

UNIVERSITY OF KOTA, KOTA

SYLLABUS

2017-2018

SCHEME OF EXAMINATION AND COURSE OF STUDY

FACULTY OF SOCIAL SCIENCES

M.A. in Development Studies

(Four Semesters Course)



M.A. in Development Studies:

The Master of Arts in Development Studies is a two years full time course. The course has been organized in IV semesters over two years. That means two semesters per year.

Scheme of Examination:

The Scheme of examination and Question paper pattern is as per the common scheme recommended in the recommendations of meeting dt.1.6.15 and 10.06.15 as notified in agenda item no.2 of the meeting notice.

Each semester shall be regarded as a unit for working out the result of the candidates. The result of each semester examination shall be worked out separately (even if the candidate has appeared at the paper(s) of the lower semester examination along with the papers of higher semester examination) in accordance with the following conditions:

- (a) A candidate, for a semester examination, shall be offered all the papers prescribed for that semester examination and besides he/she also shall be offered paper(s) not cleared by him/her at any of the lower semester examination subject to the limitation that the number of un-cleared papers of the lower semester examinations shall not be exceed the total number of the papers prescribed for any one semester.
- (b) The candidate shall be declared to have passed the examination, if the candidate secures at least 40% marks in each theory paper separately in continuous or internal or mid-term examination & semester or external or end-term examination and 50% marks in each practical / project / seminar with 50% aggregate marks of the maximum marks prescribed for each semester examination. There is no minimum pass marks for the practical record / notebook. However, submission of a practical record / notebook is a mandatory during the practical examination. The candidate should compulsorily attend viva-voce / presentation examination to secure pass in practical / project / seminar.
- (c) A candidate, who has been declared as failed/absent in one or more theory paper(s) at any odd semester examination shall be permitted to join the courses of study for the next higher semester *i.e.* permitted to join the course of second semester after first semester examinations, permitted to join the course of fourth semester after third semester examination, permitted to join the course of sixth semester after fifth semester

examinations and so on and eligible to re-appear in that paper(s) as due paper(s) along with next higher semester (next year) examinations provided that he/she must have cleared at least 50% of the papers (including practical / project / seminar as one paper) collectively prescribed for the first and second semester examinations taken together for promotion to the third semester examination.

- (d) A candidate may be promoted in the next semester (odd semester) if he/she has cleared collectively at least 50% of the papers of both semesters of previous academic session with 50% of the aggregate marks. The candidate who does not fulfill the this condition will remain in the same semester as an ex-student and will re-appear in the due papers examination along with next odd/even semester examinations.
- (e) If any student who is provisionally admitted in higher odd semester but could not secure prescribed minimum marks in previous semesters will be treated as ex-student and his/her admission fee will be carry forwarded to the next odd semester of forthcoming academic session.
- (f) A candidate declared as failed in that particular paper he/she can re-appear for that paper in the next year examination as a due paper. However, the internal marks shall be carried forward for the total marks of the due examination.
- (g) A candidate may be given only two additional chances for passing the semester thus maximum tenure for completing the two years' postgraduate M.A. Development Studies course will be limited to four years.
- (h) If the number of papers prescribed at the first and second or third and fourth semester examination is an odd number, it shall be increased by one for the purpose of reckoning 50% of the papers.
- (i) A candidate who passes in 50% or more papers of the first and second semester examination, and thereby becomes eligible for admission to the third semester examination, but chooses not to do so and desires to appear in the remaining papers of first and second semester examination only or to re-appear in all the prescribed papers and practical/seminar of the M.A. Development Studies first and second semester examination will be permitted to do so on the condition that in the latter case his previous performance will be treated as cancelled.
- (j) If a candidate, who has been promoted to the next semester and wishes to improve his/her performance in the theory paper(s) of previous semester, can be permitted to do so in case of the theory papers only, not in practical/ project/ seminar, belonging to the immediately preceding semester only for one time in these papers in next odd/even semester examinations. In such a case, he/she shall have to appear in these papers along with the papers of his/ her own semester.

