Geography

Grade XI

Full Marks: 100 (75T +25P)
Teaching Hours: 150

I. Introduction

This course has been designed to familarise the students with the study of physical Geography. It also seeks to develop in them the knowledge and skills of Geographic Information System (GIS) and Remote Sensing (RS), cartography and surveying. This is a theory-cum-practical course. The Theory part (physical Geography) carries 75 marks and practical portion (Practical Geography) 25 marks. Students are required to pass both the portions separately.

II. General Objectives

Upon completion of this course, the students will be able to:

a. Explain the terms and concepts related to physical geography.
b. Describe the structure, composition and distribution of important features of the earth; and
c. Understand basic concept of Geographic Information System (GIS) and Remote Sensing (RS) and use the basic skills of reading and drawing maps

III. Specific Objectives

Upon completion of this course, the students will be able to:

1. Describe the scope and importance of physical geography:
2. Identify and describe the constituents of different layers of earth's interiors:
3. Classify rocks into major types and describe their process of formation:
4. Explain the processes involved in the formation of major landforms of the earth:
5. Explain the causes and effects of indogenetic and exogenetic forces that bring changes on the earth's surface:
6. Point out and describe the landforms associated with river and glacial action:
7. Explain the elements and factors of climate:
8. Describe the distribution and characteristics of major types of world climates:
9. Classify the soil and natural vegetation of the world into major types and describe their world distribution:
10. Describe various types of hazards with their causes and consequences:
11. Define the concept and explain the use of Geographic Information System (GIS) and Remote Sensing (RS) in geographical analysis:
12. Explain silent features of map and its elements:
13. Construct geographical scale with primary and secondary divisions:
14. Draw the profiles from the given contours:
15. Identify and draw important conventional signs used on toposheets

Course Contents:

Units	Chapters	Teaching Hours
1.	Introduction to Physical Geography	6
2.	Landforms	48
3.	Climate	30
4.	Soil	9
5.	Natural Vegetation	10
6.	Hazards and Disaster	12
7.	Maps and its Elements	22
8.	Geographic Information System (GIS) and Remote Sensing (RS)	7
9.	Surveying	6
	Total	150

IV. Course Content in detail

Part I Physical Geography (Theory)

Unit 1 Introduction to Physical Geography

1.1 Definition and major branches of Geography
1.2 Scope and importance of physical Geography
1.3 Geography as a interdisciplinary subject

Unit 2 Landforms

2.1 Structure of the earth: Lithosphere, Pyrosphere and Barysphere

2.2 Rocks: Classification and Characteristics

2.3 Major Landforms : Processes involved in the formation of Mountain, Plain and Plateau

2.4 Earth movements:

2.4.1 Volcanism- causes, types and distribution

2.4.2 Earthquakes- causes, effects and distribution

2.5 Denudation:

2.5.1 weatheing,- Physical, chemical and biological weathering

2.5.2 Erosion- Introduction to cycle of erosion

2.6 River Processes and associated landforms:

2.6.1 Consequent, subsequent, resequent and obsequent river; antecedent and superimposed drainage

2.6.2 Stage and Landforms

2.7 Glaical Processes and associated landforms

2.7.1 Meaning and types of glacier- Mountain, and continental glacier

2.7.2 Glacial Landforms- U-shaped Valley, cirque, Riches, Moutonnees, Moraines, outwash plain, drumlin, eskaer, and kames.

Unit 3: Climate

3.1 Concepts of weather and climate

3.2 Elements and factors of climate

3.3 Temperature: Vertical and horizontal distribution; transfer of heat (radiation, conduction and convection)

3.4 Pressure belts

3.5 Wind System: Costant, Periodical, occasional and local winds

3.6 Humidity: Relative and absolute

3.7Condensation: Forms of condensation (snowfall, hailstone, frost, dew, fog, and mist)

3.8 Rainfall: Types of rainfall (orographic, Monsoon, savanna and Desert)

3.9 World Climatic types: Distribution and physical characteristics of:

3.9.1 Climates in the tropical Zone (Equatorial, Monsoon, Savanna and desert)

3.9.2 Climates in the Temperate zone (West Europe, Mediterranean and Temperate Grassland)

3.9.3 Climate in the Frizid zone (tundra)

3.10 Climate Change: Causes, consequences and management

Unit 4 Soil

4.1 Formation of soil: Process of Podzolisation, calcification, Laterization and salination

4.2 Soil Profile

4.3 Major soil types and their world distribution

Unit 5 Natural Vegetation

4.1 concepts of plant community
4.2 Relation between climate and natural vegetation
4.3 Major types of natural vegetation and their world distribution

Unit 6 Hazard and disasters: Causes consequences and management; Landslides, Floods, Glacier Lake out-Burst Flood (GLOF),Draught, Fire.

