ND-150

December-2015

5th Year M.Sc., (CA & IT)

Geographical Information System

Time : 3 Hours]   **[Max. Marks : 100**

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

   (a) What is GIS and what is the need of GIS ?

   (b) Explain the characteristics of GIS maps.

   (c) What are the different map projection techniques ? Describe the distortion associated with it.

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

   (a) What are the advantages and disadvantages of vector and raster data model ?

   (b) Give brief description of the following :

        (i) Spatial and non-spatial data

        (ii) Geometric transformation

        (iii) Data input error

        (iv) Spatial multimedia

        (v) Quad tree tessellation

   (c) Describe briefly :
        (i) Any five map manipulation techniques
        (ii) Raster data analysis

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

   (a) Explain different visual variables for data display.

   (b) Describe the utility of Network analysis.

   (c) Explain :

        (i) Thiessen polygon and its use

        (ii) Pattern analysis

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

    (a) Explain what 'data issues' in GIS is

    (b) What is Web GIS and what is its need ? Explain Web GIS architecture and requirement of OGC.

    (c) Explain the functionality of WMS, WFS, WCS.

5. Explain the capabilities of QGIS. What is the role of Geoserver ?   **20**

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