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GIET UNIVERSITY, GUNUPUR – 765022

B. Tech (Seventh Semester – Regular) Examinations, November – 2023

BOECV7041 - Green Building

(Civil Engineering)

Time: 3 hrs

Maximum: 70 Marks

Answer ALL Questions

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions)

(1 x 10 = 10 Marks)

Q.1. Answer ALL questions

		[CO#]	[PO#]
a. A fire detector cannot detect:		CO1	PO1
(i) Radiation	(ii) Heat		
(iii) Light	(iv) Smoke		
b. The content of oxygen is normally _____% in air.		CO1	PO1
(i) 100	(ii) 50		
(iii) 73	(iv) 21		
c. What is called for the method of removing dust and other particles from water using filters?		CO1	PO1
(i) Filtration	(ii) Sublimation		
(iii) Rainwater harvesting	(iv) Evaporation		
d. Building which utilizes solar energy such as solar film effectively _____heat gain during the winter, and _____ heat gain during the summer.		CO1	PO1
(i) increases; reduces	(ii) reduces; increases		
(iii) reduces; reduces	(iv) None of above		
e. Economy can be achieved in doors, windows, ventilator by:		CO1	PO1
(i) No frame	(ii) Steel frames		
(iii) Less width	(iv) Less height		
f. Green building practices include		CO1	PO1
(i) Only energy efficiency.	(ii) Only recycled materials		
(iii) Only Environmental Protection	(iv) All of these		
g. LEED gives rating in form		CO2	PO3
(i) 1 star, 2 star, 3 star, 4 star, 5 star	(ii) Platinum, Gold, Silver		
(iii) Both A and B	(iv) None of above		
h. the _____ plays an important role in the comfort of persons affected by ventilation system		CO1	PO1
(i) Carbon monoxide	(ii) Purity of air		
(iii) Volume of room	(iv) Health of occupant		
i. Where people are working, there has to be _____ to cause proper ventilation of the premises.		CO1	PO3
(i) Air change	(ii) Humidity		
(iii) Temperature	(iv) Moisture		
j. A _____ building material can be made into new products again and again.		CO1	PO3
(i) recyclable	(ii) reusable		
(iii) repairable	(iv) None of above		

PART – B: (Short Answer Questions)**(2 x 10 = 20 Marks)**Q.2. Answer ALL questions

	[CO#]	[PO#]
a. What is a "LEED" building?	CO2	PO1
b. Where can you purchase green building materials and products?	CO1	PO1
c. What are the economic benefits of green or sustainable building and development?	CO2	PO3
d. How do buildings affect natural resources?	CO2	PO3
e. How will you reduce electricity consumption in a situation where electricity prices would rise by several tens of percent?	CO2	PO3
f. What are the new challenges in green building?	CO2	PO3
g. How is green building related to smart growth and sustainable development?	CO2	PO3
h. How can I incorporate green building concepts into my home?	CO2	PO3
i. How do buildings affect climate change?	CO2	PO3
j. How to Plan Rooms in Passive Solar Building?	CO2	PO3

PART – C: (Long Answer Questions)**(10 x 4 = 40 Marks)**Answer ALL questions

	Marks	[CO#]	[PO#]
3. a. Do you think that LEED certification is a good method to assess the quality of buildings in terms of sustainability?	5	CO1	PO1
b. Does a green building cost more? Justify the statement. (OR)	5	CO2	PO3
c. Explain about high performance green building?	5	CO1	PO1
d. Why do green buildings cost more than traditional buildings?	5	CO2	PO3
4. a. Explain about IGBC.	5	CO1	PO1
b. What are the registration process in green building certification? (OR)	5	CO1	PO1
c. Explain about water efficiency in green building.	5	CO1	PO1
d. What is indoor air quality.	5	CO1	PO1
5. a. Which is better: a recycled material or a natural material?	5	CO2	PO3
b. Explain about the LEED certification system. (OR)	5	CO2	PO3
c. What are the different criteria for LEED certification system?	5	CO2	PO3
d. What are the different site protection planning?	5	CO2	PO3
6. a. What are the economic benefits of green or sustainable building and development?	5	CO3	PO4
b. With which technologies can a climate-neutral, zero-carbon and energy autonomous residential building be built? (OR)	5	CO3	PO3
c. Are green buildings more expensive to construct and operate?	5	CO3	PO4
d. Can I get a tax break for building green? Discuss.	5	CO2	PO3

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