



Printed Pages : 2

AR – 405

(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 8546**

Roll No.

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## 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.
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