

MAHARSHI DAYANAND SARASWATI UNIVERSITY, AJMER



पाठ्यक्रम
SYLLABUS

SCHEME OF EXAMINATION AND COURSES OF STUDY

FACULTY OF SOCIAL SCIENCE

M.Phil. Geography

M.Phil Examination Semester-I, Semester-II

2010-11 से प्रभावी(w.e.f.)

सत्र 2013-14

महर्षि दयानन्द सरस्वती विश्वविद्यालय, अजमेर

NOTICE

1. Change in Statutes/Ordinances/Rules/Regulations/ Syllabus and Books may, from time to time, be made by amendment or remaking, and a candidate shall, except in so far as the University determines otherwise comply with any change that applies to years he has not completed at the time of change. The decision taken by the Academic Council shall be final.

सूचना

1. समय-समय पर संशोधन या पुनः निर्माण कर परिनियमों / अध्यादेशों / नियमों / विनियमों / पाठ्यक्रमों व पुस्तकों में परिवर्तन किया जा सकता है, तथा किसी भी परिवर्तन को छात्र को मानना होगा बशर्ते कि विश्वविद्यालय ने अन्यथा प्रकार से उनको छूट न दी हो और छात्र ने उस परिवर्तन के पूर्व वर्ष पाठ्यक्रम को पूरा न किया हो। विद्या परिषद द्वारा लिये गये निर्णय अन्तिम होंगे।

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Ordinance 123 (V) relating to M. Phil Examination
According to Minimum standards and procedure for awards of M. Phil degree as per the guidelines of U.G.C. Regulation, 2009
Scheme of Examination

1. For starting or continuing M. Phil course in the University and its affiliated colleges, it must be ensured that at least two qualified teachers are available in that subject. A teacher who possesses Ph.D. Degree shall be eligible to teach M. Phil classes. A teacher who possesses Ph.D. Degree and three years P.G teaching experience shall be eligible to supervise M. Phil dissertation.
2. A candidate for admission to the courses of study for the Degree of M.Phil must have obtained a Master's Degree in the concerned subject with at least 55% marks at the post graduate Examination of this University or of any other University/ Institution . A candidate with second division at post graduate examination (with less than 55% marks) shall be eligible for the M.Phil. if he/she has second division at the graduate examination. Relaxation in the eligibility will be given to SC/ST/OBC/PH etc as per rules of the University/State Government.
3. **Admission to M. Phil Programme**
 - (i) University shall issue notification regarding Eligibility test for admission to M.Phil Programme. Research Eligibility Test (RET- M.Phil) in the National/Regional news papers etc.
 - (ii) University shall conduct RET-M.Phil on the date notified once every year.
 - (iii) Candidates who have qualified the UGC/CSIR(JRF)/NET/SET/ GATE/ or any equivalent examination conducted by the State/Central government/Teacher Fellowship holder are exempted from RET.
 - (iv) The University shall prepare a merit list of the eligible candidates.
4. **Procedure for Admission to M.Phil Programme**
A merit list shall be prepared of the eligible candidates based on the weightage of percentage of the academic record such as Sr. Secondary, Graduation, Post Graduation, publication in the peer reviewed journal, presentation of paper in National/International Conference/Seminar/ Workshop shall be as follows:

1. Sr. Secondary	10% of the percentage obtained
2. Graduation	20% of the percentage obtained
3. Post graduation	60% of the percentage obtained
4. Publication	05*
5. Conference/seminar	05**

(*2.5 marks for each publication with maximum 5 Marks,
** 2.5 marks for each conference/seminar with maximum 5 marks)

The number of candidates called for interview shall be twice the availability of seats. Allocation for the candidates for the University and colleges shall be faculty wise and centralized at the University campus.
5. **Students allotment Committee**
The Composition of the Committee shall be as follows:
 - (i) Dean P.G.Studies
 - (ii) Dean Concerning Faculty
 - (iii) Head of the Department/Incharge/Director of the concerning teaching Department of the University/College

- (iv) Principal or his/her nominee (in the case of College)
 (v) Director Research (Member Secretary)

6. Research Eligibility Test (RET-M.Phil)

A. Procedure

There shall be a Research Eligibility Test for M.Phil. of 200 marks comprising of two papers of 100 marks of two hours duration each. Both the papers will be held on the same day with a gap of one hour. A candidate who does not appear in paper I shall not be allowed to appear in paper II. First paper shall be of Research aptitude and the second paper shall be subject paper based on the concerned subject.

B. Syllabus

Syllabus of paper First shall be based on research aptitude and the Second paper shall be based on the common papers of syllabus of M.D.S. University, Ajmer of their post graduation of the concerned subject. (Except special/optional papers)

Paper I – Research Aptitude

The questions shall be of general nature, intended to assess the research aptitude of the candidate. It will primarily be designed to test reasoning ability, comprehension, divergent thinking, computer skills, elementary statistical methods and general awareness of the candidate. A total of 50 multiple choice questions (MCQ's) will be set. Each question shall carry 2 marks. There will be no negative marking.

Paper II – Subject Paper

There shall be only one subject paper based on the syllabus of the common papers candidate has studied at the post graduation. There will be three sections in this paper.

Section A: 20 question of multiple choice 2 marks each = 40

Section B: 10 question of short answers 3 marks each = 30

Section C: 2 question of long answers 15 marks each = 30

(All Question in Section A and B shall be compulsory. In section C there will be four questions out of which candidate shall be required to attempt any two questions.)

7. The candidate after getting admission in the M.Phil. programme will carry out the M.Phil. studies as per the scheme mentioned below.

Semester Scheme for M.Phil Courses

- (i) M.Phil. course shall be of one academic session to be run under semester scheme and credit system. There will be two semesters in the academic session. Each semester will be of about 20 weeks duration having a minimum of 90 days (16 weeks) of actual teaching, one week for preparatory leave and remaining days for the conduction of examination and other activities.
 The tentative schedule is as below:
 First semester : July to November
 Internship: >2 weeks (December)
 Second semester: January to May
- (ii) There will be six (6) theory papers in one academic session divided equally into two semesters. The dissertation is in lieu of IV and VIII theory papers in Semester I and II, respectively.

