

**MANIPAL ACADEMY OF HIGHER EDUCATION****THIRD/FOURTH SEMESTER B. ARCH. DEGREE EXAMINATION – NOVEMBER 2018****SUBJECT: ARC-14-207 - BUILDING SERVICES II (2014 SCHEME)  
ARC 212 – BUILDING SERVICES – II (2010 SCHEME)**

Wednesday, November 07, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 50

✍ Answer any FIVE questions.

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

1A. With reference to lighting schemes differentiate between general lighting, direct lighting and indirect lighting.

1B. Explain the various aspects of Luminaire Design – Types, Components, Principles, Selection Criteria.

(6+4 = 10 marks)

2A. What is a lightning arrestor? What is its basic function?

2B. What do you mean by Service Connections and Service mains/ Service drop? Explain with neat sketch.

(4+6 = 10 marks)

3. List any four different types of electrical wiring systems. Explain any two types in detail with neat sketches.

(4+6 = 10 marks)

4A. Explain the Interval and average waiting time, Travel time and Handling capacity criteria of elevator service quality which helps in the selection of elevators.

4B. Explain the components of an Escalators with the help of appropriate sketches.

(6+4 = 10 marks)

5A. Explain with neat sketch the pendant and upright sprinkler system.

5B. Explain the active fire protection systems in a building with neat sketches.

(5+5 = 10 marks)

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

6A. Inverse square law of lighting

6B. Different sources of electricity

6C. Electrification process in a small building

6D. Difference between Hydraulic and Pneumatic mechanism of lift

6E. Fire hydrants

(2½ marks × 4 = 10 marks)

