

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER– V EXAMINATION – SUMMER 2017

Subject Code:2650013**Date:08/06/2017****Subject Name: Geographical Information System (GIS)****Time:02.30 PM TO 05.00 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) 1. Draw Taxonomy Diagram of GIS **02**
 2. Explain GPS **02**
 3. Explain Nominal Scale **02**
 4. What is Sinuosity? **02**
- (b) 1. Explain three point distribution methods. **03**
 2. Explain Inductive and Deductive modeling? **03**
- Q.2** (a) What is MAP Projection? What is the purpose of it? Describe MAP Projection in detail. **07**
 (b) Explain various methods of Raster Data Input. **07**
- OR**
- (b) Explain various methods of Raster Data Compression. **07**
- Q.3** (a) Write a note on various Vector Data Models. **07**
 (b) 1. Explain Spatial location and references. **04**
 2. What is Remote Sensing? How does it works? **03**
- OR**
- Q.3** (a) Explain High Pass Filter and Low Pass Filter in detail. **07**
 (b) 1. Explain Higher Level Line Object. **04**
 2. How will you measure polygon shape using Euler Number? **03**
- Q.4** (a) What is buffers? List and explain various types of buffers. **07**
 (b) What is Interpolation? Explain Linear and Weighted Interpolation. **07**
- OR**
- Q.4** (a) During the digitizing process how many types of error are generated? Explain each of them in detail. **07**
 (b) What is Metadata? What are the Metadata standards? **07**
- Q.5** (a) What is Statistical Surface? How to perform sampling of statistical surface? **07**
 (b) List and explain characteristics of Terrain Reclassification. **07**
- OR**
- Q.5** (a) Explain cartographic output in detail. **07**
 (b) What is MAP Overlay? Explain various overlay techniques for Raster Data. **07**
