KANNUR UNIVERSITY

(Abstract)

B.Sc Geography Programme-Scheme & Syllabus of Core/Complementary/Open Courses under Choice Based Credit Semester System for Under Graduate Programmes-implemented with effect from 2009 admission-Orders Issued.

ACADEMIC BRANCH

No.Acad/C2/8963/2008 Dated, K.U.Campus. P.O,12- 07-2009.

Read: 1.Minutes of the meeting of the Board of Studies in Geography (Cd) held on 11-06-2009.

2. Minutes of the meeting of the Faculty of Science held on 16-06-2009.

3. U.O No.Acad/C2/3838/2008 (i) dated 07-07-2009.

4. Letter dated 01-07-2009 from the Chairman, BOS in Geography(Cd).

ORDER

1.The Board of Studies in Geography(Cd) vide paper read(1) above has prepared and finalised the Scheme and Syllabus of Geography Core/Complementary(Cartography, Geography) /Open Courses under Choice Based Credit Semester System for implementation from 2009 admission.

2. The recommendations of the Board in restructuring the syllabus is considered by the Faculty of Science vide paper read (2) and recommended for the approval of the Academic Council.

3. The Regulations for Choice based Credit Semester System is implemented in this University vide paper read (3).

4. The Chairman, BOS in Geography(Cd)vide paper read (4), forwarded the restructured scheme and syllabus of Geography Core/Complementary(Cartography, Geography)/Open Courses with model question papers under Choice Based Credit Semester System, prepared by the Board of Studies in Geography(Cd) for implementation with effect from 2009 admission.

5. The Vice Chancellor, after examining the matter in detail, and in exercise of the powers of the Academic Council as per section 11(1) of Kannur University Act 1996 and all other enabling provisions read together with, has accorded sanction ***to implement the scheme and syllabus of Core/Complementary(Cartography,Geography)/Open Courses along with model question papers under Geography Programme restructured in line with Choice Based Credit Semester System,with effect from 2009 admission,*** subject to ratification by the Academic Council.

6.The restructured scheme and syllabus of Core/Complementary (Cartography, Geography)/Open Courses under Geography Programme restructured in line with Choice Based Credit Semester System, along with the model question papers implemented with effect from 2009 admission is appended.

7. The Scheme and Syllabus of Complementary Courses offered for this Programme will be available along with the syllabus of Core Courses of the Complementary subject.

8. The affiliated Colleges are not permitted to offer Complementary Courses in violation to the provisional/permanent affiliation granted by the University. Changes in Complementary Courses are permitted with prior sanction /revision in the affiliation order already issued in this regard.

9. If there is any inconsistency between the Regulations for CCSS and its application to the Scheme & Syllabus prepared, the former shall prevail.

10. Orders are issued accordingly.

Sd/-

To: REGISTRAR

1. The Principals of Colleges offering Geography Programme
2. The Examination Branch (through PA to CE)

Copy To:

1. The Chairman, BOS Geography (Cd) Forwarded/By Order
2. PS to VC/PA to PVC/PA to Regr
3. DR/AR I Academic 4. Central Library 5. SF/DF/FC. SECTION OFFICER

Appendix to U.O.No.Acad/C2/8963/2008 dated 12-07-2009.

K A N N U R U N I V E R S I T Y

SCHEME & SYLLABUS

FOR
UNDERGRADUATE PROGRAMME

IN

G E O G R A P H Y

CORE ,COMPLEMENTARY
&
OPEN COURSES

CHOICE BASED CREDIT SEMESTER SYSTEM

w.e.f 2009 ADMISSION

PROGRAMME STRUCTURE FOR

B.Sc GEOGRAPHY

Semester	Course Code	Course title	Hours/ week	Credit
I	IA01 ENG	Common Course I English	5	4
	IA02 ENG	Common Course II English	4	3
	IA07 ADL	Common Course I Additional Language	4	4
	1B01GRY	Geomorphology – I	2	2
	1B02GRY(P)	Practical I- Map Analysis	2	*
	IC01GRY	Complementary I Geology I/Cartography I	4	2
		Complementary II	4	3
II	2A03 ENG	Common Course III English	5	4
	2A04 ENG	Common Course IV English	4	3
	2A08 ADL	Common Course II – Additional Language	4	4
	2B03GRY	Geomorphology – II	2	2
	2B04GRY(P)	Practical I- Map Analysis	2	*
	2C03GRY	Complementary I Geology II/Cartography II	4	2
		Complementary II	4	3
III	3A05 ENG	Common course V English	5	4
	3A09 ADL	Common course III Additional Language	5	4
	3B05GRY	Climatology & Oceanography	3	3
	3B06GRY(P)	Practical I - Map Analysis	2	*
	3C05GRY	Complementary I Geology III/Cartography III	5	2
		Complementary II	5	3
IV	4A06 ENG	Common course VI English	5	4
	4A10 ADL	Common course IV Additional Language	5	4
	4B07GRY	Methodology of Geographical studies	3	3
	4B08GRY(P)	Practical I - Map Analysis	2	6
	4C07GRY	Complementary I Geology IV/Cartography IV	5	6
		Complementary II	5	3
V	5B09GRY	Geography of India with special reference to Kerala.	4	4
	5B10GRY	World Regional Geography with special reference to S.W Asia	4	4

	5B11GRY	Human geography	3	3
	5D01GRY	Open course Principles of Remote Sensing	2	2
	5B12GRY(P)	Practical II –Construction of Diagram & Map projections	5	*
	5B13GRY(P)	Practical III – Surveying & Map Interpretation	5	*
		Project	2	*
VI	6B14GRY	Geography of Resources	3	4
	6B15GRY	Geography of Tourism/Cartography	3	4
	6B16GRY	Principles of Geo-informatics	3	3
	6D02GRY	Open Course Natural Hazards & Disaster Management	2	2
	6B17GRY(P)	Practical II –Construction of Diagram & Map projections	6	6
	6B18GRY(P)	Practical III*- Surveying & Map Interpretation	6	6
	6B19GRY	Project	2	4

*Study Tour is part of the B.Sc Geography Programme, and is included in the Practical III.

First Complementary offered is Geology hence Cartography in the VI Semester.
If first complementary is Cartography then Geography of tourism in VI Semester.
Change of complementary only after receiving orders from the University.

Scheme Cartography (Complementary)

No.	Semester	Course Code	Title of the course	Contact Hours/week	Credits
1	I	1CO1CTY	Cartography I	2	2
2	I	1CO2CTY(P)	Practical – I	2	*
3	II	2CO3CTY	Cartography II	2	2
4	II	2CO4(P)GRY	Practical – II	2	*
5	III	3C05CTY	Cartography III	3	2
6	III	3C06CTY(P)	Practical – III	2	*
7	IV	4C07CTY	Cartography IV	3	2
8	IV	4C08CTY(P)	Practical – IV	2	4

Scheme Geography (Complementary)

No.	Semester	Course Code	Title of the course	Contact hours/week	Credits
1	I	1CO1GRY	Principles of Geography	4	3
2	I	1CO2(P)GRY	Practical – I	2	*
3	II	2CO3GRY	Geography of India	4	3
4	II	2CO4(P)GRY	Practical – I	2	2

Scheme Open Courses

No.	Semester	Course Code	Title of the course	Contact hours/week	Credits
1	V	5DO1GRY	Geographical Remote Sensing and GIS	2	2
2	VI	6DO2GRY	Natural Hazards and Disaster Management	2	2

1B01GRY Geomorphology - I

Instructional Hours : 2hrs/ week
Credit : 2

Module	*Contents*
I	Universe and Solar System- Major planets-Earth in Solar system – Origin of earth - theories-Nebular ,Planetesimal, Binary star,& Tidal theory.
II	Shape and Size of the earth – Latitude – Longitude - Movements – Rotation and Revolution – Time zones- Inter national date line – Seasons
III	Distribution of land and water – Origin of continents and oceans – Wegner's Drift theory -Evidences & criticisms -Sea floor spreading – Plate tectonics- Types of plates – Major & minor plates – Isostasy -Views of Airy & Pratt
IV	Geomorphic processes – Endogenic – Fold – Fault – Volcanism – Earthquakes – Interior of the earth – Materials of the earth crust
V	Rocks – Types – Igneous, Sedimentary and Metamorphic rocks

Reference Books

Arthur N Strahler	Physical Geography
Woolridge & RS Morgan	Physical Basis of Geography
H Jeffrey	The Earth, its origin & physical composition
F J Monkhouse	Physical Geography
Lake P	Physical Geography
Morris Davis	Physical Geography
Finch & Trewartha	Elements of Geography Physical & Cultural

Model Question Paper

1B01GRY GEOMORPHOLOGY I

Time:3hours **Total Weitage-25**

1. A. Choose the correct answer from the following - **Weitage-1**

   i) Solar system is a part of
   a. Milky way b. Sirius c. Great Bear d. Centaur
   ii) The planetesimal hypothesis was put forth by

a) Chamberlain b. Jeans and Jeffreys c. Kant d. Laplace

iii) When the fold axis is almost horizontal it is called
a. Nappe b. Recumbent c. Over fold d. Isoclinal

iv) Which among the following is not an Intrusive rock?
a. Dyke b. Sill c. Sheet d. Basalt

B. Fill in the blanks of the following with correct answer - **Weitage-1**

i) Among the planets of the solar system, the biggest is ……..
ii) As per Wegener the single super continent is called ……
iii) The point of origin of earthquake is known as ……..
iv) The concept of Isostasy was outlined by ……..

