

**PARUL UNIVERSITY**  
**FACULTY OF APPLIED SCIENCE**  
**M.Sc. Summer 2018-19 Examination**

**Semester: 2**  
**Subject Code: 11211154**  
**Subject Name: Remote Sensing and GIS**

**Date: 08/04/2019**  
**Time: 10:30 am to 01:00 pm**  
**Total Marks: 60**

**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Essay type (4x2) (Each of 04 marks) (08)**
- (a) Describe scattering in detail.
  - (b) Explain Geographic Information System in detail.
- Q.1. B) Answer the following questions (Any two) (04)**
- (a) Brief note (Each of 02 marks) (04)
    1. How to prepare a flight plan to acquire aerial photography?
    2. What is a supersensor?
  - (b) Short note on mapping with aerial photographs (04)
  - (c) Explain geometric elements of a vertical photograph. (04)
- Q.2. A) Answer the following questions. (04)**
- (a) Fill in the blanks. (Each of 02 marks) (04)
    1. The wavelength ranges in which the atmosphere is particularly transmissive of energy are referred to as \_\_\_\_\_.
    2. The means by which GPS signals are used to determine ground positions is called \_\_\_\_\_.
  - (b) Short note on geometric types of aerial photograph. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
- (a) Give one word answers. (Each of 01 marks) (03)
    1. How an area feature will be defined in GIS?
    2. Which scattering is manifestation of a blue sky?
    3. What is the full form of DEM?
  - (b) Short note on uniform energy source in an ideal remote sensing system. (03)
  - (c) Short note on the multiple data users in ideal remote sensing system. (03)
- Q.3. A) Brief note (4x2) (Each of 04 marks) (08)**
- (a) What is absorption?
  - (b) Explain uniform energy source & a noninterfering atmosphere in ideal remote sensing system.
- Q.3. B) Answer the following questions (Any two) (04)**
- (a) Short note (Each of 02 marks) (04)
    1. How a point feature will be defined in GIS?
    2. How a line feature will be defined in GIS?
  - (b) Short note on the energy matter interactions at the earth's surface. (04)
  - (c) Short note on the sensor. (04)
- Q.4. A) Answer the following questions. (04)**
- (a) Fill in the blanks. (Each of 02 marks) (04)
    1. \_\_\_\_\_ is the science and art of obtaining information about an object, area through the analysis of data acquired by device that is not in contact with object, area under investigation.
    2. The effect of \_\_\_\_\_ scatter is inversely proportional to the fourth power of wavelength.
  - (b) Explain the energy source & the atmosphere in characteristics of real remote sensing system. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
- (a) Multiple choice questions (Each of 01 marks) (03)
    1. GIS deals with which kind of data
 

a. Numeric data	b. Spatial data
c. Binary data	d. Complex data
    2. GIS stands for
 

a. Geographic Information System	b. Geological Information System
c. Generic Information System	d. Geographic Information Sharing
    3. GPS stands for
 

a. Global Positioning Sharing	b. Global Position Sharing
c. Global Positioning System	d. Geological Position System
  - (b) Short note on the data processing and supply system of real remote sensing system. (03)
  - (c) Short note on the multiple data users of real remote sensing system. (03)