- (iii) The M.Phil. Course shall be of 32 credit hours, i.e. 16 credits per semester.
- (iv) Each theory credit hour shall be designated as 1L that shall be equal to 1 hour of instruction and one dissertation credit hour shall be designated as 1 D credit that shall be equal to 1.5 hour per week. (L = Lecture; D=Dissertation)
- (v) Each theory paper shall be of 4L credits per semester with total 64 hrs of instructions. The semester shall be of about 16 weeks, 4 hrs instructions shall be given to each theory paper per week.
- (vi) The dissertation shall carry 4 D in each semester with total 96 hours of instruction hours per semester. Since a semester shall be of about 16 weeks, 6 hrs instruction per week shall be given to dissertation.
- (vii) Each theory paper shall be of 50 marks and dissertation shall be of 50 marks. There shall be no evaluation of the dissertation at the end of first semester because the work carried out during the first semester shall be continued in the second semester. Evaluation of the dissertation shall be done at the end of the second semester.
- (viii) The distribution of credits and the examination scheme are as below:

Paper	Title	Max. Marks	Credits	Minimum hours of instruction		Minimum hours of self study	
				Per week	Per semester	Per week	Per semester
Semester I							
I	Research	50	4	4	64	4	64
	Methodology						
II	Optional Paper	50	4	4	64	4	64
III	Optional Paper	50	4	4	64	4	64
IV	Dissertation*	—	4	6	96	12	192
Semester I Total		150	16	18	288	24	384
Semester II							
V	Advance	50	4	4	64	4	64
	Research						
	Methodology						
VI	Optional Paper	50	4	4	64	4	64
VII	Optional Paper	50	4	4	64	4	64
VIII	Dissertation*	100	4	6	96	12	192
Semester II Total		250	16	18	288	24	384
Grand total of Semester I & II		400	32		576		768

There will be internship of two to three weeks between two semesters

*Dissertation will begin from semester I and shall complete at the end of the second semester.

- (ix) The total maximum marks for evaluation in M.Phil. shall be 400.
- (x) The time allotted for self study is the minimum time expected to be spent on various activities like practical, field work, library reference work, use of computer and internet and such other facilities.
- (xi) There shall be one paper on Research Methodology (Paper-I) in Semester I and one on Advance Research Methodology in Semester II.
- (xii) Papers II, III shall be optional paper in Semester I and paper VI and VII shall be optional in II Semester.
- (xiii) Out of a maximum of 50 marks in each theory paper 15 marks (30%) shall be for the continuous sessional assessment to be done internally based on assignments (5 marks), written test (5 marks) and seminar/group discussion (5 marks). The internal assessment marks should be sent to the University by the various Departments/Affiliated Colleges of the University before the commencement of theory examination. The theory examination will be held at the end of each semester. Each theory paper shall be assessed out of a maximum of 35 marks
- (xiv) All paper setters and examiners for the external assessment shall be external persons (i.e. those who are not working either in the M.D.S University or in any of its affiliated colleges). The Board of studies shall prepare a separate panel of Examiners for M. Phil. theory papers as well as dissertation. Appointment of the paper setters and examiners shall be made on the recommendations of the committee for selection of the examiners.
- (xv) The answer books of theory papers of external examination shall be evaluated by single examiner. After declaration of the result the student concerned if desires shall be entitled for re-evaluation in accordance with the provisions of the university. Dissertation shall be evaluated by two examiners.
- (xvi) The student will have to carry out the work of dissertation in both the semesters and shall submit the thesis for evaluation within two weeks after the last theory examination of II Semester.
- (xvii) Dissertation work shall be conducted by the candidate under the supervision of any teacher who is registered as M.Phil. Supervisor with the teaching department concerned. An M.Phil. Supervisor can normally guide five dissertations at a time. However, the maximum limit may be relaxed by the Vice-chancellor on the recommendation of the Head. The work load for dissertation shall be six hours per week per class.
- (xviii) For dissertation work the placement of every candidate under a supervisor shall be decided within one month from the last date of admission.
- (xix) The dissertation will be divided into two parts. Part I of Semester I will constitute preparation of plan of work that should be presented by the student in front of the faculty of the department, who will assess the feasibility and recommend

suggestions, if any, for the improvement. The student must suitably incorporate the changes, if any, in the synopsis in consultation with the supervisor. Following this he/she must write and submit type written draft of chapters on review of literature and methodology to the supervisor. He/she may also conduct some preliminary work/experiments to understand the techniques. The supervisor shall submit a report of satisfactory progress to the Head of the Department before beginning of the theory examination. The latter shall forward it to the university along with marks for internal assessment. The dissertation shall be of 100 marks to be evaluated out of 70 marks by an external examiner. The marks obtained, shall be added to the marks obtained in the viva voce examination to be held subsequently.

- (xx) In the second part of dissertation in Semester II, the student will have to complete the work as per the aims and objectives of the study and submit a dissertation. Prior to final submission of the dissertation, the student shall make a pre- M. Phil. presentation in the department in the presence of all the faculty chaired by the Head of the Department . Suggestions, if any, may be suitably incorporated into the dissertation.
- (xxi) The candidate must give a certificate that (1) the dissertation incorporates his/her own work, (2) the work incorporated in the dissertation is not a repetition of earlier work, (3) any part of the dissertation containing information from other sources has been properly cited or has been printed after having obtained due permission from the original author, and (4) any kind of assistance or help taken during the course of work has been properly acknowledged. This certificate must be attached immediately after the title page of the dissertation. Supervisor shall give a certificate according to the prescribed format ((Annexure-I)
- (xxii) The dissertation must be hard bound and type written dissertation on A-4 size paper. Four hard copies and four soft copies in non-editable PDF format must be submitted to the Head of the Department through the Supervisor. The colour of the cover page of dissertation shall be faculty wise (Annexure-II).
- (xxiii) On receipt of satisfactory evaluation report of dissertation, i.e., minimum 50% marks M. Phil. students shall undergo a viva voce examination of 30 marks which shall also be openly defended. There will be an examination committee comprising one external examiner and one internal examiner; the later may be the supervisor of the candidate or the Head of the Department in the absence of the supervisor.
- (xxiv) Every student shall be required to undertake a compulsory internship of 2-3 weeks in between the two semesters. The internship schedule shall be decided by the concerning Head of the Department. The teaching institution may decide for the provision of stipend for the students taking internship. The students will be required to submit and present a report of the internship. The participating organization/institution will give the performance appraisal of the student's work. The concerning supervisor of the Department shall certify the satisfactory

performance of the students during internship and submit the same to the examination section through the Head of the Department of the university.