C. Mark the statements as True or False - **Weitage-1**

i) When it is 8 am at 60° W, time at 60° E is 4 pm
ii) Summer solstice occurs on March 23rd
iii) Mid Atlantic ridge is an example for divergent plates
iv) The amount of vertical displacement in a fault is called heave

2. Answer any eight of the following in not more than 50 words each- **Weitage-1**
i) Solar system
ii) Binary star theory
iii) Seasons
iv) Gondwanaland
v) Pyroclastic material
vi) Ritcher scale
vii) Sedimentary rocks
viii) Intrusive rock
ix) Geosyncline
x) Seismic waves

3. Answer any three of the following in not more than 150 words each - **Weitage-2**
i) Explain the Nebular hypothesis
ii) Discuss time zones and International dateline
iii) Indicate the evidences supporting continental drift theory
iv) Discuss the various types of folds
v) Write about the interior of the earth

4. Write essays on any two of the following in about 1000 words each- **Weitage-4**
i) Explain the concept of Plate tectonics
ii) Discuss the concept of Isostasy
iii) Classify volcanoes and describe landforms associated with them
iv) What is rock? What are its types? Explain Igneous rocks.

2B03GRY Geomorphology II

Instruction Hours : 2 hrs/ week
Credit : 2

Module	*Contents*
I	Exogenic processes – Weathering - Denudation & Erosion - Types of Weathering– Controlling factors- Mechanical Weathering -Block disintegration , Spheroidal weathering , Granular weathering & Exfoliation- Biological Weathering - Plant, Animal & Biochemical Weathering- Chemical weathering – Oxidation, Carbonation, Hydration & Solution
II	Soils – Structure, Texture & Soil profile – Factors of soil formation- characteristics - Soil classification – Major soil types of the world
III	Gradation – Degradation and Aggradation – Agents of Erosion Streams- Antecedent & Superimposed streams – Types of Drainage Patterns – Dendrtic, Trellis, Rectangular, Radial,& Centripetal Patterns.-Consequent, Insequent, subsequent, obsequent & Resequent streams -Normal cycle of erosion
IV	Erosional & Depositional landforms produced by River, Wind, Glacier– Underground water & sea waves. Types of coastlines- Emerged Coastline, Submerged coastline, Dalmatian coast, Ria Coast, Fiord Coast.

Reference Books

Arthur N Strahler	Physical Geography
Woolridge & RS Morgan	Physical Basis of Geography
H Jeffrey	The Earth, its origin & physical composition
F J Monkhouse	Physical Geography
Lake P	Physical Geography
Morris Davis	Physical Geography
Finch & Trewartha	Elements of Geography Physical & Cultural

Model Question Paper

GEOMORPHOLOGY II

TIME:3 HOURS **Total Weitage-25**

1. **A.** Choose the correct answer from the following - **Weitage-1**

   i) Which of the following is not a part of chemical weathering
   a. Oxidation b. Carbonation c. Exfoliation d. Solution
   ii) In which region Pedalfer group of soils occur?
   a) Humid b. Semi-arid c. Arid d. Polar
   iii) The method by which rock is dragged along the valley of a river

by water is called
a. Traction b. Saltation c. Abrasion d. Corrosion

iv) As per the Davisian cycle of erosion, the residual hills are called
a. Inselbergs b. Monadrocks c. Bornhardt d. Hum

B. Fill in the blanks of the following with correct answer- **Weitage-1**

i) Podzol is a soil type in …….. region
ii) In Intermundane basins the prevalent drainage system is ……
iii) Bird's foot delta is found in the river …….
iv) The crevasse that occurs at the head of a glacier is called ……

C. Mark the statements as True or False - **Weitage-1**

i) Glacier that occurs at the foothill of mountain is called Alpine Glacier
ii) Yardang is a feature associated with the action of wind
iii) Underground water is an affective agent in sand stone areas
iv) The coast of Norway is an example for Ria coast

2. Answer any eight of the following in not more than 50 words each - **Weitage-1**

i) Biological weathering
ii) Soil profile
iii) Ox bow lake
iv) Fiord
v) Loess
vi) Spit
viii) Delta
ix) Alluvial fan
x) Cliff

3. Answer any three of the following in not more than 150 words each -**Weitage-2**

i) Discuss the various factors affecting weathering
ii) Describe the different drainage patterns
iii) Explain the landforms associated with the upper course of a river
iv) Write an account about the depositional landforms by sea waves
v) Discuss the various Karst landforms

4. Write essays on any two of the following in about 1000 words each - **Weitage-4**

i) Write an essay on weathering
ii) Discuss the various emotional and depositional landforms by Glacier
iii) Classify soils and explain their distribution
iv) Discuss the concept of normal cycle of erosion.

3B05GRY Climatology & Oceanography

Instruction Hours : 3hrs/ week
Credit : 3

Module	*Contents*
I	Significance of climatology as a branch of Geography- Influence of climate on man Atmosphere - Composition &Structure -Troposphere, Straosphere, Ionosphere & Exosphere – Homosphere & Heterosphere- Weather and climate – Elements of Weather – Insolation- Controlling factors—Heat BudgetTemperature - Measurement – Distribution – Horizontal – Factors – Vertical – Normal lapse rate – Inversion of temperature.
II	Atmospheric Pressure – Measurement – Distribution – Horizontal – Coriolis force – Major pressure belts – Vertical – Winds – Velocity and Direction – General circulation of the atmosphere – Primary or Planetary winds – Secondary or seasonal winds – Monsoon – Local winds - Apparent shift of pressure and wind belts.
III	Atmospheric humidity – Types – Evaporation – Condensation – Forms of condensation – Fog – Clouds – Classification – Precipitation – Types – Distribution
IV	Air masses – Source Regions – Classification – Characteristics of each type Fronts – Classification- Cold front, Warm Front & occluded front-Cyclones – Tropical & Temperate Stages and development of temperate cyclones – Anti-cyclones Climatic classification – Koeppen's climatic classification
V	Distribution of Land and Water – Major Oceans – Relief of the ocean floor – Bottom relief of Atlantic, Pacific and Indian Ocean.Temperature and Salinity of the oceans – Distribution .
VI	Waves, Tides and Currents. Cold & Warm Currents of the Indian, Pacific & Atlantic Ocean -Counter Currents.
VII	Coral reefs – Types - Barrier reef, Atoll, Fringing Reef & coral islands Theories of Coral formation Deposits of the ocean floor - Resources of the oceans

Reference Books

Petterson	An Introduction to Meteorology
Barry & Chorley	Atmosphere Weather & climate
Trewartha GT	An Introduction to climate
Perry A H & Walker J M	The Ocean Atmosphere system
Finch & Trewartha	Elements of Geography Physical & Cultural

Model Question Paper

3B05GRY CLIMATOLOGY & OCEANOGRAPHY

Time:3hours **Total Weitage-25**

1. A. Choose the correct answer from the following - **Weitage-1**

I) Which is the local wind blowing in north India during summer season?
a) loo b) Harmaton c) Norwesters d) Typhoons

II) Which of the following does not affect the visibility on the ground
a) mist b) fog c) haze d) dew

iii) Which of the following is not a low cloud.

a. Stratus b. Cirro stratus c. nimbus stratus d. cumulo nimbus.

iv) on clear winter night earth is cooled by.

a) conduction b) convection c.) Radiation d) condensation

B. Fill in the blanks of the following with correct answer- **Weitage-1**

i. The gas having highest proportion in air is…….
ii. Willy willy occurs in…….
iii. The air pressure at sea level is……..
iv. Monsoon is a…….wind.

C.Mark the statement as True or False - **Weitage-1**

i. Isohyets is a imaginary line going the places having equal sun shine.
ii. The percentage of ozone in the atmosphere is .006%
iii. Fog is form of condensation.
iv. Geotropic wind is free from frictional force.

2. Answer any eight of the following in not more than 50 words each **Weitage-1**

i. Atmosphere
ii. Normal lapse rate
iii. Ozone depletion
iv. Acid rain
v. Feral's low
vi. Airmass
vii Jet streams
viii. Duepoint
ix. Inversion of temperature
x. Fronts

***3. Answer any three of the following in not more than 150 words each*-Weitage-2**

i. Compare troposphere and stratosphere.
ii. Distinguish between convection and conduction.
iii. What is precipitation? What are major forms of precipitation?
iv. What are the major factors controlling climate.
v. Briefly explain the salient features of Indian monsoon.

4. Write essays on any two of the following in about 1000 words each **Weitage-4**

i. What is pressure? And explain major pressure belts and its mechanism
ii. Describe the scope and content of climatology.
iii. What is wind? and explain the general circulation of atmosphere.
iv. Briefly explain the composition of atmosphere.

