

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

CONSTRUCTION MATERIALS AND ENGINEERING

[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. What is meant by slaking of lime ?
2. Define bulking of sand.
3. List out any four properties of distemper.
4. Define the terms (a) Closer (b) Corbel.
5. Write down any four factors to be considered while deciding the location of doors and window.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Describe the classification of stones.
2. What are the ingredients of cement concrete ? Write down the functions of each ingredient.
3. Write down the uses and properties of Asbestos.
4. What are the characteristics of an Ideal paint ?
5. What are the causes of dampness ?
6. Write down the merits and demerits of steel formwork over timber formwork.
7. Write down the functions of a foundation.

(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 procedure for conducting slump test to measure the workability. 8  
 (b) Describe the characteristics of a good timber. 7

OR

- IV (a) Explain the Consistency Test on cement. 8  
 (b) Compare Clamp and Kiln burning in brick manufacturing. 7

## UNIT — II

- V (a) Describe different types of glass. 8  
 (b) Write short notes on Bitumen, Veneers, Plywood. 7

OR

- VI (a) Discuss on the constituents of paint. 8  
 (b) Describe the properties and uses of Asphalt. 7

## UNIT — III

- VII (a) What are the different types of prestressing of concrete ? Explain. 8  
 (b) Discuss on defects in plastering. 7

OR

- VIII (a) What are the different types of pointing ? Explain. 8  
 (b) Write down the general principles of brick masonry construction. 7

## UNIT — IV

- IX (a) Explain the different types of window. 8  
 (b) Discuss on types of ceiling. 7

OR

- X (a) Discuss on Classification of Arches. 8  
 (b) Write down the requirements of a good staircase. 7

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