

<b>APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY</b>		
<b>Scheme for Valuation/Answer Key</b>		
<i>Scheme of evaluation (marks in brackets) and answers of problems/key</i>		
<b>FIRST/SECOND SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019</b>		
<b>Course Code: CE100</b>		
<b>Course Name: BASICS OF CIVIL ENGINEERING</b>		
Max. Marks: 100		Duration: 3 Hours
<b>PART A</b>		
<i>Answer all questions, each carries 3 marks.</i>		
	<b>Marks</b>	
1	Any 6 disciplines (6 x 0.5 marks)	(3)
2	Plinth area (1.5) Carpet area (1.5 marks)	(3)
3	Two basic principles of surveying (2 x 1.5)	(3)
4	Any two types of steel sections: Type, brief description with figure (1.5 x 2)	(3)
5	Purpose of foundations (any 3, 1 mark each)	(3)
6	Quoin (1.5 marks) Closer (1.5 marks)	(3)
7	Types of roofs : Sloping roof or Pitched roof : description and list of any 2 types (2) + flat roof : description (1 mark)	(3)
8	Any three differences (functional/technical) between Elevators and Escalators.	(3)
9	Any three factors (3 marks)	(3)
10	Explanation of ramp (1 mark), Short notes on its Civil Engineering aspects (2 marks)	(3)
<b>PART B</b>		
<i>Answer any eight questions, each carries 6 marks.</i>		
11	Classification of building as per occupancy (2). Description of any four (1 mark each)	(6)
12	Main components of a building (4 marks) + figure (2 marks).	(6)
13	Steps in setting out of building by centre line method.	(6)
14	External open spaces (4 marks) + Internal open spaces (2 marks)	(6)
15	Site plan (2 marks), marking of details (4 marks)	(6)
16	Brief description of instruments used for levelling : Level (3 marks) + Staff (3 marks)	(6)
17	Description and uses of (a) EDM (2 marks) (b) Total Station (2 marks) (c) GPS (2 marks)	(6)
18	Any three properties of good bricks (2 x 3)	(6)
19	Constituents of cement mortar (2 marks) Steps involved in the hand mixing of cement mortar (4 marks)	(6)

20		Any six uses of steel in building construction (4 marks)	(6)
<b>PART C</b>			
<i>Answer any two questions, each carries 11 marks.</i>			
21	a)	Procedure of plastering (6 marks)	(6)
	b)	What is an Intelligent building and its relevance today (1 mark) Any 4 concepts of intelligent buildings (4 marks)	(5)
22	a)	Any 3 types of shallow foundations (brief description only) with sketches (2 marks x 3)	(6)
	b)	List of floor finishing materials (1 mark) Description of any 2(2 x 2 marks)	(5)
23	a)	Uses of (a) chimney (2 marks) (b) water tanks (2 marks) (c) towers(2 marks)	(6)
	b)	Sound proofing: what is it/application in buildings (2 marks) Any three civil engineering aspects of sound proofing (3 marks)	(5)
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