

# CBCS SCHEME

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21ARC55

## Fifth Semester B.Arch. Degree Examination, Dec.2023/Jan.2024 Building Service – III

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

1 Draw and explain refrigeration cycle. (20 Marks)

OR

2 Describe the various A/C systems. Draw with neat sketches. (20 Marks)

### Module-2

3 a. Explain Direct and Indirect Cooling. (10 Marks)

b. Explain Summer and Winter A/C systems with neat sketches. (10 Marks)

OR

4 Write short work on : (20 Marks)

- AHU
- Fan –Coil Unit
- Clean Room Concept
- De – Humidifier

### Module-3

5 Explain the following : (20 Marks)

- Types of elevator system
- Architectural Requirement
- Arrangement of Elevators
- Lift Acts and NBC

OR

6 Explain Hydraulic elevator and Traction elevator with neat sketches. (20 Marks)

### Module-4

7 a. Explain fire triangle. What are the various types of fire classifications? (10 Marks)

b. Explain Grading of structural elements for its fire resistance as per NBC. (10 Marks)

OR

8 Explain Passive fire protection system in Buildings. (20 Marks)

### Module-5

9 a. Explain the working of Automatic sprinkles system and fire hydrants. (10 Marks)

b. Explain the roles for fire protection and fire fighting requirements for high rise building in India. (10 Marks)

OR

10 Write short notes on : (20 Marks)

- Fire Doors
- Fire Sealants
- Smoke curtains
- Fire alarms

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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.