



24804320

QP CODE: 24804320

Reg No :

Name :

B.ARCH DEGREE REGULAR/SUPPLEMENTARY EXAMINATIONS, AUGUST 2024

Sixth Semester

BACHELOR OF ARCHITECTURE

19AR608E2 - ELECTIVE: THEORY 3: SERVICES IN HIGH RISE BUILDINGS

2019 Admission Onwards

A3FD9C76

Time: 3 Hours

Max. Marks : 100

Part A

Answer any six questions out of Eight.

Each question carries 5 marks.

1. Define a high rise building as per International Building Code.
2. Write a short note about plumbing, electrical and lighting in high rise building.
3. Explain how life safety is achieved in high rise buildings.
4. What are the different types of water distribution systems?
5. Explain rain water harvesting with regard to a high rise building.
6. Explain fire safety provisions in International Building Code (IBC) for high rise buildings.
7. What are the ways in which natural lighting can be achieved for a building located in a warm and humid climate without causing discomfort to its occupants?
8. Explain the importance of automation in energy management.

(6×5=30)

Part B

Answer any four questions out of six.

Each question carries 10 marks.

9. Explain how Integrated Building Management System (IBMS) and Automation helps to achieve better performance of a high rise building.
10. What are the advantages of automation in building service management? Explain in detail.
11. Write down the importance of refuge area in a high rise building. List down the requirements as per NBC.





12. Explain how natural ventilation enhances energy efficiency with examples.
13. Briefly explain the planning of surveillance system of a particular type of high rise building with the help of sketches.
14. Explain the importance of façade engineering for tall buildings? What are the different ways to maintain a façade for a tall building?

(4×10=40)

Part C

Answer any two questions out of Four.

Each question carries 15 marks.

15. Why should we design service floors in high rise buildings? Explain the importance. Explain the dimensional requirements needed for a service floor with a neat sketch.
16. Write about the needs of sewage treatment. Write about the process of sewage treatment for a high rise building.
17. What is fire hydrant system? Why does fire hydrant system is mandatory for fire fighting for a high rise building? Explain.
18. Explain different types of vertical transportation in tall buildings. Explain the advantages of a double decker lift with sketches.

(2×15=30)