Part II Practical Geography (Practical)

Unit 7 Map and Its Elements

7.1 Introduction to Scale

7.2 Construction of Plain scale

7.3 Representation of Relief

7.3.1 Methods of Showing relief on map: colour, hachures, spot height and contours

7.3.2 Drawing contour and cross sectional profiles: conical hill, plateau, valley and spurs; gentle undulating, concave and convex slopes.

7.4 Conventional Sighs: Identification and drawing of conventional signs used on toposheets

Unit 8 Geographic Information System (GIS) and Remote Sensing (RS)

9.1 Geographic Information System (GIS) and Remote Sensing (RS): Definition, functions and applications

Unit 9 Surveying

9.1 General Introduction of Surveying

9.2 Introduction to Survey Instruments

Note:- Students must submit the practical record book to the department before the practical examination.

I. Instructional techniques
   - Lecture, explanation and illustration
   - Question answer and interaction
   - Demonstration and discussion
   - Individual and group work/project
   - Self study and practice
   - Lab session
   - Evaluation Scheme

Evaluation will be done mainly to measure the achievement of the students. It will be carried out mainly through written test. Schools can apply various internal evaluation devices to upgrade their teaching learning situation. But there will not be separate mark for internal evaluation. Marks secured in the annual examination will be the only criteria for passing the examination.

- Assessment technique and Mark Distribution

Written Examination:

Unit wise mark distribution:

Unit 1 – 3 marks

Unit 2 – 32 marks

Unit 3 – 20 marks

Unit 4 – 6 marks

Unit 5 – 6 marks

Unit 6 – 8 marks

Unit 7–9 – 25 marks

The evaluation of the students on the theory portion of the course will be done on the basis of long answer, short answer and very short answer question. Altogether nineteen questions will be asked covering most of the sub units and the students will be required to attempt only fifteen of them.

Specification Grids (theory)

Types of Questions	Total Questions to be Asked	Total Questions to be Answered	Total Marks
Long answer question	3	2	2*12.5=25
Short answer question	10	8	8*5=40
Very short answer question	6	5	5*2=10
Total	19	15	75

Geography

Grade XII

Fill Marks: 100 (75T +25P)

Teaching Hours: 150

I. Introduction

This course has been designed to familarize the students with the concepts of human, economic and Physical Geography of Nepal. It also aims at developing in them the knowledge and skills of data processing, cartography and field study. The Theory part (Human and Economic and Geography of Nepal) carries 75 marks and practical portion (Practical Geography) 25 marks. Students are required to pass both the portions separately.

II. General Objectives

Upon completion of this course, the students will be able to:

a. Explain the relationship between man and environment;
b. Describe the general distribution of major economic activities of the world
c. Describe the physical, human and economic aspects of the Geography of Nepal; and
d. Use the basic skills of data processing, cartography and field study.

III. Specific Objectives

Upon completion of this course, the students will be able to:

1. Describe the meaning and scope of human and economic geography;
2. Explain the relationship between man and environment;
3. Discuss physical aspect of Geography of Nepal;
4. Describe the major trends of world population;
5. Discuss population situation of Nepal with reference to growth, structure, distribution and migration;
6. Explain the terms, concepts and patterns of human settlement and discuss the human settlement situation in Nepal with reference to affecting factors patterns, house type and building materials.
7. describe the production and distribution of major natural resources of the world and of Nepal;
8. classify the world agriculture into major types and describe geographical condition, production and distribution of major crops;
9. Discuss geographical condition, production and distribution of major crops in Nepal;
10. describe the production and distribution of iron and steel and cotton textile industries in relation to factors of industrial location;
11. Discuss industries of Nepal with reference to cottage and medium and large scale industries;
12. Describe tourism situation in Nepal with respect to tourist arrival, place of attraction and problems and prospects of tourism;
13. identify and describe the distribution of major modes of world transportation and that of Nepal with reference to road and airways;

IV. Course Contents:

Units	Chapters	Teaching Hours
1.	Introduction to Human Geography	13
2.	Physical Geography of Nepal	9
3.	Human Population	14
4.	Human Settlement	13
5.	Natural Resources	18
6.	Agriculture	22
7.	Industries	13
8.	Tourism in Nepal	4
9.	Transportation	6
10.	Processing of Data	12
11.	Representation of Data	13
12.	Geographical Field study	10
	Total	150

V. Course Content in detail

Part I Human, Economic and Geography of Nepal (Theory)

