## Polba Mahavidyalaya

## **Departmental Lesson Plan 2019 – 2020**

Name of the Department: Geography

Name of the Programme: B.A. /B.Sc. (Honours/ General)

Name of the Course: (Subject) : B.A. /B.Sc. Geography [Honours/ General]

Period of the Lesson Plan : 1st July 2019 – 30th June 2020

Academic Class. Period	Class.	s. Paper	Topic to be covere	ed	No of Lectures	Name of the	Internal Assessment
			Unit	Торіс	/Practic al	Teachers	
July 2019 – January 2020	SEM- I	CC1: GEOTECTONI CS AND GEOMORPHO	Unit 1: Geotectonics	Earth's tectonic and structural evolution with reference to geological time scale	60	BD	3 <sup>rd</sup> Week of December
		LOGY		Earth's interior with special reference to seismology.		BD	December
				Concept of Isostasy : Theories of Airy and Pratt		BD	
			Plate Tectonics: Processes at constructive, conservative, destructive boundariesand hotspots: resulting landforms		BD		
		<u>Unit II</u> Geomorphology	Degradational processes: Weathering, mass wasting and resultant landforms		AB		
			Models of landscape evolution: Views of Davis, Penck, and Hack		AB		
				Slope Development: Concept of Wood	_	AB	-
				Development of river network		AB	
				and landforms on uniclinal and folded structures			
				Types of rocks, mineralogical composition of igneous rocks;		AB	
			Landforms on igneous rockswith				
			special reference to Granite and Basalt				
			Karst landforms: Surface and sub-surface	-	AB		
			Glacial and fluvio-glacial processes and landforms		AB		
				Aeolian and fluvio-aeolian processes and landforms		AB	
		CC2: CARTOGRAPH	Theory	Maps: Classification and Types. Components of a Map	60	BD	3 <sup>rd</sup> Week of December

		1			Г	,
	IC		Concept of Scales: Plain,		В	
	TECHNIQUES AND		Comparative, Diagonal and		D	
	GEOLOGICAL		Vernier	-		
	MAP STUDY		Coordinate Systems: Polar and		Α	
			<b>Rectangular.</b> Concept of Geoid		В	
			and Spheroid. Map			
			Projections: Classification,			
			Properties and Uses. Concept			
			and Significance of			
			UTM Projection			
			Concept of Generating Globe,		Α	
			Grids: Angular and Linear		В	
			Systems of Measurement		D	
			Survey of India Topographical		Α	
			Maps: Reference scheme of Old			
			and Open series		В	
			Delineation of Drainage Basin	-	В	
			from Survey of India			
			Topographical Map. Concept of		D	
			Relief, Slope and Stream Order.			
						-
			Types of rocks and minerals.		AB	
			Characteristics of Granite,			
			Basalt, Dolerite, Pegmatite,			
			Gneiss, Shale, Sandstone, Slate,			
			Marble, Quartzite, Quartz,			
			Feldspar, Mica, Limestone,			
			Calcite, Bauxite, Magnetite,			
			Hematite, Galena	-		-
			Concept of Bedding Plane,		В	
			Unconformity and Non-		D	
			conformity, thickness of Bed,			
			Dip, Throw, Hade, heave			_
		Practical	Construction of Scales: Plain,		В	
			Comparative, Diagonal and		D	
			Vernier Construction of Projections:	-		
			Polar Zenithal Stereographic,		Α	
			Simple Conic with twoStandard		B	
			Parallels, Bonne's and			
			Mercator's	-		
			Construction and Interpretation		AB+BD	
			of Relief Profiles (Superimposed, Projected and Composite),			
			Projected and Composite), Preparation of Relative Relief			
			Map, Slope map (Wentworth),			
			and Stream Ordering (Strahler)			
			on a Drainage Basin.			
			Geological Map (Problems		BD	
			related to Horizontal, Uniclinal,			
			Folded and Faulted structure);			
			Drawing of Geological section			
		<u>Unit 1:</u>	and Interpretation of the Map. Nature, composition and layering	60	BD	2 <sup>nd</sup> Week of
		<u>Umt 1:</u>	of the atmosphere,	60	עם	December
		1	or the atmosphere,	1	1	December

SEM-	CC5:	Elements of the			BD	
III	CLIMATOLOG	Atmosphere	Insolation: controlling factors.			
	Y		Heat budget of the atmosphere. Temperature: horizontal and		BD	
			vertical distribution. Inversion of		BD	
			temperature: types, causes and			
			consequences.			-
			Greenhouse effect and importance of ozone layer		AB	
		Unit II	Condensation: Processes and		BD	-
		Atmospheric	forms. Mechanism of			
		Phenomena, Climate	precipitation: Bergeron-			
		Change and	Findeisen theory, collision and coalescence. Forms of			
		Climatic	coalescence. Forms of precipitation.			
		Classification	Air mass: Typology, origin,		BD	
			characteristics and modification.			-
			Fronts: warm and cold;		BD	
			frontogenesis and frontolysis.		BD	-
			Weather: stability and instability; barotropic and baroclinic		22	
			conditions.			_
			Circulation in the atmosphere:		AB	
			Planetary winds, jet stream and monsoons			
			Tropical and mid-latitude		AB	-
			cyclones			
			Evidences and causes of climate		AB	
			change		AB	-
			Climatic classification after Köppen, Thornthwaite (1948)		AD	
	CC6:	Unit-1:Theory	Importance and significance of	60	AB	2 <sup>nd</sup> Week of
	STATISTICAL		Statistics in Geography. Discrete			December
	METHODS IN		and continuous data, population and samples, scales of			
	GEOGRAPHY		measurement (nominal, ordinal,			
			interval and ratio), sourcesof data			-
			Collection of data and formation of statistical tables		AB	_
			Sampling: Need, types, and		BD	
			significance and methods of random sampling			
			Distribution: frequency,		BD	-
			cumulative frequency			
						-
		Unit-2:Theory	Central tendency: Mean, median, mode, partition values		AB	
			Measures of dispersion range,		AB	1
			mean deviation, standard			
			deviation, coefficient of variation		AD	-
			Association and correlation: Rank correlation, product		AB	
			moment correlation			
			Linear Regression and time series		AB	
			analysis		DE	
		Practical	Construction of data matrix with		BD	
			each row representing an aerial unit (districts / blocks /mouzas /			

