

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FIRST SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

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

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| 1 | Write short note on the features of Educational building and Institutional building as per NBC. | (3) |
| 2 | What are the commonly adopted open space regulations for a residential building? | (3) |
| 3 | What are the advantages of total station? | (3) |
| 4 | Differentiate between PCC and RCC. | (3) |
| 5 | Differentiate between header and stretcher bond through sketches. | (3) |
| 6 | Explain any three functions of foundation. | (3) |
| 7 | List out the types of paints commonly available in market. | (3) |
| 8 | What are the design parameters of elevators? | (3) |
| 9 | What are the functions of tower? | (3) |
| 10 | List out the classification of air conditioning system. | (3) |

PART B

Answer any eight questions, each carries 6 marks.

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| 11 | Why is proper planning important for the construction of a building? What are the various stages of planning a building? | (6) |
| 12 | What are the various components of a residential building? Illustrate the parts with a neat sketch. | (6) |
| 13 | What are the factors to be considered while selecting the site for a residential building? | (6) |
| 14 | Differentiate between carpet area and floor area. | (6) |
| 15 | Explain the procedure adopted for setting out a single room building. | (6) |
| 16 | What do you mean by ranging? What are the instruments used for ranging? | (6) |
| 17 | The following staff reading were observed successively with a level, the instrument having been moved after third, sixth and eighth reading: 2.228, 1.606, 0.988, 2.090, 2.864, 1.262, 0.602, 1.982, 1.044, 2.684 m. Enter the above readings in a page of level field book and calculate the R.L. of points if the first reading was taken with a staff held on a bench mark of 100 m. | (6) |
| 18 | Write short notes on Total Station and GPS. | (6) |
| 19 | What is the composition of Ordinary Portland Cement? Explain. | (6) |

- 20 List out the properties of various types of steel used in building construction. (6)

PART C

Answer any two questions, each carries 11 marks.

- 21 a) Explain the procedure of painting a plastered wall. (6)
b) Explain the importance and features of intelligent buildings. (5)
- 22 a) How are foundations classified? Explain with figures any two types. (6)
b) List down the different roofing materials and explain any two commonly used types of roofing materials. (5)
- 23 a) Write short notes on uses and types of (a) Chimney (b) Towers. (6)
b) What are the Civil Engineering aspects to be taken care of while planning and constructing a ramp? (5)
