

CBCS SCHEME

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15ENG4.3

Fourth Semester B. Arch Degree Examination, Dec.2018/Jan.2019 Building Services – I

Time: 3 hrs.

Max. Marks: 100

Note: Answer FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What are the factors that affect “RATE OF DEMAND”? (08 Marks)
b. Population of a town is obtained from census Data. Forecast the population in 2000 and 2010 by
i) Arithmetical increase method
ii) Geometrical increase method
iii) Incremental increase method.

Year	Population
1950	15000
1960	19000
1970	24000
1980	29500

(12 Marks)

OR

- 2 a. Mention and describe various forms of sources for water supply schemes. (05 Marks)
b. Describe 4 methods of layout of water supply distribution in an area of a Town/city. (15 Marks)

Module-2

- 3 a. What are requirements of good trap. (05 Marks)
b. With neat sketches. Explain following :
i) Floor trap
ii) Gully trap
iii) Intercepting trap. (15 Marks)

OR

- 4 a. What are tests commonly adopted to check the pipes and drains. (10 Marks)
b. Explain two methods of harvesting Rainwater in a domestic house. (10 Marks)

Module-3

- 5 a. What are the advantages and disadvantages of following pipes.
i) Cast Iron pipe
ii) Plastic pipes (10 Marks)
b. With neat sketch explain.
i) Socket and Spigot (Bell and Spigot)
ii) Flanged joint (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

OR

- 6 With help of neat sketches , explain the working of
- Air relief valve
 - Fire hydrants
 - Non Return or Reflux valve
 - Sluice valve or Gate valve.
- (20 Marks)

Module-4

- 7 a. What are requirements of a good type of water closet. (05 Marks)
- b. With neat sketch Describe
- Indian water closet
 - European water closet
- (10 Marks)
- c. With neat sketch explain "HEALTH FAUCET". (05 Marks)

OR

- 8 a. What is solid waste management? List and Discuss various sources of waste and waste produced by : i) Residential ii) Industrial iii) Commercial
iv) Institutional v) Biomedical Institutes. (16 Marks)
- b. Explain briefly Bangalore Method of composting refuse. (04 Marks)

Module-5

- 9 a. What are the causes for fire in buildings? (05 Marks)
- b. What are the reasons for loss of life due to fire? (04 Marks)
- c. How is classification of buildings done as per National building code? (11 Marks)

OR

- 10 a. Draw a neat schematic of Fire escape staircase and list mandatory dimensions for Fire Access – Staircases, Doorways Corridors and Passageways
- Minimum flight width
 - Maximum flight width
 - Minimum tread
 - Maximum Riser
 - Minimum Head room
- (12 Marks)
- b. External staircase: all its requirement. (08 Marks)
