

G. S. Mandal's
 Maharashtra Institute of Technology, Aurangabad
 (An Autonomous Institute)
 END SEMESTER EXAMINATION
First Year B.Tech (CE) -April/May 2022

Course Code : ESC103

Duration : 2 Hrs

Course Name : Basics of Civil Engineering

Max. Marks : 50

Date : 11/04/2022

Instructions :

- i) All questions are compulsory
 ii) Assume suitable data wherever necessary and clearly state it
 iii) Figures to right indicate full marks

Q. 1	Solve/Answer Any Five (Marks : 10)			
	Questions	Marks	CO	BL
a)	Define brick. State any two uses.	2	1	1
b)	What is shallow foundation?	2	1	1
c)	What are the requirements of a good bond?	2	1	1
d)	State any two functions of window.	2	1	1
e)	State any two uses of tremix floor.	2	1	1
f)	What is whole circle bearing system?	2	1	1
Q. 2	Classify foundation into various types and describe them briefly with neat sketches.	8	2	2
Q. 3	i. Compare between Stretcher bond and Header bond. ii. Explain why the vertical joints in brick work are staggered.	8	2	2
Q. 4	Select the suitable types of window for the following buildings: i. Residential bungalow ii. Cinema hall iii. School iv. Enclosed RCC staircase.	8	3	3
Q. 5	Distinguish between pitched roof and flat roof.	8	4	4
(OR)				

Q. 5	Analyze the types of flooring and also mention its suitability.	8	4	4																								
Q. 6	<p>Following bearings were observed for a closed traverse ABCDEA</p> <table border="1"> <thead> <tr> <th>Li</th> <th>AB</th> <th>BC</th> <th>CD</th> <th>DE</th> <th>EA</th> </tr> </thead> <tbody> <tr> <td>ne</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>F.</td> <td>140°</td> <td>80°30'</td> <td>340°0'</td> <td>290°30'</td> <td>230°</td> </tr> <tr> <td>B.</td> <td>30'</td> <td></td> <td></td> <td></td> <td>30'</td> </tr> </tbody> </table> <p>Evaluate the included angles.</p>	Li	AB	BC	CD	DE	EA	ne						F.	140°	80°30'	340°0'	290°30'	230°	B.	30'				30'	8	5	5
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Q. 6	<p>The following figures were taken from a level field book; some of the entries are illegible because of exposure to rain. Insert the missing values marked with (?) and check your results.</p> <table border="1"> <thead> <tr> <th>St</th> <th>BS</th> <th>IS</th> <th>FS</th> <th>HI</th> <th>RL</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>?</td> <td></td> <td></td> <td>279. 08</td> <td>277. 65</td> <td>OBM</td> </tr> <tr> <td>A</td> <td></td> <td>2.0 1</td> <td></td> <td></td> <td>?</td> <td></td> </tr> <tr> <td>B</td> <td></td> <td>?</td> <td></td> <td></td> <td>278. 07</td> <td></td> </tr> <tr> <td>C</td> <td>3.37</td> <td></td> <td>0.4 0</td> <td>?</td> <td>278. 68</td> <td></td> </tr> <tr> <td>D</td> <td></td> <td>2.9 8</td> <td></td> <td></td> <td>?</td> <td></td> </tr> <tr> <td>E</td> <td></td> <td>1.4 1</td> <td></td> <td></td> <td>280. 64</td> <td></td> </tr> <tr> <td>F</td> <td></td> <td></td> <td>?</td> <td></td> <td>281. 37</td> <td>TBM</td> </tr> </tbody> </table>	St	BS	IS	FS	HI	RL	Remarks	-	?			279. 08	277. 65	OBM	A		2.0 1			?		B		?			278. 07		C	3.37		0.4 0	?	278. 68		D		2.9 8			?		E		1.4 1			280. 64		F			?		281. 37	TBM	8	5	5
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