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09ARC5.3

**Fifth Semester B. Arch. Degree Examination, Dec.2016/Jan.2017**  
**Building Services – III**

Time: 3 hrs.

Max. Marks:100

**Note: 1. Answer any TWO questions each from Part – A and B.**  
**2. Answer any ONE question form Part – C.**

**Part – A**

- 1 a. What is HVAC? What are the advantages and disadvantages of air – conditioning system? (10 Marks)
- b. Explain the different systems of mechanical/artificial ventilation with neat sketches. (10 Marks)
- 2 a. Explain window air –conditioning system with neat sketches. (10 Marks)
- b. Explain DX – air conditioning system with the help of a neat sketch. (10 Marks)
- 3 Write short notes on :
  - a. Refrigeration cycle
  - b. AHU
  - c. Split air conditioning
  - d. Dehumidifier. (20 Marks)

**Part – B**

- 4 Explain in brief the different parts of an elevator (lift). (20 Marks)
- 5 Explain with neat sketch, the various components of escalators and its application and location in buildings. (20 Marks)
- 6 Write short notes on any four :
  - a. Sky lobby
  - b. Elevator pit
  - c. Machine room
  - d. Grouping of elevators. (20 Marks)

**Part – C**

- 7 a. Discuss the role of an architect in ensuring the fire safety in buildings. (12 Marks)
- b. List out the various types of fire extinguishers. (08 Marks)
- 8 Write short notes on :
  - a. Smoke detectors
  - b. Fire resisting materials
  - c. Fire escape staircase
  - d. Sprinkler system. (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.