



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

Subject code: 3P3AB

**B.Tech III Semester Regular/Supplementary Examinations, March/April 2023**

**BUILDING MATERIALS, CONSTRUCTION & PLANNING**  
(CIVIL ENGINEERING)

Maximum Marks: 70

Date: 29.03.2023 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

- 1 What is seasoning of timber.
- 2 What is Quarrying?
- 3 What is OPC and who invented the cement?
- 4 What is hydration of cement?
- 5 What is DPC? And explain their uses?
- 6 Write about (a) Floors (b) Roofs (c) Foundation
- 7 What is pointing? Explain their uses?
- 8 What is cladding?
- 9 Define floor area ratio.
- 10 Draw a two or three room building plan?

(10x2M=20 Marks)

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Explain briefly the different steps adopted in manufacture of good bricks. 10M
- 12 (a) What is preservation of timber? OR 5M  
(b) Explain briefly the various timber preservation methods and treatment processes. 5M
- 13 (a) List the type of cement? OR 5M  
(b) Explain the method of manufacture of cement (OPC)? 5M
- 14 (a) Explain the chemical composition of cement? OR 5M  
(b) Explain the function of admixtures? 5M
- 15 Explain briefly the functional requirements of ventilation system? 10M
- 16 Detail plumbing and water distribution network for a small building. 10M

- 17 Explain the terms: 10M  
(a) Shoring (b) Underpinning\* (c) Form work (d) Scaffolding (e) Tiles.  
OR
- 18 Explain briefly about Advantages and Disadvantages of Brick masonry and Stone Masonry. 10M
- 19 Briefly explain the Building Bye Laws. 10M  
OR
- 20 (a)What is orientation of building? 5M  
(b)explain the principles of building planning? 5M