·		1		•		
			towns) and corresponding			
			columns of relevant attributes.		DD	-
			Based on the above, a frequency table, measures of central		BD	
			tendency and dispersionwould be			
			computed and interpreted.			
			Histograms and frequency curve		BD	
			would be prepared on the dataset.			
			Based on of the sample set and		BD	
			using two relevant attributes, a			
			scatter diagram and regression			
			line would be plotted and residual			
			from regression would be mapped			
			with a shortinterpretation.			
	CC7: GEOGRAPHY	<u>Unit 1:</u> Geography of	Geology and physiographic divisions	60	BD	2 <sup>nd</sup> Week of December
	OF INDIA	India	Climate, soil and vegetation: Characteristics and classification		BD	
			Population: Distribution, growth, structure and policy		AB	
			Distribution of population by race, caste, religion, language, tribes		AB	
			Agricultural regions, Green revolution and its consequences		BD	
			Mineral and power resources distribution and utilisation of iron ore, coal, petroleum		BD	
			Industrial development since independence.		AB	
			Regionalisation of India: Views of Spate and Bhatt.		AB	
		<u>Unit 1:</u> Geography of West Bengal	Physical perspectives: Physiographic divisions, forest and water resources		BD	
			Population: Growth, distribution and human development		AB	
			Resources: Mining, agriculture and industries		BD	
			Regional Development: Darjeeling Hills and Sundarban		AB	
	SEC- 1: COMPUTER		Numbering Systems; Binary Arithmetic	40	AB	2 <sup>nd</sup> Week of December
	BASICS AND		Data Computation,		AB	
	COMPUTER		Storing and			
	APPLICATION		Formatting in			
	S		Spreadsheets:			
			Computation of			
			Rank, Mean, Median, Mode,			
			Median, Mode, Standard Deviation,			
			Moving Averages,			
			Derivation of			
			Correlation,			
			Covariance and			
			regression; Selection			
L L	•	1				

				of technique and interpretation.			
				Preparation of Annoted Diagrams and its interpretation: Scatter diagram and Histogram		BD	
				Internet Surfing: Generation and extraction of information		AB	
	SEM-	CC11: RESEARCH	<u>Unit 1:</u> Research	Research in Geography: Meaning, types and significance	60	AB	1 <sup>st</sup> Week of December
	V	METHODOLO	Methodology	Significance of Literature review in research		AB	
		GY AND FIELD WORK		Defining research problem, objectives and hypothesis.		AB	
				Research materials and methods Techniques of writing scientific		AB	-
				reports: Preparing notes, references, bibliography (APA			
			Unit II	Style), abstract and keywords Fieldwork in Geographical		AB	
			Field Work	studies – Role and significance.		AD	
				Selection of study area and objectives. Pre-field			
				preparations. Ethics of fieldwork			
				Field techniques and tools:		BD	
				Questionnaires (open, closed, structured, non-structured).			
				Interview with special reverence			
				to focused group discussions			
				Field techniques and tools: Landscape survey using		BD	-
				transects and quadrants,			
				constructing a sketch, photo and video recording.			
				Collection of samples. Preparation of inventory from	-	BD	-
				field data. Post-field tasks			
		CC12:	Unit-1:Remote	Definition, Concepts and Principles of Pomete Sensing	60	BD	1 <sup>st</sup> Week of
		REMOTE	Sensing	Principles of Remote Sensing (RS): Types of Air Photo, RS			December
		SENSING AND		satellites, sensors and platforms			
		GIS		EMR Interaction with		BD	
				Atmosphere and Earth Surface, Sensor resolutions and their			
				applications with reference to IRS			
				Principles of False Colour	-	AB	-
				Composites (FCC) from IRS			
				LISS-III and Landsat Images			
				(ETM+) data: Image Processing, Pre-processing; Enhancement;			
				Classification.			
				Principles of image	]	AB	
				interpretation for Forest, Water and Soil			
			Unit-2: <u>GIS &amp;</u>	Definition and Components of	]	AB	
			<u>GNSS</u>	Geographical Information System (GIS) and raster and			
1	1	1	1	vector data structures			