- (xxv) Every candidate shall be required to attend a minimum of 75% of the lectures, tutorials, seminars and practical (taken together) held in each paper.
- (xxvi) Every student of semester I shall be promoted to the next semester at her/his own risk in case he/she qualifies in 50% of papers (2 theory papers of semester I).
- (xxvii) The student who fails in any paper of Semester I st or IInd shall appear in the due paper in the next year along with the concerned Semester.
- (xxviii) The award list should show both, total marks of the continuous internal assessment as well as external assessment in the theory papers separately and the third column must have the aggregate marks of the two. The candidate will be considered pass on the basis of the combined total marks secured in each paper.
- (8) For a pass, a student will have to obtain (a) at least 40% marks in each paper separately and (b) a minimum of 50% marks in the aggregate of all the papers prescribed for the examination. In the marksheet, successful candidates shall be classified as under:

Pass	50% or more but less than 55% marks in the aggregate
Second Division	55% or more but less than 65% marks in the aggregate
First Division	65% or more but less than 75% marks in the aggregate
First Division with Distinction	75% or more marks in the aggregate

A candidate who fails at the examination even in one paper/dissertation shall be required to reappear at the examination in a subsequent year in all the papers/dissertation prescribed for the examination, provided that a candidate who obtains at least 50% marks in dissertation shall be exempted from submitting a fresh dissertation and the marks obtained by him shall be carried forward for working out his result.

9. Depository with UGC

- (i) Following the successful completion of the evaluation process and announcements of the award of M.Phil the University shall submit a soft copy of the M.Phil dissertation obtained from the candidate to the UGC, for hosting the same in INFLIBNET accessible to all Institution/Universities.
- (ii) Along with the Degree, the University, shall issue a Provisional Certificate certifying to the effect that the Degree has been awarded in accordance with the provisions to these Regulations of the UGC.

GEOGRAPHY

M.Phil. (Geography) Examination – 2011. SCHEME OF EXAMINATION

Note : The selection of optional paper groups shall be opted by students at the time of admission in the First Semester only.

First Semester

Paper Nomenclature

- I. Research Methodology (Compulsory Paper)
- II. Optional Paper (Required to opt any one of the following groups)
 - Gr. A-1- Economic Geography
 - Gr. B-1- Geomorphology
 - Gr. C-1- Industrial Geography
- III. Optional Paper (Required to opt any one of the following groups)
 - Gr. D-1- Political Geography
 - Gr. E-1- Biogeography
 - Gr. F-1- Remote sensing and G.I.S.
- IV. Dissertation (Compulsory Paper)

Second Semester

Paper Nomenclature

- V. Advanced Research Methodology (Compulsory Paper)
- VI. Optional Paper (Required to opt one same group as in First Semester)
 - Gr. A-2- Advanced Economic Geography
 - Gr. B-2- Advanced Geomorphology
 - Gr. C-2- Advanced Industrial Geography
- VII. Optional Paper (Required to opt one same group as in First Semester)
 - Gr. D-2- Advanced Political Geography
 - Gr. E-2- Advanced Biogeography
 - Gr. F-2- Advanced Remote sensing and G.I.S.
- VIII. Dissertation (Compulsory Paper)

PAPER - I: RESEARCH METHODOLOGY

Duration: 3 Hrs.

Max. Marks: 35

Course Contents :

Research Methodology - Meaning & definition, objectives and recent trends.

Problems of geographical research. Identification of problems of regional and systematic geography. Formulation of research schemes and research projects.

Collection, processing, analysis and utilization of field data. Methods of measuring concentration and dispersal of socio-economic activities, inter-regional flows. Methods of delimiting regions with particular reference to resources and industries.

Integrated Area Development Planning.

Books Recommended:

1. Gregory's : Statistical Methods and the Geographer, Longmans.

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2. King T.J.: Statistical Analysis in Geography, Prentice Hall.
3. Hagget P.: Locational Analysis in Human Geographical Studies, Sanjay Enterprises, New Delhi.
4. Mahmood, Aslam: Statistical Methods in Geographical Studies, Sanjay Enterprises, New Delhi.
5. John Silk: Statistical Concepts in Geography, George Allen and Unwin, London, 10.
6. Growson & Cowden : Applied General Statistics, Prentice Hall.
7. Johnston, R.L. : Multivariate Statistical Analysis in Geography, George Allen Unwin, London, 10.
8. Cole J.P. and King C.A.M. : Quantitative Geography, John Wiley & Sons, London.
9. Pol, K. Saroj : Statistics for Geoscientists - Techniques and Application, Concept Publishing Company, New Delhi.
10. Kothari, C.R. : Research Methodology - Methods and Techniques, New Age International (P) Ltd. Publishers, New Delhi.
11. Ahuja Ram: Research Methods, Rawat Publications, Jaipur and New Delhi.

PAPER - II -Gr-A-1 : ECONOMIC GEOGRAPHY

Duration : 3 Hours

Max. Marks : 35

Course Contents :

Concept : Important ideas and concept of economic geography; nature and pattern of economic activities on the surface of the earth on micro and macro levels; primary, secondary and tertiary activities; The question of the location characteristics and relationship, statistical methodology of measurement, theory and planning.

Process of economic regionalisation in capitalist and socialist countries, economic regions of India.

Geography and economic planning.

