

The University of Burdwan



Syllabus for B.A/B.Sc.(General)

in

Geography

Under Choice Based Credit System

w.e.f. 2017-2018 onward

**COURSE STRUCTURE UNDER CHOICE BASED CREDIT SYSTEM FOR B.A. GENERAL IN
GEOGRAPHY**

Semester-wise course structure

SEMESTER	COURSE OPTED	COURSE NAME	CREDIT	MARKS			No. of hours L-T-P (Per week)
				IA	ESE	TOTAL	
I	Ability Enhancement: compulsory course - I	Environmental Studies	4		100	100	
	DISCIPLINE 1 (Geography)	Core Course – 1(CC1) Geotectonics and Geomorphology	4	15	40	75	4-0-0
		Practical Scale and Cartography	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course – 1(CC1) As to be offered by other departments	6	15	60	75	5-1-0
	DISCIPLINE 3 (English Language)	Core Lang 1-1	6	15	60	75	5-1-0
Total			22		325		
II	Ability Enhancement: compulsory course - II	Communicative English/ MIL	2		50	50	
	DISCIPLINE 1 (Geography)	Core Course – 2 (CC-2) Climatology, soil and Biogeography	4	15	40	75	4-0-0
		Practical Surveying and Levelling	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course – 2 (CC-2) As to be offered by other departments	6	15	60	75	5-1-0
	DISCIPLINE 3 Hindi / MIL	Core Lang-2-1	6	15	60	75	5-1-0
Total			20		275		
III	DISCIPLINE 1 (Geography)	Core Course – 3(CC-3) Human Geography	4	15	40	75	4-0-0
		Practical Map Projection and Map Interpretation	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course – 3(CC-3) As to be offered by other departments	6	15	60	75	5-1-0
	DISCIPLINE 3 (English Language)	Core Lang 1-2	6	15	60	75	5-1-0
	Skill Enhancement Course	SEC- 1(Computer Basics and Computer Applications or Remote Sensing)	2	10	40	50	0-0-4
Total			20		275		
IV	DISCIPLINE 1 (Geography)	Core Course – 4(CC4) Environmental Geography	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course – 4(CC4) As to be offered by other departments	6	15	60	75	5-1-0
	DISCIPLINE 3 Hindi / MIL	Core Lang2-2	6	15	60	75	5-1-0
	Skill Enhancement Course	SEC- 2 (Regional Planning and Development or GIS based Project Report (Practical))	2	10	40	50	0-0-4
Total			20		275		

SEMESTER	COURSE OPTED	COURSE NAME	CREDIT	MARKS			No. of hours L-T-P (Per week)
				IA	ESE	TOTAL	
V	DISCIPLINE 1 (Geography)	DSE – 1(Geography of India or Economic Geography)	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	DSE – 1 As to be offered by other departments	6	15	60	75	5-1-0
	Generic Elective	GE-1 Any discipline other than discipline 1 and 2	6	15	60	75	5-1-0
	Skill Enhancement Course	SEC- 3Field Techniques and Survey based Project Report (Practical) or Collection, Mapping and Interpretation of Climatic Data	2	10	40	50	0-0-4
Total			20		275		
VI	DISCIPLINE 1 (Geography)	DSE- 2(Disaster Management or Geography of Tourism)	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	DSE – 2 As to be offered by other departments	6	15	60	75	5-1-0
	Generic Elective	GE-2 Any discipline other than discipline 1 and 2	6	15	60	75	5-1-0
	Skill Enhancement Course	SEC- 4 Collection, Mapping and Interpretation of Pedological Data Or Rocks and Minerals and their megascopic identification	2	10	40	50	0-0-4
Total			20		275		
TOTAL OF ALL SEMESTERS			122		1700		

COURSE STRUCTURE UNDER CHOICE BASED CREDIT SYSTEM FOR B.Sc GENERAL IN
GEOGRAPHY

Semester-wise course structure

SEMESTER	COURSE OPTED	COURSE NAME	CREDIT	MARKS			No. of hours L-T-P (Per week)	
				IA	ESE	TOTAL		
I	Ability Enhancement: compulsory course - I	Environmental Studies	4		100	100		
	DISCIPLINE 1 (Geography)	Core Course – 1(CC1) Geotectonics and Geomorphology	4	15	40	75	4-0-0	
		Practical Scale and Cartography	2		20		0-0-4	
	DISCIPLINE 2 (Other Subject)	Core Course – 1(CC1) As to be offered by other departments	4	15	40	75	4-0-0	
		Practical As to be offered by other departments	2		20		0-0-4	
	DISCIPLINE 3 (Other Subject)	Core Course – 1(CC1) As to be offered by other departments	4	15	40	75	4-0-0	
		Practical As to be offered by other departments	2		20		0-0-4	
	Total			22		325		
	II	Ability Enhancement: compulsory course - II	Communicative English/ MIL	2		50	50	
		DISCIPLINE 1 (Geography)	Core Course – 2 (CC2) Climatology, soil and Biogeography	4	15	40	75	4-0-0
Practical Surveying and Levelling			2	20		0-0-4		
DISCIPLINE 2 (Other Subject)		Core Course – 2(CC2) As to be offered by other departments	4	15	40	75	4-0-0	
		Practical As to be offered by other departments	2		20		0-0-4	
DISCIPLINE 3 (Other Subject)		Core Course – 2(CC2) As to be offered by other departments	4	15	40	75	4-0-0	
		Practical As to be offered by other departments	2		20		0-0-4	
Total			20		275			
III		DISCIPLINE 1 (Geography)	Core Course – 3(CC3) Human Geography	4	15	40	75	4-0-0
			Practical Map Projection and Map Interpretation	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course – 3(CC3) As to be offered by other departments	4	15	40	75	4-0-0	
		Practical As to be offered by other departments	2		20		0-0-4	
	DISCIPLINE 3 (Other Subject)	Core Course – 3(CC3) As to be offered by other departments	4	15	40	75	4-0-0	
		Practical As to be offered by other departments	2		20		0-0-4	
	Skill Enhancement Course	SEC- 1(Computer Basics and Computer Applications or Remote Sensing)	2	10	40	50	0-0-4	
	Total			20		275		

