

# 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, 42+8 = 50, will be treated as malpractice.