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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**FIRST/SECOND SEMESTER B.TECH DEGREE EXAMINATION, JULY 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. List out any six disciplines of civil engineering.
2. What are the factors affecting site selection of a building?
3. What is direct ranging?
4. Illustrate any 6 properties of good bricks.
5. What do you mean by bearing capacity of soil?
6. What are the various flooring materials available?
7. Differentiate between header bond and stretcher bond.
8. Discuss the principles of comfort air conditioning
9. Explain about towers and its uses?
10. What do you mean by intelligent building?

**PART B**

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

11. Describe with sketches the components of a residential building.
12. How can you classify the buildings based on occupancy according to National Building Code? Explain briefly.
13. Describe about the site plan of buildings.
14. Explain setting out of a building.
15. What are the factors affecting orientation of a building?
16. What are the main principles of surveying?
17. The following consecutive readings were taken with a dumpy level: 0.555, 0.725, 1.235, 0.73, 0.825, 1.560, 0.285, 0.945, 0.785, 2.465. The instrument was shifted after the third and seventh reading. The first reading was taken on a benchmark whose R.L. is 100.00 metres. Rule out the

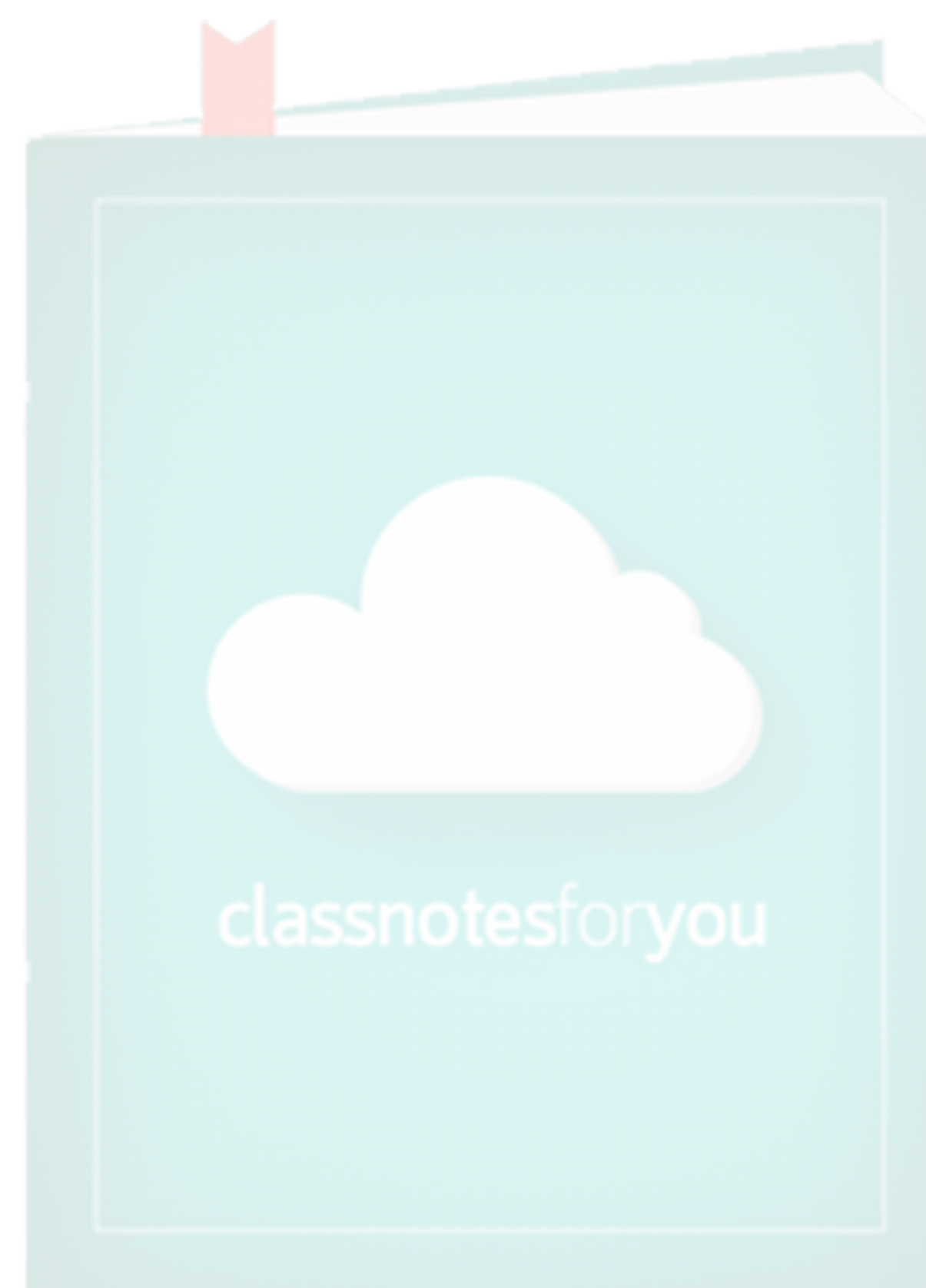
page of a level field book and enter the above readings. Calculate the reduced levels of stations and apply arithmetic check.

18. What are the constituents of good brick earth?
19. Explain types of cements and its uses.
20. Mention the physical and chemical properties of OPC.

### **PART C**

*Answer any 2 full questions*

21. a) Write short note on emulsion and distempering (5)  
b) Describe the functions of various types of foundations (6)
22. a) Explain the method of applying plaster on a wall surface. (5)  
b) Explain the civil engineering aspects of escalators and elevators in detail? (6)
23. a) What are the practical measures to provide sound insulation in a building? (5)  
b) What are the limitations of intelligent buildings over ordinary buildings? (6)



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