IV	DISCIPLINE 1 (Geography)	Core Course – 4(CC4) Environmental Geography	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course – 4(CC4) As to be offered by other departments	4	15	40	75	4-0-0
		Practical As to be offered by other departments	2		20		0-0-4
	DISCIPLINE 3 (Other Subject)	Core Course – 4(CC4) As to be offered by other departments	4	15	40	75	4-0-0
		Practical As to be offered by other departments	2		20		0-0-4
Skill Enhancement Course	SEC- 2 (Regional Planning and Development or GIS based Project Report (Practical))	2	10	40	50		
Total		20			275		
V	DISCIPLINE 1 (Geography)	DSE – 1(Geography of India or Economic Geography)	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	DSE – 1 As to be offered by other departments	4	15	40	75	4-0-0
		Practical As to be offered by other departments	2		20		0-0-4
	DISCIPLINE 3 (Other Subject)	DSE – 1 As to be offered by other departments	4	15	40	75	4-0-0
		Practical As to be offered by other departments	2		20		0-0-4
Skill Enhancement Course	SEC- 3 Field Techniques and Survey based Project Report (Practical) or Collection, Mapping and Interpretation of Climatic Data	2	10	40	50		
Total		20			275		
VI	DISCIPLINE 1 (Geography)	DSE- 2(Disaster Management or Geography of Tourism)	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	DSE – 2 As to be offered by other departments	4	15	40	75	4-0-0
		Practical As to be offered by other departments	2		20		0-0-4
	DISCIPLINE 3 (Other Subject)	DSE – 2 As to be offered by other departments	4	15	40	75	4-0-0
		Practical As to be offered by other departments	2		20		0-0-4
Skill Enhancement Course	SEC- 4 Collection, Mapping and Interpretation of Pedological Data Or Rocks and Minerals and their Megascopic Identification	2	10	40	50		
Total		20			275		
TOTAL OF ALL SEMESTERS		122			1700		

B.A./B.Sc. (General) in Geography

CC1 Geomorphology and Cartography

Unit I: Geotectonics and Geomorphology (Theory)

Credits 4

1. Weathering: Types and related landforms.
2. Lithosphere – Internal Structure of Earth based on Seismic Evidence,
3. Plate Tectonics and its associated landforms
4. Landform development in arid regions
5. Landform development in glaciated regions.
6. Development of fluvial landforms
7. Fluvial Cycle of Erosion – Davis and Penck
8. Hydrological Cycle and ground water.

Reading List

1. Conserva H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Gabler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
3. Garrett N., 2000: Advanced Geography, Oxford University Press.
4. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
5. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
6. Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, and Jaipur.
7. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
8. Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York.

Unit II: Scale and Cartography (Practical)

Credits 2

1. Linear and Comparative scale
2. Proportional diagrams: Circles and squares
3. Composite bar diagram and age-sex pyramid.
4. Taylor's Climograph and Hythergraph

Reading List

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P., 2010: PrayogicBhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Singh R. L., 1998: PrayogicBhoogolRooprekha, Kalyani Publications.
8. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London.

CC 2 Physical Environment and Surveying

Unit I: Climatology, Soil and Biogeography (Theory)Credits 4

1. Elements of weather and climate. Thermal and chemical composition and layering of the atmosphere.
2. Horizontal and vertical distribution of temperature
3. Forms of precipitation and types of rainfall
4. Tropical and Temperate Cyclones, Climatic Classification (Koppen)
5. Definition of soil. Physical and chemical properties of soil (soil texture, colour and pH)
6. Soil forming factors. Soil formation (Podzol and Laterite)
7. Definition of Biosphere and Biogeography. Meaning of Ecology, Ecosystem.Environment, Ecotone, Communities, Habitats and Biotopes.
8. Biomes: Rainforest and Temperate Grassland.

