

B.Arch. Eighth Semester (Architecture Engineering) (CGS)
10067 : Environmental Services-II
08 AR 03

P. Pages : 2

Time : Three Hours



AV - 3201

Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Question No. 5 is compulsory.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Use of pen Blue/Black ink/refill only for writing the answer book.

1. a) Define the term ventilation ? Why it is to be carried out. Explain the natural systems of ventilation. 9
- b) State the objects of air - conditioning. 5
- c) Draw the flow diagram of Air conditioning systems for summer & explain in detail. 6

OR

2. a) Draw sectional elevation of a multistory building with refuse chute and explain it's working in detail. 8
- b) State the importance of service floor. Why it is to be provided. 6
- c) Explain the importance of lightning conductor in multistory building. 6
3. a) Draw sectional elevation of a Entrance Foyer of a mall with provision of Escalators. Explain it's component parts and working detail. 9
- b) Explain the combination of supply and extraction systems of ventilations. 6
- c) Explain the systems of Automation in smart building. 5

OR

4. a) Describe with neat sketches the different types of renewable energy used in building. 8
- b) Describe with neat sketches the energy construction & low energy systems used in building. 7
- c) State the importance of ducting systems in Air Conditioning. 5
5. Describe with neat sketches of **any four** of following. 20
 - i) Lifts
 - ii) Electricity generation in building

- iii) Fire refuse floor
- iv) Air Handling unit
- v) Non conventional energy system
- vi) Plenum system
- vii) Alarm systems

6. a) Explain with the help of neat sketches the automatic sprinkler systems used for fire protection. 9
- b) Describe with neat sketches the important planning considerations, material of constructions & construction techniques used in multi story building against fire. 11

OR

7. a) What are the different causes of fire in a building and how will you avoid them. 6
- b) Distinguish between Air conditioning and air cooling. 6
- c) Describe with neat sketches the various means of escape used during the fire in important building. 8
