KOLHAN UNIVERSITY, CHAIBASA

P.G. Department of Geography

Syllabus for

B.A.-I, B.A.-II & B.A.-III (Hons.), GE & Compulsory Papers based on CBCS Pattern

2017

MEMBERS OF COMMITTEE

1) Prof. (Dr.) E. Minz, PG Head, Department of Geography, K.U., Chaibasa
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20/9/17

SCHEME FOR CBCS IN B.A. HONS. PROGRAMME GEOGRAPHY

Semester	Courses	Paper	Marks (Credit)
I	CC-1	Introduction to Geography	70 (4)
	CC-2	Geo-Tectonic & Geomorphology	70 (4)
	CC (P)-1	Practical	60 (4)
	GE-1	Introduction of Geography	70 (4)
	GE (P)-1	Practical	30 (2)
	AECC-1	Eng. Communication / MIL Communication	50 (2)
II	CC-3	Contemporary issues in Geography	70 (4)
	CC-4	Human Geography	70 (4)
	CC (P)-2	Practical	60 (4)
	GE-2	Geomorphology	70 (4)
	GE (P)-2	Practical	30 (2)
	AECC-2	Environmental Science	50 (2)
III	CC-5	Climatology and Oceanography	70 (4)
	CC-6	Geography of India	70 (4)
	CC-7	Geography of Jharkhand	70 (4)
	CC (P)-3	Practical	90 (6)
	GE-3	India & Jharkhand	70 (4)
	GE (P)-3	Practical	30 (2)
	SEC-I	General Knowledge & Current Affairs	50 (2)
IV	CC-8	Economic Geography	70 (4)
	CC-9	Environmental Geography	70 (4)
	CC-10	Geography of Travel & Tourism	70 (4)
	CC (P)-4	Practical	90 (6)
	GE-4	Climatology and Oceanography	70 (4)
	GE (P)-4	Practical	30 (2)
	SEC-II	Personality Development	50 (2)

Semester	Courses	Paper	Marks (Credit)
V	CC-11	Geography of Asia	70 (4)
	CC-12	Northern Continents	70 (4)
	CC (P)-5	Practical	60 (4)
	DSE-1	Disaster Management	70 (4)
	DSE-2	Rural Development	70 (4)
	DSE (P)-1	Practical	60 (4)
VI	CC-13	Bio-Geography	70 (4)
	CC-14	Southern Continents	70 (4)
	CC (P)-6	Practical	60 (4)
	DSE-3	Climatic Change : Vulnerability & Adaptation	70 (4)
	DSE (P)-2	Practical	30 (2)
	DSE-4	Tour & Project	100 (6)

SCHEME FOR CBCS IN B.A. (HONS.) PROGRAMME (GEOGRAPHY)

FIRST SEMESTER – TOTAL 20 CREDITS

CORE COURSE – 1 (CC-1)

CORE-1 (Theory) **Introduction toGeography**

4 credits (Teaching 4 hours per week minimum 48 teaching hours)

F.M. 70

Module - 1 :

Nature and scope of Geography : Geography as a science; place of Geography in classification of Sciences, concept of space and concept of landscape (Regional cultural).

Module - 2 :

Geography in Ancient (Greek, Rome and India) and Medieval period; Development of Geography in Modern period (German school, French school) Contribution of Humboldt, Ritter, Ratzel, Blache and Hartshorne to Geography.

Module - 3 :

Methods and Technique in Geography - Quantitative, Behavioral, Radical, Humanistic and Environmental ; Remote sensing, GIS, GPS and computer cartography, Trends in Renaissance period.

Module - 4 :

Geographical knowledge and people - career in Geography, noted Indian Geographers who contributed to development of India, Man-environment Relationship.

CORE COURSE – 2 (CC-2)

CORE-2 (Theory) GEO-TECTONIC AND GEOMORPHOLOGY

4 credits (Teaching 4 hours per week and minimum 48 teaching hours)

F.M. - 70

Module - 1 : Geo-tectonics

Theories of origin of the earth ; Geological time scale and related topographic and structural evolution; Isostasy: theories of Airy and Pratt; folds and faults-origin, types and their topographic expressions; plate tectonics, earthquake and vulcanicity.

Module - 2 : Geomorphology

General degradation processes : processes of rock weathering and their effects on landform; fluvial processes and land forms; Glacial processes and landforms; fluvio-glacial landforms : Aeolian processes and landforms.

Module - 3 : Geomorphology and structure

Basic concepts of geomorphology : landforms on granite and basalt; land forms on limestone; development of river network and land forms on uniclinal and folded structures.

Module - 4 : Theories of geomorphology

Normal cycle of erosion by W.M. Davis; views of W. Penck on normal cycle of erosion; Cycle of pediplanation by L.C. King; dynamic equilibrium theory by J.T.Hack.

