

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE & PLANNING
B.Arch. Summer 2018-19 Examination

Semester: 4

Subject Code: 01101255

Subject Name: Architecture & Environment IV

Date: 22/05/2019

Time: 10:00 am to 12:00 pm

Total Marks: 50

Instructions:

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

- Q.1** What is Rain water harvesting system? Explain the components of roof top rain water harvesting system with sketches. **(10)**
- Q.2** Short Notes: (Attempt any five out of six) **(20)**
- a) Climate Change
 - b) Passive cooling.
 - c) Ecosystem and its Components
 - d) Life cycle Analysis
 - e) Renewable energy
 - f) Carbon Footprint
- Q.3** Explain Briefly: (Attempt any five out of six) **(10)**
- a) U-VALUE of any building material.
 - b) Passive Strategies for buildings in hot and dry climate.
 - c) IGBC rating system
 - d) Solar Heat Gain Coefficient (SHGC)
 - e) LEED Rating system
 - f) Different shading devices used in Buildings for shading. Explain with sketches.
- Q.4** Answer the following: (Any two) **(10)**
- a) Energy Efficiency in Building.
 - b) Discuss energy pyramids with neat sketches
 - c) Enlist tangible and intangible benefits of compliance with IGBC Rating System