- (k) A candidate shall be declared as passed after the result of the fourth semester examination, if he/she cleared all papers of the all the four semesters and secure minimum 40% of the aggregate marks of the maximum marks in theory papers and 50% of the aggregate marks of the maximum marks for practical / presentation / seminar prescribed for four semesters Master's programme.
- (l) In the case of an ex-student, the marks secured by him/her at his/her last examination as a regular candidate shall be taken into account except in cases where a candidate is re-appearing at the examination as a regular student and in that event he/she shall have to repeat the internal assessment test which will be finally accounted for working out his result.
- (m) A candidate who has failed at the M.A. Development Studies third and fourth semester examination but has passed in at least 50% of the papers prescribed for the examination shall be exempted from re-appearing in a subsequent year in the papers in which he/she has passed.
- (n) If a candidate clears any paper(s) prescribed at the first and second semester (previous) and/or third and fourth semester (final) examination after a continuous period of three years, then for the purpose of working out his/her division, only the minimum pass marks shall be taken into account in respect of such paper(s) as are cleared after the aforesaid period provided that in case where a candidate requires more than 40% marks in order to reach the requisite minimum aggregate, as many marks out of those secured by him/her will be taken in to account as would enable him/her to make up the deficiency in the requisite minimum aggregate.
- (o) In case the candidate is not able to clear his/her due paper(s) in the stipulated period as mentioned above (continuous period of three years), he/she may be given last one mercy attempt to clear due paper(s) subjected to approval of the Vice Chancellor or Board of Management.
- (p) The grace marks scheme shall be applicable as per University norms.

Classification of Successful Candidates:

The classification of successful candidates after last semester examination shall be as:

Description of Marks Obtained	Division / Result
• 80% and above marks in a paper.	Distinction in that paper.
• A candidate who has secured aggregate 60% and above marks	First Division
• A candidate who has secured aggregate 50% and above but less than 60% marks	Second Division

Candidates who pass all the examinations prescribed for the course in the first instance and within a period two academic years in four semesters from the year / semester of admission to the course only are eligible for University Ranking. A candidate is deemed to have secured first rank provided he/she

- (i) Should have passed all the papers in first attempt itself.
- (ii) Should have secured the highest marks in the whole examination of the programme / course, or should have secured the highest cumulative grade point average (CGPA).

Following rules have been recommended for internal assessment:

- (a) The internal assessment for each theory paper shall be taken by the teacher concerned in the department during each semester. There will be two internal assessment tests each of 15% weightage, for theory papers in each semester. Each internal assessment test shall be of one hour duration for each paper and shall be taken according to academic calendar notified by the University. **There will be no internal examination in the practical paper.**
- (b) A student, who remains absent (defaulter) or fails or wants to improve the marks in the internal assessment, may be permitted to appear in the desired paper(s) (only one time) in the same semester with the permission of the concerned Head of the Department. A defaulter / improvement fee of Rupees 250/- per paper shall be charged from such candidates. Duly forwarded application of such candidates by the teacher concerned shall be submitted to HOD who may permit the candidate to appear in the internal assessment after depositing the defaulter/ improvement fee. A record of such candidates shall be kept in the department.

Following rules are recommended for Semester Assessment or External Assessment:

- (a) The external assessment shall be of three hours duration for each theory paper and the duration of field work will be at least two hours per week for practicum. The practicum examination shall be taken by the panel of at least one external and one internal examiner at the end of each semester.
- (b) The syllabus for each theory paper is divided into five independent units and the **Pattern of question paper** for each theory question paper will be divided into three sections as mentioned below:
 - **Section-A** shall have 01 compulsory question comprising 10 questions (maximum 20 words answer) taking two questions from each unit. Each question shall be of one mark and total marks of this section will be 10. This section will be compulsory in the paper.

- **Section-B** will carry 25 marks with equally divided in to five long answer type questions (answer about in 250 words) and examiners are advised to set two questions from each unit and students are instructed to attempt five questions by selecting one question from each unit.
- **Section-C** will contain five long answer type questions. One compulsory question of 15 marks and four questions of 10 marks each. Students are instructed to attempt total three questions with one compulsory question (answer about in 500 words) of and any two more questions (answer about in 400 words) out of remaining four questions. Paper setter shall be instructed to design question paper covering from all five units.

