

B.E. Seventh Semester (Civil Engineering) (C.B.S.)  
**Elective - I : Building Services**

P. Pages : 2

Time : Three Hours



**NKT/KS/17/7439**

Max. Marks : 80

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- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.
  8. Due credit will be given to neatness and adequate dimensions.
  9. Assume suitable data whenever necessary.
  10. Diagrams and chemical equations should be given whenever necessary.
  11. Illustrate your answers whenever necessary with the help of neat sketches.
  12. Use of non programmable calculator is permitted.

1. a) Write down the plumbing work water supply provision for a new flat scheme. 6
- b) What are the accessories required for the sanitation system in any type of building work. 7

**OR**

2. a) What problems arises during the plumbing work of vertical expanded building? 6
- b) Explain the term methods of plumbing. 7
3. a) Define Acoustics. Explain the behaviour of sound in an enclosed space. 7
- b) Enumerate the requirements of provision of Acoustic system in cinema hall. 6

**OR**

4. a) Explain about the Noise and its control. 6
- b) How materials should be selected for Acoustic system? 7
5. Write short notes on **any three**. 14
- i) Need of earthing.
- ii) Comparison between fuse & MCB.
- iii) Types of lightening fixtures.
- iv) Different types of wiring.

**OR**

6. Explain in detail the planning and layout of electrical installation within a building complex. **14**
7. a) Write down the function of ventilation in any building. **6**  
b) Explain physiological cooling. **7**

**OR**

8. Draw the neat sketch of cross-ventilation. Why cross ventilation require in building? Write the advantages of cross ventilation. **13**
9. Explain in detail the different types of security and alarm systems provided in public building. **13**

**OR**

10. a) Explain the Hot water provision of solar type. **6**  
b) Explain the features required for physically handicapped persons in Hospital building. **7**
11. a) Explain in brief the planning consideration in building using non-combustible materials. **7**  
b) Explain fire detection systems. **7**

**OR**

12. Write short-notes on **any three**. **14**
- i) Automatic sprinklers
  - ii) Escapes
  - iii) Heat and smoke detectors
  - iv) Fire alarm systems

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