



Seat No. _____

HAF-161001010306

B. Architecture (Sem. III) Examination

May - 2023

Environmental Science & Services-I

Time : 2 Hours / Total Marks : 50

Instructions : (1) Question-1 is compulsory & answer three out of questions 2 to 6.

- 1** Match the following. **5**

(1) Bhopal	(a) Cool sunny climate
(2) Jodhpur	(b) Warm-humid climate
(3) Leh	(c) Hot-dry climate
(4) Chennai	(d) Composite climate
(5) Bangalore	(e) Temperate climate
- 2** Explain various shading devices and their effectiveness for different orientations. **15**
- 3** Explain the reasons from climate responsive point of view behind using these strategies : (any three) **15**

(a) Use of earthy colors on walls of houses in Rajasthan
(b) Fountain in the courtyard of an old Haveli in Ahmedabad
(c) Protection of the glass faeade of a shop facing the sun
(d) Roof overhang on all four sides of the outer wall in south Indian houses
(e) Decoration on the exterior stone - facade of the temples, forts, etc.
- 4** Explain with neat diagrams (any five) **15**

(a) Humidity
(b) U-Value
(c) Sloping roof vs. Flat roof from the point of view of sun exposure
(d) Heat reflecting glass
(e) Altitude and Azimuth of sun-path diagram
(f) Cavity wall with Insulation
- 5** Explain how different locations in the wall and the different sizes of the window of a room affect the ventilation inside the room. **15**
- 6** Design strategies adopted in the design of houses at Rajkot. **15**