Course Structure

Semester	Paper Code	Nomenclature	Maximum Marks	
			Internal	External
First Semester	101	Introduction to Development Studies	30	70
	102	Civil Society and Development	30	70
	103	Micro Analysis in Development Studies	30	70
	104	Quantitative Analysis	30	70
	105	Information Technology & Development	30	70 (35+35)
Second Semester	201	Indian Economic Development and Policy	30	70
	202	Development & Human Rights	30	70
	203	Research Methodology in Development Studies	30	70
	204	Natural Resources & Sustainable Development	30	70
	205	Agriculture & Rural Development	30	70
Third Semester	301	Theories of Development & Planning	30	70
	302	Gender & Development	30	70
	303	Development Administration	30	70
	304	Project		100
	305	*Elective- I	30	70
Fourth Semester	401	Political Economy of International Trade & Development	30	70
	402	Macro Analysis in Development Studies	30	70
	403	Public Finance & Development	30	70
	404	Development and International Finance	30	70
	405	*Elective- II	30	70

*Electives

Elective	Paper Code	Nomenclature	Maximum Marks	
			Internal	External
Elective First	305 A	Social Administration	30	70
	305 B	Population and Development	30	70
	305 C	Social Movements and Social Change	30	70
	305 D	Development Issues in India	30	70
	305 E	Development Initiative- Policy, Plans & Project	30	70
Elective Second	405 A	Dissertation		100
	405 B	Project Planning, Monitoring & Evaluation	30	70
	405 C	Urban and Regional Development	30	70
	405 D	Human Development: Theory and Practice	30	70
	405 E	Tribes, Denotified Tribes & Their Development	30	70

Semester First

101: Introduction to Development Studies

Unit 1.

Nature and scope of development studies - Traditional and Modern perspective of development ; Meaning and definition of the concept of growth, development, progress and welfare; Socio cultural dimensions of development.

Unit 2.

Characteristics of Modern Economic Growth – Its Unequal Spread and Global Disparities. Common Characteristics and Dissimilarities among Developing Countries.

Unit 3.

Measuring Development- Social and Economic Indicators, Physical Quality of Life Index-PQLI, The Human Development Index-HDI, Three New Multi Dimensional Measures- Adjusted HDI, GII, MPI. India and HDI (Human Development Report- Latest edt.)

Unit 4.

Obstacles to Economic Development- Non Economic Factors and Economic Factor.

Determinants of Development- Non Economic Factors and Economic Factor.

Unit 5.

Poverty, Inequality and Development- Measuring Inequality, Dualistic Development and Lorenz Curves. Exploring the Relationship Between Economic Development & Income Distribution (Kuznets' Inverted U –Shaped Curve and Augmented Kuznets' Curve).

Suggested Reading:

1. Meier, Gerald M. and James E. Rauch (2006) : Leading Issues in Economic Development, Eighth Edition, Oxford University Press, New York.
2. Ray, Debraj (2004) : Development Economics, Seventh Impression, Oxford University Press, New Delhi.
3. Thirlwall, A. P. (2006) : Growth and Development, Eighth Edition, Palgrave Macmillan, New York.
4. Todaro, Michael P. and Stephen Smith, C. (2007) : Economic Development, Eighth Edition, Second Impression, Pearson Education, (Singapore) Pvt. Ltd., Indian Branch, Delhi.
5. Yotopoulos, Pan A. and Nugent Jeffery B. (1976) : Economics of Development : Empirical Investigations, Harper and Row Publishers, New York
6. Myrdal, :Asian Drama (Specially Volume III)
7. Kuznets, S. :Modern Economic Growth, Rate Structure and Spread, Vakils, SFeffer and Simons Private Limited, Bombay.
8. Jhingan, M.L. (2009): The Economics of Development and Planning , Fourth Edition, Vrinda Publication, Delhi-91. (Hindi & English).
9. S.C. Dubey (1919) : Tradition and Development , Vikas publication, New Delhi (paper back edition).
10. S.C. Dubey : Vikas ka Samajshastra Delhi. (paper back edition).

11. S.L. Sharma; "The concept of Social development " in development and transformation edited by B.K.Nagla, Rawat publication Jaipur.

102: Civil Society and Development

Unit-1

Civil Society: Concept, Characteristics, types, Historical and theoretical Analysis of the emergence of idea of Civil Society in liberal and Marxist political traditions. Evolution of civil society in India-pre independent and post independent India.

Unit-2

Linkages between civil society, state and market and their implications for development. Nature, forms and patterns of organization, leadership and participation in civil society.

