

CBCS SCHEME

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

Time: 3 hrs.

Max. Marks: 100

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

Module-1

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

OR

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

Module-2

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

OR

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

Module-3

- 5 Write a short notes on :
i) Time Lag (05 Marks)
ii) 'U' value (05 Marks)
iii) Kata-Thermometer (05 Marks)
iv) Bio-climatic chart. (05 Marks)

OR

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

Module-4

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

OR

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

Module-5

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

OR

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

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.