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Code No.:14111 AS N(A)

VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD B.E. (CBCS) IV-Semester Advanced Supplementary Examinations, July-2019

Green Buildings

(Open Elective-II)

Time: 2 hours

Max. Marks: 40

Note: Answer ALL questions in Part-A and any FIVE from Part-B

Part-A $(5 \times 2 = 10 \text{ Marks})$

- 1. What do you understand by set-back line and control line?
- 2. Define the following
 - i) Carpet area
 - ii) Built up area
- 3. What is heat Island effect?
- 4. What are the principles of green Buildings?
- 5. Describe various measures that you would take for waste management?

Part-B $(5 \times 6 = 30 \text{ Marks})$

| 6.a) | What are the factors that affects the orientation of a building and explain in brief? | | | | | | |
|-------|---|-----|--|--|--|--|--|
| b) | Write the suggestions given by C.B.R.I for the optimum orientation of a building. | | | | | | |
| 7.a) | What are the common errors in planning of a building? | | | | | | |
| b) | Discuss about the following principles of planning of a Residential Building. i) Aspect ii) Prospect iii) Privacy iv) Sanitation | [4] | | | | | |
| 8.a) | Explain the Building bye-laws with reference to open space requirements. | | | | | | |
| b) | Expand and Define FAR. Calculate the FAR of a building of 1500 square feet floor area in a plot area of 5000 square feet. | [3] | | | | | |
| 9.a) | What is green building? What are the objectives of green buildings? | [2] | | | | | |
| b) | Differentiate between conventional building and green building. | [4] | | | | | |
| 10.a) | How green buildings are benefited to the society? | | | | | | |
| b) | Discuss the design criteria of green building with reference to site selection. | | | | | | |
| 11.a) | Expand the terms GRIHA and LEED. | [2] | | | | | |
| b) | List out the criteria followed in the certification of a green building by GRIHA. | [4] | | | | | |
| 12.a) | Write and explain the components of Roof top Rainwater Harvesting system. | | | | | | |
| b) | Illustrate the case study of a LEED certified Green building. | [3] | | | | | |
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