Reference Books

- Barry R. G. and Carleton A. M., 2001: Synoptic and Dynamic Climatology, Routledge, UK.
Barry R. G. and Chorley R. J., 1998: Atmosphere, Weather and Climate, Routledge, New York.
Critchfield H. J., 1987: General Climatology, Prentice-Hall of India, New Delhi
Lutgens F. K., Tarbuck E. J. and Tasa D., 2009: The Atmosphere: An Introduction to Meteorology, Prentice-Hall, Englewood Cliffs, New Jersey.
Oliver J. E. and Hidore J. J., 2002: Climatology: An Atmospheric Science, Pearson Education, New Delhi.
Trewartha G. T. and Horne L. H., 1980: An Introduction to Climate, McGraw

Unit II: Surveying and Levelling (Practical)

Credits 2

1. Definition and classification of surveying
2. Plane table survey by radiation method.
3. Open and close traversing by Prismatic Compass
4. Drawing of longitudinal profile by Dumpy level

CC3 Human Geography and Map Study

Unit I: Human Geography (Theory)

Credit4

1. Definition, Nature, Major Subfields, Contemporary Relevance
2. Space and Society: Cultural Regions; Race; Religion and Language
3. Eskimos: Adjustment to the environment and recent development
4. Population: Population Growth and Demographic Transition Theory
5. Types of population migration with reference to India
6. World Population Distribution and Composition (Age, Gender and Literacy)
7. Settlements: Types and Patterns of Rural Settlements;
8. Classification of Urban Settlements; Functional classification of towns

Reading List

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
4. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
5. Kaushik, S.D. (2010) ManavBhugol, Rastogi Publication, Meerut.
6. Maurya, S.D. (2012) ManavBhugol, ShardaPustakBhawan. Allahabad.
7. Ghosh, S. (2015) Introduction to settlement geography. Orient Black Swan Private Ltd., Kolkata
8. Hussain, Majid (2012) ManavBhugol. Rawat Publications, Jaipur

Unit II: Map Projection and Map interpretation (Practical)

Credits 2

1. Simple Conical projection with one standard parallel
2. Cylindrical Equal Area projection
3. Interpretation of Topographical maps: Relation between Physiography, drainage and settlement
4. Interpretation of weather maps

Reading List

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P., 2010: PrayogicBhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London.

Skill Enhancement Course (2 Compulsory Papers)

SEC 1 – Computer Basics and Computer Applications

2 Credits

1. Numbering Systems; Binary Arithmetic
2. Data Computation, Storing and Formatting in Spreadsheets: Computation of Rank, Mean, Median, Mode, Standard Deviation, Moving Averages, Derivation of Correlation, Covariance and regression; Selection of technique and interpretation.
3. Preparation of Annotated Diagrams and its interpretation: Scatter diagram and Histogram
4. Internet Surfing: Generation and extraction of information

Reading List

Bartee, Thomas C. (1977): Digital Computer Fundamental; McGraw Hill.
Chauhan, S.; Chauhan, A. and Gupta, K. (2006): Fundamental of Computer; Firewall Media.
Flake, L.J.; McClintock, C.E. and Turner, S. (1989): Fundamental of Computer Education; Wordsworth Pub. Co.
Leon, A .and Leon,M.(1999): Introduction to Computer, USB Publishers' Distributors Ltd.
Malvino, A.P. and Leach, D.P. (1981): Digital Principles and Applications; Tata McGraw Hill. ► Mano, Moris M. and Kime, Charles R. (2004): Logic and Computer Design Fundamental; Prentice Hall. ► Rajaraman, V. (2003): Fundamentals of Computer, Prentice Hall Publisher
Sarkar, A. and Gupta, S.K (2002) Elements of computer Science, S Chand and Company, New Delhi
Blissmer (1996): Working with MS Word; Houghton Mifflin Co.
Johnson, Steve (2007): Microsoft Power Point 2007; Pearson Paravia Bruno.
Leon, A .and Leon,M.(1999): Introduction to Computer, USB Publishers' Distributors Ltd.
Leon, A. and Leon, M.(1999): A beginners Guide to Computers, Vikas
Rajaraman, V. (2008): Computer Primer; Prentice Hall of India Pvt. Ltd.
Sarkar, A. and Gupta, S.K (2002) Elements of computer Science, S Chand and Company, New Delhi
Shepard, Aaron (2007): Perfect Pages; Shepard Publications.
Tyson, Herbert L. (2007): Microsoft Word 2007 bible; John Wiley.
Walkenbach, John (2007): Excel 2007 Bible; John Wiley.

OR

Remote Sensing

Credit2

1. Remote Sensing: Definition, Development, Platforms and Types.
2. Aerial Photography: Principles, Types and Geometry.
3. Satellite Remote Sensing: Principles, EMR Interaction with Atmosphere and Earth Surface; Satellites (Landsat and IRS) and Sensors.
4. Interpretation and Application of Remote Sensing: Land use/ Land Cover.

Reading List

1. Campbell J. B., 2007: Introduction to Remote Sensing, Guildford Press.
2. Jensen J. R., 2004: Introductory Digital Image Processing: A Remote Sensing Perspective, Prentice Hall. 3.
- Joseph, G. 2005: Fundamentals of Remote Sensing, United Press India.
4. Lillesand T. M., Kiefer R. W. and Chipman J. W., 2004: Remote Sensing and Image Interpretation, Wiley. (Wiley Student Edition).

5. Nag P. and Kudra, M., 1998: Digital Remote Sensing, Concept, New Delhi.
6. Rees W. G., 2001: Physical Principles of Remote Sensing, Cambridge University Press.
7. Singh R. B. and Murai S., 1998: Space-informatics for Sustainable Development, Oxford and IBH Pub.
8. Wolf P. R. and Dewitt B. A., 2000: Elements of Photogrammetry: With Applications in GIS, McGraw-Hill.