r				· · · · · ·		,
			Principles of preparing attribute tables and overlay analysis		AB	
			Principles of GNSS positioning -		BD	
			Uses and Waypoint Collection Methods			
			Applications of Geographical		AB	
			Information System in Flood Management and Urban Sprawl			
			Wanagement and Orban Sprawi			
		Practical	Georeferencing of Scanned Maps		AB	
			Preparation of FCC using IRS LISS-III and/or Landsat (ETM+)		AB	
			data			
			Preparation of LULC Map by Supervised Image Classification		AB	
			(Maximum Likelihood) using IRS			
			LISS-IIIor Landsat (ETM+) data		A D	
			Digitisation of Point. Line and Polygon Features and		AB	
			Preparation of Thematic Map			
			(using bar, pie and choropleth method)			1 <sup>st</sup> Week of
	DSE1:	<u>Unit 1:</u> Cultural	Definition, Scope and Content of Cultural Geography	60	BD	December
	CULTURAL AND	Geography	Development of Cultural		BD	
	SETTLEMENT		Geography			
	GEOGRAPHY		Concept of Cultural Hearth,		BD	
			Realm; Cultural Landscape			
			Cultural Innovation and		BD	
			Diffusion; Diffusion of Major			
			World Religions			
			Cultural Segregation, Cultural		BD	
			Diversity, and Acculturation			
			Major Races of the World: Distribution and Characteristics			
			Major Races of the World:		BD	
			Distribution and Characteristics			
		<u>Unit II</u> Settlement	Scope and Content of Settlement		BD	
		Geography	Geography		BD	
			Definition and Characteristics of Rural Settlement		ЪD	
			Rural Settlements: Site and		BD	
			Situation			
			Urban Settlements:Census		BD	
			Definition, Urban Outgrowth,			
			Urban Agglomeration		BD	
			Urban Morphology: Classical		00	
			Models of Burgess, Hoyt, Harris and Ullman			
			Functional Classification of		BD	
			Cities: Harris and Nelson			
		Unit I		60		

		DSE 2:		Development of Population		AB	1st Week of
		POPULATION		Geography; Relation between		AD	December
		GEOGRAPHY		Population Geographyand			
		0200101111		Demography			
				Defense in a f Derechtige		AB	
				Determinants of Population Dynamics; Concept of Optimum			
				Population			
				Theories of population growth:		AB	
				Malthusian Theory and Marxian			
				Approach, Demographic Transition Model			
					-	AB	
				Distribution, Density and Growth of Population in India			
				since 1951			
			Unit II	Population Composition and		AB	
				Characteristics: Age-Sex;			
				Female-Male Ratio			_
				Measures of Fertility and Mortality		AB	
				Population Composition of		AB	
				India: Rural and Urban,			
				Occupational Structure asper			
				Census of India			
				Migration: Theories, Causes and		AB	
				Types			
				Concept of Human Development Index		AB	
				Population and development: population-resource regions,		AB	
					-	AB	
				Population policies in Selected			
				Countries: Sweden and China			
				8.Contemporary Issues in			
				Population: Health and			
				Unemployment	-		4
				Population Composition and		AB	
				Characteristics: Age-Sex;			
February	SEM-	CC3: HUMAN	Unit1: Nature	Female-Male Ratio	60	PD	3 <sup>rd</sup> Week of
2020– June	2	GEOGRAPHY	and Principles	Nature, scope and recent trends of Human Geography	00	BD	May
2020		ULUUKAI II I		Evolution of humans, concept	-	BD	-
				of race and ethnicity; Major		עע	
				Racial Groups of the world			4
				Space, society and cultural		BD	
				regions (language and religion)	-		4
				Concept of Culture, Cultural		BD	
				Diffusion, Convergence,			
			Unit II	Cultural Realms of the world Evolution of human societies:	-		-
			UnitIISociety,Demogra	Evolution of human societies: Hunting and gathering,		AB	
			phy and Ekistics	Pastoralnomadism, Subsistence			

· · · · · ·		1		1	1	
			farming, Industrial and			
			urban societies Human-environment relations	-		
			with special reference to Arctic		AB	
			and hot desert regions			
			Population growth and		AB	
			distribution, composition;			
			demographic transition		1.0	-
			Population–resource regions		AB	
			(Ackerman)	-	4.0	-
			Human, population and		AB	
			environment relations with			
			special reference to			
			Development-environment			
			conflict	-		
			Social morphology and rural		BD	
			house types in India	-		4
			Types and patterns of rural		BD	
			settlements			4
			Functional Classification of		BD	
			urban settlements			
	CC4:		Concepts of Cartograms and	60	BD	3 <sup>rd</sup> Week of
	CARTOGRAM	Theory	Thematic Maps			May
	S, SURVEY		Concept and utility of Isopleths		BD	
	AND		and Choropleth,			
	THEMATIC		Concept, utility, and		BD	
	MAPPING		interpretation of: Climograph,			
			Hythergraph and Ergograph			
			Preparation and interpretation	-	BD	
			of demographic charts and			
			diagrams			
			(Age-Sex Pyramid)			
			Concepts of Bearing: magnetic		AB	
			and true, whole-circle and			
			reduced			
				-	AB	-
			Basic concepts of surveying and		AD	
			survey equipment: Abneys Level, Clinometer			
			Basic concepts of surveying and	-	пр	-
			survey equipment: Prismatic		BD	
			Compass, Dumpy Level,			
			Transit Theodolite			
			Interpretation of Land use and		BD	
			land cover maps			
SEM	- CC8: Regional	Unit 1: Regional	Concept and Classification of	60	BD	2 <sup>nd</sup> Week of
4	Planning and	<u>Planning</u>	Regions			May
	Development		Types of Planning; Principles	1	BD	1
			and Techniques of Regional			
			Planning			
			Need for Regional Planning;	1	BD	]
			Multilevel Planning in India			
			Metropolitan Concept:	1	BD	1
			Metropolis, Metropolitan			

