

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FIRST SEMESTER B.TECH DEGREE EXAMINATION(S), DECEMBER 2019

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 | According to NBC, what are features of an assembly building and a hazardous building? | (3) |
| 2 | What is the importance of orientation of a building? | (3) |
| 3 | What are the advantages of GPS? | (3) |
| 4 | Explain the constituents of concrete. | (3) |
| 5 | What is the difference between bat and closer in brick masonry? | (3) |
| 6 | Define bearing capacity of soil. | (3) |
| 7 | List out the functions of plastering. | (3) |
| 8 | What is a ramp? What are the Civil engineering aspects to be considered in its construction? | (3) |
| 9 | What are the functions of communication towers? | (3) |
| 10 | List out the features of intelligent buildings. | (3) |

PART B

Answer any eight questions, each carries 6 marks.

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|----|---|-----|
| 11 | What are functions of (a) lintels, (b) sunshades and (c) walls in a building? | (6) |
| 12 | What are the factors to be considered for planning a residential building? | (6) |
| 13 | What are the factors to be considered while selecting the site for an industrial building? | (6) |
| 14 | Write short note on built up area, room size and open space requirements. | (6) |
| 15 | Explain the centre line method adopted for setting out of a building. | (6) |
| 16 | Explain the classification of surveying. | (6) |
| 17 | Differentiate between (a) back sight and fore sight (b) reduced level and bench mark. | (6) |
| 18 | Write short notes on (a) EDM (b) Digital level. | (6) |
| 19 | Explain the following properties of bricks: (a) water absorption (b) fire resistance (c) efflorescence. | (6) |
| 20 | What are the grades of concrete? Explain. | (6) |

PART C

Answer any two questions, each carries 11 marks.

- 21 a) What are advantages and disadvantages of flat roofs and pitched roofs? (6)
b) Compare and contrast elevators and escalators. (5)
- 22 a) Neatly sketch the elevation and plan of header bond and stretcher bond each with 40cm height and 80cm length? (6)
b) Explain the procedure of plastering a brick wall? (5)
- 23 a) Write short notes on uses of (a) Chimney (b) Towers. (6)
b) Explain in detail about the various sound proofing materials commonly adopted in buildings. (5)