CORE COURSE (P)-1 [CC (P)-1]

PRACTICAL

4 Credits (Teaching 4 hours per week minimum 48 teaching hours) **F.M.60**

1) Hythergraph and climograph and their interpretation [10]

2) Weather maps of India (published by the Indian Meteorological Department for July and January), Interpretation of weather map. [10]

3) Methods of Data Collection & Sampling [10]

4) Statistical Methods : Mean, Median and Mode. [10]

5) Note Book + Regularity. [10]

6) Viva-Voce [10]

GENERIC ELECTIVE-1 (GE-1)

GE-1 (Theory) **Introduction toGeography**

4 credits (Teaching 4 hours per week minimum 48 teaching hours)

F.M. 70

Module - 1 :

Nature and scope of Geography : Geography as a science; place of Geography in classification of Sciences, concept of space and concept of landscape (Regional cultural).

Module - 2 :

Geography in Ancient (Greek, Rome and India) and Medieval period; Development of Geography in Modern period (German school, French school) Contribution of Humboldt, Ritter, Ratzel, Blache and Hartshorne to Geography.

Module - 3 :

Methods and Technique in Geography - Quantitative, Behavioral, Radical, Humanistic and Environmental ; Remote sensing, GIS, GPS and computer cartography, Trends in Renaissance period.

Module - 4 :

Geographical knowledge and people - career in Geography, noted Indian Geographers who contributed to development of India, Man-environment Relationship.

GENERIC ELECTIVE (P)-1 [GE (P)-1]

PRACTICAL

2 Credits (Teaching 2 hours per week minimum 24 teaching hours) **F.M.30**

1)	Hythergraph and Climographand their interpretation	[10]
2)	Statistical methods : Mean, Median and Mode.	[05]
3)	Note Book + Regularity	[10]
4)	Viva – Voce	[05]

SECOND SEMESTER – TOTAL 20 CREDITS

CORE COURSE – 3 (CC-3)

CORE-3 (Theory) **Contemporary issues in Geography**

4 Credits (teachings 4 hours per weeks and minimum 48 teaching hours). F.M. 70

Module 1 :

Introduction to contemporary issues in geography: Meaning and definition of contemporary issues; Nature of contemporary issues in geography ; Importance of study of contemporary issues in geography.

Module 2 :

Physical (geomorphic / climatic / oceanic / biological) issues :
causes and effects of

a) Landslides; Weathering; earthquakes;
b) Floods; draughts; cyclones; ozone depletion;
c) Tsunamis; EI Nino and La Nina; marine pollution;
d) Deforestation; forest fire; epidemics; watershed management.

Module 3 :

Human (population/ Economic/ Social)
causes and effects of

a) Over population; migration; Energy crisis;
b) Poverty; Regional disparity; Exploitation of resources
c) Terrorism; Conflicts due to race, religion and caste; HIV/AIDS; unemployment.

Module 4 :

Modern theme in Geography :

a) Applied geography, sustainable development.
b) Climate change, global warming - international efforts and response.
c) Basic indicators of human and gender development; social inequality as constraint of development.
d) Population growth, malnutrition, food security and hunger, morbidity and mortality.

CORE COURSE – 4 (CC-4)

CORE-4 (Theory) **Human Geography**

4 Credits(Teaching 4 hours per week and minimum 48 teaching hours)

F.M. 70

Module 1 :

Meaning , nature and scope of Human geography; Concept of Human geography; Man-Environment relationship; determinism, possiblism and neo-determinism.

Module 2 :

Evolution of man; Classification & characteristics of races and their broad distribution; Human adaptation to environment: Eskimo, Masai and Bushman; Primitive people of Jharkhand :Santhal, Oraon and Munda.

Module 3 :

Growth of population; Distribution of population; Major human agglomerations; Types of migration; Trends of Urbanization.

Module 4 :

Rural settlements : characteristics, types and regional pattern ; Urban settlements; evolution and classification; Rural houses in India : Types classification and regional pattern.

CORE COURSE (P)-2 [CC (P)-2]

PRACTICAL

4 Credits (Teaching 4 hours per week minimum 48 teaching hours) **F.M.60**

1) i) Construction of Scale : Simple, Diagonal and Comparative [10]
   ii) Simple Cartograms, Bar, Pie, Dot

2) Study of Topographical maps of India of Hilly and plain areas in respect of : [15]
   i) Relief
   ii) Drainage
   iii) Settlement
   iv) Communication Pattern

3) Climatic Diagram :- [15]
   i) Simple Wind Rose Diagram
   ii) Compound Wind Rose Diagram

4) Note Book + Regularity [10]

5) Viva-Voce [10]

GENERIC ELECTIVE-2 (GE-2)

GE-2 (Theory) **Geomorphology**

4 credits (Teaching 4 hours per week minimum 48 teaching hours) F.M. 70

Module - 1 : Geo-Tectonics

Theories of origin of the earth ; Geological time scale and related topographic and structural evolution ; Isostasy: theories of Airy and Pratt; folds and faults - origin, types and their topographic expressions; plate tectonics, earthquake and vulcanicity.

Module - 2 : Geomorphology

General degradation processes : processes of rock weathering and their effects on landform; fluvial processes and land forms; Glacial processes and landforms; fluvio-glacial landforms : Aeolian processes and landforms.

Module - 3 : Geomorphology and structure

Basic concepts of geomorphology : landforms on granite and basalt; land forms on limestone; development of river network and land forms on uniclinal and folded structures.