4B07GRY Methodology of Geographical studies

Credits: 3
Instructional Hours: 3hrs/week

Module	*Contents*
I	Types of Knowledge: Practical,Theoretical,and Scientific knowledge.Information What is Science ; What is not science; Laws of science. Basis for scientific law and factual truth. Geography as a Science – Approaches Four traditions – Earth Science – Man land – Spatial – Area studies
II	Map as a tool – Mapping techniques – Field work – Local Geography
III	Data collection – Need – Types of data – Primary – Methods of collection - Secondary data – Published and unpublished sources – problems
IV	Data analysis – Tabulation – Representation – Diagrams – Thematic maps – Interpretation – Testing – Report writing – Reference – Bibliography

Reference Books

McCullagh - Science in Geography Series 1-4
P. Haggett - Geography – A Modern Synthesis – P. Haggett
Ackerman - Geography as a fundamental research discipline
Harvey D – Explanation in Geography
Hartshorne R – Perspective on the Nature of Geography
Minshell R - Changing nature of Geography

Model Question Paper

4B07GRY METHODOLOGY OF GEOGRAPHICAL STUDIES

Time:3 hours **Total Weitage-25**

1. A. Choose the correct answer from the following **-Weitage-1**

   i) Statistical methods were first introduced into geography in the early
   a. 1950's b. 1960's c. 1940's d. 1970's
   ii) A research report covering a fairly large research project on a single subject
   a. Monograph b. Dissertation c. Thesis d. Professional paper
   iii) Which of the following is not a secondary source of data
   a. Journal b. Interview c. Films d. Memoirs
   iv) The measurement in which letters or other symbols are used to rank objects
   a. Ordinal b. Nominal c. Interval d. Ratio

   B. Fill in the blanks of the following with correct answer- **Weitage-1**

i) A very popular method of collecting information about personal life of an individual is called ……..
ii) A tentative generalization, the validity of which remains to be tested is called …..
iii) The quantitative revolution in was started in ……
iv) Discovery of a new theory falls under …… research

C. Mark the statements as True or False - **Weitage-1**
i) Open ended questions offers limited choices as responses
ii) The Sten-de-Geer's diagram is used to represent the rural and urban population
iii) In pie diagrams, the area of the circle is made proportional to the quantity or number represented by it
iv) The distribution of crops is shown by shading method

2. Answer any eight of the following in not more than 50 words each – **Weitage-1**
i) Non-parametric tests
ii) GIS and GPS
iii) Geographical data matrix
iv) Participatory approach
v) Cartograms
vi) Case Study
vii) Nomothetic study
viii) Hypothesis
ix) Fieldwork
x) sample size

3. Answer any three of the following in not more than 150 words each- **Weitage-2**
i) What are the major sources of geographical data
ii) Explain the general procedures to be followed in a sampling for geographical research
iii) Discuss the need for scientific approach to geographical problem
iv) Discuss the significance of hypothesis testing in geographic research
v) Write a note on bibliography and references

4. Write essays on any two of the following in about 1000 words each - **Weitage-4**
i) Give a detailed account on the 'Four Traditions' in Geography
ii) Discuss briefly the various method in data collection
iii) Write in detail the various steps involved in preparing a project proposal
iv) Discuss the significance of maps and diagrams in geographical research

5B09GRY Geography of India with special reference to Kerala

Credits :4
Instructional Hours : 4hrs/week

Module	*Contents*
I	Location –Strategic setting, Relief –Detailed study of major physiographic divisions, Drainage –North Indian & South Indian rivers, Climate – Monsoon-Origin & spread -Distribution of rainfall- Variability, Soil –Major types-Distribution, Natural Vegetation –Types, Himalayan Forests
II	Agriculture – crops – Rice, Wheat, cotton, sugarcane, tea Irrigation – Multipurpose projects – Problems of Indian agriculture
III	Minerals – Iron ore, Manganese, Bauxite, coal and petroleum Industries – Iron & Steel, Cotton textile, Cement, Sugar
IV	Transport – Road - Railway – Major ports – Air transport – Foreign trade
V	Geography of Kerala – Relief, Climate, Rivers, Vegetation, Population, Agriculture, Industries,

Reference Books

Mamoria C B	-	Economic and Commercial Geography of India
Gopal Singh	-	A Geography of India
Sharma T C & Countinho	-	Economic and Commercial Geography of India
Singh R L	-	India a Regional Geography
Spate O H K	-	India, Pakistan & Celon.
Govt. of India Publication	-	2008
Govt. of India Publication	-	Gazetteer of India
Geography of Kerala	-	Dr. George Kurian
Economy of Kerala	-	Karunakaran & Sankaranarayanan
Resource Atlas of Kerala	-	Centre for Earth Science Studies
Gazetter of Kerala	-	Kerala Gazetter, Govt. of Kerala
Geology of Kerala	-	Dr. K. Soman
Water Atlas of Kerala	-	CWRDM, Kozhikode
District Handbooks	-	Dept. of Public Relatiions, Govt. of Kerala

Model Question Paper

5B09GRY GEOGRAPHY OF INDIA WITH SPECIAL REFERENCE TO KERALA

Time:3 hours **Total Weitage-25**

1. **A.** Choose the correct answer from the following - **Weitage-1**

   i) Which of the following two mountains are almost parallel to each other?
   a) Aravallis and Vindhyas b) Satpura and Aravallis.
   c) Vindhya and Satpura d) Eastern and Western Ghats

   ii) What percentage area of the World is occupied by India?
   a) 7.2 b) 6.8 c) 4.2 d) 2.4.

iii) Which country has the longest land boundary with India?
a)Pakistan b)China c) Bangladesh d) Myanmar.

iv) Which state receive rainfall from north east monsoon?
a) Orissa b) Andra Pradesh c) Tamil Nadu d) Gujarath.

B. Fill in the blanks of the following with correct answer - **Weitage-1**

i) Coir industry in India is chiefly located in……kerala
iv) ……state has the largest acreage of forest in India.
v) The term Regur is used for……Soil.
vi) The percentage of population living in urban areas is…….

C. Mark the statement as True or False - **Weitage-1**

i. India is largest producer and consumer of rice.
ii. The state Punjab has the largest net area sown under irrigation.
iii. North west monsoon give rain fall to Goa.
iv. China has the longest land boundary with India.

2. Answer any eight of the following in not more than 50 words each **Weitage-1**

i. Trans Himalaya
ii. Malabar coast
iii. Mango showers
iv. Peninsula
v. Mangroves
vi. Intensive subsistence farming
vii. Inland water transport
viii. Hinterland
ix. Duab region
x. Green revolution

3. Answer any three of the following in not more than 150 words each **Weitage-2**

i. Explain location advantages of India
ii. Discuss the economic importance of chotanagapur plateau.
iii. urbanizations in India
iv. Examine the role of physical factors in cotton industries in India
v. compare western and eastern Ghats

4. Write essays on any two of the following in about 1000 words each- **Weitage-4**

i. Regional division of the great Himalaya.
ii. Discuss the regional pattern of monsoon in India.
iii. Explain major industrial belts in India.
iv. What is soil? What are the major types of soils in India

5B10GRY World Regional Geography With special reference to S.W Asia

Credits : 4
Instructional hours :4hrs/week

Module	*Contents*
I	Concept of a region – classification – Natural, cultural and economic regions
II	Natural regions –Location, Climate, Flora& Fauna, Human Life & Economic life of - Equatorial, Tropical Desert, Mediterranean & Taiga regions
III	Economic region – Major industrial regions of Asia, N.America, S.America, Europe & Africa.
IV	Systematic study of SW Asia with reference to relief, climate and natural divisions, Population, Agriculture, Industries, Mining, Trade & Transport.
V	Detailed study of Iran and Saudi Arabia – Location, Climate, Relief, Population, Agriculture, Industries, Mining, Trade, transport & Economic development

Reference Books

Heitzelman & Higsmith - World Regional Geography
Bemgston & Vanroyen - World Regional Geography
Robinson H - World Regional Geography
Unsted J E - Systematic Regional Geography
Gohcheng Leong - South West Asia

Model Question Paper

5B10GRY WORLD REGIONAL GEOGRAPHY WITH REFERENCE TO SOUTH WEST ASIA.

TIME:3HOURS **Total Weitage-25**

***1. A. Choose the correct from the following-* Weitage-1**

i Who delineated the natural regions of the world
a. Herbertson b. Hettener c. Blij d. Hagget

ii One of the following is a primary industry
a. Lumbering b. paper c. Sugar d. Rubber

ii. The leading importer of cotton in the world
a. China B. Germany c. Japan d. France

iv. Which one of the following countries had the largest reserve of petroleum.
a. Iran b. USA c. Iraq d. Russia

***B. Fill in the blanks of the following with correct answer* - Weitage-1**

i. Seasonal movement of people with their belongings from low land to high lands and vice-versa……..

ii. Shifting cultivation in Philippines is called……
iii. Truck farming is related with……..
iv. Dogger Bank is situated in the ……fishing region.

C Mark the statement as true or false **- Weitage-1**

i. Mixed farming means growing more than one crop in a year.
ii. Mineral fuels are found in metamorphic rocks
iii. Pampas are found in Australia
iv. The location of some Japan based industries in Malaysia and Taiwan is due to availability of raw materials.

