

COURSE-I

PSYCHOLOGY OF LEARNING & DEVELOPMENT

Time: 3 Hours Max. Marks- 100
Credits:4 (Theory: 80, Internal: 20)

NOTE FOR PAPER SETTER

- 1. Paper setter will set 9 questions in all, out of which student will be required to attempt 5 questions
- 2. Q.No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type questions of 4 marks each to be selected from the entire syllabus.
- 3. Two long answer type questions will be set from each of 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.
- 4. All questions carry equal marks.

COURSE OBJECTIVES

To enable the student to

- understand concepts and principles of Educational Psychology as an applied science.
- outline the scope of educational psychology.
- describe the process of growth and development.
- understand different theories of learning.
- explain the process of Motivation.
- recognize the concept of personality.
- know the methods of personality assessment.

COURSE CONTENTS

UNIT-I

Concept of Educational Psychology

- Relationship of Education & Psychology
- o Meaning & Concept of Educational Psychology.
- Scope of Educational Psychology

• Concept of Growth and Development

- o General Principles of Growth and Development.
- o Physical Development in Adolescence.
- o Social Development in Adolescence.
- o Emotional Development in Adolescence.
- o Intellectual Development in Adolescence.

UNIT-II

• Individual Differences

- Meaning and Areas
- o Determinants: Role of Heredity and Environment in Developing Individual Differences.
- o Implications of Individual Differences for Organizing Educational Programmes.

• Personality

- Meaning and Determinants
- Types and Trait Theories
- o Assessment of Personality by Subjective and Projective Methods.

UNIT-III

• Intelligence

- Meaning
- o Theories: Two Factory theory (Spearman); Multi Factor Theory, Guilford Model of Intellect.
- o Measurement of Intelligence (two verbal and two non verbal tests)

Creativity

- o Meaning, characteristics, difference between creativity and intelligence, role of teacher in developing creativity, Methods of developing creativity.
- o Theories of creativity: Taylor's psychoanalytic and Ariet's theory of creativity.
- Assessment methods for creativity.

UNIT-IV

• Learning

- o Meaning, Factors Influencing Learning
- Theories of Learning
- o Pavlov's Classical Conditioning
- Skinner's Operant Conditioning
- Hull's Reinforcement Theory
- Learning by insight.
- o Gagne's Hierarchy of Learning Types

Motivation

- Concept of Motivation and Achievement Motivation.
- Factors affecting Motivation.
- o Theories of Motivation:
- o Physiological Theory
- o Murray's Need Theory.
- o Maslow's Theory of Hierarchy of Needs.

Tasks & Assignments: Any one of the following (10marks)

- Identify and prepare a case study of under achieving student.
- Identify five students showing maladjustment behavior. List the adjustment problems from which they are suffering and explain their causes
- Visit to a school, observation of activities of X class students and prepare a report on it.
- Any other task and assignment given by the institution.

SUGGESTED READINGS

- 1. Abramson, Paul R.; 'Personality', New York: Holt Rinehart and Winston, 1980.
- 2. Allport, G.W.: 'Personality', New York: Holt, 1954
- 3. Allport G.W.: Pattern and Growth in Personality', New York: Rinehart andnWinston, 1961.
- 4. Andrews, T.W. (Ed.): 'Methods in Psychology', New York: John Wiley and Sons, Inc. 1961.
- 5. Baller, Warren, R. Charles, Don, C.: The Psychology of Human Growth at Development, New York: Holt, Rinehart and Winston, Inc., 1962.
- 6. Baum, A., Newman, S., /West R., & Mc Manus, C. Cambridge Handbook Psychology, Health & Medicine, Cambridge: Cambridge University Press 1997.
- 7. Colemn, J.C.: Abnormal Psychology and Modern Life, Bombay: D. Taraporewala Sons&Co., 1976
- 8. Dicapro, N.S.: Personality Theories, New York: Harper, 1974.
- 9. Douglas, O.B. Holl, and B.P.: Foundations of Educational Psychology, New York: The Mac Millan Co., 1948
- 10. Gagne, R.M.: The Conditions of Learning, New York, Chicago: Ho Rinehart and Winston, 1977.
- 11. Gates, A.T. et. al: Educational Psychology, New York: Mac Millan, 1963.
- 12. Hilgard, E.R.: Theories of Learning, New York: Appleton Century Crafts.
- 13. Kundu, C.L.: Educational Psychology, Delhi Sterling Publishers, 1984.
- 14. Kundu, C.L.: Personality Development: A Critique of Indian Studies, Vishal Publishers, 1976
- 15. Kundu, C.L. & Tutoo, D.N.: Educational Psychology, New Delhi: Sterling Publishers Private Limited, 1988.
- 16. Shankar Udey: Development of Personality, 1965.
- 17. Talbott, J.A., Hales, R.E. & Yodofsky, S.G. Textbook of Psychiatry, New Delhi: Jaypee Brothers Medical Publishers (P) Ltd., 1994.
- 18. Thorpe, G.L. & Olson, S.L. Behaviour Therapy, Concepts, Procedures and Applications, London: Allyn Bacon, 1999.

