

Code No: R21012

R10**SET - 1**

II B. Tech I Semester Regular Examinations, March – 2014
CONSTRUCTION MATERIALS AND MANAGEMENT
(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions
All Questions carry **Equal** Marks
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1. Discuss the geological classification of rocks. (15M)
2. a) Explain about Flemish bond with neat sketches.  
b) What is seasoning of timbers and why is it done? (7M+8M)
3. a) Explain the process of manufacturing fat lime?  
b) Enumerate the laboratory tests for cement and describe any two of them. (8M+7M)
4. a) Write about i) types of arches ii) varnishes  
b) Discuss the reasons for the causes of defects in painting work. (8M+7M)
5. Write short notes on:  
i) Effect of moisture on aggregates  
ii) Properties of good coarse aggregate  
iii) Fineness modulus  
iv) Alkali-aggregate reaction (3M+4M+4M+4M)
6. Write about functions and applications of Geosynthetics. (15M)
7. a) Write about mile stone charts and bar charts?  
b) Define an 'event' and an 'activity'. Differentiate clearly between the two. (7M+8M)
8. What do you understand by frequency distribution? How do you determine i) most likely time,  
ii) variance and iii) standard deviation from the frequency distribution? (15M)

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**R10****SET - 2**

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(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions  
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1. a) Describe the process of blasting.
b) What are the precautions to be taken in the process of blasting? (10M+5M)
2. a) Write about Rubble & Ashlar masonry with neat sketches.
b) Write about fiber reinforced plastics. (8M+7M)
3. a) Explain the classification of limes.
b) Explain the soundness test (8M+7M)
4. a) Write about different trussed roofs.
b) What are the differences between paints, varnishes and distemper? (8M+7M)
5. What is alkali-aggregate reaction? What are the factors which affect this reaction and how can this reaction be controlled? (15M)
6. Write about tests on geogrids and geotextiles. (15M)
7. Describe various phases of project management. (15M)
8. What is meant by probability distribution curve? Differentiate clearly between normal probability distribution curve and beta distribution. (15M)

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R10**SET - 3**

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(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions
All Questions carry **Equal** Marks

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1. a) Compare clamp-burning with kiln-burning.  
b) What are the tests to which a stone should be subjected before it is selected for building purposes? (8M+7M)
2. a) Write about different types of masonry.  
b) Explain what is meant by felling of trees. (8M+7M)
3. Write in detail about different types of cement. (15M)
4. a) Write about different types of Floors.  
b) What is distemping? How is it done? (8M+7M)
5. Discuss the characteristics of good aggregates. (15M)
6. Write about Resource leveling and Resource allocation. (15M)
7. Explain in brief the difference between PERT and CPM networks. Explain the circumstances under which one is preferred over the other. (15M)
8. Differentiate clearly between most likely time estimate ( $t_L$ ), mean time( $t_m$ ) and expected time ( $t_E$ ). (15M)

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**R10****SET - 4****II B. Tech I Semester Regular Examinations, March – 2014**  
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(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions  
All Questions carry **Equal** Marks  
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1. a) Describe the various types of tiles.
b) Explain how the following tests for stones are carried out:
i) Hardness test ii) Water absorption test (7M+8M)
2. a) Explain English bond with neat sketches.
b) Mention the qualities of a good timber. (7M+8M)
3. Discuss at length the modern manufacturing process of ordinary cement. (15M)
4. a) Write about different types of stair cases.
b) What are the different types of paints used for protecting steel structures in coastal regions? (7M+8M)
5. a) What are different types of aggregates for making mortar and concrete?
b) What is fineness? How would you find the fineness modulus value of coarse and fine aggregates? (8M+7M)
6. Write about tests on geocomposites and geomembranes. (15M)
7. A project consists of 8 activities A, B, C, D, E, F, G and H with their times of completion as follows.

<u>Activities</u>	<u>Duration (weeks)</u>
A	2
B	4
C	2
D	4
E	6
F	4
G	5
H	4

The precedence relationships are as follows:
A and B can be performed in parallel.
C and D cannot start until A is complete.
E cannot start until half the work of activity C is complete.
F can start only after activity D is complete
G succeeds C
H is the last activity, which should succeed E

 - a) Draw the bar chart
 - b) What is the total time of completion of the project? (15M)

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8. Differentiate between PERT network and CPM network. Illustrate your answer by drawing the two types of networks for a project. (15M)