2 Answer any eight of the following in not more than 50 words each- **Weitage-1**

i. Rubber plantation in Malaysia.
ii. Industries in Singapore
iii. Entre port
iv Viticulture
v. Blue revolution
vi. Million cities of India
vii. Deep sea fishing
viii. Tropical forest
ix. Jute cultivating area
x. Lumbering industry

3 Answer any three of the following in not more than 150 words each. **Weitage-2**

i. What are the exporting items South West Asia ?
ii. Write a note on Petroleum mining in Saudi Arabia.
iii. What are the human activities in taiga ?
iv. Write a note Economic importance of tropical rain forest .
v. Why viticulture is concentrated in Mediterranean region .

4. Write essay on any two of the following in about 1000 words each- **Weitage-4**

i. Explain the concept of region.?
ii. Explain the major industrial region of Japan
iii. Write an essay on relief, population, agriculture, industries and trade of SW Asia
iv. Explain Natural regions of the world.

5B11GRY Human Geography

Instructional Hours :3hrs/ week
Credit : 3

Module	*Contents*
I	Scope and content of Human Geography – Concepts – Determinism, Possibilism and Neo determinism. Makers of Human Geography-Alexander Von Humboldt, Carl Ritter, Friedrich Ratzel, Videl de- La Blache, Jean Brunches, Ellen C Semple, Isiah Bowman, Ellsworth Huntinhton, Griffith Taylor, Halfford John Mackinder, A.J.Herbertson &Peter Hagget
II	Mode of life – Primitive culture – Hunting and food gathering – Pastoral nomadism – Subsistence farming - Industrial revolution - Technological era – World cultural regions -Major Races, Languages & religion
III	Human Adaptation to the environment: (i) cold region—Eskimo; (ii) hot region - Bushman (iii) Plateau— Masai (iv) Mountain —nomads
IV	Distribution of population; world distribution pattern - factors influencing spatial distribution - physical, economic and social Concepts of over population, under population and optimum population. Zero population growth: Demographic Transition model Migration—Types- internal and international. Population theory: Malthusian theory Population regions of India - Problem of over population of India and remedial measures. Population policy of India**.**
V	Settlements – Rural – Types – Urban – Characteristics of urban centers - Urban morphology - Urban problems

Reference Books:

Hagget P	Geography –A Modern Synthesis
Perpillion .A.V.	Human Geography
Fellman J	Human Geography
Leon G V & Morgan GC	Human & Economic Geography
Chisholm M	Modern World Development – A Geographic Perspective
Jones E	Human Geography
Smith DM	Human Geography –A Welfare Approach
Lebon J H	An Introduction to Human Geography

Model Question Paper

5B11GRY HUMAN GEOGRAPHY

Time:3 hours **Total Weitage-25**

1. **A.** Choose the correct answer from the following - **Weitage-1**
   i) Neo-determinism was put forwarded by
      a. Ratzel b. L.Febvre c. G.Taylor d. Vidal de la Blache
   ii) Aborgines are typical trial groups
      a. Saudi Arabia b. Sahara c. Congo basin d. Austalia

iii) Term Megalapolis was coined by
a. Gottman b. Christaller c. Zipf d. Taylor

iv) The measurement in which letters or other symbols are used to rank objects
a. Aplinoid b. Dinaric c. Mediterranean d. Nordic

B. Fill in the blanks of the following with correct answer - **Weitage-1**

i. Concentric zone was put forward by ……..
ii. Bushman's are found in ……..
iii. According to Malthus, population increases in …… progression
iv. Intervening obstacle model of migration was put forwarded by……

C. Mark the statements as True or False - **Weitage-**

i) Urbanization is fast progressing in developing countries
ii) Vidal del la Blache was a determinist
iii) Industrial revolution accelerated the growth of world population
iv) Star pattern of settlement are the characteristic features of rural areas

2. Answer any eight of the following in not more than 50 words each **Weitage-1**

i) Transhumance
ii) Possibilism
iii) Subsistence farming
iv) CBD
v) Push factors and pull factors
vi) Densely populated regions of the world
vii) Conurbation
viii) Nodal town
ix) Pastoral economy
x) Agglomerated settlement

3. Answer any three of the following in not more than 150 words each – **Weitage-2**

i) Explain the scope of Human Geography
ii) Discuss the growth of world population after Industrial revolution
iii) What is demographic Transition model
iv) Explain the world cultural regions
v) What are the different types of rural settlements

4. Write essays on any two of the following in about 1000 words each- **Weitage-4**

i) Briefly discuss the Deterministic school of thought with special reference to contribution of Ratzel to Human Geography
ii) Explain the causes and consequences of Migration
iii) What are the factors controlling distribution of population
iv) Discuss the recent trends in Indian Urbanization

6B14GRY Geography of Resources

Instructional Hours: 3hrs/ week
Credit : 4

Module	*Contents*
I	Resources – Renewable and Non-renewable – Need for conservation
II	Natural resources – Agriculture – Major crops – Rice, wheat, cotton ; Forest resources – Types; Animal resources – Dairying regions; Major fisheries-Major fishing grounds
III	Energy resources – Coal, Petroleum & Nuclear energy resources – Minerals – Iron ore, Mica Manganese, Bauxite and copper Production & Distribution
IV	Industrial resources – Iron and steel - cotton textile – ship building Location Factors-Production & Distribution
V	Transport – Road – Railway – Major sea routes – Air transport - Pattern of world trade

References:

K.K. khanna & V.K.Gupta	Economic & Commercial Geography
Alexander John	Economic Geography
Zimmerman	World Resources & Industry
Jones & Drakenwald	Economic Geography
Das Gupta	Economic & Commercial Geography
Huntington	Principles of Economic Geography
Chisholm	Geography of Economics
World Bank Development Report	

Model Question Paper

6B14GRY GEOGRAPHY OF RESOURCES

Time:3 hours **Total Weitage-25**

1. **A.** Choose the correct answer from the following - **Weitage-1**
   - i. Which types of crops are mainly grown in shifting cultivation
     a. Food b. Plantation c. Fiber d. Cash
   - ii. The country having the highest production of wheat in the world
     a) Canada b. USA c. China d. Australia
   - iii. Which of the following is not an ore of copper
     a. Chalcopyrite b. Bornite c. Calcocite d. Siderite
   - iv. Trans-Siberian Railway connects
     a. Vancouver in the west with Halifax in the east
     b. British Columbia with Labrador
     c. St. John City with Vancouver
     d. Ottawa in Canada with Vancouver in Columbia

   B. Fill in the blanks of the following with correct answer - **Weitage-1**
   - i. The sugar bowl of the world is ……
   - ii. Comecon pipeline was built by …….

iii. …… is the second largest producer of coal in the world
iv. OPEC is a trade association with a membership of ……. countries

C. Mark the statements as True or False - **Weitage-1**

i. Japanese steel based industries are market based industries
ii. Tundra soils are widespread in the Arctic regions
iii. The ideal temperature for paddy cultivation is between 20^{o}-27^{o}C
iv. China is the type iron producing nation in the world

2. Answer any eight of the following in not more than 50 words each- **Weitage-1**

i) Shifting cultivation
ii) International trade
iii) Non-renewable resources
iv) Green revolution
v) Age-sex pyramid
vi) Optimum population
vii) Energy crisis
viii) Soil conservation
ix) Crop rotation
x) Mixed farming

3. Answer any three of the following in not more than 150 words each - **Weitage-2**

i. Large scale development of lumbering industry is seen in the temperate coniferous forests. Give reasons
ii. Give an account of the types of soil erosion and suggest methods for soil conservation
iii. Name the major fishing grounds and examine the reasons for the development of commercial fishing in high altitude region
iv) Examine the importance of railway transport with reference to India
iv. State the reasons for the development of Western Europe as the busiest trading zone of the world

4. Write essays on any two of the following in about 1000 words each - **Weitage-4**

i) Explain the nature and scope of Resource Geography
ii) Explain the geographical conditions necessary for the cultivation of wheat, its producing area and trade in the world
iii) Briefly explain the factors favorable for the location of ship building industry with special reference to India
iv) List out the major ocean routes of the world and discuss the factors that favors the development of these routes

6B15GRY Geography of Tourism

No. of Credits : 4
No. of Contact hours : 3hrs/ week

Module I. Concept of Leisure,Travel & Tourism- Travel in Ancient , Medieval & Modern Period.

Module II. Elements of Tourism- Tourism Attraction –Classification – Accessibility- Amenities- Determinants of Tourism

Module III. Transport & Tourism – Tourism Restrictions –Passport, Visa, Credit card & Foreign exchange- Tourism & Environment

Module IV. Tourism planning- Travel agency-Concept of Package Tour Publicity.

