

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, NOVEMBER – 2021**

BUILDING MAINTENANCE AND SERVICES

[Maximum Marks: 75]

[Time: 2.15 Hours]

PART-A

(Answer **any three** questions in one or two sentences. Each question carries 2 marks)

I.

1. List the biological factors that affect durability of concrete structures.
2. Define bleeding.
3. What is a trap?
4. Define ELCB.
5. Define shoring.

(3 x 2 =6)

PART-B

(Answer any **four** of the following questions. Each question carries 6 marks)

II

1. Write short on shrinkages in concrete.
2. Discuss on defects in flooring.
3. What are the problems that occur in concrete due to moisture?
4. Differentiate chloride induced and carbon induced corrosion.
5. Describe sewage system. Explain its characteristics.
6. Write short notes on lift.
7. What is the need for retrofitting of buildings?

(4 X 6 = 24)

PART-C

(Answer **any of the three units** from the following. Each full question carries 15 marks)

UNIT – I

8. (a) Describe the effect of environmental factors on durability of concrete structures. (9)

(b) Discuss the effect of biological factors on durability of concrete structures. (6)

OR

9. (a) What are the Pre monsoon Maintenance requirements in a building. (9)
(b) Define building failures. Explain different types of building failure. (6)

UNIT - II

- V (a) Discuss on the defects in plastering? (9)
(b) Explain the structural damage due to fire. (6)

OR

- VI. (a) What are the defects in foundation, suggest remedies. (9)
(b) What are the different types of cracks in concrete? (6)

UNIT- III

- VII. (a) List and explain the common defects in building services. (9)
(b) What are the requirements of a domestic gas pipeline. (6)

OR

- VIII. (a) Briefly explain buss bar, Earthing, Electrical risers. (9)
(b) Write short notes on AC. (6)

UNIT- IV

- IX.(a) Explain the different methods for retrofitting and restoration. (9)
(b) What are the challenges in retrofitting of existing building. (6)

OR

- X.(a) Explain the methods for repairing cracks in concrete structures. (9)
(b) List the methods to correct the global and local deficiencies of a structure. (6)
