

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Semester Examination – December – 2018

Course: B. Arch.

Semester: I

Subject: Building Construction Technology and Materials –I

Subject Code: AR10100003

Date: 04/12/2018

Marks: 50

Duration: 2 Hrs.

Instructions: 1. All questions carefully

2. Neat sketches must be drawn wherever necessary

3. Figures to the right indicate full marks.

Q. No. 1. Solve any TWO of the following

(10 Marks)

A. Describe properties of good building stone. Briefly explain any 2 types of common building stones.

(5 Marks)

B. Describe Coarse Aggregate and Fine Aggregate.

(5 Marks)

C. Describe Initial and Final Setting time of the cement.

(5 Marks)

OR

Q. No. 1. Solve any TWO of the following

(10 Marks)

A. List different tests done to check quality of bricks. Explain any 2 tests

(5 Marks)

B. Describe Fat lime and Hydraulic lime

(5 Marks)

C. List Types of sand and Describe Bulking of sand

(5 Marks)

Q. No. 2. Attempt any ONE of the following

A. Describe manufacturing process of Bricks from raw materials to final product

(5 Marks)

B. Describe concrete and its ingredients. List various grades of concrete

(5 Marks)

C. Describe Sub-Structure and Super-Structure. Draw neat, properly annotated sketch of any 5 elements seen in super structure.

(10 Marks)

OR

A. Describe any 3 types of soils.

(5 Marks)

B. Describe process of manufacturing Lime in brief.

(5 Marks)

C. Describe plinth construction in Load Bearing wall type structure with neat properly annotated sketch of section.

Write note about importance of DPC

(10 Marks)

Q No. 3. Attempt any ONE of the following

A. 1. Draw a neat well annotated sketch of "T Junction", one brick wall in English and Flemish bond

(10 Marks)

2. Describe different stone masonry bonds. What is Uncoarsed Rubble and Ashlar Masonry. Describe with sketch showing elevation.

(10 Marks)

OR

B. 1. Draw a neat well annotated sketch of Semi-circular arch (brick or stone)

Explain importance of key stone with the help of load transferring diagram

(10 Marks)

2. Describe difference between Shallow and Deep foundation.

Draw neat sketches of Isolated and Combined foundations.

(10 Marks)

***** End *****