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Fifth Semester B.Arch. Degree Examination, Dec.2018/Jan.2019
Building Services – III

Time: 3 hrs.

Max. Marks:100

Note: Answer any TWO full questions each, from Part – A and Part – C.
Any one question full from Part – B.

Part – A

- 1 a. What is meant by mechanical ventilation? Under what conditions artificial ventilation becomes necessary in buildings, explain. (08 Marks)
- b. Explain the various mechanical ventilation systems. (12 Marks)
- 2 List the different types of air-conditioning systems used in buildings. Explain any two in detail. (20 Marks)
- 3 a. Briefly explain the processes involved in summer and winter air-conditioning. Indicate the same as psychrometric processes. (10 Marks)
- b. Briefly explain the following:
 - (i) Refrigeration cycle.
 - (ii) Dehumidifier. (10 Marks)

Part – B

- 4 a. Explain with neat sketch the working principle of hydraulic lift. (10 Marks)
- b. Explain the design elements of an elevator system. (10 Marks)
- 5 Explain with neat sketch the different components of an escalator, its location and application areas. (20 Marks)

Part – C

- 6 a. Explain causes of fire, fire hazard and fire load. (08 Marks)
- b. Explain in brief the passive fire protective systems. (12 Marks)
- 7 a. Explain various types of fire extinguishers. (10 Marks)
- b. Write short notes on any two:
 - (i) Sprinkler system.
 - (ii) Combustible and Non-combustible materials.
 - (iii) Fire alarming system
 - (iv) Classification of buildings as per NBC. (10 Marks)
- 8 Explain fire fighting systems adopted in high rise buildings in India. (20 Marks)

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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.