COURSE-II

Historical, Political and Economic Foundations of Education

Time: 3 Hours Max. Marks- 100 Credits:4 (Theory: 80, Internal: 20)

NOTE FOR PAPER SETTER

- 1. Paper setter will set 9 questions in all, out of which student will be required to attempt 5 questions
- 2. Q.No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type questions of 4 marks each to be selected from the entire syllabus.
- 3. Two long answer type questions will be set from each of 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.
- 4. All questions carry equal marks.

Course objectives:

To enable the students to

- Get a historical insight into the development of education in Vedic, Buddhist and Medieval period.
- Get the knowledge of the development of education in pre-Independent and post-Independent India.
- Explain in detail the constitutional provisions for Education in India.
- Understand the relationship of education with democracy, National integration and International understanding.
- Understand the economic foundation of education
- Get the knowledge of contemporary Indian Education in global perspectives.

UNIT-I

Historical Foundations of Education

- 1. Education in India during
 - Vedic
 - Buddhist
 - Medieval period
- 2. Education in British period and pre-Independent India
 - Macaulay Minutes
 - Wood's Dispatch of 1854
 - Lord Curzen's Educational policy
 - Sadler Commission Report-1917
 - Wardha Scheme of Education-1937

UNIT-II

Education commissions and various policies in post-Independent India

- University Education Commission- 1948-49
- Secondary Education Commission-1952-53
- Indian Education Commission-1964-66
- NPE-1986, NPE(1992)

UNIT-III

Political Foundations of Education

- Meaning, concept and need of political ideology & its relation with Education
- Education in Monarchic & Democratic & Communist countries
- Education in relation to:
 - Democracy
 - Constitutional provisions
 - National values as enshrined in Indian Constitution
 - Nationalism & National integration
 - International Understanding.

Unit-IV

Economic Foundations of Education

- Education as related to
 - Economic growth and investment.
 - Socially and economically disadvantaged sections of the society with special references to scheduled castes, scheduled tribes, women and rural population.
 - Equality of Educational opportunities.
 - Local and global perspectives: implication of globalization for system of Education.
- Educational financing in India at various levels at elementary, secondary & senior secondary school Level

Tasks & Assignments: Any one of the following: (10marks)

- Write a script on Educational development in ancient India after classroom discussion.
- Which is the landmark educational policy according to you & why? prepare a detailed record on the effectiveness of the policy
- Prepare a report on estimation of institutional cost of a secondary school/ Estimation of unit cost of education in a school taking student as a unit.
- Review of related literature to justify the role of political/economic/ historical foundation of education in shaping of education.
- Any other task/assignment given by the institution.