Books Recommended :

1. Lloyd and Dicken : Location in Space - Theoretical Approach to Economic Geography.
2. McCart and Lindberg: A Preface to Economic Geography.
3. Smith, D.E. : Industrial Location - An Economic Geographical Analysis.
4. Hodder and Lee : Economic Geography
5. Berry Conkling & Ray : The Geography of Economic Systems, Prentice Hall.
6. Smith, J.C. and Phillip, M.O. : Industrial and Commercial Geography, Henry Holt.
7. Miller, E. W. : A Geography of Manufacturing.
8. Ghose, B.C. : Industrial Location.
9. Bengston, N.A. & Royen M. V. : Fundamentals of Economic Geography, Prentice Hall, New York.
10. Alexander, J.W. : Economic Geography, Prentice Hall, New York.
11. Guha & Chatterjee: A New Approach to Economic Geography.
12. M.V. Royen and N.A. Bengston: Fundamentals of Economic Geography, Prentice Hall, New York.
13. Remmer, T.H. & other: World Economic Geography.
14. Robson, H. : Economic Geography, M.Sc. Donald, London.
15. Thoman, R.S. : The Geography of Economic Activity, McGraw Hill, New York.
16. Zimmerman, E.W. : World Resources and Industries, Harper and Co., New York.
17. Robertson D. (Ed) : Globalisation and Environment, E. Elgan Co., U.K., 2001.
18. Wheeler J.O. : Economic Geography, John Willey, New York, 1995.
19. Dreze, J. and Sen, A. : India - Economic Development and Social

20. Opportunity, Oxford University Press, New Delhi, 1996.
21. काशीनाथ सिंह : आर्थिक भूगोल के मूल तत्त्व, वसुन्धरा प्रकाशन, गोरखपुर।
22. पुरुषोत्तम जैन : आर्थिक भूगोल, रस्तोगी प्रकाशन, मेरठ।
23. नेगी, बी.एस. : संसाधन भूगोल।

PAPER - II -Gr-B-1 : GEOMORPHOLOGY

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

The nature and Status of Geomorphology. Development of Geomorphological thoughts and recent trends.

Structural Basis of Geomorphology - Earth movement, forces of crustal instability, plate tectonics, major organic episodes of earth, evolution of Himalayas. Major structural units of the world, India, Rajasthan.

Dynamic Geomorphology: Weathering, Mass Movement, Sub-surface, fluvial, Glacial, Aeolian, Marine Processes; Processes and inter relationships, denudational chronology.

Quantitative Analysis of Fluvially eroded land forms - basin studies. Erosion surface and techniques of identification.

Slope analysis - slope evolution, their stability and failures.

Geomorphology of Ocean floor - Relief features of ocean bottoms, sea floor spreading, characteristics of sea water, coral reefs and coastal geomorphology.

Books Recommended:

1. Ahmed, E. : Coastal Geomorphology of India, New Delhi.
2. Ahmed, E. : Geomorphology, Kalyani Publisher, New Delhi.
3. Chorley, R.J. : Spatial Analysis in Geomorphology, Methuen, London, 1972.
4. Cotton, C.A. : Geomorphology, John Willey Sons, New York.
5. Cooke, R.U. and Doornkamp, J.C. : Geomorphology in Environmental Management - A Introduction, Clarendon Press, Oxford, 1974.
6. Dayal, P. : A text book Geomorphology.
7. Oury, G.H. : The Face of the earth, Penguin Harmondsworth, 1959.
8. Fairbridge, R.W.: Encyclopedia of Geomorphology, Reinholdts, New York, 1968.
9. Goudie, A.: The Nature of the Environment, Oxford & Blackwell, London, 1993.
10. Jefferys, H.F. : The Earth - Its Origin, History & Physical constitution.
11. John, Pity: Introduction to Geomorphology.
12. Kale V. and Gupta, A. : Elements of Geomorphology.
13. King and Embleton C.A.M. : Glacial and Pre-Glacial Geomorphology. Arnold.
14. Lobeck A.K. : Geomorphology, McGraw Hill Book Co. New York.
15. Mitchell, C.W. : Terrain Evaluation, Longman, London. 1973. .
16. Ollier, C.D. : Weathering, London, 1973.
17. Prithvish Nag, M. Kudrat : Digital Remote sensing.
18. Pitty, A.F. : Introduction to Geomorphology, Methuen, London. 1973.
19. Ramasay, S.M. : Remote Sensing in Geomorphology. New India Publisher.
20. Rao, D.P. : Remote Sensing for Earth Resources.
21. Sters, J.A. : Unstable Earth, Methuen & Co., London.
22. Stoddart, D.R. (ed.) : Process and form in Geomorphology, Routledge, New York. 1996.
23. Strahler, A.N. : Earth Sciences, Harper and Row Publishers, New York.
24. Strahler, A.N. : Modern Physical Geography, John Willey and Sons Inc., New

York.

25. Skinner & Porter, S.C. : The Dynamic Earth, John Willey, New York. 1996.
26. Sparks, B. : Geomorphology, Longman, London. 1960.
27. Singh, S. : Geomorphology, Prayag Publication, Allahabad, 1998.
28. Thomas, M. Lilies and Ralph, W. Kefer : Remote Sensing and Image Interpretation, John Willey & Sons, New York. 1994.
29. Thornbury, A.X. : Geomorphology, Prentice Hall, New York.
30. Thornbury, W.O. : Principles of Geomorphology, John Willey, New York, 1960.
31. Wooldridge and Morgan: An Introduction to Geomorphology, Longmans Green & Col., London.
32. Devi Dutt Chaunyal : Remote Sensing and Geomorphological Information System.

Hindi Books:

1. सविन्द्रसिंह : भू-आकृति विज्ञान, वसुन्धरा प्रकाशन, गोरखपुर।
2. कौशिक, एस.डी. : भू-आकृति विज्ञान, रस्तोगी प्रकाशन, मेरठ।
3. नेगी, बी.एस. : भू-आकृति विज्ञान, रस्तोगी प्रकाशन, मेरठ।

PAPER - II -Gr-C-1 : INDUSTRIAL GEOGRAPHY

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

Theory of industrial location : Industrial raw materials, markets and transport costs in industrial location, study of selected industries and location pattern and distribution of manufacturing industries - Iron and steel, textiles, paper and pulp, cement, aluminium, oil refinery, chemical and engineering industries; the influence of energy source and market on industrial location, effect of Governmental activity.

