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Third Semester B.Arch. Degree Examination, June/July 2019 Climatology

Time: 3 hrs. Max. Marks:100

Note: 1. Answer FIVE full questions, selecting ONE full question from each Module. 2. Draw sketches wherever necessary.

MODULE - 1

1 Describe the characteristic features of hot dry and warm humid climate. (20 Marks)

OR

2 a. What is Site Climate? (08 Marks)

b. What are the factors that affect the climate of a site? Explain any 3 in detail. (12 Marks)

MODULE - 2

3 Explain Solar Azimuth and Solar Altitude Angles with the help of sketches. (20 Marks)

OR

4 Describe the heat exchange process of a building with the outside environment. (20 Marks)

MODULE - 3

5 a. What is Periodic heat flow? (08 Marks)

b. Describe time lag and decrement factor using sketches. (12 Marks)

OR

6 Write short notes on

- a. Transmittance value.
- b. R Value.
- c. Cavity Resistances.
- d. Thermal mass wall.

(20 Marks)

MODULE - 4

- 7 Write short notes on:
 - a. Shading Devices.
 - b. Stack effect.
 - c. Functions of ventilation.
 - d. Wind scoop

(20 Marks)

OR

B Explain the various air flow movements around buildings and how it affects ventilation.

(20 Marks)

MODULE - 5

9 Describe with sketches the problems and solutions of day lighting in hot dry and warm humid climate.
(20 Marks)

OR

10 Explain design considerations for warm humid climate using a case study as an example. Draw relevant sketches. (20 Marks)

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