

MANIPAL UNIVERSITY**THIRD SEMESTER B. ARCH. DEGREE EXAMINATION – FEBRUARY 2016****SUBJECT: ARC 203 - BUILDING CONSTRUCTION AND MATERIALS III / BUILDING CONSTRUCTION III
(2010 & 2007 SCHEME)**

Monday, February 15, 2016

Time: 10:00 – 14:00 Hrs.

Max. Marks: 50

- ✍ Answer PART – A questions are compulsory; any TWO from PART – B and any ONE from Part – C.
- ✍ Assume suitable data wherever necessary.

PART – A

1. Draw plan and sectional elevation of the following foundation types taking appropriate dimensions to a suitable scale.
 - 1A. Isolated footing for a RCC column
 - 1B. Combined footing for two dissimilar columns
 - 1C. Pile foundation with pile cap for a group of five piles

(5+5+5 = 15 marks)

PART – B

2. Explain the following with neat sketches:
 - 2A. Steel grillage foundation
 - 2B. Typical RCC stairs with reinforcement details
3. Write short notes on the following with neat sketches:
 - 3A. Double joist timber flooring
 - 3B. Brick jack arch flooring
- 4A. List out the methods for timbering of trenches.
- 4B. Draw typical sketches of form work for a beam and slab floor.

(5+5 = 10 marks)

(6+4 = 10 marks)

(4+6 = 10 marks)

PART – C

5. Explain the properties and applications of the following material in building industry:
 - 5A. Steel
 - 5B. Wrought Iron
 - 5C. Asbestos
- 6A. List out the different types of polymeric materials with applications, used in building construction.
- 6B. Briefly explain on the uses of rubber as building material in various stages of construction.

(5+5+5 = 15 marks)

(6+9 = 15 marks)