Module - 4 : Theories of geomorphology

Normal cycle of erosion by W.M. Davis; views of W. Penck on normal cycle of erosion; Cycle of pediplanation by L.C. King; dynamic equilibrium theory by J.T.Hack.

GENERIC ELECTIVE (P)-2 [GE (P)-2]

PRACTICAL

2 Credits (Teaching 2 hours per week minimum 24 teaching hours) **F.M. 30**

1) Simple Cartograms, Bar, Pie, Dot [05]

2) Study of Topographical maps of India of Hilly and plain areas in respect of : [10]

   i) Relief
   ii) Drainage
   iii) Settlement

3) Note Book + Regularity [10]

4) Viva – Voce [05]

THIRD SEMESTER – TOTAL 26 CREDITS

CORE COURSE – 5 (CC-5)

CORE-5 (Theory) **Climatology and Oceanography**

4 credits (teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1 :

Atmosphere – structure, composition; Insolation, Heat balance, inversion of temperature, Factors affecting the horizontal distribution of temperature atmospheric pressure - Vertical and horizontal distribution.

Module - 2 :

Wind - General circulation, planetary winds, Seasonal winds. Air masses, Fronts, jet stream, Koppen's climatic classification, Factors of climate change.

Module - 3 :

General distribution of land and sea, hypsographic curve, Zones of ocean bottom accounting to depth, continental slope, deep sea plain & ocean deeps.Bottom relief of atlantics & Indian oceans, horizontal & vertical distribution of temperature in ocean. oceanic routes.

Module - 4 :

Composition of sea water - salinity - horizontal distribution in open ocean, Enclosed & partially enclosed sea. Oceanic circulation, factors controlling oceanic circulation in Atlantic & Indian oceans.

Waves &tides : types of waves & tides, Ocean deposits; terrigenous& pelagic deposits, distribution; coral reefs.

CORE COURSE – 6 (CC-6)

CORE-6 (Theory) **Geography of India**

4 credits (teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1 :

India ; structure and physiography, drainage (peninsular and extra peninsular) Origin of Monsoon and climatic regions. Edaphic and biotic regions of India; Indian forests and their economics importance.

Module - 2 :

Agriculture system in India, cropping pattern, divide India into intensive agricultural regions (as per ICAR); green revolution and its consequences industries : cotton, sugar, mineral based; iron and steel, cement, industries, transport; surface, water and air.

Module - 3 :

Minerals : distribution of iron ore, bauxite, manganese, atomic minerals. power resource - coal, petroleum, wind energy in India.

Region of geography : Middle Ganga plain, Lower Ganga plain, Chhotanagpur plateau.

Module - 4 :

Studies of Geographical problems

problems of unreliability of rainfall; problem of soil erosion and its mitigation; problems of development (land acquisition), displacement and rehabilitation; problem of slum and urban rehabilitation in India.

CORE COURSE – 7 (CC-7)

CORE-7 (Theory) **Geography of Jharkhand**

4 Credits (teaching 4 hours per week and minimum 48 teaching hours). F.M.-70

Module -1:

Physiography and relief, drainage pattern, forest resources and its economic importance.

Module - 2 :

Agriculture : irrigation - types and distribution, major crops ;

Population : growth , distribution & density;

Population composition : age & sex ratio, rural-urban.

Module - 3 :

Resources : natural resource : soil, water, mineral resources : (coal, uranium) - distribution and development, conventional and non-conventional energy resources, major hydel power projects- thermal power plants.

Industries : Locational factor - Distribution of iron & Steel, Cement.

Module - 4 :

Educational development and structure of education in Jharkhand. House types of tribal villages in south Chhotanagpur.

Transport : roads and railways and development of tourism, eco-tourism in Jharkhand.

Economy and habitats of Santhal, Oraons.

social, economic and environmental problems of Jharkhand.

CORE COURSE (P)-3 [CC (P)-3]

PRACTICAL

6 Credits (Teaching 6 hours per week minimum 48 teaching hours) **F.M. 90**

1) History & Techniques of Cartography [10]

2) Map Projection : [20]

   i) Cylindrical equal – area and equidistance.
   ii) Zenithal Equal – Area and Equidistance
   iii) Conical projection with one and two standard parallels.

3) Instrumental Survey : [20]

   i) Plane Table Survey : Radiation and Intersection method.
   ii) Prismatic Compass Survey : Open and Close Traverse.

4) Lorenz Curve, Poly Linear Graph, Triangular Diagram [10]

5) Note Book +Regularity [15]

6) Viva-Voce [15]

GENERIC ELECTIVE-3 (GE-3)

(GE-3) India and Jharkhand

4 credits (teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1 :

India ; structure and physiography, drainage (peninsular and extra peninsular) Origin of Monsoon and climatic regions. Natural regions of India; Indian forests and their economics importance.

Module - 2 :

India : Minerals - distribution of iron ore, bauxite, manganese, atomic minerals. power resource - coal, petroleum, wind energy in India.

Regional geography : Middle Ganga plain, Lower Ganga plain, Chhotanagpur plateau.

Module - 3 :

Jharkhand : Physiography and relief, climate, drainage pattern, forest resources and its economic importance.

Module - 4 :

Jharkhand : Agriculture : - types and distribution ;

Population : distribution & density; Mineral resources, Iron & steel and cement industries. Economy and habitat of Santhal&Oraon .

