B. ARCH.

(SEM. IV) EXAMINATION, 2006-07

CLIMATOLOGY

Time : 3 Hours] [Total Marks : 50

Note :  
(1) Answer any five questions.  
(2) All questions carry equal marks.  
(3) Be precise in your answer.  
(4) Illustrated answer will be given due credit.

1 Enumerate elements of climate. Also discuss how these elements are measured.

2 Define climate. Enumerate the typical features of hot and dry climate. Explain with the help of neat sketches and short notes, what measures an architect should take for a climate responsive design of the project.

3 (a) Discuss the process of heat production and heat loss by an average human body.  
(b) Enumerate the indices / measures of human comfort. Discuss in detail Bio-climatic chart.

4 Explain the use of solar chart and shadow angle protactor for working out shading devices for buildings. Give illustrated examples.

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5 Write short notes on: (any four)
(a) Daylight factor
(b) Glare
(c) Site climate
(d) Effective Temperature
(e) Seasonal changes
(f) Stack effect.

6 Define ventilator and why is it required. Enumerate the air flow pattern inside and outside the building.

7 What is orientation? Discuss in detail, how a building should be oriented in relation to sun and wind.