

LESSON PLAN**DEPART NAME : GEOGRAPHY (MORNING)****NAME OF FACULTY : ALOKA MUKHOPADHYAY****PAPER NAME & CODE : HUMAN GEOGRAPHY & GEOG – MD-CC02-2-TH**

Planned				After Implementation	
Unit/Group/ Module/Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks/ Comments
Unit I	SCOPE & APPROACHES	Introduction to Human Geography by Dorrel, D.Henderson	10	CHALK & TALK PPT PRESENTATION PRESENTATION WITH TEACHING AIDS	
Unit II	SOCIAL GEOGRAPHY	Key Methods in Geography by Clifford, N, Cope	14		
Unit III	POPULATION GEOGRAPHY	Geography of Population by R.C.Chandna	7		
Unit IV	SETTLEMENT GEOGRAPHY	An introduction to settlement Geography by S.Gosh	10		
Unit V	URBAN GEOGRAPHY	An introduction to settlement Geography by S.Gosh	4		

LESSON PLAN**DEPART NAME : GEOGRAPHY (MORNING)****NAME OF FACULTY : ALOKA MUKHOPADHYAY****PAPER NAME & CODE : HUMAN GEOGRAPHY LAB & GEOG – MD-CC02-2 -P**

Planned				After Implementation	
Unit/Group/ Module/Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks/ Comments
I	Growth rate of population	Practical Geography by A. Sarkar	6	CHALK & TALK PPT PRESENTATION PRESENTATION WITH TEACHING AIDS	
II	Representation & Interpretation of population density	Elements of Practical Geography by Singh, R.L. Singh	8	TOPOGRAPHICAL MAPS	
III	Identification of types of settlements according to sites from Survey of India 1: 50K topographical maps	Maps & Diagrams by F.J. Monkhouse	8	CENSUS OF DIFFERENT DISTRICTS	
IV	Construction of proportional squares		8		

LESSON PLAN**DEPART NAME : GEOGRAPHY (MORNING)****NAME OF FACULTY : ALOKA MUKHOPADHYAY****PAPER NAME & CODE : METHODS IN GEOGRAPHY & GEOG-H-SEC01-2 TH**

Planned				After Implementation	
Unit/Group/ Module/Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks/ Comments
Unit I	FIELD DATA COLLECTION & COMPILATION	Geography of Fieldwork and Skills by Lenon B ,Cleves, P	24	CHALK & TALK PPT PRESENTATION PRESENTATION WITH TEACHING AIDS	
Unit II	METHODS IN PHYSICAL GEOGRAPHY	Key Methods in Geography by Clifford, N, Cope	18		
Unit III	METHODS IN HUMAN GEOGRAPHY	Fieldwork for Human Geography by Phillips, R, John J	18		

LESSON PLAN**DEPART NAME : GEOGRAPHY (MORNING)****NAME OF FACULTY : ALOKA MUKHOPADHYAY****PAPER NAME & CODE : GEOMATICS & SPATIAL ANALYSIS & GEOG-IDC01-TH**

Planned			After Implementation	
Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks/ Comments
CARTOGRAPHY	Fundamentals of Cartography by R.P. MISHRA Maps & Diagrams by Monkhouse	14	CHALK & TALK PPT PRESENTATION PRESENTATION WITH TEACHING AIDS	
SURVEYING	Practical Geography: A Systematic Approach by Sarkar, A	12		
REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEM	Fundamentals of Remote Sensing by Joseph, G, Jagannathan	18		

LESSON PLAN**DEPART NAME : GEOGRAPHY (MORNING)****NAME OF FACULTY : ALOKA MUKHOPADHYAY****PAPER NAME & CODE : GEOMATICS & SPATIAL ANALYSIS LAB & GEOG-IDC02-P**

Planned			After Implementation	
Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks/ Comments
CONSTRUCTION OF SIMPLE CONICAL PROJECTION WITH ONE STD. PARALLEL	Fundamentals of Cartography by R.P. MISHRA	5	CHALK & TALK PPT PRESENTATION PRESENTATION WITH TEACHING AIDS	
TRAVERSE SURVEY USING PRISMATIC COMPASS	Maps & Diagrams by Monkhouse	10	SATELLITE IMAGERY	
IDENTIFICATION OF LAND USE / LAND COVER FEATURES FROM STANDARD FCC & PREPARATION OF INVENTORIES	Practical Geography: A Systematic Approach by Sarkar, A	7		
CHAN & IMAGESGE DETECTION OF RIVERBANK OR COASTLINE SHIFT FROM MULTI-DATED MAPS	Fundamentals of Remote Sensing by Joseph, G, Jagannathan	8		

LESSON PLAN

DEPART NAME : GEOGRAPHY (MORNING) NAME OF FACULTY : ALOKA MUKHOPADHYAY

PAPER NAME & CODE : GEOMORPHOLOGY & GEOG-H-CC05/MD-CC04-4/5/6 -TH

Planned				After Implementation	
Unit/ Group/ Module/ Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks / Comments
1.	Time & space in geomorphology	Thornbury, W.D.1969. Principles of Geomorphology	4	CHALK & TALK PPT PRESENTA TION PRESENTA TION WITH TEACHING AIDS	
2.	Degradational process		4		
3.	Processes of entrainment, transportation, & deposition by different geomorphic agents.	Strahler,A.2016 .Introducing Physical Geography	5		
4.	Development of river network and landforms of uniclinal & folded structures. Surface expression of faults	Gupta,a.2011. Tropical Geomorphology. Cambridge University Press	6		
5.	Development of river network and landforms on granites, basalts & limestones		6		
6.	Costal processes and landforms	Huggett, R, Shuttleworth Fundamentals of Geomorphology	4		
7.	Glacial and glacio-fluvial processes and landforms		4		
8.	Aeolian and fluvio-aeolian processes and landforms	WEBSITES: British Society for Geomorphology: www.geomorphology.org	4		
9.	Models on landscape evolution	g.uk	6		
10.	Role of humans in landform development	Indian Institute of Geomorphologists:www. indiageomorph.org	2		

LESSON PLAN**DEPART NAME : GEOGRAPHY (MORNING)****NAME OF FACULTY : ALOKA MUKHOPADHYAY****PAPER NAME & CODE : GEOMORPHOLOGY LAB GEOG-H-CC05/MD-CC04-4/5/6 P**

Planned				After Implementation	
Unit/ Group/ Module/ Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks / Comments
1.	Extraction and interpretation of geomorphic information from Survey of India 1:50k topographical maps of plateau region.	Practical Geography : A Systematic Approach by A. Sarkar	7	CHALK & TALK PPT PRESENTA TION PRESENTA TION WITH TEACHING AIDS	
2.	Construction of relative relief map, slope map(after Wentworth), drainage density map on a delineated drainage basin(c.5'x 5')	Geomorphological Analysis of Drainage basin By P.K. Sen	9		
3.	Construction of hypsometric curve and derivation of hypsometric integer of a drainage basin (c.5'x 5') of a plateau region.		7		
4.	Determination of channel sinuosity index(channel length/valley length measured through straight line) and braiding index of rivers from topographical maps(c,10-km reach)		7		

LESSON PLAN

DEPART NAME: GEOGRAPHY (MORNING) NAME OF FACULTY : ALOKA MUKHOPADHYAY

PAPER NAME & CODE : CLIMETOLOGY GEOG-H-CC05/MD-CC04-4/5/6 -TH

Planned				After Implementation	
Unit/ Group/ Module/ Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT I	<u>ELEMENTS OF THE ATMOSPHERE</u>	D.S. LAL Climatology	3	CHALK & TALK PPT PRESENTA TION PRESENTA TION WITH TEACHING AIDS	
	1. Insolation: Controlling factors. Heat budget of the atmosphere				
	2. Temperature: Horizontal and Vertical distribution. Inversion of temperature: Types, causes and consequences.	Barry, R.J. Chorley R.J. Atmosphere Weather and Climate	4		
	3. Overview of climate change: Causes, trends and predictions of global temperature rise since 1850 CE. Formation, depletion, restoration and significance of the ozone layer	Critchfield, H.J. General Climatology	6		
		India Meteorological Department: https://mausum.imd.gov.in	6		
UNIT II	<u>ATMOSPHERIC PHENOMENA & CLIMATIC CLASSIFICATION</u>		5		
	4. Condensation: Process and forms, Mechanism of precipitation: Bergeron- Findeisen theory, and collision & coalescence theory .Forms of precipitation.		4		
	5. Air mass: Typology, origin, characteristics and modification		5		

	<p>6. Types of fronts. Frontogenesis and frosntolysis</p>		4		
	<p>7. Weather: Stability & instability, barotropic and baroclinic conditions</p>		6		
	<p>8. Atmospheric disturbances: Tropical Cyclones and thunderstorms</p>		4		
	<p>9. Monsoon circulation and mechanism with reference to India</p>		4		
	<p>10. Climatic classification after Koppen (1936) and Thornthwaite (1948)</p>		4		

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Planned				After Implementation	
Unit/ Group/ Module/ Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks / Comments
1.	Measurement of weather elements using analogue instruments: Mean daily temperature, air pressure, relative humidity and rainfall.	Practical Geography : A Systematic Approach by A. Sarkar	6	CHALK & TALK PPT PRESENTA TION PRESENTA TION WITH TEACHING AIDS	
2.	Interpretation of a daily weather map of India(any two): Pre-Monsoon, Monsoon and post-Monsoon,		Elements of Practical Geography By R.L. Singh, R.P.B. Singh		12
3.	Construction and Interpretation of monthly rainfall dispersion diagram(quantile method), climatic water budget	6			
4.	Construction and Interpretation of hythergraph and climograph (after Taylor)				

LESSON PLAN

**DEPART NAME : GEOGRAPHY (MORNING) NAME OF FACULTY : ALOKA MUKHOPADHYAY
 PAPER NAME & CODE : GEOMORPHOLOGY & GEOG-H-CC05/MD-CC04-4/5/6 -TH**

Planned				After Implementation	
Unit/ Group/ Module/ Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks / Comments
1.	Time & space in geomorphology	Thornbury, W.D.1969. Principles of Geomorphology	4	CHALK & TALK PPT PRESENTA TION PRESENTA TION WITH TEACHING AIDS	
2.	Degradational process		4		
3.	Processes of entrainment, transportation, & deposition by different geomorphic agents.	Strahler,A.2016 .Introducing Physical Geography	5		
4.	Development of river network and landforms of uniclinal & folded structures. Surface expression of faults	Gupta,a.2011. Tropical Geomorphology. Cambridge University Press	6		
5.	Development of river network and landforms on granites, basalts & limestones		6		
6.	Costal processes and landforms	Huggett, R, Shuttleworth Fundamentals of Geomorphology	4		
7.	Glacial and glacio-fluvial processes and landforms		4		
8.	Aeolian and fluvio-aeolian processes and landforms	WEBSITES: British Society for Geomorphology: www.geomorphology.org	4		
9.	Models on landscape evolution	www.geomorphology.org	6		
10.	Role of humans in landform development	Indian Institute of Geomorphologists:www. indiageomorph.org	2		

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Planned				After Implementation	
Unit/ Group/ Module/ Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks / Comments
1.	Extraction and interpretation of geomorphic information from Survey of India 1:50k topographical maps of plateau region.	Practical Geography : A Systematic Approach by A. Sarkar	7	CHALK & TALK PPT PRESENTA TION PRESENTA TION WITH TEACHING AIDS	
2.	Construction of relative relief map, slope map(after Wentworth), drainage density map on a delineated drainage basin(c.5'x 5')	Geomorphological Analysis of Drainage basin By P.K. Sen	9		
3.	Construction of hypsometric curve and derivation of hypsometric integer of a drainage basin (c.5'x 5') of a plateau region.		7		
4.	Determination of channel sinuosity index(channel length/valley length measured through straight line) and braiding index of rivers from topographical maps(c,10-km reach)		7		

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Planned				After Implementation	
Unit/ Group/ Module/ Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT I	<u>ELEMENTS OF THE ATMOSPHERE</u>	D.S. Lal Climatology	3		
	1. Insolation: Controlling factors. Heat budget of the atmosphere				
	2. Temperature: Horizontal and Vertical distribution. Inversion of temperature: Types, causes and consequences.	Barry, R.J. Chorley R.J. Atmosphere Weather and Climate	4		
	3. Overview of climate change: Causes, trends and predictions of global temperature rise since 1850 CE. Formation, depletion, restoration and significance of the ozone layer	Critchfield, H.J. General Climatology	6		
		India Meteorological Department: https://mausum.imd.gov.in	6		
UNIT II	<u>ATMOSPHERIC PHENOMENA & CLIMATIC CLASSIFICATION</u>		5	CHALK & TALK PPT PRESENTATION PRESENTATION WITH TEACHING AIDS	
	4. Condensation: Process and forms, Mechanism of precipitation: Bergeron- Findeisen theory, and collision & coalescence theory .Forms of precipitation.		4		
	5. Air mass: Typology, origin, characteristics and modification		5		

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- Commented [H2R1]:
- Commented [H3R1]:
- Commented [H4R1]:

	6. Types of fronts. Frontogenesis and frossntolysis		4		
	7. Weather: Stability & instability, barotropic and baroclinic conditions		6		
	8. Atmospheric disturbances: Tropical Cyclones and thunderstorms		4		
	9. Monsoon circulation and mechanism with reference to India		4		
	10. Climatic classification after Koppen (1936) and Thornthwaite (1948)				

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NAME OF FACULTY : ALOKA MUKHOPADHYAY

