

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD – 402 103
Summer Semester Examination – May – 2018

Branch: B. Arch (First Year Architecture)

Semester: I

Subject: Environmental Science-I (Focus on built form)

Marks: 60

Subject Code: AR1010005

Date: 08 / 05 / 2018

Time: 3 Hrs.

Instructions: 1. All Questions are compulsory.
2. Draw sketches wherever necessary

Q. No. 1 Answer the following: (LONG ANSWER QUESTION) (15 Marks)

- A) Explain typical features of hot and dry climate. Describe measures of shelter design to be considered for hot and dry climate with the help of sketches.

Q. No. 2 Attempt any ONE of the following: (LONG ANSWER QUESTION) (15 Marks)

- A) Enlist different types of shading devices. what are the factors affecting its design.
B) What are the functions of ventilation and explain cross ventilation in detail.

Q. No. 3 Attempt any FOUR of the following: (SHORT ANSWER QUESTION) (20 Marks)

- A) What is day lighting. briefly explain the day lighting factor.
B) What are the factors of climate on which human thermal comfort depends?
C) Describe thermal insulation in building envelope.
D) Define stack ventilation technique.
E) Explain Sun path diagram with neat sketch.
F) Describe the Effect of landscaping.

Q. No. 4 Answer the following: (5 x 2 = 10 Marks)
(Single Line Answer / Objective Types Questions)

- A) Micro climate.
B) Dry bulb temperature.
C) Convective cooling.
D) Relative humidity.
E) Components of Psychrometric chart.
F) Enlist names of tropical climates.
G) Draw a detailed sketch for human body heat exchange with environment.

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