

Total No. of Printed Pages—3

**4 SEM TDC GGRH (CBCS) C 10**

**2 0 2 4**

( May/June )

**GEOGRAPHY**

( Core )

Paper : C-10

**( Remote Sensing and GIS )**

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

1. Answer the following as directed :  $1 \times 5 = 5$

(a) Sun is the ultimate source of energy in remote sensing.

( Write True or False )

(b) Remote sensing data with hundreds of spectral bands is known as ultra-spectral/hyper-spectral/multi-spectral.

( Choose the correct answer )

(c) Give two examples of ground-based remote sensing platforms.

( 2 )

(d) The satellite with maximum frequency of revisit over the same location has greater spatial/temporal/spectral resolution.

( Choose the correct answer )

(e) Meteosat/EDUSAT is an example of polar orbiting/geo-stationary satellite.

( Choose the correct answer )

2. Answer any *three* of the following questions (within 120 words each) :  $4 \times 3 = 12$

(a) Explain the merits and demerits of remote sensing.

(b) Explain the role of spatial resolution in remote sensing with examples.

(c) Cite out the major differences between polar orbiting and geo-stationary satellite.

(d) Discuss in brief about the elements of remote sensing with suitable diagram.

3. Answer any *three* of the following questions :  $12 \times 3 = 36$

(a) Describe briefly the concept of spectral, temporal and radiometric resolution in remote sensing. Give relevant examples.

( 3 )

(b) What do you mean by the concepts of EMR and EMS in remote sensing? Discuss in brief about atmospheric window and its significance in remote sensing.

(c) Define sensors and platforms in remote sensing. Give an outline of different types of sensors used in remote sensing with appropriate example.

(d) Define spectral signature in remote sensing. Discuss how spectral property of different objects in the surface of the earth becomes helpful for detection and analysis in remote sensing.

(e) Discuss briefly about the optical, thermal and micro-wave remote sensing with relevant examples.

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**4 SEM TDC GGRH (CBCS) C 9**

**2 0 2 4**

( May/June )

**GEOGRAPHY**

( Core )

Paper : C-9

**( Environmental Geography )**

Full Marks : 80

Pass Marks : 32

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

**1. Answer the following as directed : 1×8=8**

(a) The Environment Protection Act in India was enacted in the year \_\_\_\_\_.

( Fill in the blank )

(b) Mangrove forest/Tropical rain forest is found in Silent Valley of Kerala.

( Choose the correct answer )

(c) The acronym UNFCCC stands for United New Framework for Convention for Creating Climate Change.

( Write True or False )

( 2 )

(d) Namdapha National Park is located in \_\_\_\_\_.

( Fill in the blank )

(e) In an ecosystem, the energy flow is always unidirectional.

( Write True or False )

(f) Herbivore/Carnivore is placed in uppermost level of ecological pyramids.

( Choose the correct answer )

(g) Write the full form of UNCED.

(h) Earth Day is a celebration held every year on 22nd April/24th October to show support for environmental protection.

( Choose the correct answer )

2. Write short notes on any *four* of the following (within 200 words each) :  $4 \times 4 = 16$

(a) Terrestrial biome

(b) Global warming

(c) Scope of Environmental Geography

(d) IPCC

(e) Forest Conservation Act, 1980

( 3 )

Answer any *four* of the following questions :  $14 \times 4 = 56$

3. Discuss the historical progression of man-environment relationship in environmental geography. 14

4. "Environmental Geography is centred on the interactions and relations of the biogeophysical environment and human societies." Explain. 14

5. Define ecosystem. Explain the structure of the ecosystem and draw a diagram of trophic levels of ecosystem.  $2+8+4=14$

6. Give an account of the causes and impact of environmental problems in the tropical ecosystem.  $7+7=14$

7. Discuss the major environmental programmes and policies in India. What elements are necessary for these policies to be successfully implemented locally?  $8+6=14$

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