Code No: 153BV **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech II Year I Semester Examinations, October - 2020
SURVEYING AND GEOMATICS
(Civil Engineering)

Time: 2 hours **Max. Marks: 75**

Answer any five questions
All questions carry equal marks
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1. Explain the principles of surveying with neat sketches and explain the situations for which surveys are convenient? [15]

2. Observed bearings of a close traverse are given below, find correct bearings by finding local attraction affected stations. [15]

Line	FB	BB
AB	36^0	$216^0\ 45'$
BC	$98^0\ 15'$	276^0
CD	$201^0\ 45'$	$203^0\ 15'$
DA	$322^0\ 45'$	$142^0\ 45'$

3.a) List the various difficulties in Leveling.
b) Explain Differential Leveling and Precise Leveling, what are their advantages? [15]

4. Explain the different indirect methods of the location of contours and explain interpolation by arithmetical method? [15]

5. Show what errors are eliminated by the repetition method. How will you set out a horizontal angle by the method of repetition? [15]

6. A theodolite was set up at a distance of 200 m from a tower. The angle of elevation to the top of the parapet was $8^0\ 18'$ while the angle of depression to the foot of the wall was $2^0\ 24'$. The staff reading on the B.M. having R.L 248.362 with the telescope horizontal was 1.286 m. Find the height of the tower and the R.L. of the top of the parapet? [15]

7. Explain briefly the salient features of the total station. [15]

8. Explain the various applications of photogrammetry. [15]

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