PAPER NAME & CODE : CLIMETOLOGY LAB GEOG-H-CC05/MD-CC04-4/5/6 -P

Planned				After Implementation	
Unit/ Group/ Module/ Article	Topics	Reference Books	No. of Lecture Planned	Content Delivery Technique	Remarks / Comments
1.	Measurement of weather elements using analogue instruments: Mean daily temperature, air pressure, relative humidity and rainfall.	Practical Geography : A Systematic Approach by A. Sarkar	6	CHALK & TALK PPT PRESENTA TION PRESENTA TION WITH TEACHING AIDS	
2.	Interpretation of a daily weather map of India(any two): Pre-Monsoon, Monsoon and post-Monsoon,	Elements of Practical Geography By R.L. Singh, R.P.B. Singh	12		
3.	Construction and Interpretation of monthly rainfall dispersion diagram(quartile method), climatic water budget		6		
4.	Construction and Interpretation of hythergraph and climograph (after Taylor)				

Geography lesson Plan Semester VI

Planned					
Unit/Group/ Module/Article	Topics	Reference Books	No. of Lectur e	Content Delivery Techniqu e	Remarks/ Comments
1.INDIA	I. Physiographic divisions with reference to tectonic province.	Chand, M. and Puri,V.K.2013 Regional Planning in India	4	CHALK & TALK PPT PRESENTA TION PRESENTA TION WITH TEACHING AIDS	
	ii. Climate ,Soil and vegetation regions.	Khullar, D.R.2011.India: A comprehenhens ive Geography	6		
	iii . Green revolution (Phases I & II) white revolution & their impacts.	Sharma, T.C2012. Economic Geography of India	4		
	iv. Industrial development : Automobile and Information technology sectors.	Website: Census of India: https:// census india.gov.in	4		
	v. Regionalisation of India: Basis of classification with reference to Economic regions.(After P. Sengupta)		5		
2. West Bengal	i. Physiographic divisions : tectonic and geomorphic evolution.		6		
	ii.Drainage System : Water resources and related issues.				
	iii.Changing pattern of industrialisation in West Bengal. Development of SEZs				
	iv.Population: Growth, distribution, migration and Human development.				
	v. Darjiling Himalaya as a physiographic region, Sundarban as aecological region, Haldia as an industrial region.				
Unit/Group/ Module/Article	Topics	Reference Books	No. of Lectur e	Content Delivery Techniqu e	Remarks/ Comments

Geography lesson Plan Semester VI

	<p>i. Monthly temperature & Rainfall graphs.</p> <p>ii. Graphical representation of annual trends of production : Manufacturing goods from India or West Bengal</p> <p>iii . Preparation of Composite Index(Kendall's Method) Comparison of developed and less developed states of India.</p> <p>iv. Change in mean centre of population of West Bengal over any three census years.</p>	<p>Datt, R and Sundaram, K.P.M 2015 Indian Economy, 50th ed, S. Chand</p> <p>Mahmood,A.1977. Statistical Methods in Geographical Studies.</p> <p>Website: Census of India: https://censusindia.gov.in</p>	<p>8</p> <p>8</p> <p>7</p> <p>7</p> <p>4</p>	<p>CHALK & TALK</p> <p>PPT PRESENTATION</p> <p>PRESENTATION WITH TEACHING AIDS</p>	
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DEPARTMENT OF GEOGRAPHY
VICTORIA INSTITUTION (COLLEGE)

LESSON PLAN
SEMESTER 2
MAJOR, MINOR & MDC
(CCF SYLLABUS)

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit I: Scope and Approaches	1a. Elements of Human geography	Human Geography by Majid Hussain	1	Chalk and talk	
	1b. Nature of Human geography	Human Geography by Majid Hussain	1	Chalk and talk	
	1c. Scope of Human geography	Human Geography by Majid Hussain	1	Chalk and talk	
	1d. Recent trends in Human geography	Fundamentals of Human Geography by L.R Singh	1	Chalk and talk	
	2a. Human geography schools of thought based on Resource	Fundamentals of Human Geography by L.R Singh	2	Chalk and talk	
	2b. Human geography schools of thought based on locational approach	Fundamentals of Human Geography by L.R Singh	2	Chalk and talk	
	2c. Human geography	Fundamentals of Human Geography by L.R Singh	2	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	schools of thought based on landscape approach				
	2d. Human geography schools of thought based on environment approach	Fundamentals of Human Geography by L.R Singh	2	Chalk and talk	
Unit II: Social Geography	4a. Adaptation of Chenchu tribe to the environment	Human Geography by Goh Cheng Leong, Tribes of India by Ashok & Lakshmaiah	1	Chalk and talk	
	4b. Adaptation of Toda tribe to the environment	Human Geography by Goh Cheng Leong, Tribes of India by Ashok & Lakshmaiah	1	Chalk and talk	
	4c. Adaptation of Gond tribe to the environment	Human Geography by Goh Cheng Leong, Tribes of India by Ashok & Lakshmaiah	1	Chalk and talk	
	5a. Concept & evolution of post-industrial urban	Human Geography by Majid Hussain, Fundamentals of Human Geography by L.R	1	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	societies	Singh			
	5b.Characteristics of post-industrial urban societies	Human Geography by Majid Hussain, Human Geography, Fundamentals of Human Geography by L.R Singh	1	Chalk and talk	
		Total	17		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit II: Social Geography	3a. Evolution of Hunting and food gathering society	Human Geography by Majid Hussain, Human Geography, Places and Regions in Global context by Knox & Marston	2	Chalk and talk	
	3b. Evolution of pastoral nomadism	Human Geography by Majid Hussain, Human Geography, Places and Regions in Global context by Knox & Marston	2	Chalk and talk	
	3c. Evolution of Subsistence farming society	Human Geography by Majid Hussain, Human Geography, Places and Regions in Global context by Knox & Marston	2	Chalk and talk	
	3d. Evolution of industrial society	Human Geography by Majid Hussain, Human Geography, Places and Regions in Global context by Knox & Marston	2	Chalk and talk	
Unit IV: Settlement Geography	8a.Characteristics of urban settlements	Geography of Settlements by R.Y Singh, Introduction to Settlement Geography by Sumita Ghosh	2	Chalk and talk	
	8b.Characteristics of rural	Geography of Settlements by R.Y Singh, Rural Settlement	2	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	settlements	by R.B Mondal			
	9a. The concept of site and situation of rural settlements	Geography of Settlements by R.Y Singh, Rural Settlement by R.B Mondal	2	Chalk and talk	
	9b. Different types of rural settlements	Geography of Settlements by R.Y Singh, Rural Settlement by R.B Mondal	2	Chalk and talk	
	9c. Patterns of rural settlements	Geography of Settlements by R.Y Singh, Rural Settlement by R.B Mondal	2	Chalk and talk	
		Total	18		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC02/MD-CC02-2/4-TH-HUMAN GEOGRAPHY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT 3 TOPIC 6	Concept of Demographic Transition	The Dictionary of Human Geography by Johnston, Pratt, Watts, Whatmore, Human Geography by Mercier, Norton.	1	Chalk and Talk	
UNIT 3 TOPIC 6	Concept of demographic dividend along with significance	The Dictionary of Human Geography by Johnston, Pratt, Watts, Whatmore, Human Geography by Mercier, Norton. Contemporary Human Geography by Rubenstein	2	Chalk and Talk	
UNIT 3 TOPIC 7	Discussion about distribution of population in India	Geography of population by R.C.Chandna, India's Demography: changing demographic scenario in India by P.K.Majumdar	2	Chalk and Talk	
UNIT 3 TOPIC 7	Discussion about density of population in India	Same as above	1	Chalk and Talk	
UNIT 3 TOPIC 7	Discussion about growth of population in India	Geography of population by R.C.Chandna, India's Demography: changing demographic scenario in India by P.K.Majumdar	1	Chalk and Talk	
UNIT 5 TOPIC 10	Discussion about Urban settlements	Geography of population by R.C.Chandna,	2	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC02/MD-CC02-2/4-TH-HUMAN GEOGRAPHY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	after Census of India	India's Demography: changing demographic scenario in India by P.K.Majumdar			
UNIT 5 TOPIC 10	Discussion about size –class classification of Urban settlements after Census of India	Geography of population by R.C.Chandna, India's Demography: changing demographic scenario in India by P.K.Majumdar, Census of India	2	Chalk and Talk	
		TOTAL	11		

This theory paper is shared among Smt. Pubali Ghosh, Associate Professor, Dr. Saswati Nayek, Associate Professor, Smt. Prakriti Das, Assistant Professor, Geography Dept. VIC

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-P)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	1a. Basic concept on population growth rate	Practical Geography: A Systematic Approach by A. Sarkar, Elements of Practical Geography by R.L Singh	2	Chalk and Talk	
	2b. Arithmetic growth comparing two decadal datasets	Census of India: https://xensusindia.gov.in/census.website/data/census-tables	4	Chalk and Talk followed by Practice	
	3a. Concept about different types of settlements according to sites	Advanced Practical Geography by P. Basu, Practical Geography: A Systematic Approach by A. Sarkar	2	Chalk and Talk	
	3b. Revision of the details in Indian Topographical Map		2	Chalk and Talk using Toposheets	
	3c. Identification		4	Chalk and	

Subject Name/Code:

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-P)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	of those settlements from Survey of India 1:50k topographical maps			Talk followed by Practice	
		Total	14		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC02/MD-CC02-2/4-P-HUMAN GEOGRAPHY LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
2	Concept of Choropleth method	Practical Geography by Asis Sarkar, Elements of Practical Geography by R.L.Singh, Maps and Diagrams by Monkhouse, Advanced Practical Geography by P. Basu	1	Chalk and Talk	
2	Representation of population density of West Bengal districts- Calculation	Same as above	2	Chalk and Talk	
2	Representation of population density of West Bengal districts- Diagram	Same as above	3	Chalk and Talk	
2	Representation of population density of West Bengal districts- Interpretation	Practical Geography by Asis Sarkar, Elements of Practical Geography by R.L.Singh, Maps and Diagrams by	2	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

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Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		Monkhouse, Advanced Practical Geography by P. Basu			
4	Concept of Proportional Squares	Practical Geography by Asis Sarkar, Elements of Practical Geography by R.L.Singh, Maps and Diagrams by Monkhouse, Advanced Practical Geography by P. Basu	1	Chalk and Talk	
	Construction of Proportional Squares- Calculation	Same as above	3	Chalk and Talk	
	Construction of Proportional Squares- Diagram	Same as above	2	Chalk and Talk	
	Construction of Proportional Squares- Interpretation	Practical Geography by Asis Sarkar, Elements of Practical Geography by R.L.Singh, Maps and Diagrams by Monkhouse,	2	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC02/MD-CC02-2/4-P-HUMAN GEOGRAPHY LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		Advanced Practical Geography by P. Basu			
		TOTAL	16		

This practical paper is shared between Smt. Pubali Ghosh, Associate Professor and Dr. Raj Kumar Bhattacharya, Assistant Professor, Geography Dept. VIC

LESSON PLAN

Department Name: Geography

Name of Faculty. Dr. Saswati Nayak

Paper Name & Code: Artificial Intelligence (GEOG-SEC-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit: I Introduction of Artificial Intelligence (AI)	Definition and scope of Artificial Intelligence	AI For Everyone A Beginner's Handbook for Artificial Intelligence by Saptarshi Goswami, Amit Kumar Das and Amlan Chakrabarty	2	Chalk and talk	
	Historical Overview and key milestones		2	Chalk and talk	
	Differentiating AI from Human Intelligence		2	Chalk and talk	
Unit: III Application of AI	AI in health Care: Diagnosis	http://www.researchgate.net	1	Laptop and lecture	
	AI in health Care: treatment and medical imaging	http://www.mastercard.com http://scholarstor-jaypee.s3	1	Laptop and lecture	
	AI in education: personalize learning	http://www.researchgate.net/publication/352044231	1	Laptop and lecture	
	AI in education: intelligent tutoring systems	http://researchgate.net/publication/347448363	1	Laptop and lecture	
Unit;IV Ethical and Social	Bias and fairness of AI systems	AI For Everyone A Beginner's Handbook for Artificial Intelligence by Saptarshi Goswami, Amit Kumar Das and	1	Chalk and talk	
	Privacy and data		2	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty. Dr. Saswati Nayak

Paper Name & Code: Artificial Intelligence (GEOG-SEC-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Implications of AI	protection concerns	Amlan Chakrabarty. http://www.bregel.org			
	Impact of AI on employment and the workforce	http://www.researchgate.net/publication/385629231	1	Chalk and talk	
	AI and social inequality	http://www.ris.org.in	1	Chalk and talk	
		Total	15		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Artificial Intelligence (GEOG-SEC-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit: 2 AI Subfields and Technologies	2a. Machine learning: Supervised, unsupervised, and reinforcement learning	AI For Everyone A Beginner's Handbook for Artificial Intelligence by Saptarshi Goswami, Amit Kumar Das and Amlan Chakrabarty	2	Chalk and Talk	
	2b. Deep learning and neural networks		2	Chalk and Talk followed by Practice	
	2c. Natural language processing (NLP) and computer vision		2	Chalk and Talk	
Unit 3: Applications of AI	3b. AI in finance: Fraud detection, algorithmic trading, and risk assessment	https://www.golabstech.com/blog/ai-in-financial-markets-from-trading-algorithms-to-fraud-detection Artificial Intelligence for Everyone (An Introduction to AI without Programming) by Dr. Partha Ghosh	2		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Artificial Intelligence (GEOG-SEC-Th)

	3c. AI in transportation: Autonomous vehicles and traffic optimization	https://doi.org/10.4108/ew.4613	2		
	3d. AI in customer service and chatbots	https://www.zendesk.com/in/blog/ai-customer-service/	2		
Unit 5: Other Important Issues	5a. Ethical guidelines and responsible AI practices	AI For Everyone	1		
	5b. AI and Innovation	A Beginner's Handbook for Artificial Intelligence by Saptarshi Goswami, Amit Kumar Das and Amlan Chakrabarty Artificial Intelligence for Everyone (An Introduction to AI without Programming) by Dr. Partha Ghosh	1		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Artificial Intelligence (GEOG-SEC-Th)

	5c. Emerging trends and future directions in AI	https://www.protonshub.com/blogs/the-future-of-it	1		
	5d. AI and creativity: Generative models and artistic applications		2		
	Total		17		

This theory paper is shared between Dr. Saswati Nayak, Associate Professor and Dr. Raj Kumar Bhattacharya, Assistant Professor, Geography Department, VIC. This distribution is flexible depending upon the number of students opting Artificial Intelligence as SEC paper.

