



JAF-6502

Seat No. _____

B. Arch. (Sem. V) End of Term Examination

November – 2019

Environmental Science & Services - III

Time : 2 Hours]

[Total Marks : 40

Instruction :

Support your statement with necessary sketches/examples wherever necessary.

- 1 Draw schematic 'Active Fire Fighting and Protection System' for 70 Mts. tall Residential High-rise building in Rajkot : **20**
 - a. Make schematic 'Floor Plan and Building Section' including 'Stairs, Lifts, Landings, Corridors, Refuse Area, Floor Height, Skip Floor, etc.', accordingly.
 - b. Assume appropriate All side Margin, Water storage - capacity and location, Total Occupant per Floor and Building, etc.
 - c. Mention clearly the total Water requirement, location and capacity of various water tanks and pumps, location and design of vertical risers and their connections, etc.
 - d. Draw Service 'Site Plan, Floor Plans and Building Section'.

- 2 Write Short-Note (any Four (04), each having equal weightage of Five (05) Marks) **20**
 - a. What is 'Mechanical Circulation' ? Discuss types of mechanical circulation.
 - b. What is 'Elevator' ? Discuss types of elevator based on its function.

- c. What is 'Escalator' ? Discuss types of escalator based on its Design & arrangement.
 - d. Draw typical 'Section of Elevator Shaft and Car' and show various components.
 - e. Discuss 'Types of Fire' and various fire safety equipment required in buildings.
 - f. Discuss types of 'Fire Extinguisher' based on extinguishing material used.
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