Seat No.

Total No. of Pages : 2

MAR_APR 2026 SUMMER EXAMINATION

11731 Bachelor of Technology (NEP-2.0)

Sub. Name: Surveying

Sub. Code: 119639/115966

Day and Date: Thursday ,21-05-2026 **Total Marks: 60**

Time: 10:30 AM To 01:00 PM

Instructions:
1. **Assume suitable data wherever necessary and mention it boldly**
2. **Draw neat labelled diagrams wherever necessary**
3. **Figures to the right indicate full marks**
4. **Use of Scientific calculator is allowed**

Q1) Solve Any Three (15 Marks) **[15]**

a. Describe in detail trigonometrical levelling.

b. Explain Radiation Method & Intersection Method of plane table survey.

c. Explain Reciprocal Levelling in detail.

d. Explain in detail triangulation figures.

Q2) Solve Any Three (15 Marks) **[15]**

a. Draw neat sketch of simple circular curve and explain its components.

b. Write a short note on Transition Curve.

c. Explain types of curves with diagram.

d. Two tangents AB and BC intersect at point B at chainage of 100m. Calculate all the required
data for setting out the curve of 60m radius with deflection of 30 0 by method of offsets from long
chard.

Q3) Solve Any Three (15 Marks) **[15]**

a. Write a short note on Terrestrial Photogrammetry.

b. The scale of an aerial photograph 20cm X 20cm is 1cm=100m. Determine the number of
photographs required to cover an area of 8km X 12.5 km if the longitudinal overlap is 60% and side
overlap is 30%.

c. Explain the scale of vertical photographs with neat sketch.

d. Write a short note on Photo-theodolite.

Q4) Solve Any Three (15 Marks) **[15]**

a. Explain applications of GIS in Civil Engineering.

b. Explain applications of GPS in Civil Engineering.

c. Explain applications of remote sensing in civil engineering.

d. Explain basic components of GIS.

175223

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -
This Question Paper may be distributed for following Subjects as common code.
सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (1154) B.Tech. CBCS (119639) Surveying Part 2 SEM 4

2] (11731) Bachelor of Technology (NEP-2.0) (115966) Surveying Part 2 SEM 4

17523