Module V. Tourism organizations-WTO, ITDC, KTDC- Functions

Module VI. Tourism in Kerala- Status & Pattern

Reference Books:

Alan A Lew - A Companion to Tourism
Clare A Gunn - Tourism Planning
Ranjith Taneja - Travel Geography
Sashi Prabha Sharma - Tourism & Environment
Krishna K Karma - Basics of Tourism

Model Question Paper

6B15GRY GEOGRAPHY OF TOURISM

Time:3 hours **Total Weitage-25**

1. A. Choose the correct answer from the following - **Weitage-1**

   a. Kaziranga National Park is located in
   a. Assam b. W. Bengal c. Tripura d. Arunachal Pradesh
   ii. Venice of the east
   a. Cochin b. Alleppey c. Calicut d. Trivandrum
   iii. Udagamandalam is popularly known as
   a. Yercaud b. Ootty c. Hoganeckal d. Kuttalam
   iv. National Highway No- 1 connects
   a. Delhi-Amritsar b. Delhi-Kolkata c. Delhi-Agra d. Delhi--Mumbai

   B. Fill in the blanks of the following with correct answer - **Weitage-1**
   i. Jog falls is on …… river

ii. Manila is the capital city of ……
iii. 'Big temple' of Tanjore was built by …….. dynasty
iv. 'Pink city' of India is …….

C. Mark the statements as True or False - **Weitage-1**

i. Kailas mountains are in Tibet
ii. River Ganges originates from Manasarover Lake
iii. Nilgiri is the highest peak in South India
iv. Port Bliar is the capital of Andaman Nicobar Islands

2. Answer any eight of the following in not more than 50 words each - **Weitage-1**

i) Travel in Ancient India
ii) Role of accessibility in Tourism promotions
iii) Package Tour
iv) Significance of publicity in Tourism
v) Functions of KTDC
vi) Significance of maps in Tourism
vii) Heritage Tourism
viii) Backwater tourism
ix) Basic motives of Tourism
x) What is a Cruise

3. Answer any three of the following in not more than 150 words each **Weitage-2**

i. Discuss the modern concept of Tourism
ii. Explain the significance of Transportation facilities in tourism development
iii. Discuss the functions of WTO
iv. Explain the need and prospect of Ecotourism
v. What are the various factors act as restrictions to international tourism

4. Write essays on any two of the following in about 1000 words each **Weitage-4**

i. Briefly discuss the scope and content of Travel & Tourism studies
ii. Briefly discuss the basic element of Tourism with special reference to amenities
iii. Discuss the impact of Tourism on Environment
iv. "Kerala is Gods own country" Examine from tourist point of view.

6B15GRY Cartography

No. of Credits : 4

No. of Contact hours : 3hrs/week

Module	Contents
I	Nature and scope of Cartography – Histrorical Development of Cartography till modern period, Artistic and Scientific bases of Cartography. Cartography as a Science of human communication – Branches of Cartography
II	History of Maps – Types of maps – Classification of maps based scale and purpose. Use of maps
III	Earth as a Cartographic problem. Cartographic problems of representing earth – Map projection – uses – types – Importance of map projections in Cartography
IV	Map making processes – procedure – map compilation – pull ups – compiling physical and cultural details – selection of details – elements of generalization – controls of generalization
V	Principles & techniques of map design and layout, theory and visual perception, constraints in map design. Symbolization – Point line and area symbols – qualitative and quantitative symbols – Format of a map. Inset maps – Principles of lettering and toponomy – Style, form, size and positioning of lettering
VI	Computers in Cartography – Cartography & GIS, Cartographic design in GIS, digital database in GIS. Linking of GIS & Remote Sensing

Model Question Paper

6B14GRY CARTOGRAPHY

Time:3 hours **Total Weitage-25**

1. A. Choose the correct answer from the following **- Weitage-1**

i) Gnomon was invented by
a. Anaximander b. Homer c.Thales of Miletus d. Hecataeus

ii) The portrayal of selected features to the map scale in a map is called
a) Generalization b. Compilation c. Regularization d. Reduction

iii. Origin of Silk screen printing is based on
a. Greek method b. Chinese method c. Roman method d. None of the above

iv. A soil map of Kerala is a
a. Complex thematic map b. simple thematic map.
c. Qualitative map d. none of the above

B. Fill in the blanks of the following with correct answer **- Weitage-1**

i) Map gives a ……..picture of the earth.
ii) Contour is an example of ……. symbol
iii. Maps for the blind are as old as the ……
iv. When heights are marked on the map by numerical values at appropriate locations, they

are called ……

b. contours b. hachures. C. spot heights. D. layer heights

C. Mark the statements as True or False - **Weitage-1**

i) SOI topo sheet is an example of special purpose map
ii) Wax engraving is also known as Cerography
iii) Atlas maps can be drawn on a variety of scales.
iv) Isopleths are used for discrete aerial distribution.

2. Answer any eight of the following in not more than 50 words each- **Weitage-1**

i) Gnomon
ii) Pull ups
iii) Lettering style
iv Qualitative data
v Scribing
vi) Cadastral map
vii) Geoid
viii) Thematic map
ix) Inset map
x) Graphical scale

3. Answer any three of the following in not more than 150 words each- **Weitage-2**

i) Give the nature and scope of cartography
ii) Bring out the figure ground relationship
iii) Write an account on mechanical lettering
iv) What are block diagrams? Explain its uses.
v) What are the drawing equipments for map reproduction?

4. Write essays on any two of the following in about 1000 words each- **Weitage-4**

i) Describe the development of Cartography during the modern period
ii) Explain the elements of map generalization
iii) Discuss various drawing materials and equipments used in map making
iv) Explain the important methods of mapping the socio economic data.

6B16GRY Principles of Geo-informatics

No. of credits :3

No. of contact hours :3hrs/week

Module	*Contents*
I	Personal computers-Peripherals, networks-Communication-Mobile technology-operating systems- common software
II	Data, information and knowledge- internet- Access to internet- dialup, DSL,cable,ISDN,WIFI –internet as reference source-Intellectual property right-informationtechnology in education-INFLIBNET, NICNET & BRNET.
III	Geoinformatics – components – Remote sensing, GPS & GIS – types – Principles – Electro magnetic radiation – Interaction of EMR with soil, vegetation and water – Platforms – sensors – resolutions
IV	Remote Sensing Programmes – LANDSAT – SPOT – Indian Remote Sensing Satellites – Remote Sensing Products – Applications
V	Global Positioning System – Segments – Principles – Applications
VI	GIS – Definition – components Data models: Raster and Vector data models – Data Input – Data analysis : Measurements – Buffering – Overlay analysis – Surface analysis – Data out applications

Reference Books

Heywood	-	An introduction to GIS
Chang K	-	An Introduction to GIS
Borough P A	-	Principles of GIS for Land Resource Assessment
John R Jenson	-	Remote sensing of the Environment
Lillesand T M, Kiffer RM	-	Remote sensing and image interpretation
Sebens F	-	Remote Sensing – Principles and interpretation

Model Question Paper

6B16 GRY Principles of Geo Informatics

Time:3 hours **Total Weitage-25**

1. ***A.*** ***Choose the correct from the following -*** **Weitage-1**

i The first Land sat satellite, ERTS 1 was launched in
a.1972 b.1969 c.1975 d. 1965

ii A Sensing device on the LANDSAT satellite that collects simultaneous images over multiple ranges of the spectrum.
a. MOSS b. MSS c. SPOT d. TM

iii. A vector based GIS developed and marketed by ESRI
a. MapInfo b. ERDAS c. IDRISI d. Arc Info.

iv. A gap or overlap that is generated by combining two or more coverage that are not coincident
a. sliver b. Spike c. Merge d. Buffer

B. Fill in the blanks of the following with correct answer - **Weitage-1**

i. Data that convey the locations and description of geographic features is called…
ii. The Process of creating an x, y coordinate location from another geographic location description is…….
iii. The minimum distance between two object that can be distinguished by a sensor is
iv. The process of estimating the value of an ensamples data point for given x, y, z location based on the values of surrounding sampled data points is ……

C. Mark the statement as true or false - **Weitage-1**

i. Model is a set of rules and procedures that represent a view of reality for conducting spatial analysis to generate a result.
ii. Re sampling is a process of assigning values to new, rectified or rescaled cells in raster database.
iii. Geographic coordinates specifying the locations of the point in a plane.
iv. Query is the technique used to conduct analyses on a set of points and lines that area connected to each other.

2. Answer any eight of the following in not more than 50 words each- **Weitage-1**

i. Geo reference.
ii. Query Language
iii. Reclassification
iv. Datum
v. Output in GIS
vi. Cadastral map
vii. Attribute data
viii. Geo spatial data
ix. Vector data
x. Geometric transformation

3. Answer any three of the following in not more than 150 words each-Weightage-2

i. Explain data stream?
ii. What are the principal components of GIS and which one is the most important among them.
iii. What is topology how it is build?
iv. Explain resolution and its types.
v. What is spatial analysis? What are the major spatial functions available in GIS?

4. Write essay on any two of the following in about 1000 words each- Weightage-4

i. Write an essay on the application of GIS
ii. Explain and differentiate vector and raster and show the overlay functions with suitable diagram.
iii. Explain GPS?
iv. Brief out the contribution of India in remote sensing.

Practical 1 Map Analysis

No. of Credits : 4

No. of Contact hours : I Sem - 2hrs/week.

