

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]

Dec-22-0130

CE-304 (Building Materials)

B.Tech-3rd (CBCS)

Time : 3 Hours

Max. Marks : 60

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note:** Attempt Four questions out of eight questions which is of 10 marks each. Q.No. 9 is compulsory, which is of 20 marks.

1. Describe in detail about the various types of pozzolanic materials used in concrete construction. (10)

Or

2. Explain in detail about the types and uses of ceramic, terrazzo and clay tiles. (10)
3. Explain in detail about three market forms of timber. Also, explain in detail about the aluminium roofing material. (4+6)

Or

4. Explain the use of each of these materials in construction:
- (i) Architectural glass
  - (ii) Laminates
  - (iii) Fibre reinforced plastics
  - (iv) PVC
  - (v) Light weight roofing material (10)

5. What is a polymer modified bitumen? How is it different from

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pavement grade bitumen? Write in detail about crumb rubber modified bitumen. (3+3+4)

Or

6. What is a mastic bitumen and a bituminous felt? Explain the process of their construction and explain where are they used. (10)
7. Explain in detail about the sheets used for a pitched roof covering. (10)

Or

8. Explain in detail about the use of geo textiles and refractories in the construction. (10)
9. Write in detail about the following:
- (i) Materials for architectural finishes
  - (ii) Decorative and cladding stones
  - (iii) Bituminous emulsion
  - (iv) Glass
  - (v) Hard and soft wood (20)