

CBCS SCHEME

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18ARC33

Third Semester B.Arch. Degree Examination, Dec.2019/Jan.2020

Climatology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. What is Koppen Climate Classification? Explain in detail. (10 Marks)
b. Describe any two climatic zones in India. (10 Marks)

OR

- 2 Explain the Thermo-Regulatory process of the Human Body with sketches. (20 Marks)

Module-2

- 3 a. What is Thermal comfort? Explain factors affecting thermal comfort. (10 Marks)
b. Explain any two thermal comfort indices, with sketches. (10 Marks)

OR

- 4 a. What is Solar Geometry? Explain its components, with sketches. (10 Marks)
b. Explain the thermal exchange process in buildings with sketches and equations. (10 Marks)

Module-3

- 5 Write short notes:
a. Resistance of Multilayer body
b. Insulation
c. Cavity wall
d. Joule (20 Marks)

OR

- 6 Write short notes on:
a. Transmittance
b. Sol-Air Temperature
c. Time Lag
d. Conductivity. (20 Marks)

Module-4

- 7 a. Explain the different types of shading devices, with sketches. (08 Marks)
b. Explain the design process of any one of them, with suitable example. (12 Marks)

OR

- 8 a. What is natural ventilation? Explain the different types, with sketches. (08 Marks)
b. Explain how natural ventilation can be optimized through design. (12 Marks)

Module-5

- 9 a. What is Daylight Factor? Explain its components, with sketches. (10 Marks)
b. Explain design considerations for daylighting in Hot-Dry climate, with sketches. (10 Marks)

OR

- 10 With the help of literature studies, explain the design considerations for buildings in composite climate, illustrate with plan, section and views. (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. 4.2+8 = 50, will be treated as malpractice.