

10015

Reg. No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

FIRST/SECOND SEMESTER B.TECH DEGREE SPECIAL EXAMINATION, SEPTEMBER 2016

Course Code: CE100

Course Name: BASICS OF CIVIL ENGINEERING

Max. Marks: 100

Duration: 3 Hours

PART A

Answer ALL questions. Each question carries 3 marks

1. Explain the role of civil engineers to the society in various fields.
2. Write down the various details to be included in the site plan.
3. Explain the terms: (i) Benchmark (ii) Datum.
4. Illustrate any 6 properties of good bricks
5. Differentiate between header and stretcher bonds in brick masonry.
6. Explain the different types of roofing materials.
7. Explain the procedure for preparing the surface for painting.
8. What are the purposes of air conditioning a building?
9. List various materials used for sound proofing.
10. List out the limitations of intelligent building.

PART B

Answer any 8 questions (6 x 8 = 48 Marks)

11. What will be the conditions for the selection of site to buy a plot for constructing a residential building?
12. Illustrate the components of residential building and their function with neat sketch.
13. Explain the orientation of a building in tropical climate.
14. Explain the procedure for setting out of building by centre line method.
15. "Doors should be provided in such a way that there is maximum work space in front of the door and wastage of space is to be reduced." Justify the statement with neat figures.
16. Write short notes on : i) Total station (ii) EDM (iii) GPS
17. The following consecutive readings are taken on a level with station A as Bench Mark with RL 200.000m. They are 2.190, 3.150, 1.060, 0.230, 3.430, 3.170, 3.420, 3.720 and 2.390. The instrument is shifted after the reading 3.430. Enter these readings in a level field book and calculate the reduced levels of all points by Height of Instrument method.

18. List out the properties of mild steel and HYSD steel.
19. Explain plinth area, floor area, carpet area, plot area, coverage, and floor area ratio.
20. What are the constituents of RCC? List out the grades of concrete with their uses.

PART C

Answer any 2 full questions

21. A) Differentiate between shallow and deep foundations (5)
B) Draw the plan and elevation of one brick thick wall in English bond. (6)
22. A) Explain any five types of paints with their functions. (5)
B) Differentiate between Elevators and Escalators. (6)
23. A) Explain the different types of towers in detail. (5)
B) What are the main features of an intelligent building? (6)

