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MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B. ARCH. DEGREE EXAMINATION – JAN/FEB 2019

SUBJECT: ARC-14-207 - BUILDING SERVICES II (2014 SCHEME)

Saturday, February 02, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 50

✍ Answer any FIVE questions.

✍ Support your answers with neat sketches wherever it is required.

1A. Explain the Refraction, Dispersion, Diffraction properties of Light.

1B. Explain the importance of study of light and shadows (sciography) in architecture.

1C. Elaborate task lighting and accent lighting.

(3+3+4 = 10 marks)

2A. What are all the basic requirements for an electric power distribution system?

2B. Differentiate between a step-up and a step down transformer.

(5+5 = 10 marks)

3. List out the factors/parameters to be considered for the determination of electric load of a building. Explain any two in detail.

(4+6 = 10 marks)

4A. Explain the working of a typical escalator with the help of descriptive sketch of its section.

4B. Discuss the various differences between passenger lifts and service lifts.

(6+4 = 10 marks)

5A. Explain with neat sketch the wet riser – fire fighting system.

5B. Explain passive fire protection systems in a building with neat sketch.

(5+5 = 10 marks)

6. Write short notes on any FOUR of the following:

6A. Factors affecting lighting quality

6B. Cleat wiring

6C. Switch Gear and Bus feeder

6D. Difference between escalators and travellers

6E. Sprinkler systems

(2½ marks × 4 = 10 marks)

