

# **BANKURA UNIVERSITY**



## **CBCS SYLLABUS**

for

### **M.A./M.Sc in Geography**

**(Two Year Semester System)**

*w.e.f.*

*July, 2017*

**BANKURA UNIVERSITY**

**BANKURA**

**WEST BENGAL**

**PIN 722155**

## COURSE STRUCTURE

TOTAL MARKS = 1000

SEMESTER - 4

CREDITS =80

COURSES	SEM - I	SEM - II	SEM - III	SEM - IV
CORE COURSES	-	-	-	-
INTERNAL ASSIGNMENT	50	50	-	50
ELECTIVE COURSES (Major)	-	-	-	-
ELECTIVE COURSES (Minor)**	- 50*	-	50	-
COMPULSORY FOUNDATION*	-	50*	-	-
ELECTIVE FOUNDATION*	-	-	-	-
PRACTICUM	-	-	-	-
DISSERTATION WORK	-	-	-	-
<b>TOTAL</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>

\* represents the foundation course. The foundation courses are to be conducted by the University/Institution. The course shall have internal assessment only and so, credit earned for these courses, shall not be considered while preparing the final result. However, the candidates are required to obtain **Satisfactory or Not Satisfactory** to become eligible for the final semester examination/award of the P.G. Degree.

\*\* **Elective Courses –Minor: Courses are mandatory choice based and students (other than department) of any Department of PG level can opt for the course)**

**Semester wise distribution of credits for non-professional courses**

Semester	Courses	Credits	Marks		
			I.A	ESE	Total
<b>1<sup>st</sup> Sem.</b>	4 Courses of 4 Credits Each	$4 \times 4 = 16$	40 (4×10)	160	200
	1 Internal Assignment	$1 \times 4 = 4$	50	-	50
	1 Compulsory Foundation*	$1 \times 1 = 1^*$	50*	-	50*
<b>2<sup>nd</sup> Sem.</b>	4 Courses of 4 Credits Each	$4 \times 4 = 16$	40 (4×10)	160	200
	1 Internal Assignment	$1 \times 4 = 4$	50	-	50
	1 Compulsory Foundation*	$1 \times 1 = 1^*$	50*	-	50*
<b>3<sup>rd</sup> Sem.</b>	4 Courses of 4 Credits Each	$4 \times 4 = 16$	40 (4×10)	160	200
	1 Elective (CBCS/ Open)	$1 \times 4 = 4$	10 (1×10)	40	50
<b>4<sup>th</sup> Sem.</b>	4 Courses of 4 Credits Each	$4 \times 4 = 16$	40 (4×10)	160	200
	1 Internal Assignment	$1 \times 4 = 4$	50		50
<b>Total</b>		$(16 \times 4) + (4 \times 4) = 80$	320	680	1000
<b>Grand Total Marks</b>		<b>80</b>	<b>1000</b>		

**I.A. =Internal Assignment/Assessment, ESE= End-Semester Examination**

\* represents the foundation course. The foundation courses are to be conducted by the University. The course shall have internal assessment only and so, credit earned for these courses, shall not be considered while preparing the final result. However, the candidates are required to obtain **Satisfactory or Not Satisfactory** to become eligible for the final semester examination/award of the P.G. Degree.



**MODEL STRUCTURE SEMESTER - I**

Course Code	Course Title	Credit	Marks			No. of Hours		
			I.A.	ESE	Total	L.	T.	P.
<b>Core Courses</b>								
S.C 101C	Geotectonics, Geomorphology and Oceanography	4	10	40	50	60		
S.C 102C	Geographical Thought	4	10	40	50	60		
S.C 103C	Climatology, Hydrology and Biogeography	4	10	40	50	60		
S.C 104C	Cartographic and Quantitative Techniques in Geography	4	10	40	50	60		
<b>Internal Assignment</b>								
S.C 105IA	Assignment (15 Marks), Seminar (30 Marks), Tutorial (5 Marks), and Library Work	4 (Seminar -2, Assign.-1, Tutorial-1)	50 (Evaluated by the D.C)	-	50	-	15	105 (seminar- 60, Assignment -30, Library work-15)
<b>Compulsory Foundation Course</b> (Tuesday from 1 p.m. to 2 p.m.)								
106 CF	Communicative English and Personality Development,	1	50			15		
<p><b>Note:</b> The foundation courses are to be conducted by the University. The course shall have internal assessment only and so, credit earned for these courses, shall not be considered while preparing the final result. However, the candidates are required to obtain <b>Satisfactory or Not Satisfactory</b> to become eligible for the final semester examination/award of the P.G. Degree.</p>								
<b>Total in Semester - I</b>		<b>20</b>	<b>90</b>	<b>160</b>	<b>250</b>	<b>255</b>	<b>15</b>	<b>105</b>
<b>Semester II</b>								
Course Code	Course Title	Credit	Marks			No. of Hours		
			I.A.	ESE	Total	L	T	P