r				1	1	
			Areas,			
			Metropolitan Region	4		
		Unit II Regional	Development: Meaning,		BD	
		<u>Development</u>	Growth versus Development Models for Regional	-	BD	-
			Development: Growth Pole		BD	
			Model for development India		BD	
			Concept of Regional		BD	-
			Inequality and Disparity			
			Human Development:		BD	
			Significance, Indicators and			
			Measurement			
			Status of Regional Imbalances		BD	
			in India			
			Strategies for Regional		BD	
			Development in India			_
			NITI Aayog and its Functions		BD	
	CC9: Economic	Unit 1: Concepts	Meaning and Approaches to	60	AB	2 <sup>nd</sup> Week of
	Geography	and Approaches	Economic Geography	-	AD	May
			Concepts in Economic Geography		AB	
			Factors Influencing Location	-	AB	-
			of Economic Activity			
			Determining Factors of		AB	
			Transport Cost			
		<u>Unit IIEconomic</u>	Concept and Classification of		AB	
		<u>Activities</u>	Economic Activities	_		_
			Location Theories: Von		AB	
			Thünen and Alfred Weber			
			Primary Activities:		AB	
			Secondary Activities:		AB	
			Manufacturing (Iron and			
			Steel in India and			
			Japan, Petrochemical in India			
			and USA) Tertiary Activities: Types of	_	AB	-
			Tertiary Activities: Types of Trade and Services		AB	
			Agricultural Systems: Tea		AB	-
			Plantation in India and Mixed			
			Farming			
			in Europe			
			Highways: Roles in Economic		AB	
			Development of India since			
			1990s	_		_
			International Trade Blocs:		AB	
			WTO and OPEC			
	CC10:	Theory	Geographers' Approach to	60	BD	2 <sup>nd</sup> Week of
	Environmental		Environmental Studies	-	DD	May
	Geography		Changes in Perception	-	BD BD	-
			Ecosystem: Concept,		עם	
			Structure and Functions	4		4
			Environmental Degradation and		BD	
			Pollution: Water and Air Environmental Issues related to	-	AB	-
			Agriculture		AĎ	
			Urban Environmental issues		AB	1
			related to Waste Management			

<u> </u>					PD	1
			Concept and Issues related to		BD	
			Bio-diversity			_
			Environmental Programs and Policies on Forest and		BD	
			Wetland: National and Global			
		Practical	Preparation of questionnaire for		BD	
			perception survey on			
			environmental problems			
			Environmental Impact		BD	
			Assessment: Leopold Matrix			
			Quality assessment of		BD	-
			soil using field kit: pH			
			and NPK Interpretation of air		AB	-
			quality using CPCB /		АД	
			WBPCB data			
	<b>SEC-2:</b>	Theory	Concept of Probability and	40	BD	2 <sup>nd</sup> Week of
	ADVANCED		Normal Distribution and their			May
	SPATIAL		Geographical Applications,			
	STATISTICAL		Skewness (Pearson's Method)			
	TECHNIQUES		Differences between Spatial and		BD	
			non-Spatial data, Nearest			
			NeighbourAnalysis			_
			<b>Correlation and Regression</b>		BD	
			Analysis, t-test, Spearman's Rank			
			<b>Correlation Product Moment</b>			
			Correlation; Linear Regression			_
			Time Series Analysis; Smoothing		AB	
			time series by Least Square			
CEM	~~~	TL- *4 1	and/orMoving Average Method	(0)	DD	1 <sup>st</sup> Week of
SEM- 6	CC13: EVOLUTION	Unit 1	Definition,Scope and Content of Geography;Geographyas a	60	BD	1st week of May
Ŭ	OF		Spatial Science			112uy
	GEOGRAPHIC		Geography in Ancient Period:		BD	
	AL		Greek and Roman			_
	THOUGHTS		Development of Geography in		BD	
			Medieval period:Arabian Development of Mapping and		BD	-
			Knowledge about the World			
			Regional			
			Geography in the Age of			
			Explorations			_
			Classical Geography in19th		RD	
			Century:Humboldt,Ritter Quantitative Revolution and its		BD	-
			Critique			
		Unit 2	German School of Thought		BD	
			French School of Thought		BD	
			American School of Thought		BD	
			Indian Contribution to		BD	
			Geography Concernt of Determinism		BD	-
			Concept of Determinism, Possibilism and Neo-		עם	
			Determinism			

