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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
 (AUTONOMOUS)  
**B.Tech II Year I Semester Supplementary Examinations December-2021**  
**BUILDING MATERIALS & CONSTRUCTION**  
 (Civil Engineering)

Time: 3 hours

Max. Marks: 60

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

**UNIT-I**

- 1 a Classify the bricks and explain the working of Hoffman's kiln for the burning of bricks. L2 6M
- b List the classifications of rocks and explain the classification based on geological formation. L1 6M

OR

- 2 a Mention the factors to be considered while deciding a quarry site and also list the various methods of quarrying. L2 6M
- b Explain the tests required to determine the suitability of bricks for construction work. L2 6M

**UNIT-II**

- 3 a How the ordinary Portland cement will be manufactured by using wet and dry process. L1 6M
- b Explain in detail about Workability of cement with neat sketch. L2 6M

OR

- 4 a Write down about Segregation and bleeding of concrete. L1 6M
- b Write a short note on gypsum and rubber along with uses of them in daily life applications. L2 6M

**UNIT-III**

- 5 a Briefly explain about composition and preparation of paint. L1 6M
- b Differentiate between fine aggregates and coarse aggregates. L2 6M

OR

- 6 a Briefly explain about composition of oil paint. L1 6M
- b What is meant by aggregate impact value? Explain the test procedure to conduct aggregate impact test with neat sketch. L2 6M

**UNIT-IV**

- 7 **a** What are the requirements for good foundation? **L2 6M**  
**b** Explain briefly about Foundation failures with neat sketch. **L2 6M**

**OR**

- 8 **a** What are the different types of stone masonry? Explain in detail. **L2 6M**  
**b** In detail explain about bond formation in brick masonry with neat sketch. **L2 6M**

**UNIT-V**

- 9 **a** Explain in detail about different terms used in Arches. **L1 6M**  
**b** What are the different types of mortars used for plastering explain in detail. **L2 6M**

**OR**

- 10 **a** Classify and explain different types of arches based on materials used. **L2 6M**  
**b** Write a short note on defects in plastering. **L1 6M**

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