Books Recommended:

1. Lloyd and Dicken : Location in Space - A Theoretical Approach to Economic Geography.
2. M.C. Cart & Linberg Hodder & Lee. : Economic Geography.
3. Smith, D.E. Cox K.P. man: Industrial Location. An Economic Geographic Analysis, Location and Behaviour - An Introduction to Human Geography.
4. Riley, R.C. : Industrial Geography, 1973. Chaito and Windus London.
5. Alexander, J.W. : Economic Geography, Prentice Hall, New Delhi.
6. Besoh: A Geography of World Economy.
7. Estall, R.C. & Buchanan, R.O. : Industrial Activity & Economic Geography, Hutchinson Co., London.
8. Hoover, E.M. : The Location of Economic Activity MCGraw Hill Books Co., New York.
9. Choudhary, M.R. : Industrial Geography of India.

PAPER - III -Gr-D-1 : POLITICAL GEOGRAPHY

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

1. Nature - Evolution and Scope of Political Geography : Heritage from Ratzel and his followers, Chronological to scientific approach, Contents and scope.
2. Approaches and Pattern in Electoral Studies : Beginning and evolution of electoral studies in Political Geography: Approaches to the study of Geography of elections. Types of Electoral system.

Electoral abuse : Nak Mal apportionment and Gerrymandering. The voting decision in a spatial context.

3. Government and the Geography of Social well-being: Social well-being and its geography; The determinants of social well-being; Politics, territories, elections and well-being; A model, of how much government spend; Politician, voters and policies; The local government spending.

Books Recommended:

1. Alexander, L.M. : World Political Patterns, John Murry and Co., London.
2. Boggs, S.W. : International Boundaries, Columbia University Press, New York.
3. Bownman, I. : The New World Problems in Political Geography, World Co. Younkers, On Hudson.
4. East, W.G and Moodie A.E. : The Changing World, George O. Harrap and Co., London.
5. East, W.G and Spate, O.H.K. : The Changing Map of Asia, Methuen and Co., London.
6. Frigreive, J. : Geography and World Power, University of London Press, London.
7. Fawcer, C.B. : Frontiers, Study in Political Geography, Oxford University Press, Oxford.
8. Fizzgiddon, R.H. : Global Politics, University of California Press, Parkaley.
9. Hotradin, J.F. : An Outline of Political Geography, Alfred A. Knob, New York.
10. IDlsuk] gfksgu : jktuSfrd Hkwxksy] jLrksxh ,.M dEiuh] esjBA
11. Moodie, A.E. : 'Geography behind Politics, Hutchinson's University Library, London.
12. Peach, C.E., et.al. : World Political Geography, Thomas, Y. Crowell Co., New York.
13. Valkenburg, S.V. & Suz. C.L. : Elements of Political Geography, Second Edition, Eastern Economy Edition. Prentice Hall & Co. Ltd., New York.
14. Stranz, R.H. : Geopolitics. The Struggle for Space and Power, G.P. Pitman's & Sons, New York.
15. Stykman, N.J. : The Geography of Place, Harcour Brace, New York.
16. Wegett, H.W., Stefansov, V & Harrison, RE. : New Compass of the world Macmillan and Co. New York.
17. Whittlesey, D. : The Earth and State, Henry Holt and Co., New York.
18. W.A. Douglass Jackson: Politics and Geography Relationship, Prentice Hall, New York.
19. S.B. Cohen : Geography and Politics and Geography Relationship, Prentice Hall, New York.
20. Crone: Background to Political Geography .
21. H. Jeo Blij : Systematic Political Geography, John Willey & Sons, New York.
22. Bergman, Edward E. : Modern Political Geography, W.M.C. Brown Company Publishers.
23. Dikshit, RD. : Political Geography - A Contemporary Perspective, Tata McGraw Hill Publishing Co. Ltd., New Delhi.
24. Sukhwai, B.L. : India - A Political Geography, Allied Publishers, New Delhi.

PAPER - III -Gr-E-1 : BIOGEOGRAPHY

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

Plant and animal Ecology : Ecosystems, the nature of Ecosystems, Energy Flow in Ecosystems, Bio-Geochemical Cycles, Ecological Populations

and Communities - The level of Equilibrium, Ecological Succession, Homeostasis, Limiting Factors of Environment, Interactions among animals and plants, Liebig's law of Minimum, Shelford's Law of tolerance regulatory Factors. Ecotones and Concept of Edge Effect. Stratification, Zonation, Food Web, Reproductive and Social Activities in Plants and Animal Communities.

Books Recommended:

1. Clark, G.L. : Elements of Ecology, John Wiley.
2. Odum, E.P. : Fundamentals of Ecology, W.B. Saunders .
3. Allee, W.C. ; Park, B. ; Emerson, A.E. : Principles of Animal Ecology
4. Kormondy, E.J. : Concepts of Ecology, Prentice Hall.
5. S. Knight, C.B. : Basic concepts of Ecology, Macmillan.
6. Macfarden, A. : Animal Ecology, Pitman.
7. Ipre, J. and Fiegel, P. : Introduction to Biostatistics, Harper and Row.
8. Dunn, O.J. : Basic Statistics - A Primer for Bio-Medical Sciences, John Wiley.
9. Billings, W.D. : Plants and the Ecosystem, Wadsworth. California.
10. Smith, R.L. : Ecology and Field Biology, Harper and Row.

PAPER-III-Gr-F-1 : REMOTE SENSING & GEOGRAPHICAL INFORMATION SYSTEM

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

Historical development of remote sensing as a technology -Relevance of remote sensing in Geography - Concepts and basics; Energy source, energy and radiation, principles, energy interactions in the atmosphere and earth surface features. Remote sensing systems: platforms, sensors and radiation records.

Air photos and photogrammetry : Elements of photographic system : type, scales and ground coverage, resolution, radiometric characteristics, films, filters, aerial cameras, film exposures, geometric fundamentals of photogrammetry : elements of vertical photographs, relief displacement, image parallax, stereoscopic, orthophotos air photo interpretation : shape, size, pattern, tone, texture, shadows, site advantage and limitation & remote sensing & its comparison with map.