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COURSE STRUCTURE UNDER CHOICE BASED CREDIT SYSTEM FOR BA GENERAL IN GEOGRAPHY

Semester-wise course structure

SEMESTER	COURSE OPTED	COURSE NAME	CREDIT	MARKS			No. of hours L-T-P (Per week)
				IA	ESE	TOTAL	
I	Ability Enhancement: compulsory course - I	Environmental Studies	4	---	100	100	
	DISCIPLINE 1 (Geography)	Core Course (CC – 1A) Geotectonics and Geomorphology	4	15	40	75	4-0-0
		Practical Scale and Cartography	2		20		0-0-4
	DISCIPLINE 2 (other subject)	Core Course(CC – 2A) As to be offered by other department	6	15	60	75	
	(English Language)	Core Language (L ₁ -1)	6	15	60	75	5-1-0
Total			22		325		
II	Ability Enhancement: compulsory course - 2	Communicative English/ MIL	2	---	50	50	
	DISCIPLINE 1 (Geography)	Core Course (CC – 1B) Climatology, Soil and Biogeography	4	15	40	75	4-0-0
		Practical Surveying and Levelling	2		20		0-0-4
	DISCIPLINE 2 (other subject)	Core Course (CC – 2B) As to be offered by other department	6	15	60	75	
	(Hindi/ MIL)	Core Language (L ₂ -1)	6	15	60	75	5-1-0
Total			20		275		
III	DISCIPLINE 1 (Geography)	Core Course (CC – 1C) Human Geography	4	15	40	75	4-0-0
		Practical Map Projection and Map Interpretation	2		20		0-0-4
	DISCIPLINE 2 (other subject)	Core Course (CC – 2C) As to be offered by other department	6	15	60	75	
	(English Language)	Core Language (L ₁ -2)	6	15	60	75	5-1-0
	Skill Enhancement Course	SEC- 1 :Computer Basics and Computer Applications OR Remote Sensing	2	10	40	50	
Total			20		275		
IV	DISCIPLINE 1 (Geography)	Core Course (CC- 1D) Environmental Geography	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (other subject)	Core Course (CC – 2D) As to be offered by other department	6	15	60	75	
	(Hindi/ MIL)	Core Language (L ₂ -2)	6	15	60	75	5-1-0
	Skill Enhancement Course	SEC- 2 : Regional Planning and Development OR GIS based Project Report (Practical)	2	10	40	50	
Total			20		275		

V	DISCIPLINE 1 (Geography)	DSE – 1A : Geography of India or Economic Geography	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (other subject)	DSE – 2A : As to be offered by other department	6	15	60	75	
	Generic Elective	GE-1 Any discipline other than Core Disciplines including Core Languages	6	15	60	75	
	Skill Enhancement Course	SEC- 3: Field Techniques and Survey based Project Report (Practical) OR Collection, Mapping and Interpretation of Climate Data	2	10	40	50	
Total			20			275	
VI	DISCIPLINE 1 (Geography)	DSE- 1B : Disaster Management or Geography of Tourism	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (other subject)	DSE – 2B: As to be offered by other department	6	15	60	75	
	Generic Elective	GE-2 Any discipline other than core Disciplines including Core Languages	6	15	60	75	
	Skill Enhancement Course	SEC- 4 : Collection, Mapping and Interpretation of Pedological Data OR Rocks and Minerals and their megascopic identification	2	10	40	50	
	Total			20			275
TOTAL OF ALL SEMESTERS			122			1700	

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	DISCIPLINE 1 (Geography)	Core Course (CC – 1A) Geotectonics and Geomorphology	4	15	40	75	4-0-0
		Practical : Scale and Cartography	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course (CC – 2A) As to be offered by other department	4	15	40	75	4-0-0
		Practical	2		20		0-0-4
	DISCIPLINE 3 (Other Subject)	Core Course (CC – 3A) As to be offered by other department	4	15	60	75	4-0-0
		Practical As to be offered by other department	2				0-0-4
Total			22		325		
II	Ability Enhancement: compulsory course - 2	Communicative English/ MIL	2		50	50	
	DISCIPLINE 1 (Geography)	Core Course (CC – 1B) Climatology, Soil and Biogeography	4	15	40	75	4-0-0
		Practical : Surveying and Levelling	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course (CC – 2B) As to be offered by other department	4	15	40	75	4-0-0
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III	DISCIPLINE 1 (Geography)	Core Course (CC – 1C) Human Geography	4	15	40	75	4-0-0
		Practical : Map Projection and Map Interpretation	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course (CC – 2C) As to be offered by other department	4	15	40	75	4-0-0
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	DISCIPLINE 3 (Other Subject)	Core Course (CC – 3C) As to be offered by other department	4	15	60	75	4-0-0
		Practical As to be offered by other department	2				0-0-4
	Skill Enhancement Course	SEC- 1 :Computer Basics and Computer Applications OR Remote Sensing	2	10	40	50	0-0-4
Total			20		275		
IV	DISCIPLINE 1 (Geography)	Core Course (CC- 1D) Environmental Geography	4	15	40	75	4-0-0