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: Digital Empowerment-GEO-SEC 2-TH

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT 1 DIGITAL LITERACY AND DIGITAL EMPOWERMENT	Discussion about definition of Digital Literacy	Understanding Digital Literacies : A Practical Introduction by R.H.Jones and C.A. Hafner	1	Chalk and Talk	
	Discussion about current trends of Digital Technology		1	Chalk and Talk	
	Discussion about evaluating the credibility of online information		1	Chalk and Talk	
	Discussion about a) copyright, b) Plagiarism awareness.		1	Chalk and Talk	
	Discussion about application of our country a) Digilocker, b)E-Hospitals, c)e-Pathshala, d)SHIM, e)e-Kranti, f)e-Health		2	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: Digital Empowerment-GEO-SEC 2-TH

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Campaigns				
2 ONLINE COMMUNICATION AND COLLABORATION	Discussion about Electronic communication: a)electronic mail, b)blogs, c) Social media.	Understanding Digital Literacies : A Practical Introduction by R.H.Jones and C.A. Hafner	1	Chalk and talk	
	Discussion about Collaborative Digital platforms		1	Chalk and talk	
	Discussion about tools/platforms for online learning		1	Chalk and talk	
	Discussion about collaboration using a)file sharing, b)messaging, c)video		1	Chalk and talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: Digital Empowerment-GEO-SEC 2-TH

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	conferencing				
2 ONLINE COMMUNICATION AND COLLABORATION	Discussion about online security and privacy	Understanding Digital Literacies : A Practical Introduction by R.H.Jones and C.A. Hafner	1	Chalk and talk	
		TOTAL	11		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Digital Empowerment – GEOG-SEC 2 -Th

		Planned		After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT- I11 Digital Security	Threats in digital world: introduction	Digital Empowerment by Dr. Subrata Kumar Ray	2	Chalk and talk	
	Different types of threats in digital world				
	Consequences of these threats				
	Data breach: concept & description		1		
	Cyber attacks: concept, types and description		1		
	Block Chain Technology: Concept & definition		1	Chalk and talk	
	Block Chain Technology: Evolution				
	Block Chain Technology: Uses and examples				1

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Digital Empowerment – GEOG-SEC 2 -Th

	4a. Security initiatives by India government			
	4b. Brief discussion about each initiative		1	
UNIT-IV Digital citizenship and Ethics	Responsible online behavior: concept	Digital Empowerment by Dr. Pranay Pandey	1	
	Responsible online behavior: necessity			
	Digital etiquette: Concept		2	
	Digital etiquette: methods and significance			
	Online communities: concept & types		1	Chalk and talk
	Norms followed by online communities			
	Ethical considerations in digital technology usage: Importance		2	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Digital Empowerment – GEOG-SEC 2 -Th

	Ethical considerations in digital technology usage: Types				
Unit -V Emerging Technology	Emerging technology: Definition & concept	ABC of Digital Empowerment by Biplab Banerjee	2	Chalk and talk	
	Impact of emerging technology				
	AI: Definition & concept		2		
	Machine Learning: Definition & concept				
	Differences between AI and Machine Learning		2		
	IOT: Definition and concept				
	IOT and Connected devices: Relation and applicability with examples				

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Digital Empowerment – GEOG-SEC 2 -Th

	Connected devices: Types and significance				
		Total	19 hours		

This theory paper is shared between Smt. Pubali Ghosh, Associate Professor and Smt. Prakriti Das, Assistant Professor, Geography Department, VIC. This distribution is flexible depending upon the number of students opting Digital Empowerment as SEC paper.

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: GEOG-H-SEC-01/MD-SEC01-1/2/3-TH-METHODS IN GEOGRAPHY

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit I: Field Data Collection and Compilation	1a. Designing of primary survey based on diverse research problems	1. Research Methodology: Methods & Techniques by C.R Kothari 2. Geospatial Techniques and Research in Geography by Das & Mallick	2	Chalk and Talk	
	1b. Relevance of pilot survey	1. Research Methodology: Methods & Techniques by C.R Kothari 2. Geospatial Techniques and Research in Geography by Das & Mallick	2	Chalk and Talk	
	2. Sampling types and strategy based on diverse research problems	1. Research Methodology: Methods & Techniques by C.R Kothari 2. Geospatial Techniques and Research in Geography by Das & Mallick	3	Chalk and Talk	
	3a. Preparation of questionnaire	1. Research Methodology: Methods & Techniques by C.R Kothari 2. Geospatial Techniques and Research in Geography by Das & Mallick	2	Chalk and Talk	
	3b. Preparation of interview	1. Research Methodology: Methods & Techniques by	2	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: GEOG-H-SEC-01/MD-SEC01-1/2/3-TH-METHODS IN GEOGRAPHY

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	schedule	C.R Kothari 2. Geospatial Techniques and Research in Geography by Das & Mallick			
		Total	11		
		Total			

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Methods in Geography (GEOG-H-SEC01/MD-SEC1/2/3-TH)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit I: Field Data Collection and Compilation	4. Data Compilation into master table	1.Statistical Methods by N.G.Das 2. An Insight into Statistics by Jaydeb Sarkhel and Santosh Kumar Dutta; Book Syndicate Private Limited	2	Chalk and Talk	
	4. Data matrix in master table		2		
	5. Computer assisted field data entry- concept		2		
	5. Tabulation of data into frequency distribution tables		2		
	6. Statistical analysis of data: measures of central tendency: Mean		2		

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Methods in Geography (GEOG-H-SEC01/MD-SEC1/2/3-TH)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit I: Field Data Collection and Compilation	6. Statistical analysis of data: measures of central tendency: Median and mode	1.Statistical Methods by N.G.Das 2. An Insight into Statistics by Jaydeb Sarkhel and Santosh Kumar Dutta; Book Syndicate Private Limited	2	Chalk and Talk	
	6. Statistical analysis of data: dispersion		1		
Unit II: Methods in Physical Geography	7.Use of minor survey Instruments: distometer	3. Statistical Methods in Geographical Studies by A. Mahmood	1	Distometer	
		Total	14		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: GEOG-H-SEC-01/MD-SEC01-1/2/3-TH-METHODS IN GEOGRAPHY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit 2: Methods in Physical Geography	2a. Use of minor survey instruments: Brunton compass, distometer, smartphone levelling applications	1.Manual guide book as provided by selling company	4	Practical work with field survey	
	2b.Textural analysis of grains using sieves	1. Manual guide book as provided by selling company	4	Practical work with field survey (sample number 50)	
	2c. Mapping and extraction of flooded areas from satellite images and digital elevation models	1. Practical geography: A Systematic Approach by A. Sarkar 2.Advanced Practical Geography by P. Basu	5	Practical work with satellite images	
	2d. Mapping areal and linear extents of riverbank and coastline shift from Survey of India 1:50k maps and/or satellite images	1. Practical geography: A Systematic Approach by A. Sarkar	5	Practical work with satellite images and SOI 1:50k Toposheet Maps	
		Total	18		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-SEC-01/MD-SEC01-1/2/3-TH-METHODS IN GEOGRAPHY

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT 2 9	Extraction of flooded areas from Satellite Images	Elements of Practical Geography by R.L.Singh Practical Geography by A. Sarkar	1	Chalk & Talk, Satellite Images	
	Mapping of flooded areas from Satellite Images	Quantitative Geography by A. Sarkar	1	Chalk & Talk, Satellite Images	
	Extraction of flooded areas from Digital elevation model	Map work and Practical Geography by Gopal Singh	1	Chalk & Talk, Digital elevation model	
	Mapping of flooded area from Digital elevation model	Elements of Practical Geography	1	Chalk & Talk, Digital elevation model	
UNIT 3	Definition and discussion about Dominant function	Statistical Methods in Geographical Studies by A. Mahmood	1	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-SEC-01/MD-SEC01-1/2/3-TH-METHODS IN GEOGRAPHY

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
11	Finding out Dominant function with examples	Elements of Practical Geography by R.L.Singh	1	Chalk & Talk	
	Definition and discussion about Distinctive function	Practical Geography by A. Sarkar	1	Chalk & Talk	
	Finding out Distinctive function with examples	Quantitative Geography by A. Sarkar Map work and Practical Geography by Gopal Singh Elements of Practical Geography	1	Chalk & Talk	
UNIT 3 12	Definition and discussion about Occupational	SAME AS ABOVE	1	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-SEC-01/MD-SEC01-1/2/3-TH-METHODS IN GEOGRAPHY

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	pattern				
UNIT 3 12	Definition and discussion about Ternary Diagram	SAME AS ABOVE	1	Chalk & Talk	
	Ternary Diagram showing occupational patterns (after Ashok Mitra)	SAME AS ABOVE	2	Chalk & Talk	
UNIT 3 13	Definition of Accessibility map	SAME AS ABOVE	1	Chalk & Talk	
	Discussion about Accessibility map	SAME AS ABOVE	1	Chalk & Talk	
	Preparation of Accessibility map	SAME AS ABOVE	3	Chalk & Talk	
UNIT 3	Definition of Flow Chart	SAME AS ABOVE	1	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-SEC-01/MD-SEC01-1/2/3-TH-METHODS IN GEOGRAPHY

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
14	Discussion about Flow Chart	SAME AS ABOVE	2	Chalk & Talk	
UNIT 3 14	Preparation of Flow chart using transportation data	SAME AS ABOVE	2	Chalk & Talk	
		Total	22		

This theory paper is shared among Smt. Pubali Ghosh, Associate Professor, Dr. Saswati Nayek, Associate Professor, Smt. Prakriti Das, Assistant Professor and Dr. Raj Kumar Bhattacharya, Assistant Professor, Geography Dept. VIC

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned				TT	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit I: Scope and Approaches	1a. Elements of Human geography	Human Geography by Majid Hussain	1	Chalk and talk	
	1b. Nature of Human geography	Human Geography by Majid Hussain	1	Chalk and talk	
	1c. Scope of Human geography	Human Geography by Majid Hussain	1	Chalk and talk	
	1d. Recent trends in Human geography	Fundamentals of Human Geography by L.R Singh	1	Chalk and talk	
	2a. Human geography schools of thought based on Resource	Fundamentals of Human Geography by L.R Singh	2	Chalk and talk	
	2b. Human geography schools of thought based on locational approach	Fundamentals of Human Geography by L.R Singh	2	Chalk and talk	
	2c. Human geography	Fundamentals of Human Geography by L.R Singh	2	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	schools of thought based on landscape approach				
	2d. Human geography schools of thought based on environment approach	Fundamentals of Human Geography by L.R Singh	2	Chalk and talk	
Unit II: Social Geography	3a. Evolution of Hunting and food gathering society	Human Geography by Majid Hussain, Human Geography, Places and Regions in Global context by Knox & Marston	2	Chalk and talk	
	3b. Evolution of pastoral nomadism	Human Geography by Majid Hussain, Human Geography, Places and Regions in Global context by Knox & Marston	2	Chalk and talk	
	3c. Evolution of Subsistence farming society	Human Geography by Majid Hussain, Human Geography, Places and Regions in Global context by Knox & Marston	2	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	3d. Evolution of industrial society	Human Geography by Majid Hussain, Human Geography, Places and Regions in Global context by Knox & Marston	2	Chalk and talk	
	4a. Adaptation of Chenchu tribe to the environment	Human Geography by Goh Cheng Leong, Tribes of India by Ashok & Lakshmaiah	1	Chalk and talk	
	4b. Adaptation of Toda tribe to the environment	Human Geography by Goh Cheng Leong, Tribes of India by Ashok & Lakshmaiah	1	Chalk and talk	
	4c. Adaptation of Gond tribe to the environment	Human Geography by Goh Cheng Leong, Tribes of India by Ashok & Lakshmaiah	1	Chalk and talk	
	5a. Concept & evolution of post-industrial urban societies	Human Geography by Majid Hussain, Fundamentals of Human Geography by L.R Singh	1	Chalk and talk	
	5b.Characteristics of post-industrial urban societies	Human Geography by Majid Hussain, Human Geography, Fundamentals of Human Geography by L.R Singh	1	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit III: Population Geography	6a. Concept and definition of Demographic transition	India's Demography by P.K Majumder, Population Geography by Chandna	2	Chalk and talk	
	6b. Significance of demographic dividend	India's Demography by P.K Majumder, Population Geography by Chandna	1	Chalk and talk	
	7a. Distribution of population in India	Population Geography by Chandna	1	Chalk and talk	
	7b. Density of population in India	Population Geography by Chandna	1	Chalk and talk	
	7c. Growth of population in India	Population Geography by Chandna	1	Chalk and talk	
Unit IV: Settlement Geography	8a.Characteristics of urban settlements	Geography of Settlements by R.Y Singh, Introduction to Settlement Geography by Sumita Ghosh	2	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	8b.Characteristics of rural settlements	Geography of Settlements by R.Y Singh, Rural Settlement by R.B Mondal	2	Chalk and talk	
	9a. The concept of site and situation of rural settlements	Geography of Settlements by R.Y Singh, Rural Settlement by R.B Mondal	2	Chalk and talk	
	9b. Different types of rural settlements	Geography of Settlements by R.Y Singh, Rural Settlement by R.B Mondal	2	Chalk and talk	
	9c. Patterns of rural settlements	Geography of Settlements by R.Y Singh, Rural Settlement by R.B Mondal	2	Chalk and talk	
Unit V: Urban Geography	10a. Concept of size-class classification of urban settlements after Census of India	Geography of Settlements by R.Y Singh, Introduction to Settlement Geography by Sumita Ghosh	2	Chalk and talk	
	10b. Significance of size-class classification of	Geography of Settlements by R.Y Singh, Introduction to Settlement Geography by	2	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	urban settlements after Census of India	Sumita Ghosh			
		Total	45		

