

MANIPAL UNIVERSITY**FIRST SEMESTER EXECUTIVE M. ARCH. (ADVANCED DESIGN)
DEGREE EXAMINATION – DECEMBER 2015****SUBJECT: ARM 603 E - ADVANCED STRUCTURAL SYSTEMS AND
CONSTRUCTION TECHNIQUES**

Saturday, December 05, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 50

✍ Answer any FIVE full questions.

1A. List the various types of loads, load combinations and its relevance in design.

1B. Explain the concept of composite floor system in high rise buildings.

(5+5 = 10 marks)

2A. Discuss the different types of bracing systems in tall buildings.

2B. Explain with neat sketch cable stayed structural system.

(5+5 = 10 marks)

3. Explain in detail the factors to be considered in the selection of a structural system for tall buildings.

(10 marks)

4. Explain the structural mechanism and force flow in the following structural systems:

4A. Pneumatic structures

4B. Folded plates

(5+5 = 10 marks)

5. Explain with neat sketches earthquake resistant measures in masonry structures.

(10 marks)

6. Write a short note on the following:

6A. Pre-stressing systems

6B. Shell structural system

(5+5 = 10 marks)

