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Third Semester B.Arch. Degree Examination, June/July 2018
Climatology

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1 a. What kind of climatic data would you require to understand the climatic characteristics of a place? Explain. (10 Marks)
b. List the major climatic zones of India and explain any one in detail. (10 Marks)
- 2 a. Explain the mechanism of body's heat exchange with its surrounding environment. (10 Marks)
b. How do humidity, air temperature, air – movement and radiation influence the thermal comfort? Explain it using bio – climatic chart (10 Marks)
- 3 a. Explain the procedure of measuring the velocity of a slow moving wind. (10 Marks)
b. Explain the factors affecting the site climate. (10 Marks)
- 4 a. Name the two angles that determine the position of the sun, with respect to a given point, on the surface of earth. Explain with the help of sketches. (10 Marks)
b. Explain the use of sun path diagram. (10 Marks)
- 5 a. Explain various functions of ventilation in buildings. (05 Marks)
b. Explain the effects of different types and location of openings and external features on internal air flow, with sketches. (15 Marks)
- 6 Briefly explain, with neat sketches.
a. Shading devices. (05 Marks)
b. Construction techniques for walls and roofs in hot – dry climate. (05 Marks)
c. Temperature inversion. (05 Marks)
d. CET (Corrected Effective Temperature). (05 Marks)
- 7 Write short notes on :
a. Temperature inversion
b. Weather station
c. Wind scoops
d. Time lag. (20 Marks)
- 8 Explain the design considerations for buildings in hot-dry climate with the help of sketches. (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 remaining of identification number written eg. 42:8:50, will be treated as malpractice.