This theory paper is fully taught by Smt. Prakriti Das, Assistant Professor, Geography Dept. VIC

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-P)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	1a. Growth rate of population: Concept and definition	Advanced Practical Geography by P. Basu, Practical Geography: A Systematic Approach by A. Sarkar	2	Chalk and Talk	
	1b. Calculation of Arithmetic growth comparing two decadal datasets		2	Chalk and Talk followed by Practice	
	1c. Representation of Arithmetic growth comparing two decadal datasets		2	Chalk and Talk	
	2a. Concept and definition of Population density	Practical Geography: A Systematic Approach by A. Sarkar, Elements of Practical Geography by R.L Singh	2	Chalk and Talk	
	2b. Representation of population density of Indian states or West Bengal districts		2	Chalk and Talk followed by Practice	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-P)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	by choropleth method				
	2c. Interpretation of the result		2	Chalk and Talk	
	3a. Concept about different types of settlements according to sites		2	Chalk and Talk	
	3b. Revision of the details in Indian Topographical Map	Advanced Practical Geography by P. Basu, Practical Geography: A Systematic Approach by A. Sarkar	2	Chalk and Talk using toposheets	
	3c. Identification of those settlements from Survey of India 1:50k topographical maps		4	Chalk and Talk followed by Practice	
	4a. Concept of Proportional	Practical Geography: A Systematic Approach by A.	1	Chalk and Talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: Human Geography (GEOG-H-CC02/MD-CC02-2/4-P)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	square	Sarkar, Elements of Practical Geography by R.L Singh			
	4b. Significance or uses of Proportional square		1	Chalk and Talk	
	4c. Construction of proportional squares depicting number of houses		1	Chalk and Talk followed by Practice	
	4d. Brief interpretation of the result		1	Chalk and Talk	
		Total	24		

This practical paper is fully taught by Smt. Prakriti Das, Assistant Professor, Geography Dept. VIC

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Geomatics and Spatial Analysis (GEO-H-IDC01-1/2/3-TH)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit: I Cartography	1. Concept of scales	1. Practical Geography: A Systematic Approach by A. Sarkar	1	Chalk and Talk	
	1. Scales: types, significance and classification	2. Elements of Practical Geography by R.L. Singh	1		
	1. Maps projections: Classification and types	3. Maps and Diagrams by F.J. Monkhouse	2		
	2. Bearing: Magnetic and true	4. Surveying and Levelling by T. P. Kanetkar and S.V. Kulkarni	1		

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Geomatics and Spatial Analysis (GEO-H-IDC01-1/2/3-TH)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit: I Cartography	2. Bearing: Whole circle and reduced	1. Practical Geography: A Systematic Approach by A. Sarkar	1	Chalk and Talk	
	2. Concept of Geoid and Spheroid	2. Elements of Practical Geography by R.L. Singh	1		
	2. Geoid in special reference to WGS-84	3. Maps and Diagrams by F.J. Monkhouse	1		
	3. Map projection Classification	4. Surveying and Levelling by T. P. Kanetkar and S.V. Kulkarni	1		

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Geomatics and Spatial Analysis (GEO-H-IDC01-1/2/3-TH)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit I: Cartography	3. Map projection: properties and uses of Simple Conical Projection	1. Practical Geography: A Systematic Approach by A. Sarkar 2. Elements of Practical Geography by R.L. Singh 3. Maps and Diagrams by F.J. Monkhouse 4. Surveying and Levelling by T. P. Kanetkar and S.V. Kulkarni	2	Chalk and Talk	
	3. Concept and significance of UTM projection		2		
Unit II: Surveying	4. Basic concepts of Surveying		1		
	4. Survey equipment and its uses: Prismatic Compass		2		
	4. Survey equipment and its uses: Prismatic Compass		2		
		Total	18		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Geomatics & Spatial Analysis (GEO-H-IDC01-1/2/3-Th)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit 2	2a. Basic concepts of surveying, survey equipment, and their capabilities: Total Station		4	Practical work with field measurement	
	2a. Basic concepts of surveying, survey equipment, and their capabilities: Global Navigation Satellite System (GNSS)	Global Navigation Satellite Systems: Insights into GPS, GLONASS, Galileo, Compass and Others by B Bhatta (CRC Press)	2	Practical work with field measurement	
		Total	6		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Geomatics & Spatial Analysis (GEO-H-IDC01-1/2/3-Th)

Unit / Group / Module / Article	Planned			After Implementation	
	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit III: Remote Sensing and Geographical Information System	5a. Principles of remote sensing	1. Remote Sensing & GIS by Bhatta 2. Fundamentals of Remote Sensing by Canada Centre for Remote Sensing (e-book)	2	Chalk and Talk	
	5b. Types of RS satellites and sensors with reference to IRS and Landsat missions	1. Remote Sensing & GIS by Bhatta 2. Fundamentals of Remote Sensing by Canada Centre for Remote Sensing (e-book)	3	Chalk and Talk	
	6a. Principles of preparing standard false colour composites (FCCs)	https://theqgeo.com/ (website)	2	Chalk and Talk	
	6b. Principles of preparing Supervised image classification	https://theqgeo.com/ (website)	2	Chalk and Talk	
	7a. GIS data types: Spatial and non-spatial (attribute table)	1. A Primer of GIS: Fundamental Geographic and Cartographic concepts by	1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Geomatics & Spatial Analysis (GEO-H-IDC01-1/2/3-Th)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	and metadata)	Harvey 2. GIS: Fundamentals, Applications and Implementations by Elangovan			
	7b. Raster and vector	1. A Primer of GIS: Fundamental Geographic and Cartographic concepts by Harvey 2. GIS: Fundamentals, Applications and Implementations by Elangovan	1	Chalk and Talk	
	8a. Principles of preparing attribute tables, data manipulation, query	1. A Primer of GIS: Fundamental Geographic and Cartographic concepts by Harvey 2. GIS: Fundamentals, Applications and Implementations by Elangovan	3	Chalk and Talk	
	8b. Principles of preparing of	Introduction to Buffer and Overlay Analysis by	2	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Geomatics & Spatial Analysis (GEO-H-IDC01-1/2/3-Th)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	overlay	Humboldt State University			
		Total	16		

This theory paper is shared among Dr. Saswati Nayek, Associate Professor, Smt. Prakriti Das, Assistant Professor and Dr. Raj Kumar Bhattacharya, Assistant Professor, Geography Dept. VIC

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Geomatics and Spatial Analysis (GEO-H-IDC01-1/2/3-P)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Practical	1. Map projection: properties and uses of Simple Conical Projection	1. Practical Geography: A Systematic Approach by A. Sarkar 2. Elements of Practical Geography by R.L. Singh 3. Maps and Diagrams by F.J. Monkhouse 4. Surveying and Levelling by T. P. Kanetkar and S.V. Kulkarni	2	Chalk and Talk	
	1. Calculation of Simple Conical Projection		2		
	1. Drawing of Simple Conical Projection		2		
	2. Concept and significance of UTM projection		4		
	2. Traverse survey and plotting UTM coordinate using smartphone GNSS		4		
	Total		14		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Geomatics & Spatial Analysis Lab (GEO-H-IDC01-1/2/3-P)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	2.Traverse survey and plotting UTM coordinates using Smartphone GNSS application	Global Navigation Satellite Systems: Insights into GPS, GLONASS, Galileo, Compass and Others by B Bhatta (CRC Press)	8	Practical work with field survey	
	4.Change detection of riverbank or coastline shift from multi-dated maps and images	1. Practical geography: A Systematic Approach by A. Sarkar 2.Advanced Practical Geography by P. Basu 3. USGS Global Visualization Viewer: https://glovis.usgs.gov 4. USGS Landsat Missions: https://www.usgs.gov/landsat-missions 5. ISRO Bhuvan 2D and 3D Platforms: https://bhuvan-app1.nrsc.gov.in/globe/3d.php	8	Practical work with satellite images	
		Total	16		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Geomatics & Spatial Analysis Lab (GEO-H-IDC01-1/2/3-P)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	3. Identification of land use / land cover features from standard FCCs and preparation of inventories	1. Practical geography: A Systematic Approach by A. Sarkar 2. Advanced Practical Geography by P. Basu	5	Practical work with satellite images	
		Total	5		

This practical paper is shared among Dr. Saswati Nayek, Associate Professor, Smt. Prakriti Das, Assistant Professor and Dr. Raj Kumar Bhattacharya, Assistant Professor, Geography Dept. VIC

DEPARTMENT OF GEOGRAPHY
VICTORIA INSTITUTION (COLLEGE)

LESSON PLAN
SEMESTER 4
MAJOR, MINOR & MDC
(CCF SYLLABUS)

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology GEOG-H-CC05-4-Th

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	1a. Fundamental study of Time and Space in geomorphology	1. Principles of Geomorphology by W.D. Thornbury (Wiley-India publication)	1	Chalk and talk	
	1b. Time and Space in geomorphology: Lichty's model	2. Global Geomorphology: An introduction to the study of landforms by M.J. Summerfield (Longman Publication)	1	Chalk and talk	
	1c. Basic concept of Landform ordering		1	Chalk and talk	
	1d. Landform ordering: Ga Scale of Tricart and Haggett		1	Chalk and talk	
	2a. Degradational processes: Causes and classification of mass wasting	1. Earth's Changing Surface by M.J. Selby (Oxford University Press) 2. Introducing Physical Geography by A.	2	Chalk and talk	

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology GEOG-H-CC05-4-Th

2b. Degradational processes: resultant landforms of mass wasting	Strahler (Wiley Publication)	2	Chalk and talk	
3a. Process of entrainment by different geomorphic agents	Rivers: Form and Process by Marie Morisawa (Longman Higher Education)	2	Chalk and talk	
3b. Process of transportation by different geomorphic agents		1	Chalk and talk	
3c. Process of deposition by different geomorphic agents	1. Geomorphology by Savindra Singh 2. Introduction to Geomorphology by V.S. Kale and A. Gupta (Orient Blackswan publication) 3. Global Geomorphology: An introduction to the study of landforms by M.J. Summerfield (Longman Publication)	2	Chalk and talk	
4a. Development of river network and landforms on uniclinal structure		2	Chalk and talk	
4b. Development of river network and landforms on		2	Chalk and talk	

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology GEOG-H-CC05-4-Th

folded structure	4. Earth's Changing Surface by M.J. Selby (Oxford University Press)			
4c. Surface expression of faults		2	Chalk and talk	
5a. Development of river network and landforms on granites		2	Chalk and talk	
5b. Development of river network and landforms on basalts		2	Chalk and talk	
5c. Development of river network and landforms on limestones		2	Chalk and talk	
6a. Processes of morpho dynamic agents in Coastal region		2	Chalk and talk	
6b. Landforms of morpho dynamic agents in Coastal		2	Chalk and talk	

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology GEOG-H-CC05-4-Th

region				
7a. Glacial processes and landforms		2	Chalk and talk	
7b. Glacio-fluvial processes and landforms		2	Chalk and talk	
8a. Aeolian processes and landforms		2	Chalk and talk	
8b. Fluvio-aeolian processes and landforms		2	Chalk and talk	
9a. Models on landscape evolution: Views of Davis and King		2	Chalk and talk	
9b. Models on landscape evolution: Views of Penck and Hack		2	Chalk and talk	

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology GEOG-H-CC05-4-Th

	9c. Significance of systems approach		2	Chalk and talk	
	10. Role of humans in landform development		2	Chalk and talk	
		Total	45		

This Theory paper is taught by Dr. Rajkumar Bhattacharya (Assistant Professor), Dept of Geography, VIC

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology Lab & GEOG-H-CC-04-4-P

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	1a. Extraction and Interpretation of geomorphic information from Survey of India 1:50k topographical maps of plateau region: Construction of relief profiles	1. Practical geography: A Systematic Approach by A. Sarkar	1	Practical work with Topographical Map	
	1b. Extraction and Interpretation of serial and superimposed profiles in plateau region	2. Advanced Practical Geography by P. Basu	3	Practical work with Topographical Map	
	1c. Extraction and Interpretation of projected and composite profiles in plateau region		3	Practical work with Topographical Map	

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology Lab & GEOG-H-CC-04-4-P

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	2a. Construction and interpretation of relative map on a delineated drainage basin (c. 5'×5')		3	Practical work with Topographical Map	
	2b. Construction and interpretation of slope map (after Wentworth) on a delineated drainage basin		3	Practical work with Topographical Map	
	2c. Construction and interpretation of drainage density map on a delineated drainage basin		3	Practical work with Topographical Map	
	3a. Construction of hypsometric curve of a drainage basin (c. 5'×5') of a plateau region		3	Practical work with Topographical Map	

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology Lab & GEOG-H-CC-04-4-P

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	3b. Derivation of hypsometric integer of a drainage basin (c. 5'×5') of a plateau region		3	Practical work with Topographical Map	
	3c. Interpretation of hypsometric curve and hypsometric integer of a drainage basin		1	Practical work with Topographical Map	
	4a. Determination of channel sinuosity index (channel length/valley length measured through straight line) of rivers from topographical maps (c. 10-km reach)		3	Practical work with Topographical Map	
	4b. Determination of braiding index of rivers from		3	Practical work with Topographical Map	

LESSON PLAN

Department Name: Dr. Raj Kumar Bhattacharya

Name of Faculty: Geography

Paper Name & Code: Geomorphology Lab & GEOG-H-CC-04-4-P

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	topographical maps				
	4c. Interpretation of channel sinuosity index and braiding index of rivers from topographical maps		1	Practical work with Topographical Map	
		Total	30		

