

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER-V EXAMINATION – WINTER 2018

Subject Code: 650013

Date: 28/11/2018

Subject Name: Geographical Information System

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) Explain Raster and Vector Errors in Detail. **07**
(b) What do you mean by Map Projection? Explain different types with example. **07**
- Q.2** (a) Explain different methods for compacting raster data in detail. **07**
(b) Describe Metadata and Metadata standard with all its categories. **07**
- OR**
- (b) What is the significance of higher level point objects? Explain various methods of computing centroid. **07**
- Q.3** (a) Explain Cartographic model with diagram. **07**
(b) What is filter? Explain different types of it. **07**
- OR**
- Q.3** (a) What is alpha index and beta index? Explain Gravity Model with suitable example. **07**
(b) How to calculate Perimeter and Length of Polygons? **07**
- Q.4** (a) Write short note on types of buffer. **07**
(b) What are 'Higher Level Objects'? With suitable diagrams, explain three types of Network and three types of Region. **07**
- OR**
- Q.4** (a) Explain how to calculate or measure polygon length, parameter, area. **07**
(b) Explain Inductive and Deductive modeling. **07**
- Q.5** (a) What is Noncartographic output? Explain its type. **07**
(b) Write short note on Map Design control in GIS output. **07**
- OR**
- Q.5** (a) Give the example of cartographic model implementation and verification. **07**
(b) Explain the map design process. Explain non-traditional output and non-cartographic output. **07**
