

Roll No.

23428

**M. Tech 2nd Sem. (Civil Engg.)
Specialisation in structural Design
Examination – May, 2018**

CONSTRUCTION FAILURES

Paper : MTSD-210

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions. All questions carry equal marks. Assume any data if missing.

1. (a) Explain the main causes of failure that leads to the construction failure. 10
- (b) What is the meaning of construction failure ? Explain it with the help of some historical references. 10
2. How impermeable is concrete ? What parameter affects the permeability of concrete ? How does the micro structure of concrete affect the durability of structure ? 20

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3. Explain in detail How the following leads to construction failure, Inadequate supervision & inspection ? 20
- (i) Subsidence of foundations.
- (ii) Earthquake.
4. What are the codal provisions for the design of durable concrete structures as per Indian Standard ? How the sulphate attacks is minimized ? 20
5. Write down the reasons for the cracking of concrete & masonry structure ? Explain with the help of neat and clean sketches. 20
6. What are the measures adopted in order to reduce or to avoid the cracks in concrete structures. 20
7. What are the professional and legal responsibilities to be adopted during the construction ? 20
8. What are the measures which help to reduce the frequency and severity of construction failures ? 20
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