- vi. Planning individual lessons.
- vii. Assessment of student performance.

Unit-III

- a) Steps of Gagne's Models of Instructional Systems Development
- i. Analysis and identification of needs
- ii. Definition of goals and objectives
- iii. Identification of alternative ways to meet needs.
- iv. Design of system components.
- v. Analysis of resources and constraints.
- vi. Action to remove or modify constraints.
- vii. Selection of student's assessment procedures.
- viii. Field testing, formative evaluation and teacher training.
- ix. Adjustments, revisions and further evaluation.
- x. Summative evaluation
- xi. Operational installation

Unit-IV

a) Curriculum issues and trends: Future directions for curriculum, National Curriculum Framework (2005)

Sessional Work

i) Four instructional plans according to Gagne's Model of Instructional design.	15 marks
ii) Course evaluation	5 marks

OUTLINE FOR INSTRUCTION:

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc. Sessional work for 20 marks will include four instructional plans according to Gagne's Model (15 marks) and course evaluation of 5 marks.

- 1. Allen, S. (1971): Dynamic Management, Prentice Hall.
- 2. Bloom, B.S., Hastings, J.T. and Madaus, G.F. (1971): Handbook of Formative and Summative Evaluation Student Learning, New York, McGraw Hill.
- 3. Bruner, J.S. (1966): Towards a Theory of Instruction, Cambridge, Mass, Harvard University Press.
- 4. Cropper, G.L. (1974.): Instructional Strategies, Englewood Cliff, N.J. Educational Technology Publications.
- 5. Davis, I.K. (1971): The Management of Learning, London, McGraw Hill.
- 6. Forsyth, I., Jolliffe, A. and Stevens, D. (1999): Evaluating a Course, Practical Strategies for Teachers, Lectures and Trainers, London: Kogan Page.
- 7. Forsyth, I., Jolliffee, A. and Stevens, D. (1999): Planning a Course, Practical Strategies for Teachers, Lectures and Trainers, London: Kogan Page.
- 8. Gagne, R.M. (1965): The Conditions of Learning, New York, Holt Rinehart and Winston.
- 9. Gagne, R.M. and Briggs, L.J. (1979): Principles of Instructional Design, New York: Holt, Rinehart and Winston.
- 10. Mehra, V. (1992): Instructional System Design: An Innovation in Educational Technology, New Delhi, S.S. Publishers.
- 11. Mehra, V. (2010): A Text Book of Educational Technology, New Delhi, Saqnjay Prakashan.
- 12. Murrit, M.D. (Ed.) (1971): Instructional Design, Englewood Cliffs, N.J., Prentice Hall.
- 13. National Curriculum Framework (2005): New Delhi: NCERT.
- 14. Ornstein, A.C. and Hunkins, F.P. (1988): Curriculum: Foundations, Principles and Issues, Prentice Hall International Ltd. London.
- 15. Popham, J.M. and Baker, E.L. (1970): Systematic Instruction, Prentice Hall, Inc. Englewood Cliffs, New Jersey.
- 16. Pratt, D. (1980): Curriculum Design and Development, N.Y., Harcourt.
- 17. Romiszowski, A.J. (1986): Designing Instructional Systems, London: Kogan Page.

PAPER V: COURSE CODE: C05-DII-II

COURSE TITLE: DESIGNING INDIVIDUALIZED INSTRUCTIONS-II

Credits= 5 Total Marks= 100 External= 60 Internal Assessment= 20 Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course, after going through the relevant references and completing the assignments, the students are supposed to:

- Describe concept, characteristic features, prototypes, advantages and limitations of Mastery Learning Strategies.
- Discuss various tasks of a teacher for implementing Mastery Learning Strategies.
- Describe various tools of computer technology which can be used in self-instructions.
- Explain the meaning and scope of e learning and e-resources

COURSE CONTENT

Unit:-I Mastery Learning

- a) Concept, Historical Development, Essential Features, Types; Bloom, Keller, Eclectic MLS, their similarities & differences.
- i) Variables of Mastery Learning:
- a) Perseverance: Concept, Correlates, Types, Measurement, Enhancing Perseverance.
- b) Time allowed for Learning.
- c) Aptitude: Concept, Measurement, Enhancing aptitude.
- d) Ability to understand Instruction: Concept of Entry behaviour, assumptions about the learners, pre-requisite skills.
- e) Quality Instructions: Concept, Models of Quality Instructions, Measurement of Quality Instruction.
- ii) Components of Mastery Learning: Tasks of Teachers for each component;
- a) Defining mastery
- b) Planning for mastery
- c) Teaching for mastery
- d) Grading for mastery
- iii) Implications of Mastery Learning Strategies

Unit:-II Computer based instructions

- i) Introduction to some basic concepts of working with computers.
- ii) Computer based instructions :
- a) Concept of computer based instructions: Computer based, computer assisted and computer mediated instructions.
- b) Characteristics, applicability, advantages & limitations of computer assisted instructions.
- c) Multimedia and E-Learning

Sessional Work:

The students shall prepare mastery learning plans in Bloom's and Keller style each of 10 marks

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. four questions from unit I out of which students will attempt two questions. Three questions will be set from Unit II out of which one question will be attempted. One question will be compulsory & spread over. All questions will carry equal marks, 20 marks are for internal assessment which is based on performance of house tests, attendance, seminar, snap test, etc. Sessional work of 20 marks will be evaluated on the basis of Mastery Learning Plans, 10 marks each for Bloom & Keller Plans.

