

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE & PLANNING
B.Arch., Summer 2017-18 Examination

Semester: 3
Subject Code: 01101205
Subject Name: Architecture & Environment-III

Date: 16/05/2018
Time: 2:00 pm to 4:00 pm
Total Marks: 50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions whenever required.
4. Draw suitable sketches whenever required.

- Q.1** Explain: Day lighting and its Principles **(10)**
- Q.2** Attempt **any five** out of the following six: **(20)**
- 1) Define the following:
 - a. Environmental Science.
 - b. Longitude.
 - c. Comfort Zone.
 - d. Transmittance.
 - 2) Explain 'Psychometric Chart'
 - 3) Write short note on Earth Air Tunnel.
 - 4) Explain the concept of Stevenson's Screen and its purpose.
 - 5) What are the common sources of heat gain and heat loss in a building?
 - 6) Sketch and explain any 4 types of windows with sketches.
- Q.3** Sketch the following in brief. (**Any five**) **(10)**
1. Wind Tower.
 2. Solarium.
 3. Earth sheltering.
 4. Sky light.
 5. Solar Chimney.
 6. Egg Crate Windows.
- Q.4** Answer **any two** out the following three. **(10)**
- 1) List all the climatic zones of India and explain characteristics of any one in detail.
 - 2) Explain the concept of Mahoney Table and its implication in an architectural design.
 - 3) Explain Passive Cooling techniques with sketches.