(10 Marks)

Third Semester B.Arch. Degree Examination, Dec.2023/Jan.2024

Climatology Max. Marks: 100 Time: 3 hrs.

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module. 2. Draw sketches wherever necessary.

Module-1

Describe the elements of climate, units of measurement and the instruments used to measure 1 (20 Marks) with proper diagrams.

OR

List, major climatic zones of India and briefly explain the same with relevant sketches. 2 (20 Marks)

Module-2

- Draw and explain various components of sun path diagrams. (10 Marks) 3 (10 Marks)
 - Explain thermal comfort and the factors affecting thermal comfort.

OR

Explain the uses of psychometric chart for climate analysis. (10 Marks) 4 Explain the importance of outdoor open spaces in Hotdry, Warm humid and composite

Module-3

5 Write a short notes on:

climate.

- i) Time Lag (05 Marks)
- ii) 'U'value (05 Marks) iii) Kata-Thermometer (05 Marks)
- iv) Bio-climatic chart. (05 Marks)

Explain the construction techniques for improving thermal performance of walls and roofs in 6 residential building. (20 Marks)

Module-4

Describe different types of shading devices. Explain the procedure of designing any one of 7 them with suitable example. (20 Marks)

OR

Explain the passive/Natural techniques of cooling with relevant sketches. (20 Marks) 8

Module-5

Describe the traditional Architecture of Karnataka Region in detail with examples, 9 Emphasizing planning principles of building elements and selection of materials. (20 Marks)

OR

A client wants your design a beach house for his family. Explain our strategy to arrive at a 10 climate conscious design proposal. (20 Marks)