Total No. of Questions : 6]

SEAT No. :

P8

[Total No. of Pages : 2

TE/Insem./APR-11
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=I32°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]**

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