

## MANIPAL UNIVERSITY

FIRST SEMESTER B. DES. (ID) DEGREE EXAMINATION – FEBRUARY 2016

SUBJECT: BID 109 – BUILDING CONSTRUCTION MATERIALS - I  
(2015 SCHEME)

Monday, February 15, 2016

Time: 10:00 – 14:00 Hrs.

Max. Marks: 50

✍ Question no-1 is compulsory. Answer any THREE from the remaining.

1. Draft to Scale (1:10) the following types of Arches showing the construction Details:

1A. Segmental Arch for opening size of 2m

1B. 3- point Arch for opening size of 1.5m

1C. 5- point Arch for opening size of 1.8m

(6+6+8 = 20 marks)

2A. What are Bats? Explain with neat Sketches the different Types of Bats used in Brick Masonry?

2B. Enlist the importance of using brick bats in Brick Masonry.

(5+5 = 10 marks)

3A. Enlist & Sketch any five different types of Dressing of Stones.

3B. Briefly describe any five types of stones used for flooring in buildings.

(5+5 = 10 marks)

4A. Define Terracotta? Mention the properties and uses of Terracotta with examples.

(5 marks)

4B. Explain in brief Plastering and Pointing.

(2½+2½ = 5 marks)

5. Explain the following briefly:

5A. Rat-trap bond

5B. Preparation of cement mortar for various applications

5C. Different types of bricks

5D. Lintels and their function

(2½ marks × 4 = 10 marks)