CC14: DISATER MANAGEMEN T Chif-I Classification of hazards and disasters 60 AB 1 <sup>st</sup> Week of AB   T Classification of hazards and disasters 60 AB 1 <sup>st</sup> Week of AB   T Approaches to hazard study:Rkk perception and vulnershifty assessment. Hazard paradigms AB AB   T Endition of hazard study vulnershifty assessment. Hazard paradigms AB AB   E Unit-I Endition of hazard study:Rkk perception and vulnershifty, consequences and management AB   E Unit-II Endition of hazard techniques. vulnershifty, consequences and management AB   DSR 3: Unit-I Resource Conception test-bigses. vulnershifty, consequences and management AB   DSR 3: Unit-I Resource Conception test-bigses. vulnershifty, consequences and management AB   DSR 3: Unit-I Resource Conception test-bigses. Vulners of Resource Depletion wrest. Water and Ensure sin Indian Context: Froore, Baxite BD   Exector Concept at Linits to Concept for inits in Conset: Froore, Baxite BD   Distribution, Problems and Management of Energy Resource sin Indian Context: Wice, Linestone BD   Distribution, Problems and Management of Energy Resources for Poblems with reference ty Patrolems with reference ty Patrolems with reference ty Patrolems and Fature Scenario AB   Distribution, Problems and Management of Energy Resources for Indian Context: Wies, Lines			Approaches to the study of		BD	
CC14: DISSNER MANAGEMEN T Unit-1 Classification of huzards and dissifiers 60 AB 1 <sup>st</sup> Week of May   T Approaches to hazard study: Risk perception and vulnerability assessment. Hazard sarad(s): Preparedness, trauma and aftermath. Resilience and exparity holiding AB AB   Unit-II Earthquake:Factors, vulnerability, consequences and management AB AB   DSE 3: Unit-I Earthquake:Factors, vulnerability, consequences and management AB   DSE 3: Unit-I Resource: Gography: Its dueres and management 60 BD   DSE 3: Unit-I Resource: Gography: Its dueres and management 60 BD   RESOURCE GEOGRAPHY Unit-I Resource: Gography: Its dueres and management 60 BD   Unit-II Distribution and Utilisation of May BD BD   Valerability, consequences and management AB BD   Unit-II Resource: Gography: Its dueres and management BD   Cassification BD BD   Functional Theory of Resource for Section BD   Unit-II Distribution and Utilisation of Markine Mineral Resources in dual Collection BD   Distribution, Frohlems and Management of Energy Resources and problems with reference to Perdetuna (Coll) and Nao-Conventional (Coll) and Nao-Conventional (Coll) and Nao-Conventional (Solar) AB			Geography:Systematic and			
Disk STER MANAGEMEN T T MANAGEMEN T T MANAGEMEN T T MANAGEMEN T T MANAGEMEN T T T MANAGEMEN T T T MANAGEMEN T T T MAR T T MAR May May May AB May AB AB AB AB AB AB AB AB AB AB	0014	Unit-I		60	AR	1 <sup>st</sup> Week of
MANAGEMEN T Approaches to huzard attor; Risk perception and vulnerability assessment. Hazard paradigms AB   Responses to hazards:Preparedness, trauma and alternath. Resilience and capacity building Hazards mapping:Data and techniques. AB   Unit-II Earthquake:Factors, vulnerability, consequences and management AB   Lunid-II Earthquake:Factors, vulnerability, consequences and management AB   DSE 3: Unit-I Resource Geography: Its Importance and relation with other sub-disciplines 60 BD   DSE 5: Unit-I Resource Geography: Its Importance and relation with special Reference to Forest, Nater and Toxy of Resource Problems of Resource piletion with special Reference to Forest, Nater and Toxy of Resource in Indian Context: Innore, in Indian Context: Innore, in Indian Context: Innore, in Indian Context: Mica, Linestone BD   Unit-II Distribution, Problems and Management of Largy Resource Concervitional (Coa) and Non-Conventional (Coa) and Non-Conv				00	AD	
T study.Risk perception and vulnerability assessment. Hazard paradigns AB   Hazards Preparedness, trauma and afternatik. Resilience and capacity building AB   Unit-II Earthquake:Factors, vulnerability, consequences and management AB   Landslide: Factors, vulnerability, consequences and management AB   DSE 3: Unit-I Resource concept and concept and relation with other sub-disclipties AB   DSE 3: Unit-I Resource concept and concept and relation with other sub-disclipties 60 BD   RESOURCE GEOGRAPHY Unit-I Resource Concept and Classification with other sub-disclipties BD   Vunit-III Distribution and Utilisation of Maging and attraction of BD BD   Unit-II Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Forone, Baxite BD   Unit-II Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Forone, Baxite BD   Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Forone, Baxite BD   Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Forone, Baxite BD   Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Forone, Baxite BD   Vunit-III Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Forone, Baxite BD   Vistatiable Resource Not cont			Approaches to hazard	-	AB	
Image:						
Image: Section of the section of t						
Image: Second				-	AR	-
Image: Second					AD	
Image: Second State						
Image: Construction of the second				-		
Unit-II Earthquake:Factors, vulnerability, consequences and management AB   Landslide: Factors, vulnerability, consequences and management AB   DSE 3: Unit-I Resource Gography: Its mportance and relation with other sub-disciplines AB   RESOURCE GEOGRAPHY Unit-I Resource Gography: Its mportance and relation with other sub-disciplines 60 BD   Image: Consequences and management functional Theory of Resource Froblems of Resource Depletion AB   Unit-II Resource: Concept and Classification BD   Value: II Distribution and Utilisation of Metallic Mineral Resources BD BD   Unit-II Distribution and Utilisation of Metallic Mineral Resources BD BD   Unit-II Distribution and Utilisation of Non-Metallic Mineral Resources Bauxite BD   Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Conventional (Coal) and Non-Conventional (Coal) and Non-Conventi					AB	
Image: Second State State Image: State State AB   Image: State State State Importance and relation with other state AB   Importance and relation with other state Importance and relation with other state BD   Importance and relation with other state BD If Week of May   Resource: Concept and Classification BD May   Importance and Fossil Fuels BD BD   Resource: Concept and Classification: AB   Principles and Methods AB   Unit-II Distribution and Utilisation of Max   Image: State State State BD   Image: State State State State BD   Image: State State State State State State BD   Image: State		Unit-II			۸R	_
DSE 3: RESOURCE GEOGRAPHY Unit-I Initial Generations in the initial context in thereference to the initial context in thereference to the in		Omt-H			AD	
Image:						
Imagement Imagement Imagement AB   Crychone: factors, vulnerability, consequences and management Fire: Factors, vulnerability, consequences and management AB   DSE 3: Unit-I Resource Geography: Its 60 BD   RESOURCE GEOGRAPHY Resource: Concept and Classification BD   Classification Functional Theory of Resource BD   Problems of Resource Depletion AB   With Special Reference to AB   Principles and Methods AB   Concept of Limits to Growth' AB   Unit-II Distribution and Utilisation of Mon-Metallic Mineral Resources in Indian Context: Ironore, Baxwite BD   Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Sina BD   Indian Context: Conventional (Coal) and Non-Conventional (Coal) and Power resources and problems AB   Wint H: Soit Distribution, Factors of AB					AB	