II Sem – 2 hrs/week

III Sem – 2 hrs/week

IV Sem - 2 hrs/week

Code : 1B02(P)GRY
2B04(P)GRY
3B06(P)GRY
4B08(P)GRY

Module	***Contents***
I	Maps – classification
II	Scales – Definition – Representation of scales – Plain, Diagonal, Comparative & Time scale
III	Enlargement and Reduction of maps – Graphical and Instrumental methods
IV	Representation of relief – Spot heights, Hachures, Hill shading, Layer tints & colours – Representation of important landform features by contours –Concave slope, convex slope, Undulating slope, Uniform slope, Terraced slope, Conical hill, Plateau, Plain with knoll, Spur, cliff, Waterfall, Delta, Estuary, V-shaped valley, U-shaped valley& Gorges.
V	Concept of slopes – Gradient – Significance of Horizontal & vertical scales – Calculation of gradient from topographic sheets Simple profiles.
VI	Study & Interpretation of weather maps – Pressure gradient , Departure of temperature from maximum & minimum – Study of weather instruments i) Rain gauge ii) Wind wane iii) Anemometer iv) Mercury barometer v) Fortin's barometer f) Thermometer – Wet and dry bulb thermometer

Practical – II Construction of Diagrams and Map Projections

No. of credits : 6

No. of contact hours : 5 Sem - 5 hrs/week

6 Sem - 6 hrs/week

Code : 5B12(P)GRY
6B17(P)GRY

Module	***Contents***
I	Construction of climatic & statistical diagrams 1. Line graph & poly graph 2. Simple and compound bar diagram 3. Band graph & Ergo graph 4. Wheel & Sector diagram – Rectangular diagram 5. Spheres – Rings – Sten-de-geer & Stil Gen Baur 6. Pyramid diagrams 7. Wind Rose diagrams 8. Hythergraph 9. Taylors Climograph
II	Map Projections – Types – Graphical construction – Properties and uses a. Zenithal – Equi-distant & Equal area projection – Gnomonic, Stereographic, Orthographic b. Conical – Simple conical, Two standard parallel Bonne's, Polyconic & International projection c. Cylindrical – Equi-distant, Equal-area & Mercator Projection d. Conventional Projection-Sinusoidal & Mollweide's Projection

Practical – III Surveying and Map Interpretation

No. of credits : 6

No. of contact hours : 5 Sem - 5hrs/week

6 Sem - 6 hrs/week

Code : 5B13(P)GRY

6B18(P)GRY

Module ***Contents***

1. Introduction of Survey of India Toposheets – Grid references in toposheets – Conventional signs

2 . Study of Maps of different scales – Marginal information Interpretation of toposheets – Physical and Cultural features – two sets of 1: 50,000, 1:25000 & 1:250,000 with sketches & cross sections. Identification of landforms

2. Surveying
   a. Chain & Tape Survey – Preparation of plans
   b. Prismatic Compass Survey – Open & Closed traverse
   c. Plane Table – Radiation and Intersection methods
   d. Indian clinometer – Calculation of height.

Study Tour - any place within South India, duration of which is limited to 7 days.

Sd/
Dr.P.K.Vijayan,
Chairman,BOS Geography(Cd)

Scheme Open Courses

No.	Semester	Course Code	Title of the course	Contact hours/week	Credits
1	V	5DO1GRY	Geographical Remote Sensing and GIS	2	2
2	VI	6DO1GRY	Natural Hazards and Disaster Management	2	2

5D01GRY Principles of Remote Sensing

No. of credits : 2

No. of contact hours: 2hrs/week

Module	*Contents*
I	Remote Sensing – Definition – type – Principles – EMR – Interaction of EMR with soil, vegetation and water – platforms – sensors – resolution - ideal remote sensing system
II	Aerial remote sensing - types of photographs – characteristics – elements of air photo interpretation – Applications
III	Satellite remote sensing – World programmes - LANDSAT, SPOT and IRS – Satellites and their sensor characteristics – Data products – visual interpretation of imageries – application
IV	Basics of Mapping – Scale – Signs & Symbols – Projection – Types of maps – Conventional and modern mapping

Reference Books

John R Jenson - Remote Sensing of the Environment
Lillesand TM, Kiffer RM Remote Sensing and image interpretation
Burrough - Principles of GIS for Land resource assessment
Curran P - Principles of Remote Sensing
Subens F - Remote Sensing – Principles and interpretation

Model Question Paper

5D01GRY Principles of Remote Sensing

Time:3 hours **Total Weitage-25**

1. ***A.*** ***Choose the correct from the following*** **- Weitage-1**

i India first indigenous satellite Aryabhatta was launched
a.1972 b.1969 c.1975 d. 1965

ii Reference data is also called
a. ground truth b. Metadata c. Database d. secondary data

iv. Light interact with gases and particulate matter is
a. Absorption b. Radiation c. scattering d. Reflection

iv. A Sensing device on the LANDSAT satellite that collects simultaneous images over multiple ranges of the spectrum.
a. MOSS b. MSS c. SPOT d. TM

B. Fill in the blanks of the following with correct answer- **Weitage-1**

i. Data that convey the locations and description of geographic features is Called ……..
ii. IRS -1C LISS III camera has temporal resolution of …….
iii. The minimum distance between two object that can be distinguished by a sensor is
iv. Variability in reflectance in a scene is ……

C Mark the statement as true or false - **Weitage-1**

i. Synthetic aperture is best example of active remote system
ii. The GOES programmer is a cooperative venture between NOAA and NASA
iii. X-ray wavelength ranges from 0.1 to 0.3
iv. Radio Detection and Ranging is a Passive microwave sensing system

2. Answer any eight of the following in not more than 50 words each- **Weitage-1**

i. SLAR.
iii. Polarization
iii. Geo-synchronized orbit
iv. Temporal Resolution
v. LISS III
vi. IFOV
vii. Photo index
viii. Visible spectrum
ix. Panchromatic image
x. Mie scattering

3.Answer any three of the following in not more than 150 words each. **Weitage-2**

i. Write note on projection?
ii. What is scanner mention its types
iii. What are elements of air photo interpretation?
iv. Explain resolution and its types.
v. Explain electro magnetic spectrum.

4. Write essay on any two of the following in about 1000 words each- **Weitage-4**

i. Write an essay on the application of Remote sensing
ii. Explain Visual image interpretation
xi. Write an essay on history of aerial remote sensing
xii. Differentiate modern and conventional methods of map making.

6D01GRY Natural Hazards and Disaster Management

No. of credits : 2

No. of contact hours :2hrs/week

Module	*Contents*
I	Natural hazards – Definition – Classification – Impact on the environment and society
II	Geo-tectonic hazards – earthquakes – Volcanoes – Landslides – Distribution
III	Geo-hydrological hazards : Floods - Droughts – Cyclones – Distribution – Biological hazards – types and distribution
IV	Disaster Management : Structural and non-structural measures – Role of Government and voluntary organizations

Reference Books

Majid Hussain - Geographical hazards
Arvind Kumar - Oceanic Diaster
R D Gupta - Environmental pollution, hazards and control
G K Ghosh - Diaster management
John Glasson - Introduction to Environmental Impact Assessment

Model Question Paper

6D01GRY NATURAL HAZARD AND DISASTER MANAGEMENT

Time:3 hours **Total Weitage-25**

1. **A.** Choose the correct answer from the following - **Weitage-1**
   i) The term 'Tsunami' came from
      a. Latin b. Japanese c. Korean d. English
   ii) Point of origin of a earthquake, beneath the crust
      a. focus b. epicenter c. focal centre d. None of these
   iii) Tropical cyclones are named as Typhoons in
      a. Arabian sea b. Gulf of Mexico c. China sea d. N. Australian coast
   iv) Landslides are
      a. Geocentric hazard b. Geo hydrologic hazard
      c. Biological hazard d. None of these

   B. Fill in the blanks of the following with correct answer- **Weitage-1**
   i) Magnitude of seismic waves are measured by the instrument called ……
   ii) Earth quake wave with maximum velocity is ……..
   iii) Pacific margin characterized with frequent occurrence of seismic activity and volcanoes are named as ……..
   iv) Global warming is caused by the excessive emission of …….. to the earth atmosphere

C. Mark the statements as True or False - **Weitage-1**

i) Landslides occurs when stress on land exceeds its resistance
ii) Mt. Fujiyama is an active volcano
iii) Plate boundaries are most susceptible zone for earth quakes
iv) Monsoons are seasonal reversal of wind systems

2. Answer any eight of the following in not more than 50 words each - **Weitage-1**

i) Distinguish between Natural hazards & Disasters
ii) Geo-Tectonic hazards
iii) Types of Volcanoes
iv) Cyclones
v) Biological hazards
vi) Tornadoes
i) Flood management
ii) Land slide
iii) Wave erosion
iv) Check dam
v) Earthen Dam

3. Answer any three of the following in not more than 150 words each - **Weitage-2**

i) Classify natural hazards
ii) Discuss drought prone area management
iii) Role of land use changes in Land slide occurrence
iv) Write short notes on EIA
v) Explain the causes and consequences of Earth quakes

4. Write essays on any two of the following in about 1000 words each - **Weitage-4**

i) Explain the scope and content of Disaster management
ii) Discuss the role of Human intervention on provoking nature
iii) Explain the role of Govt. and voluntary organization in disaster management
iv) Describe the nature and distribution of cyclones

K A N N U R U N I V E R S I T Y

SCHEME & SYLLABUS

CARTOGRAPHY (COMPLEMENTARY)

With effect from 2009 Admission

UNDER

CHOICE BASED CREDIT SEMESTER SYSTEM

1C01CTY **Cartography I**

Instruction hours : 2hrs/week

Credit : 2

Module I Nature & Scope of Cartography – Historical Development of Cartography till modern period. Ancient period – Early medieval period-Late medieval period- Early modern period –Late modern period& Recent period- Primitive cartography- Greek cartography- Roman cartography , Asian cartography & Indian Cartography.