- 1. Ahuja, M. (2007): Mastery Learning a Practical Approach, Meerut, Vivek Publishers, (2nd Ed.).
- 2. Bhushan, A. and Ahuja, M. (2003): Educational Technology: Theory and Practice, Patiala , Bawa Publishers, (2nd edition)
- 3. Block, J.H. and Anderson, L.W. (1974): Mastery Learning in Classroom Instruction: New York., Macmillan,
- 4. Deva, V. (2003): E-knowledge. New Delhi: Commonwealth Publishers.
- 5. French, D. (1999): Internet Based Learning : Stylus Publishing LIC.
- 6. Hitz S.R. & Goldman, R. (2005) Learning Together Online : London, Lawrence Erlbaum Associates, Publishers,
- 7. Jolliffee, A. & Others (2001) Online Learning ; The Handbook : Kogan Page limited.
- 8. Mager, R.T. (1961): Preparing Objectives for Programmed Instruction, San Francisco, Pearson.
- 9. Maier, P. and Warren, A. (2000): Integrating Technology in Learning and Teaching. London: Kogan Page.
- 10. Mayer, R.E. (2001): Multimedia Learning. USA: Cambridge University Press.
- 11. Rudestam, K.E. (2002) : Handbook of Online Learning, New Delhi , Sage Publications,.
- 12. Sethi, A. (2005): Multimedia Education: Theory and Practice : New Delhi, International Scientific Publishing Academy.

PAPER VI: COURSE CODE: C06-ICU-II

COURSE TITLE: INSTRUMENTS FOR CLASSROOM USE: AUDIO-VISUAL AND COMPUTERS-I PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-II

Credits= 2.5 Total Marks= 50 Practical External= 25 Practical Internal=25

COURSE OBJECTIVES:

After completing the course work and the practicals in the application and use of instruments to aid teaching and learning in classroom, the students are supposed to:

- Describe theory behind working of each Instrument
- Identify different components of each instrument.
- Draw the activity sequence diagrams for each instrument.
- Operate upon each instrument and practice it at the autonomous level.
- Diagnose minor failure of each instrument.
- Prepare manual for at least one of the above instruments.

COURSE CONTENTS

The students will be introduced to components, activity sequences, diagrams, operation and diagnosing minor failures of the following instruments.

- Operating on a video camera, synchronising it with TV and practicing recording and display of films.
- Instructional computers (working in windows) (MS-Word, Excel and PowerPoint, e-mail, internet).

Outline for instruction

It is a practical course where the students will learn to operate upon above mentioned instruments and develop mastery in their use for a variety of purposes. Each instrument will be introduced verbally followed by practical demonstration of its application by the Incharge teacher of the practicals. All the students will operate repeatedly for the variety of modes of their application until they develop mastery on the practical use of these instruments for recording practical work: They will:

- Prepare documents in MS-word, MS-Excel, and MS-PowerPoint presentations in a separate file.
- Appear for viva-voce examination for evaluating research reports.

Evaluation

Students will be evaluated practically by the external examiner in a lab situation for the operation of instructional instruments. The practical will be followed by a comprehensive viva-voce test. The competence in use of the appliances will carry 50 marks and the comprehensive viva will carry 50 marks.

BOOKS RECOMMENDED

- 1. Anderson, R.H. (1976): Selection and Developing Media Instruction, New York, Van Nostrand Reinhold Company.
- 2. Heinich, R. Molenda, M.; Russeil J. (1993): Instructional Media and New Technologies of Instruction, Macmillan Publishing, Co., N.Y.
- 3. Kemp. J. E. (1975): Planning and Producing Audio-Visual Materials, 3rd Ed. N.Y., Thomas Y. Crowell, Inc.
- 4. Schramm, W. (1985): Big Media, Little Media, Tools and Technologies for Instruction, California, Sage.
- 5. Taxali, R.K. (2002): PC Software for Windows 98 Made Simple, New Delhi,, Tata McGraw Hill Publishing Ltd.

PAPER VII: DISSERTATION/ RESEARCH REPORT COURSE CODE: C07-DIS-II

COURSE TITLE: DISSERTATION/ RESEARCH REPORT

Credits= 5 Total Marks= 100

COURSE OBJECTIVES

After preparing synopsis in Semester I, the students will work on dissertation to

- Conduct supervised research
- Understand the steps of conducting research
- Select/develop tools for collecting data
- Select the field of research and collect adequate data relevant to their research proposals
- Score and analyse data
- Report the results by way of dissertation

Process of Research:

Under the supervision of their guides they will undertake all the steps of research by procuring tools/preparing tools and collecting data. They will score, tabulate and analyse data and prepare a report of results. The students will submit dissertation on specified date.

EVALUATION:

The dissertation will be jointly evaluated by external examiner and internal examiner (guide) by conducting a viva-voice exam. External examiner will evaluate dissertation out of 75 marks and internal examiner will evaluate out of 25 marks.