Image: Cyclone: Factors, vulnerability, consequences and management AB   DSE 3: Unit-I Resource cography: Its AB   Importance and relation with other sub-disciplines 60 BD 1 <sup>st</sup> Week of May   RESOURCE GEOGRAPHY Resource: Concept and Classification with other sub-disciplines 60 BD   Functional Theory of Resource BD 1 <sup>st</sup> Week of May May   Value: Concept and Classification Functional Theory of Resource BD   Functional Theory of Resource to pelption with other sub-disciplines AB May   Unit-II Distribution and Utilisation of BD AB   Unit-II Distribution and Utilisation of BD BD   Non-Metallic Mineral Resources in Indian Context: Ironore, Baxite BD   Distribution and Utilisation of Non-Metallic Mineral Resource sin Indian Context: Mica, Limestone BD   Distribution, Problems and Management of Energy Resource sin Indian Context: Conventional (Coal) and Non-Conventional (Solar) BD   Power resources and problems and Management of Energy Resource sin Indian Context: Conventional (Solar) AB   With reference to Pertoleum AB   Unit-II Distribution, Problems and Management of Energy Resource sin Indian Context: Conventional (Coal) and Non-Conventional (Solar)   Power resources and problems AB   With reference to Pertoleum						
Image: Consequences and management Fire:Factors,vuherability,conse guences and management AB   DSE 3: RESOURCE GEOGRAPHY Unit-I Resource Geography: Its Importance and relation with other sub-disciplines 60 BD   RESOURCE GEOGRAPHY Importance and relation with other sub-disciplines 60 BD   Problems of Resource Depletion with Special Reference to Forbers of Resource Depletion With Special Reference to Forcest, Water and Fossil Fuels BD   Concept of Limits to Growth' Hauxite AB   Unit-II Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Informer, Bauxite BD   Distribution, Problems and Management of Energy Resource sin Indian Context: Mica, Limestone BD   Distribution, Problems and Management of Energy Resource sin Indian Context: Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Solar) AB   Prover resources and problems and Putture Scenario AB   With freference to Petroleum with reference to Petroleum Management of Energy Resource sin Indian Context: Conventional (Solar) AB   Image: Image and Problems and Putture Scenario AB   Image: Image and Problems With reference to Petroleum AB   Image and Power resources and problems With reference to Petroleum AB   Image and Putture Scenario AB   Image and				-	AR	-
DSE 3: RESOURCE GEOGRAPHY Unit-I Resource Cography: its Importance and relation with other sub-disciplines 60 BD 1 <sup>st</sup> Week of May   Problems of Resource Cography: its Importance and relation with other sub-disciplines 60 BD 1 <sup>st</sup> Week of May   Problems of Resource Concept and Classification Functional Theory of Resource BD   Problems of Resource Depletion with Special Reference to Forest, Water and Fossil Fuels AB   Unit-II Distribution and Utilisation of Maxuite AB   Unit-II Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Ironore, Bauxite BD   Distribution and Utilisation of Management of Energy Resource sin Indian Context: Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Solar) BD   Power resources and problems with reference to Petroleum Unit 11: AB H					AD	
Image:					AB	-
RESOURCE GEOGRAPHY Importance and relation with other sub-disciplines May   Resource: GEOGRAPHY Resource: Functional Theory of Resource Functional Theory of Resource Problems of Resource Depletion with Special Reference to Forest, Water and Fossil Fuels BD   Resource: Concept of Limits to Growth' Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Pronore, Bauxite AB   Unit-II Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Concent and Distribution, Problems and Management of Energy Resource sin Indian Context: Conventional (Coal) and Non-Conventional (Solar) BD   Power resources and problems with reference to Petroleum Contemporary Energy Crisis AB AB   Unit 1: Soit: Definition, Factors of Development AB			quences and management			
GEOGRAPHY   other sub-disciplines   BD     GEOGRAPHY   Resource: Concept and Classification   BD     Functional Theory of Resource   BD     Problems of Resource Conservation: Problems of Resource Conservation: Principles and Methods   AB     Unit-II   Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Ironore, Bauxite   AB     Distribution and Utilisation of Non-Metallic Mineral Resources in Indian Context: Wica, Limestone   BD     Distribution, Problems and Management of Energy Resources and problems with reference to Petroleum   BD     Power resources and problems with reference to Petroleum   AB     Outerture Scenario   AB     Value Resource   AB     Indian Context: Conventional (Coal) and Non-Conventional (Solar)   BD     Outer Resources and problems with reference to Petroleum   AB     Outer Senario   AB     Indian Context: Conventional (Solar)   AB     Outer Senario   AB     Outer Senario   AB     Indian Context: Conventional (Solar)   AB     Outer Senario   AB     Distribution, Factors of   60	<b>DSE 3:</b>	Unit-I		60	BD	
GEOGRAPHY Resource: Concept and Classification BD   Functional Theory of Resource BD   Problems of Resource Depletion with Special Reference to Forest, Water and Fossil Fuels AB   Resource Conservation: Principles and Methods AB   Unit-II Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Ironore, Bauxite BD   Distribution and Utilisation of Motallic Mineral Resources in Indian Context: Mica, Limestone BD   Distribution, Problems and Management of Energy Resource sin Indian Context: Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Solar) BD   Power resources and problems with reference to Petroleum AB   Power resources and problems with reference to Petroleum AB   Outent 1: Soil: Definition, Factors of 60   AB It* Week of	RESOURCE					May
Classification   BD     Functional Theory of Resource   BD     Problems of Resource Depletion   AB     Protect, Water and Possil Fuels   AB     Resource Conservation:   AB     Principles and Methods   AB     Unit-II   Distribution and Utilisation of   BD     Metallic Mineral Resources in   Indian Context: Ironore,   BD     Distribution and Utilisation of   BD   BD     Non-Metallic Mineral Resources sin   Indian Context: Ironore,   BD     Distribution, Problems and   BD   BD     Management of Energy   BD   BD     Resource sin   Indian Context: Conventional   BD     (Coal) and Non-Conventional   (Coal) and Non-Conventional   BD     (Solar)   Power resources and problems   AB     Power resources and problems   AB   BD     Sustainable Resource   AB   Development     Dividuer Scenario   AB   Development     Distribution, Factors of   60   AB   1st Week of	GEOGRAPHY				BD	-
Image: Second					DD	