		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	Core Course (CC- 2D) As to be offered by other department	4	15	40	75	4-0-0
		Practical As to be offered by other department	2		20		0-0-4
	DISCIPLINE 3 (Other Subject)	Core Course (CC- 3D) As to be offered by other department	6	15	60	75	4-0-0
		Practical As to be offered by other department					0-0-4
	Skill Enhancement Course	SEC- 2 :: Regional Planning and Development OR GIS based Project Report (Practical)	2	10	40	50	0-0-4
	Total		20			275	
V	DISCIPLINE 1 (Geography)	DSE – 1A : Geography of India or Economic Geography	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	DSE- 2A : As to be offered by other department	4	15	40	75	4-0-0
		Practical : As to be offered by other department	2		20		0-0-4
	DISCIPLINE 3 (Other Subject)	DSE- 3A : As to be offered by other department	6	15	60	75	4-0-0
		Practical : As to be offered by other department					0-0-4
Skill Enhancement Course	SEC- 3: Field Techniques and Survey based Project Report (Practical) OR Collection, Mapping and Interpretation of Climate Data	2	10	40	50	0-0-4	
	Total		20			275	
VI	DISCIPLINE 1 (Geography)	DSE- 1B : Disaster Management or Geography of Tourism)	4	15	40	75	4-0-0
		Practical (Field work)	2		20		0-0-4
	DISCIPLINE 2 (Other Subject)	DSE- 2B : As to be offered by other department	4	15	40	75	4-0-0
		Practical : As to be offered by other department	2		20		0-0-4
	DISCIPLINE 3 (Other Subject)	DSE- 3B : As to be offered by other department	6	15	60	75	4-0-0
		Practical : As to be offered by other department					0-0-4
Skill Enhancement Course	SEC- 4 : Collection, Mapping and Interpretation of Pedological Data OR Rocks and Minerals and their megascopic identification	2	10	40	50	0-0-4	
	Total		20			275	
TOTAL OF ALL SEMESTERS			122			1700	

Semester - IV

CC – 1D : ENVIRONMENTAL GEOGRAPHY Credit: 6 (4+2) Total Marks : 75

(40+20+15)

UNIT : 1

Total Marks: 40

End Term Examination Time: 2 hours

Pattern of Setting Questions (Theoretical):

- 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, Total 10 Marks;
- 2 questions to be answered out of 4, each question carries 10 Marks, Total 20 Marks

Unit 1: (Theoretical)

Credit: 4

1. Concepts and approaches of Environmental Geography:
2. Concept, Structure and Functions of Ecosystem
3. Human-Environment Relationship in Mountain and Coastal Regions
4. Environmental Problems and Management: Air and Water Pollution
5. Environmental Programmes and Policies: MAB
6. Forest and Wild Life Policy of India
7. Environmental Movements in India: Chipko
8. Wetlands: Ramsar Sites in India

UNIT:2

Total Marks: 20 { 10+ 10(5+5)}

End Term Examination Time: 2 hours

Pattern of Setting Questions (Practical):

- 2 questions to be answered, each question carries 5 Marks, Total 10 Marks;
- Evaluation of Laboratory Note Book 5 Marks
- Viva-Voce 5 Marks

Unit 2: (Practical)

Credit: 2

1. Questionnaire for Air Pollution and Health Perception Survey
2. Soil Test using Kit : pH and Organic Carbon

3. Mapping of Wetlands from Topographical Sheet
4. Mapping of Forest from Topographical Sheet

- **Internal Assessment: 15 (Assessment 10 and Attendance 05 Marks) Marks**

Reference

1. Casper J.K. (2010) Changing Ecosystems: Effects of Global Warming. Infobase Pub. New York.
2. Hudson, T. (2011) Living with Earth: An Introduction to Environmental Geology, PHI Learning Private Limited, New Delhi.
3. Miller, G.T. (2007) Living in the Environment: Principles, Connections, and Solutions, Brooks/ Cole Cengage Learning, Belmont.
4. Singh, R.B. (1993) Environmental Geography, Heritage Publishers, New Delhi.
5. UNEP (2007) Global Environment Outlook: GEO4: Environment For Development, United Nations Environment Programme. University Press, Cambridge.
6. Wright R. T. and Boorse, D. F. (2010) Toward a Sustainable Future, PHI Learning Pvt Ltd, New Delhi.
7. Singh, R.B. and Hietala, R. (Eds.) (2014) Livelihood security in Northwestern Himalaya: Case studies from changing socio-economic environments in Himachal Pradesh, India. Advances in Geographical and Environmental Studies, Springer
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.

