

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-V • EXAMINATION – SUMMER • 2014

Subject Code: 650013

Date: 02-06-2014

Subject Name: Geographical Information System

Time: 10:30 am - 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.**

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|------------|------------|--|-----------|
| Q.1 | (a) | Definition of GIS and Evolution of GIS. | 07 |
| | (b) | What do you mean by Map Projection? Explain different types with example. | 07 |
| Q.2 | (a) | Elaborate cartesian coordinate system for Geographical Information System. | 07 |
| | (b) | Explain different methods of compacting raster data. | 07 |
| OR | | | |
| | (b) | Write short note on input subsystem. | 07 |
| Q.3 | (a) | Explain file structures with suitable figure. | 07 |
| | (b) | Explain Gravity Model with suitable example. | 07 |
| OR | | | |
| Q.3 | (a) | Explain higher level point object with suitable figure. | 07 |
| | (b) | How to calculate Perimeter and Length of Polygons? | 07 |
| Q.4 | (a) | Explain high pass filter and low pass filter. | 07 |
| | (b) | Explain different types of buffers of reclassification process. | 07 |
| OR | | | |
| Q.4 | (a) | Explain Nonlinear interpolation method with figure. | 07 |
| | (b) | Explain sliver polygons and wired polygons with figure. | 07 |
| Q.5 | (a) | Give principles of cartographic design in GIS. | 07 |
| | (b) | Write short note on map design control in GIS output. | 07 |
| OR | | | |
| Q.5 | (a) | Discuss Connectivity and circuitry of Linear Objects. | 07 |
| | (b) | Describe Digital elevation model (DEM) in detail. | 07 |