Books Recommended:

1. American Society of photogrammetry : Manual of Remote Sensing. ASP, Falls Church, V.A. 1983. Vol. I, II.
2. Barrett, E.C. and L.F. Curtis: Fundamentals of Remote Sensing and Air Photo interpretation, McMillan, New York, 1992.
3. Chouhan T.S. : Desertification in the world and its control. Scientific Publisher, Jodhpur.
4. Campbell, J. : Introduction of Remote Sensing, Guilford, New York, 1989.
5. Curran, Paul. J. : Principles of Remote Sensing, Longman, London, 1985.
6. Hord, R.M. : Digital Image Processing of Remotely Sensed Data, Academic, New York, 1989.
7. Jhanwar M.L. & Chouhan T.S. : RS & Photogrammetry Principles & Applications. Vol. I-II, Vigyan Prakash, Jodhpur.
8. Luder, D. : Aerial Photography Interpretation : Principles and Application, McGraw Hill, New York, 1959.
9. Pratt. W.K. : Digital Image Processing. Willey, New York, 1978.

10. Rao, D.P.(eds.) : Remote Sensing for Earth Resources, Association of Exploration Geophysicist, Hyderabad, 1998.
11. Thomas, M. Lilles and Ralph, W.Kefer : Remote Sensing and Image Interpretation. John Willey & Sons, New York, 1994.
12. Chouhan, T.S. & Joshi, K.N. : Applied R.S. and Photo Interpretation, Vigyan Prakashan, Jodhpur.
13. Wolf, Paul, K. : Elements of Photogrammetry, McGraw Hill Book Co.
14. Gautam, N.C. SPGU. Technology of Geography, N.R.S.A., Hyderabad.
15. Singh, S. : Remote Sensing Technology, Sa- Publication, Jodhpur.
16. Barrett, E.C. and L.F. Curtis : Fundamentals of Remote Sensing and Air Photo Interpretation, McMillan, New York, 1992.

SECOND SEMESTER

Paper Nomenclature

- V. **Advanced Research Methodology (Compulsory Paper)**
- VI. **Optional Paper (Required to opt one same group as in First Semester)**
 - Gr. A-2- Advanced Economic Geography
 - Gr. B-2- Advanced Geomorphology
 - Gr. C-2- Advanced Industrial Geography
- VII. **Optional Paper (Required to opt one same group as in First Semester)**
 - Gr. D-2- Advanced Political Geography
 - Gr. E-2- Advanced Biogeography
 - Gr. F-2- Advanced Remote sensing And G.I.S.
- VIII. **Dissertation (Compulsory Paper)**

PAPER - V: ADVANCED RESEARCH METHODOLOGY

Duration: 3 Hrs.

Max. Marks: 35

Course Contents :

Descriptive Statistics and importance of statistics in geography.
Theory of Probability. Theory of Sampling,
Correlation, Simple Linear Regression analysis.
Spatial distributions and Interactions: Measurements of disparities,
Measures of Inequalities,
Combinational analysis, Matrice's Multivariate analysis,
Logical models, Hypotheses and Theory building.

Books Recommended:

1. Gregory's : Statistical Methods and the Geographer, Longmans.
2. King T.J.: Statistical Analysis in Geography, Prentice Hall.
3. Hagget P.: Locational Analysis in Human Geographical Studies, Sanjay Enterprises, New Delhi.
4. Mahmood, Aslam: Statistical Methods in Geographical Studies, Sanjay Enterprises, New Delhi.
5. John Silk: Statistical Concepts in Geography, George Allen and Unwin, London, 10.
6. Growzon & Cowden : Applied General Statistics, Prentice Hall.
7. Johnston, R.L. : Multivariate Statistical Analysis in Geography, George Allen Unwin, London, 10.
8. Cole J.P. and King C.A.M. : Quantitative Geography, John Wiley & Sons, London.
9. Pol, K. Saroj : Statistics for Geoscientists - Techniques and Application, Concept Publishing Company, New Delhi.
10. Kothari, C.R. : Research Methodology - Methods and Techniques, New Age

International (P) Ltd. Publishers, New Delhi.

11. Ahuja Ram: Research Methods, Rawat Publications, Jaipur and New Delhi.

PAPER-VI Gr-A-2 : ADVANCED ECONOMIC GEOGRAPHY

Duration : 3 Hours

Max. Marks : 35

Course Contents :

Transport geography, transport economics, transport network. Concept of economic resource, resource evaluation, resource region, division of India into resource regions, resource planning and management.

Geography of manufacturing, co-ordination between large, medium small scale and cottage industries.

Geography of market centres, retail distribution and wholesaling, the economic law of market areas, role of tribal markets.

Books Recommended :

1. Lloyd and Dicken : Location in Space - Theoretical Approach to Economic Geography.
2. McCart and Lindberg: A Preface to Economic Geography.
3. Smith, D.E. : Industrial Location - An Economic Geographical Analysis.
4. Hodder and Lee : Economic Geography
5. Berry Conkling & Ray : The Geography of Economic Systems, Prentice Hall.
6. Smith, J.C. and Phillip, M.O. : Industrial and Commercial Geography, Henry Holt.
7. Miller, E. W. : A Geography of Manufacturing.
8. Ghose, B.C. : Industrial Location.
9. Bengston, N. A. & Royen M. V. : Fundamentals of Economic Geography, Prentice Hall, New York.
10. Alexander, J.W. : Economic Geography, Prentice Hall, New York.
11. Guha & Chatterjee: A New Approach to Economic Geography.
12. M.V. Royen and N.A. Bengston: Fundamentals of Economic Geography, Prentice Hall, New York.
13. Remmer, T.H. & other: World Economic Geography.
14. Robson, H. : Economic Geography, M.Sc. Donald, London.
15. Thoman, R.S. : The Geography of Economic Activity, McGraw Hill, New York.
16. Zirnnerman, E.W. : World Resources and Industries, Harper and Co., New York.
17. Robertson D. (Ed) : Globalisation and Environment, E. Elgan Co., U.K., 2001.
18. Wheeler J.O. : Economic Geography, John Willey, New York, 1995.
19. Dreze, J. and Sen, A. : India - Economic Development and Social
20. Opportunity, Oxford University Press, New Delhi, 1996.
21. काशीनाथ सिंह : आर्थिक भूगोल के मूल तत्व, वसुन्धरा प्रकाशन, गोरखपुर।
22. पुरुषोत्तम जैन : आर्थिक भूगोल, रस्तोगी प्रकाशन, मेरठ।
23. नेगी, बी.एस. : संसाधन भूगोल।

PAPER - VI Gr-B-2 : ADVANCED GEOMORPHOLOGY

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

Regional Geomorphology - Problem of Regionalization, Methodological problems, significance differences of -1. Rock structure, 2. Epirogenic and eustatic changes, 3. Climate, 4. Climatic changes in the Pleistocene period: Geomorphic regions of the world, India and Rajasthan.

