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**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD -402 103
Winter Semester Examination – December - 2018**

Branch: B.Architecture (First Year Architecture)
Subject:-Environmental Science –I (Focus on built form)
Subject Code: - AR10100004
Date: - 05 - 12 -2018

Semester :I
Marks: 60
Time: - 3 Hour.

Instructions: - 1. All questions compulsory
2. Draw sketches wherever necessary.

Q.No. 1: True or False (Solve any 5) 10 Marks

- a) The temperature of ocean currents affects the climate of nearby landmasses.
A .True
B.False.
- b) Earth receives the most direct sunlight at the poles.
A.True
B.False
- c) The shape of landforms influences the flow of wind and ocean currents.
A.True
B.False.
- d) Passive design strategies use ambient energy sources instead of purchased energy like electricity or natural gas.
A.True
B. False.
- e) Active design is a system or structure that uses or produces electricity.
A.True
B.False.
- f) Climate is like weather but over a large period of time.
A. True
B. False

Q.No. 2: A)Differentiate between: (Attempt any 2)

(5 x 2 = 10 Marks)

- a) Climate & Weather.
- b) Tropical Region &Temperate Region.
- c) Precipitation & Humidity.
- d) Altitude angle & Azimuthal angle.

B) Attempt any two of the following (Short answer Question) :

(5 x 2 = 10 Marks)

- a) What do you understand by Bioclimatic Chart?
- b) Explain Global Wind Pattern.
- c) Explain Heat Transfer through Conduction , Convection & Radiation.
- d) What are the factors of environment affecting building form?

Q.No. 3: Attempt any one of the following (Long answer Question) :

15 Marks

A) What do you understand by Psychrometric charts? Explain all the terms involved in Psychrometric chart.

B) What do you understand by Passive design strategies? Define and Explain with Sketcheshow we can achieve Passive Heating, Passive Cooling and Passive Ventilation in a building ?

Q.No. 4 :Answer the following (Long answer Question) :

15Marks

What are the major climatic Zones in India? Explain the characteristics of a Warm Humid Climatic Zone in detail, along with climate design recommendations for designing shelters in such regions. Illustrate with sketches.

***** End *****