

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Civil Engg.) (Sem.-6)
SUSTAINABLE CONSTRUCTION METHODS

Subject Code : PECE-604B-18

M.Code : 79407

Date of Examination : 09-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) What are the indicators of sustainability?
- b) List out some common practices followed in the construction industry, promoting water efficiency
- c) Suggest two energy-conserving methods that can be adopted in green buildings.
- d) What are the functions of bearings in bridge?
- e) Enlist the factors responsible for indoor air pollution.
- f) What are the advantages of Rammed Earth?
- g) What do you understand by Green Roofs?
- h) What are the advantages of self healing concrete?
- i) Explain the salient features of Structure 3 D printing.
- j) What do you understand by climate responsive building?

SECTION-B

2. Explain in detail the criterion in Griha Rating system of Green Building.
3. *'Technology may affect sustainability in positive and negative ways'*. Give two example each for both cases.
4. In order to reduce the energy requirements in Green Buildings, suggest any three design solutions methods to effect passive cooling during summer months.
5. Explain briefly the different types of bridge foundations.
6. What are the advantages of using flyash in concrete?

SECTION-C

7. Depict the effect of prefabricated building on the surrounding environment with respect to noise pollution, stacking of elements and transportation.
8. How LEED Green Building Rating System can function as a benchmark for design, construction and operation of high performance green building?
9. With the help of their comparative advantages and disadvantages along with their uses; explain the conventional and cast-in-situ construction method.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.