

G4009

B. Arch. EXAMINATION, 2020

(Eighth Semester)

(B Scheme)

(Main & Re-appear)

ENERGY CONSCIOUS ARCHITECTURE–VIII

AR424B

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.
Q. No. **1** is compulsory. All questions carry equal marks.

Unit I

1. Explain various terms : Standard effective temperature, Adaptive Thermal comfort, Thermal Neutrality, Psychrometric process. Comfort Zone, Control Potential Zone.
2. Explain the term natural resources ? Familiarize with the traditions practiced in India for conservation of nature ? Can The World Survive Without Fossil Fuels ? What are the alternatives ?

Unit II

3. What are the various innovative techniques used for doing Environmental control in the buildings ?

4. Define in detail the term "Thermal comfort" in context of different building prototypes and different climatic zones of India.

Unit III

5. Explain the factors considered in different climatic zones for Climate Responsive Traditional Architecture. Illustrate with examples.
6. What is passive solar architecture system ? Explain passive solar technologies ? Explain briefly with examples and sketches ?

Unit IV

7. Explain various principles of integrated design with system approach.
8. Explain in detail Building Energy Codes followed in India i.e. ECBC, NBC 2016, GRIHA etc.