

8. Write short notes on :

5 × 4 = 20

- (a) Sustainable sites
- (b) Carbon emission
- (c) Biomass Resources for buildings
- (d) Green cover and built environment

Roll No.

23735

**M. Tech. 2nd Semester (Civil Engg.)
(Computer Aided Structural Engg.)
(Elective-I) Examination – June, 2023**

GREEN BUILDING

Paper : 21 MTCASE22D3

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note: Attempt any five questions. All questions carry equal marks.

1. (a) What do you mean by green materials ? 5 × 4 = 20
- (b) What are the benefits of using recycled-content building materials ?

23735- (P-4)(Q-8)(23) (4)

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- (c) What is meant by ferro cement ?
- (d) What is meant by pre-engineered building construction ?
- (e) What is meant by energy efficient building ?
2. (a) Explain the factors affecting the Energy use in Buildings. 10
- (b) What are the various rating systems for the assessment of sustainability ? 10
3. (a) What are the methods of preserving and protecting landscape during construction ? 10
- (b) Write any *eight* features of sustainable buildings. 10
4. (a) Find any *six* ways to recycle concrete. 5

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- (b) Draw plan of odd and even courses of a corner wall comprising rat trap bond. Also draw elevation. 15
5. (a) What is life cycle cost of building ? 10
- (b) What are the criteria for a building to be rated as one star, two star, three star, four star and five star as per GRIHA ? 10
6. (a) Why it is necessary to improve indoor air quality ? 10
- (b) Explain the methods to reduce indoor air pollutants. 10
7. (a) What are the benefits of adding lime to cement mortar ? 10
- (b) What is Embodied energy ? Why it is necessary to reduce use of embodied energy in buildings ? 10

23735- (P-4)(Q-8)(23) (3)

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