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End Semester Examination, December 2024
B.Arch – 9th Semester
SUSTAINABLE ARCHITECTURE (APAR413A)

Time: 2.5 hrs.

Max Marks: **50**

Note: ***All Questions are compulsory. Marks are indicated against each question.***

PART-A

Q.1 Attempt any 5 questions from Part A.

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|---|----------------|
| (a) What is Urban Heat Island Effect? | [CO-1] [L-1] 2 |
| (b) Define LCA? | [CO-1] [L-1] 2 |
| (c) Write the any three names of United Nation (UN) Agencies. | [CO-1] [L-1] 2 |
| (d) Mention the objectives of Brundtland Commission report.? | [CO-1] [L-2] 2 |
| (e) What are the three pillars of sustainability? | [CO-1] [L-1] 2 |
| (f) Write the full form of GRIHA & IGBC. | [CO-1] [L-2] 2 |
| (g) Define U Value & VLT? | [CO-1] [L-1] |

2

2x5

PART-B

Attempt one question, either a) or b) from all the questions.

Q.2 a) Write short notes on the following: (Sketches are compulsory)

I) Earth Air Tunnel.

II) Location of shading devices and their designs in composite climate. [CO-2] [L-2] 10

OR

b) Write a detailed note on Moderate climate with any relevant case study.

[CO-2] [L-3] 10

Q.3 a) Climate, Lifestyle and Culture influence the sustainability of any city'. Explain the statement by giving example of any Indian city or any ancient civilization.

[CO-3] [L-3] 10

OR

b) Explain in detail Sustainable Development Goals.

[CO-3] [L-4] 10

Q.4 a) Differentiate between IGBC and GRIHA. Briefly discuss the Criterion of the same. Support your answer with suitable building examples.

[CO-4] [L-4] 10

OR

b) Explain in detail Sustainable Development Goals?

[CO-4] [L-5] 10

Q.5 a) Discuss in detail about the Brundtland commission report highlighting its brief history.

[CO-4] [L-5] 10

OR

b) Differentiate between LEED and GRIHA. Briefly discuss the Criterion of the same. Support your answer with suitable building examples in any Indian climatic context.

[CO-4] [L-6] 10