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(REVISION — 2015)

Reg. No. ....  
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 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. Write any four types of building failure.
2. List the principal causes of development of cracks in buildings.
3. Define the term ELCB.
4. Define jacketing in RCC.
5. Describe Underpinning.

(5 × 2 = 10)

PART — B

(Maximum marks : 30)

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

1. List the factors affecting life expectancy of building.
2. Write short notes on carbonation test and Rebound Hammer test.
3. Identify the types of cracks in building.
4. Define fire prevention and fire fighting. Explain wet and dry riser.
5. What are the requirements of domestic gas pipe lines ?
6. Describe sewage system. Explain the characteristics of sewage system.
7. List the causes of deterioration of monuments and historical buildings.

(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) What is the necessity of maintenance ? Explain different types of maintenance of building. 9
- (b) Explain environmental factors that affect durability of building. 6

OR

- IV (a) Explain the effect of air pollution on buildings. 9
- (b) Define building failure. Explain different Types. 6

## UNIT — II

- V (a) Explain the causes of corrosion of steel reinforcement. 9
- (b) What are the defects in masonry ? 6

OR

- VI (a) Explain the various defects in painting. 9
- (b) What are the principal causes of fire in building ? 6

## UNIT — III

- VII (a) Explain various system of air conditioning. 9
- (b) Discuss the essentials of air conditioning. 6

OR

- VIII (a) Explain different types and causes of defects in drainage system. 9
- (b) Describe various reason of sewer damage. 6

## UNIT — IV

- IX (a) What is shoring ? Explain raking shore and flying shore with figure. 9
- (b) List the various restoration techniques ? Explain. 6

OR

- X (a) What are the various crack repairing techniques ? Explain any six. 9
- (b) Explain the term retrofitting and restoration. Name the methods used for repair. 6

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