

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2019

BUILDING MAINTENANCE AND SERVICES

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

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

1. Define durability of concrete.
2. Define creep in concrete.
3. What is meant by sillage ?
4. What is busbar ?
5. Define retrofitting of buildings.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. What are the objectives of carrying out maintenance of a structure ?
2. Explain preventive maintenance and remedial maintenance.
3. Explain classification of cracks.
4. What are the various causes of fire hazards ?
5. What is meant by a water supply system ? What are the common defects in a water supply system and its prevention ?
6. Explain shoring and underpinning with sketches.
7. What are the different types of AC ?

(5×6 = 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 importance of durability of concrete and factors affecting it. 8
 (b) Explain the various biological agents, which causes damages on buildings. 7

OR

- IV What are the items included in pre-monsoon maintenance of a building ? 15

UNIT — II

- V (a) What are the causes of defects in plastering ? Briefly explain the remedial measure. 8
 (b) Explain the techniques to repair cracks. 7

OR

- VI Explain the causes of cracks and its preventive measures. 15

UNIT — III

- VII Briefly explain :
 (i) Traction passenger lift (ii) Stretcher lift 15

OR

- VIII (a) Explain briefly :
 (i) Electrical riser (ii) ELCB 8
 (b) What are the requirements of domestic gas pipe line ? 7

UNIT — IV

- IX (a) Briefly explain any two world heritage sites in India. 8
 (b) Briefly explain about retrofitting methods. 7

OR

- X Explain briefly the natural cause of deterioration of historical buildings.
 What are the restoration techniques ? 15