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TED (10)-3023

(REVISION-2010)

Reg. No.

Signature

THIRD SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY—MARCH, 2012

CONSTRUCTION MATERIALS AND ENGINEERING

(Common for CE, AR, QS, EN and WR)

[Time : 3 hours

(Maximum marks : 100)

Marks

PART—A

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

1. Mention any two uses of "dressing of stone".
2. Write any two properties of plastic.
3. What is the purpose of providing key stone in masonry arch ?
4. What are the methods of prestressing ?
5. Name the different types of trusses used for pitched roof.

(5x2=10)

PART—B

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

1. Explain the purpose of mellowing and tempering of clay while making bricks.
2. What are the different methods of quarrying ? Mention the suitability of each method.
3. What are the important properties of rubber ?
4. What are the uses of abrasive and adhesive in construction industry ? Mention examples.
5. Mark the Plinth, Jamb and Reveals with a sketch.
6. What are the points kept in mind while supervising a stone masonry construction ?
7. Discuss the suitability of any two deep foundations.

(5x6=30)

PART—C

(Answer *one* full question from each unit. Each question carries 15 marks.)

UNIT - I

- III (a) What are the qualities that a good building stone should have ? 8
- (b) What are the different sources of sand ? What is the function of sand in cement concrete ? 7

OR

	Marks
IV (a) What are the processes involved in the manufacture of fat lime ?	8
(b) Write the composition of ordinary portland cement. What is the importance of each constituent ?	7

UNIT – II

V (a) What are the advantages of plastics over other building materials ?	8
(b) What are the uses of rubber in civil engineering construction work ?	7

OR

VI (a) What are the characteristics of an ideal paint ?	8
(b) Write short notes on Asphalt and Bitumen.	7

UNIT – III

VII (a) Discuss briefly various earth quake resistant construction principles and techniques.	8
(b) What are the requirements of a good formwork ?	7

OR

VIII (a) What are the important features of interlocking brick masonry ?	8
(b) What are the purpose of construction of masonry according to bond ?	7

UNIT – IV

IX (a) What are the requirements of a good floor ?	8
(b) Define the following terms : Head room, Landing, Nosing and soffit.	7

OR

X (a) Write short note on pitch, Wall plate, Ridge and Common rafter of a sloped roof.	8
(b) What are the points kept in mind for the selection of suitable flooring materials ?	7
