



**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 6th Semester Examination, 2022

**GEOACOR13T-GEOGRAPHY (CC13)**

**EVOLUTION OF GEOGRAPHICAL THOUGHT**

Time Allotted: 2 Hours

Full Marks: 50

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**CATEGORY-A**

**Answer any two questions from the following within 600 words each** 10×2 = 20

1. Which period is known as the age of discovery and exploration? How has it expanded the horizon of geographical studies? 3+7
2. Explain the nature of man-environment relations with respect to different schools of Geographical Thought. 10
3. Discuss the contribution of Arab Geographers in the field of Geography during the Dark Ages. Why Al-Beruni's work is important in the context of India? 8+2

**CATEGORY-B**

**Answer any four questions from the following within 150 words each** 5×4 = 20

4. Explain the significance of positivism in Quantitative Revolution.
5. Why is Behavioural Geography regarded as the logical outgrowth of positivist approach in Geography?
6. What are the contributions of Confucius in Geography?
7. Justify why Vidal-de-la Blache is called the father of Human Geography.
8. Write about the main features contributed by the Greek Geographers in the ancient period.
9. Write a brief note on areal differentiation.
10. Distinguish between absolute and relative space.



**CATEGORY-C**

**Answer any five questions from the following within 50 words each**

11. What is dualism in Geography?
12. What is time-space prism?
13. What is climatic determinism?
14. Name two geographers who applied system approach in geomorphological studies.
15. Mention the basis of Radicalism.
16. Name eminent British Geographers who contributed to the study of Regional Geography.
17. What is critical geography?
18. Distinguish between humanistic geography and behavioural geography.
19. How does system approach relate regional identity?

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**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 6th Semester Examination, 2022

**GEOACOR14T-GEOGRAPHY (CC14)**

Time Allotted: 2 Hours

Full Marks: 40

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**CATEGORY-A**

**Answer any *one* question from the following within 600 words** 10×1 = 10

1. Explain the role of spatial and radiometric resolution in visual image interpretation. What are the special characteristics of water and vegetation in blue, green and NIR bands? 4+6
2. Explain how remote sensing and GIS act as a coupled system for geographical studies. How GIS is related to DBMS? 7+3

**CATEGORY-B**

**Answer any *four* questions from the following within 150 words each** 5×4 = 20

3. How does a GNSS Satellite Communicates ground based receiver unit?
4. Explain the concept of atmospheric window.
5. Explain how spatial data and non-spatial data integrate to make a GIS.
6. State the energy sources of remote sensing. How does it work?
7. Explain the role of sensor used in a Satellite.
8. State merits and demerits of raster data format.
9. Explain the importance of multi-spectral satellite image.



**CATEGORY-C**

**Answer any five questions from the following within 50 words each**

10. What do you mean by image classification?
11. How the band combination changes in preparing the standard FCC from IRS?
12. What is the important band combination used in IRS Satellite for mapping water bodies?
13. What is meta data? Give example.
14. What is the purpose of georeferencing?
15. Why turbid water appears in brighter tone than clear water on a standard FCC?
16. What are the different forms of Scattering?
17. How the image is enhanced?
18. What is atmospheric correction?

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**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 6th Semester Examination, 2022

**GEOADSE04T-GEOGRAPHY (DSE3/4)**

Time Allotted: 2 Hours

Full Marks: 50

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Candidates are required to give their answers in their own words as far as practicable.  
All symbols are of usual significance.*

**CATEGORY-A**

**Answer any two questions from the following within 600 words each** 10×2 = 20

1. Explain the factors that affect the surface run off. Draw diagram to illustrate your answer. 8+2
2. What is drainage basin? Describe the factors that influence the recharge of ground water. 2+8
3. What are the factors influencing the distribution of temperature and salinity of ocean water? 5+5

**CATEGORY-B**

**Answer any four questions from the following within 150 words each** 5×4 = 20

4. State the importance of hydrological cycle.
5. Explain the hydrological features of a drainage basin.
6. State the principles of watershed management.
7. State the vertical distribution of ground water.
8. Discuss the characteristic features of continental shelf.
9. Give an account of chemical properties of ocean water.
10. Write in brief about the characteristics of vertical distribution of ocean water salinity.



**CATEGORY-C**

**Answer any *five* questions from the following within 50 words each**

11. What is sublimation?
12. What is watershed management?
13. What is mid-oceanic ridge?
14. What is intermittent spring?
15. Define hydraulic conductivity.
16. What is hydrograph?
17. What is connate water?
18. Mention the major physical properties of ocean water.
19. What is photic zone?

