

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA – SEMESTER – 5 • EXAMINATION – SUMMER 2018

Subject Code: 2650013

Date: 09-May-2018

Subject Name: Geographical Information System (GIS)

Time: 10.30 am to 1.00 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)** Define Map Projection. Explain families of projection and types of projection with figure. **07**
- (b)** Explain methods of compacting raster data to preserve storage with figures. **07**
- Q.2 (a)** List all the vector models. Explain vector model to represent surfaces. **07**
- (b)** Give the differences between Map Vs. GIS. Explain taxonomy of information system with chart and details. **07**
- OR**
- (b)** Explain spatial patterns and measurement levels for cartographic objects. **07**
- Q.3 (a)** Explain vector and raster to represent geographic space in map with example and figures. **07**
- (b)** What is filter? Explain High pass and Low pass filter. **07**
- OR**
- Q.3 (a)** Explain Hierarchical data structure and Relational data structure for managing data. **07**
- (b)** Explain Slicing method and cut & fill method of statistical surface. **07**
- Q.4 (a)** Explain Map preparation and Digitization process in GIS. **07**
- (b)** List all the types of Errors. Explain any two types of errors. **07**
- OR**
- Q.4 (a)** Explain feature elimination and feature smoothing methods for simplifying Map. **07**
- (b)** What is Overlay? Explain point and line in polygon overlay in Raster. **07**
- Q.5 (a)** Explain Metadata and metadata standards. **07**
- (b)** Explain traditional and nontraditional Cartographic Output. **07**
- OR**
- Q.5 (a)** Explain Map Design Controls in GIS output. **07**
- (b)** Explain s/w development strategies & s/w testing methodology. **07**
