

Choice Based Credit System (CBCS): Syllabus in Geography

**Semester- 5
(Marks-300, Credit- 24)**

COURSE OPTED	COURSE NAME	CREDIT	IA	ESE	TOTAL	HRS/WEEK
CORE COURSE (CC11)	RESEARCH METHODOLOGY AND FIELD WORK	4	15	40	75	4-0-0
		2		20		0-0-4
CORE COURSE (CC12)	REMOTE SENSING AND GIS	4	15	40	75	4-0-0
		2		20		0-0-4
DSE 1	CULTURAL AND SETTLEMENT GEOGRAPHY	6	15	60	75	5-1-0
DSE 2	POPULATION GEOGRAPHY	6	15	60	75	5-1-0

Core Course: -

Pattern of Setting Questions (40 Marks):

- 5 questions to be answered out of 8, each question carries 02 Marks, Total 10 Marks.
- 2 questions to be answered out of 4, each question carries 05 Marks, each question shall have at least two parts. Total 10 Mark
- 2 questions to be answered out of 4, each question carries 10 Marks, each question shall have at least two parts; Total 20 Marks

Pattern of Setting Questions Practical (20 Marks):

- 2 questions to be answered, each question carries 5 Marks, Totalling 10 Marks;
- Evaluation of Laboratory Note Book/ Field report: 5
- Viva-Voce 5 Marks

❖ CC 11 – Research methodology and field work (40 Marks / 4 Credits)

Unit	S.N.	Topic	Teacher
<u>Unit I:</u> Research Methodology	1	Research in Geography: Meaning, types and significance	AB
	2	Significance of Literature review in research	AB
	3	Defining research problem, objectives and hypothesis. Research materials and methods	RH
	4	Techniques of writing scientific reports: Preparing notes, references, bibliography (APA Style), abstract and keywords	RH
<u>Unit II</u> Field Work	1	Fieldwork in Geographical studies – Role and significance. Selection of study area and objectives. Pre-field preparations. Ethics of fieldwork	RD
	2	Field techniques and tools: Questionnaires (open, closed, structured, non-structured). Interview with special reverence to focused group discussions	RD

	3	Field techniques and tools: Landscape survey using transects and quadrants, constructing a sketch, photo and video recording.	BD
	4	Collection of samples. Preparation of inventory from field data. Post-field tasks	BD

❖ **CC 11 (Practical) (20 Marks/ 2 Credits):** Field report will be prepared based on primary data collected from field survey and secondary data collected from different sources for either a rural area (mouza) or an urban area (municipal ward) based on cadastral or municipal maps to study specific problems--- **RD+BDRH**



Reference Books

Theory:

- ✚ Creswell J., 1994: Research Design: Qualitative and Quantitative Approaches Sage Publications.
- ✚ Dikshit, R. D. 2003. The Art and Science of Geography: Integrated Readings. Prentice-Hall of India, New Delhi.
- ✚ Evans M., 1988: "Participant Observation: The Researcher as Research Tool" in Qualitative Methods in Human Geography, eds. J. Eyles and D. Smith, Polity.
- ✚ Mukherjee, Neela 2002. Participatory Learning and Action: with 100 Field Methods. Concepts. Publs. Co., New Delhi.
- ✚ Robinson A., 1998: "Thinking Straight and Writing That Way", in Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioural Sciences, eds. by F. Pryczak and R. Bruce Pryczak, Publishing: Los Angeles.
- ✚ Special Issue on "Doing Fieldwork" The Geographical Review 91:1-2 (2001).
- ✚ Stoddard R. H., 1982: Field Techniques and Research Methods in Geography, Kendall
- ✚ Kothari, C. R. and Garg, G., 2018, Research Methodology, Methods and Techniques, New Age International Publication, New Delhi

Practical:

- ✚ Monkhouse, F.J. and Williamson, R.H. (1963): Maps and Diagrams: Their Compilation and Construction, Methuen, London
- ✚ Saha, P.K. and Basu, P. (2009): Advanced Practical Geography, Books and Allied (P) Ltd., Kolkata
- ✚ Sarkar, A. (2008): Practical Geography: A Systematic Approach, Orient Black Swan, Kolkata
- ✚ Narasinha Murthy, R.L. (2014) Research Methodology in Geography, Concept, New Delhi
- ✚ Yeates M., 1974: An Introduction to Quantitative Analysis in Human Geography.

❖ *CC 12 – Remote Sensing and GIS (40 Marks / 4 Credits)*

Unit	S.N.	Topic	Teacher
Unit I: Remote Sensing	1	Definition, Concepts and Principles of Remote Sensing (RS): Types of Air Photo, RS satellites, sensors and platforms	RD
	2	EMR Interaction with Atmosphere and Earth Surface, Sensor resolutions and their applications with reference to IRS	RD
	3	Principles of False Colour Composites (FCC) from IRS LISS-III and Landsat Images (ETM+) data: Image Processing, Pre-processing; Enhancement; Classification.	AB
	4	Principles of image interpretation for Forest, Water and Soil	AB
Unit II GIS & GNSS	1	Definition and Components of Geographical Information System (GIS) and raster and vector data structures	RH
	2	Principles of preparing attribute tables and overlay analysis	RH
	3	Principles of GNSS positioning - Uses and Waypoint Collection Methods	BD
	4	Applications of Geographical Information System in Flood Management and Urban Sprawl	RH

❖ *CC 12 – Remote Sensing and GIS Practical (20 Marks / 2 Credits)*

S.N.	Topic	Teacher
1	Georeferencing of Scanned Maps	RH
2	Preparation of FCC using IRS LISS-III and/or Landsat (ETM+) data	AB
3	Preparation of LULC Map by Supervised Image Classification (Maximum Likelihood) using IRS LISS-III or Landsat (ETM+) data	AB
4	Digitisation of Point, Line and Polygon Features and Preparation of Thematic Map (using bar, pie and choropleth method)	RH



Reference Books

📖 Campbell J. B., 2007: Introduction to Remote Sensing, Guildford Press.

