

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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
B.Tech Degree S1,S2(S,FE) Examination May 2021(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	Explain role of civil engineer to the society.	(3)
2	Enumerate general principles of planning a building.	(3)
3	What do you understand by the term reduced level, benchmark, datum surface?	(3)
4	Why steel is used as reinforcement in concrete?	(3)
5	Write any three functions of foundation.	(3)
6	Differentiate header bond and stretcher bond.	(3)
7	Define the terms: a) span b) rise c) pitch	(3)
8	How do you locate an elevator?	(3)
9	What are the important considerations of design of elevators?	(3)
10	Discuss any three facts about towers.	(3)

**PART B**

*Answer any eight questions, each carries 6 marks*

11	How the buildings are classified based on occupancy?	(6)
12	Describe important parts of building with their functions.	(6)
13	Why orientation of building is important? Write down the factors influencing orientation of building.	(6)
14	What are the factors affecting the position of doors and windows?	(6)
15	Explain any one method of calculating the reduced levels.	(6)
16	Write a brief note on modern surveying instruments.	(6)
17	Define the following terms used in levelling: - station, line of collimation, foresight, back sight, intermediate sight, height of instrument.	(6)
18	Briefly explain the various construction material used in civil engineering.	(6)
19	Describe the method of preparation of mortar.	(6)
20	List and sketch five important market forms of steel sections.	(6)

**PART C**

*Answer any two questions, each carries 11 marks*

- 21 a) Sketch any four types of foundations. Explain the functions of foundation. (6)
- b) What are the different types of floors adopted for construction of upper floors? (5)
- 22 a) Describe the steps involved in cement plastering. (6)
- b) Give the classification of water tanks. (5)
- 23 a) Enumerate design considerations of ramp and its uses. (5)
- b) Write a note on principles of comfort air conditioning. (6)

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