Core Courses								
S.C 201C	Geography of Population, Social Issues and Cultural Advancement	4	10	40	50	60		
S.C 202C	Geography of Space and Human Occupance	4	10	40	50	60		
S.C 203C	Economic Issues in Geography	4	10	40	50	60		
S.C 204C	Surveying, Topographical Map Interpretation and Field Study	4	10	40	50	60		
<b>Internal Assignment</b>								
S.C 205IA	Assignment (15 Marks), Seminar (30 Marks), Tutorial (5 Marks), and Library Work	4 (Seminar -2, Assign.- 1, Tutorial- 1)	50 (Evaluated by the D.C.)	-	50	-	15	105 (semin ar- 60, Assig nment -30, Librar y work- 15)
<b>Elective Foundation Course</b>								
[A student will select any one of the following course as elective foundation Course from following groups (Tuesday from 1 p.m. to 2 p.m.)]								
S.C 206 EF	1. Yoga and Life Skills Education, 2. Value Education and Human Rights	1	50		50	15		
<p><b>Note:</b> The foundation courses are to be conducted by the University. The course shall have internal assessment only and so, credit earned for these courses, shall not be considered while preparing the final result. However, the candidates are required to obtain <b>Satisfactory or Not Satisfactory</b> to become eligible for the final semester examination/award of the P.G. Degree.</p>								
<b>Total in Semester - II</b>		<b>20</b>	<b>90</b>	<b>160</b>	<b>250</b>	<b>255</b>	<b>15</b>	<b>105</b>
<b>Semester III</b>								
Course Code	Course Title	Credit	Marks			No. of Hours		
			I.A.	ESE	Total	L	T	P
<b>Core Courses</b>								
S.C 301C	Political Geography Geography of India Disaster Management	4	10	40	50	60		
S.C 302C	Advance Remote Sensing and GIS	4	10	40	50	60		

Elective Courses –Major (Any one of the following)									
S.C 303	303 EA	Urban Planning	4	10	40	50	60		
	303 EB	Advance Remote Sensing	4	10	40	50	60		
	303 EC	Agricultural Practice & Development	4	10	40	50	60		
	303 ED	Rural Development & Planning	4	10	40	50	60		
	303 EE	Population Studies	4	10	40	50	60		
	303 EF	Ethnicity and Tribal Culture in India	4	10	40	50	60		

**Elective Courses –Minor (Any one of the following) (Courses are mandatory choice based and students (other than department) of any Department of PG level can opt for the course) (Monday, Wednesday, Thursday, Friday from 1 p.m. -2 p.m.)**

S.C 304	304 EIDA		4	10	40	50	60		
	304 EIDB		4	10	40	50	60		
	304 EIDC		4	10	40	50	60		
S.C 305 P	Practical (Evaluated by H.o.D, Internal, and External) + Dissertation (be evaluated in the 4 <sup>th</sup> semester)		4	50 (Note Book-10 Examamination-30 Viva-Voce – 10)		50	-	15	120 (Prac.-60, Dissertation-60)
<b>Total in Semester - III</b>			<b>20</b>	<b>40</b>	<b>160</b>	<b>250</b>	<b>240</b>	<b>15</b>	<b>120</b>
					<b>50</b>				

### Semester IV

Course Code	Course Title	Credit	Marks			No. of Hours			
			I.A.	ESE	Total	L	T	P	
<b>Core Courses</b>									
S.C 401C	Environment and Society Contemporary Issues in Geography	4	10	40	50	60			
S.C 402C	Surveying and Mapping	4	10	40	50	60			