SEC-2 : REGIONAL PLANNING AND DEVELOPMENT Credit: 2

Total Marks: 50 (40+ 10) End Term Examination Time: 5 hours

Pattern of Setting Questions:

- 4 questions to be answered, each question carries 10 Marks, Total 40 Marks;

Regional Development

1. Definition of Region; Types of Regions
2. Regional Planning – Concept and Significance
3. Human Development Index – Concept and Indicators
4. Agricultural Development in India Since 1970s
5. Industrial Development in India Since 1990s
6. Planning Region: DVC
7. Preparation of Questionnaire on Sanitation and Health
8. Preparation of Questionnaire on Waste Management

• Internal Assessment: 10 (Assessment 05+05) Marks

References

- Deshpande C. D. (1992): India: A Regional Interpretation, ICSSR, New Delhi.
- Dreze J. and Sen, A. (1996): Indian Development: Selected Regional Perspectives, Oxford University Press, 1996
- Rapley, John (2007) Understanding Development: Theory and Practice in the 3rd World. Lynne Rienner, London.
- Raza, M. (1988): Regional Development. Contributions to Indian Geography. New Delhi, Heritage Publishers
- Sen, A (2000): Development as Freedom. Random House, Toronto

OR

SEC-2 : GIS BASED PROJECT REPORT Credit: 2

Total Marks: 50 (20+ 15+5+(5+5)) End Term Examination Time: 5 hours

Pattern of Setting Questions:

- 2 questions to be answered, each question carries 10 Marks, Total 20 Marks;
- Evaluation of Project Report 15 Marks
- Viva-Voce 5 Marks

- **Internal Assessment: 10 (Assessment 05 + 05) Marks**

Students are required to prepare a GIS based project report. There should be a clear-cut **identification and mention the following points**. The text of the fieldwork should not exceed 5000 words and 15-20 pages of illustrations (A4 Pages). The fieldwork along with the diagrams and illustrations should be prepared in computer using the standard (Using MS-Word for typing and Excel for calculation and graphs). The cartographic and statistical techniques used in the fieldwork should be at par with the syllabus of the UG Course.

1. GIS Data Structures: Types (Spatial and Non-Spatial), Raster and Vector
2. Different Applications of GIS
3. Characteristics of EMR for Remote Sensing
4. Visible Spectrum of EMR
5. Preparation of False Color Composites from IRS LISS-III Satellite Image
6. Identification and mapping of three Physical and Cultural Features each

Semester - V

DSE-1A : GEOGRAPHY OF INDIA

Credit: 6 (4+2)

UNIT: 1

Total Marks: 40

End Term Examination Time: 2 hours

Pattern of Setting Questions (Theoretical):

- 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, Total 10 Marks;
- 2 questions to be answered out of 4, each question carries 10 Marks, Total 20 Marks

UNIT: 1 – Geography of India

1. Physical Setting – Landforms, Drainage, Climate
2. Population – Size and Growth since Independence
3. Settlement – Rural and Urban Types
4. Agricultural Resource: Rice and Wheat and Cotton
5. Mineral Resource - Iron ore and Bauxite
6. Energy Resources: Coal and Petroleum
7. Industries: Cotton Textile and Iron and Steel
8. Regional Account of Sunderban and Marusthali

UNIT: 2

Total Marks: 20 { 10+ 10(5+5)}

End Term Examination Time: 2 hours

Pattern of Setting Questions (Practical):

- 2 questions to be answered, each question carries 5 Marks, Total 10 Marks;
- Evaluation of Laboratory Note Book 5 Marks
- Viva-Voce 5 Marks

UNIT: 2 – Field Work

1. Students will prepare a field report 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
2. The report should be hand written in candidate's own words (within 2000 words)

3. The total number of pages in the Field Report should not exceed 30 pages including texts, figures, tables, photographs, maps, references (APA) and appendices
4. A copy of the bound report, duly signed by the concerned teacher, should be submitted
5. Preparation of maps (hand-drawn) with suitable scale and latitude-longitude

• **Internal Assessment: 15 (Assessment 10 and Attendance 05) Marks**

References

1. Hussain M., 1992: *Geography of India*, Tata McGraw Hill Education.
2. Mamoria C. B., 1980: *Economic and Commercial Geography of India*, Shiva Lal Agarwala.
3. Miller F. P., Vandome A. F. and McBrewster J., 2009: *Geography of India: Indo- Gangetic Plain, Thar Desert, Major Rivers of India, Climate of India, Geology of India*, Alphascript Publishing.
4. Nag P. and Sengupta S., 1992: *Geography of India*, Concept Publishing.
5. Pichamuthu C. S., 1967: *Physical Geography of India*, National Book Trust.
6. Sharma T. C. and Coutinho O., 1997: *Economic and Commercial Geography of India*, Vikas Publishing.
7. Singh Gopal, 1976: *A Geography of India*, Atma Ram.
8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional Geography*, Methuen.
9. Rana, Tejbir Singh, 2015, *Diversity of India*, R.K. Books, Delhi.

OR

DSE 1A : ECONOMIC GEOGRAPHY

Credit: 6 (4+2)

UNIT: 1 **Total Marks : 40** **End Term Examination Time: 2 hours**

Pattern of Setting Questions (Theoretical):

- 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, Total 10 Marks;
- 2 questions to be answered out of 4, each question carries 10 Marks, Total 20 Marks

UNIT: 1 – Economic Geography

1. Scope and Content of Economic Geography
2. Von Thunen Theory of Land Use
3. Theory of Industrial Location - Weber
4. Types of Farming
5. Intensive Subsistence Farming and Plantation Agriculture
6. Commercial Fishing
7. Mining (iron ore, coal and petroleum)
8. Cotton Textile Industry, Petro-Chemical Industry

UNIT: 2

Total Marks: 20 { 10+ 10(5+5)}

End Term Examination Time: 2 hours

Pattern of Setting Questions (Practical):

