

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2022**

BUILDING MAINTENANCE AND SERVICES

[Maximum Marks: 100]

[Time: 3 Hours]

(PART-A)
(Maximum Marks: 10)

Marks

I Answer all questions in one or two sentences. Each question carries 2 marks.

1. Write the importance of durability.
2. Recall cracks in walls.
3. Define creep in concrete.
4. Define sullage?
5. Write the need for retrofitting.

(5 x 2 = 10)

PART-B
(Maximum marks: 30)

II Answer any five of the following questions. Each question carries 6 marks.

1. Explain the necessity of maintenance in durability of buildings.
2. Explain the factors leading to failure of foundation.
3. Discuss the problems that occur in concrete due to moisture?
4. Explain the various causes of fire hazards.
5. Discuss the requirement of lifts in a building?
6. Illustrate Shoring and underpinning with sketches?
7. Discuss about conservation of heritage buildings?

(5 X 6 = 30)

PART C
(Maximum marks: 60)
(Answer one full question from each unit. Each full question carries 15 marks.)

UNIT – I

- III (a)** Explain the factors affecting durability of buildings (8)
- (b) Explain different types of maintenance with the help of example. (7)

OR

- IV** (a) Briefly discuss the economic aspects of Maintenance. (9)
(b) Discuss various biological agents, which causes damages on buildings. (6)

UNIT - II

- V** (a) Explain the causes of cracks and its preventive measures. (15)

OR

- VI** (a) Illustrate corrosion in steel structures and reinforcement. (9)
(b) Explain the defects in plastering? (6)

UNIT- III

- VII** (a) Explain the requirements of domestic gas pipe line. (8)
(b) Discuss about Electrical riser and ELCB (7)

OR

- VIII**(a) Briefly describe the defects and its causes in drainage system (9)
(b) List out the common defects in water supply system (6)

UNIT- IV

- IX** (a) Discuss about any two world heritage sites in India. (6)
(b) Discuss various methods of repair work for concrete. (9)

OR

- X** (a) Explain the common causes in deterioration of historical buildings and also explain the remedial measures. (9)
(b) Explain the common retrofitting works carried out? (6)