GENERIC ELECTIVE (P)-3 [GE (P)-3]

PRACTICAL

2 Credits (Teaching 2 hours per week minimum 24 teaching hours) **F.M. 30**

1) Map Projection : [10]

   i) Cylindrical equal – area and equidistance.
   ii) Zenithal Equal – Area and Equidistance
   iii) Conical projection with one and two standard parallels.

2) Method of Data Collection [05]

3) Note Book + Regularity [10]

4) Viva – Voce [05]

FOURTH SEMESTER – TOTAL 26 CREDITS

CORE COURSE – 8 (CC-8)

CORE-8 (Theory) **Economic Geography**

4 credits (teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1 :

Meaning and approaching to economic geography; main concept of economic geography; resources : Concept and classification; resource conservation.

Module - 2 :

Natural resources : soil, forest and water; mineral resources: iron ore and bauxite; power resources: coal and petroleum ; principal crops : wheat, rice and cotton.

Module - 3 :

Agricultural regions of the world (whittlesey); theory of agriculture location (von thunen); Theory of industrial location (weber); major industries: iron and steel, and cotton textiles.

Module - 4 :

World transportation : Major trans-continental railways and sea routes; WTO and international trades; patterns and trends; major trade blocks : ECC, ASEAN; Effect of globalization on development of countries.

CORE COURSE – 9 (CC-9)

CORE-9 (Theory) **Environmental Geography**

4 credits (teaching 4 hour per week and minimum 48 teaching hours) **F.M. 70**

Module - 1 :

definition and scope of environmental geography; meaning and components of environment.

Module - 2 :

Ecology, Eco-system and soil system :

i) Definition and scope of ecology.
ii) Meaning, types structure, components and functioning of eco-system.
iii) Meaning and components of soil system.

Module - 3 :

Environmental degradation and pollution.

i) Meaning and causes of environmental degradation.
ii) Meaning, sources and causes of air and water pollution.

Module - 4 :

Environmental issues

i) Depletion of ozone layer, ecological significance of ozone, protection of ozone layer.
ii) Acid rain - causes and effects.
iii) A detailed account of the concept of global warming, environmental programmes and policies - global, national and local levels.

CORE COURSE – 10 (CC-10)

CORE-10 (Theory) **Geography of Travel and Tourism**

4 credits (teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1 :

Nature and scope : definition and nature; scope and extent ; concept of tourism - factors affecting tourism development- physical & cultural.

Module - 2 :

Classification of tourism :

(A) National, International, Domestic.
(B) Time of travel - long haul, holiday tourists, day trippers.
(C) Travel distance : global, continental, regional and local.
(D) Number of tourists - individual, groups.
(E) Purpose - Recreation, heritage, nature, religious, health, sports.

Role of accommodation in tourism :
Accommodation types –

1) Hotels, motels, inn, Saraies, dharamshala.
2) Govt. accommodation, tourism homes.
3) Youth hostels, cottages, tents, caravans.
4) Rail yatribhavan, house boats.
5) Private accommodation and unrecognized accommodations.

Module - 3 :

Role of transportation in tourism :

(A) Mode of transportation - air, road, rail, waterways.
(B) Agencies and guides –
    1) World organization, national organizations.
    2) Private agencies - national, international.
    3) Role of guides in tourism.
    4) Licensing and reorganization of guides.
    5) Training programme of guides.

Impact of tourism : (A) economic impact (B) physical and environmental impacts (C) socio-culture impacts.

Module - 4 :

Development and planning :

(A) Levels of planning : international level planning, national level planning, Regional and local planning.
(B) Tourism Planning in India
    a) Development of tourism in India and Jharkhand
    b) Tourism policies of India and Jharkhand.

Evaluations of potentials and tourism : Potential and Tourism Assessment of region's ability to attract tourists

(a) Physical factors
(b) Cultural factors
(c) Social factors
(d) Economic Factors
(e) Political factors.

Case studies of major tourist centers of Jharkhand (at least four major tourist centers).

CORE COURSE (P)-4 [CC (P)-4]

PRACTICAL

6 Credits (Teaching 6 hours per week minimum 48 teaching hours) F.M. 90

1) Types of Cartographic symbols and their uses : [15]

   i) Points (dots, proportional, circles and spheres).

   ii) Line – Isopleths

   iii) Aread – Choropleth Representing population, agriculture, industry and transport data representing of population (distribution, density,growth); land use and cropping pattern.

2) Statistical Method : [15]

   i) Quartiles, Deciles, Percentiles
   ii) Measures of dispersion or variation : Mean deviation, Standard deviation.

3) Excursion within the state for the study of natural resources & their utilization. [30]

4) Note Book +Regularity [15]

5) Viva-Voce [15]

GENERIC ELECTIVE-4 (GE-4)

GE- 4 (Theory) **Climatology and Oceanography**

4 credits(teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1 :

Atmosphere - structure, composition; Insolation, Heat balance, inversion of temperature, Factors affecting the horizontal distribution of temperature atmospheric pressure - Vertical and horizontal distribution.

