



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

Subject code:3P3AB

B.Tech III Semester Supplementary Examinations, September 2023

Building Materials, Construction & Planning

(CE)

Maximum Marks: 70

Date:30.09.2023 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

(10x2M=20 Marks)

- 1 What is meant by igneous rock and mention the examples.
- 2 What are properties of first class brick?
- 3 Write short notes on admixtures.
- 4 Define consistency and initial setting of cement.
- 5 Explain the requirements of ventilation in residential buildings.
- 6 List out components of stair case
- 7 What are the requirements of the good form work.
- 8 Write about header and stretcher.
- 9 Write a short notes on water requirements for buildings?
- 10 Define the residential building.

Part-B

Answer All the following questions.

(10M X 5=50Marks)

- 11 Describe the characteristics of good building stones. 10M
- OR
- 12 a) Name the three geological classes into which rocks can be divided. Describe the process of their formation. What are the important building stones which are derived from these rocks? 5M
 - b) Describe briefly effect of pain on unseasoned timber? 5M

- 13 Describe with neat diagram the wet process of manufacture of the cement. 10M
- OR
- 14 What are the different types of the cement. Mention properties of each type of the cement. 10M
- 15 Describe types of the foundations and explain with neat diagrams? 10M
- OR
- 16 a) With neat sketches explain different types of arches? 7M
b) Mention the different types of roofs? 3M
- 17 Explain Indian standard specification of form work? 10M
- OR
- 18 a) What are the functional requirements for good ventilation? 5M
b) Compare brick masonry and stone masonry? 5M
- 19 a) Write principles of building planning? 7M
b) What do you understand by development control rules? 3M
- OR
- 20 Explain the building Bye –law with reference to: 10M
a) Open space requirements
b) Plinth area regulations
c) Height limits