This Practical paper is fully shared by Dr. Rajkumar Bhattacharya (Assistant Professor), Dept of Geography, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT 1 Elements of the Atmosphere Topic 1	Discussion about Insolation	Atmosphere Weather and Climate by Barry and Chorley,	1	Chalk and Talk	
	Discussion about Controlling factors of insolation	General Climatology by Critchfield,	1	Chalk and Talk	
	Heat Budget of the atmosphere	Climatology by Hidore, Oliver, And Snow	1	Chalk and Talk	
Topic 2	Discussion about horizontal distribution of temperature	Atmosphere Weather and Climate by Barry and Chorley,	1	Chalk and Talk	
	Discussion about vertical distribution of temperature	General Climatology by Critchfield,	1	Chalk and Talk	
	Discussion about Inversion of temperature: Types	Climatology by Lal,	1	Chalk and Talk	
	Discussion about Inversion of temperature: causes &	Climatology by Hidore, Oliver, & Snow	1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	consequences				
Topic 3	Discussion about Causes of climate change	Introduction to Modern Climate Change by Dessier, Climatology by Lal, Climatology by Rohli, Climatology : An Atmospheric Science	1	Chalk and Talk	
	Discussion about Trends of climate change		1	Chalk and Talk	
	Discussion about predictions of global temperature rise since 1850 CE		1	Chalk and Talk	
	Discussion about formation and depletion of Ozone layer		1	Chalk and Talk	
	Discussion about restoration of Ozone layer		1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Topic 3	Discussion about significance of Ozone layer	Same as above	1	Chalk and Talk	
UNIT 2 Atmospheric Phenomena and Climatic Classification Topic 4	Discussion about Process and forms of Condensation	Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield, Climatology by Lal, Climatology by Hidore, Oliver, & Snow	2	Chalk and Talk	
	Discussion about Bergeron-Findeisen theory		1	Chalk and Talk	
	Discussion about collision & coalescence theory		1	Chalk and Talk	
	Discussion about Forms of precipitation		1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Topic 5	Discussion about typology of Air mass	Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield, Climatology by Lal, Climatology by Hidore, Oliver, & Snow	1	Chalk and Talk	
	Discussion about Origin of Air mass		1	Chalk and Talk	
	Discussion about characteristics of Air mass		1	Chalk and Talk	
	Discussion about modification of Air mass		1	Chalk and Talk	
Topic 6	Discussion about types of fronts	Atmosphere Weather and Climate by Barry and Chorley,	2	Chalk and Talk	
	Discussion about Frontogenesis	General Climatology by Critchfield,	2	Chalk and Talk	
	Discussion about	Climatology by Hidore, Oliver,	1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Frontolysis	and Snow, Climatology by Lal,			
Topic 7	Discussion about Weather stability	Climatology by Lal, Climatology by Rohli,	1	Chalk and Talk	
	Discussion about Weather stability	Climatology : An Atmospheric Science by oliver,hidore,	1	Chalk and Talk	
	Discussion about barotropic conditions	Atmosphere Weather and Climate by Barry and Chorley,	1	Chalk and Talk	
	Discussion about baroclinic conditions	General Climatology by Critchfield.	1	Chalk and Talk	
Topic 8	Discussion about atmospheric disturbances	Climatology by Lal, Climatology by Rohli,	1	Chalk and Talk	
	Discussion about Tropical cyclones	Climatology : An	3	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Discussion about Thunderstorms	Atmospheric Science by Oliver & Hidore, Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield.	2	Chalk and Talk	
Topic 9	Discussion about Monsoon circulation	Atmosphere Weather and Climate by Barry and Chorley,	1	Chalk and Talk	
	Discussion about Monsoon mechanism in general	General Climatology by Critchfield,	1	Chalk and Talk	
	Discussion about Monsoon mechanism with reference to India	Climatology by Lal, Climatology by Hidore, Oliver, & Snow	2	Chalk and Talk	
Topic 10	Climatic classification	Climatology by Lal,	2	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	after Koppen (1936)	Climatology by Rohli, Climatology: An Atmospheric Science by oliver,hidore,			
	Climatic classification after Thorntwaite (1948)	Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield.	2	Climatic classification	
		TOTAL	45		

This theory paper is fully taught by Smt. Pubali Ghosh, Associate Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC 06/MD-CC 05-4/5/6-P-CLIMATOLOGY LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 1	Basic discussion about measurement of weather elements by analogue instruments	Practical Geography by A. Sarkar,	1	Chalk and Talk and relevant instrument	
	Measurement of Mean daily temperature	Advanced Practical Geography by P. Basu,	1	Chalk and Talk and relevant instrument	
	Measurement of Air pressure	Elements of Practical Geography by R.L.Singh	2	Chalk and Talk and relevant instrument	
	Measurement of Relative humidity		1	Chalk and Talk and relevant instrument	
	Measurement of Rainfall		1	Chalk and Talk and relevant instrument	
TOPIC 2	General discussion about interpretation of daily weather map of India	Maps and Diagrams by Monkhouse,	2	Chalk and Talk	
	Discussion about interpretation of daily weather map of India- Monsoon	Elements of Practical Geography by R.L.Singh, Practical Geography by A. Sarkar,	5	Chalk and Talk	
	Discussion about	Maps and Diagrams by	5	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC 06/MD-CC 05-4/5/6-P-CLIMATOLOGY LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	interpretation of daily weather map of India- Post-Monsoon	Monkhouse, Elements of Practical Geography by R.L.Singh, Practical Geography by A. Sarkar			
TOPIC 3	Construction and interpretation of monthly rainfall dispersion diagram-quartile method	Maps and Diagrams by Monkhouse, Elements of Practical Geography by R.L.Singh, Practical Geography by A. Sarkar,	3	Chalk and Talk	
	Construction and interpretation of Climatic water budget		3	Chalk and Talk	
TOPIC 4	Construction and interpretation of Hythergraph	Practical Geography by A. Sarkar, Advanced Practical Geography by P. Basu,	3	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC 06/MD-CC 05-4/5/6-P-CLIMATOLOGY LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		Elements of Practical Geography by R.L.Singh			
TOPIC 4	Construction and interpretation of Climograph	Practical Geography by A. Sarkar, Advanced Practical Geography by P. Basu, Elements of Practical Geography by R.L.Singh	3	Chalk and Talk	
		TOTAL 30			

This practical paper is fully taught by Smt. Pubali Ghosh, Associate Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Social Geography - GEOG-H-CC07-4-Th

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit 1: Concepts	1a. Social Geography: Definition	Social Geography by A. Ahmed A Text Book of Social and Cultural Geography by Jyotirmoy Sen Geography of Population: Concepts, Determinants and Patterns by R.C Chandna	1	Chalk and talk	
	1b. Nature, content & scope		2		
	2a. Social structure: Definition		1		
	2b. Concept of class and caste		2		
	2c. Social process: Definition		2		
	2d. Urbanisation: concept & process		2		
	2e. Industrialisation: concept & process		1		
	2f. Migration: concept & process		1		
	3a. Social differentiation		1		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Social Geography - GEOG-H-CC07-4-Th

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	3b. Region formation				
Unit 2: Social Issues	4a. What is development?	A Text Book of Social and Cultural Geography by Jyotirmoy Sen Social Geography of India by A. Ahmed India's Demography: Changing Demographic Scenario in India by P.K Majumdar	1	Chalk and Talk	
	4b. Social indicators of development		1		
	4c. Education as an indicator of development		2		
	4d. Health as an indicator of development		2		
	5a. Social justice: concept and Indian examples		2		
	5b. Social		2		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Social Geography - GEOG-H-CC07-4-Th

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	security: concept and Indian examples				
	6a. Contemporary social issues: concept	Geography of Population: Concepts, Determinants and Patterns by R.C Chandna India's Demography: Changing Demographic Scenario in India by P.K Majumdar	2	Chalk and Talk	
	6b. Gender related problems with examples		2		
	7a. Social problems in urban areas: concept and causes		1		
	7b. Poverty: causes, impact and solution		2		
	7c. Crime: causes, impact and		2		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Social Geography - GEOG-H-CC07-4-Th

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	solution				
	8a. Social problems in rural areas: concept	Introduction to Rural Settlement by R.B Mandal	2	Chalk and Talk	
	8b. Marginalisation and deprivation: concept and differences		2		
	9a. Social welfare schemes: concept, types and importance	A Text Book of Social and Cultural Geography by Jyotirmoy Sen	2		
	9b. Social welfare schemes for tribes	https://socialjustice.gov.in/scheme-cat	1		
	9c. Social welfare schemes for		1		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Social Geography - GEOG-H-CC07-4-Th

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	women	A comparative analysis of global north and global south economies by Lemuel Ekedegwa Odeh		Chalk and Talk	
	9d. Social welfare schemes for children		1		
	10a. Social segregation: concept and impact		2		
	10b. Comparing the cities of global north and south on basis of social segregation		2		
		TOTAL	45		

This theory paper is fully taught by Smt. Prakriti Das, Assistant Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Social Geography Lab - GEOG-H-CC07-4-P

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	1a. Human development index: def & concept	Practical Geography: A Systematic Approach by A. Sarkar Statistical Methods in Geographical Studies by A. Mahmood Advanced Practical Geography — a Laboratory Manual by P. Basu	2	Chalk and Talk	
	1b. Preparation of human development index (after UNDP)		4		
	1c. Interpretation		2		
	2a. Gender development index: def & concept		2		
	2b. Preparation of gender development index (after UNDP)		4		
	2c. Interpretation		2		
	3a. Cartograms: Definition, types and importance		1		
	3b. Construction of cartograms showing		3		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Social Geography Lab - GEOG-H-CC07-4-P

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	distribution of people living below poverty line in India				
	3c. Interpretation		1	Chalk and Talk	
	4a. Questionnaire: concept, types and uses		2		
	4b. Preparation of a questionnaire on socio-economic status in rural areas		2		
	4c. Preparation of a questionnaire on socio-economic status in urban areas		2		
	4d. Preparation of a questionnaire on access to amenities in slum areas of any		2		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Social Geography Lab - GEOG-H-CC07-4-P

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	metropolitan city				
		TOTAL	28		

This practical paper is fully taught by Smt. Prakriti Das, Assistant Professor, Geography Department, VIC

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Cartographic Techniques (GEOG-H-CC-08-04-TH)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
1.Coordinate system	Rectangular coordinate system	https://study.com https://math.libretexts.org https://www.intmath.com	2	Laptop and lecture	
	Polar coordinate system		1		
2.System of measurement	Grids: Angular	https://study.com	2	Laptop and lecture	
	Linear system of measurement	https://math.libretexts.org https://www.intmath.com	1		
3. Bearing	Whole-circle and reduced	Surveying and Levelling Part-I, by T.P.Kanetkar, S.V.Kulkarni; Pub: Pune Vidyarthi Griha Prakashan	1	Chalk and Talk	
	Magnetic and True bearing		1		
4.Concept of Geoid and Spheroid	Concept of Geoid and Spheroid with special reference to	1.An Analytical Study: Map Projection by Dr. P.Roy; Pan	1	Chalk and Talk	

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Cartographic Techniques (GEOG-H-CC-08-04-TH)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Everest	Pubication Company			
	Concept of Geoid and Spheroid with special reference to WGS-84	2.Elements of Cartography by A.H. Robinson, J.L.Morrison;Wiley pub.	1	Chalk and Talk	
	Conversion of angular distance to linear distance	3. Practical Geography: A Systematic Approach by A. Sarkar; Orient Longman	2	Chalk and Talk	
5. Map Projection	Classification of Map projection	1.An Analytical Study: Map Projection by Dr. P.Roy; Pan Pubication Company	2	Chalk and Talk	
	Properties and uses of Map Projection		3	Chalk and Talk	
6. Properties, uses and limitations of Projections	Polar Zenithal Stereographic	2.Elements of Cartography by A.H. Robinson, J.L. Morrison; Wiley pub. 3. Practical Geography: A Systematic Approach by A. Sarkar; Orient Longman	2	Chalk and Talk	
	Simple Conical projection with one Standard Parallel		2	Chalk and Talk	
	Bonne's projection		2	Chalk and Talk	
	Cylindrical Equal area projection		2		
	Mercator's		2		

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Cartographic Techniques (GEOG-H-CC-08-04-TH)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	projection				
7. UTM Projection	Concept of UTM Projection	Elements of Cartography by A.H. Robinson, J.L. Morrison; Wiley pub.	2	Chalk and Talk	
	Significance of UTM Projection		1		
8. Representation of Data	Dots and Sphere	1. Maps and Diagrams: Their Compilation and Construction by F.J. Wilkinson Monkhouse 2. Elements of Practical Geography by R.L. Singh; Kalyani Publishers	3	Chalk and Talk	
	Divided proportional circles		3	Chalk and Talk	
9. Representation of data	Isopleth and Choropleth		4	Chalk and Talk	
	Chorochromatic maps		2	Chalk and Talk	
10. Survey of India Topographical Maps	Reference scheme of old and open series	1. Maps and Diagrams: Their Compilation and Construction by F.J. Wilkinson Monkhouse	2	Chalk and Talk	
	Information on the margin of maps	2. Elements of Practical Geography by R.L. Singh;	1	Chalk and Talk	

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Cartographic Techniques (GEOG-H-CC-08-04-TH)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		Kalyani Publishers			
		Total	45		

This theory paper is fully taught by Dr. Saswati Nayak, Associate Professor, Geography Department, VIC

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Cartographic Techniques (GEOG-H-CC-08-04-PR)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
1. Construction of Projections	Polar Zenithal Stereographic and checking drawing sheets	1. An Analytical Study: Map Projection by Dr. P. Roy; Pan Publication Company	3	Chalk and Talk	
	Simple Conical Projection with one Standard Parallel and checking drawing sheets	2. Elements of Cartography by A.H. Robinson, J.L. Morrison; Wiley pub.	2	Chalk and Talk	
	Bonne's Projection and checking drawing sheets	3. Practical Geography: A Systematic Approach by A. Sarkar; Orient Longman	3	Chalk and Talk	
2. Construction of Projections	Cylindrical Equal Area Projection and checking drawing sheets	1. An Analytical Study: Map Projection by Dr. P. Roy; Pan Publication Company	3	Chalk and Talk	
	Mercator's Projection and checking drawing sheets	2. Practical Geography: A Systematic Approach by A. Sarkar; Orient Longman	3	Chalk and Talk	
3. Construction and interpretation of	Simple bar graphs and checking drawing sheets	1. Practical Geography: A Systematic Approach by A.	2	Chalk and Talk	