Module - 2 :

Wind - General circulation, planetary winds, Seasonal winds. Air masses, Fronts, jet stream, Koppen's climatic classification, Factors of climate change.

Module - 3 :

General distribution of land and sea, hypsographic curve, Zones of ocean bottom accounting to depth, continental slope, deep sea plain & ocean deeps.

Bottom relief of atlantics & Indian oceans, horizontal & vertical distribution of temperature in ocean. oceanic routes.

Module - 4 :

Composition of sea water - salinity - horizontal distribution in open ocean, Enclosed & partially enclosed sea. oceanic circulation, factors controlling oceanic circulation in Atlantic & Indian oceans.

Waves &tides : types of waves & tides, Ocean deposits; terrigenous& pelagic deposits, distribution; coral reefs.

GENERIC ELECTIVE (P)-4 [GE (P)-4]

PRACTICAL

2 Credits (Teaching 2 hours per week minimum 24 teaching hours) **F.M. 30**

1) Types of Cartographic symbols and their uses : [10]

   i) Points (dots, proportional, circles and spheres).

   ii) Aread – Choropleth Representing population, agriculture, industry and transport data representing of population (distribution, density, growth); land use and cropping pattern.

2) Statistical Method : [05]

   i) Quartiles, Deciles, Percentiles
   ii) Measures of dispersion or variation : Mean deviation, Standard deviation.]

3) Note Book + Regularity [10]

4) Viva – Voce [05]

FIFTH SEMESTER – TOTAL 24 CREDITS

CORE COURSE – 11 (CC-11)

CORE-11 (Theory) **Geography of Asia**

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M.70

Module - 1 :

Meaning and approaching to economic geography; main concept of economic geography; resources : Concept and classification; resource conservation.

Module - 2 :

Natural resources : soil, forest and water; mineral resources: iron ore and bauxite; power resources: coal and petroleum ; principal crops : wheat, rice and cotton.

Module - 3 :

Agricultural regions of the world (whittlesey); theory of agriculture location (von thunen); Theory of industrial location (weber); major industries: iron and steel, and cotton textiles.

Module - 4 :

World transportation : Major trans-continental railways and sea routes; WTO and international trades; patterns and trends; major trade blocks : ECC, ASEAN; Effect of globalization on development of countries.

CORE COURSE – 12 (CC-12)

CORE-12 (Theory) **Northern Continents**

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module-1

North America : Relief of North America, Natural Vegetation, Population of North America, Cotton Textile Industry and Iron-Steel Industry.

Module-2

Europe : Physiographic division of Europe, Climate, Demographic pattern of Europe, Industrial Development and regions, Inland waterways of Europe.

Module-3

Industrial region of Japan, Fruit Cultivation around Mediterranean Sea, Trans-Siberian Railway, Panama Canal Route, Suez Canal Route.

Module-4

Location of Iron and steel industry in U.S.A. and U.K., wheat belt of Columbia basin, coal resources of Europe, Regional study of New England region & British Island.

CORE COURSE (P)-5 [CC (P)-5]

PRACTICAL

4 Credits (Teaching 4 hours per week minimum 48 teaching hours) **F.M.60**

1) Map Projection : [20]

   i) Sinusoidal – Simple and Interrupted
   ii) Conical : Polyconic and Bonne's
   iii) Cylindrical – Gall's and Mercators.

2) Construction of Geological Cross Section of simple geological maps and their interpretation. [10]

3) Drawing of profiles : Simple&Superimposed [10]

4) Note Book +Regularity [10]

5) Viva-Voce [10]

DISCIPLINE SPECIFIC ELECTIVE - 1 (DSE - 1)

THEORY **Disaster Management**

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1:

Disasters : definition and concepts : hazards, disasters, risk and vulnerability; classification.

Module - 2 :

Disaster in India : (A) flood : causes, impact, distribution and mapping; landslide : causes, impact, distribution and mapping; Drought : causes, impact, distribution and mapping.

Module - 3 :

Disaster in India : (B) earthquake and tsunami : causes, impact, distribution and mapping; Cyclone : causes, impact, distribution and mapping; Manmade disasters : causes, impact, distribution and mapping.

Module - 4:

Response and mitigation to disasters : mitigation and preparedness, NDMA and NIDM; indigenous knowledge and community - based disaster management; do's and don'ts during disasters.

DISCIPLINE SPECIFIC ELECTIVE -2 (DSE - 2)

THEORY **Rural Development**

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1 :

Defining development : Inter - dependence of urban and rural sectors of the economy, need for rural development, Ghandhian concept rural development.

Module - 2 :

Rural economic base : agriculture and allied sectors, seasonality and need for expanding non-farm activates.

Module - 3 :

Area based approach to rural development : drought prone area programmes, PMGSY.

Module - 4 :

Target group approach to rural development : SJSY (Integrated rural development programme). provision of services physical and socio-economic access to elementary education and primary health care and micro credit.

