

H156

B. Tech. EXAMINATION, 2020

(Eighth Semester)

(B Scheme)

(Main & Re-appear)

CE

CE462B

ENERGY EFFICIENT BUILDINGS

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks. Assume data suitably, if required.

Unit I

1. Explain various energy production systems. **15**
2. Discuss importance and methods of saving energy in residential and commercial buildings. **15**

Unit II

3. Explain various methods in designing energy efficient buildings. **15**
4. What is a 'Smart Building' ? Also, write the role of economies and cost analysis in smart building. **15**

Unit III

- 5.** 'Energy Audit' explain its importance in Civil Engineering Projects. **15**
- 6.** Write short notes on the following : **15**
 - (a) Passive heating and Cooling system
 - (b) Environment Friendly Buildings.

Unit IV

- 7.** Define 'improving of power factors'. Also, discuss importance of management of maximum demand. **15**
- 8.** Write short notes on the following : **15**
 - (a) Evaluation tools for building energy
 - (b) Applications of Energy Management of electrical equipments.