LESSON PLAN

Department Name: Geography

Name of the Faculty: Dr. Saswati Nayak

Paper Name and Code: Cartographic Techniques (GEOG-H-CC-08-04-PR)

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Thematic maps	Composite bar graphs and checking drawing sheets	Sarkar; Orient Longman	2	Chalk and Talk	
	Dots and spheres		4		
4.Construction and interpretation of Thematic maps	Dasymetric density and checking drawing sheets	1. Maps and Diagrams: Their Compilation and Construction by F.J. Wilkinson Monkhouse 2. Elements of Practical Geography by R.L. Singh; Kalyani Publishers	3	Laptop and lecture	
	Isopleth and checking drawing sheets		3	Laptop and lecture	
	Chorochromatic maps and checking drawing sheets		2	Chalk and Talk	
		Total	30		

This practical paper is fully taught by Dr. Saswati Nayak, Associate Professor, Geography Department, VIC

**SEMESTER 6 (MAJOR, MINOR &
MDC)**

CCF SYLLABUS

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Soil and Bio Geography GEOG-H-CC-13-6-TH

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit I: Soil Geography	1a. Definition and significance of soil properties: Texture and structure	The Nature and Properties of Soil by Nyle C brady and Ray R. Well Fundamentals of Soil by V.N.Sahai Geography by N, K, Dey & P Ghosh Sribhumi Publishing Company	3	Chalk and talk	
	1b. Definition and significance of soil properties: Moisture		2	Chalk and talk	
	2a. Definition and significance of soil properties: pH and organic matter		3	Chalk and talk	
	2b. Definition and significance of soil properties: NPK		2	Chalk and talk	
	3a. Basic concept of Soil profile, Origin and profile characteristics of lateritic		1	Chalk and talk	
	3c. Origin and profile		1	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Soil and Bio Geography GEOG-H-CC-13-6-TH

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	characteristics of podsol	The Nature and Properties of Soil by Nyle C brady and Ray R. Well Fundamentals of Soil by V.N.Sahai Geography by N, K, Dey & P Ghosh Sribhumi Publishing Company			
	3d. Origin and profile characteristics of chernozem soils		1	Chalk and talk	
	4a. Principles of soil classification: Genetic		1		
	4b. Principles of soil classification: USDA		1		
	4c. Concept of land capability and its Classification		2		
	5a. Soil erosion and degradation: Factors, processes and management		2	Chalk and talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Soil and Bio Geography GEOG-H-CC-13-6-TH

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	measures				
	5b. Humans as active agents of soil transformation		2	Chalk and talk	
		Total	21		

LESSON PLAN

Department Name: Department of Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC13-6-Th- Soil and Biogeography

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit-II	7. Concept of biosphere and ecosystem	1.Ecology: Principle and Applications by J.L. Chapman and M.J Reiz	1	Chalk and talk	
	7. Concept of biome.	2. Fundamentals of Ecology by M.C. Das	1	Chalk and talk	
	7. Concept of ecotone	3.Ecology and Environment by P.D. Sharma	1	Chalk and talk	
	7. Concept of community and ecology	4.Fundamentals of ecology by E.P Odum	2	Chalk and talk	
	8. Concept of Trophic Structure	1.Ecology and Environment by P.D. Sharma	2	Chalk and talk	

LESSON PLAN

Department Name: Department of Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC13-6-Th- Soil and Biogeography

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	8. Concept of food chain and food web	2. Fundamentals of ecology by E.P Odum	1	Chalk and talk	
	8. Energy flow in Ecosystem		2	Chalk and talk	
	9. Classification of world Biomes (Whittaker)	1. Concepts of Ecology by E.J Kormondy	1	Chalk and talk	
	9. Geographical extent and characteristics of tropical rain forest	2. Ecology and Environment by P.D. Sharma	1	Chalk and talk	
	9. Geographical extent and characteristics of tropical savanna		1	Chalk and talk	

LESSON PLAN

Department Name: Department of Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC13-6-Th- Soil and Biogeography

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	9. Geographical extent and characteristics of tropical hot desert	1. Concepts of Ecology by E.J Kormondy 2. Ecology and Environment by P.D. Sharma	1	Chalk and talk	
	9. Geographical extent and characteristics of taiga		1	Chalk and talk	
	9. Geographical extent and characteristics of coral reef biomes		2	Chalk and talk	
	10. Biogeochemical Cycle with special reference to	1. Ecology and Environment by P.D. Sharma	1	Chalk and talk	

LESSON PLAN

Department Name: Department of Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC13-6-Th- Soil and Biogeography

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Carbon-di-oxide	2.Fundamentals of ecology by E.P Odum			
	10.Biogeochemical cycle with special reference to Nitrogen	3. Ecology: Principle and Applications by J.L. Chapman and M.J Reiz	2	Chalk and talk	
	11. Deforestation: Causes and consequences	1.Ecology and Environment by P.D. Sharma 2.Fundamentals of ecology by E.P Odum	2	Chalk and talk	
	11. Deforestation: management	3. Ecology: Principle and Applications by J.L. Chapman and M.J Reiz	2	Chalk and talk	

LESSON PLAN

Department Name: Department of Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC13-6-Th- Soil and Biogeography

Planned				Content Delivery Technique	Remarks / Comments
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned		
		Total	24		

This theory paper is shared between Dr. Saswati Nayak, Associate Professor and Dr. Raj Kumar Bhattacharya, Assistant Professor, Geography Department, VIC.

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Soil and Biogeography Lab GEOG-H-CC-13-6-P

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	1a. Basic concept of soil reaction	Advanced Practical Geography by P. Basu https://www.scribd.com/document/877989261/sop-of-ph-meter	1	Chalk and Talk	
	1b. Determination of soil reaction (pH) using field kit and Interpretation of soil reaction (pH) results		2	Practical work with soil sample	
	1c. Determination of Organic matter using field kit and Interpretation of soil organic matter results		2	Practical work with soil sample	
	1d. Determination of NPK using		3	Practical work with soil sample	

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Raj Kumar Bhattacharya

Paper Name & Code: Soil and Biogeography Lab GEOG-H-CC-13-6-P

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	field kit and Interpretation of soil organic matter results				
	2a. Concept of soil textural gain size	Manual guide book as provided by selling company https://openjicareport.jica.go.jp/pdf/1000025769_01.pdf https://desjop.nl/wp-content/uploads/2025/01/User-Manual-Rapitech-Soil-Test-Kit-STK008-pHNPK-80-tests.pdf	1	Chalk and Talk	
	2b. Determination of soil type by ternary diagram textural plotting		5	PPT presentation	
	2c. Interpretation of result		1	Practical work with soil sample	
		Total	15		

LESSON PLAN

Department Name: Department of Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC13-6-P- Soil and Biogeography Lab

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
3. Practical: Plant Species diversity determination by matrix method	1. Plant species diversity determination by matrix method: Simpson's Method	1. Measuring Plant Diversity: Lesson from field by Stohlgren, T.J 2. https://www.samsicollege.ac.in 3. https://www.researchgate.net	4	Chalk and talk	
	2. Plant species diversity determination by matrix method: Shannon-Weiner's method	1. http://www.kaliganjgovtcollege.ac.in 2. https://www.ableweb.org	4	Chalk and talk	
4. Time series	4.a) Time	1. Statistical Methods by N.G. Das			

LESSON PLAN

Department Name: Department of Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC13-6-P- Soil and Biogeography Lab

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
analysis of biogeography data	series analysis of biogeography: three year moving Average	1. Statistical Methods by N.G. Das	3	Chalk and talk	
	4. b) Time series analysis of biogeography: four year moving average	1. Statistical Methods by N.G. Das	4	Chalk and talk	
		Total	15		

This practical paper is shared between Dr. Saswati Nayak, Associate Professor and Dr. Rajkumar Bhattacharya, Assistant Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-TH-INDIA AND WEST BENGAL

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT 01 INDIA TOPOIC 01	Physiographic Divisions of India	<ul style="list-style-type: none"> • D.R. Khullar – India: A Comprehensive Geography • R.L. Singh- India: A Regional Geography • Spate and Learmonth – India and Pakistan: A General and Regional Geography • D.N. Wadia- Geology of India 	2	Chalk & Talk	
	Tectonic Provinces of India		2	Chalk & Talk	
TOPIC 02	Climate of India	<ul style="list-style-type: none"> • D.R. Khullar – India: A Comprehensive Geography • R.L. Singh- India: A Regional Geography • Spate and Learmonth – India and Pakistan: A General and Regional Geography • D.N. Wadia- Geology of India 	2	Chalk & Talk	
	Soil of India		2	Chalk & Talk	
	Vegetation Regions of India		2	Chalk & Talk	
TOPIC 03	Green revolution – Phase I	<ul style="list-style-type: none"> • B.L.C. Johnson – Geographical Dictionary of India 	1	Chalk & Talk	
	Green revolution		1	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-TH-INDIA AND WEST BENGAL

Planned						
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments	
	– Phase II	<ul style="list-style-type: none"> • T.C. Sharma – Economic Geography of India • R.C. Tiwari – Geography of India 	1	Chalk & Talk		
	White revolution					
	Impacts of Green and White revolutions			1	Chalk & Talk	
TOPIC 04	Discussion on Industrial Development	<ul style="list-style-type: none"> • T.C. Sharma – Economic Geography of India • B.L.C. Johnson – Geographical Dictionary of India • J Singh – A Comprehensive & Systematic Geography 	1	Chalk & Talk		
	Discussion on the Industrial Development in Automobile Sector		2	Chalk & Talk		
	Discussion on the Industrial Development in information technology Sector		1	Chalk & Talk		
TOPIC 05	Discussion about Regionalisation of India	<ul style="list-style-type: none"> • Chand and Puri – Regional Planning in India • B.L.C. Johnson – Geographical Dictionary of India • T.C. Sharma – Economic Geography of 	1	Chalk & Talk		
	Basis of Classification with reference to economic regions		3	Chalk & Talk		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-TH-INDIA AND WEST BENGAL

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	(After P. Sengupta)	India <ul style="list-style-type: none"> • R.L. Singh- India: A Regional Geography 			
UNIT 02 WEST BENGAL	Physiographic Divisions of West Bengal	<ul style="list-style-type: none"> • D.N. Wadia- Geology of India • D.R. Khullar – India: A Comprehensive Geography • J Singh – A Comprehensive & Systematic Geography • R.L. Singh- India: A Regional Geography • R.C. Tiwari – Geography of India 	2	Chalk & Talk	
	TOPIC 06 Tectonic and Geomorphic Evolution		2	Chalk & Talk	
TOPIC 07	Drainage system of West Bengal	<ul style="list-style-type: none"> • K. Rudra – Rivers of the Ganga – Brahmaputra – Meghna Delta • R. Vaidyanadhan – Rejuvenation of Surface 	2	Chalk & Talk	
	Water resources and related issues		3	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-TH-INDIA AND WEST BENGAL

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		Water Resources of India			
TOPIC 08	Changing pattern of Industrialisation in West Bengal	<ul style="list-style-type: none">T.C. Sharma – Economic Geography of India	2	Chalk & Talk	
	Development of SEZs	<ul style="list-style-type: none">West Bengal Pollution Control Board 20-21. State of Environment Report: West Bengal, Vol 1&2	2	Chalk & Talk	
		Total	35		

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: India and West Bengal & GEOG-H-CC14/MD-CC08-6-Th

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit 2: West Bengal	9a. Population growth in West Bengal	Samajik, Sanskritik o Bharater Anchalik Bhugol by Dr. Sanjib Majumder	1	Chalk and Talk	
	b. Population distribution in West Bengal		1	Chalk and Talk	
	c. Migration in West Bengal		1	Chalk and Talk	
	d. Human development in West Bengal		1	Chalk and Talk	
	10a. Darjeeling Himalaya as a physiographic region	Geomorphological Field Guide Book on DARJEELING HIMALAYAS by Subir Sarkar and Sunil Kumar De	2	Chalk and Talk	
	b. Sunderban as an ecological	Sunderban: A summary by Bushra Nishat and Ganesh Pangare	2	Chalk and Talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: India and West Bengal & GEOG-H-CC14/MD-CC08-6-Th

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	region				
	c. Haldia as an industrial region	A Geographical Appraisal of the Haldia Industrial Region, West Bengal by Ashis Sarkar	2	Chalk and Talk	
		Total	10		

This paper is jointly taught by Smt. Pubali Ghosh, Associate Professor, Geography Department, VIC and Prakriti Das, Associate Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 01	Monthly Temperature and Rainfall Graphs of five selected stations from different physiographic regions of india - Calculation	<ul style="list-style-type: none">A. Mahmood – Statistical Methods in Geographical Studies	3	Chalk & Talk	
	Monthly Temperature and Rainfall Graphs of five selected stations from different physiographic regions of india – Graphical Representation	<ul style="list-style-type: none">D.R. Khullar – India: A Comprehensive Geography	3	Chalk & Talk	
	Monthly Temperature and Rainfall Graphs of five selected stations from different physiographic regions of india -	<ul style="list-style-type: none">A. Sarkar – Practical Geography	2	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Interpretation				
TOPIC 02	Graphical Representation of Annual Trends of Production: Manufacturing goods over any two decades from India or West Bengal – General Discussion	<ul style="list-style-type: none">A. Mahmood – Statistical Methods in Geographical Studies	1		
	Graphical Representation of Annual Trends of Production: Manufacturing goods over any two decades from India or West Bengal – Calculation	<ul style="list-style-type: none">Datt & Sundharam: Indian Economy	3		
	Graphical Representation of Annual Trends of Production: Manufacturing	<ul style="list-style-type: none">A. Sarkar – Practical Geography	2		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	goods over any two decades from India or West Bengal – Graphical Representation				
	Graphical Representation of Annual Trends of Production: Manufacturing goods over any two decades from India or West Bengal – Interpretation		2		
TOPIC 03	Preparation of Composite Index (Kendell's Method) – General Discussion	• A. Mahmood – Statistical Methods in Geographical Studies	1		
	Preparation of Composite Index (Kendell's		3		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Method) – Calculation	<ul style="list-style-type: none">Datt & Sundharam: Indian EconomyA. Sarkar – Practical Geography			
	Preparation of Composite Index (Kendell's Method) – Graphical Representation		2		
	Preparation of Composite Index (Kendell's Method) – Interpretation with special reference to comparison of Developed and Less developed states of India		1		
		Total	23		

