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Total No. of Pages : 01

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B.Architecture (2012 & Onwards) (Sem.-4)**CLIMATE AND SUSTAINABILITY-I****Subject Code : BACH-406****M.Code : 71021****Time : 3 Hrs.****Max. Marks : 60****INSTRUCTION TO CANDIDATES :**

1. Question no. 1 is compulsory.
2. All question carry EQUAL marks except question no. 1.
3. Attempt any FIVE questions including compulsory question with minimum one question from each UNIT.

1. Write short notes on the following :**(2×5=10)**

- a) Stack effect
- b) U-Value of a body
- c) Solar Angle
- d) Alternate sources of Energy
- e) Thermal units in heat transfer.

UNIT-I

2. Explain wind flow within and around buildings with illustrations. (12.5)
3. Explain the role of optimum orientation for efficient natural ventilation of buildings in warm humid climate. (12.5)

UNIT-II

4. Explain heat equation of heat transfer in a building illustrating all the parameters. (12.5)
5. Explain solar passive devices and techniques for climate control within buildings (12.5)
6. Explain the role of landscaping and water in climate control. (12.5)

UNIT-III

7. Explain the basic guidelines of GRIHA for green buildings. (12.5)
8. Explain the basic guidelines in ECBC codes relevant to Architectural Design of buildings. (12.5)
9. What are the techniques used in buildings to optimize the use of Energy? (12.5)

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.