- ✚ Jensen J. R., 2004: Introductory Digital Image Processing: A Remote Sensing Perspective, Prentice Hall.
- ✚ Joseph, G. 2005: Fundamentals of Remote Sensing, United Press India.
- ✚ Lillesand T. M., Kiefer R. W. and Chipman J. W., 2004: Remote Sensing and Image Interpretation, Wiley. (Wiley Student Edition).
- ✚ Nag P. and Kudra, M., 1998: Digital Remote Sensing, Concept, New Delhi.
- ✚ Rees W. G., 2001: Physical Principles of Remote Sensing, Cambridge University Press.
- ✚ Singh R. B. and Murai S., 1998: Space-informatics for Sustainable Development, Oxford and IBH Pub.
- ✚ Wolf P. R. and Dewitt B. A., 2000: Elements of Photogrammetry: With Applications in GIS, McGraw-Hill.
- ✚ Sarkar, A. (2015) Practical geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi

DSE-1: Cultural and Settlement Geography (60 Marks/ 6 Credits)

Unit	S.N.	Topic	Teacher
Unit I: Cultural Geography	1	Definition, Scope and Content of Cultural Geography	RD
	2	Development of Cultural Geography	RD
	3	Concept of Cultural Hearth, Realm; Cultural Landscape	RD
	4	Cultural Innovation and Diffusion; Diffusion of Major World Religions	RD
	5	Cultural Segregation, Cultural Diversity, and Acculturation Major Races of the World: Distribution and Characteristics	RD
	6	Major Races of the World: Distribution and Characteristics	RD
Unit II Settlement Geography	1	Scope and Content of Settlement Geography	BD
	2	Definition and Characteristics of Rural Settlement	BD
	3	Rural Settlements: Site and Situation	BD
	4	Urban Settlements: Census Definition, Urban Outgrowth, Urban Agglomeration	BD
	5	Urban Morphology: Classical Models of Burgess, Hoyt, Harris and Ullman	BD

	6	Functional Classification of Cities: Harris and Nelson	BD
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Reference Books

- ✚ Bergman, E.F (1995): Human Geography-Culture, Connections and Landscape, Prentice Hall, New Jersey
- ✚ Chisholm. (1975): Human Geography, Penguin Books, Hermondsworth.
- ✚ Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
- ✚ Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
- ✚ Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H.
- ✚ Freeman and Company, New York.
- ✚ Pearce D. (1995): Tourism Today: A Geographical Analysis, 2nd edition, Longman Scientific & Technical, London
- ✚ Pickering K. and Owen A. A. (1997): An Introduction to Global Environmental Issues, 2nd edition Rutledge, London.
- ✚ Raw, M. (1986): Understanding Human Geography: A Practical Approach, Belland Hyman. London
- ✚ Rubenstein, J.M. (2002), The Cultural Landscape, 7th edition, Prentice Hall, Englewood Cliffs
- ✚ Smith D M (1982): Human Geography: A Welfare Approach, Edward Arnold, London

Pattern of Setting Questions:

- 10 questions to be answered out of 15, each question carries 02 Marks, Total 20 Marks;
- 4 questions to be answered out of 6, each question carries 05 Marks, Each question shall have at least two parts. Total 20 Marks;
- 2 questions to be answered out of 4, each question carries 10 Marks, Each question shall have at least two parts. Total 20 Marks;
- Internal Assessment: 15 (Assessment 10 and Attendance 05 Marks) Marks

DSE 2: Population Geography (60 Marks/ 6 Credits)

Unit	S.N.	Topic	Teacher
Unit I (2 Credits)	1	Development of Population Geography; Relation between Population Geography and Demography	AB
	2	Determinants of Population Dynamics; Concept of Optimum Population	AB
	3	Theories of population growth: Malthusian Theory and Marxian Approach, Demographic Transition Model	AB
	4	Distribution, Density and Growth of Population in India since 1951	AB
Unit II (4 Credits)	1	Population Composition and Characteristics: Age-Sex; Female-Male Ratio	RH
	2	Measures of Fertility and Mortality	RH
	3	Population Composition of India: Rural and Urban, Occupational Structure as per Census of India	RH
	4	Migration: Theories, Causes and Types	RH
	5	Concept of Human Development Index	RH
	6	Population and development: population-resource regions,	RH
	7	Population policies in Selected Countries: Sweden and China 8. Contemporary Issues in Population: Health and Unemployment	RH
	8	Population Composition and Characteristics: Age-Sex; Female-Male Ratio	RH

Pattern of Setting Questions:

- 10 questions to be answered out of 15, each question carries 02 Marks. Total 20 Marks;
- 4 questions to be answered out of 6, each question carries 05 Marks, Each question shall have at least two parts. Total 20 Marks;
- 2 questions to be answered out of 4, each question carries 10 Marks, Each question shall have at least two parts. Total 20 Marks;
- Internal Assessment: 15 (Assessment 10 and Attendance 05) Marks