Module II Artistic & Scientific bases of Cartography. Cartography as a science of human of communication – Branches of Cartography

Module III History of Maps – Types of maps – Classification of maps based on scale& purpose. Uses of maps.

Module IV Earth as a cartographic problem. Cartographic problems ofrepresenting earth – Shape& dimensions of the earth.

Module V. Cartographic coverage of the World. Survey of India maps – India & adjacent countries. Identification of sheets. Topographic mapping in other countries

Model Question Paper

1C01CTY CARTOGRAPHY -I

Time:3 hours **Total Weitage-25**

1. ***A. Choose the correct answer from the following*** **- Weitage-1**

i) Gnomon was invented by
a. Anaximander b. Homer c. Thales of Miletus d. Hecataeus

ii) The first person to calculate the circumference of the earth is
a) Eratosthenes b. Hipparchus c. Posidonius d. Homer

iii) A paper map is also known as
a. Hard copy b. Soft copy c. Digital copy
d. None of the above

iv) Father of cartography
a. Ptolemy b. Anaximander c. Hecataeus d. Hipparchus

B. Fill in the blanks of the following with correct answer **- Weitage-1**

i) Map gives a ……..picture of the earth.
ii) On a SOI Toposheet north is a …….
iii) Prime meridian passed through …….. near London
iv) Cadastral maps are …….. scale maps

C. Mark the statements as True or False- **Weitage-1**

i) SOI Topo sheet is an example of special purpose map
ii) Earth revolves round the sun in a clockwise direction.
iii) Shape of the earth is spherical.
iv) Equator is a great circle

2. Answer any eight of the following in not more than 50 words each- **Weitage-1**

i) Gnomon
ii) T in O map
iii) Thematic map
iv) Longitude
v) Interactive map
vi) Cadastral map
vii) Geoid
viii) Thematic map
ix) Inset map
x) Graphical scale

3. Answer any three of the following in not more than 150 words each- **Weitage-2**

i) Give the nature and scope of cartography.
ii) Explain the artistic and scientific bases of cartography.
iii) Discuss the history of maps.
iv) Explain the uses of maps.
v) Describe the cartographic problems of representing the earth.

4. Write essays on any two of the following in about 1000 words each- **Weitage-4**

i) Describe the development of Cartography during the modern period.
ii) Classify maps and explain.
iii) Explain the different co-ordinate systems.
iv) Discuss the role of modern technology on the development of cartography.

2C03CTY Cartography II

Instruction hours: 2hrs/week
Credit : 2

I. Role of co-ordinates- Grid system. True, Magnetic & Grid North. Map Projections Uses – Types –Importance of map projections in cartography

II Map making processes – Procedure – Map Compilation – Pull ups –Compiling Physical & cultural details – selection of details – Elements of generalization – Controls of generalization.

III Principles of lettering & Toponomy. Style, Form, Size& Positioning of Lettering – Mechanics of Lettering - Mechanics of map construction – Drawing materials & Equipments.

IV Principles & techniques of Map design & layout. Theory of visual perception. Making symbols visually significant. Constraints in map design. Symbolization –Point, Line & Area symbols – Qualitative &quantitative symbols – Format of a map. Inset maps

Model Question Paper

2C03CTY CARTOGRAPHY- II

Time:3 hours **Total Weitage-25**

1. A. Choose the correct answer from the following - **Weitage-1**

i) Assembling and fitting together the geographical data from different maps of different scales is called
a. Compilation b. Generalization c. Reductiond. Reproduction

ii) The portrayal of selected features to the map scale in a map is called
a) Generalization b. Compilation c. Regularization d. Reduction

iii) Which one of the following is an element of map generalization?
a. Compilation b. Classification c. Organization d. Legend

iv) Which of the following is the control of map generalization?
a. Map scale b. Simplification c. Selection d. Symbolization

B. Fill in the blanks of the following with correct answer- **Weitage-1**
i) Contour is an example of ……. symbol
ii) Similar to rough draft the composite that results from compilation process is called ……..
iii) The slanting letter form is known as …….
iv) The arrangement of various components of map is called ……

C. Mark the statements as True or False - **Weitage-1**
i) Wax engraving is also known as Cerography
ii) An important rule of compilation is to work from smaller to larger scale

iii) Elimination of unwanted details is a part of map generalization
iv) Layout is the process of arriving at proper balance

2. Answer any eight of the following in not more than 50 words each - **Weitage-1**
   i) Pull ups
   ii) Lettering style
   iii) Graphic limits
   iv) Symbolization
   v) Visual contrast
   vi) Scribing
   vii) Legend
   viii) True North
   ix) Inset map
   x) Quilpen

3. Answer any three of the following in not more than 150 words each -**Weitage-2**
   i) Bring out the figure ground relationship
   ii) Write an account on mechanical lettering
   iii) Explain the controls of map generalization
   iv) Give a short account on visual perception
   v) Write a note on map format

4. Write essays on any two of the following in about 1000 words each-**Weitage-4**
   i) Describe procedures of map compilation
   ii) Explain the elements of map generalization
   iii) Discuss various drawing materials and equipments used in map making
   iv) Explain the principles of map layout

3C05CTY Cartography III

Instruction hours : 3hrs/week
Credit : 2

Module

I. Thematic maps - Simple & Complex Thematic Maps – Qualitative & Quantitative Thematic maps. Problems in Thematic mapping – Atlas mapping. Mapping socio-economic data .

II. Mapping the terrain –Methods of representation-spot heights, Layer shading, contouring Field sketching- Block diagrams- Perspective block diagram Mapping the climatic & socio-economic data

III Mechanics of map construction- Drawing materials –Drawing equipments Map Reproduction – Reproduction processes – Duplicating & Printing - Various processes – Scribing –Problems in Map reproduction. Xerox, Silk screen printing. Photographic Processes.

IV Special purpose maps – Maps for children, Neo literates, Tourists, Blind, & maps for Business & Commercial organizations.

Model Question Paper

3C05CTY CARTOGRAPHY- III

Time:3 hours **Total Weitage-25**

I A. Choose the correct answer from the following: - **Weitage-1**

i. A soil map of Kerala is a
a.Complex thematic map b.simple thematic map. c.Qualitative map .none of the above
ii. 1: 1000,000 sheet is a
a. Thematic map. b. General purpose map. c. military map d. Guide map
iii. Origin of Silk screen printing is based on
a. Greek method b. Chinese method. c. Roman method d. None of the above
iv. When heights are marked on the map by numerical values at appropriate locations, they are called
a.contours b. hachures. C. spot heights. D. layer heights

B . Fill in the blanks of the following with correct answer - **Weitage-1**

i. A map showing the association or correlation between rainfall & rainfall variability is a ……map.
ii. Maps for the blind are as old as the ……
iii.The success of a thematic map depends to a very great extent on the quality of the …
iv Most of the Atlas maps are ……..maps.

C. Mark the statements as True or False. - **Weitage-1**

i. Maps for the Neo-literates are general purpose maps.
ii. Thematic maps give limited information.

iii. Atlas maps can be drawn on a variety of scales.
iv Isopleths are used for discrete aerial distribution.

***2. Answer any eight of the following in not more than 50 words each* – Weitage-1**

i. Pie chart.
ii Line symbols
iii Layer shading
iv Tourist maps.
v. Atlas mapping
vi Qualitative data
vii Scribing
viii. Grapnical scale
ix. Triangulation
x. Interpolation

***3.Answer any three of the following in not more than 150 words each*- Weitage-2**

i. Differentiate maps for children & Neo –literates.
ii. Explain photographic processes.
iii. Differentiate Isopleth & Choropleth.
iv. What are block diagrams? Explain its uses.
v. What are the drawing equipments for map reproduction?

***4. Write essays on any two of the following in about 1000 words each* – Weitage-4**

i. Explain the various methods of terrain mapping
ii. Explain in detail the differences between simple thematic maps & complex thematic maps.
iii. Write an account on special purpose maps.
iv. Explain the important methods of mapping the socio economic data.

4C07CTY Cartography IV

Instruction hours : 3hrs/week
Credit : 2

Module I Cartography & Remote sensing Remote Sensing – Definition – type Principles – EMR – Interaction of EMR with soil, vegetation and water – platforms – sensors – resolution - ideal remote sensing system.

Module II Aerial remote sensing - types of photographs – characteristics elements of air photo interpretation – Applications.

Module III Satellite remote sensing – World programmes - LANDSAT, SPOT and IRS – Satellites and their sensor characteristics – Data products – Visual interpretation of imageries – Application of remote sensing data in Cartography

Module IV Computers in Cartography- Cartography & GIS, Cartographic design In GIS, digital database in GIS. Linking of GIS & Remote sensing.

