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QP Code: RM23MTECH129

GIET UNIVERSITY, GUNUPUR - 765022

M. Tech (Second Semester) Examinations, May - 2024
MPECT2042 - Advanced Construction Materials

(CTM)

| Time | e: 3 Hrs | Maxim | um: 70 |) Marks | |
|---------------------------|---|------------------------------------|-----------|-------------|--|
| 11111 | (The figures in the right hand margin indicate marks.) | WIGAIIII | iuiii. /(| Jiviaiks | |
| PA | RT – A | $(2 \times 10 = 20 \text{ Marks})$ | | | |
| Q.1. Answer all questions | | C! | О# | Blooms | |
| | | | | Level | |
| a. | What do you mean by Co- polymerization? | (| CO1 | K2 | |
| b. | What is meant by Rubber? | (| CO1 | K1 | |
| c. | Give a small account on Plastics. | (| CO1 | K1 | |
| d. | What do you understand by rusting? | (| CO2 | K2 | |
| e. | Define the term Gauge Length. | (| CO2 | K2 | |
| f. | What is meant by percentage elongation of any member? | (| CO3 | K1 | |
| g. | Describe about Hygroscopicity. | (| CO3 | K1 | |
| h. | What do you mean by fire resistance? | (| CO4 | K1 | |
| i. | What do you mean by angular aggregates? | (| CO4 | K2 | |
| j. | Define the term stiffness of an aggregate. | (| CO4 | K1 | |
| PART – B | | (10 x 5 | =50 N | (arks | |
| TAKI - D | | · | | · | |
| Answ | er ANY FIVE questions | Marks | CO# | Blooms | |
| 2. a. | What are the advantages of Prestressed concrete? | 5 | CO1 | Level K3 | |
| b. | What are the types of polymer concrete? | 5 | CO1 | K2 | |
| 3.a. | Describe in brief about the hydration of cement. | 5 | CO1 | K1 | |
| b. | Write short notes on Polymerisation mechanism. | 5 | CO1 | K1 | |
| 4. a. | Explain briefly about the mechanical properties of building materials. | 5 | CO2 | K1 | |
| b. | Describe in brief about characteristics behavior of materials under stress. | 5 | CO2 | K2 | |
| 5.a. | What are the factors influencing the choice of building materials? | 5 | CO2 | K1 | |
| b. | Why it is importance to make standards for building materials? | 5 | CO2 | K1 | |
| 6. a. | What is meant by Alkali-Aggregate Reaction? Describe briefly | 5 | CO3 | К3 | |
| b. | Write short notes on effect of mixing water from different sources. | 5 | CO3 | К3 | |
| 7.a. | Does sea water can be used in concrete? Comment. | 5 | CO3 | K1 | |
| b. | What do you understand by Ceramic materials? | 5 | CO3 | K1 | |
| 8. a. | Describe about the constituents of plastics. | 5 | CO4 | K2 | |
| b. | Describe about various moulding methods of plastics. | 5 | CO4 | K2 | |

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