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Fifth Semester B.Arch. Degree Examination, June/July 2018
Building Services – III

Time: 3 hrs.

Max. Marks:100

Note: Answer any TWO full questions from Part-A and Part-B each and ONE full question from Part-C.

PART – A

- 1 a. Give a comparative note on natural ventilation and mechanical ventilation. (10 Marks)
b. Describe various systems of providing mechanical ventilation in buildings. (10 Marks)
- 2 Explain in detail the various systems of Air-conditioning and their suitability for different types of occupancies. (20 Marks)
- 3 Give a brief note on the following with sketches:
 - a. Cooling tower
 - b. Air handling unit
 - c. Refrigeration cycle (vapour compression system)
 - d. Terminal re-heat system. (20 Marks)

PART – B

- 4 a. Describe the role of escalator in building. Explain a typical escalator in detail. (10 Marks)
b. Explain various arrangements of escalators in buildings. (10 Marks)
- 5 a. Describe and differentiate hydraulic elevators and traction elevators. (10 Marks)
b. Describe machine room spaces and typical layout of machine room. (10 Marks)
- 6 a. Describe smoke detectors and heat detectors; and their role in fire fighting systems. (10 Marks)
b. Describe the sprinkler system along with the types of installing the sprinkler systems. (10 Marks)

PART – C

- 7 a. What are the types of buildings classified by NBC based on the fire load of the building? (08 Marks)
b. List the general safety requirements for buildings in order to minimize the fire hazards. (12 Marks)
- 8 Write short notes on the following with neat sketches :
 - a. Dumb waiter
 - b. Sky lobby
 - c. Fire escape staircase
 - d. Fire extinguishers and types. (20 Marks)

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1. Any revealing or identification, appeal to evaluator and/or equations written eg. 4+4=8, will be treated as malpractice.