SELECTED READINGS

- Agarwal, J.C.: Land marks in the history of modern Indian Education, New Delhi
- Alex, V. ALexender: Human Capital Approach to Economic Development, Metropolitan Book Co., New Delhi, July, 1983.
- Blaug, M.: Economics of Education, The English Language Book Society and Penguin Books, England, 1972.
- Bertrand, Oliver: Planning Human Resources: Methods, Experiences and Practices, Sterling Publishers, New Delhi, 1992.
- Coombs, Philip, H. and Hallack, J.: Managing Educational Costs, UNESCO International Institute of Educational Planning, 1972.
- H allack, J.: The Analysis of Educational Costs & Expenditure, UNESCO, Paris, 1969.
- Harbison, F and Myers, Charler: A Education, Manpower and Economic Growth: Strategies of Human Resource Development, Oxford & IBM Publishing, Co., 1970.
- Govt. of India, Ministry of Education.(1959). Report of the National Committee on Women's Education.
- Joshi, K.L. (1977). Problems of higher Education in India. Bombay: Popular Prakashan
- Kaul, J.N. (1975). Higher Education, Social change & National Development, Shimla: Indian Institute of Advanced Study
- Kneller, G.F: Education and Economics Thought, New York, John Wilet and Sons, INC, 1968.
- M.H.R.D.(1969). Report of the education commission- Education and National Development (1964-66), Ministry of Education, Govt. of India, New Delhi.
- M.H.R.D. National policy on Education (1986), Ministry of Education, Govt. of India, New Delhi.

- M.H.R.D. Programme of Action (1992), Ministry of Education, Govt. of India, New Delhi.
- M.H.R.D. (1990). Towards an Enlightenment & Human Society- A Review (NPERC), Ministry of Education, Govt. of India, New Delhi.
- M.H.R.D. (1993). Education for All: The Indian Science, Ministry of Education, Govt. of India, New Delhi.
- M.H.R.D. (1993). Selected Education Study, Ministry of Education, Govt. of India, New Delhi.
- Nagpal, S.C. and Mital, A.C.: Economics of Education, Publication, New Delhi, 1993.
- Natarajan, S.: Introduction to Economics of Education, Sterling Publishers Pvt. Ltd. New Delhi, 1990.
- Pandit, H.N.: Measurement of Cost Productivity and Efficiency of Education, NCERT, 1969.
- Rao, V.K.R.V.: Education and Human Resource Development, Allied Publishers, New Delhi, 1965.
- Raza, Moonis: Educational Planning: A long Term Perspective, Concept Publishing Company, New Delhi, 1986.
- Singh, Baljit: Economics of Indian Education, Meenakshi Prakashan, New Delhi, 151992.
- Rao, D.D. (2001). National Policy on Education towards an Enlightenment and Human Society. New Delhi: Discovery Publishing House.
- Sodhi, T.S.: Economics of Education, New Delhi, Vikas, 1990.
- Taneja, V.R. (2005). Foundation of Education, Chandigarh: Abhishek Publishers.
- Tilak, J.B.G. Educational Planning at Grass Roots, Ashish Publishing House, New Delhi, 1992.
- Tiwari, D.D. (1975). Education at the Cross Roads, Chugh Publication, Allahbad.
- UNESCO: Readings in the Economics of Education, Paris, UNESCO Publications, 1968.
- Vaizey, J.: Costs of Education, London: Feber, 1962.

COURSE-III

EDUCATIONAL STUDIES

Time: 3 Hours Max. Marks- 100
Credits:4 (Theory: 80, Internal: 20)

NOTE FOR PAPER SETTER

- 1. Paper setter will set 9 questions in all, out of which student will be required to attempt 5 questions
- 2. Q.No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type questions of 4 marks each to be selected from the entire syllabus.
- 3. Two long answer type questions will be set from each of 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.
- 4. All questions carry equal marks.

COURSE OBJECTIVES

Students will be able to

-Understand and appreciate education a social phenomenon, practice and field of study

- -Acquainted with documented related to educational policies and educational programmes.
- -Understand educational structure, institution and system.
- -Understand and reflect or various issues and concerns in education.

UNIT- I

• Nature of Education

- Education as a phenomenon, Education as a practice, Education as a field of study,
- Aims of Indian Education in the context of a democratic, secular, egalitarian and a humane society

• Education as Interdisciplinary Knowledge

- Interdisciplinary nature of education; relationships with philosophy, psychology, sociology, management, economics, anthropology etc.
- Contribution of science and technology in education and challenges ahead.
- Axiological issues in education: role of peace and other values, aesthetics in education.
- Dynamic relationship of education with the political process.
- Interrelation between education and development.

UNIT-II

Socio-cultural Context of Education

- Social purpose of education.
- Understanding Indian society-with reference to multilingual and multicultural and other diversity, approaches for teaching young children in the context of diversity.
- Process of socialization and acculturation of the child: role of school, parents, peer group and the community.