DISCIPLINE SPECIFIC ELECTIVE (P)-1 [DSE (P)-1]

PRACTICAL

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M. 60

1) Project work / report on relevant topics pertaining to disaster management, preferable on any major disaster in the world (natural or manmade). [20]

2) Project work / report on relevant topics pertaining to rural development in India, preferable, on any flagship programme of the government of India or the state government (Jharkhand). [20]

3) Note Book + Regularity [10]

4) Viva-Voce [10]

SIXTH SEMESTER – TOTAL 24 CREDITS

CORE COURSE – 13 (CC-13)

CORE-13 (Theory) **Bio Geography**

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M.70

Module - 1 :

Definition, scope & importance of Bio Geography relation with other sciences, development of Bio Geography – view of different Geographers; Hydrological cycle

Module - 2 :

Ecology and Ecosystem; Energy flow in Ecosystem: Ecological factors of the land and their effects on plants animals; Dispersal of plants and animals. Bio-geochemical cycles.

Module - 3 :

Concepts of Biomes, Ecotone and community, Forest Biomes, Grassland Biomes, Desert Biomes, National Parks and Sanctuaries in India and Jharkhand.

Module - 4 :

Climate as determinant of Bio-Resources; Biodiversity-degradation and sustainable conservation; Factors of soil formation**, F**actors of soil erosion and its conservation. Present status of soil in India, Development and management of barren lands in India.

CORE COURSE – 14 (CC-14)

CORE-14 (Theory) **Southern Continents**

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M.70

Module - 1 :

South America: Physiography, Agriculture and Demographic set-up and regional studies of brazil.

Module - 2 :

Australia and New Zealand: General account of the Physiography, Diary farming and Demographic set-up, detailed regional study of New Zealand.

Module - 3 :

Africa: Physiography, Agriculture, grasslands(Savanna), and desert environment, Regional account of Egypt.

Module - 4 :

Geographical account of Argentina, South Africa, Social and cultural aspects of Bushman, Hotentot, Maori and Bora.

CORE COURSE (P)-6 [CC (P)-6]

PRACTICAL

4 Credits (Teaching 4 hours per week minimum 48 teaching hours) **F.M. 60**

1) i) Scatter diagram [10]
   ii) Correlation and Regression analysis.
   Iii) Application of G.I.S., Remote Sensing and Air-photography.

2) Instrumental Survey : [20]

   i) Dumpy Level Survey
   ii) Indian Clinometer

3) Drawing of profiles : Composite & projected. [10]

4) Note Book + Regularity [10]

5) Viva-Voce [10]

DISCIPLINE SPECIFIC ELECTIVE -3 (DSE - 3)

THEORY **Climatic Change : Vulnerability & Adaptation**

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M.: 70

Module - 1 :
Science of climate change : Understanding climate change; Green house effect and Global warming, global climatic assessment - IPCC.

Module - 2 :
Climate change and vulnerability: physical vulnerability, economic vulnerability, Social vulnerability.

Module - 3 :
Impact of climate change : Agriculture and water; Flora and Fauna; Human Health.

Module - 4:
Adaptation and mitigation : Global initiatives with particular reference to south Asia; National Action plan on climate change; Local institution (Urban local bodies, Panchayats).

DISCIPLINE SPECIFIC ELECTIVE (P)-2 [DSE (P)-2]

PRACTICAL

2 Credits (Teaching 2 hours per week and minimum 24 teaching hours) F.M. 30

1) Project work/ report on relevant topics pertaining to climate change and efforts to tackle it, preferably on any major climate change issue. [15]

2) Note Book + Regularity [10]

3) Viva – Voce [05]

DISCIPLINE SPECIFIC ELECTIVE – 4 (DSE - 4)

TOUR & PROJECT

F.M. : 100

GROUP – A

Geographical Excursion of any part of India & preparation of environmental report of visited area. The study should include the characteristics of land form, climate, drainage, land use, economic activities, settlements. **[40]**

GROUP – B

Socio-Economic Survey in and around your city / town (Topic allotted by the Department of Geography) **[30]**

Project Report + Viva-Voce **[30]**

SCHEME FOR CBCS IN B.A. (PASS) PROGRAMME
GEOGRAPHY

Semester	Courses	Paper	Marks (Credit)
I	DSC-1A/2A	Geogmorphology	70 (4)
	DSC (P)-1A/2A	Practical	30 (2)
II	DSC-1B/2B	India and Jharkhand	70 (4)
	DSC (P)-1B/2B	Practical	30 (2)
III	DSC-1C/2C	Resource and Economic Geography	70 (4)
	DSC (P)-1C/2C	Practical	30 (2)
IV	DSC-1D/2D	Geography of Asia	70 (4)
	DSC (P)-1D/2D	Practical	30 (2)
V	DSE-1A/2A	Disaster Management	70 (4)
	DSE (P)-1A/2A	Practical	30 (2)
	GE-1	Climatology and Oceanography	70 (4)
	GE (P)-1	Practical	30 (2)
VI	DSE-1B/2B	Rural Development	70 (4)
	DSE (P)-1B/2B	Practical	30 (2)
	GE-2	Human Geography	70 (4)
	GE (P)-2	Practical	30 (2)

SCHEME FOR CBCS IN UNDERGRADUATE B.A. PROGRAMME
GEOGRAPHY

FIRST SEMESTER

(DSC–1A/2A) Geomorphology

THEORY – 4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) **F.M. - 70**

Module - 1 : Geo-Tectonics

Theories of origin of the earth ; Geological time scale and related topographic and structural evolution ; Isostasy: theories of Airy and Pratt; folds and faults - origin, types and their topographic expressions; plate tectonics, earthquake and vulcanicity.