<b>Elective Courses –Major (Any one of the following)</b>									
S.C 403	403 EA	Fluvial Geomorphology	4	10	40	50	60		
	403 EB	Environment Problems	4	10	40	50	60		
	403 EC	Regional Planning	4	10	40	50	60		
	403 ED	International Politics	4	10	40	50	60		
	403 EE	Coastal Geomorphology	4	10	40	50	60		
	403 EF	Forestry	4	10	40	50	60		
<b>Internal Assignment</b>									
S.C 404IA	Educational Excursion, Tutorial Library Work –(Participation-10 Marks, Report-30 Marks, Viva-10 Marks) Evaluated by Supervisor/s-10 Marks, All faculties -40 Marks)		4	50	-	50	15	45	15
S.C 405 DN	Dissertation Work (Start From 3 <sup>rd</sup> Semester and will be continued up to 4 <sup>th</sup> Semester) (To be assessed by H.O.D, Supervisor, and One External Expert)		4	50 (40 Dissertation + 10 Viva-Voce)					120
<b>Total in Semester – IV</b>			<b>20</b>	<b>80</b>	<b>120</b>	<b>250</b>	<b>195</b>	<b>45</b>	<b>135</b>
				<b>50</b>					
<b>Grand Total of Semesters I, II, III, and IV</b>			<b>80</b>	<b>1000</b>		<b>945</b>	<b>90</b>	<b>465</b>	



## SEMESTER-I

### Geotectonics, Geomorphology and Oceanography

Course Code: GEOS.C 101C

Credit: 4

#### Unit-1: Geotectonics

- 1.1 Tectonic and neo-tectonic processes, Palaeomagnetism and Polar wandering
- 1.2 Isostasy: Views of Airy and Pratt
- 1.3 Continental Drift Theory of Wegener and its relevance
- 1.4 Plate Tectonic theories and their relation to earthquake and volcanism
- 1.5 Mountain Building Theories

#### Unit-2: Geomorphology

- 2.1 Approaches to Geomorphology: Static, Dynamic, Environmental and Applied
- 2.2 Concept of Spatial and Temporal Scales and Threshold Value
- 2.3 Weathering, Mass Wasting and resultant landforms
- 2.4 Fluvial, Glacial, Peri-glacial, Aeolian processes and resultant landforms
- 2.5 Landform Development and Slope evolution: Davis, Penk, L.C King and Wood

#### Unit-3: Oceanography

- 1.1 Origin and characteristics of the ocean floor
- 1.2 Temperature, Density and Salinity of Ocean Water
- 1.3 Origin of Tides and Currents; Sea Level change and its global impact
- 1.4 Ocean resources: Types and Importance; Concept and characteristics of EEZ & CRZ

#### Reference books

1. Bloom, A.L., Geomorphology-A systematic Analysis of late Cenozoic landforms.
2. Cotton, Geomorphology.
3. Condie, K.C. (2003): Plate Tectonics and Crustal Evolution, Butterworth-Heinemann, Oxford, Burlington
4. Chorley, R.J. and Kennedy, B.A. (1971): Physical Geography: A Systems Approach, Prentice Hall, Upper Saddle River, New Jersey
5. Dowie., Isostasy.
6. Huggett, R.J. (2011): Fundamentals of Geomorphology, Routledge, New York
7. Goudie, A.S. (1990): Geomorphological Techniques, Unwin Hyman, London
9. Jolly., Surface History of the Earth.
10. Ollier, C.D., Weathering.
11. Selby, M.J., (2005), Earth's Changing Surface, Indian Edition, OUP
12. Small, R.J. (1978): The Study of Landforms: A Textbook of Geomorphology, Cambridge University Press, Cambridge
13. Steers, J.A., Unstable Earth.
14. Strahler, A.H. & Strahler, A.H., Elements of Physical Geography.
15. Thornbury, W.D., Principles of Geomorphology.

