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Fifth Semester B.Arch. Degree Examination, June/July 2024 **Building Services - III**

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing one full question from each module. Module-1 Explain with neat sketches how energy efficiency in a building can be achieved in terms of 1 (20 Marks) HVAC. OR Elaborate the meaning of thermal comfort with respect to built environment. (20 Marks) 2 Module-2 Write brief notes on: 3 Passive cooling a. (20 Marks) Psychrometric chart. b. OR How to integrate renewable energy in a cooling system design process? (20 Marks) 4 Module-3 With neat sketches explain any one type of elevator. (20 Marks) 5 OR Which are the places suitable for the use of elevator, escalator and travelator give reasons for 6 (20 Marks) their placements. Module-4 What are the common causes for fire and how to avoid it? (20 Marks) 7 OR Explain different types of passive fire protections in a building. (20 Marks) 8 Module-5 With the help of neat sketches explain any two types of active fire protection equipments. 9 (20 Marks)

OR

According to NBC what are the codes used for high rise buildings in terms of fire protection. 10 (20 Marks)

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