Module - 2 : Geomorphology

General degradation processes : processes of rock weathering and their effects on landform; fluvial processes and land forms; Glacial processes and landforms; fluvio-glacial landforms : Aeolian processes and landforms.

Module - 3 : Geomorphology and structure

Basic concepts of geomorphology : landforms on granite and basalt; land forms on limestone; development of river network and land forms on uniclinal and folded structures.

Module - 4 : Theories of geomorphology

Normal cycle of erosion by W.M. Davis; views of W. Penck on normal cycle of erosion; Cycle of pediplanation by L.C. King; dynamic equilibrium theory by J.T. Hack.

[DSC (P)–1A/2A]

PRACTICAL

2 credits (teaching 2 hours per week and minimum 24 teaching hours) F.M. 30

1)	Hythergraph and Climograph and their interpretation	[10]
2)	Statistical methods : Mean, Median and Mode.	[05]
3)	Note Book + Regularity	[10]
4)	Viva – Voce	[05]

SECOND SEMESTER

(DSC-1B/2B) India and Jharkhand

THEORY – 4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) **F.M. - 70**

Module - 1 :

India ; structure and physiography, drainage (peninsular and extra peninsular) Origin of Monsoon and climatic regions. Natural regions of India ; Indian forests and their economics importance.

Module - 2 :

India : Minerals - distribution of iron ore, bauxite, manganese, atomic minerals. power resource - coal, petroleum, wind energy in India.

Regional geography : Middle Ganga plain, Lower Ganga plain, Chhotanagpur plateau.

Module - 3 :

Jharkhand : Physiography and relief, climate, drainage pattern, forest resources and its economic importance.

Module - 4 :

Jharkhand : Agriculture : - types and distribution ;

Population : distribution & density; Mineral resources, Iron & steel and cement industries. Economy and habitat of santhal&Oraon .

[DSC (P) –1B/2B]

PRACTICAL

2Credits(teaching 2 hours per week and minimum 24 teaching hours) **F.M.30**

1) Simple Cartograms, Bar, Pie, Dot [05]

2) Study of Topographical maps of India of Hilly and plain areas in respect of : [10]

   i) Relief
   ii) Drainage
   iii) Settlement

3) Note Book + Regularity [10]

4) Viva – Voce [05]

THIRD SEMESTER

(DSC-1C/2C) Resource and Economic Geography

THEORY – 4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) **F.M. - 70**

Module - 1 :

Meaning and approaching to economic geography; main concept of economic geography; resources : Concept and classification; resource conservation.

Module - 2 :

Natural resources : soil, forest and water; mineral resources: iron ore and bauxite; power resources: coal and petroleum ; principal crops : wheat, rice and cotton.

Module - 3 :

Agricultural regions of the world (whittlesey); theory of agriculture location (von thunen); Theory of industrial location (weber); major industries: iron and steel, and cotton textiles.

Module - 4 :

World transportation : Major trans-continental railways and sea routes; WTO and international trades; patterns and trends; major trade blocks : ECC, ASEAN; Effect of globalization on development of countries.

[DSC (P) – 1C/2C)]

PRACTICAL

2Credits(teaching 2 hours per week and minimum 24 teaching hours) **F.M. 30**

1) Map Projection : [10]

   i) Cylindrical equal – area and equidistance.
   ii) Zenithal Equal – Area and Equidistance
   iii) Conical projection with one and two standard parallels.

2) Method of Data Collection [05]

3) Note Book + Regularity [10]

4) Viva – Voce [05]

FOURTH SEMESTER

(DSC-1D/2D) Geography of Asia

THEORY – 4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) **F.M. - 70**

Module - 1 :

Meaning and approaching to economic geography; main concept of economic geography; resources : Concept and classification; resource conservation.

Module - 2 :

Natural resources : soil, forest and water; mineral resources: iron ore and bauxite; power resources: coal and petroleum ; principal crops : wheat, rice and cotton.

Module - 3 :

Agricultural regions of the world (whittlesey); theory of agriculture location (von thunen); Theory of industrial location (weber); major industries: iron and steel, and cotton textiles.

Module - 4 :

World transportation : Major trans-continental railways and sea routes; WTO and international trades; patterns and trends; major trade blocks : ECC, ASEAN; Effect of globalization on development of countries.

[DSC (P) – 1D/2D)]

PRACTICAL

2Credits(teaching 2 hours per week and minimum 24 teaching hours) **F.M.-30**

1) Types of Cartographic symbols and their uses : [10]

   i) Points (dots, proportional, circles and spheres).

   ii) Aread – Choropleth Representing population, agriculture, industry and transport data representing of population (distribution, density, growth); land use and cropping pattern.

2) Statistical Method : [05]

   i) Quartiles, Deciles, Percentiles
   ii) Measures of dispersion or variation : Mean deviation, Standard deviation.]

