

B.Arch. Sixth Semester (Architecture Engineering) (CGS)

**10052 : Elective - II : Climate Responsive Architecture : 06 FEAR 05**

P. Pages : 1

AU - 2833

Time : Three Hours



Max. Marks : 80

- Notes :
1. All question carry marks as indicated.
  2. Question No. 1 is compulsory.
  3. Due credit will be given to neatness and adequate dimensions.
  4. Illustrate your answer necessary with the help of neat sketches.
  5. Use of pen Blue/Black ink/refill only for writing the answer book.

1. Explain with neat sketches Sun-Earth Relationship and it's impact on built forms and built surfaces. Elaborate your answer with the help of examples which we experiences in our day to day life. 20
2. a) Explain body's Heat gain & Heat loss with the help of neat sketches. 10  
b) Explain Green House effect. 10

**OR**

3. Explain the elements of climate with the example of any tropical climate (Hot-Dry). 20
4. a) What is bioclimatic chart and Kata Thermometer. 10  
b) Explain the heat exchange in building through various process. 10

**OR**

5. a) Explain the Thermal insulation and solar control in building. 10  
b) Explain the types of shading devices and solar charts. 10
6. Explain the following **any four**. 20
  - a) Explain Thermal exchange by human body.
  - b) Explain Deep body temperature.
  - c) Purpose of ventilation in building.
  - d) Hot & Dry climate.
  - e) Why there is a need of tree plantation on west side. Explain.
  - f) Shadow Angles.
  - g) Techniques considered in traditional building to incorporate climate Responsive Architecture, explain.
  - h) Heliodon.
  - i) Cup Anemometer.

**OR**

7. Explain the planning and design of building in hot and dry climate. Elaborate your answer with the help of neat sketches. 20

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