## Geographical Thought

Course Code- S.C GEO102C

Credit 4

### Unit-1: Historical Development of Geography

- 1.1 Evolution of Geographical Thought; Contribution of Greek, Roman and Arabian Thinkers.
- 1.2 Contribution of Indian scholars in the **development** of Geography.
- 1.3 Development of modern Geographical knowledge: **Contribution of** Humbolt, Ritter and Ratzel
- 1.4 Post-Modern approach in Geography

### Unit-2: Development of Philosophy in Geography

- 2.1 Fundamental approaches in Geography; Geographic methodology and explanation
- 2.2 Concept of Determinism, Possibilism and Neo-Determinism
- 2.3 Concept of 'Region' in Geography
- 2.4 Concept and dimension of Space

### Unit-3: Dualism and Dichotomy in Geography

- 3.1 Idiographic Vs Nomothetic Approaches
- 3.2 Physical Vs Human Geography
- 3.3 Positivism Vs Quantative revolutions
- 3.4 Modernism Vs Post Modernism

### Reference books

1. Bunge, W., Theoretical Geography.
2. Claval, P., Epistemology and History of Geographical Thought, in progress in Human Geography, Vol.4.
3. Dickinson, R.E., The Makers of Modern Geog., London, 1969
4. Dickinson, R.E., The Making of Modern Geography
5. Dikshit, R.D. (2004): Geographical Thought: A Critical History of Ideas, Prentice Hall of India, New Delhi
6. Hartshorne, R., Perspectives on Nature of Geography, Rand MacNally, 1959
7. Harvey, D. (1969): Explanation in Geography, Arnold, London
8. Harvey, D. (1973): Social Justice and the City, Arnold, London
9. James, P.E. (1972): All Possible Worlds: A History of Geographical Ideas, The Odyssey Press , Indianapolis
10. Johnston, R.J., The Future of Geography, Methuen, London, 1988
11. Johnston, R.J. and Sidaway, J.D. (2004): Geography and Geographers, Edward Arnold, London
12. Peet, R. (1998): Modern Geographical Thought, Blackwell Publishers Inc., Massachusetts
13. Soja, E. (1989): Post-modern Geographies, Verso Press, London
14. Tuan, Y. (1977): Space and Place: The Perspective of Experience, Edward Arnold, London

## **Climatology, Hydrology and Biogeography**

**Course Code- S.C GEO103C**

**Credit 4**

### **Unit -1: Climatology**

- 3.1 Structure and composition of atmosphere; insolation and heat budget
- 3.2 Atmospheric Disturbances: cyclone, anti-cyclone, global warming
- 3.3 Global wind system: Planetary wind, Monsoon and Local wind
- 3.4 Climatic classification as per Koppen and Thornthwaites: Appraisal of the world and India
- 3.5 Global Climate Change: Climatic records; evidences of past climatic changes; Natural and anthropogenic causes

### **Unit-2: Hydrology**

- 2.1 Global Hydrological Cycle: Mechanism, Functioning and Importance
- 2.2 Causes and importance of global water scarcity and remedial measure
- 2.3 Runoff cycle, Concept of Unit Hydrograph and its importance
- 2.4 Rainwater harvesting with special reference to micro-watershed management

### **Unit-3: Biogeography**

- 3.1 Nature, scope and development of Biogeography
- 3.2 Plant Ecology: environmental factors, adaptation, climax and domestication
- 3.3 Relation between soil and biosphere and resultant land use and land cover; Methods of soil conservation
- 3.4 Concept of biodiversity, biodiversity loss and conservation

### **Reference books**

1. Brigg, G.R. 1996 : The Ocean and Climate, Cambridge University Press, Cambridge: 266p
2. Chow, V.T, Maidment, D.R and Mays, L.W. (1988): Applied Hydrology, McGraw Hill
3. Cox, C.B. and More, P.D., Biogeography: An Ecological and Evolutionary Approach, London, 2000.
4. Davis, R.J.A. 1986, Oceanography – An Introduction of the Marine Environment, Win C. Brown, Iowa
5. Garrison, T. 1993. Oceanography: An Invitation to Marine Science, Wadsworth Pub. Co., Belmont: 540 p. [Topics 4.1, 4.2, 4.3]
6. Huggett, R.J., Fundamentals of Biogeography, Routledge, U.S.A, 1998
7. King, C.A., Oceanography for Geographers, Edward Arnold Pub
8. Lal, D.S., 2005, Oceanography, Sarala Pustak Bhavan, Allahabad.s
9. Odum, Eugene P., Fundamentals of Ecology, Philadelphia
10. Raghunath, H.M. (2006): Hydrology: Principles, Analysis and Design, New Age International (P) Limited Publishers, New Delhi
11. Simmon, I.G., Biogeography: Natural and Cultural, Longman, London 1974
12. Siddhartha, K. 1999, Oceanography, A Brief Introduction, Kisalaya Pub. Pvt. Ltd., New Delhi..
13. Sharma, R.C. and M. Vatal, 1962, Oceanography for Geographers, Chaitanya Pblishing House
14. Sharma, P.D. 1996: Ecology and Environment, 71h edition, Rastogi Publications, Mirat
15. Subramanya, K (2013): Engineering Hydrology, Tata McGraw Hill, New Delhi
16. Thurnman, H.V., 1978, Introduction to oceanography, Charles E. Merrill Pub. Co., London.
17. Watts, David, Principles of Biogeography, London

