**1** M-70416

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Roll No. Total No. of Pages: 01 Total No. of Questions: 09 B.Architecture (2012 & Onwards) (Sem.-3) CLIMATE AND ARCHITECTURE-I Subject Code: BACH-304 M.Code: 70416 Time: 3 Hrs. Max. Marks: 60 **INSTRUCTION TO CANDIDATES:** Attempt Five questions in all. Q1 is compulsory and attempt one question from each unit. 1. Write short notes on the following:  $2 \times 5 = 10$ a) Psychometric chart b) Heat balance eqn. of human body. c) Bio climatic chart d) Solar chart e) Micro climate **UNIT-I** 2. Explain the role and application of climatology in building design through illustrations. 12.5 3. Write notes on: a) Elements of climate 6 b) Global climatic factors. 6.5 UNIT-II Explain solar altitude and solar azimuth angles and how are they plotted on a solar chart 4 for a particular place. Explain horizontal and vertical shading devices and how are they designed for a window 5. facing southwest in Punjab. 12.5 **UNIT-III** 12.5 6. Explain the interrelationship of of human heat balance and thermal comfort. 7. Explain the process of calculation of C.E.T with the help of a nomogram and its application. 12.5 **UNIT-IV** 8. Explain the characteristics of Composite type of climate. 12.5 9. What factors should be kept in mind for shelter design for Jaisalmer in Rajasthan. 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.