School Context

- Multiple schools contexts-rural/urban, tribal etc.
- School management: Role of teachers, headmasters, and administrators.
- Nurturing learner friendly school environment.
- School as site of curricular engagement.
- Teacher's autonomy and professional independence.
- Participation of different stakeholders in school education-role of media, use of technology, NGOs,
- Civil society groups, Teacher organisations, family and local community.
- Monitoring and evaluation of schools.

UNIT-III

Educational Institutions and Educational Structure

- UNESCO,UGC,NCERT,NCTE,CBSE,SCERT(s) & DIET(s)
- Higher, Secondary and Elementary education system
- Educational Structure at central, state, district, block and village level

• National Programmes and Policies in Education

- SSA,RAMSA & RUSA
- NCF(2005) & National Knowledge Commission (2005)
- NCFTE (2009)
- RTE Act (2009)

UNIT-IV

- National Issues and Concerns in Education
 - Universalization of Elementary Education
 - Globalization of Education
 - Liberalization of Education
 - Expansion of Secondary and Higher Education
 - Issues related to equity, equality and quality of Education, Education of the disadvantaged

Task and Assignment- Any one of the following (10 MARKS)

- Assignment based on policy perspectives and status of education of socio-economically
- disadvantaged children of India/of a particular State,
- Vision of school education in India.
- Visit to a school, observation of activities and preparation of a reflective report.
- Any other task/assignment given by the institution.

SUGGESTED READINGS

- Banrs, J.A. (1996), Cultural diversity and education: Foundations curriculum and teaching (4th ed.), Boston: Alynand, Becon.
- Beyer, L.E. (Ed.) (1996) Creating democratic classrooms: The struggle to integrate theory and Practice.New York: Teachers College Press
- Bruner, J.S. (1996), The Culture of education. Cambridge, M.A.: Harward University Press.
- Dearden R. F. (1984). Theory and practice in Education. London, Routledge K Kegan & Paul.
- Debra Heyes, Martin Hills, Pam Chistie and Bob Lingard (2007) Teachers and schooling: Making a Difference, Australia Allen and Unwin,.
- Delors, Jacques, et al; (1996). Learning: The Treasure within report of the international commission on education for 21st century, UNESCO.
- Dewey, J. (1916/1977): Democracy and Education: An introduction to the philosophy of education. New York: Macmillan.
- Cole, M.(2011). Education, equality and human rights: Issues of gender, race, sexuality, disability and social class. NY: Routledge.
- Govinda, R. & Diwan, R. (2003). Community participation and empowerment in primary
- education. New Delhi: Sage Publication.
- Govinda, R. (2011). *Who goes to school? : Exploring exclusion in Indian education*. New Delhi: Oxford University Press.
- Govt. of India. (1948). University education commission. New Delhi: Govt. of India.
- Govt. of India. (1952). Secondary education commission. New Delhi: Govt. of India.
- Govt. of India. (1964). *Indian education commission*. New Delhi: Govt. of India.
- Govt. of India. (1986). National policy of education. New Delhi: Govt. of India.