## **Cartographic and Quantitative Techniques in Geography**

**Course Code- S.C GEO104C**

**Credit 4**

### **Unit-1 Concept and Application of Cartography**

- 1.1 Concept and development of cartography
- 1.2 Representation of climatic data using cartographic technique - Hythergraph, Climograph
- 1.3 Thematic mapping using Pie diagram, Choropleth and Choroschematic; Preparation of Block Diagram, Detour Index and Nearest Neighbour Analysis (NNA)
- 1.4 Map Projection: Concept and Development; UTM Projection, Bonne's Projection, Mercator's Projection and Modified Polyconic Projection.

### **Unit- 2 Application of Statistical Techniques in Geography**

- 2.1 Measures of Central Tendency and Dispersion
- 2.2 Variance and Covariance; Chi Square Test
- 2.3 Probability Distribution - Binomial and Normal Distribution; Properties of Normal Curve
- 2.4 Factor Analysis: Concept and Techniques

### **Unit- 3 Quantitative Techniques in Geography**

- 3.1 Correlation – Pearson and Spearman's methods
- 3.2 Regression – Linear and Curvilinear
- 3.3 Mean Centre of Population; Location Quotient
- 3.4 Measurement of Inequality - Gini Coefficient and Lorentz Curve

Laboratory note book and viva voce

### **Reference books**

1. Anson, R. W. and Ormerling, F. J. 1993: Basin Cartography, Elsevier Applied Science Publishers. London
2. Alvi, Z. 1995 : Statistical Geography: Methods and Applications, Rawat Pub. New Delhi
3. Elhance, D.N. Fundamentals of Statistics, Allahabad, 1972
4. Geogory, S., Statistical Methods and the Geographers, Longmans, London
5. Griffith, D.A. and Amrhein, C.G. (1997): Multivariate Statistical Analysis for Geographers, Prentice Hall, Upper Saddle River, New Jersey
6. Harvey, F. (2008): A Primer of GIS: Fundamental Geographic and Cartographic Concepts, The Guilford Press, New York
7. Khan, N. (1998): Quantitative Methods in Geographical Research, Concept Publishing Company, New Delhi
8. Mahmood. A, Statistical Methods in Geographical Studied, Rajesh Publication, Delhi, 1977
9. Monkhouse F.J. and Wilkinson, H.R. 1971: Maps and Diagrams: Their Compilation and Construction, B.I. Publications Private Limited, New Delhi
10. Pal, S.K. 1999 : Statistics for Geoscientists, Concept publishing Company, New Delhi:
11. Robinson, A. H., Morrison, J. L., Muehrcke, P. C., Kimerling, A. J., Guptill, S. C. 2002: Elements of Cartography, John Wiley and Sons (ASIA). Singapore.
12. Roy, P. 1988 : An Analytical Study of Map Projections, Volume 1, Kolkata
13. Sarkar, A. 1997 : Practical Geography: A Systematic Approach, Orient Longman Ltd., Hyderabad
14. Steers, J.A. 1965 : An Introduction to Map Projections, 14th ion, University of London Press, London. Venkatramaiah, C. 1996: A Textbook of Surveying, Universities Press / Orient Longman Ltd., Hyderabad.