Unit-3

Classification and Types of Civil Society Groups/ Organization: NGOs, Community based organizations, Grass-roots organizations, philanthropic organizations, faith-based foundations, self-help groups, business associations, advocacy groups, interest groups.

Unit-4

Dilemmas of Civil Society and Development (Un)-civil-society groups, International Aid, Donor Agencies, multilateral NGOs, and politicization of development. Civil Society Research and search for Inclusive Development

Unit-5

Voluntary action in India, history of Voluntarism, the role of Voluntary Organization in India's Development Processes; NGO's and paradigm shifts-their implication on Education, Women Empowerment, Health, weaker sections. Disaster management and Environment protection.

Suggested Reading:

1. Neera Chandhoke; State and Civil Society, Sage Publication, New Delhi.

2. Ashok Basu(2012); Rise of Civil Society in Bengal, Asiatic Society, Kolkata.
3. Mukerjee - A Study of Voluntary Organization in Rural Development.
4. Narayan . E A - Voluntary Organization in Rural Development.
5. Pandey Shashi Rajan – Community Action for Social Justice: Grass roots Organizations in India.
6. R. Soory Moorthy- NGOs in India A Cross Sectional Study.
7. Hall Antony- Community Participation and Rural Development, Social Development and State.
8. Dberoy, J.P.S.; (1996), Religion, Civil Society and the State; Oxford University Press, Delhi.
9. Dberoy, J.P.S.; (1999), "On Civil Society" in Sociological Bulletin, Vol. 48.
10. Dengil Saldanha (2010); Civil Society, Processes and State, Rawat Publication, New Delhi.
11. Singh, B. and Parthasarthy, (2010); "Civil Society Organization Partnership in urban Government " in sociological Bulletin, Vol. 59.

103: Micro Analysis in Development Studies.

Unit 1

Theory of Consumer behavior – cardinal and ordinal utility approaches, Price, Income and Substitution Effects, Normal, Inferior and Giffen goods, Derivation of demand curves, Determinants of Demand, Different elasticity's of Demand, Complementary and Substitute goods, Consumer Surplus, Revealed preference hypothesis, Consumer behavior under Uncertainty and risk.

Unit 2

Production Function: short and long run. Law of Variable Proportions, Three stages of Production, Ridge lines, Law of Returns and Returns to Scale, Isoquants and optimum factor combination, Expansion Path, Capital deepening and Labour deepening technology through Isoquants, Euler's theorem, Elasticity of Substitution, Cob-Douglas Production function.

Unit 3

Cost concept, cost curves – short and long run cost curves, Modern theory of cost curves, Economies of scale.

Unit 4

Price and output determination under Perfect competition, Monopoly and Monopolistic competition; concept of excess capacity, selling cost and group equilibrium under monopolistic competition. Oligopoly – non –collusive models of Cournot, Bertrand, Edgeworth, Chamberlin, Paul M. Sweezy (kinked demand curve) and Stakelberg. Collusive oligopoly- Cartels and Price Leadership.

Unit 5

Theory of Distribution: Marginal productivity theory; Product exhaustion theorem; Elasticity of technical substitution, technical progress and factor shares; Factor pricing in competitive and imperfect competitive markets; Welfare Economics – Pigovian Welfare Economics, Pareto Optimal conditions, Kaldor – Hicks Compensation criterion, Bergson Social Welfare Function, Maximization of Social Welfare and the point of Bliss, Welfare maximization, Externalities, Theory of Second Best.

Suggested Reading:

1. Koutsoyiannis: Modern Microeconomics, Macmillan, London.
2. H. L. Ahuja: Advanced Economic Theory, S. Chand & Sons, New Delhi.

3. D. Salvatore: Microeconomics Theory, Oxford University Press, New Delhi.
4. Robert S. Pindyck and Daniel L. Rubinfeld: Microeconomics, Pearson Education Inc., New Delhi.

104: Quantitative Analysis

Unit-1

Introduction – Definition of Statistics. Measurement – Normal Ordinal and Internal Scale of Measurement. Tables – Textual, Semi-Tabular Tables, Frequency Distribution – Construction Frequency Distribution Table for Discrete and Continuous Variable. Graphical and Diagrammatic Representations of the Data. Bar Diagram, Histograms, Frequency Polygon, Frequency Curve, A give Pie Diagrams.

