

**B. TECH
(SEM V) THEORY EXAMINATION 2018-19
MODERN CONSTRUCTION MATERIALS**

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **2 x 7 = 14**
- Define fly ash bricks.
 - What are the uses of geosynthetic materials?
 - Define light weight concrete.
 - What do you understand by nuclear concrete?
 - Define different types of fiber..
 - What are polymer concrete composite?
 - List out electrical insulating materials.

SECTION B

2. Attempt any *three* of the following: **7 x 3 = 21**
- Explain any two tests for testing of conventional fresh concrete.
 - Describe the various application of geosynthetic in civil engineering construction works.
 - What are the properties of high density concrete? Explain in detail.
 - What are the concept of polymer floor finishes ?Discuss
 - Discuss the various factors you considered for choosing floor tiles.

SECTION C

3. Attempt any *one* part of the following: **7 x 1 = 7**
- What are the properties of soil –cement blocks? And also discuss about where its used and why? <http://www.aktuonline.com>
 - Explain the classification of glass reinforced gypsum.
4. Attempt any *one* part of the following: **7 x 1 = 7**
- List out bituminous material and Explain properties of any two.
 - What do you understand by waste material concrete? Explain in detail.
5. Attempt any *one* part of the following: **7 x 1 = 7**
- What are the different types of fibers? Explain any one of them.
 - Explain heat resisting concrete and refractory concretes.
6. Attempt any *one* part of the following: **7 x 1 = 7**
- Explain the following : (i) Properties of polymers (ii) Sulphur concrete .
 - What is the concept of embodied energy of materials?
7. Attempt any *one* part of the following: **7 x 1 = 7**
- What are the properties of modern proofing materials? Explain
 - Explain various application of (i) Geomembranes (ii) Geotextiles