



Code : 20AR11T

1022

Register
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I Semester Diploma Examination, August/September-2022

MATERIALS OF CONSTRUCTION

Time : 3 Hours]

[Max. Marks : 100

Instructions : Answer all Sections.

SECTION – I

1. (a) Define natural and artificial stone. 2.5 + 2.5 = 5
(b) Choose the appropriate raw materials for manufacturing bricks and mention their percentage. 3 + 2 = 5

OR

2. (a) What are the uses of stone as an engineering material ? 1 × 5 = 5
(b) List the requirements of good brick. 1 × 5 = 5
3. (a) What are the functions of ingredients of cement ? 1 × 5 = 5
(b) Name the various market forms of timber. 1 × 5 = 5

OR

4. (a) Define initial setting time and final setting time of cement. 2.5 + 2.5 = 5
(b) List various types of industrial timber. 1 × 5 = 5

SECTION – II

5. (a) Classify various defects of timber due to natural forces with supporting sketch. 1 × 8 = 8
(b) Explain geological classification of rock. 2 + 5 = 7
- OR**
6. (a) Summarize the methods of seasoning of timber. 2 + 6 = 8
(b) Compare the properties of granite with marble. 1 × 7 = 7



7. (a) Illustrate with sketch the types of bricks based on shape and uses. $1 \times 8 = 8$
(b) Classify the types of cement concrete blocks. $4 + 3 = 7$

OR

8. (a) Compare stabilized soil block with fly ash bricks. $4 + 4 = 8$
(b) Outline the types of lime. $1 \times 7 = 7$

SECTION – III

9. (a) Identify the types of bricks based on their classes. $1 + 4 = 5$
(b) Identify the types of non-ferrous metals and explain any one in detail. $2 + 3 = 5$

OR

10. (a) Compare the properties of laminates and veneers. $2.5 + 2.5 = 5$
(b) Select the types of alloys and explain any one in detail. $1 + 4 = 5$

11. (a) Compare the properties of zinc and tin. $4 + 4 = 8$
(b) Choose the ingredients of paints and varnishes. $3 + 4 = 7$

OR

12. (a) Select the types of ferrous metals and explain any two in detail. $2 + 6 = 8$
(b) Identify the engineering aspects of paints and varnishes. $3 + 4 = 7$

SECTION – IV

13. (a) List the functions of mortar. 5
(b) List the objects of paints. 5

OR

14. (a) List the methods of storing cement with sketch. $3 + 3 = 6$
(b) List the characteristics of distemper. 4

15. (a) Classify the types of cast iron and explain any two in detail. $2 + 2 \times 3 = 8$
(b) List the properties and uses of aluminium. $3 + 4 = 7$

OR

16. (a) Distinguish between ferrous and non-ferrous metals. $4 + 4 = 8$
(b) List the properties and uses of acrylic flooring. $3 + 4 = 7$