Unit-2

Measurement of Central Tendency – Arithmetic Mean, Median. Mode and Geometric Mean. – Definitions, Characteristics and Uses. Measure of Dispersion – Range, Mean Deviation, Quartile Deviation and Standard Deviation – Definitions, Characteristics Uses.

Unit-3

Coefficient of Variations Correlation – Simple correlation Coefficient, Rank Correlation coefficient. Linear Regressions; Constants of Regression Equation.

Unit-4

Index Number, Analysis of Time Series and Curve Fitting, Probability, Mathematical Expectation and Probability distributions (Binomial, Poisson, and Normal).

Unit-5

Sampling Techniques, Sampling Errors- Type I and II, Applications of Z, t, F & χ^2 (Chi-square test) Tests, Testing of Hypothesis.

Suggested Readings:

1. S.P.Gupta: Statistical Methods, Sultan Chand & Sons, New Delhi.
2. Kailash Nath Nagar: Sankhyiki Ke Mool Tatva (Hindi) Meenakshi Prakashan, Meerut.
3. A.L. Nagar & R.K.Das: Basic Statistics, Oxford University Press, New Delhi.
4. J.H. Muller and K.F. Schuessler. Statistical Reasoning in Sociology, New Delhi; Oxford & IBH publication.
5. D.N. Elhance . Practical Problems in Statistics.
6. Sidney Siegel Non parametric Statistics for the Behavioral Sciences.

Note: The students are expected to learn both theoretical as well as practical aspects of the above statistics.

105: Information Technology and Development

Unit.1

Introduction, Meaning, Historical aspect of Information Technology, Postal Services, Electronics and Print media, Public undertaking in Communication Area (BSNL, MTNL, VSNLITI)

Unit.2

Basic and Important tool of information Technology: Computers. Its Generation, evaluation of Computers networks and networking, Data Communication. INTERNET ROLE AND IMPACT OF Information super Highway on development, Identifying Websites and Web resources

Unit.3

INFI/BNET, Social NET Working: and its Impact on Society Communication meaning, Human Communication model, Communication Networking in organization.

Unit.4

I.T. and Development, the social impact of I.T. revolution the linkages between I.T. and Development.

Unit.5

The potential for I.T. in India. The need for National Information Technology policy. Social Legitimizing: value system and information revolution.

Suggested Reading:

1. Donald Sanders : Computer Concepts and Applications, New York, MC Graw Hill, 1992.
2. Donald Sanders : Computers in Business, New York, Mc Graw Hill, 1991.
3. Gore Stubbe – Computer and Information Systems, New York, Mc-Graw Hill, 1989.
4. D. Mackenzie and J. Wajcman (eds.), The Social Shaping of Technology, 2nd Ed., McGraw Hill Education.
5. S.I. Habib and D. Raina (eds.), Social History of Science in Colonial India, Oxford University Press, 2007.

SPECIAL RULES AND SCHEME OF EXAMINATION FOR PAPER CODE 105:

- The examination in this paper shall consist of two parts:
1. Theory Examination 02hrs. Max. Marks 40
 2. Practical Examination 02hrs. Max. Marks 40

Candidate shall have to pass separately in both the parts.

- In theory examination, pattern of question paper shall be as follows:

The theory question paper consist 35 multiple choice type questions, taking seven questions from each unit. Each question shall be one mark.

- Practical examination shall consist of one practical and shall be conducted by a board of examiners having one External (to be appointed by the university) and one internal examiner.

Semester Second

201: Indian Economic Development and Policy

Unit.1

The Indian Economy before Independence, Basic Economic Indicators- National income , Performance of Different Sectors, Natural Resources of India and Human Resources.

Unit.2

Agricultural Development in India: Institutional aspects – Land Reforms, Green revolution, Technological Aspects – agricultural inputs and shifts in production function, Agricultural cost and price policy, Agricultural marketing and credit, Food policy and security, Subsidy and public distribution system, Capital formation in Indian Agriculture, problems in Agriculture- a need for second green revolution, other major agrarian revolutions and organic farming, zero budgeting agriculture

Unit.3

Industry - Strategy of Industrial Development and Industrial policy reforms, Small scale and Cottage industries, Reservation policy relating to small scale industries, Sources of Industrial Finance – Banks, share market, insurance companies, pension funds, non-banking sources and FDI; Public sector Reforms, privatization and disinvestment, make in India & swadeshi.