Unit 1 Introduction to Human Geography

1.1 Scope of Human Geography
1.2 Scope of Economic Geography
1.3 Man and Environment
1.3.1 Meaning and elements of environment
1.3.2 Relationship between man and environment
1.3.3 Concepts of determinism and possibilism

Unit 2 Physical Geography of Nepal

2.1Origin of Himalaya

2.2 Relief Features

2.3 Drainage
2.4 Climate
2.4.1 Factors affecting climates of Nepal
2.4.2 Summer and winter climatic conditions
2.4.3 Climatic Zones

Unit 3 Human Population

3.1 World Population

3.1.1 Growth

3.1.2 Distribution

3.1.3 Density

3.2 Population of Nepal

3.2.1 Growth, structure, and distribution

3.2.2 Migration

Unit 4 Human Settlement

4.1 Human Settlement in General

4.1.1 Definition and types of Settlemts

4.1.2 Settlement Patterns

4.1.3 Hierarchy of Settlement

4.1.4 Functional Classification of Town

4.2 Human Settlement in Nepal

4.2.1 Factors Affecting Settlement Pattern

4.2.2 Settlement Patterns (ecological, politico-administrative)

4.2.3 House types and Building Materials

Unit 5 Natural Resources

5.1 Natural Resources in General

5.1.1 Meaning Types and importance of Natural Resources

5.1.2 Production and Distribution of Hydro-power, Coal, Petroleum and Iron in the world

5.2 Natural Resources in Nepal

5.2.1 Land: Landuse Pattern

5.2.2 Forest: major types; problems of deforestation and measures of conservation

5.2.3 Forest and wildlife conservation in Nepal

5.2.4 Water: Importance, prospects and problems of its development

5.2.5 Minerals

Unit 6 Agriculture

6.1 World Agriculture in General

6.1.1 Major Types of Agriculture

6.2.2 Geographical Condition, Production and Distribution of major Crops (Paddy, Wheat, Sugarcane, Tea, Cotton)

6.2 Agriculture in Nepal

6.2.1 Geographical Condition, Production and Distribution of major Crops (Paddy, Maize, Wheat, Millet, Coffee, Tea, Cardamom, Sugarcane)

6.3 Horticulture in Nepal: Importance and Prospects of Horticulture in Nepal

Unit 7 Industry

7.1 Industry in General

7.1.1 Types of Industries (Primary, Secondary and Tertiary)

7.1.2 Factors of Industrial Location

7.1.3 Production and Distribution of Iron and Steel and Cotton Textile

7.2 Industry in Nepal

7.2.1 Cottage Industries: Major Types and their Importance

7.2.2 Medium and Large Scale Industries: Cement and Sugar

Unit 8 Tourism in Nepal

8.1 Trends of Tourist Arrival

8.2 Places of Tourist Attraction

8.3 Prospects and Problems in Tourism

Unit 9 Transportation

9.1 World Transportation

9.1.1 Distribution of Road, Rail, Water and Air Transportation

9.2 Transportation in Nepal

9.2.1 Distribution and Development of Roadways and Airways

9.2.2 Constraints of Transportation Development in Nepal

Part II Practical Geography (Practical)

Unit 10 Processing of Data

10.1 Tabulation of data

10.2 Processing of data: Measure of central tendency (mean, median and mode); partition values (quartiles and deciles)

Unit 11 Representation of Data

11.1 Construction of diagrams: Linegraph, bar diagram, histogram wheel diagram (Bar and diagram should be based on field study data)

11.2 Preparation of thematic maps (colouring and sheding)

Unit 12 Geographical Field Study (Local Survey)

Selection of Topics, Preparation of data gathering instruments, observation and data collection in the field and preparation of report.

Suggested Topics for Geographical Field Study

i. Agricultural land use survey of particular area
ii. Household survey of village or a locality
iii. Sources of irrigation for farming in a village
iv. Means of personal transport in a locality
v. Agricultural implements used in a village
vi. Quantity and types of manures and fertilizer used in a village
vii. Traffic flow survey of a locality at different hours of a day
viii. Occupational pattern of people in a village or in a locality
ix. Survey of different types of shops in a locality and their relationship with population
x. Survey of the geographical phenomena in a limited area

VI. Evaluation Scheme

Evaluation will be done mainly to measure the achievement of the students. It will be carried out mainly through written test. Schools can apply various internal evaluation schemes to upgrade their

teaching learning situation. But there will not be separate mark for internal evaluation. Marks secured in the annual examination will be the only criteria for passing the examination.