3) Note Book + Regularity [10]

4) Viva – Voce [05]

FIFTH SEMESTER

DISCIPLINE SPECIFIC ELECTIVE - 1A/2A (DSE – 1A/2A)

THEORY **Disaster Management**

4 Credits (Teaching 4 hours per week and minimum 48 teaching hours) F.M.70

Module - 1:

Disasters : definition and concepts : hazards, disasters, risk and vulnerability; classification.

Module - 2 :

Disaster in India : (A) flood : causes, impact, distribution and mapping; landslide : causes, impact, distribution and mapping; Drought : causes, impact, distribution and mapping.

Module - 3 :

Disaster in India : (B) earthquake and tsunami : causes, impact, distribution and mapping; Cyclone : causes, impact, distribution and mapping; Manmade disasters : causes, impact, distribution and mapping.

Module - 4:

Response and mitigation to disasters : mitigation and preparedness, NDMA and NIDM; indigenous knowledge and community - based disaster management; do's and don'ts during disasters.

DISCIPLINE SPECIFIC ELECTIVE (P)-1A/2A [DSE (P)–1A/2A]

PRACTICAL

2 credits (teaching 2 hours per week and minimum 24 teaching hours) F.M. 30

1) Project work / report on relevant topics pertaining to disaster management, preferable on any major disaster in the world (natural or manmade). [15]

2) Project File + Regularity [10]

3) Viva – Voce [05]

GENERIC ELECTIVE – 1 (GE-1)

GE-1 (THEORY) **Climatology and Oceanography**

4 credits (teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module - 1 :

Atmosphere – structure, composition; Insolation, Heat balance, inversion of temperature, Factors affecting the horizontal distribution of temperature atmospheric pressure - Vertical and horizontal distribution.

Module - 2 :

Wind - General circulation, planetary winds, Seasonal winds. Air masses, Fronts, jet stream, Koppen's climatic classification, Factors of climate change.

Module - 3 :

General distribution of land and sea, hypsographic curve, Zones of ocean bottom accounting to depth, continental slope, deep sea plain & ocean deeps. Bottom relief of atlantics & Indian oceans, horizontal & vertical distribution of temperature in ocean. oceanic routes.

Module - 4 :

Composition of sea water - salinity - horizontal distribution in open ocean, Enclosed & partially enclosed sea. Oceanic circulation, factors controlling oceanic circulation in Atlantic & Indian oceans.

Waves &tides : types of waves & tides, Ocean deposits; terrigenous& pelagic deposits, distribution; coral reefs.

GENERIC ELECTIVE (P) – 1 (GE (P)-1)

PRACTICAL

2Credits(teaching 2 hours per week and minimum 24 teaching hours) **F.M. 30**

1. Socio-Economic Survey in and around your City / Town. (Topic allotted by the department of geography) [15]
2. Project Work + Regularity [10]
3. Viva – Voce [05]

SIXTH SEMESTER

DISCIPLINE SPECIFIC ELECTIVE -1B/2B (DSE –1B/2B)

THEORY **Rural Development**

4 credits (teaching 4 hours per week and minimum 48 teaching hours) F.M. – 70

Module - 1 :

Defining development : Inter - dependence of urban and rural sectors of the economy, need for rural development, Ghandhian concept rural development.

Module - 2 :

Rural economic base : agriculture and allied sectors, seasonality and need for expanding non-farm activates.

Module - 3 :

Area based approach to rural development : drought prone area programmes, PMGSY.

Module - 4 :

Target group approach to rural development : SJSY (Integrated rural development programme). Provision of services physical and socio-economic access to elementary education and primary health care and micro credit.

DISCIPLINE SPECIFIC ELECTIVE (P)-1B/2B (DSE (P)–1B/2B)

PRACTICAL

2 Credits (teaching 2 hours per week and minimum 24 teaching hours) **F.M. 30**

1) Project work / report on relevant topics pertaining to rural development in India, preferable, on any flagship programme of the government of India or the state government (Jharkhand). [15]

2) Project File + Regularity [10]

3) Viva – Voce [05]

GENERIC ELECTIVE – 2 (GE-2)

GE-2 (THEORY) **Human Geography**

4 Credits(Teaching 4 hours per week and minimum 48 teaching hours) F.M. 70

Module 1 :

Meaning , nature and scope of Human geography; Concept of Human geography; Man-Environment relationship; determinism, possiblism and neo-determinism.

Module 2 :

Evolution of man; Classification & characteristics of races and their broad distribution; Human adaptation to environment: Eskimo, Masai and Bushman; Primitive people of Jharkhand :Santhal, Oraon and Munda.

Module 3 :

Growth of population; Distribution of population; Major human agglomerations; Types of migration; Trends of Urbanization.

Module 4 :

Rural settlements : characteristics, types and regional pattern ; Urban settlements; evolution and classification; Rural houses in India : Types classification and regional pattern.

GENERIC ELECTIVE (P) – 2 [GE (P)-2]

PRACTICAL

2 Credits(Teaching 2 hours per week and minimum 24 teaching hours) F.M. 30

1. Map Projection : [10]

   i) Conical – Polyconic and Bonne's
   ii) Cylindrical – Gall's and Mercators

2) i) Scatter Diagram [05]
   ii) Drawing of Profiles : Simple & Superimposed

3) Note Book + Regularity [10]

4) Viva – Voce [05]