TUTORIAL KIT
OMEGA SEMESTER

PROGRAMME: BUILDING TECHNOLOGY

COURSE: BLD 211
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Question 1

<table>
<thead>
<tr>
<th>S/No</th>
<th>Water Ratio</th>
<th>Mass of Empty Can(Kg)</th>
<th>Mass of (Kg)Partially Compacted</th>
<th>Mass of Fitting Compacted</th>
</tr>
</thead>
<tbody>
<tr>
<td># 1</td>
<td>4 liters</td>
<td>7.50</td>
<td>15.01</td>
<td>18.75</td>
</tr>
<tr>
<td># 2</td>
<td>5.2 liters</td>
<td>7.50</td>
<td>17.50</td>
<td>19.41</td>
</tr>
</tbody>
</table>

Use the above table to calculate compacting factor for a freshly mixed concrete in rows 1 & 2 above and analyze their suitability for concrete work.

Question 2

List all Sieve Sizes used in Sieve analysis test for both Fine and Coarse Aggregates.

Question 3

What are the practical procedures involved in conducting a Slump Test experiment in a laboratory.

Question 4

Explain and evaluate the method used in measuring the total air content in a given sample of aggregates.

Question 5

With the aid of neat diagram, describe a non-destructive apparatus used for concrete test.

Question 6
Describe the practical steps involved in carrying out Air-Entrainment test (employ necessary diagrams to aid your answer)

Question 7
What is the purpose of carrying out a Silt Content test for a given soil sample.

Question 8
Discuss Moisture Content in aggregate

Question 9
Explain why it is necessary to carry out fineness test on cement

Question 10
Differentiate between paint and painting in wall finishes

Question 11
List types of bonds used in block works

Question 12
Briefly discuss ten (10) properties of a good concrete

Question 13
With the aid of diagrams, list and describe safety signs and their colour segment

Question 14
Describe the stages involved in concrete ratio 1:2:4 mixture for construction work

Question 15
Explain the process involved in carrying out test for Liquid limit of a given sample soil.
List the equipment used in this solid experiment.