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

Course Code : ESC103　　　　　**Course Name : Basics of Civil Engineering**
Duration : 2 Hrs　　　　　　　　**Max. Marks : 50**　　　　**Date : 07/05/2022**

Instructions :

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

Q. 1	Solve/Answer Any Five (Marks : 10)			
	Questions	Marks	CO	BL
a)	Define Ordinary Portland Cement. State any two uses.	2	1	1
b)	Write any four purpose of providing foundation.	2	1	1
c)	Define header bond and stretcher bond.	2	1	1
d)	State any two functions of door.	2	1	1
e)	What are the advantages of Shahabad stone flooring?	2	1	1
f)	What are the principles of surveying?	2	1	1
Q. 2	Classify the piles based on functions and describe them briefly with neat sketch.	8	2	2
Q. 3	Compare between English bond and Flemish bond.	8	2	2
Q. 4	Calculate the size of the doors for the following public buildings based on the common criterion used in India: 　i.　Schools 　ii.　Hospitals 　iii.　Libraries Also suggest the suitable size of door for the above mentioned public buildings.	8	3	3
Q. 5	Distinguish between vitrified tiles and glazed tiles.	8	4	4
(OR)				
Q. 5	Distinguish between king post roof truss and queen post roof truss.	8	4	4

| Q. 6 | The fore bearings of the four lines AB, CD, EF and GH are, respectively, as under

  i. $15°30'$
  ii. $115°45'$
  iii. $250°30'$
  iv. $340°0'$

Evaluate the back bearings. | 8 | 5 | 5 |

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(OR)

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| Q. 6 | The field level book readings from a fly levelling are as follows. | 8 | 5 | 5 |

Staff Station	RL	BS	FS	Remarks
BM-1	100.000	3.635	-	
A	x	x	2.375	
B	104.150	4.220	1.030	
C	106.650	3.990	x	
BM-2	108.000	-	x	

Evaluate the missing values marked with (x) and perform the arithmetic check(s).