with Special Reference to			Functional Theory of Resource		BD	
Forest, Water and Fossil Fuels   AB     Resource Conservation:   AB     Principles and Methods					AB	
Resource Conservation: AB   Principles and Methods AB   Concept of Limits to Growth' AB   Unit-II Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Ironore, Bauxite BD   Distribution and Utilisation of Non-Metallic Mineral Resource sin BD   Indian Context: Ironore, Bauxite BD   Distribution and Utilisation of Non-Metallic Mineral Resource sin BD   Indian Context: Mica, Limestone BD   Distribution, Problems and Management of Energy Resource sin BD   Indian Context: Conventional (Coal) and Non-Conventional (Solar) BD   Power resources and problems with reference to Petroleum AB   Contemporary Energy Crisis and Future Scenario AB   Sustainable Resource AB   Development AB						
Principles and Methods   AB     Concept of Limits to Growth'   AB     Unit-II   Distribution and Utilisation of   BD     Metallic Mineral Resources in   Indian Context: Ironore,   Bauxite     Distribution and Utilisation of   BD     Non-Metallic Mineral Resource sin   Indian Context: Ironore,   BD     Indian Context: Mica,   Indian Context: Mica,   Indian Context: Mica,   Indian Context: Mica,     Limestone   Distribution, Problems and   BD     Management of Energy   Resource sin   Indian Context: Conventional     (Coal) and Non-Conventional   (Solar)   Indian Context: Conventional     Volt reference to Petroleum   AB     Volt reference to Petroleum   AB     Vunit 1:   Soil: Definition, Factors of   60     Unit 1:   Soil: Definition, Factors of   60				-	AR	-
Concept of Limits to Growth' AB   Unit-II Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Ironore, Bauxite BD   Distribution and Utilisation of Non-Metallic Mineral Resource sin BD   Indian Context: Mica, Limestone BD   Distribution, Problems and Management of Energy Resource sin BD   Indian Context: Conventional (Solar) BD   Power resources and problems with reference to Petroleum AB   Ontemporary Energy Crisis and Future Scenario AB   Unit 1: Soil: Definition, Factors of 60 AB					AD	
Image: Second					AB	1
Indian Context: Ironore, Bauxite   Indian Context: Ironore, Bauxite     Distribution and Utilisation of Non-Metallic Mineral Resource sin   BD     Indian Context: Mica, Limestone   Indian Context: Mica, Limestone     Distribution, Problems and Management of Energy Resource sin   BD     Indian Context: Conventional (Coal) and Non-Conventional (Coal) and Non-Conventional (Solar)   BD     Power resources and problems with reference to Petroleum   AB     Contemporary Energy Crisis and Future Scenario   AB     Sustainable Resource   AB     Distribution, Factors of   60   AB		Unit-II	Distribution and Utilisation of		BD	1
Bauxite   Bauxite     Distribution and Utilisation of Non-Metallic Mineral Resource sin   BD     Indian Context: Mica, Limestone   Indian Context: Mica, Limestone     Distribution, Problems and Management of Energy Resource sin   BD     Indian Context: Conventional (Coal) and Non-Conventional (Solar)   BD     Power resources and problems with reference to Petroleum   AB     Contemporary Energy Crisis and Future Scenario   AB     Development   Outit 1:   Soil: Definition, Factors of   60   AB   1 <sup>st</sup> Week of						
Image: Second state of the second s			-			
Image: Second					BD	-
Indian Context: Mica,   Indian Context: Mica,     Limestone   Distribution, Problems and     Distribution, Problems and   BD     Management of Energy   Resource sin     Indian Context: Conventional   (Coal) and Non-Conventional     (Solar)   Power resources and problems     Power resources and problems   AB     with reference to Petroleum   AB     Contemporary Energy Crisis   AB     and Future Scenario   AB     Sustainable Resource   AB     Development   It's' Week of					DD	
Limestone   BD     Distribution, Problems and   BD     Management of Energy   Resource sin     Indian Context: Conventional   Indian Context: Conventional     (Coal) and Non-Conventional   (Coal) and Non-Conventional     (Solar)   Power resources and problems     Power resource to Petroleum   AB     Contemporary Energy Crisis   AB     and Future Scenario   AB     Sustainable Resource   AB     Development   It Week of			sin			
Distribution, Problems and   BD     Management of Energy   BD     Resource sin   Indian Context: Conventional     (Coal) and Non-Conventional   (Coal) and Non-Conventional     (Solar)   Power resources and problems     Power resources and problems   AB     Contemporary Energy Crisis   AB     and Future Scenario   AB     Sustainable Resource   AB     Development   60   AB     Unit 1:   Soil: Definition, Factors of   60   AB			Indian Context: Mica,			
Management of Energy Resource sin   Indian Context: Conventional     Indian Context: Conventional   (Coal) and Non-Conventional     (Solar)   Power resources and problems with reference to Petroleum     Contemporary Energy Crisis and Future Scenario   AB     Sustainable Resource   AB     Development   60     Unit 1:   Soil: Definition, Factors of						
Resource sin   Indian Context: Conventional     Indian Context: Conventional   (Coal) and Non-Conventional     (Solar)   Power resources and problems     Power resources and problems   AB     With reference to Petroleum   AB     Contemporary Energy Crisis   AB     Sustainable Resource   AB     Development   AB     Unit 1:   Soil: Definition, Factors of					BD	
Indian Context: Conventional   Indian Context: Conventional     (Coal) and Non-Conventional   (Coal) and Non-Conventional     (Solar)   Power resources and problems     Power resources and problems   AB     Contemporary Energy Crisis   AB     and Future Scenario   AB     Sustainable Resource   AB     Development   60   AB						
Image: Construction of the second state of the second s						
(Solar)   Power resources and problems with reference to Petroleum   AB     Contemporary Energy Crisis and Future Scenario   AB     Sustainable Resource Development   AB     Unit 1:   Soil: Definition, Factors of   60   AB						
Power resources and problems with reference to Petroleum   AB     Contemporary Energy Crisis and Future Scenario   AB     Sustainable Resource Development   AB     Unit 1:   Soil: Definition, Factors of   60   AB						
with reference to Petroleum   AB     Contemporary Energy Crisis   AB     and Future Scenario   AB     Sustainable Resource   AB     Development   60     Unit 1:   Soil: Definition, Factors of   60			· · · · ·	-	AR	-
Contemporary Energy Crisis and Future Scenario AB   Sustainable Resource Development AB   Unit 1: Soil: Definition, Factors of 60 AB					AD	
and Future Scenario AB   Sustainable Resource AB   Development 60 AB   Unit 1: Soil: Definition, Factors of 60 AB				1	AB	1
Development Development   Unit 1: Soil: Definition, Factors of 60 AB 1 <sup>st</sup> Week of			and Future Scenario			
Unit 1:     Soil: Definition, Factors of     60     AB     1 <sup>st</sup> Week of					AB	
		TT		60	4.10	1st 33710
I I I I I I I I I I I I I I I I I I I			Soll: Definition, Factors of Formation	00	АВ	I <sup>st</sup> Week of May