LESSON PLAN

Department Name: Geography

Name of Faculty: Prakriti Das

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	4a. Concept of mean centre of Population	Statistical Methods in Geographical studies by A. Mahmood	1	Chalk and Talk	
	b. Change in mean centre of population in West Bengal over any 3 census years		5		
	c. Interpretation		2		
	Total		7		

This paper is jointly taught by Smt. Pubali Ghosh, Associate Professor, Geography Department, VIC and Prakriti Das, Associate Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Remote Sensing, GIS, & GNSS (GEOG-H-CC15-6-Th)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit:1 Remote Sensing	1a. Types of Remote Sensing platforms	1. Remote Sensing & GIS by Bhatta 2. Fundamentals of Remote Sensing by Canada Centre for Remote Sensing (e-book)	3	Chalk & Talk	
	1b. Types of RS satellites and sensors	1. Remote Sensing & GIS by Bhatta 2. Fundamentals of Remote Sensing by Canada Centre for Remote Sensing (e-book)	2	Chalk & Talk	
	2a. Sensor resolutions	1. Remote Sensing & GIS by Bhatta 2. Fundamentals of Remote Sensing by Canada Centre for Remote Sensing (e-book)	2	Chalk & Talk	
	2b. Applications of sensor resolutions with reference to IRS missions	https://www.eoportal.org/satellite-missions/irs	1	Chalk & Talk	Online video links provided to students for easy understanding of the concept
	2c. Applications of sensor resolutions with reference to Landsat missions	https://www.usgs.gov/landsat-missions/landsat-8	1	Chalk & Talk	Online video links provided to students for easy understanding of the concept

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Remote Sensing, GIS, & GNSS (GEOG-H-CC15-6-Th)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit 2: Geographical Information Systems and Global Navigation Satellite System	6a. GIS data structures types: Spatial and non-spatial	1. A Primer of GIS: Fundamental Geographic and Cartographic concepts by Harvey 2. GIS: Fundamentals, Applications and Implementations by Elangovan	3	Chalk & Talk	
	b. Raster and vector data types	1. A Primer of GIS: Fundamental Geographic and Cartographic concepts by Harvey 2. GIS: Fundamentals, Applications and Implementations by Elangovan	2	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Remote Sensing, GIS, & GNSS (GEOG-H-CC15-6-Th)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	7. Principles of preparing attribute tables, data manipulation, and query	1. A Primer of GIS: Fundamental Geographic and Cartographic concepts by Harvey 2. GIS: Fundamentals, Applications and Implementations by Elangovan	6	Chalk & Talk	
	8. Principles and significance of buffer preparation	Introduction to Buffer and Overlay Analysis by Humboldt State University	2	Chalk & Talk	
	9. Principles and significance of overlay analysis	Introduction to Buffer and Overlay Analysis by Humboldt State University	4	Chalk & Talk	
Unit 3: Global Navigation	10. Principles of GNSS	GNSS: Insights into GPS, GLONASS, Galileo, Compass	2	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Remote Sensing, GIS, & GNSS (GEOG-H-CC15-6-Th)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Satellite System (GNSS)	positioning and waypoint collection	and Others by Bhatta			
	12a. Length and area calculations from GNSS data	GNSS: Insights into GPS, GLONASS, Galileo, Compass and Others by Bhatta	2	Chalk & Talk	
	12 b. Use of length & area of GNSS data in geographical studies	GNSS: Insights into GPS, GLONASS, Galileo, Compass and Others by Bhatta	1	Chalk & Talk	
		Total	35		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Raj Kumar Bhattacharya

Paper Name & Code: Remote Sensing, GIS, & GNSS (GEOG-H-CC15-6-Th)

		Planned		After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit:1 Remote Sensing	3a. Basic concept of Image referencing schemes and acquisition procedure	1. Remote Sensing & GIS by Bhatta 2. https://bhuvan.nrsc.gov.in (website for free satellite data download) 3. https://www.usgs.gov	1	Chalk & Talk	
	3b. Image referencing schemes and acquisition procedure of free geospatial data from NRSC / Bhuvan	4. https://gisgeography.com 5. https://theqgeo.com/	1	Chalk & Talk	
	3c. Image referencing schemes and acquisition procedure of free geospatial data from USGS	6. Remote Sensing and Image Interpretation by Lillesand and Kiefer 7. Practical Geography by Ashis Sarkar	1	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Raj Kumar Bhattacharya

Paper Name & Code: Remote Sensing, GIS, & GNSS (GEOG-H-CC15-6-Th)

	4a. Preparation of standard and other types of FCCs from IRS LISS-3		2	Chalk & Talk	Online video links provided to students for easy understanding of the concept
	4b. Preparation of standard and other types of FCCs from Landsat TM / OLI data		3	Chalk & Talk	Online video links provided to students for easy understanding of the concept
	5a. Principles of image interpretation		1		
	5b. Preparation of inventories of land use land cover (LULC) features from standard FCCs		5		
		Total	14		

This theory paper is jointly taught by Prakriti Das, Associate Professor and Dr. Raj Kumar Bhattacharya, Assistant Professor, Department of Geography, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Remote Sensing, GIS & GNSS Lab (GEOG-H-CC15-6-P)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Remote Sensing	1a. Preparation of spectral reflectance libraries of LULC features across different image bands of IRS L3	https://docs.qgis.org/3.22/pdf/en/QGIS-3.22-DesktopUserGuide-en.pdf	4	Hands - on - Training & Practice	
	1b. Preparation of spectral reflectance libraries of LULC features across different image bands of Landsat OLI data	https://docs.qgis.org/3.40/en/docs/training_manual/vector_classification/classification.html	4	Hands - on - Training & Practice	
	2a. Supervised image classification		5	Hands - on - Training & Practice	
	2b. Class editing, and post-classification analysis		3	Hands - on - Training & Practice	
		Total		16	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Remote Sensing, GIS & GNSS Lab (GEOG-H-CC15-6-P)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Remote Sensing	Image georeferencing	https://docs.qgis.org/3.10/pdf/en/QGIS-3.10-UserGuide-fi.pdf	2	Hands - on - Training & Practice	
	Digitisation of features and administrative boundaries.	https://docs.qgis.org/3.10/pdf/en/QGIS-3.10-UserGuide-fi.pdf	2	Hands - on - Training & Practice	
	Data attachment	https://docs.qgis.org/3.10/pdf/en/QGIS-3.10-UserGuide-fi.pdf	1	Hands - on - Training & Practice	
	Preparation of annotated thematic maps	https://docs.qgis.org/3.10/pdf/en/QGIS-3.10-UserGuide-fi.pdf	2	Hands - on - Training & Practice	
	Vector overlay	https://docs.qgis.org/3.10/pdf/en/QGIS-3.10-UserGuide-fi.pdf	2	Hands - on - Training & Practice	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Prakriti Das

Paper Name & Code: Remote Sensing, GIS & GNSS Lab (GEOG-H-CC15-6-P)

Planned				After Implementation	
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
GNSS	Waypoint collection from GNSS receivers	https://www8.garmin.com/manuals/webhelp/eTrex_10_20x_30x/EN-US/eTrex_10_20_20x_30_30x_OM_EN-US.pdf	6	Hands - on - Training & Practice	
	Exporting the waypoints to GIS database and plotting	https://www8.garmin.com/manuals/webhelp/eTrex_10_20x_30x/EN-US/eTrex_10_20_20x_30_30x_OM_EN-US.pdf	1	Hands - on - Training & Practice	
		Total		16	

This practical paper is jointly taught by Dr. Raj Kumar Bhattacharya, Assistant Professor and Prakriti Das, Associate Professor, Department of Geography, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-TH-INDIA AND WEST BENGAL

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT 01 INDIA TOPOIC 01	Physiographic Divisions of India	<ul style="list-style-type: none"> • D.R. Khullar – India: A Comprehensive Geography 	2	Chalk & Talk	
	Tectonic Provinces of India	<ul style="list-style-type: none"> • R.L. Singh- India: A Regional Geography • Spate and Learmonth – India and Pakistan: A General and Regional Geography • D.N. Wadia- Geology of India 	2	Chalk & Talk	
TOPIC 02	Climate of India	<ul style="list-style-type: none"> • D.R. Khullar – India: A Comprehensive Geography 	2	Chalk & Talk	
	Soil of India	<ul style="list-style-type: none"> • R.L. Singh- India: A Regional Geography 	2	Chalk & Talk	
	Vegetation Regions of India	<ul style="list-style-type: none"> • Spate and Learmonth – India and Pakistan: A General and Regional Geography • D.N. Wadia- Geology of India 	2	Chalk & Talk	
TOPIC 03	Green revolution – Phase I	<ul style="list-style-type: none"> • B.L.C. Johnson – Geographical Dictionary of India 	1	Chalk & Talk	
	Green revolution		1	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-TH-INDIA AND WEST BENGAL

Planned						
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments	
	– Phase II	<ul style="list-style-type: none"> • T.C. Sharma – Economic Geography of India • R.C. Tiwari – Geography of India 				
	White revolution			1	Chalk & Talk	
	Impacts of Green and White revolutions			1	Chalk & Talk	
TOPIC 04	Discussion on Industrial Development	<ul style="list-style-type: none"> • T.C. Sharma – Economic Geography of India • B.L.C. Johnson – Geographical Dictionary of India • J Singh – A Comprehensive & Systematic Geography 	1	Chalk & Talk		
	Discussion on the Industrial Development in Automobile Sector		2	Chalk & Talk		
	Discussion on the Industrial Development in information technology Sector		1	Chalk & Talk		
TOPIC 05	Discussion about Regionalisation of India	<ul style="list-style-type: none"> • Chand and Puri – Regional Planning in India • B.L.C. Johnson – Geographical Dictionary of India • T.C. Sharma – Economic Geography of 	1	Chalk & Talk		
	Basis of Classification with reference to economic regions		3	Chalk & Talk		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-TH-INDIA AND WEST BENGAL

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	(After P. Sengupta)	India <ul style="list-style-type: none"> • R.L. Singh- India: A Regional Geography 			
UNIT 02 WEST BENGAL	Physiographic Divisions of West Bengal	<ul style="list-style-type: none"> • D.N. Wadia- Geology of India • D.R. Khullar – India: A Comprehensive Geography • J Singh – A Comprehensive & Systematic Geography • R.L. Singh- India: A Regional Geography • R.C. Tiwari – Geography of India 	2	Chalk & Talk	
	TOPIC 06 Tectonic and Geomorphic Evolution		2	Chalk & Talk	
TOPIC 07	Drainage system of West Bengal	<ul style="list-style-type: none"> • K. Rudra – Rivers of the Ganga – Brahmaputra – Meghna Delta • R. Vaidyanadhan – Rejuvenation of Surface 	2	Chalk & Talk	
	Water resources and related issues		3	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-TH-INDIA AND WEST BENGAL

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		Water Resources of India			
TOPIC 08	Changing pattern of Industrialisation in West Bengal	<ul style="list-style-type: none">T.C. Sharma – Economic Geography of India	2	Chalk & Talk	
	Development of SEZs	<ul style="list-style-type: none">West Bengal Pollution Control Board 20-21. State of Environment Report: West Bengal, Vol 1&2	2	Chalk & Talk	
		Total	35		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: India and West Bengal & GEOG-H-CC14/MD-CC08-6-Th

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Unit 2: West Bengal	9a. Population growth in West Bengal	Samajik, Sanskritik o Bharater Anchalik Bhugol by Dr. Sanjib Majumder	1	Chalk and Talk	
	b. Population distribution in West Bengal		1	Chalk and Talk	
	c. Migration in West Bengal		1	Chalk and Talk	
	d. Human development in West Bengal		1	Chalk and Talk	
	10a. Darjeeling Himalaya as a physiographic region	Geomorphological Field Guide Book on DARJEELING HIMALAYAS by Subir Sarkar and Sunil Kumar De	2	Chalk and Talk	
	b. Sunderban as an ecological	Sunderban: A summary by Bushra Nishat and Ganesh Pangare	2	Chalk and Talk	

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: India and West Bengal & GEOG-H-CC14/MD-CC08-6-Th

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	region				
	c. Haldia as an industrial region	A Geographical Appraisal of the Haldia Industrial Region, West Bengal by Ashis Sarkar	2	Chalk and Talk	
		Total	10		

This paper is fully taught by Dr. Saswati Nayak, Associate Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 01	Monthly Temperature and Rainfall Graphs of five selected stations from different physiographic regions of india - Calculation	<ul style="list-style-type: none">A. Mahmood – Statistical Methods in Geographical Studies	3	Chalk & Talk	
	Monthly Temperature and Rainfall Graphs of five selected stations from different physiographic regions of india – Graphical Representation	<ul style="list-style-type: none">D.R. Khullar – India: A Comprehensive Geography	3	Chalk & Talk	
	Monthly Temperature and Rainfall Graphs of five selected stations from different physiographic regions of india -	<ul style="list-style-type: none">A. Sarkar – Practical Geography	2	Chalk & Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Interpretation				
TOPIC 02	Graphical Representation of Annual Trends of Production: Manufacturing goods over any two decades from India or West Bengal – General Discussion	<ul style="list-style-type: none">A. Mahmood – Statistical Methods in Geographical Studies	1		
	Graphical Representation of Annual Trends of Production: Manufacturing goods over any two decades from India or West Bengal – Calculation	<ul style="list-style-type: none">Datt & Sundharam: Indian Economy	3		
	Graphical Representation of Annual Trends of Production: Manufacturing	<ul style="list-style-type: none">A. Sarkar – Practical Geography	2		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	goods over any two decades from India or West Bengal – Graphical Representation				
	Graphical Representation of Annual Trends of Production: Manufacturing goods over any two decades from India or West Bengal – Interpretation		2		
TOPIC 03	Preparation of Composite Index (Kendell's Method) – General Discussion	• A. Mahmood – Statistical Methods in Geographical Studies	1		
	Preparation of Composite Index (Kendell's		3		