- Govt. of India. (1992). *Programme of action*. New Delhi: Govt. of India.
- Habib, S.I. (2010). *Moulana Abdul Kalam Azad and the national education system*. New Delhi: NUEPA. 17
- Jandhyala, B. T. G. (2003). Education society and development: National and international
- perspective. New Delhi: APH Publishing Corporation.
- Mehta, A.C. (2014). Elementary education in India: Where do we stand. New Delhi: NUEPA.
- MHRD. (2009). RAMSA. New Delhi: MHRD.
- MHRD. (2013). RUSA, National higher education mission. New Delhi: MHRD.
- MHRD. (2000). SSA. New Delhi: MHRD.
- MHRD. (2010). RTE Act. New Delhi: MHRD.
- Narula , M. (2006). *Quality in school education: Secondary education and education boards.* New Delhi: Shipra Publication.
- NCERT. (2005).NCF. New Delhi: NCERT.
- NCTE. (2009). NCFTE. New Delhi: NCTE.
- NUEPA. (2004). Sabke liye shiksha: Vishawa monitoring report 2002. New Delhi: NUEPA.
- Pandit, K.(2003). *Educational sociology*. New Delhi: ABD Publishers.
- Prakash, V. & Biswal, K. (2008). *Perspective on education and development: Revisiting education commission and after.* New Delhi: Shipra Publication.
- Rao, K.S.(2009). Educational policies in India: Analysis and review of promise and performance. New Delhi: NUEPA.
- Sharma, R.K.& Chouhan, S.S.(2006). *Sociology of education*. New Delhi: Atlantic Publishing Corporation.
- Sood, N.(2003). *Management of school education in India*. New Delhi: APH Publishing Corporation.
- Stella, A. & Sudhanshu, B. (2011). Quality assurance of transnational higher education, the
- experience of Australia and India. New Delhi: NUEPA.
- Sujhata, K. & Rani, G. (2011). Development of secondary education in India: Access
- ,participation and delivery mechanism and financing. New Delhi: Shipra Publication.
- Sujhata, K. & Rani, G. (2011). *Management of secondary education in India*. New Delhi: Shipra Publication.
- Yazail, J. (2003). *Globalization and challenges of education*. New Delhi: Shipra Publication.

COURSE-IV

INTRODUCTION TO EDUCATIONAL RESEARCH

Time: 3 Hours Max. Marks- 100
Credits:4 (Theory: 80, Internal: 20)

NOTE FOR PAPER SETTER

- 1. Paper setter will set 9 questions in all, out of which student will be required to attempt 5 questions
- 2. Q.No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type questions of 4 marks each to be selected from the entire syllabus.
- 3. Two long answer type questions will be set from each of 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.
- 4. All questions carry equal marks.

COURSE OBJECTIVES:

After completing the course, the student will be able to:

- understand the concept of research and educational research
- recognize the types and methods of educational research
- comprehend the steps involved in educational research
- understand the use of different tools and techniques in educational research
- use the library, Internet services and other sources of knowledge for educational research Purposes.
- understand the procedure to conduct the research in the educational field
- understand the nature of issues and problems faced by the State System of education and to find out the remedies to solve them
- understand the role and use of statistics in educational research
- select the appropriate statistical methods in educational research
- review the educational research articles
- use computers for data analysis.

UNIT – I

- Nature and Scope of Educational Research
- Scientific Method of Inquiry; Methods of Acquiring Knowledge
- Meaning, Nature, Need, Scope and Types of Educational Research
- Areas of Educational Research; The Research Process
- Research Paradigm: Qualitative and Quantitative Research

UNIT - II

- Formulation of Research Problem
- Sources of Identifying the Problem; Selection, Definition and Evaluation of a Research Problem

- Review of Related Literature: Importance and Various Sources including Internet.
- Hypothesis: Concept, Types, Sources, Characteristics, Formulation and testing
- Sampling: Concept, Need, Steps, Characteristics and Methods
- Preparation of Research Proposal

UNIT - III

Descriptive Statistics

- Types of Data; Graphical Representation of Data
- Measures of Central Tendency: Mean, Median and Mode
- Measures of Dispersion: Range, Quartile Deviation, Mean Deviation and Standard Deviation
- Measures of Relative Positions: Percentile and Percentile Ranks

UNIT - IV

- Measures of Relationship -Meaning, Assumptions, Computation and Uses of:
- Rank Difference Correlation
- Product Moment Correlation
- Partial and Multiple Correlations
- Biserial and Point Biserial Correlations
- Normal Probability Curve: Meaning, Characteristics, Skewness and Kurtosis and Applications.

2014

Tasks and Assignments: Any one of the following: (10 marks)

- Development of a Research Proposal on an identified research Problem.
- Select any one classroom based action research problem and prepare an action plan of its resolution.
- Prepare different types of graphs on any hypothetical data.
- Make a list of the likely skills that one will need to learn and practice before carrying out various stages in research plan.
- Any other task/Assignment by the institution

SUGGESTED READINGS

- Aggarwal, Y. P. (1998). Statistical Methods. New Delhi: Sterling.
- Best, J. W. and Kahn, J. V. (1995). Research in Education. Delhi: Prentice Hall.
- Burns, R. B. (1991), Introduction to Research in Education. New Delhi: Prentice Hall.