VII. Assessment technique and Mark Distribution

Written Examination: 75

Unit wise mark distribution:

Unit 1 – 8 marks

Unit 2 – 7 marks

Unit 3 – 10 marks

Unit 4 – 8 marks

Unit 5 – 12 marks

Unit 6 – 15 marks

Unit 7 – 8 marks

Unit 8 – 3 marks

Unit 9 – 4 marks

Unit 10 – 12 – 25 marks

The evaluation of the students on the theory portion of the course will be done on the basis of long answer, short answer and very short answer question. Altogether nineteen questions will be asked covering most of the sub units and the students will be required to attempt only fifteen of them.

Specification Grids (theory)

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Grade XII

Fill Marks: 100 (75T +25P)

Teaching Hours: 150

VIII. Introduction

This course has been designed to familarize the students with the concepts of human, economic and Physical Geography of Nepal. It also aims at developing in them the knowledge and skills of data processing, cartography and field study. The Theory part (Human and Economic and Geography of Nepal) carries 75 marks and practical portion (Practical Geography) 25 marks. Students are required to pass both the portions separately.

IX. General Objectives

Upon completion of this course, the students will be able to:

e. Explain the relationship between man and environment;
f. Describe the general distribution of major economic activities of the world
g. Describe the physical, human and economic aspects of the Geography of Nepal; and
h. Use the basic skills of data processing, cartography and field study.

X. Specific Objectives

Upon completion of this course, the students will be able to:

14. Describe the meaning and scope of human and economic geography;
15. Explain the relationship between man and environment;
16. Discuss physical aspect of Geography of Nepal;
17. Describe the major trends of world population;
18. Discuss population situation of Nepal with reference to growth, structure, distribution and migration;
19. Explain the terms, concepts and patterns of human settlement and discuss the human settlement situation in Nepal with reference to affecting factors patterns, house type and building materials.
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8.	Tourism in Nepal	4
9.	Transportation	6
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11.	Representation of Data	13
12.	Geographical Field study	10
	Total	150

XII. Course Content in detail

Part I Human, Economic and Geography of Nepal (Theory)

Unit 1 Introduction to Human Geography

1.4 Scope of Human Geography
1.5 Scope of Economic Geography
1.6 Man and Environment
1.6.1 Meaning and elements of environment
1.6.2 Relationship between man and environment
1.6.3 Concepts of determinism and possibilism

Unit 2 Physical Geography of Nepal

2.1Origin of Himalaya

2.2 Relief Features

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2.6.1 Factors affecting climates of Nepal
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3.1.1 Growth

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4.2.3 House types and Building Materials

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5.2.1 Land: Landuse Pattern

5.2.2 Forest: major types; problems of deforestation and measures of conservation

5.2.3 Forest and wildlife conservation in Nepal

5.2.4 Water: Importance, prospects and problems of its development

5.2.5 Minerals

Unit 6 Agriculture

6.1 World Agriculture in General

6.1.1 Major Types of Agriculture

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6.2 Agriculture in Nepal

6.2.1 Geographical Condition, Production and Distribution of major Crops (Paddy, Maize, Wheat, Millet, Coffee, Tea, Cardamom, Sugarcane)

6.3 Horticulture in Nepal: Importance and Prospects of Horticulture in Nepal

Unit 7 Industry

7.1 Industry in General

7.1.1 Types of Industries (Primary, Secondary and Tertiary)

7.1.2 Factors of Industrial Location

7.1.3 Production and Distribution of Iron and Steel and Cotton Textile

7.2 Industry in Nepal

7.2.1 Cottage Industries: Major Types and their Importance

7.2.2 Medium and Large Scale Industries: Cement and Sugar

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8.1 Trends of Tourist Arrival

8.2 Places of Tourist Attraction

8.3 Prospects and Problems in Tourism

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9.1 World Transportation

9.1.1 Distribution of Road, Rail, Water and Air Transportation

9.2 Transportation in Nepal

9.2.1 Distribution and Development of Roadways and Airways

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10.1 Tabulation of data

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Suggested Topics for Geographical Field Study

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xii. Household survey of village or a locality
xiii. Sources of irrigation for farming in a village
xiv. Means of personal transport in a locality
xv. Agricultural implements used in a village
xvi. Quantity and types of manures and fertilizer used in a village
xvii. Traffic flow survey of a locality at different hours of a day
xviii. Occupational pattern of people in a village or in a locality
xix. Survey of different types of shops in a locality and their relationship with population
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XIII. Evaluation Scheme

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XIV. Assessment technique and Mark Distribution

Written Examination: 75

Unit wise mark distribution:

Unit 1 – 8 marks

Unit 2 – 7 marks

Unit 3 – 10 marks

Unit 4 – 8 marks

Unit 5 – 12 marks

Unit 6 – 15 marks

Unit 7 – 8 marks

Unit 8 – 3 marks

Unit 9 – 4 marks

Unit 10 – 12 – 25 marks

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