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**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 6th Semester Examination, 2022

**GEOADSE06T-GEOGRAPHY (DSE3/4)**

**RESOURCE GEOGRAPHY**

Time Allotted: 2 Hours

Full Marks: 50

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Candidates should answer in their own words and adhere to the word limit as practicable.*

**CATEGORY-A**

1. Answer any **two** questions from the following: (within 600 words each) 10×2 = 20
- (a) Why utilitarian-based adaptation is an important and essential approach for resource utilization? Explain with examples. 10
- (b) 'Now-a-days our world has been facing energy crisis' — Highlight the major problems and suggest suitable management measures to mitigate the problems. 10
- (c) Why is water saving necessary? Discuss the major national and international issues and strategies taken regarding water saving. 2+8=10

**CATEGORY-B**

2. Answer any **four** questions from the following: (within 150 words each) 5×4 = 20
- (a) Explain why conservational approach is essential for resource utilization.
- (b) Give a brief account on management of natural resources.
- (c) How does resource become a backbone of economic growth and development of a country?
- (d) Discuss the consequences of fossil fuel depletion in near future.
- (e) Highlight the problems of Bauxite production in the world.
- (f) Suggest measures for conservation of non-conventional energy resources.
- (g) State the distribution of iron ores in the world.

**CATEGORY-C**

3. Answer any **five** questions from the following: (within 50 words each) 2×5 = 10
- (a) Define community based adaptation to resource utilization.
- (b) Mention the role of resource in economic development.



- (c) Mention the most threatened forests in the world.
- (d) Discuss how solar energy is a possible substitute of conventional energy resource.
- (e) What is the necessity of re-cycling of resources?
- (f) Mention some uses of bauxite.
- (g) State the importance of resource sharing.
- (h) How far is social forestry important in forest management?
- (i) Mention the problems of iron-ore production in India.

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**EVOLUTION OF GEOGRAPHICAL THOUGHT**

Time Allotted: 2 Hours

Full Marks: 50

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**CATEGORY-A**

**Answer any two questions from the following within 600 words each** 10×2 = 20

1. Explain the origin and development of systems approach in geography. 10
2. Name the major proponents of environmental determinism and discuss their contributions in the development of this paradigm. How does possibilism differ from environmental determinism? 7+3
3. How do dualism and dichotomy prevail in Geography? Explain with example(s). 10

**CATEGORY-B**

**Answer any four questions from the following within 150 words each** 5×4 = 20

4. Describe the background for the emergence of radical geography.
5. What is an Inductive Method of study? How did great philosopher Aristotle practice inductive method in his observation?
6. What are the merits and demerits of Quantitative Revolution in Geography?
7. Why Alexander Von Humboldt is regarded as the “Father of modern geography”?
8. Why behavioural and radical geography are known as critical geography? Describe the significance of radical approach in contemporary geography.
9. Differentiate between human geography and humanistic geography.
10. Briefly discuss the contribution of Chinese scholars of Geography during medieval period.



**CATEGORY-C**

**Answer any five questions from the following within 50 words each**

11. What is Neo-determinism?
12. Define logical positivism.
13. What is social Darwinism?
14. Outline the Voyage route of Vasco-da-Gama to India.
15. Name two British geographers who contributed to the development of regional geography.
16. Give one example of closed system and one example of open system from geography.
17. What is Pragmatism?
18. Name the authors of the following books:  
'Geography as Human Ecology' and 'India and Pakistan – A General and Regional Geography'.
19. Distinguish between 'Kenos' and 'Cosmos'.

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**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 6th Semester Examination, 2021

**GEOACOR14T-GEOGRAPHY (CC14)**

Time Allotted: 2 Hours

Full Marks: 40

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All symbols are of usual significance.*

**CATEGORY-A**

**Answer any one question from the following (within 600 words) 10×1 = 10**

1. What is an Electromagnetic spectrum? Explain how the electromagnetic spectrum interacts with the earth's atmosphere. 4+6
2. What is the standard false colour composite (FCC)? How the band combination changes in preparing the standard FCC from IRS and Landsat images? 4+6

**CATEGORY-B**

**Answer any four questions from the following (within 150 words each) 5×4 = 20**

3. State the merits and demerits of raster data format.
4. Explain the importance of spectral and radiometric resolution in digital image interpretation.
5. What are the orbital characteristics of GPS satellites?
6. What is image classification? Differentiate between the two methods of image classification.
7. How GIS is related to database management systems?
8. Discuss the importance of overlay analysis in geographical studies.
9. Explain how spatial data and attribute data integrate to make a GIS.



