

THIRD SEMESTER B.Arch. DEGREE EXAMINATION, MAY / JUNE 2005

CLIMATOLOGY

(2003 Scheme)

Time : Three Hours

Maximum : 100 Marks

Support the answers with neat sketches

I. Write short note on any five of the following.

- (a) Radiation at Earth surface.
- (b) Air movement.
- (c) Subjective variables on thermal comfort.
- (d) Comfort scale.
- (e) Ventilation.
- (f) Solar control.
- (g) Surface treatments for composite climates.

(5 × 5 = 25 marks)

2. a) What are the three main considerations influencing architectural design in the tropics.

Or

b) What are the factors causing deviation of the urban climate from the regional macro climate.

(15 marks)

3. a) Explain the character and location of the monsoon climate in general.

Or

b) Explain the climatic conditions of hot dry desert places.

(15 marks)

4. a) What are the thermal design criteria recommended for hot dry climate ?

Or

b) Explain the nature of climate & physiological objectives while designing shelter for tropical upland climates.

(15 marks)

5. a) Explain the four climatic variables that affect the heat dissipation processes of the human body for various indoor conditions.

Or

Turn over

b) Explain the comfort zone in detail.

(15 marks)

6. a) Explain ventilation & air movement.

Or

b) Roof of a house has the greatest exposure to sun. Explain how an architect can tackle this problem while designing a dwelling.

(15 marks)