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## MANIPAL UNIVERSITY

FIRST SEMESTER B. DES. (ID) DEGREE EXAMINATION – NOVEMBER 2015

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

Tuesday, November 17, 2015

Time: 14:00 – 18:00 Hrs.

Max. Marks: 50

**Question no-1 is compulsory. Answer any THREE from FOUR questions.**

1. Draft to Scale (1:20) plan, elevation, section and view for the following:

1A. English Bond- 1½ Brick.

(2½ marks × 4 = 10 marks)

1B. Flemish Bond- 2 Brick.

(2½ marks × 4 = 10 marks)

2. Sketch the following:

2A. Bull's eye Arch

2B. Flat- Arch

2C. Relieving Arch

2D. Equilateral Arch

2E. 3 point Arch

(2 marks × 5 = 10 marks)

3A. Enlist and sketch any four different types of Dressing of Stones.

3B. What are the raw materials for brick manufacture? Also write proportions of good Brick Earth.

(5+5 = 10 marks)

4A. Define Terracotta. Enlist the properties and uses of Terracotta in Building Industry.

4B. Define Plastering. Mention the advantages of plastering.

(5+(2+3) = 10 marks)

5. Explain the following briefly:

5A. Cavity wall construction

5B. Clay tiles for roofing

5C. Ashlar Masonry

5D. Decorative brick-bond

(2½ marks × 4 = 10 marks)

