

Total No. of Questions : 5

Total No. of Printed Pages : 3

EC-201

B.E. Vth Semester Civil Engg.

Examination, 2012-13

Surveying-II

Paper - CE-504

Time : 3 Hours]

[Maximum Marks : 60

Note :- Answer all the five questions by selecting any two parts from each.

1. (a) What do you understand from Digital levels ? How it is different from the Dumpy of Auto level ? 6
- (b) Explain with the help of a neat sketch about the theodolite instrument & its working. 6
- (c) Explain the Principle & components of Global Positioning system (GPS). 6
2. (a) Explain the following astronomical terms : 6

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- (i) Equator.
- (ii) Observer's meridian.
- (iii) Parallel of latitude.
- (iv) Declination.
- (v) Hour Circle.
- (vi) Right Ascension (R.A.).
- (b) What do you understand from local projected coordinates ? Explain the procedure for deriving such coordinates in surveying. 6
- (c) Explain the procedure for determining the latitude & longitude of a place. 6
3. (a) Explain in detail about the advantages of GPS surveying over the conventional surveying techniques. 6
- (b) What do you understand from map datum ? How it is relevant in GPS survey ?
- (c) What is meant from digital terrain model (DTM). How it is different from a contour map. 6
4. (a) Explain different classification of photogrammetry in detail. 6
- (b) What do you understand from the scale of an aerial photograph ? How it is calculated. 6

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- (c) Two points A and B having elevations of 500m & 300m respectively above datum appear on the vertical photograph having focal length of 20 cm and flying attitude of 2500m above datum. Their connected photo coordinates are as follows : 6

Point	<u>Photo graphic coordinates</u>	
	x (cm)	y(cm)
a	+2.65	+1.36
b	-1.82	+3.65

Determine the length of ground line AB.

5. (a) Give definition of Remote Sensing and discuss its components. 6
- (b) Discuss different application of Remote Sensing in Civil Engg. 6
- (c) What do you understand from Geographic Information System (GIS) ? Explain its utility over conventional methods. 6

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