

TED (10)–3023

(REVISION—2010)

Reg. No.

Signature

THIRD SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY—MARCH, 2013

CONSTRUCTION MATERIALS AND ENGINEERING

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

[Time : 3 hours

(Maximum marks : 100)

PART—A

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

1. What is the use of frog in bricks ?
2. Why gypsum is added during manufacturing of cement ?
3. Name the basic ingredients of an oil paint.
4. What is composite masonry ?
5. Differentiate shallow foundation and deep foundation.

(5×2=10)

PART—B

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

1. How rocks are physically classified ?
2. Describe the burning of bricks in damp.
3. Write short notes on :
(i) Turpentine (ii) Aluminium paint (iii) Enamel paint.
4. List the uses of : (i) Bitumen (ii) Cork (iii) Plaster of paris.
5. Compare brick masonry and stone masonry.
6. Discuss post tensioning method of prestressing of concrete.
7. Write short note on Pile foundation.

(5×6=30)

PART—C

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

UNIT—I

- III (a) Write three properties and uses of granite stone and basalt stone. 8
- (b) Explain how burning of brick is done in a kiln. 7

OR

	Marks
IV (a) How the compressive strength and consistency of cement is determined in the laboratory ?	8
(b) Discuss the advantages and uses of aluminium.	7
UNIT—II	
V (a) List different types of varnishes and their applications.	8
(b) What is Thermocole ? List four uses of Thermocole.	7
OR	
VI (a) What is an adhesive ? Enumerate four types of natural organic adhesive and synthetic organic adhesives used.	8
(b) Write short note on : (i) Plywood (ii) Veneers.	7
UNIT—III	
VII (a) State the general principles to be observed during brick masonry construction.	8
(b) Explain the methods and purpose of shaving with the help of sketch.	7
OR	
VIII (a) Enumerate the advantages and disadvantages of prefabricated structures.	8
(b) Explain clearly the causes for common defects in plastering.	7
UNIT—IV	
IX (a) Write short notes on : (i) Combined footing (ii) Well foundation.	8
(b) What are the different types of Lintels used over opening ? Explain.	7
OR	
X (a) Draw neat sketches of couple roof and close couple roof and mark their parts.	8
(b) Explain the methods of providing : (i) Fibre board ceiling and (ii) Thermocole ceiling.	7