

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, OCTOBER/NOVEMBER – 2019**

CONSTRUCTION MATERIALS & ENGINEERING

[Maximum Marks: 100]

[Time: 3 Hours]

PART-A

[Maximum Marks: 10]

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

- I. 1. Give the geological classification of rocks.
2. What is an abrasive?
3. Define the term shoring in building construction.
4. Define Canopy.
5. Name the different types of trusses used for pitched roof. (5 x 2 = 10)

PART-B

[Maximum Marks: 30]

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

- II 1. Explain the components in a structure of an Exogenous tree with the aid of a sketch.
2. Explain briefly the characteristics of a good bricks used for building purpose.
3. Describe the constituent parts of a paint and their functions.
4. Write any six properties of Plastics.
5. Discuss the advantages of Hollow block masonry with reference to other types of masonry.
6. Describe the requirements of a good partition wall.
7. Explain briefly the different types of foundation. (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 methods of quarrying of stones. (8)
(b) Explain how Consistency test is conducted for cement. (7)

OR

- IV (a) Explain the different stages involved in the preparation of concrete. (8)
(b) Describe the properties of Cast iron. (7)

UNIT - II

- V (a) Explain the different types and uses of glass. (8)
(b) Explain briefly fibre board and hard board. (7)

OR

- VI (a) Write short notes on cement paint and emulsion paint (8)
(b) Describe the properties and uses of asphalt. (7)

UNIT- III

- VII (a) Describe the component parts of a building and their functions. (7)
(b) Explain the causes and effects of dampness in a building. (8)

OR

- VIII (a) Explain how prestressed concrete is classified based on method of applying prestress. (8)
(b) Describe the general principles of earthquake resistant design in construction of building as per IS 4326 – 1993. (7)

UNIT - IV

- IX (a) Explain the different types of floors. (7)
(b) Write short notes on Sunshades and Sunbreakers. (8)

OR

- X (a) Explain briefly the different types of staircases. (8)
(b) Explain the method of laying weatherproof course over the flat roof. (7)