- 2 questions to be answered, each question carries 5 Marks, Total 10 Marks;
- Evaluation of Laboratory Note Book 5 Marks
- Viva-Voce 5 Marks

UNIT: 2 – Field Work

1. Students will prepare a field report 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
2. The report should be hand written in candidate's own words (within 2000 words)
3. The total number of pages in the Field Report should not exceed 30 pages including texts, figures, tables, photographs, maps, references (APA) and appendices
4. A copy of the bound report, duly signed by the concerned teacher, should be submitted
5. Preparation of maps (hand-drawn) with suitable scale and latitude-longitude

• Internal Assessment: 15 (Assessment 10 and Attendance 05) Marks

GENERIC ELECTIVE (For the students of any Disciplines of B.A. General Course other than Geography)

Pattern of Setting Questions (Theoretical):

- 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, Total 20 Marks;
- 2 questions to be answered out of 4, each question carries 10 Marks, Total 20 Marks

GE- 1 : Physical Geography

Credit : 6

1. Physical Geography – Definition and Scope
2. Atmosphere – Heat Balance, Global wind Circulation Pattern, Monsoon, Climatic Classification (Koppen)
3. Lithosphere – Internal Structure of Earth based on Seismic Evidence, Plate Tectonics and its Associated Features
4. Fluvial Cycle of Erosion – Davis and Penck
5. Hydrosphere – Global Hydrological Cycle, Ocean Bottom Relief Features (Atlantic), Tides and Ocean Currents (Atlantic)

• Internal Assessment: 15 (Assessment 10 and Attendance 05) Marks

Reading List

1. Conserva H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Gabler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
3. Garrett N., 2000: Advanced Geography, Oxford University Press.
4. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
5. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
6. Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur.
7. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
8. Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York.

SEC-3 : FIELD TECHNIQUES AND SURVEY BASED PROJECT REPORT (PRACTICAL)

Credit: 2 Total Marks: 50 (40+ 10) End Term Examination Time: 5 hours

Pattern of Setting Questions:

- 2 questions to be answered, each question carries 10 Marks, Total 20 Marks;
 - Evaluation of Field based Project Report, 15 Marks;
 - Viva-Voce on Field based Project Report, 5 Marks
 - **Internal Assessment: 10 (Assessment 05 + 05) Marks**
1. Significance of Field Work in Geographical Studies
 2. Selection of Study Area – Rural or Urban
 6. Field Techniques – Merits, Demerits and Selection of the Appropriate Technique; Observation (Participant / Non Participant)
 7. Questionnaires (Open/ Closed / Structured / Non-Structured)
 8. Interview with Special Focus on Focused Group Discussions
 9. Designing the Field Report – Aims and Objectives, Methodology, Analysis, Interpretation and Writing the Report

Practical Record

1. Each student will prepare an individual report based on primary and secondary data collected during field work
2. The duration of the field work should not exceed 05 days
- 3.
4. The word count of the report should be about **3000 to 5,000** excluding figures, tables, photographs, maps, references and appendices
5. One copy of the report on A 4 size paper should be submitted

OR

SEC-3 : COLLECTION MAPPING AND INTERPRETATION OF CLIMATIC DATA

Credit: 2 Total Marks: 50 (40+ 10) End Term Examination Time: 5 hours

Pattern of Setting Questions:

- 3 questions to be answered, each question carries 10 Marks, Total 30 Marks;
- Evaluation of Laboratory Note Book -5 Marks;
- Viva-Voce - 5 Marks
- **Internal Assessment: 10 (Assessment 05 + 05) Marks**

1. Sources of Climatic Data
2. Instruments for Recording of Climatic Data
3. Preparation of Rainfall – Temperature Graph
4. Preparation of Climograph and Hythergraph
5. Preparation of Ergograph
6. Drawing of Windrose Diagram
7. Drawing Isotherm and Isohyet
8. Interpretation of daily Indian Weather Map

Semester - VI

DSE-1B : DISASTER MANAGEMENT

Credit: 6 (4+2)

UNIT: 1 Total Marks: 40 End Term Examination Time: 2 hours

Pattern of Setting Questions (Theoretical):

- 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, Total 10 Marks;
- 2 questions to be answered out of 4, each question carries 10 Marks, Total 20 Marks

UNIT: 1 –Disaster Management

1. Meaning and Classification of Hazards and Disasters.
2. Approaches to hazard study: Risk perception and vulnerability assessment.
3. Responses to hazards: Preparedness, trauma and aftermath. Resilience and capacity building.
4. Hazard mapping: Data and techniques.
5. Earthquake: Causes, Consequences and Management
6. Landslide: Causes, Consequences and Management
7. Cyclone: Causes, Consequences and Management
8. Flood: Causes, Consequences and Management

UNIT: 2

Total Marks: 20 { 10+ 10(5+5)}

End Term Examination Time: 2 hours

Pattern of Setting Questions (Practical):

- 2 questions to be answered, each question carries 5 Marks, Total 10 Marks;
- Evaluation of Laboratory Note Book 5 Marks
- Viva-Voce 5 Marks

Unit: 2

Disaster Management Project Work

List of Practical

An individual Project Report based on any one case study among the following disasters incorporating perception survey and a preparedness plan in the vicinity of the candidate's institution or residence:

