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

Course Code: BE101-01

Course Name: INTRODUCTION TO CIVIL ENGINEERING

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 1 mark.

Marks

- 1 The branch of Civil Engineering dealing with flow characteristics and mechanics of water is known as (1)
- 2 Define seasoning of stones. (1)
- 3 Which are the different grades of ordinary Portland cement? (1)
- 4 Define a stretcher course. (1)
- 5 What is the carbon content in mild steel, medium carbon steel and high carbon steel? (1)
- 6 Define pitch of a roof. (1)

PART B

Answer all questions, each carries 5 marks.

- 7 Explain setting out of building. (5)
- 8 What is meant by quarrying of stones? What are the different methods of quarrying and explain any one method in detail. (5)
- 9 a) What is meant by bulking of sand. (2)
b) State the properties of good sand. (3)
- 10 Write short note on Random Rubble masonry. (5)
- 11 What are the various defects occur in timber due to natural forces. (5)
- 12 Write the requirements of a Good roofing material. (5)

PART C

Module I & II

Answer any three full questions, each carries 6 marks.

- 13 Explain various components of a residential building. Give the functions of any three components. (6)
- 14 Classify various types of buildings on the basis of occupancy as per National Building Code of India. (6)
- 15 What are the qualities of good building bricks? (6)
- 16 Explain the manufacture of clay tiles. (6)

Module III & IV

Answer any three full questions, each carries 6 marks.

- 17 a) What are the various steps involved in the manufacturing of Ordinary Portland Cement. (2)

- b) With the help of a flow chart explain any one method for mixing raw materials during manufacturing of cement. (4)
- 18 a) State the important properties of mortar. (3)
b) Explain the preparation of mortar by Hand mixing. (3)
- 19 What are the different types of ashlar rubble masonry (6)
- 20 a) Differentiate between English Bond and Flemish Bond. (3)
b) Draw the plan and elevation of one brick wall in English Bond. (3)

Module V & VI

Answer any four full questions, each carries 7 marks.

- 21 What is meant by seasoning of timber? Explain different methods of seasoning of timber. (7)
- 22 Write short notes on Particle Board & Hard Board. (7)
- 23 What are the various types of steel sections manufactured and marketed? Explain any three structural steel sections with neat sketch. (7)
- 24 a) What are the different types of floors? (4)
b) What are the various Criteria for selecting Flooring materials? (3)
- 25 What are the advantages and disadvantages of Flat roofs? Explain any two types of flat roofs. (7)
