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**SUBJECT CODE NO: E – 413**  
**FACULTY OF ENGINEERING AND TECHNOLOGY**  
**T.E.(Civil) Examination Nov/Dec 2017**  
**Advanced Surveying**  
**(REVISED)**

[Time: Two Hours]

[Max.Marks:40]

Please check whether you have got the right question paper.

- N.B
- i. Q. No. 1 and Q. No. 5 are compulsory.
  - ii. Answer any two questions from section A and section B.
  - iii. Figures to right indicate the maximum marks.
  - iv. Assume suitable data if necessary, and state the same very clearly.

**Section A**

- Q.1 Answer the following questions (any three) 06
- a) Define Hydrographic surveying.
  - b) Scale and distortion of the vertical photograph?
  - c) Explain:- Drift and Crab
  - d) Define
    - i) Datum scale
    - ii) Average scale.
  - e) Define terrestrial photogrammetry?
- Q.2 What are sounding? Discuss various method of taking sounding? 07
- Q.3 What is sextant box explains the use of it in surveying? 07
- Q.4 Two point A and B having elevation of 700m and 350m respectively, above datum, appear on a vertical photograph obtained with a camera of focal length of 300m and flying altitude of 2700m above datum. Their correlated photographic coordinates are as follows. 07

Point	Photographic Coordinates	
	x(cm)	y(cm)
a	+3.65	+2.59
b	-2.26	+5.59

Determine the of the ground line AB.

## Section B

- Q.5 Answer the following questions (any three) 06
- a) What do you understand by electromagnetic spectrum?
  - b) Define
    - i) Nadir point
    - ii) Oblique Photograph
  - c) Differentiate between passive remote sensing and active remote sensing.
  - d) Write down main five components of GIS.
  - e) Elaborate the four M's for which geographical information is used.
- Q.6 Define and explain photo- interpretation. State and discuss briefly the factors that aid in photo –interpretation. 07
- Q.7 Write a detailed note on application of remote sensing. 07
- Q.8 Explain various types of data structures used in GIS. 07