DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Mid Semester Examination – Sept./Oct. 2019

Course: B. Tech in Civil Engineering **Sem: I**

Subject Name: Surveying I **Subject Code:** BTCV 304

Max Marks: 20 **Date:-** 07/10/2019 **Duration:- 1 Hr.**

Instructions to the Students:

1. Illustrate your answers with neat sketches, diagrams etc. where ever necessary.
2. Necessary data is given in the respective questions. If such data is not given, it means that the knowledge of that data is a part of the examination.
3. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly.

		(Level/CO)	Mark
Q. 1	**Select the appropriate answer for the given MCQ's**		**6 X**
	1. What type of surveys needs to fix the boundaries of municipalities and of state and federal jurisdictions? a) Topographic Surveying b) Hydrographic Surveying c) Cadastral Surveying d) City Surveying	**C1/CO1**	
	2. Convenient direction towards permanent and prominent mark or signal is ___ a) True Meridian b) Magnetic Meridian c) Arbitrary Meridian d) Survey line	**C2/CO1**	
	3. The distance between the centers of two consecutive middle rings is _____ a) Chain length b) Chain effective length c) Effective link length d) Link length	**C3/CO2**	
	4. Which of the following measurements varies with an individual before computing the length of line? a) Chaining b) Pacing c) Levelling d) Contouring	**C1/CO1**	
	5. The magnetic bearing of a line AB is S 28°30′ E. Calculate the true bearing if the declination is 7°30′ West. a) N 36°00′ W b) S 21°00′ E c) S 36°00′ E d) N 21°00′ W	**C2/CO2**	
	6. In case, to get a well-proportioned or well-shaped triangle, no angle should be less than _____ a) 15° b) 30° c) 45° d) 25°	**C1/CO1**	

Q.2	**Solve Any Two of the following.**		**3 X 2**
(A)	Write a short note on Optical Square with labeled sketch.	**C2/CO2**	
(B)	Explain the working principle adopted in Plane Table Surveying.	**C1/CO1**	
(C)	Differentiate between Surveyor's compass and Prismatic compass.	**C2/CO2**	
Q. 3	**Solve Any One of the following.**		**8 X 1**
(A)	The following are the observed bearings of a closed traverse ABCDEA with a compass in a place where local attraction was suspected.	**C3/CO3**	

Line	FB	BB
AB	191°45'	13°0'
BC	39°30'	222°30'
CD	22°15'	200°30'
DE	242°45'	62°45'
EA	330°15'	147°45'

(B)	A closed traverse is conducted with five stations A, B, C, D and E taken in anticlockwise order, in the form of a regular pentagon. If the FB of AB is 30°0', find the FBs of the other sides.	**C2/CO3**	
	***** End *****		

The grid and the borders of the table may be hidden before final printing.