Unit.4

New economic policy – LPG and second phase of economic reforms Infrastructure development in India – physical infrastructure (power, transport, Communication and irrigation) and social infrastructure (health and education), SEZs, Evolution of NEF.

Unit.5

Foreign trade: Salient features, trends, composition, direction and organization, Trade Reforms, liberalization and recent changes in trade policy, MNCs and their impact on Indian Economy, WTO – issues and its impact on Indian economy, India's balance of payment Position in recent years.

Suggested Reading:

1. Rudradutt and Sundram : Indian Economy (Latest Ed.) (Hindi and English)
2. Mishra & puri: Indian Economy (Latest Ed.) (Hindi and English)
3. A. N. Agrawal : Indian Economy (Latest Ed.) (Hindi and English).
4. Laxmi Narayan Nathuramka : Bhartiya Arthshastra (Latest Ed.)
5. Government of India: Indian Economic Survey (Latest Edition).
6. Arvind Panagariya: India - The Emerging Giant
7. Amartya Sen(1993); Bharat: Vikas ki Dishayen (in Hindi).

202: Development and Human Rights

Unit.1

Human rights, development, linkages between human rights and development;

Unit.2

Perspectives: right to development - UN Declaration, Rights based approach to development; Major International conventions on rights: Protection of rights-migrant & refugees, Displacements.

Unit.3

Indian Constitution and Human Rights: right to food, shelter, education and health, fulfillment of universal social and economic rights;

Unit.4

Issues in India: right to food, employment, education, health, environment, child rights, women's rights, Human Rights displacement,

Unit.5

Development and human trafficking, impact of Information Communication Technologies (ICTs); Role of NGOs & civil society Role of road and mainstream in Human Rights protection.

Suggested Reading:

1. A. Clapham, *Human Rights*, Oxford University Press, 2007.
2. R. Bhargava, *Politics and Ethics of the Indian Constitution* Oxford University Press, 2009.
3. S. Hickey and D. Mitlin (eds.), *Rights Based Approaches to Development: Exploring the Potentials and Pitfalls*, Kumarian Press, 2009.

203: Research Methodology in Development Studies

Unit.1

Research – Its aims and objectives, nature of scientific knowledge characteristics of scientific method, development research elements of research design – selection of problem, unit selection for analysis. Variables, their choices and relationship

Unit.2

Meaning and Definition of Facts, hypothesis and Concept; Types of hypothesis, working hypothesis, Null hypothesis, Alternative hypothesis, Scientific hypothesis; Conceptualization and Re-Conceptualization (operationalization)

Unit.3

Types of research design, explanatory studies, descriptive studies, diagnostic studies and experimental studies; Sampling – Meaning and significance, Type : SRS, stratified, systematic, cluster, purposive and quota sampling.

Unit.4

Tools of data collection – Main tools of data collection, primary data, questionnaire, schedules

interviews, observations, secondary data sources, strengths and weakness of tools for different situation, selection of tools in relation of research objectives.

Unit.5

Writing a Research Report Scientific writing style, drafting, use of language, preface and acknowledgements, table of contents, list of illustration, text cauterization headings and sub-headings, quotation, footnotes, pagination, appendix, bibliography.

Suggested Reading:

1. Goods W.T. and Mati P.R. – Methods in Social Research, McGraw Hill, London, 1952.
2. Jahoda M. Maron D. and Stuart W.C. – Research Methods in Social Relations, Dryden, New York, 1954.
3. Young P.V. and Schmid Cr. – Scientific Social Surveys and Research, Prentice Hall, New Delhi, 1977.
4. Misra R.P. Research Methodology – A Hand Book, Concept Publishers, New Delhi, 1989.
5. Gopal M.H. – Research Reporting in Social Sciences, Karnataka University, Dharwar, 1965.
6. Berry, R. – How to Write a Reseach Paper – Pegamen, London.
7. David Dooley(1997) ; Social Research Methods, Prentice Hall of India ,New Delhi.
8. Jaspal Singh(2001); Methodology and Techniques of Social Research, New Delhi; Kanishka.

