

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Civil engineering) / PIT B.Tech Civil (Sem.-6)

CONSTRUCTION ENGINEERING MATERIALS

Subject Code : PECE-604F-18

M.Code : 79411

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 different properties of cement?
- b) Name the different ingredients of concrete.
- c) Write a short note on '*Green Building Materials*'.
- d) What are the different types of cement?
- e) Write down uses of glass wool.
- f) What are structural elastomeric bearings?
- g) Write a short note on alloy steel.
- h) What are advantages of fibre reinforced concrete?
- i) Differentiate between high performance and high strength concrete.
- j) Write a short note on polymer concrete.

SECTION-B

2. What are the different factors affecting strength of concrete?
3. What are different types of admixtures? Also tell about their uses and properties.
4. What is the selection criterion for construction materials? Explain in detail.
5. What are the properties and advantages of High Strength steel?
6. What are the various types of structural steel? Explain any two in detail.

SECTION-C

7. Write a detailed note on the classification of ceramic materials. Also explain their mechanical, thermal and electrical properties.
8. Write a detailed note on the uses and applications of polymers, fibres and composites.
9. What is Ferro cement? Also tell its composition and properties in detail.

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.