

University of Kalyani

B.A. /B.Sc. (Honours) Course in Geography (Revised Syllabus)

(W.e.f. from the Academic Session 2016-2017)

Part- I (Honours) (Full Marks: 200)

Paper	Group	Marks	Full Marks
Paper I: Physical Geography	Group - A: Geotectonics	35	75
	Group – B: Geomorphology	40	
Paper II: Soil and Biogeography	Group – A: Soil Geography	35	75
	Group –B: Biogeography	40	
Paper III: Practical	Group – A: Scale	10	50
	Group – B: Cartograms	10	
	Group – C: Geological Maps	14	
	Group – D: Rocks and Minerals	6	
	Group –E: Laboratory Note Book and Viva Voce	10	

**Part- II (Honours)
(To be published later)**

**Part- III (Honours)
(To be published later)**

(Figures in the bracket represent number of Lectures)

PART- I**200 Marks****Paper – I: Physical Geography** (No. of Lectures – 90)**75 Marks****Group – A: Geotectonics** (No. of lectures – 40)**35 Marks**

1. Origin of the Earth & Universe: Kant, P.L.Laplace, Otto Schmidt, G.Kuiper, Stephen Hawking (08)
2. Geological Time Scale (04)
3. Concepts of Isostasy: Airy, Pratt, Daly, Hayford and Vening Meinesz (05)
4. Continental Drift Theory; Sea Floor Spreading; Plate Tectonic Theory (08)
5. Earthquake and Vulcanicity (08)
6. Epeirogenic and Orogenic Movements – Folds and Faults. (07)

Group – B: Geomorphology (No. of lectures – 50)**40 Marks**

1. Scope, content and development of Geomorphology (06)
2. Influence of lithology on landforms (06)
3. Landform Evolution in Uniclinal, Folded and Faulted structure. (08)
4. Types of weathering and its resultant landforms; Processes of mass wasting (08)
5. Cyclic and non cyclic concepts of landscape evolution: Davis, Penck, King and Hack (11)
6. Evolution of landforms under Fluvial, Glacial, Aeolian, Marine and Karst processes (11)

Paper – II: Soil and Biogeography (No. of Lectures –90)**75 Marks****Group – A: Soil Geography** (No. of lectures –40)**35 Marks**

1. Soil: Definition, composition, processes and factors of formation (06)
2. Concept of zonal, azonal and intrazonal soils; concept of Soil Taxonomy (06)
3. Profile development: Podzols. Chernozems and Laterites (06)
4. Physical and chemical properties of soil: Texture, Structure, Moisture, Colour, Soil Reaction and Organic matter (12)
5. Soil erosion: types and factors; measures of soil conservation (10)

Group –B: Biogeography (No. of lectures- 50)**40 Marks**

1. Definition of biosphere and biogeography; Meaning of Ecology, Ecosystem, Environment, Ecotone, Communities, Habitat, Niche, Biotopes and Biomes (08)
2. Trophic structure, food chain and food web and Energy flow in ecosystems (06)
3. Factors of Plant Ecology: Light, Heat, Moisture, Wind and Topography (06)
4. Bio-geochemical cycles: Carbon and Nitrogen (06)
5. Study of Biomes; Tropical Rainforest, Tropical Grassland, Tropical Desert, Boreal and Temperate Grasslands (16)
6. Biodiversity and its importance (08)

Paper – III: Practical

50 Marks

Group – A: Scale

10 Marks

1. Scales: Linear, Comparative, Vernier and Diagonal scales
2. Enlargement and reduction of scale

Group – B: Cartograms

10 Marks

1. Proportional Diagrams: Circles; Pie; Square; Dot and Sphere
2. Taylor's Climograph; Hythergraph; Wind Rose Diagram
3. Flow Diagram

Group – C: Geological Maps

14 Marks

Interpretation of geological maps and drawing of sections:
Horizontal, Uniclinal, Faults and Folds

Group – D: Rocks and Minerals

6 Marks

Megascopic identification of Rocks & minerals

1. Rocks:

Granite, Basalt, Dolerite, Shale, Sandstone, Limestone, Conglomerate, Laterite, Slate, Phyllite, Schist, Marble, Quartzite and Gneiss

2. Minerals:

Talc, Gypsum, Calcite, Mica, Feldspar, Quartz, Chalcopryrite, Hematite, Magnetite, Bauxite, Galena

Group –E: Laboratory Note Book and Viva Voce

(5+5) = 10 Marks

University of Kalyani

B.A. /B.Sc. (General) Course in Geography (Revised Syllabus)

(W.e.f. the session 2016-2017)

Part-I (General) (Full Marks: 100)

Paper	Group	Marks	Full Marks
Paper I: Physical Geography	Group - A: Geotectonics and Geomorphology	40	100
	Group – B: Climatology	30	
	Group – C: Soil and Biogeography	30	

**Part- II (General)
(To be published later)**

**Part- III (General)
(To be published later)**

(Figures in the bracket represent number of Lectures)

PART- I**100 Marks****Paper – I: Physical Geography (No. of lecturers-125)****100 Marks****Group – A: Geotectonics and Geomorphology (No. of lectures-45)****40 Marks**

1. Interior structure of the earth (04)
2. Influence of rocks on topography (05)
3. Continental Drift theory; Plate Tectonic theory (08)
4. Earthquake and Vulcanicity (10)
4. Evolution of landforms under Fluvial, Marine and Aeolian processes (10)
5. Cycle of erosion (after Davis and Penck) (08)

Group- B: Climatology (No. of lectures – 40)**30 Marks**

1. Insolation and Heat Budget (05)
2. Horizontal and Vertical distribution of temperature and pressure (07)
3. Greenhouse effect and global warming (06)
4. Tropical disturbances: Thunderstorm and Cyclone (06)
5. Temperate Cyclones (05)
5. Monsoon mechanism (07)
6. Climatic classification after Koppen (04)

Group – C: Soil and Biogeography (No. of lectures – 40)**30 Marks**

1. Definition of soil; soil composition; soil forming factors (04)
2. Processes of Profile development (06)
3. Properties of soil: Physical and Chemical (06)
4. Concept of Zonal, Azonal and Intrazonal soils (06)
5. Concepts of Ecosystems and Biomes (04)
6. Plant types and distribution (Halophyte, Xerophyte, Hydrophyte, Mesophyte, and Tropophyte) (06)
7. Biomes: Tropical rainforest, Savannah, Temperate grasslands, Hot desert (08)