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GIET UNIVERSITY, GUNUPUR - 765022
B. Tech (Fourth Semester Regular) Examinations, May - 2024
22BCVPC24002 - Surveying and Geomatics
(Civil)

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks)

PART – A**(2 x 5 = 10 Marks)**

| | CO # | Blooms Level |
|---|------|--------------|
| Q.1. Answer ALL questions | | |
| a. Differentiate between geodetic survey and plane survey. | CO1 | K3 |
| b. Differentiate between surveying and levelling. | CO1 | K3 |
| c. Convert the following WCB to RB system of bearing .0 ,90,125 ,270. | CO2 | K4 |
| d. Differentiate between closed traverse and open traverse . | CO1 | K3 |
| e. What is EDM and how does it different from traditional distance measurements methods in surveying. | CO3 | K1 |

PART – B**(15 x 4 = 60 Marks)**

| | Marks | CO # | Blooms Level |
|---|-------|------|--------------|
| <u>Answer ALL questions</u> | | | |
| 2. a. List all tape corrections. | 7 | CO2 | K1 |
| b. Explain the importance of reconnaissance survey. Differentiate between base line and check line. | 8 | CO1 | K2 |
| (OR) | | | |
| c. Describe local attractions . | 7 | CO2 | K2 |
| d. Explain magnetic declination. Differentiate between magnetic bearing and true bearing. | 8 | CO2 | K2 |
| 3.a. Explain in details about sources of errors in compass surveying. | 5 | CO1 | K1 |
| b. The following consecutive staff readings were taken with a level. 1.325,2.605,1.385,0.638,1.655,1.085,2.124,1.555 m The instrument was shift after 3 rd and 6 th reading. Calculate the reduced levels of all staff location using rise and fall method. RL of 1st is 100.00.(B.M) | 10 | CO3 | K4 |
| (OR) | | | |
| c. Explain the temporary adjustment of auto level with sketches . | 7 | CO2 | K1 |
| d. Explain fly levelling with neat sketches. | 8 | CO1 | K2 |
| 4.a. Explain the various application of remote sensing ,Gis & gps | 5 | CO1 | K2 |
| b. The followings bearings were observed at the stations for a closed traverse. LINE FB BB AB 80 259 BC 120 301 CD 170 350 10 DE 230 49 EA 310 130 15' Determine the corrected included angles. | 10 | CO3 | K4 |

(OR)

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|--|----|-----|----|
| c. Describe profile and reciprocal leveling . | 7 | CO2 | K2 |
| d. Differentiate between cumulative and compensating errors. List all the errors in chain surveying. | 8 | CO1 | K2 |
| 5.a. Describe the repetition method of measuring horizontal angle using a theodolite. | 8. | CO2 | K2 |
| b. Describe the various uses of theodolite with neat sketches. | 7 | CO1 | K2 |

(OR)

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|--|---|-----|----|
| c. What are the different elements of a remote sensing system? Explain with a neat sketch. | 8 | CO3 | K1 |
| d. Write the remote sensing applications for water resource mapping. | 7 | CO2 | K3 |

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