- 1. Which of the following is NOT a primary purpose of building services in complexes?
  - a) Enhancing aesthetic appeal
  - b) Ensuring structural stability
  - c) Providing comfort and convenience
  - d) Maximizing energy efficiency

Correct Answer: b) Ensuring structural stability

Explanation: Building services primarily focus on providing comfort, convenience, and efficiency within a building complex. Structural stability is primarily addressed through architectural and engineering design.

- 2. What is the typical organization structure for building services in a complex?
  - a) Horizontal
  - b) Vertical
  - c) Matrix
  - d) Functional

Correct Answer: c) Matrix

Explanation: Matrix structure combines functional and project-based organizational units, which is common in handling complex and interdisciplinary tasks like building services.

- 3. Which classification of buildings is provided by the National Building Code (NBC)?
  - a) Type A, Type B, Type C
  - b) Residential, Commercial, Industrial
  - c) Low-rise, Mid-rise, High-rise
  - d) Class 1, Class 2, Class 3

Correct Answer: d) Class 1, Class 2, Class 3

Explanation: The NBC classifies buildings into various classes based on factors like occupancy, height, and construction type.

4. What is the primary method of water supply distribution in high-rise buildings?

- a) Gravity-fed system
- b) Pumping system
- c) Hydraulic lift system
- d) Pneumatic system

Correct Answer: b) Pumping system

Explanation: Due to height constraints, high-rise buildings typically rely on pumping systems to distribute water effectively.

- 5. Which system is commonly used for house connections in water supply?
  - a) Direct connection
  - b) Indirect connection
  - c) Semi-direct connection
  - d) Reverse connection

Correct Answer: b) Indirect connection

Explanation: Indirect connection involves connecting households to the main water supply via a distribution network, ensuring water quality and pressure regulation.

- 6. What is the purpose of water supply fixtures and appliances in buildings?
  - a) Enhancing aesthetics
  - b) Providing comfort and convenience
  - c) Structural support
  - d) Energy generation

Correct Answer: b) Providing comfort and convenience

Explanation: Water supply fixtures and appliances such as faucets, showers, and toilets are essential for personal hygiene and daily activities within buildings.

- 7. What is a key consideration in swimming pool water treatment?
  - a) Temperature control
  - b) pH regulation
  - c) Lighting design

d) Air circulation

Correct Answer: b) pH regulation

Explanation: Maintaining the pH level is crucial for ensuring water safety and comfort for swimmers in swimming pools.

- 8. Which method is commonly used for algae control in swimming pools?
  - a) Chlorination
  - b) Filtration
  - c) UV disinfection
  - d) Algaecide treatment

Correct Answer: d) Algaecide treatment

Explanation: Algaecide treatment is a common method to control algae growth in swimming pools, ensuring water clarity and hygiene.

- 9. Which of the following is NOT an administrative function of supervisors in building services?
  - a) Resource allocation
  - b) Team coordination
  - c) Quality assurance
  - d) Architectural design

Correct Answer: d) Architectural design

Explanation: Supervisors typically focus on resource management, coordination, and quality control rather than architectural design tasks.

- 10. What aspect of building services primarily focuses on energy efficiency?
  - a) HVAC systems
  - b) Plumbing systems
  - c) Electrical systems
  - d) Structural systems

Correct Answer: a) HVAC systems

Explanation: HVAC (Heating, Ventilation, and Air Conditioning) systems play a significant role in maintaining energy efficiency within buildings.

- 11. Which building classification would typically have the highest water demand?
  - a) Class 1
  - b) Class 2
  - c) Class 3
  - d) Class 4

Correct Answer: c) Class 3

Explanation: Class 3 buildings, which often include high-density residential or commercial complexes, tend to have higher water demands due to larger occupancies.

- 12. What is the purpose of water supply distribution in buildings?
  - a) Structural stability
  - b) Aesthetic enhancement
  - c) Fire protection
  - d) Noise insulation

Correct Answer: c) Fire protection

Explanation: Water supply distribution systems in buildings serve various purposes, including fire protection through sprinkler systems.

- 13. Which of the following is NOT a typical fixture/appliance in water supply systems?
  - a) Faucet
  - b) Boiler
  - c) Shower
  - d) Toilet

Correct Answer: b) Boiler

Explanation: Boilers are associated with heating systems, not water supply systems.

14. Which factor is crucial for determining the design of water supply systems in high-rise buildings?

- a) Ambient temperature
- b) Building occupancy
- c) Wind speed
- d) Building height

Correct Answer: d) Building height

Explanation: Building height significantly influences the design and operation of water supply systems in high-rise buildings.

- 15. Which organization is responsible for setting standards and guidelines for building services in many countries?
  - a) ISO (International Organization for Standardization)
  - b) WHO (World Health Organization)
  - c) ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers)
  - d) IEC (International Electrotechnical Commission)

Correct Answer: c) ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers)

Explanation: ASHRAE develops standards and guidelines related to building services, particularly HVAC systems, for ensuring energy efficiency and indoor environmental quality.