Concept of land system - Land capability and land suitability classification.

Remote sensing and interpretation of aerial photographs in geomorphology - DEM Model, TIN Model, Soil conservation, erosion, vegetation, buried channels, resource inventory.

Geomorphological Mapping - Historical background, Purpose of Geomorphological mapping, development of legend system and types of legends and applied Geomorphology.

Books Recommended:

1. Ahmed, E. : Coastal Geomorphology of India, New Delhi.
2. Ahmed, E. : Geomorphology, Kalyani Publisher, New Delhi.
3. Chorley, R.J. : Spatial Analysis in Geomorphology, Methuen, London, 1972.
4. Cotton, C.A. : Geomorphology, John Willey Sons, New York.
5. Cooke, R.U. and Doornkamp, J.C. : Geomorphology in Environmental Management - A Introduction, Clarendon Press, Oxford, 1974.
6. Dayal, P. : A text book Geomorphology.
7. Oury, G.H. : The Face of the earth, Penguin Harmondsworth, 1959.
8. Fairbridge, R. W. : Encyclopedia of Geomorphology, Reinholdts, New York, 1968.
9. Goudie, A. : The Nature of the Environment, Oxford & Blackwell, London, 1993.
10. Jefferys, H.F. : The Earth - Its Origin, History & Physical constitution.
11. John, Pity: Introduction to Geomorphology.
12. Kale V. and Gupta, A. : Elements of Geomorphology.
13. King and Embleton C.A.M. : Glacial and Pre-Glacial Geomorphology. Arnold.
14. Lobeck A.K. : Geomorphology, McGraw Hill Book Co. New York.
15. Mitchell, C.W. : Terrain Evaluation, Longman, London. 1973.
16. Ollier, C.D. : Weathering, London, 1973.
17. Prithvish Nag, M. Kudrat : Digital Remote sensing.
18. Pitty, A.F. : Introduction to Geomorphology, Methuen, London. 1973.
19. Ramasay, S.M. : Remote Sensing in Geomorphology. New India Publisher.
20. Rao, D.P. : Remote Sensing for Earth Resources.
21. Sters, J.A. : Unstable Earth, Methuen & Co., London.
22. Stoddart, D.R. (ed.) : Process and form in Geomorphology, Routledge, New York. 1996.
23. Strahler, A.N. : Earth Sciences, Harper and Row Publishers, New York.
24. Strahler, A.N. : Modern Physical Geography. John Willey and Sons Inc., New York.
25. Skinner & Porter, S.C. : The Dynamic Earth, John Willey, New York. 1996.
26. Sparks, B. : Geomorphology, Longman, London. 1960.
27. Singh, S. : Geomorphology, Prayag Publication, Allahabad, 1998.
28. Thomas, M. Lilies and Ralpah, W. Kefer : Remote Sensing and Image Interpretation. John Willey & Sons, New York. 1994.
29. Thornbury, A.X. : Geomorphology, Prentice Hall, New York.
30. Thornbury, W.O. : Principles of Geomorphology, John Willey, New York, 1960.
31. Wooldridge and Morgan: An Introduction to Geomorphology, Longmans Green & Col., London.
32. Devi Dutt Chaunyal : Remote Sensing and Geomorphological Information System.

Hindi Books:

1. सविन्द्रसिंह : भू-आकृति विज्ञान, वसुन्धरा प्रकाशन, गोरखपुर।
2. कौशिक, एस.डी. : भू-आकृति विज्ञान, रस्तोगी प्रकाशन, मेरठ।

3. नेगी, बी.एस. : भू-आकृति विज्ञान, रस्तोगी प्रकाशन, मेरठ।

PAPER - VI Gr.-C-2 : ADVANCED INDUSTRIAL GEOGRAPHY

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

Classification of industries and basis of classification : Co-ordination between large, medium, small scale and cottage industries.

Concept of industrial region and methods of delineation : Detailed study of highly industrialised regions one, from each of the U.S.A., Russia, West Europe, Great Britain, Japan and Australia. Industrial regions of India.

Industrial development in developed and developing countries Progress in Industrial Geography.

Books Recommended:

1. Lloyd and Dicken : Location in Space - A Theoretical Approach to Economic Geography.
2. M.C. Cart & Linberg Hodder & Lee. : Economic Geography.
3. Smith, D.E. Cox K.P. man: Industrial Location. An Economic Geographic Analysis, Location and Behaviour - An Introduction to Human Geography.
4. Riley, R.C. : Industrial Geography, 1973. Chalton and Windus London.
5. Alexander, J.W. : Economic Geography, Prentice Hall, New Delhi.
6. Besoh: A Geography of World Economy.
7. Estall, R.C. & Buchanan, R.O. : Industrial Activity & Economic Geography, Hutchinson Co., London.
8. Hoover, E.M. : The Location of Economic Activity McGraw Hill Books Co., New York.
9. Choudhary, M.R. : Industrial Geography of India.

PAPER - VII -Gr.-D-2 : ADVANCED POLITICAL GEOGRAPHY

Duration: 3 Hrs.

Max. Marks : 35

Course Contents :

1. The Impress of Politics upon the Environment :
The Public Management of the Environment; Environment stress and the municipal political system; The impress of effective central authority upon the landscape.
2. Geography of Administration :
Parameters of effective administrative system; The forms of internal organisation and types of administration system; Nature of delivery system and services and under development.
3. Changing Map of the World & Existing International System:
Post colonial development and proliferation of states; Developing & developed nation states & power pattern. Interdependence and diversities and growing disparities.
Growing regional and international groupings and association their effectively and compulsions.

Books Recommended:

1. Alexander, I.M. : World Political Patterns. John Murry and Co., London.
2. Boggs, S.W. : International Boundaries. Columbia University Press. New York.
3. Bowman, I. : The New World Problems in Political Geography. World Co.

