

Code No: R1621014

**R16****SET - 1****II B. Tech I Semester Regular Examinations, October/November - 2017****BUILDING MATERIALS AND CONSTRUCTION**

(Civil Engineering)

Time: 3 hours  
70

Max. Marks:

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**Note:** 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer **ALL** the question in **Part-A**3. Answer any **FOUR** Questions from **Part-B**  
~~~~~**PART -A**

- 1 a) What are the qualities of good building stones? Discuss
- b) Write a short note on teak wood
- c) What are the various uses of lime?
- d) Discuss the advantages of flat roof over sloped roof.
- e) Define paint, varnish and distemper.
- f) Discuss about particle shape and texture?

**PART -B**

- 2 Give the sketches of various finishing surfaces of stones
- 3 a) What are bond stones and for what type of stone masonry it is used?
- b) Explain defects due to seasoning
- 4 Explain briefly various methods of manufacture of lime
- 5 a) Discuss various modes of failures of an arch. What are the remedies
- b) Enumerate, with the help of sketches, various types of arches based on its shape.
- 6 a) Give the various specifications for cement plaster and describe how it is carried out on brick masonry
- b) Explain methods of curing lime plaster and cement plaster.
- 7 a) Classify the aggregates. Explain any one
- b) Explain how you determine moisture content of aggregate

Code No: R1621014

**R16****SET - 2****II B. Tech I Semester Regular Examinations, October/November - 2017****BUILDING MATERIALS AND CONSTRUCTION**

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70

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2. Answer **ALL** the question in **Part-A**  
3. Answer any **FOUR** Questions from **Part-B**
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**PART -A**

- 1 a) Why is it important to study the properties of building materials.  
b) Explain decay of timber.  
c) Write Methods of manufacture of lime?  
d) List out the various types of lintel used in the construction of buildings.  
e) What do you understand by the term Damp proof course?  
f) Write about Sieve Analysis

**PART -B**

- 2 Compare Pan Tiles and Pot Tiles with neat sketches.
- 3 a) Explain the qualities of a good timber  
b) Explain English bond and Flemish bond with neat sketches.
- 4 a) Explain any two concrete tests in detail?  
b) Explain the constituents of lime stone?
- 5 a) How are stone stairs constructed and supported  
b) How are the treads and risers proportioned?
- 6 a) What are “breathing” and “non-breathing” types of paints?  
b) What are the considerations in application of these paints to the ceiling under the wet areas and wall surfaces?
- 7 a) Briefly explain how the specific gravity of aggregates is carried out.  
b) Write about Bulking of Sand

1 of 1

Code No: R1621014

**R16****SET - 3****II B. Tech I Semester Regular Examinations, October/November - 2017****BUILDING MATERIALS AND CONSTRUCTION**

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~~~~~**PART -A**

1. a) Write different classification of stones and their uses in brief  
b) Discuss the general principles in Brick Masonry Construction  
c) What is the chemical composition of Portland cement?  
d) Write a short note on Queen post truss  
e) Write different bonds in brick masonry?  
f) Define specific gravity

**PART -B**

2. a) What are the qualities of good building stones? Discuss them?  
b) Describe the process of blasting?
3. a) Describe Ashlar stone masonry and state its use in construction of structures.  
b) Draw the cross section of a tree and explain the structure of timber.
4. a) Explain crushing test and impact test of concrete.  
b) Explain the constituents of lime stone.
5. a) Classify various types of lintels and discuss their relative use.  
b) Write a short note on Arches, Vaults, and Stair cases
6. a) Explain in detail about Damp Proofing and Water proofing materials?  
b) Write about various Form Works
7. a) Explain the classification of aggregates?  
b) What is the particle shape and texture of aggregate  
c) Explain about coarse and fine aggregates?

Code No: R1621014

**R16**

**SET - 4**

**II B. Tech I Semester Regular Examinations, October/November - 2017**  
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(Civil Engineering)

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70

Max. Marks:

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2. Answer **ALL** the question in **Part-A**  
3. Answer any **FOUR** Questions from **Part-B**
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**PART -A**

- 1 a) List out the characteristics of a good tile.  
b) Give the list of tools required for stone masonry.  
c) Write short notes on Poor lime  
d) What is a vault? Explain with sketches.  
e) Indicate the type of paints used for old wood work and new iron work.  
f) What is grading of aggregate.

**PART -B**

- 2 a) Discuss the three important types of rocks and their formation.  
b) Explain the various types of tiles and their use for buildings
- 3 a) Explain the classification of wood used in buildings in detail?  
b) Explain about Galvanized Iron, Fiber – Reinforced Plastics
- 4 a) Describe in detail how lime is manufactured?  
b) Explain any two laboratory test for cement?
- 5 a) Explain the following items in case of staircases  
(i) Balustrade (ii) Handrail  
(iii) Soffit (iv) Pitch  
b) Explain coupled roof with sketch.
- 6 a) Explain pointing and plastering  
b) Describe the various components of a building.
- 7 a) Explain the bond strength of aggregate.  
b) Explain about Moisture content of Aggregate