

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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**FIRST SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2017**

**Course Code: CE100**

**Course Name: BASICS OF CIVIL ENGINEERING**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 3 marks.*

- 1 Explain relevance of civil engineering in overall infrastructure development of the country. (3)
- 2 Enumerate the factors affecting orientation of the building. (3)
- 3 What are the principles of surveying? (3)
- 4 Compare PCC and RCC. (3)
- 5 What do you mean by bearing capacity of soil? (3)
- 6 Discuss the purposes of plastering? (3)
- 7 List down the different market forms of steel. (3)
- 8 What are the design consideration of ramps? (3)
- 9 List any six sound proofing materials. (3)
- 10 What is an intelligent building? (3)

**PART B**

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

- 11 Explain classification of buildings as per NBC. (6)
- 12 Briefly explain different components of building with a neat figure. (6)
- 13 What are the requisites of a good site plan? (6)
- 14 Discuss the various principles of building planning. (6)
- 15 Describe the open space requirements of a building. (6)
- 16 Explain direct ranging? (6)
- 17 The following consecutive readings are taken on a level with station A as Bench mark (R.L. of the Bench mark is 200.00 m).  
 2.190, 3.150, 1.060, 0.230, 3.430, 3.170, 3.420, 3.720, 2.390 The instrument is shifted after the reading 3.430. Enter these readings in level book and calculate the reduced level of all points. (6)
- 18 Discuss the different types of tests on bricks. (6)
- 19 Define the following: (6)  
 i) Height of instrument      ii) Reduced level      iii) Line of collimation
- 20 Describe the different types of cement and its uses. (6)

**PART C**

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

- 21 a) Explain classification of foundation with neat sketches. (6)  
 b) Draw the plan and elevation of one brick thick wall English bond. (5)
- 22 a) Discuss any six types of flooring materials. (6)  
 b) Discuss briefly the different aspects of escalators. (5)
- 23 a) Explain different air conditioning systems. (5)  
 b) Write short note on: (6)  
 i) Chimneys      ii) Towers      iii) Water tanks

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