

**PG (NEW) CBCS**  
**M.Sc. Semester-IV Examination, 2019**  
**GEOGRAPHY**  
**PAPER: GEO 404: SPECIAL PAPERS**  
**(REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM)**  
**Full Marks: 40** **Time: 2 Hours**

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**Use separate Answer-scripts for Unit-43 & Unit-44**

**UNIT-43**

**ADVANCED REMOTE SENSING**

**Marks-20**

**GROUP-A**

1. **Answer any two questions of the following:** **2×2=4**
- a. Write a short note on Lidar.
  - b. Mention the advantages of microwave remote sensing.
  - c. What do you mean by Spatial Filtering?
  - d. Write a short note on Image Enhancement.

**GROUP-B**

2. **Answer any two questions of the following:** **2×4=8**
- a. Briefly explain the concept of thermal remote sensing..
  - b. Briefly discuss the characteristics of Synthetic Aperture Radar.
  - c. What are the elements of visual image interpretation?
  - d. Briefly discuss the concept of Spectral Signature and its importance.

**GROUP-C**

3. **Answer any one question of the following:** **1×8=8**
- a. How is hyper spectral remote sensing different from multispectral optical remote sensing and what are the major applications of hyper spectral remote sensing?
  - b. Describe the different methods of digital image processing.

**(Turn over)**



(2)

**UNIT-44****ADVANCED GIS AND APPLICATIONS OF REMOTE SENSING****Marks-20****GROUP-A**

1. **Answer any two questions of the following:** **2×2=4**
- a. What do you mean by mobile GIS?
  - b. How is DGPS different from GPS?
  - c. What are the components of web GIS?
  - d. What do you mean by metadata?

**GROUP-B**

2. **Answer any two questions of the following:** **2×4=8**
- a. Write a short note on 3D GIS.
  - b. Write a brief note on different segments of GPS.
  - c. Mention the basic applications of Remote Sensing.
  - d. How can you integrate GIS with multimedia?

**GROUP-C**

3. **Answer any one question of the following:** **1×8=8**
- a. What do you understand by Spatial Data Infrastructure (SDI)? Write down the components and importance of SDI.
  - b. Discuss the role of remote sensing of watershed management and agricultural development.

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