## SEMESTER-II

### Geography of Population, Social Issues and Cultural Advancement

Course Code- S.C GEO201C

Credit 4

#### Unit-1 Geography of Population

- 1.1 Population Geography: Concept and Approaches
- 1.2 Theories of population growth: Malthus, Neo-Malthasian and Biological; Demographic Transition Model
- 1.3 Sources of population data
- 1.4 Population Policy: International and National

#### Unit-2 Social Issues in Geography

- 2.1 Concept of Space: Geographical, material and social
- 2.2 Social structure: Forms and functions; Social process, Caste, class, ethnicity and gender
- 2.3 World Religion - classification and distribution
- 2.4 Linguistic division of the world population with special reference to India

#### Unit-3 Geography of Cultural Advancement

- 3.1 Cultural Geography: Concept and trend of development
- 3.2 Cultural Processes: Diffusion, acculturation and assimilation; concept of cultural region, realm and landscape
- 3.3 Tribal culture and its transformation with special reference to Rarh Bengal
- 3.4 Cities as a modern cultural landscape, crisis of ethnic culture and transformation

#### Reference books

1. Ambrose, P., 1969, Analytical Human Geography, London
2. Chandna, R.C. (2010): A Geography of Population, Kalyani Publisher, New Delhi
3. Clarke, J.I. (1992): Population Geography, Pergamon Press, Oxford
4. De Blij, H.J., 1977, Human Geography, New York
5. Dicken, S.N., Introduction to Human Geography
6. Griswold, W., Cultures and Societies in a Changing World, Pine Forge Press, New Delhi
7. Khan, J.H. Socio-Economic & Structural Analysis of Internal Migration, New D. 2010
8. Jones, E., Human Geography
9. Johnston .R.J (2000): The Dictionary of Human Geography, Blackwell. UK
10. Hassan, M. Izhar, 2005, Population Geography, Rawat Publications
11. Hoggart, K., Lees, L. and Davies, A. (2002): Researching Human Geography, Arnold, London
12. Husain, M., 2000, Human Geography, New Delhi
13. Smith, D.M., 1977, Human Geography: A Welfare Approach, London
14. Taylor. G., Geography in Twentieth Century
15. Valentine,G.,2001,Social Geography – Space & society ,Prentice Hall
16. Vidyarathi, L., & Rai, B. K. (1985). The Tribal Culture of India. New Delhi: Concept Publishing Company.

## Geography of Space and Human Occupance

Course Code- S.C GEO202C

Credit 4

### Unit-1 Settlement Geography

- 1.1 Concept, meaning and development of Settlement Geography
- 1.2 Theory and models in settlement geography: Central Place theory, Rank Size Rule and concept of Primacy
- 1.3 Types and patterns of rural and urban settlements; Functional classification of urban places
- 1.4 Internal structure of the cities; CBD and Core-Periphery relations

### Unit-2 Geography of Region

- 2.1 Concept of pays and region, Types and Hierarchy of region
- 2.2 Planning Approach in regionalization; Types and levels of planning
- 2.3 Theories of regional development: Stage model of Rostow, Growth Pole and Growth Centre approach
- 2.4 Concept of regional disparities; regional disparity in India and methods of reduction

### Unit-3 Urban Geography

- 3.1 Scope and Content of Urban Geography
- 3.2 Urbanization in the Third World: Nature and Characteristics
- 3.3 Urbanization and Urban Development in India
- 3.4 Problems of Urbanization: Demographic, Economic and Environmental Issues

### Reference books

1. Carter, H. (1972): The study of Urban Geography, Edward Arnold, London
2. Chand, M. and Puri, V.K. (1983): Regional Planning in India, Allied Publishers, New Delhi
3. Clonlay, R.J. & Haggat, P., Models in Geography
4. Enayat, A., Social and Geographical Aspects of Human Settlements
5. Glasson, J. (1975): An Introduction to Regional Planning. Hutchinson and Co., London
6. Ghosh, S. 1998: Introduction to Settlement Geography. Orient Longman Ltd., Calcutta
7. Hudson, F.S. 1970: Geography of Settlements, Macdonald and Evans Ltd. Plymouth Herbert, David and
8. Johnson, J.H. (1976): Urban Geography: An Introductory Analysis, Pergamon Press
9. Kurdue, A. & Raza, Moonis, Indian Economy the Regional Dimension
10. Mandal, R.B. (2000): Urban Geography: A Textbook. Concept Pub. Co., New Delhi.
11. Mishra, R.P., Sundram, K.U. and Prakash Rao, V.V.S. (1974): Regional Development Planning in India, Vikas Publishing, Delhi
12. Pacione, M. (2009) : Urban Geography : A Global Perspective, Routledge
13. Ramacharandran, R., Urbanization and Urban Systems in India, Oxford University Press, New Delhi, 1992.
14. Raychaudhuri, J. (2001): An Introduction to Development and Regional Planning: With Special Reference to India, Orient Blakswan, New Delhi
15. Thomas, Colin, 1982: Urban Geography A First Approach, Jhon Wiley & Sons. New Delhi
16. Verma, L.N. (2006): Urban Geography, Rawat Publications, Jaipur

