

**B.Tech. (Main & COP)**  
**Fourth Semester Theory Examination 2016-17**  
**Surveying-II**

**Time: 3 Hours**

**Total Marks: 100**

**Note Attempt all questions. Draw diagrams if required.**

**1. Attempt any four parts of the following: (5x4=20)**

- (a) Explain the various factors that influence Aerial Photography
- (b) Write a detailed note on 'Scale of Aerial Photograph'
- (c) How are Aerial Photographs classified? Explain.
- (d) A flooded area is covered by 129 dot/cm<sup>2</sup> grid on a 1:20,000 vertical aerial photograph. Find the ground area flooded.
- (e) What are the keys of aerial photo interpretation? Explain.
- (f) What do you understand by 'Flight Planning'? How is flight planning carried out? Explain each step in detail.

**2. Attempt any four parts of the following: (5x4=20)**

- (a) Explain the following:
  - (i) Ideal Remote Sensing System.
  - (ii) Real Remote Sensing System.
- (b) Explain the following:
  - (i) Remote Sensing Data Products
  - (ii) Remote Sensing Sensors.
- (c) Explain the following:
  - (i) Atmospheric Windows
  - (ii) Multi Concept in Remote Sensing.

**3. Attempt any two parts of the following: (10x2=20)**

- (a) What is a satellite image? Write short notes on characteristics and formats of satellite image.
- (b) What do you understand by 'Image Rectification'? Explain with reference to the Satellite Remote Sensing.
- (c) What do you understand by Supervised and Unsupervised classification?

Attempt any two parts of the following: (10x2=20)

- (a) What do you understand by Geographical Data? Explain how GIS works on Geographic Data and helps the used in decision making.
- (b) Explain:
- (i) Raster Data Format
  - (ii) Vector Data Format
- (c) What do you understand by the term 'DTM'? Explain how it is helpful to Civil Engineers.

5. Attempt any two parts of the following: (10x2=20)

- (a) What do you understand by Satellite Navigation System? Explain in detail.
- (b) Explain how GPS can be helpful in conducting Topographical Survey.
- (c) How has GPS revolutionized our life? Explain.