

REV-01
BGE/05/10

2024/06

**BA/B.Sc. GEOGRAPHY
FOURTH SEMESTER
REMOTE SENSING & GIS
BGE – 942 IDMN
[USE OMR FOR OBJECTIVE PART]**

**SET
A**

Duration: 1:30 hrs.

Full Marks: 35

Time: 15 mins.

(Objective)

Marks: 10

Choose the correct answer from the following:

1×10=10

1. What is remote sensing?
 - a. Direct observation of an object or phenomenon from a distance
 - b. Close-up examination of objects using a microscope
 - c. Examining objects by physical contact
 - d. None of the above
2. What is the main advantage of using satellite remote sensing?
 - a. Large area coverage
 - b. Lower temporal resolution
 - c. Limited coverage area
 - d. Restricted accessibility
3. What is the term for the process of converting raw remote sensing data into useful information?
 - a. Data visualization
 - b. Data acquisition
 - c. Data interpretation
 - d. Data processing
4. Which of the following is NOT a common application of GIS?
 - a. Urban planning
 - b. Wildlife conservation
 - c. Agricultural farming
 - d. Video game development
5. What is the purpose of a GIS?
 - a. To analyze spatial and non-spatial data
 - b. To create maps only
 - c. To forecast weather patterns
 - d. To analyze social media trends
6. What is raster data in GIS?
 - a. Data represented as a collection of points
 - b. Data represented as continuous grid cells
 - c. Data represented as lines and polygons
 - d. Data represented as network connections
7. What is electromagnetic radiation?
 - a. A form of mechanical energy
 - b. A form of energy propagated by electric and magnetic fields
 - c. A type of nuclear energy
 - d. A form of sound waves

8. What is the primary source of ultraviolet radiation?
- a. Sun
 - b. Earth's core
 - c. Artificial light bulbs
 - d. Microwave ovens
9. What is spatial data in GIS?
- a. Data that describes attributes of geographic features
 - b. Data that represents locations and shapes of geographic features
 - c. Data that describes temporal patterns of geographic features
 - d. Data that represents non-geographic attributes of features
10. Which spatial data type is commonly used for representing imagery such as satellite images and aerial photographs?
- a. Vector data
 - b. Raster data
 - c. Both vector and raster data
 - d. None of the above

(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

1. Write about differences between aerial remote sensing and satellite remote sensing. 5
2. Define GIS and explain how it is utilized in natural resource management 2+8=10
3. What do you mean by raster and vector data structures in GIS. Explain the fundamental differences between raster and vector data models, 5+5=10
4. What is spatial and non-spatial data in the context of Geographic Information Systems (GIS). Explain the fundamental differences between spatial and non-spatial data, 3+7=10
5. Write about principles, types and geometry of Aerial photography 10

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