

Seat No. : \_\_\_\_\_

**DA-128**

**December-2017**

**5<sup>th</sup> Year M.Sc. (CA & IT), Integrated  
(Geographical Information System (GIS))**

**Time : 3 Hours]**

**[Max. Marks : 100**

1. Answer any **four** : **4 × 5 = 20**
  - (a) What is GIS ? How is it different from MIS and DBMS ?
  - (b) What do you mean by spatial, thematic and temporal dimension of geographic data ?
  - (c) Write short note on Geometric Transformation.
  - (d) Write about different data models in GIS with their advantages and disadvantages.
  - (e) What is (i) Conformal projection and (ii) Equivalent projection ?
  
2. Answer any **two** : **2 × 10 = 20**
  - (a) Write briefly :
    - (i) The characteristics of GIS maps
    - (ii) Datum
    - (iii) Topology
    - (iv) Geographic co-ordinate system
  - (b) What are the different sources of data for GIS ?
  - (c) What are the different data input error in GIS ?
  
3. Explain the following : (Any **ten**) **10 × 2 = 20**
  - (i) Dissolve and eliminate operation
  - (ii) Overlay operation
  - (iii) Select operation
  - (iv) Clip operation
  - (v) Reclassification

- (vi) Neighbourhood operation
- (vii) Spatial interpolation
- (viii) Network Analysis
- (ix) DSM and DTM
- (x) Pattern Analysis
- (xi) Role of GIS in Modelling
- (xii) Root Mean Square Error

4. Answer any **two** : **2 × 10 = 20**

- (a) What is the primary objective of Map making ? Write about the basic principles of Map making.
- (b) Write about Data issues in GIS.
- (c) What is Positional accuracy, Content accuracy and Measurement error ?

5. Answer any **two** : **2 × 10 = 20**

- (a) Describe briefly the basic components of Internet GIS and the characteristics of Internet GIS.
- (b) In reference to QGIS, write briefly :
  - (i) Snapping tool
  - (ii) Geo-processing tool
  - (iii) Map composer
  - (iv) Main areas in QGIS GUI.
- (c) What is WMS and WFS ? Describe its basic interfaces.

---