

MANIPAL ACADEMY OF HIGHER EDUCATION
EIGHTH SEMESTER B. ARCH. DEGREE EXAMINATION – APRIL 2018
SUBJECT: ELECTIVE V - TALL BUILDINGS (ARC-14-406.1/ARC-406.1)
(2014 & 2010 SCHEME)

Thursday, April 26, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 50

- ✍ **Answer any FIVE full questions.**
- ✍ **Illustrate with neat sketches and examples wherever required.**

- 1A. What are the factors to be considered in the design of lift lobbies in tall buildings?
- 1B. Why do traffic planning and waiting time analysis play an important role in planning vertical transportation?

(5+5 = 10 marks)

2. Write in brief about the structural system of the present tallest building which stands at 828m.
- (10 marks)

3. **Explain about each of the following with sketches:**

- 3A. Buttressed core
- 3B. Passive damping systems
- 3C. Lateral forces
- 3D. Diagrid system

(2½ marks × 4 = 10 marks)

4. In brief write about the tubular structural systems which led to innovations in skyscraper design.

(10 marks)

5. **With reference to the Landscaping in tall buildings, explain in brief about the following:**

- 5A. Vertical gardens
- 5B. Green walls

(5+5 = 10 marks)

6. Explain in detail about the environmental impact of tall iconic towers on the urban landscape.
- (10 marks)

