

Seat No. : _____

DE-127

December-2013

5 Year M.Sc. (CA & IT)

Integrated (K.S.) 5th Year M.Sc.

Geographical Information System (GIS)

Time : 3 Hours]

[Max. Marks : 100

1. (A) (i) Define GIS. **5 × 1 = 5**
(ii) What are the components of GIS ?
(iii) Who are the users of GIS ?
(iv) Mention 5 fields where GIS can be used.
(v) Geographic coordinate system.
- (B) (i) What are the distortions associated with Cylindrical projection ? **5 × 3 = 15**
(ii) What are the different sources of data error ?
(iii) What are the different data cleaning operations ?
(iv) What is re projection ?
(v) Explain Datum.
2. (i) What are the advantages and disadvantages of vector data model and Raster data model : **10**
(ii) What are the different vector data analysis techniques and Raster data analysis techniques ? Explain one technique from each. **10**
3. Explain basic principles of map making. **10**
4. What is the role of GIS in Municipal management ? **20**

OR

How GIS can be useful in transport network planning ?

5. (A) Suppose you want to start a chemical factory in Gujarat. Decide the criteria that should be satisfied for selecting a site for it. Which are the layers you would need for that ? What operations you will perform on the layers to get the suitable site for the factory ? **15**
- (B) In context of IGIS write the steps to perform the following operations : **15**
- (i) open a new project and add three shape files on district_of_madhyapradesh, road_of_madhyapradesh, and touristplace_of_madhyapradesh
 - (ii) Find how many heritage sites are there in Madhya Pradesh
 - (iii) Save the information extracted from (ii) as a new layer.
 - (iv) Create buffer 500m radius around every tourist place
 - (v) Save the project and exit.
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