

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)  
**B.Tech I Year I Semester Supplementary Examinations February-2024**  
**ENGINEERING MATERIALS**  
(Civil Engineering)

**Time: 3 Hours****Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

1 Explain the process involved in the manufacturing of bricks with neat sketch. CO1 L3 12M

OR

2 Write short notes on, CO1 L2 12M  
i) Write about tools used for quarrying the stones  
ii) Methods of quarrying of stones.  
iii) Precautions in blasting

**UNIT-II**

3 Explain with flow diagrams the dry and wet process of manufacture of cement. CO2 L2 12M

OR

4 a List the characteristics of good mortar. CO2 L2 6M  
b Briefly write about classification of concrete. CO2 L2 6M

**UNIT-III**

5 a What are the differences between paints, varnishes and distemper? CO3 L2 6M  
b Describe various defects in timber. CO3 L3 6M

OR

6 a List the properties of wood and shortly write about any three properties. CO3 L2 6M  
b State the characteristics of good timber. CO3 L2 6M

**UNIT-IV**

7 Write short notes on CO4 L3 12M  
i) Piezoelectric materials (ii) Magneto Rheos static fluid.

OR

8 Describe in detail about the reinforcing steel used in reinforced cement concrete. CO4 L3 12M

**UNIT-V**

9 a Explain the following tests for bitumen CO5 L2 6M  
(i) Flash point and ii) fire point test .  
b Discuss the characteristics of good aggregates. CO5 L2 6M

OR

10 With significance briefly explain about crushing test and impact test on coarse aggregate. CO5 L3 12M

\*\*\* END \*\*\*

