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Question Paper Code :

**ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES
(AUTONOMOUS)**

B. Tech II Semester Regular Examinations May - 2016

(Regulations: R15)

**CIVIL ENGINEERING MATERIALS
(CIVIL)**

Date:

Time: 3 hours

Max Marks: 60

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

Unit - I

1. (a) Briefly describe the working of Bulls Trench Kiln for the burning of Bricks. (8)
(b) Describe the two ways of moulding the bricks. (4)
(OR)
2. (a) What is Terra Cotta? How it is manufactured? (6)
(b) What is meant by the term Refractories? Mention the desired Properties of Refractories. (6)

Unit - II

3. Explain how the following Tests for Stones are carried out: (12)
(a) Water Absorption Test.
(b) Impact Test.
(c) Attrition Test.
(OR)
4. (a) Explain about various Defects in Timber. (6)
(b) How are timbers classified with respect to seasoning? (6)

Unit - III

5. (a) Enumerate the properties of Cast Iron (6)
(b) Mention the characteristics of Aluminium as an important Building material. (6)
(OR)
6. (a) State the special varieties of Glass and briefly explain them. (6)
(b) Describe the process of manufacturing glass. (6)

Unit - IV

7. (a) Mention the properties of Fibre Reinforced Plastics. (8)
(b) Mention the uses of plastics. (4)
(OR)
8. (a) Write about various functions of Geosynthetic materials. (8)
(b) Write a short note on Geo composites. (4)

Unit - V

9. (a) What are the advantages of Cement Paints and what are the precautions to be taken to avoid defects of the Cement Paint. (8)
(b) Enumerate the different types of paints. (4)

(OR)

10. Differentiate between the following (12)
(i) Varnish and Distemper
(ii) Priming coat and Finishing coat
(iii) Base and Vehicle

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Unit - I

1. (a) Explain about various Tests that are performed on Bricks. (8)
(b) What are the ingredients of good Brick earth? (4)

(OR)

2. (a) Explain about Tiles and Write about Characteristics of good Tiles. (6)
(b) What is a Glaze? Mention the purpose of glazing and discuss its varieties. (6)

Unit - II

3. (a) Write briefly about Dressing of Stones. Explain various varieties of finishes with neat sketches. (8)
(b) Describe the methods of Quarrying with hand tools. (4)

(OR)

4. (a) What is meant by seasoning of Timber and what are the objectives of Seasoning. (6)
(b) Mention the qualities of good Timber. (6)

Unit - III

5. (a) Compare Asbestos Cement Sheets with Galvanized Iron Sheets. (6)
(b) Explain the properties and uses of various types of Glass. (6)

(OR)

6. (a) Explain briefly about various forms of Rubber. (6)
(b) Mention the properties and uses of various types of glass. (6)

Unit - IV

7. (a)Mention the properties of Plastics and write about the various uses of plastics as an Engineering material. (6)
(b) Write about the composition of plastics. (6)

(OR)

8. (a)Write about various tests that are conducted on Geosynthetic materials. (8)
(b)Explain briefly about woven and non-woven geotextiles. (4)

Unit - V

9. (a)What are the ingredients of Varnish? Explain about each of them briefly. (8)
(b)Write a short note on Emulsion paint and Turpentine. (4)

(OR)

10. (a)Write Properties of Distemper and process of Distempering. (6)
(b)what are the characteristics of an ideal paint (6)