PVP 23

Code: 23CE3301

II B.Tech - I Semester – Regular Examinations - DECEMBER 2024

SURVEYING
(CIVIL ENGINEERING)

Duration: 3 hours Max. Marks: 70

Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each Question carries 10 marks.
4. All parts of Question paper must be answered in one place.

BL – Blooms Level CO – Course Outcome

PART – A

		BL	CO
1.a)	List the accessories of plane table.	L1	CO1
1.b)	What is Magnetic Declination?	L1	CO2
1.c)	What is meant by the reduction of levels?	L1	CO1
1.d)	Write the formula for Simpson's rule.	L1	CO3
1.e)	List any three uses of theodolite.	L1	CO1
1.f)	Distinguish between Line of Collimation and Line of Sight.	L2	CO2
1.g)	What are the advantages of reverse curves?	L1	CO4
1.h)	Write any two advantages of Total station.	L1	CO4
1.i)	What is radial triangulation?	L1	CO5
1.j)	What you meant by Photogrammetry Survey?	L1	CO5

PART – B

			BL	CO	Max. Marks
UNIT-I					
2	a)	Explain different methods of plane Surveying? Under what circumstances they are preferred? Also give salient features of these methods.	L2	CO1	5 M
	b)	Distinguish between W.C.B and Q.B systems.	L2	CO1	5 M
OR					
3	a)	What is local attraction? Explain how the bearings are corrected for local attraction.	L2	CO1	5 M
	b)	Explain different types of tape corrections.	L2	CO2	5 M
UNIT-II					
4	a)	Explain the temporary adjustments of a leveling.	L2	CO2	4 M
	b)	Describe different indirect methods of locating a contour? Write about any one method in detail.	L2	CO2	6 M
OR					
5		A railway embankment 800m long is 15m wide at the formation level and has the side slope 2 to 1. The ground levels at every 200m along the center line are as under.	L3	CO3	10 M

	Distance	0	200	400	600	800		
	R.L	202.8	208.2	209.5	208.2	211.3		
	The formation level at zero chainage is 207.00 and the embankment has a rising gradient of 1 in 100. The ground is level across the center line. Calculate the volume of earth work using Trapezoidal and Prismoidal rule.							
	UNIT-III							
6	A theodolite was set up at a distance of 200m from a tower. The angle of elevations to the top of the tower was 8˚18' while angle of depression was 2˚24'. The staff reading on the BM of RL 248.362m with the telescope horizontal was 1.286m. Find the height of the tower and RL of the top of the tower.						L3	CO1	10 M
	OR							
7	a)	Explain traversing methods and describe how adjustment will be done.					L2	CO2	5 M
	b)	Explain reiteration method to find horizontal angles.					L2	CO1	5 M
	UNIT-IV							
8	What is meant by degree of a curve? Explain the different methods of designating a curve? Derive a relationship between the degree of a curve and its radius.						L2	CO4	10 M
	OR							

9	a)	Explain in detail about the different types of E.D.M instruments.	L2	CO4	5 M
	b)	Describe about Drone survey and LiDAR Survey.	L2	CO4	5 M
UNIT-V					
10	Describe the contents of specifications for terrestrial photogrammetry.		L2	CO5	10 M
OR					
11	a)	Distinguish between aerial triangulation and radial triangulation.	L2	CO5	5 M
	b)	Describe ground control extension for photographic mapping in detail.	L2	CO5	5 M