

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
B.Tech examinations (S) September 2020 S1/S2 (2015 Scheme)

**Course Code: CE100**

**Course Name: BASICS OF CIVIL ENGINEERING**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 3 marks.*

		Marks
1	Write short note on NBC.	(3)
2	“Orientation is an essential step while planning a building”. Comment	(3)
3	Define datum, line of collimation and benchmark.	(3)
4	What are the characteristics of a good brick?	(3)
5	Define bearing capacity.	(3)
6	What are the requirements of an ideal roof?	(3)
7	What are the ingredients of paint?	(3)
8	Differentiate between ramps and escalators.	(3)
9	What are the limitations of an intelligent building?	(3)
10	What are functions of chimneys?	(3)

**PART B**

*Answer any eight questions, each carries 6 marks.*

11	“Infrastructural developments have a deep impact on a country’s economic growth and a Civil Engineer thus plays an important role in the development of a country.” Substantiate the statement from what you have learnt in the subject.	(6)
12	What are the important aspects of a site to be considered for constructing a residential building?	(6)
13	What are the functions of doors and windows in a building? List out the factors to be considered for the positioning of these.	(6)
14	Explain the need and types of open space requirement for a building	(6)
15	Define (a) Plinth area (b) Carpet area (c) FAR.	(6)
16	What are the instruments used for horizontal measurements? Explain.	(6)
17	List out the classification of surveying. Explain any two.	(6)
18	The following consecutive readings were taken with a dumpy level. 1.895, 1.500, 1.865, 2.570, 2.990, 2.020, 2.410, 2.520, 2.960. The level was shifted	(6)

after fourth and sixth readings. The reduced level of first point was 30.500. Rule out a page of field book and record the readings. Use Height of Instrument method to find the reduced levels of all points and apply the usual checks.

- 19 Enlist the various types of cement. Explain any two. (6)
- 20 What are the constituents of concrete? Explain the uses of concrete? (6)

**PART C**

*Answer any two questions, each carries 11 marks.*

- 21 a) Draw a neat sketch of the plan and elevation of 1 brick thick English bond. (6)
- b) Explain the classification of deep foundations through sketches. (5)
- 22 a) Explain the types of pitched roof. (6)
- b) Explain the procedure for the surface preparation of painting on new iron and steel work. (5)
- 23 a) What are the various types of air conditioning systems? Explain. (6)
- b) List down the various types of towers and explain any two. (5)

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