

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VII(OLD) • EXAMINATION – WINTER 2016

Subject Code: 170606

Date: 18/11/2016

Subject Name: Application of Geoinformatics in Civil Engineering
(Department Elective-I)

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) Enlist and explain various application of Geo-informatics in Civil Engineering. **07**
(b) Define Remote Sensing. Explain the working principle of Remote sensing with neat sketch. **07**
- Q.2** (a) How GIS can be helpful in decision making of Urban Planning. **07**
(b) Enlist and discuss various advantages and limitations of GIS. **07**
- OR**
- (b) Differentiate between: **07**
(1) Active and Passive Remote Sensing (2) Attribute data and Spatial Data
- Q.3** (a) Discuss the working principle of GPS with neat sketch. **07**
(b) Write short notes on : **07**
(1) Overlapping in Photogrammetry (2) Application of Photogrammetry
- OR**
- Q.3** (a) State various applications of GPS in civil Engineering. **07**
(b) Differentiate between image enhancement and image interpretation. Also enlist various elements of photo interpretation. **07**
- Q.4** (a) Enlist various softwares used for Remote Sensing and explain any two in detail. **07**
(b) Discuss about use of spectral reflectance curve for vegetation and water with neat sketch. **07**
- OR**
- Q.4** (a) Enlist various softwares used for GIS and explain any two in detail. **07**
(b) Describe the Raster and Vector model with suitable example. **07**
- Q.5** (a) Discuss about integrated application of Remote sensing and GIS for the planning of flood water diversion plan. **07**
(b) Write short notes on : **07**
(1) Digitization (2) Georeferencing
- OR**
- Q.5** (a) Discuss about integrated application of Remote sensing and GIS for the planning of smart city. **07**
(b) Write short notes on : **07**
(1) Flight planning (2) Components of GIS