Model Question Paper

4C07CTY CARTOGRAPHY- IV

Time:3 hours **Total Weitage-25**

1. ***A.*** ***Choose the correct from the following -*** **Weitage-1**

i India first indigenous satellite Aryabhatta was launched
a.1972 b.1969 c.1975 d. 1965

ii Data about data is
a. ground truth b. Metadata c. Database d. secondary data

iii. Light interact with gases and particulate matter is
a. Absorption b. Radiation c. scattering d. Reflection

iv. Which one of the following is GIS software
a. ArcGIS b. Mapinfo c. ERDAS d. ArcView

B. ***Fill in the blanks of the following with correct answer -*** **Weitage-1**

i. Data that convey the locations and description of geographic features is Called ……..

ii. IRS -1C LISS III camera has temporal resolution of …….

iii. The minimum distance between two object that can be distinguished by a sensor is ……..

iv. Variability in reflectance in a scene is ……

C. ***Mark the statement as true or false -*** **Weitage-1**

i. Synthetic aperture is best example of active remote system

ii. The GOES programmed is a cooperative venture between NOAA and NASA

iii. X-ray wavelength ranges from 0.1 to 0.3
iv. Radio Detection and Ranging is a Passive microwave sensing system

2. Answer any eight of the following in not more than 50 words each- **Weitage-1**

i. SLAR.
ii. Polarization
iii. Geo-synchronized orbit
iv. Temporal Resolution
v. LISS III
vi. Raster Data
vii. Map overlay
viii. Generalisation
ix. Geometric transformation
x. Data structure

3.Answer any three of the following in not more than 150 words each. **Weitage-2**

i. Write note on projection?
ii. What is scanner mention its types
iii. What is CAD?
iv. Explain resolution and its types.
v. Explain application of remote sensing.

4.Write essay on any two of the following in about 1000 words each- **Weitage-4**

i. Write an essay on the application of Remote sensing
ii. Explain Visual image interpretation
iii. Write an essay on history of aerial remote sensing
iv. Explain computer assisted cartography.

Cartography Practical

No. of credits : 4

No. of contact hours : I Sem - 2hrs/week

II Sem - 2 hrs/week

III Sem - 2 hrs/week

IV - 2 hrs/week

Code : 1C02(P)CTY
2C04(P)CTY
3C06(P)CTY
4C08(P)CTY

Module	***Contents***
I	Maps of different periods – Hecataeus – Eratosthenes, Ptolemy & Mercator. A comparative study of the above maps
II	Maps – types; Scales – Methods of representation
III	Directions – Cardinal & Intermediate directions – Bearings – Whole circle & Quadrantal bearings
IV	Latitude & Longitude. Longitude and Time – Time Zones -Standard time & International date line – Calculation of time
V	Signs and symbols used in Survey of India Topographic sheets – Identification of point, line and area symbols used in topographic sheets – Examples from topographic sheets
VI	Air photos – Accessories used – Marginal information – Finding scales of Air photos
VII	Thematic mapping – Choropleth & Isopleth Maps – Preparation of maps using socio-economic & climatic data

Sd/
Dr.P.K.Vijayan,
Chairman,BOS Geography(Cd)

K A N N U R U N I V E R S I T Y

SCHEME & SYLLABUS

GEOGRAPHY (COMPLEMENTARY)

With effect from 2009 Admission

UNDER

CHOICE BASED CREDIT SEMESTER SYSTEM

1C01GRY Principles of Geography

No. of Credits : 3
No. of hours : 4 hrs/week

Module	*Contents*
I	Scope and content of Geography
II	Solar system – Rotation, revolution, Seasons.
III	Composition and structure of atmosphere and lithosphere; Hydrosphere, Biosphere.
IV	Major temperate zones. Pressure belts, wind system- humidity and precipitation. Major natural regions of the world

Model Question Paper

1C01GRY PRINCIPLES OF GEOGRAPHY

Time:3 hours **Total Weitage-25**

A. ***Choose the correct answer from the following*** **- Weitage-1**

i. Solar system is a part of
a. Milky way b. Sirius c. Great Bear d. Centaur

ii The planetesimal hypothesis was put forth by
a) Chamberlain b. Jeans and Jeffreys c. Kant d. Laplace

iii Which among the following is not an Intrusive rock?
a. Dyke b. Sill c. Sheet d. Basalt

iv) On clear winter night earth is cooled by.
a) conduction b) convection c.) Radiation d) condensation

B. ***Fill in the blanks of the following with correct answer-*** **Weitage-1**

i. Among the planets of the solar system, the biggest is ……..
ii As per Wegener the single super continent is called ……
iii lower layer of the atmosphere is called…….
iv The temperate zone lies in between the ……latitude and ……..longitude

C. ***Mark the statements as True or False -*** **Weitage-1**

i. When it is 8 am at 60° W, time at 60° E is 4 pm
ii. Summer solstice occurs on March 23rd
iii zone lies in the equator is frigid zone.
iv outer layer of the earth is called core

2. ***Answer any eight of the following in not more than 50 words each-*** **Weitage-1**

i) Solar system
ii) earth

iii) Seasons
iv) Temperate zone
v) Humidity
vi) Condensation
vii) Sedimentary rocks
viii) Lava
ix) Frost
x) Cyclone

***3. Answer any three of the following in not more than 150 words each*- Weitage-2**

i) Explain the Nebular hypothesis
ii) Discuss pressure belts
iii) What is biosphere
iv) Discuss types of season
iv) Write about the interior of the earth

***4. Write essays on any two of the following in about 1000 words each*- Weitage-4**

i. Explain the structure of the earth
ii Explain the scope and content of Geography
iii Brief out natural region of the world
iv. Explain rotation and revolution

2C03GRY Geography of India

No. of credits : 3
No. of hours : 4 hrs/week

Module	*Contents*
I	Geography of India- Physiography, climate, vegetation, drainage and population
II	States, union territories, capitals. Major Airports, Air routes, National Highways, Railways , National parks and sanctuaries in India
III	Tourist centers of Kerala- location, relief, drainage, back waters, hill stations. Distribution and their importance – transport network (Rail Road & water)
IV	Tourism potentialities due to Geographical factors , Eco tourism, dam tourism, tourism and national integration , island and levee tourism, coastal tourism

Model Question Paper

2C03GRY GEOGRAPHY OF INDIA

Time :3 hours **Total Weitage-25**

1. A. Choose the correct answer from the following - **Weitage-1**

   i) Which of the following two mountains are almost parallel to each other?
   a) Aravallis and Vindhyas b) Satpura and Aravallis.
   c) Vindhya and Satpura d) Eastern and Western Ghats

   ii) What percentage area of the World is occupied by India?
   a) 7.2 b) 6.8 c) 4.2 d) 2.4.

   iii) Which state has largest area?
   a) Tamil Nadu b) Karnataka c) Rajasthan d) Wst bengal

   iv) Munnar located in the?
   a) Palakkad b) Ernakulam c) Idukki d) Kottayam

B. Fill in the blanks of the following with correct answer - **Weitage-1**

   i) Coir industry in India is chiefly located in……

   ii) …….state has the largest acreage of forest in India.

   iii) The term Regur is used for……Soil.

   iv) The percentage of population living in urban areas is…….

C. Mark the statement as True or False - **Weitage-1**

i. India is largest producer and consumer of rice.
ii Secunderbad is the headquarter of South Central Railway.
iii North western Monsoon give rain fall to Goa.
iv the country china has the longest land boundary with India.

2. Answer any eight of the following in not more than 50 words each - **Weitage-1**

i. Trans Himalaya
ii. Malabar coast
iii. Mango showers
iv. Eco tourism
v. Mangroves
vi Doabs
vii Inland water transport
Viii. Peninsula
ix. Hinterland
x. Pamir knot

3. Answer any three of the following in not more than 150 words each - **Weitage-2**

i. Distinguish between National Park and Sanctuary
ii. Discuss the economic importance of Chota- Nagapur plateau.
iii. Urbanizations in India
iv. India has a vast potential for the development of tourism"
Examine the validity of this statement.
v. Compare western and eastern Ghats.

4. Write essays on any two of the following in about 1000 words each - **Weitage-4**

i. Regional division of the great Himalaya.
ii Discuss the regional pattern of monsoon in India.
iii Explain the chief characteristics of Desert regions of the world
iv Examine the potentiality for the growth of Tourism industry in Kerala

Practical Geography

No. of credits : *
No. of hours : 1st Semester - 2 hrs/week
Code : 1C02(P)GRY

Module	*Contents*
I	Scale. Definition- methods of scales- linear, diagonal and time and distance scale
II	Enlargement and reduction of maps. Direction and bearings.
III	Maps- large scale and small scale. Types of maps- Maps.
IV	Map study- introduction of survey of India toposheets, signs & symbols – numbering of national grid. Maps of different scales- marginal information, physical features with sketches and cross section – cultural features, land use mapping from toposheet

Practical Geography

No. of Credits : 2
No. of hours : 2nd Semester- 2 hrs/week
Code : 1C02(P)GRY
2C04(P)GRY

Module	*Contents*
I	Construction of statistical diagrams: simple and compound bar diagram, single line graph, band graph, wheel and sector diagram, spheres, ring, stendigeer diagram.
II	Time zones: std time and time zones, Indian std. time (IST), Green witch mean time (GMT) international data line
III	Indian daily weather report interpretation
IV	GIS and GPS

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