BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)

CLASS: BTECH   SEMESTER: VIIth
BRANCH: MECHANICAL   SESSION: MO/2022

SUBJECT: ME411 COMPUTER AIDED DESIGN

TIME: 2 HOURS   FULL MARKS: 25

INSTRUCTIONS:
1. The total marks of the questions are 25.
2. Candidates attempt for all 25 marks.
3. Before attempting the question paper, be sure that you have got the correct question paper.
4. The missing data, if any, may be assumed suitably.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

				CO	BL
Q1	(a)	What are the advantages of CAD over conventional design.	[2]	CO1	L1
Q1	(b)	Describe the product life cycle with block diagram.	[3]	CO1	L1
Q2	(a)	Explain in brief the aids and tools used in CAD systems.	[2]	CO1	L2
Q2	(b)	Describe with neat sketches about input and output devices?	[3]	CO1	L1
Q3	(a)	Discuss Bresenham's line drawing algorithm.	[2]	CO2	L2
Q3	(b)	Draw a line using Bresenham's line drawing algorithm having coordinates (22,12) and (32,20)	[3]	CO2	L2
Q4	(a)	Explain the properties of Bezier curve.	[2]	CO2	L2
Q4	(b)	Draw the curves for cubic B-spline blending functions.	[3]	CO2	L2
Q5	(a)	Explain the parametric continuity conditions.	[2]	CO2	L2
Q5	(b)	Explain the properties of NURBS.	[3]	CO2	L2

:::::: 27/09/2022 E ::::::