DSE 4: SOIL AND BIO	Soil Geography	Development and Characteristics of an ideal Soil Profile	AB
GEOGRAPHY		Physical and Chemical Properties of Soil with special reference to	AB
		Texture, Structure, Organic	
		Carbon and pH	
		Concept of Zonal, A zonal and	AB
		Intra zonal Soil; Formation and Profile	
		Characteristics of Laterite and	
		Podsol	
		Classification of Soil: Russian	AB
		and Indian(ICAR)	AD
		Soil Degradation and	BD
		Management	
	Unit 2:Bio	Definition and Scope of Bio-	BD
	Geography	geography, Meaning of	
		Biosphere, Ecology, Ecosystem,	
		Environment, Communities,	
		Habitats, Niche, Ecotone and	
		Biotopes	
		Biosphere and Energy: Laws of	BD
		Energy Exchange, Food Chain,	
		Food Web and Energy Flow	
		Bio-Geo Chemical Cycle:	BD
		Carbon,Nitrogen	
		Factors of Plant Growth:	BD
		Light, Heat, Moisture, Wind,	
		Soil andTopography Biomes–Concept and	BD
		Classification; Tropical Rain	DD
		forest &Temperate Grassland	
		Threat to Biodiversity-Causes,	BD
		Consequences and Conservation	

AB- Ayan Banerjee

BD- Biswajit Dhara