

TED (15) – 5016  
(Revision – 2015)

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Reg.No.....  
Signature.....

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE – NOVEMBER – 2022  
COST EFFECTIVE CONSTRUCTION & GREEN BUILDING**

(Maximum Marks : 100)

(Time : 3 hours)

**PART – A**  
(Maximum Marks : 10)

Marks

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

1. Define green building.
2. Write any four uses of ferro cement.
3. Write any four killer materials.
4. Define embodied energy.
5. List any four sustainably managed materials.

(5x2=10)

**PART –B**  
(Maximum Marks : 30)

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

1. Write about recycling of building materials.
2. Compare the use of stone and laterite blocks as cost effective construction materials.
3. Write about the benefits of arches as a cost effective construction method.
4. Explain the effects of global warming.
5. Write about features of green buildings.
6. Explain the points system of GRIHA green rating system.
7. Write about the principles of sustainable development in building design.

(5x6=30)

**PART – C**

(Maximum Marks : 60)

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

**UNIT – I**

- III.** (a) Quarrying creates a lot of environmental issues. Elaborate. (8)  
(b) Compare the benefits of using burned bricks and concrete blocks. (7)

**OR**

- IV.** (a) Write about the use of the following. (7)  
(i) Bamboo (ii) Stone  
(b) Write about alternative roofing system. (8)

**UNIT – II**

- V.** (a) Write about the following. (7)  
(i) Arches (ii) Panels.  
(b) Write about the contribution of agency Habitat in reducing construction cost. (8)

**OR**

- VI.** (a) Explain the role of pre engineered building construction in reducing cost in construction. (7)  
(b) Write about the contribution of agency COSTFORD in reducing construction cost. (8)

**UNIT –III**

- VII.** (a) Explain contribution of building towards global warming. (8)  
(b) Write about the necessity of green building. (7)

**OR**

- VIII.** (a) Write about life cycle cost of buildings. (8)  
(b) Explain the global efforts to reduce carbon emissions. (7)

**UNIT – IV**

- IX.** (a) Compare green building rating systems LEED and GRIHA. (8)  
(b) Write about the Characteristics of sustainable building. (7)

**OR**

- X.** (a) Explain the principles of sustainable development in building design. (8)  
(b) Write a short note on Integrated life cycle design of materials. (7)

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