204: Natural Resources & Sustainable Development:

Unit.1

Natural Resources: Water and land resources: Forests, water resources, land resources, food resources, mineral resources, forest resources: use and over-exploitation, deforestation, floods, drought, conflicts over water, dams-benefits and problems, landslides, soil erosion and desertification.

Unit.2

Mineral and ore resources- Mineral resources-use and exploitation, environmental impacts of extracting and using mineral resources; Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems.

Unit.3

Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources; Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification; Role of organization and an individual in conservation of natural resources, natural resource accounting.

Unit.4

Sustainable development: Sustainable development, principles and scope of sustainability, strategies for promoting sustainable development and consumption, current issues and areas of debate in relation to sustainable development, carrying capacity based planning process.

Unit.5

Sustainable Energy Resources: Renewable energy for sustainable development, natural resources and sustainable development; International efforts for conservation of resources. Conservation and sustainable use of India's natural and Forest resources Sustainable agriculture: Organic farming, biological farming, ecological farming system, integrated pest management. Sustainable habitation: ecovillage, ecocity, ecoindustry estate.

Suggested Reading:

1. Agarwal KC, 2001. Environmental Biology, Nidi Publishers Ltd. Bikaner.
2. Bharucha Erach, 2003. The Biodiversity of India, Mapin Publishing Pvt. Ltd, Ahmedabad – 380013,
3. Brunner RC, 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480pgs.
4. Clark RS, Marine Pollution, Clanderson Press, Oxford (TB).

5. Cunningham WP, Cooper TH, Gorhani E & Hepworth MT, 2001. Environmental Encyclopaedia, Jaico Publishing House, Mumbai, 1196pgs.
6. Down to Earth, Center for Science and Environment (R)
8. Gleick HP, 1993. Water in Crisis, Pacific Institute for Studies in Development, Environment and Security. Stockholm Environmental Institute, Oxford University Press, 473pgs.
9. Hawkins RE, Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
10. Heywood VH, and Watson RT, 1995. global Biodiversity Assessment. Cambridge University Press 1140pgs.
11. Jadhav H and Bhosale VM, 1995. Environmental Protection and Laws. Himalaya Publishing House, Delhi 284pgs.
12. Mckinney ML and Schoch RM, 1996. Environmental Science Systems and Solutions. Web enhanced edition, 639pgs.
13. Mhaskar AK, Matter Hazardous, Techno-Science Publications (TB)
14. Miller TG, Jr. Environmental Science, Wadsworth Publishing CO. (TB)
15. Odum EP, 1971. Fundamentals of Ecology. WB Saunders Co. USA, 574pgs.
16. Rao MN and Datta AK, 1987. Waste Water Treatment. Oxford and IBH Publishing Co. Pvt. Ltd.

205: Agriculture & Rural Development

Unit.1

Role of Agriculture in Indian Economy – Share of Agriculture, interrelationship between agriculture and industry; Measurement of Land Settlement (Permanent Settlement, Ryotwari and Mahalwari).

Unit.2

Growth of Infrastructure (Roads, Irrigation, Railways, Navigation, Market, etc.); Institutional aspects- Land reforms and agrarian structure, Green revolution- agricultural productivity and the marginalized groups; Growth and productivity trends in Indian agriculture, Regional disparities in Indian agriculture.

Unit.3

Cooperative movement in India- Organization, structure, and development of different types of cooperatives in India; Strategies for rural development; Institutional and technological changes, Production functions in agriculture, resource use efficiency factors of production.

Unit.4

Agriculture productivity; real wage and labour migration; Agricultural diversification, Agricultural marketing and credit; costs and price policies, Food security; Commercialization of Agriculture. Reforms in Indian agriculture; Globalization, WTO and Impact on agriculture.

Unit.5

Evolution of 'Panchyati Raj' Institutions in India, MGNREGA and other Rural Development Schemes. Role of 'Panchyati Raj' Institutions in Rural Development.

Suggested Reading:

1. E.D. Heady and J.I. Dillon: Agricultural production Functions.
2. T.W. Shultz: Transforming Traditional Agriculture.
3. Pranab K. Bardhan: Land, Labour and Rural Poverty in India.
4. Krishna Bhardwaj: Production and conditions in Indian Agriculture.