Total No. of Printed Pages:1

**SUBJECT CODE:- 473**
**FACULTY OF ENGINEERING AND TECHNOLOGY**
**T.E.(Civil) Examination Nov/Dec 2015**
**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 is compulsory.
ii) Answer any two questions from section A and section B, apart from compulsory questions.
iii) Assume suitable data, if necessary, and state the same very clearly.
iv) Figures to the right indicate full marks.

**Section -A**

Q.1 Answer the following (any three) 06
1) Define terrestrial photogrammetry?
2) What is tilt and distortion in photogrammetry?
3) What is sounding in Hydrographic Surveying?
4) Explain shore line surveying?
5) Define: - i) Datum scale & ii) Average scale.

Q.2 Derive an expression for relief displacement on vertical photographs. 07

Q.3 What is sextant box; explain the use of it in Hydrographic Surveys? 07

Q.4 Two objects P and Q whose elevations are 500m and 2000m respectively above MSL are photographed from certain height with the axis of the camera vertical. The co-ordinates expressed in cm of the corresponding photo-images p and q are 07

| Point | x-co-ordinate | y-co-ordinate |
|---|---|---|
| p | +20 cm | +16cm |
| q | -33cm | -31cm |

The focal length of camera lense is 20cm and the length beth PQ=45229m. Find the height of the camera stations.

**Section-B**

Q.5 Answer the following questions. (any three) 06
a) Write down objectives of GIS?
b) Define RS and give its applications to civil engineering.
c) What do you mean by EMS (Electro-Magnetic-Spectrum)?
d) Give different applications of GIS?
e) Write down clearly difference between ARS and PRS?

Q.6 Explain in detail, the procedure of electromagnetic energy and its applications in RS. 07

Q.7 Draw, a neat sketch, and explain the various components of GIS. 07

Q.8 Explain, in brief, how you will utilize the knowledge of RS in order to determine leveling of various points on the surface of the earth? 07



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