



‘সমানো মন্ত্র সমিতি: সমানী’

UNIVERSITY OF NORTH BENGAL
B.A./B.Sc. Honours 5th Semester Examination, 2023

CC11-GEOGRAPHY (501)

BIOGRAPHY OF PEDOLOGY

MODIFIED SYLLABUS

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

SECTION-I

1. Answer any *five* questions from the following:

1×5 = 5

- (a) Ao layer
- (b) Illuviation
- (c) Laterization
- (d) Micronutrients
- (e) Trophic Level
- (f) Solum
- (g) Biomes
- (h) Biodiversity.

SECTION-II

Answer any *three* questions from the following

5×3 = 15

- 2. How does parent materials affect the formation of soil?
- 3. Discuss briefly the USDA Soil classification.
- 4. Write in brief about the Savanna biome.
- 5. Write a note on Energy Flow in ecosystem.
- 6. Assess the importance of macro nutrients in soil fertility.

5
5
5
5
5

SECTION-III

Answer any *two* questions from the following

10×2 = 20

- 7. What is soil profile? How does soil profile develop in different climatic regions?
- 8. What is soil erosion? What are the different types of measures to check soil erosion?
- 9. Briefly discuss the ecological significance of equatorial biomes.
- 10. What do you know by Food Chain? Illustrate the answer with suitable diagram and examples.

3+7
2+8
10
10

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UNIVERSITY OF NORTH BENGAL
B.A./B.Sc. Honours 5th Semester Examination, 2023

CC12-GEOGRAPHY (502)

REMOTE SENSING AND GIS

MODIFIED SYLLABUS

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

SECTION-I

1. Answer any *five* questions from the following:

1×5 = 5

- (a) Flying height
- (b) Scattering
- (c) Orthophoto
- (d) Atmospheric window
- (e) GPS
- (f) Spatial data
- (g) Swath
- (h) GOES.

SECTION-II

Answer any *three* questions from the following

5×3 = 15

- 2. Discuss the different types of remote sensing platforms.
- 3. Write a short note on the principles of remote sensing.
- 4. Write a note on various components of GIS.
- 5. Differentiate between spatial and non-spatial data.
- 6. Differentiate between Rayleigh Scattering and Mie Scattering.

SECTION-III

Answer any *two* questions from the following

10×2 = 20

- 7. Give a detailed account on development of remote sensing.
- 8. Explain the various properties of EMR with suitable diagrams.
- 9. Discuss in detail about the geometry of aerial photograph with suitable diagrams.
- 10. Write down the application of remote sensing and GIS on forest monitoring.

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DSE-P1-GEOGRAPHY (503)

MODIFIED SYLLABUS

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

**Students will have to choose either DSE-1A (Population Geography) OR
DSE-1B (Resource Geography)**

Candidates should mention it clearly on the Answer Book.

DSE-1A

POPULATION GEOGRAPHY

SECTION-I

1. Explain / Define any *five* from the following:

1×5 = 5

- (a) Crude Birth Rate
- (b) Emigration
- (c) Morbidity
- (d) Population Explosion
- (e) Population Projection
- (f) Aging Population
- (g) Malnutrition
- (h) Brain gain.

SECTION-II

Answer any three

5×3 = 15

- 2. Briefly explain the nature of Population Geography.
- 3. Narrate the decadal growth of population in India since 1951.
- 4. What are the determinants of fertility in the developing countries?
- 5. Explain the Everett Lee's theory of Migration.
- 6. Explain the trend of declining Sex Ratio in India.

SECTION-III

Answer any two

10×2 = 20

- 7. Critically discuss the stages of demographic transition Model with suitable examples.

