

# CBCS SCHEME

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15ARC33

## Third Semester B.Arch. Degree Examination, Aug./Sept.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 are the three major and three minor climatic groups of the tropical regions? (06 Marks)  
b. Describe the characteristics of Hot – Dry desert climate. (14 Marks)

OR

- 2 a. Explain with sketches, how the body maintains its thermal balance. (10 Marks)  
b. Describe the bioclimatic chart with an example, demonstrating how temperature , relative humidity and radiation affect the comfort zone. (10 Marks)

### MODULE - 2

- 3 How is the sun's position determined using a solar chart? Explain with the help of diagram. (20 Marks)

OR

- 4 Discuss the sketches the heat exchange processes of building with the outdoor environment. (20 Marks)

### MODULE - 3

5 Write short notes on :

- a. Conductivity.  
b. Resistivity.  
c. Cavity Resistance.  
d. Insulation.

(20 Marks)

OR

- 6 What is Periodic heat flow? Explain the concept of time lag and decrement factor with sketches. (20 Marks)

### MODULE - 4

- 7 What are Shadow angles? Describe with the help of sketches, the two shadow angles that determine the performance of a shading device. (20 Marks)

OR

- 8 a. What are the functions of Ventilation? (06 Marks)  
b. How do position of openings effect cross ventilation? Explain with sketches. (14 Marks)

### MODULE - 5

- 9 Write short notes on any 4 : a) Daylight b) Transmission c) Reflection  
d. Illumination e) Electric Lamps. (20 Marks)

OR

- 10 List out the design considerations for a warm humid climate with a building example. (20 Marks)

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