002417

May 2024
B.Tech. (Civil) - IV SEMESTER
SURVEYING AND ENGINEERING GEOMATICS
(PCC-CE-206R)

Time : 3 Hours]   [Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART–A

1. (a) Determine what does 1 cm on a map drawn at a scale of 1:50000 represent on the ground.   (1.5)

    (b) Define transition curve.   (1.5)

    (c) Discuss the benefits of GPS.   (1.5)

    (d) Define Photogrammetry.   (1.5)

    (e) A 50 m tape is held 2 m out of line. Determine its true length.   (1.5)

    (f) What is Trigonometric leveling?   (1.5)

    (g) What is a Theodolite?   (1.5)

(h) Define contour. (1.5)

(i) Differentiate between Digital and Auto Level. (1.5)

(j) Define Stereoscopy. (1.5)

PART–B

2. (a) State five Merits and five Demerits of plane Table survey. (10)

(b) Draw contour lines for uniformly sloping ground. (5)

3. (a) Differentiate between aerial and terrestrial photogrammetry. (5)

(b) Explain the working principle of a total station along with a suitable diagram. (10)

4. Discuss the different types of Errors in Levelling and their corrections in detail. (15)

5. (a) Discuss the different uses of theodolite. (5)

(b) Explain remote sensing and list its applications. (10)

6. (a) Distance between two stations when measured with 20 m chain was 1423 m. It was afterward found that the chain was 10 cm too long. Calculate true distance between two stations. (10)

(b) Differentiate between aerial triangulation and radial triangulation. (5)

7. Elaborate on the following :

(a) What are platforms and sensors?

(b) How is remote sensing data acquisitioned?

(c) Differentiate between visual image interpretation and digital image processing. (15)

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