## Economic Issues in Geography

Course Code- S.C GEO203C

Credit 4

### Unit-1 Economic Geography: Concept and Models

- 1.1 Scope, content and development of Economic Geography
- 1.2 Classification of agricultural region; Measurement of agricultural productivity and efficiency; Agro-Climatic Regions of India
- 1.3 Concept of SEZ, EEZ, EPZ, Industrial development and problems of location; Industrial Complex
- 1.4 Models in Economic Geography: Agricultural Land Use of Von Thunen, Crop Combination Model of Weaver, Industrial Location by Weber, Losch etc.

### Unit-2 Geography of Trade

- 2.1 Trade and international relations and their importance in national economy
- 2.2 Concept of Import and Export, E-commerce, Freight equalization
- 2.3 Role of GATT and WTO in international trade
- 2.4 Recent issues in Indian trade: FDI and GST

### Unit-3 Geography of Transport

- 3.1 Concept of distance, accessibility and connectivity; transportation and space; space-time relation
- 3.2 Development of Transport: Inter-regional and Intra-regional issues
- 3.3 Transportation Policy: National and Regional; Golden Quadrilateral, North-South and East-West Corridor
- 3.4 Transportation Models: Gravity Model and Allocation Model

### Reference

1. Brian, J.L., Berry et al., The Geography of Economic Systems.
2. Black, W. R. (2003): Transportation: A Geographical Analysis, Guilford Press, New York
3. Davis, R.L. (1976) Marketing Geography, Methuen, London,
4. Hartshorne, T.A. and J.W. Alexander (1988) –Economic Geography, Prentice Hall
5. Janaki. V.A. (1985) –Economic Geography, Concept Publishing Co.
6. Hartshorn, T.A., Economic Geography
7. Hanink, D. M. (1997). Principles and Applications of Economic Geography, Economy, Policy, Environment, John Wiley and Sons, New York.
8. Hoyle, B.S., and Knowles, R.D. (eds.) (1992): Modern Transport Geography, Belhaven Press, London
9. Lloyd, P. and P. Dicken (1972) –Location in space: A theoretical approach to Economic Geography, Harper and Row, New York.
10. Michael E. and E. Hurse: Transportation Geography
11. McCarty, H.H. and J.B. Lindberg (1966) – A Preface to Economic Geography, Englewood Cliffs, N.J. Prentice.
12. Rodrigue, J.P., Comtois, C. and Slack, B. (2006): The Geography of Transport Systems, Routledge, London, New York
13. Saxena, P. Marketing and Sustainable Development. Rawat Publication, New Delhi
14. Thomas, Conkling and Yeates (1974) – Geography of Economic Activity, Mc Graw Hill, New York.
15. Thoman, R.S. & E.C. Conkling., The Geography of Economic Activity

## **Surveying, Topographical Map Interpretation and Field Study**

**Course Code- S.C GEO204C**

**Credit 4**

### **Unit-1 Surveying**

- 1.1 Levelling of surface by Dumpy Level
- 1.2 Triangulation and traversing by Prismatic Compass
- 1.3 Height determination using Theodolite: Accessible and inaccessible bases
- 1.4 Survey of terrain using GPS and DGPS

### **Unit-2 Interpretation of Topographical Map**

- 2.1 Layout of topographical map: Old and new
- 2.2 Morphometric analysis of landform: Absolute Relief, Hypsometric Curve, Altimetric Curve, Slope analysis
- 2.3 Drainage Basin analysis: Drainage Frequency, Drainage Density, Dissection Index and Ruggedness Index
- 2.4 Correlation between physical and cultural features

### **Unit-3 Field Study**

- 3.1 Selection of Study Area: Objectives and Criteria
- 3.2 Preparation of base map and Field questionnaires
- 3.3 Survey and analysis of field-based information
- 3.4 Preparation of field report

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