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| 8. | Explain the theory of Optimum population. | 10 |
| 9. | What are the causes and consequences of migration in India? | 10 |
| 10. | Explain the consequences of unemployment in India. | 10 |

DSE-1B

RESOURCE GEOGRAPHY

SECTION-I

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|-----|--|---------|
| 1. | Explain / Define any <i>five</i> from the following: | 1×5 = 5 |
| (a) | Biotic Resource | |
| (b) | Neutral Stuff | |
| (c) | Afforestation | |
| (d) | Potential Resource | |
| (e) | Biomass | |
| (f) | In-situ Conservation | |
| (g) | E.I.A | |
| (h) | Agenda 21. | |

SECTION-II

Answer any *three*

5×3 = 15

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| 2. | Discuss the different components of Natural resources. | 5 |
| 3. | Site the major problems of Land as a resource. | 5 |
| 4. | Give an account of the different factors favourable for development of lumbering Industry in Temperate region. | 5 |
| 5. | Write a short note on thermal power generation in India. | 5 |
| 6. | Write an essay on Social forestry in India. | 5 |

SECTION-III

Answer any *two*

10×2 = 20

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| 7. | Define the term resource. Attempt a classification of resources with suitable example. | 2+8 |
| 8. | Discuss the different measures of forest conservation in India. | 10 |
| 9. | Give an account of the distribution of Coal in India. | 10 |
| 10. | Write a short note on sustainable development of resources. | 10 |

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B.A./B.Sc. Honours 5th Semester Examination, 2023

DSE-P2-GEOGRAPHY (504)

MODIFIED SYLLABUS

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

Students will have to choose either DSE-2A (Urban Geography) OR

DSE-2B (Agricultural Geography)

Candidates should mention it clearly on the Answer Book.

DSE-2A

URBAN GEOGRAPHY

SECTION-I

1. Explain / Define any *five* from the following:

1×5 = 5

- (a) Urbanism
- (b) Conurbation
- (c) Loop
- (d) Megacity
- (e) Transport bottle neck
- (f) Census town
- (g) Ghetto
- (h) Suburbs.

SECTION-II

Answer any *three* questions

5×3 = 15

- 2. Briefly discuss the nature of Urban Geography. 5
- 3. Present a functional classification of urban centres following F. S. Hudson. 5
- 4. Write a short note on urban heat island. 5
- 5. Briefly discuss the differences between Slums and Squatter settlements. 5
- 6. Write a note on the problems of water scarcity in Darjeeling town. 5

SECTION-III

Answer any *two* questions

10×2 = 20

- 7. Compare between the patterns of urbanisation in developed and developing countries. 10

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| 8. | Give a detailed accounts of the patterns of urbanisation in India. | 10 |
| 9. | Attempt a classification of cities based on functions after C. D. Harris with examples. | 10 |
| 10. | Briefly discuss the problems related to housing and transport in Siliguri town. | 10 |

DSE-2B

AGRICULTURAL GEOGRAPHY

SECTION-I

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| 1. | Explain / Define any <i>five</i> from the following: | 1×5 = 5 |
| (a) | Land Capability | |
| (b) | Slash and burn cultivation | |
| (c) | Sericulture | |
| (d) | Gross cropped area | |
| (e) | ICAR | |
| (f) | Agroforestry | |
| (g) | Seed bank | |
| (h) | Blue revolution | |

SECTION-II

Answer any *three* questions

5×3 = 15

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| 2. | Discuss the nature of Agricultural Geography. | 5 |
| 3. | What are the various landuse capability classes given by All India Soil and Landuse Survey Organization in 1970? | 5 |
| 4. | Discuss the socio-economic determinants of agriculture. | 5 |
| 5. | Explain the concept of Crop Combination regions. | 5 |
| 6. | Discuss the impact of Green revolution on Indian economy. | 5 |

SECTION-III

Answer any *two* questions

10×2 = 20

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| 7. | Give an account of the origin and dispersions of agriculture in the world. | 10 |
| 8. | Discuss the technological and Institutional determinants of agriculture. Illustrate your answer with suitable examples. | 10 |
| 9. | Give an account on agro-ecological regions of India. | 10 |
| 10. | Describe the agricultural land use model of Von-Thunen. | 10 |

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