

**MANIPAL UNIVERSITY****FOURTH SEMESTER B. ARCH. DEGREE EXAMINATION – APRIL/MAY 2014****SUBJECT: BUILDING SERVICES II (ARC-212)**

Tuesday, May 13, 2014

Time: 10:00 - 13:00 Hrs.

Max. Marks: 50

**✍ Answer any FIVE questions.****1. Explain the following:**

1A. Earthing

1B. Component parts of residential electrical wiring system.

(4+6 = 10 marks)

2A. In the context of electrical distribution over large areas explain with the help of sketches:

i) Radial Distribution System

ii) Ring or Loop Distribution System

iii) Interconnected Distribution System

2B. Explain the sub-circuits in electrical distribution system in a residential building.

(6+4 = 10 marks)

3A. Describe traction system in elevators comparing geared traction and gearless traction outlining their applications.

3B. Discuss the various differences between passenger lifts and freight lifts.

(6+4 = 10 marks)

4A. Draw a descriptive sketch of a typical escalator section marking all the components.

4B. Discuss the various safety features to be considered in escalator design.

(10 marks)

**5. Write short notes on: (any FOUR)**

5A. Circuit protective devices

5B. Quality of Illumination

5C. Fire safety considerations in elevators

5D. Landing platform in escalators

5E. Raceways and Busways

(2½×4 = 10 marks)

6. Explain the classification of lamps. Discuss any two types of lamps in detail with the help of sketches.

(10 marks)

