CBCS SCHEME

USN ☐☐☐☐☐☐☐☐☐☐ **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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