| Reg No.: | Name: |
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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

FIRST/SECOND SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019

Course Code: CE100

Course Name: BASICS OF CIVIL ENGINEERING

| Max. Marks: 100 | | | Duration: 3 Hours | | | | |
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| | | PART A | Marks | | | | |
| Answer all questions, each carries 3 marks. List down the various disciplines of Civil Engineering. | | (3) | | | | | |
| 2 | Define (a) Plinth area (b) Carpet area. | | (3) | | | | |
| 3 | What are the basic principles of surveying? | | | | | | |
| 4 | 4 Explain any two types of steels sections available in the market with sketches. | | | | | | |
| 5 | 5 Explain the purpose of foundations. | | | | | | |
| 6 | 6 Explain the terms (a) Quoin (b) Closer in brick bonding. | | (3) | | | | |
| 7 | What are different types of roofs? | | (3) | | | | |
| 8 | 8 Differentiate between Elevators and Escalators. | | (3) | | | | |
| 9 | | What are the factors to be considered for air conditioning a building? | (3) | | | | |
| 10 | | What is a ramp? Write short notes on its Civil Engineering aspects. | (3) | | | | |
| | | PART B | | | | | |
| 11 | | Answer any eight questions, each carries 6 marks. List out the type of building as per occupancy. Explain any four. | (6) | | | | |
| 12 | | Explain the components of a building with neat figure. | (6) | | | | |
| 13 | | List the steps in setting out of building by centre line method. | (6) | | | | |
| 14 | | What are the open space requirements as per NBC norms? | (6) | | | | |
| | | | (6) | | | | |
| 16 | Draw a site plan incorporating all the necessary details. | | | | | | |
| 17 | | Explain the various instruments used for levelling. Give short notes on (a) EDM (b) Total Station (c) GPS | (6)(6) | | | | |
| 18 | | | | | | | |
| | | Write any three properties of good bricks. | (6) | | | | |
| 19 | | Explain the constituents of cement mortar and explain the steps involved in the hand mixing of cement mortar. | (6) | | | | |
| 20 | | List out the uses of steel in building construction. | (6) | | | | |
| PART C | | | | | | | |
| 21 | a) | Answer any two questions, each carries 11 marks. Explain the procedure of plastering. | (6) | | | | |
| | b) | Explain the concept of intelligent buildings. | (5) | | | | |
| 22 | a) | Explain the types of shallow foundations. | (6) | | | | |

| b) | List out the types of floor | finishing materia | ls available? Exp | plain any 2 of them. | (5) |
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23 a) Write short notes on uses of (a) chimney (b) water tanks (c) towers. (6)

b) What are the civil engineering aspects of sound proofing? (5)
