| BICE-006 |

B.Tech. CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

00366

June, 2015

BICE-006 : GEOINFORMATICS

Time : 3 hours   *Maximum Marks : 70*

*Note : Attempt any **seven** questions. All questions carry equal marks.*

1. (a) What do you understand by aerial photography ? Write the advantages and disadvantages of an aerial photograph over a map.   *2+4*

    (b) Explain in brief the characteristics of a vertical photograph.   *4*

2. (a) Define the Overlap in aerial photography. Explain the terms forward and side overlap.   *2+4*

    (b) Write the different features that hinder air photo interpretation.   *4*

3. (a) Discuss the types of remote sensing based on the energy sources. *6*

(b) Write the advantages of satellite images. *4*

4. (a) Explain in detail the shortcomings in a real remote sensing system. *6*

(b) Differentiate between spatial and spectral resolution for a satellite sensor. *4*

5. (a) Enumerate the different image processing functions. Write the image enhancement techniques in brief. *2+4*

(b) Differentiate between true colour composite and false colour composite. *4*

6. (a) Discuss the components of GIS. *6*

(b) Explain the types of digitization errors. *4*

7. Explain the vector and raster overlay operations in GIS. *10*

8. (a) Define GPS. Discuss the components of a GPS in brief. *2+4*

(b) Write the components of a GPS receiver. *4*

9. (a) Discuss the characteristics of GPS satellite signals. *5*

(b) Explain in brief the principle of a DGPS. *5*

10. Write short notes on any *four* of the following : $4 \times 2\frac{1}{2} = 10$

(a) Limitations of GPS

(b) DBMS

(c) Satellite Image Formats

(d) Supervised Classification

(e) Spectral Reflectance Curve

(f) Parallax Bar

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