TED (15) – 5016

(REVISION — 2015)

Reg. No. .....

Signature .....

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

COST EFFECTIVE CONSTRUCTION & GREEN BUILDINGS

[*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. Define the concept of cost effective Architecture.
2. Write any two uses of Ferro cement.
3. Give definition for Global warming.
4. Define Green Materials.
5. Define BREAM. (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Explain Rat trap bond.
2. Write the features of Gypsum board.
3. Write short note on any one substitute used for wall construction.
4. Write the reusing and recycling potential of different building materials.
5. State the environmental issues related to quarrying of materials.
6. Write different ways to conserve water.
7. Explain GRIHA Rating. (5×6 = 30)

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III (a) Explain the factors affecting building cost and list out the possible ways to minimize the cost. 10

(b) Write short note on Bamboo construction. 5

OR

IV Describe the properties and uses of

(i) Stabilized mud block

(ii) Fibre Reinforced concrete

(iii) Pozzolona cement 15

UNIT — II

V (a) Explain the contribution of Nirmiti Kendra & Habitat for developing and propagating cost effective architecture. 10

(b) Write any five advantages of Filler slab construction. 5

OR

VI (a) Describe Ferro concrete. 8

(b) Write short note on Cavity Wall. 7

UNIT — III

VII (a) Write short note on green building and fundamental principles affecting green building. 8

(b) Describe carbon foot print. 7

OR

VIII (a) Explain the contribution of building towards global warming. 8

(b) Describe the life cycle cost of buildings. 7

UNIT — IV

IX (a) Give definition for Sustainable Architecture and characteristics of sustainable buildings. 10

(b) Describe the integrated life cycle design. 5

OR

X (a) Explain LEED rating system and its procedure with the help of a flow chart. 10

(b) State different methods for increasing the energy efficiency of a building. 5