

MANIPAL UNIVERSITY**FIRST SEMESTER B. ARCH. DEGREE EXAMINATION – FEBRUARY 2016****SUBJECT: ARC 103 - BUILDING CONSTRUCTION AND MATERIALS – I
(2010 SCHEME)**

Tuesday, February 16, 2016

Time: 10:00 – 14:00 Hrs.

Max. Marks: 50

- ✍ From PART – A, answer any **THREE** questions in full.
- ✍ From PART – B, answer any **ONE** question in full.
- ✍ Wherever necessary, illustrate answers with neat sketches (in scale and in proper dimensions).

PART – A

1. Draw the following for one and half brick thick English bond wall. Scale: (1:10).
 - 1A. Plan for odd and even courses
 - 1B. Elevation
 - 1C. Isometric view

(5+2½+5 = 12½ marks)
2. Draw the following:
 - 2A. The elevation of a typical semicircular arch and label all its components
 - 2B. Elevation of a segmental arch of span 100cm scale: (1:10)

(6½+6 = 12½ marks)
3. Draw the following for one and half brick thick single Flemish bond wall. Scale: (1:10).
 - 3A. Plan for odd and even courses
 - 3B. Elevation
 - 3C. Isometric view

(5+2½+5 = 12½ marks)
4. Define any 5 of the following with neat sketches.
 - i) Voussoirs
 - ii) Crown
 - iii) Key
 - iv) Span
 - v) Intrados
 - vi) Arches

(12½ marks)

PART-B

- 5A. What is meant by pointing?
- 5B. How much is it relevant in building construction?
- 5C. List out the different types of pointing and explain any one in detail with neat sketches.

($3\frac{1}{2}+4\frac{1}{2}+4\frac{1}{2} = 12\frac{1}{2}$ marks)

- 6A. List out the different types of brick masonry and explain them in detail with neat sketches.
- 6B. Mention the usage of bricks in architecture.

($6\frac{1}{2}+6 = 12\frac{1}{2}$ marks)