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Method) – Calculation	<ul style="list-style-type: none">Datt & Sundharam: Indian EconomyA. Sarkar – Practical Geography			
	Preparation of Composite Index (Kendell's Method) – Graphical Representation		2		
	Preparation of Composite Index (Kendell's Method) – Interpretation with special reference to comparison of Developed and Less developed states of India		1		
		Total	23		

LESSON PLAN

Department Name: Geography

Name of Faculty: Dr. Saswati Nayak

Paper Name & Code: GEOG-H-CC14/MD-CC08-6-PR-INDIA & WEST BENGAL LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	4a. Concept of mean centre of Population	Statistical Methods in Geographical studies by A. Mahmood	1	Chalk and Talk	
	b. Change in mean centre of population in West Bengal over any 3 census years		5		
	c. Interpretation		2		
	Total		7		

This paper is fully taught by Dr. Saswati Nayak, Associate Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT 1 Elements of the Atmosphere Topic 1	Discussion about Insolation	Atmosphere Weather and Climate by Barry and Chorley,	1	Chalk and Talk	
	Discussion about Controlling factors of insolation	General Climatology by Critchfield,	1	Chalk and Talk	
	Heat Budget of the atmosphere	Climatology by Hidore, Oliver, And Snow	1	Chalk and Talk	
Topic 2	Discussion about horizontal distribution of temperature	Atmosphere Weather and Climate by Barry and Chorley,	1	Chalk and Talk	
	Discussion about vertical distribution of temperature	General Climatology by Critchfield,	1	Chalk and Talk	
	Discussion about Inversion of temperature: Types	Climatology by Lal, Climatology by Hidore, Oliver, & Snow	1	Chalk and Talk	
	Discussion about Inversion of temperature: causes &		1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	consequences				
Topic 3	Discussion about Causes of climate change	Introduction to Modern Climate Change by Dessier, Climatology by Lal, Climatology by Rohli, Climatology : An Atmospheric Science	1	Chalk and Talk	
	Discussion about Trends of climate change		1	Chalk and Talk	
	Discussion about predictions of global temperature rise since 1850 CE		1	Chalk and Talk	
	Discussion about formation and depletion of Ozone layer		1	Chalk and Talk	
	Discussion about restoration of Ozone layer		1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Topic 3	Discussion about significance of Ozone layer	Same as above	1	Chalk and Talk	
UNIT 2 Atmospheric Phenomena and Climatic Classification Topic 4	Discussion about Process and forms of Condensation	Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield, Climatology by Lal, Climatology by Hidore, Oliver, & Snow	2	Chalk and Talk	
	Discussion about Bergeron-Findeisen theory		1	Chalk and Talk	
	Discussion about collision & coalescence theory		1	Chalk and Talk	
	Discussion about Forms of precipitation		1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
Topic 5	Discussion about typology of Air mass	Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield, Climatology by Lal, Climatology by Hidore, Oliver, & Snow	1	Chalk and Talk	
	Discussion about Origin of Air mass		1	Chalk and Talk	
	Discussion about characteristics of Air mass		1	Chalk and Talk	
	Discussion about modification of Air mass		1	Chalk and Talk	
Topic 6	Discussion about types of fronts	Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield, Climatology by Hidore, Oliver,	2	Chalk and Talk	
	Discussion about Frontogenesis		2	Chalk and Talk	
	Discussion about		1	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Frontolysis	and Snow, Climatology by Lal,			
Topic 7	Discussion about Weather stability	Climatology by Lal, Climatology by Rohli,	1	Chalk and Talk	
	Discussion about Weather stability	Climatology : An Atmospheric Science by oliver,hidore,	1	Chalk and Talk	
	Discussion about barotropic conditions	Atmosphere Weather and Climate by Barry and Chorley,	1	Chalk and Talk	
	Discussion about baroclinic conditions	General Climatology by Critchfield.	1	Chalk and Talk	
Topic 8	Discussion about atmospheric disturbances	Climatology by Lal, Climatology by Rohli,	1	Chalk and Talk	
	Discussion about Tropical cyclones	Climatology : An	3	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	Discussion about Thunderstorms	Atmospheric Science by Oliver & Hidore, Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield.	2	Chalk and Talk	
Topic 9	Discussion about Monsoon circulation	Atmosphere Weather and Climate by Barry and Chorley,	1	Chalk and Talk	
	Discussion about Monsoon mechanism in general	General Climatology by Critchfield,	1	Chalk and Talk	
	Discussion about Monsoon mechanism with reference to India	Climatology by Lal, Climatology by Hidore, Oliver, & Snow	2	Chalk and Talk	
Topic 10	Climatic classification	Climatology by Lal,	2	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC05-4/5/6-TH-CLIMATOLOGY

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	after Koppen (1936)	Climatology by Rohli, Climatology: An Atmospheric Science by oliver,hidore,			
	Climatic classification after Thorntwaite (1948)	Atmosphere Weather and Climate by Barry and Chorley, General Climatology by Critchfield.	2	Climatic classification	
		TOTAL	45		

This theory paper is fully taught by Smt. Pubali Ghosh, Associate Professor, Geography Department, VIC

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC 06/MD-CC 05-4/5/6-P-CLIMATOLOGY LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 1	Basic discussion about measurement of weather elements by analogue instruments	Practical Geography by A. Sarkar,	1	Chalk and Talk and relevant instrument	
	Measurement of Mean daily temperature	Advanced Practical Geography by P. Basu,	1	Chalk and Talk and relevant instrument	
	Measurement of Air pressure	Elements of Practical Geography by R.L.Singh	2	Chalk and Talk and relevant instrument	
	Measurement of Relative humidity		1	Chalk and Talk and relevant instrument	
	Measurement of Rainfall		1	Chalk and Talk and relevant instrument	
TOPIC 2	General discussion about interpretation of daily weather map of India	Maps and Diagrams by Monkhouse,	2	Chalk and Talk	
	Discussion about interpretation of daily weather map of India- Monsoon	Elements of Practical Geography by R.L.Singh, Practical Geography by A. Sarkar,	5	Chalk and Talk	
	Discussion about	Maps and Diagrams by	5	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC 06/MD-CC 05-4/5/6-P-CLIMATOLOGY LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	interpretation of daily weather map of India- Post-Monsoon	Monkhouse, Elements of Practical Geography by R.L.Singh, Practical Geography by A. Sarkar			
TOPIC 3	Construction and interpretation of monthly rainfall dispersion diagram-quartile method	Maps and Diagrams by Monkhouse, Elements of Practical Geography by R.L.Singh, Practical Geography by A. Sarkar,	3	Chalk and Talk	
	Construction and interpretation of Climatic water budget		3	Chalk and Talk	
TOPIC 4	Construction and interpretation of Hythergraph	Practical Geography by A. Sarkar, Advanced Practical Geography by P. Basu,	3	Chalk and Talk	

LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC 06/MD-CC 05-4/5/6-P-CLIMATOLOGY LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		Elements of Practical Geography by R.L.Singh			
TOPIC 4	Construction and interpretation of Climograph	Practical Geography by A. Sarkar, Advanced Practical Geography by P. Basu, Elements of Practical Geography by R.L.Singh	3	Chalk and Talk	
		TOTAL 30			

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LESSON PLAN

Department Name: GEOGRAPHY

Name of Faculty: PUBALI GHOSH

Paper Name & Code: GEOG-H-CC10/MD-CC07-5/6-TH-CUTURAL & SETTLEMENT GEOG

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
UNIT 1 TOPIC 1	Definition of Cultural geography	Cultural Geography by S.D.Maurya, A Textbook of Social and Cultural Geography by J. Sen, An Introduction to Social and Cultural Geography by Saikia and Medhi	1	Chalk & Talk	
TOPIC 1	Scope of Cultural Geography	Same as above	1	Chalk & Talk	
TOPIC 1	Content of Cultural Geography	Same as above	1	Chalk & Talk	
TOPIC 2	Discussion about Components of Culture	Same as above	1	Chalk & Talk	
TOPIC 2	Discussion about Structure of Culture	Same as above	2	Chalk & Talk	
TOPIC 3	Discussion about Cultural hearths and realms	Same as above	1	Chalk & Talk	
TOPIC 3	Discussion about distribution and characteristics of Cultural hearths and realms	Same as above	2	Chalk & Talk	

Subject Name/Code: CULTURAL & SETTLEMENT GEOG THEORY

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Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 4	Definition of Cultural diffusion		1	Chalk & Talk	
TOPIC 4	Discussion on types of Cultural diffusion	The Dictionary of Human Geography by Johnston, Models in Geography by M. Hussain, Cultural Geography: A Critical Introduction by D. Mitchell	1	Chalk & Talk	
	Discussion on Innovation diffusion	Same as above	2	Chalk & Talk	
TOPIC 4	Discussion on Hagerstrand's model	Same as above	2	Chalk & Talk	

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Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 5	Discussion about major world religions and languages	c, Cultural Geography: A Critical Introduction by D. Mitchell, Human Mosaic by Jordan	2	Chalk & Talk	
TOPIC 5	Discussion about diffusion of major world religions	Same as above	2	Chalk & Talk	
TOPIC 5	Discussion about diffusion of major world languages	Same as above	2	Chalk & Talk	
TOPIC 6	Discussion about Cultural segregation	Cultural Geography by S.D.Maurya, A Textbook of Social and Cultural Geography by J. Sen,	2	Chalk & Talk	

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Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		An Introduction to Social and Cultural Geography by Saikia and Medhi			
TOPIC 6	Discussion about Cultural diversity	Same as above	1	Chalk & Talk	
TOPIC 6	Discussion about Cultural integration	Same as above	1	Chalk & Talk	
<u>UNIT 2</u> TOPIC 7	Discussion about Rural settlements	The study of Human Geography by Carter, Introduction to Settlement Geography by S. Ghosh, The Dictionary of Human Geography by Johnston,	1	Chalk & Talk	

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Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 7	Discussion about evolution of Rural settlements	Same as above	2	Chalk & Talk	
TOPIC 7	Discussion about morphology of Rural settlements	Same as above	2	Chalk & Talk	
TOPIC 8	Discussion about rural house types with reference to India	Same as above	3	Chalk & Talk	
TOPIC 8	Discussion about social segregation in rural areas	Same as above	2	Chalk & Talk	
TOPIC 9	Discussion about Evolution of Urban settlements	The study of Human Geography by Carter, Introduction to Settlement Geography by S. Ghosh,	1	Chalk & Talk	

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Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
		The Dictionary of Human Geography by Johnston, Settlement Geography by S.D. Maurya			
TOPIC 9	Discussion about the concept of Metropolis, Megalopolis	Same as above	1	Chalk & Talk	
Topic 9	Discussion about the concept of Conurbation and agglomeration	Same as above	1	Chalk & Talk	
TOPIC 10	Discussion about Urban morphology	Same as above	1	Chalk & Talk	

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Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 10	Discussion about model of Burgess	Same as above	2	Chalk & Talk	
TOPIC 10	Discussion about model of Hoyt	Same as above	2	Chalk & Talk	
TOPIC 10	Discussion about model of Harris & Ullman	Same as above	2	Chalk & Talk	
		TOTAL	45		

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Paper Name & Code: GEOG-H-CC10/MD-CC07-5/6-P-CULTURAL AND SETTLEMENT GEOGRAPHY
LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
TOPIC 1	Basic discussion about major Indian language	Advanced Practical Geography by P.Basu, Maps and Diagrams by Monkhouse, Practical Geography by A. Sarkar,	1	Chalk & Talk	
	Discussion about pie graph		1	Chalk & Talk	
	Discussion about technique of mapping state-wise distribution of major Indian languages		2	Chalk & Talk	
	Interpretation		1	Chalk & Talk	
TOPIC 2	Discussion about roof materials used in rural houses of any state of India	Advanced Practical Geography by P.Basu, Maps and Diagrams by Monkhouse, Practical Geography by A. Sarkar, Census of India- 1991,2002,2011	1	Chalk Talk	
	Discussion about Cartograms representing roof materials used in rural houses of any state of India in		3	Chalk Talk	

Subject Name/Code: CULTURAL & SETTLEMENT GEOG PRAC.

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LESSON PLAN

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LAB

Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	the Census years 1991,2001,2011				
TOPIC 2	Interpretation		1	Chalk & Talk	
TOPIC 3	Basic discussion about Accessibility mapping	Advanced Practical Geography by P.Basu, Maps and Diagrams by Monkhouse, Practical Geography by A. Sarkar,	1	Chalk & Talk	
	Basic discussion about Detour Index		1	Chalk & Talk	
	Technique of Accessibility mapping using Detour Index from Survey of India 1:50k		6	Chalk & Talk	

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Planned					
Unit / Group / Module / Article	Topics	Reference Books	No of Lecture Planned	Content Delivery Technique	Remarks / Comments
	topographical maps				
	Interpretation		2	Chalk & Talk	
TOPIC 4	Basic discussion about Nearest Neighbour Analysis	Advanced Practical Geography by P.Basu, Maps and Diagrams by Monkhouse, Practical Geography by A. Sarkar,	2		
	Technique of Nearest Neighbour Analysis from Survey of India 1:50k topographical maps		6		

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Planned					
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	Interpretation		2		
		TOTAL	30		
		Total			

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