**CATEGORY-C**

**Answer any five questions from the following (within 50 words each)**

2×5 = 10

10. Define atmospheric window.
11. What is Pixel? What are the units of measurements?
12. What is the role of sensors in a satellite?
13. Differentiate 2-bit and 8-bit image.
14. What are the wavelengths of Green, Red, and Near IR radiation?
15. Why Landsat 8 TM satellite data is more useful than Landsat 1 MSS data to prepare a LULC map of an urban area?
16. Which band combination is required to prepare standard FCC from IRS LISS III data?
17. What is PRN code?
18. What is differential GPS?

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**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 6th Semester Examination, 2021

**GEOADSE04T-GEOGRAPHY (DSE3/4)**

**HYDROLOGY AND OCEANOGRAPHY**

Time Allotted: 2 Hours

Full Marks: 50

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**CATEGORY-A**

**Answer any *two* questions from the following within 600 words each** 10×2 = 20

1. Give a brief account of the global hydrological cycle. How does change in climate affect the global hydrological cycle? 6+4
2. Discuss the significance of drainage basin as a hydrological unit. Assess the components of surface runoff. 6+4
3. How can the theory of Plate tectonics explain relief differentiation of the ocean floors? What is meant by halocline? 8+2

**CATEGORY-B**

**Answer any *four* questions from the following within 150 words each** 5×4 = 20

4. Illustrate the principles of watershed management. 5
5. Differentiate between porosity and permeability. 5
6. Describe how geomorphology controls groundwater storage. 5
7. Explain the movement of groundwater with Darcy's Law. 5
8. Define a water mass and discuss its classification. 5
9. Discuss the significance of a T-S diagram. 5
10. Explain the sources of heat in the ocean water. 5



**CATEGORY-C**

**Answer any five questions from the following within 50 words each**

- |   |   |
|---|---|
| 11. Define evapotranspiration.                                  | 2 |
| 12. What is a unit hydrograph?                                  | 2 |
| 13. Define hydraulic head.                                      | 2 |
| 14. What is a perched water table?                              | 2 |
| 15. What is transform fault?                                    | 2 |
| 16. What is meant by the physical properties of sea water?      | 2 |
| 17. Write the names of two dominant salts found in ocean water. | 2 |
| 18. Define a thermocline layer.                                 | 2 |
| 19. What is a pycnocline?                                       | 2 |

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**RESOURCE GEOGRAPHY**

Time Allotted: 2 Hours

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**CATEGORY-A**

1. Answer any **two** questions from the following: (within 600 words each) 10×2 = 20
  - (a) What are the different approaches of Resource Conservation? How can the conservational approaches be incorporated to the community-based initiatives in rural areas? Explain with examples. 4+6
  - (b) Why community-based adaptation is an important and essential approach for resource utilization? 10
  - (c) Highlight the major problems that are associated to resource depletion in global scale. How does deforestation affect the resource reserves and chalk out its conservation strategies to minimize such depletion? 4+6

**CATEGORY-B**

2. Answer any **four** questions from the following: (within 150 words each) 5×4 = 20
  - (a) Give a brief account of the utilisation of conventional energy resources scenario of India.
  - (b) What are the different ways to conserve natural resources?
  - (c) What do you understand by fossil fuels? Explain with examples.
  - (d) Suggest measures for conservation of non-renewable resources.
  - (e) What are the different types of strategies to support water conservation in the world?
  - (f) How does the water dispute in association to Kaveri River become a conflict between states of peninsular India?
  - (g) "Humans are resources, at the same time they are creators and destroyers of the same" — Explain.



**CATEGORY-C**

3. Answer any *five* questions from the following: (within 50 words each)
- (a) What is water-sharing system?
  - (b) Define economic growth.
  - (c) Mention the importance of the place Kudankulum of Tamil Nadu in terms of non-conventional energy resources.
  - (d) Describe culture as resource creating factor.
  - (e) What are the uses of iron-ore?
  - (f) Suggest measures to combat conventional resource scarcity.
  - (g) What is agro-forestry?
  - (h) State advantages of community adaptive resource management.
  - (i) Mention four key approaches of resource utilization.

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