



Roll no.

End Semester Examination, December 2024

B.Arch – Third Semester

CLIMATOLOGY (ADAR209)

Time: 3 hrs.

Max Marks: **50**

Note: *All Questions are compulsory. In Q.1 attempt any five questions. Marks are indicated against each question.*

PART-A

Q.1 Answer the following questions:

- (a) _____ is generally regarded as the desirable or positive condition of mind a person experiences in relation to how warm or cold a person feels. [CO-1] [L-1] **2**
- (b) _____ is the process through which heat is trapped near Earth's surface. [CO-1] [L-1] **2**
- (c) _____ is the use of windows and skylights to bring sunlight into your home [CO-1] [L-1] **2**
- (d) _____ is the process of heat transfer by the bulk movement of molecules within fluids such as gases and liquids. [CO-1] [L-1] **2**
- (e) _____ of a particular area is its physical shape, including its hills, valleys, and rivers. [CO-1] [L-1] **2**
- (f) Write function of insulation. [CO-1] [L-1] **2**
- (g) Write function of lux meter. [CO-1] [L-1] **2**

2x5

PART-B

Q.2 Explain the relationship between earth and sun. Explain the formation of day-night and climate? Illustrate with diagrams. [CO-2] [L-2] **10**

OR

Explain the different processes of heat gain and heat loss. Illustrate with relevant diagrams. [CO- 2] [L-2] **10**

Q.3 Explain how the wind patterns change in and around the buildings. Illustrate with relevant diagrams. [CO-3] [L-3] **10**

OR

How does the Orientation impact the design of building with respect to sun and wind? Illustrate with relevant diagrams. [CO-3] [L-3] **10**

Q.4 Develop the strategies to achieve day lighting in buildings? [CO- 4] [L-5] **10**

OR

Develop the strategies to achieve cooling in buildings naturally? [CO- 4] [L-5] **10**

Q.5 Discuss how the different factors affect the temperature of a place? [CO-4] [L-4] **10**

OR

Discuss how simulation is helpful in reducing energy in buildings? [CO-4] [L-4] **10**

