



R20 Regulation
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 3P3AB

B.Tech III Semester Regular Examinations, February 2022
Building Materials, Construction & Planning
(Civil Engineering)

Maximum Marks: 70

Date: 22.02.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 List the properties of stones.
- 2 Define M-Sand.
- 3 List the chemical composition of cement.
- 4 What is the purpose of admixtures in cement?
- 5 Write a short note on Damp Proof Course
- 6 Name any two fire resistant building materials.
- 7 Define plastering and pointing.
- 8 Enumerate the advantages of high-performance concrete.
- 9 List the classification of buildings.
- 10 Define Floor Index Ratio.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Distinguish the properties of River Sand and M-sand. 10M
OR
- 12 Explain the properties and types of bricks. 10M
- 13 Briefly explain the manufacturing process of cement (Dry Process). 10M
OR
- 14 i) Explain the application of any two chemical admixtures. 5M
ii) Explain with neat sketch of soundness test for cement. 5M
- 15 Explain in detail about the different types of foundations and staircases. 10M
OR
- 16 i) List and explain the building plumbing and sanitary fittings. 5M
ii) Write a detailed notes on different materials for doors and windows. 5M
- 17 Write a detailed notes on Light weight concrete and High-performance concrete. 10M
OR
- 18 Explain with neat sketch for any four types of bonds in brick masonry. 10M
- 19 What are the principles underlying building bye-laws and explain in detail? 10M
OR
- 20 List and explain the principles of building planning as per NBC. 10M