

GUJARAT TECHNOLOGICAL UNIVERSITY
PDDC - SEMESTER-VIII • EXAMINATION – SUMMER • 2015

Subject Code: X80604**Date: 13/05/2015****Subject Name: Application of Geo-Informatics in Civil Engineering****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Differentiate between GIS and GPS. **07**
(b) Differentiate between : **07**
(1) Active and Passive Remote sensing
(2) Airborne and Space borne Sensor.
- Q.2** (a) Describe the Integrated role of GIS and Remote Sensing for Civil Engineering applications with suitable example. **07**
(b) Explain the significance of spectral reflectance curves in remote sensing. **07**
OR
(b) Explain the following terms : **07**
(1) Ground truth (2) Flight Planning
- Q.3** (a) Enlist and explain various softwares used for Remote Sensing. Explain any one in detail. **07**
(b) Describe the work of GPS work with neat sketch. **07**
OR
- Q.3** (a) Enlist and explain various softwares used for GIS. Explain any one in detail. **07**
(b) Describe the energy interaction with atmosphere and earth surface features **07**
- Q.4** (a) Explain various components of GIS. **07**
(b) Describe the Photogrammetry and various types of photo used in Photogrammetry **07**
OR
- Q.4** (a) Differentiate between Raster and Vector model in detail **07**
(b) Enlist and explain various elements of image interpretation. **07**
- Q.5** (a) Write various applications of GIS in Civil Engineering and explain any one in detail **07**
(b) How does remote sensing work ? Enlist advantages of remote sensing **07**
OR
- Q.5** (a) Explain the following terms : **07**
(1) Georeferencing (2) Multispectral Image
(b) Differentiate between **07**
(1) Aerial photo and satellite image.
(2) Image enhancement and Image interpretation
