

# P P SAVANI UNIVERSITY

Third Semester of B. Arch. Examination

December 2022

SAAR2100 Climatology & Environmental Studies - I

20.12.2022, Tuesday Time: 01:00p.m. To 03:00p.m. Maximum Marks: 40

**Instructions:**

1. Write main answer sheet no. in your block report under main supplementary.
2. Read instructions carefully before starting.
3. Make suitable assumptions and draw neat figures wherever required.
4. Data given and assumed, in questions must be mentioned in the answers.

**Q-1 Choose the correct answer.**

[05] CO BTL

- (i) The Ratio of actual amount of moisture present to the amount of moisture air could hold at a given temperature is known as, 2 1  
a) Absolute Humidity b) Relative Humidity c) Saturation point Humidity
- (ii) The number and variety of plants, animals and other organisms that exist in an ecosystem is known as, 1 1  
a) Natural ecosystem b) Biodiversity c) Ecology
- (iii) Courtyards are less suitable in which climatic zone? 2 2  
a) Hot& Dry b) Warm & Humid c) Composite
- (iv) The Collective term used for Rain, snow, Hail, dew & frost is known as 2 1  
a) Driving rain b) Rainfall c) Precipitation
- (v) When we design with the specific local environmental characteristics in mind, we start to manipulate the relationship between the climate, the site and the building to create. 2 5  
a) Air motion b) Clustering c) Micro Climate

**Q-2 True or False.**

[05]

- (i) An enclosed, compactly planned and inward-looking building is suitable in Cold climate. 2 4
- (ii) Primary consumers are also called primary carnivores; they feed on primary consumers., they directly depend on the herbivores for their food. 1 3
- (iii) Tropical countries have warm weather as the dominant problem. 2 1
- (iv) Fresh water constitutes a very large proportion of total quantity of the Earth's surface. 2 5

(v) The Comfort Chart is a tool that helps operators determine how well air-handling equipment is providing thermal comfort for the building occupants. 2 3

**Q-3 Write Short notes.**

[10]

(a) What are the elements of Climate? Explain solar radiation and Precipitation in detail. 2 1

(b) What is Biodiversity? What causes loss of biodiversity? 1 4

OR

**Q-3 Write Short notes.**

[10]

(a) Write a Short note on: Body heat exchange effect. 2 4

(b) Enlist different types of Eco systems. Explain Characteristics of Forest Ecosystem. 1 2

**Q-4 (a)** Explain Water as important natural resource. Enlist effects of excess usage of ground water. [05] 1 5

**Q-4 (b)** Enlist major climatic zones in India. Discuss the Warm and Humid climate in detail with Example & sketches. [05] 2 5

**Q-5 Write short notes on following (Any 2)**

[10]

(i) Describe the climatic profile of any geo-climatic region out of the India, that you have studied. 2 4

(ii) How is the climate data organized so as to make comprehensible for the architect or the designer? 2 3

(iii) Explain Hot and dry Climatic zone in detail with sketches. 2 4

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CO : Course Outcome Number

BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create