- Adward, Allen Literacy (1968). Experimental designs in Psychological Research. New York: Holt, Rinehart and Winston.
- Ferguson, G. A. (1976). Statistical Analysis in Psychology and Education. New York: McGraw Hill.
- Fox, D. J. (1969). The Research Process in Education, New York: Holt, Rinchart and Winston Inc.
- Garrett, H. E. (1973). Statistics in Psychology and Education. Bombay: Vakils, Feiffer and Simon.
- Good, C.V. and Douglas, E. S. (1954). Methods in Social Research. New York: McGraw Hill.
- Guilford, J.P. and Benjamin, F.(1973). Fundamental Statistics in Psychology and Education. New York: McGraw Hill.
- Kerlinger, F. N. (1973). Foundation of Behavioural Research. New York: Holt, Rinehart and Winston.
- Koul, L. (1988). Methodology of Research. New Delhi: Vikas.
- Kurtz, A.K. and Mayo S.T. (1980). Statistical Methods in Psychology and Education. New Delhi: Narela.
- Mangal, S.K. (2002). Statistics in Psychology and Education. New Delhi: Prentice Hall of India.
- Mouly, A. J. (1963). The Science of Educational Research. New Delhi: Eurasia.
- Neuman, W.L. (1997). An Introduction to Educational Research Methods: Qualitative and Quantitative Approaches. Boston: Allyn and Bacon.
- Siegel, S. (1986). Non-parametric Statistics. New York: McGraw Hill.
- Travers, R.M. W. (1978). An Introduction to Educational Research. New York: Macmillan.
- Van Dalen, D. B. (1992). Understanding Educational Research. New York: McGraw Hill.
- Young, P.V. (1960). Scientific Social Surveys and Research. New York: Prentice Hall

COURSE-V

SELF-DEVELOPMENT SKILLS-I COMMUNICATION AND EXPOSITORY WRITING

(Evaluation by external examiner only at the end of the semester)

Max. Marks- 25 Credits:1

Objectives:

- to develop the capacity to use ICT in effective communication
- to enhance the ability to listen, converse, speak, present and explain ideas in groups and before an audience.
- to develop the writing skills
- to use the knowledge of communication in classroom discussion and daily life.

COURSE CONTENT

Communication Skills: Meaning, concept and components of effective communication

- Strategies of effective communication.
- Development of academic skills (pre-reading, pre-writing and number)
- Expository writing: Meaning, concept and Types of effective expository writing.
- Listening skill: meaning, concept and importance of listening skills academic listening (lecturing) listening to talk and presentation. Asking for and giving information, giving instruction, tele-conference, tele interviews handling.
- Role of ICT in effective communication.

Workshop on Communication and Expository Writing -Suggested activities

- Writing essay/articles on any issue relating to education.
- Seminar presentation with PPT (on any one topic).
- Student's discussion (panel/group).
- Content analysis & reporting any one event/ news (from electronic/ print media) related to field of education.

Note:

- i. The student will maintain a file of t he record related to activities performed.
- ii. Mode of transaction of this course will be workshop.

COURSE-VI

SELF-DEVELOPMENT SKILLS-II ACADEMIC & PROFESSIONAL WRITING

(Evaluation by external examiner only at the end of the semester)

Max. Marks- 25 Credits:1

Objectives:

After completing the course, the students would be able to

- write or draft professional letters and mail etc.
- use & differentiate different kinds of writings and writing style.
- reflect on essential requirements of academic writing & distinguish a good academic writing from others.
- analyze academic sources and how to refer them.
- cite a source, paraphrase and acknowledge the source & edit one's own writing.

Workshop on Academic Writing Skill- Suggested activities

- Write a paragraph on any topic of your interest and edit one's own writing. Prepare a report on it.
- Prepare a programme on reflective thinking and negotiation skill and conduct it in school.
- Prepare your resume/effective profile for an interview.
- Prepare a professional letter and mail on any topic.
- Write a professional report of any workshop and seminar
- Book review and review of 2 research articles.
- Writing research article/paper.
- Critical reflections on any 05 current events/news related to field of education.

Note:-

- i. Mode of transaction of this course will be workshop.
- ii. Prepare a file on the record of work done in the workshop.