

CBCS SCHEME



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15ARC53

Fifth Semester B.Arch. Degree Examination, July/August 2021 Building Services – II

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Explain current, voltage and power. (08 Marks)
b. Explain : transformer and generator. (12 Marks)
- 2 a. Discuss in detail any two sources of electricity generation. (10 Marks)
b. Provide a schematic diagram to explain electricity transmission and distribution system from source to consumer, mention role of various components involved in the process briefly. (10 Marks)
- 3 a. With help of a schematic diagram explain internal electrical distribution system for a residence. (10 Marks)
b. Explain wiring and wiring installation system. (10 Marks)
- 4 a. Discuss onsite and offsite renewable energy systems. (10 Marks)
b. Discuss important concepts of net zero design buildings. (10 Marks)
- 5 a. Explain why protection systems are important in electrical services. (10 Marks)
b. Explain fuse and MCB. (10 Marks)
- 6 a. Explain earthing and list factors effecting selection of earthing system. (10 Marks)
b. Explain lighting protection system in a building and its importance. (10 Marks)
- 7 a. Explain criteria for good lighting condition of a space. (10 Marks)
b. Explain any two : incandescent lamp, gaseous discharge lamp, led lamp. (10 Marks)
- 8 a. Explain integration of artificial and natural light and how can it be controlled efficiently. (10 Marks)
b. Explain ambient lighting and task lighting. (10 Marks)
- 9 What are ELV systems? Explain any two ELV systems in detail. (20 Marks)
- 10 a. For a 3 BHK house show the following :
i) Light points
ii) Fans power points
iii) Low voltage points
iv) Switch boards with connection to points
v) Distribution board and metering panel. (12 Marks)
b. Calculate the electrical load required for sanctioning purpose. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8 = 50, will be treated as malpractice.