



B.Tech III Semester Regular/Supplementary Examinations, February 2021

BUILDINGS MATERIALS, CONSTRUCTION & PLANNING
(Civil Engineering)

Maximum Marks: 70

Date: 17.02.2021 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 Write down the characteristic properties of good stone?
- 2 What are the constituents of glass?
- 3 What are the properties of OPC
- 4 Demonstrate the role of admixtures.
- 5 Define the Span of an arch and Rise of an arch.
- 6 Classify among fire resistant materials.
- 7 Define and explain about the importance of form work.
- 8 Write a short notes on fibre reinforced concrete?
- 9 Define building planning. State its significance.
- 10 Define floor area ratio.

Part-B

Answer All the following questions.

(10M X 5=50Marks)

- 11 a) Illustrate various types of paints and their suitability or use? 5M
b) Explain in detail the process of manufacturing of glass? 5M
- OR
- 12 a) What do you Understand about the dressing of stones and explain the methods of dressing of stones? 5M
b) Explain in brief about the alternative materials for wood. 5M
- 13 a) Explain the field tests on cement? Write the chemical composition of ordinary Portland cement 5M
b) Write short notes on: 5M
 - i) Soundness test of cement
 - ii) Tensile strength test of cement

OR

- 14 a) What chemical reaction takes place during the process of setting? 5M

- b) Explain about different chemical admixtures 5M
- 15 What are different types of arches that are used for engineering construction? Describe any three types in detail with sketches. 10M
- 16 a) Write a short note on: OR 5M
i) Storage tanks
ii) Water requirements of building
iii) Materials for service pipe
- b) What is acoustics? State various types of sound absorbing materials according to mode of their performance. 5M
- 17 What is scaffolding. State different types of scaffolding. Explain briefly with neat sketches. 10M
- 18 a) Distinguish between light weight concrete and high performance concrete OR 5M
b) Demonstrate the objectives of providing painting and plastering to the proposed surface. 5M
- 19 a) Explain the various basic principles of building planning? 5M
b) What is meant by orientation and state the factors affecting the orientation of building? 5M
- 20 Explain briefly the practical considerations in building planning? OR 10M