

Total No. of Questions : 6]

SEAT No. :

P8

TE/Insem./APR-11

[Total No. of Pages : 2

T.E. (Civil)

301007 : ADVANCED SURVEYING

(2015 Course) (Semester - II)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Attempt Q.No. 1 or Q.No. 2 , Q.No. 3 or Q.No. 4, Q.No. 5 or Q.No. 6.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

Q1) a) Explain in brief the various triangulation figures commonly adopted and compare its merits and demerits. [6]

b) Enlist and explain types of errors in space based positioning systems. [4]

OR

Q2) a) Two stations A & B are 110 km apart. The elevation of A is 422 m and that of B is 705 m. In the line of sight between A & B, the intervening peak C, 74 km from A has the altitude of 477 m. Check whether the line of sight from A to B clears the peak with a minimum clearance of 3 m above ground level. Determine the height of the signal at B for intervisibility. [6]

b) Explain factors governing the positioning accuracy in Space Based Positioning System. [4]

Q3) a) During a sounding fieldwork, A, B and C were stations on the shore. P was sounding station. The angles measured were angle APB=32°46' and BPC=41°24'. The three shore stations are located by traversing. AB=596 m, BC=678 m, and angle ABC=132°52'. Find location of P by calculating distances PA, PB, and PC, if P is on the opposite side of line AC. [6]

b) Enlist the methods of locating sounding and explain any one in detail. [4]

OR

P.T.O.

- Q4)** a) Derive the analytical solution of three point problem. [6]  
b) Explain the method for measurement of tide levels in hydrographic survey. [4]

- Q5)** a) What is GIS? Explain the components of GIS. [5]  
b) Explain raster and vector data used in GIS. [5]

OR

- Q6)** a) Write a note on Geostationary and Sun-Synchronous Satellites. [5]  
b) Explain the use of electromagnetic spectrum in remote sensing and significance of atmospheric windows. [5]

