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# MANIPAL ACADEMY OF HIGHER EDUCATION

## THIRD SEMESTER B. ARCH. DEGREE EXAMINATION – NOVEMBER 2019

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

Tuesday, November 12, 2019

Time: 10:00 – 13:00 Hrs.

Max. Marks: 50

- ✍ Answer any full FIVE questions.
- ✍ Answer all parts of a question.
- ✍ Draw neat labelled sketches where ever necessary.

1A. Enumerate six types of artificial of lighting fixtures. Explain use and application of any three.

1B. Define colour temperature. Explain its important in lighting design.

$((3+3)+(2+2) = 10 \text{ marks})$

2A. What are the advantages and dis-advantages of using Concealed conduit wiring?

2B. What are MCBs? Explain where and why it is used.

$(5+(2+3) = 10 \text{ marks})$

3A. What is earthing? Explain any method of installing earthing with a neat sketch.

3B. Develop an electrical layout for a bedroom of size 3.5m × 5.5m with furniture layout and mark the position of lighting fixtures and electrical accessories giving names of each.

$((2+2)+6 = 10 \text{ marks})$

4A. What is meant by handling capacity of lift? How is it calculated?

4B. What are the factors to be assessed for ensuring quality of service of lifts in a building?

$((2+2)+6 = 10 \text{ marks})$

5A. Write a short note on Active Fire Protection system.

5B. Explain in detail concept of Fire tower with relevant sketches.

$(5+5 = 10 \text{ marks})$

6A. Explain the stages in evolution of lifts.

6B. What are the consideration for designing a building to maximise daylight?

$(5+5 = 10 \text{ marks})$

