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BTECH
(SEM V) THEORY EXAMINATION 2024-25
MODERN CONSTRUCTION MATERIALS

TIME: 3 HRS

M.MARKS: 70

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1. Attempt all questions in brief.

2 x 7 = 14

Q no.	Question	CO	Level
a.	Identify the properties of fly ash bricks.	1	K3
b.	Write short note on cement blocks.	1	K1
c.	Classify modern insulating materials.	5	K2
d.	Identify the waste materials that can be used in the making of concrete.	2	K3
e.	Name the different types of fibers.	3	K1
f.	What do you understand by ferro cement?	3	K1
g.	Explain PCC in brief.	4	K2

SECTION B

2. Attempt any three of the following:

7 x 3 = 21

a.	Differentiate between calcium silicate bricks and fly ash bricks.	1	K4
b.	Examine the properties of light weight concrete in detail.	2	K4
c.	Discuss the properties of high density concrete in detail.	3	K6
d.	Discuss the polymer concrete composites in detail.	4	K6
e.	Distinguish between conventional and modern insulating materials.	5	K4

SECTION C

3. Attempt any one part of the following:

7 x 1 = 7

a.	Explain the properties of modern building materials in detail.	1	K4
b.	Discuss the properties of red mud jute fiber polymer composite.	1	K6

4. Attempt any one part of the following:

7 x 1 = 7

a.	Distinguish between light weight concrete and conventional concrete.	2	K4
b.	How is waste material based concrete different from normal concrete?	2	K1

5. Attempt any one part of the following:

7 x 1 = 7

a.	What are the different types of fibers? Explain any one in detail.	3	K1,4
b.	What do understand by prefabricated systems? Explain in detail.	3	K1,4

6. Attempt any one part of the following:

7 x 1 = 7

a.	Identify the difference between Sulphur concrete and Sulphur infiltrated concrete.	4	K3
b.	Discuss the properties of polymer concrete composites in detail.	4	K6

7. Attempt any one part of the following:

7 x 1 = 7

a.	Name some conventional and modern insulating materials. Also explain any two of them in detail.	5	K1,4
b.	Discuss the concept of polymer flood finishes in detail.	5	K6