1. Landslide
2. Cyclone
3. Flood
4. Drought

• **Internal Assessment: 15 (Assessment 10 and Attendance 05) Marks**

References

1. Basu, R. and Bhaduri, S. (Eds.). 2007. Contemporary Issues and Techniques in Geography. Progressive Publishers, Kolkata.
2. Chakraborty, S. (2007). Natural Hazards and Disaster Management. Pragatishil Prokashak, Kolkata.
3. Government of India. (1997). Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
4. Kapur, A. (2010). Vulnerable India: A Geographical Study of Disasters. Sage Publication, New Delhi.
5. Modh, S. (2010). Managing Natural Disaster: Hydrological, Marine and Geological Disasters. Macmillan, Delhi.
6. Singh, R.B. (2005). Risk Assessment and Vulnerability Analysis. IGNOU, New Delhi. Chapter 1, 2 and 3.
7. Singh, R. B. (ed.), (2006). Natural Hazards and Disaster Management: Vulnerability and Mitigation. Rawat Publications, New Delhi.
8. Sinha, A. (2001). Disaster Management: Lessons Drawn and Strategies for Future. New United Press, New Delhi.
9. Stoltman, J.P. et al. (2004). International Perspectives on Natural Disasters. Kluwer Academic Publications. Dordrecht.
10. Singh, J. (2007). "Disaster Management Future Challenges and Opportunities", 2007. I.K. International Pvt. Ltd. New Delhi, India (www.ikbooks.com).

OR

DSE- 1B : GEOGRAPHY OF TOURISM Credit: 6 (4+2)

UNIT: 1 Total Marks: 40 End Term Examination Time: 2 hours

Pattern of Setting Questions (Theoretical):

- 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, Total 10 Marks;

- 2 questions to be answered out of 4, each question carries 10 Marks, Total 20 Marks

Unit: 1 Geography of Tourism

1. Concepts, Nature and Scope of Tourism Geography
2. Relationships of Tourism with Recreation and Leisure;
3. Type of Tourism: Nature Tourism, Pilgrimage and Heritage Sites
4. Recent Trends of Tourism: Domestic (India)
5. Concept of Eco-Tourism and Homestay Tourism
6. Concept of Sustainable Tourism
7. Impact of Tourism on Economy
8. Problems and Prospects of Tourism in India

UNIT: 2

Total Marks: 20 {10+ 10(5+5)} End Term Examination Time: 2 hours

Pattern of Setting Questions (Practical):

- 2 questions to be answered, each question carries 5 Marks, Total 10 Marks;
- Evaluation of Laboratory Note Book 5 Marks
- Viva-Voce 5 Marks

Unit: 2 Geography of Tourism Project Work

List of Practical

An individual Project Report based on any one case study among the following Tourists spots incorporating perception survey and a Prospective plan in the vicinity of the candidate's institution or residence:

1. Natural – Hill and Beach
2. Pilgrimage
3. Heritage Sites
4. Medical Tourism

- **Internal Assessment: 15 (Assessment 10 and Attendance 05) Marks**

GENERIC ELECTIVE (For the students of any Discipline of B.A. General Course other than Geography)

Pattern of Setting Questions (Theoretical):

- 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, Total 20 Marks;
- 2 questions to be answered out of 4, each question carries 10 Marks, Total 20 Marks

GE- 2 : Human Geography

Credit : 6

1. Definition, Nature, Major Subfields, Contemporary Relevance
2. Space and Society: Cultural Regions; Race; Religion
3. Population: Population Growth and Demographic Transition Model
4. World Population Distribution and Composition (Age, Gender and Literacy)
5. Settlements: Types and Patterns of Rural Settlements; Functional Classification of Urban Settlements; Trends and Patterns of Urbanization of India since independence

- **Internal Assessment: 15 (Assessment 10 and Attendance 05) Marks**

Reading List

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
4. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
5. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
6. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
7. Ghosh, S. (2015) Introduction to settlement geography. Orient Black Swan Private Ltd., Kolkata
8. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur

SEC-4 : Collection, Mapping and Interpretation of Pedological Data Credit: 2

Total Marks: 50 (40+ 10) End Term Examination Time: 4 hours

Pattern of Setting Questions:

- 3 questions to be answered, each question carries 10 Marks, Total 30 Marks;
- Evaluation of Laboratory Note Book -5 Marks;
- Viva-Voce - 5 Marks
- **Internal Assessment: 10 (Assessment 05 + 05) Marks**

Mapping and Analysis of Pedological Data

1. Soil Sampling Techniques
2. Representation of Soil Texture Data using Ternary Diagram
3. Estimation of Nitrogen using Soil Kit
4. Estimation of Soil p^H using Soil Kit
5. Estimation of Soil Organic Carbon using Soil Kit
6. Analysis and Mapping – p^H and Organic Carbon

OR

SEC 4 : Rocks and Minerals and their Megascopic Identification Credit: 2

1. Differences in Rocks and Minerals
2. Process of Collection of Rocks and Minerals and their Preservation
3. Identifiable Characteristics of Rocks
4. Identifiable Characteristics of Minerals
5. Megascopic Identification of Rocks -Basalt, Granite, Sandstone, Gneiss, Limestone
6. Megascopic Identification of Minerals – Bauxite, Quartz, Hematite, Mica, Chalcopyrite

References :