Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 20 / 12/ 2025 **Time:** 09:30am – 12:30pm

School: SOE	**Program:** CIVIL ENGINEERING	
Course Code: CIV2101	**Course Name:** SURVEYING	
Semester: 3rd	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**4**	**6**	**20**	**30**	**40**

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10Q x 2M=20M**

1.	What is whole to part principle in surveying?	**2 Marks**	**L1**	**CO1**
2.	Compass surveying is a branch of surveying that determines locations using magnetic bearings from a compass and linear distances measured by a chain or tape, following the principle of traversing to create a series of connected lines. In relation to this define true meridian & true bearing.	**2 Marks**	**L1**	**CO2**
3.	What is ranging in surveying?	**2 Marks**	**L1**	**CO2**
4.	Surveying is the art of determining the relative positions of different objects on the surface of the earth by measuring the horizontal distance between them. Write the uses of surveying.	**2 Marks**	**L1**	**CO1**
5.	List the types of offsets in chain surveying.	**2 Marks**	**L1**	**CO2**
6.	Define level surface and level line.	**2 Marks**	**L1**	**CO4**
7.	Enumerate the types of Benchmark.	**2 Marks**	**L1**	**CO4**
8.	Checklist the types of level.	**2 Marks**	**L1**	**CO4**

9.	Name the errors eliminated by reciprocal levelling.	**2 Marks**	**L1**	**CO4**
10.	What is sensitiveness of bubble tube?	**2 Marks**	**L1**	**CO4**

Part B

Answer the Questions. **Total Marks 80M**

11.	**a.**	Summarize the benefits and limitations of drone surveying.	**20 Marks**	**L2**	**CO5**
		Or			
12.	**a.**	Explain the characteristics of contours.	**20 Marks**	**L2**	**CO5**

13.	**a.**	Summarize the various parts of theodolite.	**20 Marks**	**L2**	**CO3**
		Or			
14.	**a.**	Explain the method of repetition and reiteration to measure horizontal angles in theodolite surveying.	**20 Marks**	**L2**	**CO3**

15.	**a.**	Break down the process of "reciprocal levelling" into its critical steps. Explain the specific function of taking multiple readings from two positions and how this removes the error.	**20 Marks**	**L4**	**CO4**
		Or			
16.	**a.**	The following consecutive readings were taken with dumpy level along the chain line at common interval of 15m. The first reading was taken at a Chainage of 165m, where the RL was 98.085m. Instrument was shifted after 4th and 9th readings. 3.150, 2.245, 1.125, 0.860, 3.125, 2.760, 1.835, 1.470, 1.965, 1.225, 2.390, and 3.035m Mark rules on page of your note book in the form of level book and enter on it the above readings. Examine the Reduced Levels and infer the general topography of the land surveyed from first Chainage to last Chainage by: The collimation system/height of instrument method. or The rise and fall system.	**20 Marks**	**L4**	**CO4**

17.	**a.**	Illustrate the equipment and accessories used in plane table surveying.	**20 Marks**	**L3**	**CO5**
		Or			
18.	**a.**	Given below is the Fig 1 of block size 20mx15m which is divided into blocks of size 5mx5m. The reduced levels of each corner of the block is shown in the figure. Draw the block to a scale of 1:100. Plot	**20 Marks**	**L3**	**CO5**

		the contours of 99.25, 99 and 98.75m in the given block and calculate at what distance they lie on the ground by interpolation method.