4. Younkers, On Hudson.
5. East, W.G and Moodle A.E. : The Changing World, George O. Harrap and Co., London.
6. East, W.G and Spate, O.H.K. : The Changing Map of Asia, Methuen and Co., London.
7. Frigrieve, J. : Geography and World Power, University of London Press, London.
8. Fawcer, C.B. : Frontiers, Study in Political Geography, Oxford University Press, Oxford.
9. Flzgidon, R.H. : Global Politics, University of California Press, Parkaley.
10. Hotradin, J.F. : An Outline of Political Geography, Alfred A. Knob, New York.
11. सक्सेना, हरिमोहन : राजनैतिक भूगोल, रस्तोगी एण्ड कम्पनी, मेरठ।
12. Moodie, A.E. : 'Geography behind Politics, Hutchinson's University Library, London.
13. Pearch, C.E., et.al. : World Political Geography, Thomas, Y. Crowell Co., New York.
14. Valkenburg, S.V. & Suz. C.L. : Elements of Political Geography, Second Edition, Eastern Economy Edition. Prentice Hall & Co. Ltd., New York.
15. Stranz, R.H. : Geopolitics. The Struggle for Space and Power, G.P. Pitman's & Sons, New York.
16. Stykman, N.J. : The Geography of Place, Harcour Brace, New York.
17. Wegett, H.W., Stefansov, V & Harrison, RE. : New Compass of the world Macmillan and Co. New York.
18. Whittlesey, D. : The Earth and State, Henry Holt and Co., New York.
19. W.A. Douglass Jackson: Politics and Geography Relationship, Prentice Hall, New York.
20. S.B. Cohen : Geography and Politics and Geography Relationship, Prentice Hall, New York.
21. Crone: Background to Political Geography .
22. H. Jeo Blij : Systematic Political Geography, John Willey & Sons, New York.
23. Bergman, Edward E. : Modern Political Geography, W.M.C. Brown Company Publishers.
24. Dikshit, RD. : Political Geography - A Contemporary Perspective, Tata McGraw Hill Publishing Co. Ltd., New Delhi.
25. Sukhwai, B.L. : India - A Political Geography, Allied Publishers, New Delhi.

PAPER - VII -Gr.-E-2 : ADVANCED BIOGEOGRAPHY

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

Ecological Regulations Successions and their divergence, Barriers and Ecosis in Succession. The Biome Modification in Succession, Monoclimax and Polyclimax theories. Paleo-Ecology and their Evolution, Geographical Isolation-Mechanisms and Effects, Adaptations and Natural Selection. Biotic Resources, Pollution and Environment-1 Effects, Space Ecology and Nuclear radiations.

Biogeography & Economic bearing, Conservation of Fauna Flora in India and their Development Programmes in India.

Quantitative Estimations of Biotic Populations, random dispersal, variance and Standard Error, Finding Significance by Chi-square and T tests.

Books Recommended:

1. Clark, G.L. : Elements of Ecology, John Wiley.
2. Odum, E.P. : Fundamentals of Ecology, W.B. Saunders .
3. Allee, W.C. ; Park, B. ; Emerson, A.E. : Principles of Animal Ecology

4. Kormondy, E.J. : Concepts of Ecology, Prentice Hall.
5. S. Knight, C.B. : Basic concepts of Ecology, Macmillan.
6. Macfarden, A. : Animal Ecology, Pitman.
7. Ipre, J. and Fiegel, P. : Introduction to Biostatistics, Harper and Row.
8. Dunn, O.J. : Basic Statistics - A Primer for Bio-Medical Sciences, John Wiley.
9. Billings, W.D. : Plants and the Ecosystem, Wadsworth. California.
10. Smith, R.L. : Ecology and Field Biology, Harper and Row.

PAPER-VII Gr.-F-2 : ADVANCED REMOTE SENSING & GEOGRAPHICAL INFORMATION SYSTEM

Duration : 3 Hrs.

Max. Marks : 35

Course Contents :

Satellite Remote Sensing : History and development of various types of satellite and space programme. Image processing; types of imagery, techniques of visual interpretation, ground verification, and transfer of interpreted thematic information of base maps - Digital processing : rectification and resolution, Image enhancement-contrast manipulation, classification supervised and unsupervised, post classification analysis.

Applications : Air photo and Satellite Image, Interpretations and mapping of cultural and physical features.

Land use and land cover soil, land evaluation, weather studies, water resources; hazard management, and environmental management. GIS - Introduction, definition & scope, its application in various fields & planning.

Books Recommended:

1. American Society of photogrammetry : Manual of Remote Sensing, ASP, Falls Church, V.A. 1983. Vol. I, II.
2. Barrett, E.C. and L.F. Curtis: Fundamentals of Remote Sensing and Air Photo interpretation, McMillan, New York, 1992.
3. Chouhan T.S. : Desertification in the world and its control. Scientific Publisher, Jodhpur.
4. Compbell, J. : Introduction of Remote Sensing, Guilford, New York, 1989.
5. Curran, Paul, J. : Principles of Remote Sensing, Longman, London, 1985.
6. Hord, R.M. : Digital Image Processing of Remotely Sensed Data, Academic. New York, 1989.
7. Jhanwar M.L. & Chouhan T.S. : RS & Photogrammetry Principles & Applications Vol. I-II, Vigyan Prakash, Jodhpur.
8. Luder, D. : Aerial Photography Interpretation : Principles and Application. McGraw Hill, New York, 1959.
9. Pratt, W.K. : Digital Image Processing. Willey, New York, 1978.
10. Rao, D.P.(eds.) : Remote Sensing for Earth Resources, Association of Exploration Geophysicist, Hyderabad, 1998.
11. Thomas, M. Lilles and Ralph, W.Kefer : Remote Sensing and Image Interpretation John Willey & Sons, New York, 1994.
12. Chouhan, T.S. & Joshi, K.N. : Applied R.S. and Photo Interpretation, Vigyan Prakashan, Jodhpur.
13. Wolf, Paul, K. : Elements of Photogrammetry, McGraw Hill Book Co.
14. Gautam, N.C. SPGU. Technology of Geography, N.R.S.A., Hyderabad.
15. Singh, S. : Remote Sensing Technology, Sa- Publication, Jodhpur.
16. Barrett, E.C. and L.F. Curtis : Fundamentals of Remote Sensing and Air Photo Interpretation, McMillan, New York, 1992.