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Total No. of Printed Pages: 1

Total No. of Questions: 07

B. Architecture (Semester – 5th)
BUILDING SCIENCES AND TECHNOLOGY - V
Subject Code: BARC1-537
Paper ID: [120129]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. As mentioned in the syllabus.
2. Question 01 is compulsory for all the students.
3. Students are required to attempt any four questions from rest of the six questions asked.
4. In Part – B, students need to attempt at least one question from each unit.

Part-A

(02 marks each)

Q1. Discuss the following in brief.

- a) Explain the basic principle of Ohm's law and how it applies to electrical circuits.
- b) What is the role of fuses and circuit breakers in protecting electrical circuits?
- c) List two factors that influence hearing conditions in an enclosed space.
- d) Define reverberation time and discuss its importance in acoustics.
- e) Classify fires based on the type of fuel involved.
- f) Enlist various types of firefighting equipment commonly used in building.

Part-B

(12 marks each)

Unit-I

- Q2. Compare different wiring systems such as surface conduit, concealed conduit, and cleat wiring. Explain the materials used advantages, and disadvantages of each type of wiring.
- Q3. Describe the types of switches, sockets, and fixtures used in buildings. Also, discuss the considerations for their placement and their effect on user accessibility and electrical efficiency.

Unit-II

- Q4. Explain the role of acoustic materials in controlling sound. Explain their applications, advantages, and disadvantages in building design.
- Q5. Describe common acoustical defects and suggest respective remedies to overcome them.

Unit-III

- Q6. Discuss the classification of buildings based on fire load. How does fire load influence the design and materials used in buildings?
- Q7. Describe the components of a fire detection and warning system. How do these systems help in early fire detection and evacuation?