Code No: R05321401 | **R05** | **Set No. 2**

III B.Tech II Semester Examinations,December 2010
CAD CAM
Mechatronics

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. Explain different display control commands in AutoCAD. [16]

2. Let us assume that you are in an office or a computer lab. If you look around you, there are many objects that serve as good CAD models. Classify each of the following objects as $2\frac{1}{2}$D, composite $2\frac{1}{2}$D, or 3D models: keyboard, mouse, mouse cable, computer monitor, printer, chair, computer tables, a cell phone, a printer cable, your backpack, trash paper basket, and computer-system box. [16]

3. (a) What is the difference between GOTO and GO/TO commands used in APT.
   (b) Give a list of various computer-aided part programming languages. [8+8]

4. (a) Briefly explain the concept of various coordinate systems required for geometric display systems. Give examples.
   (b) Briefly explain the requirements for a graphic database. [8+8]

5. Compare the JIT production system and Conventional system with respect to the following:
   (a) Batch size and
   (b) Setup time. [8+8]

6. Four machines used to produce a family of parts are to be arranged into a GT cell. The From-To data for the parts processed by the machines are shown in the Table below.

   (a) Determine the most logical sequence of machines for this data using Hollier Method.
   (b) Construct the flow diagram for the data, showing where and how many parts enter and exit the system
   (c) Compute the percentage of in-sequence moves and the percentage of backtracking moves in the solution.
   (d) Develop a feasible layout plan for the cell. [16]

From	To			
	1	2	3	4
1	0	10	0	40
2	0	0	0	0
3	50	0	0	20
4	0	50	0	0

1

7. (a) Explain the working of BTR type of interface used in DNC?

   (b) What are the differences between CNC and DNC? [8+8]

8. Find the equation of an open quadratic B-spline curve defined by five control points. [16]

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FIRSTRANKER

Code No: R05321401 | **R05** | **Set No. 4**

III B.Tech II Semester Examinations,December 2010
CAD CAM
Mechatronics

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. Find the equation of an open quadratic B-spline curve defined by five control points. [16]

2. (a) Briefly explain the concept of various coordinate systems required for geometric display systems. Give examples.

   (b) Briefly explain the requirements for a graphic database. [8+8]

3. Compare the JIT production system and Conventional system with respect to the following:

   (a) Batch size and

   (b) Setup time. [8+8]

4. (a) Explain the working of BTR type of interface used in DNC?

   (b) What are the differences between CNC and DNC? [8+8]

5. (a) What is the difference between GOTO and GO/TO commands used in APT.

   (b) Give a list of various computer-aided part programming languages. [8+8]

6. Let us assume that you are in an office or a computer lab. If you look around you, there are many objects that serve as good CAD models. Classify each of the following objects as $2\frac{1}{2}$D, composite $2\frac{1}{2}$D, or 3D models: keyboard, mouse, mouse cable, computer monitor, printer, chair, computer tables, a cell phone, a printer cable, your backpack, trash paper basket, and computer-system box. [16]

7. Explain different display control commands in AutoCAD. [16]

8. Four machines used to produce a family of parts are to be arranged into a GT cell. The From-To data for the parts processed by the machines are shown in the Table below.

   (a) Determine the most logical sequence of machines for this data using Hollier Method.

   (b) Construct the flow diagram for the data, showing where and how many parts enter and exit the system

   (c) Compute the percentage of in-sequence moves and the percentage of back-tracking moves in the solution.

   (d) Develop a feasible layout plan for the cell. [16]

3

R05

Set No. 4

From	To			
	1	2	3	4
1	0	10	0	40
2	0	0	0	0
3	50	0	0	20
4	0	50	0	0

$\star\star\star\star\star$

Code No: R05321401 | **R05** | **Set No. 1**

III B.Tech II Semester Examinations,December 2010
CAD CAM
Mechatronics

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. Compare the JIT production system and Conventional system with respect to the following:

   (a) Batch size and

   (b) Setup time. [8+8]

2. (a) What is the difference between GOTO and GO/TO commands used in APT.

   (b) Give a list of various computer-aided part programming languages. [8+8]

3. Explain different display control commands in AutoCAD. [16]

4. (a) Explain the working of BTR type of interface used in DNC?

   (b) What are the differences between CNC and DNC? [8+8]

5. (a) Briefly explain the concept of various coordinate systems required for geometric display systems. Give examples.

   (b) Briefly explain the requirements for a graphic database. [8+8]

6. Find the equation of an open quadratic B-spline curve defined by five control points. [16]

7. Let us assume that you are in an office or a computer lab. If you look around you, there are many objects that serve as good CAD models. Classify each of the following objects as $2\frac{1}{2}$D, composite $2\frac{1}{2}$D, or 3D models: keyboard, mouse, mouse cable, computer monitor, printer, chair, computer tables, a cell phone, a printer cable, your backpack, trash paper basket, and computer-system box. [16]

8. Four machines used to produce a family of parts are to be arranged into a GT cell. The From-To data for the parts processed by the machines are shown in the Table below.

   (a) Determine the most logical sequence of machines for this data using Hollier Method.

   (b) Construct the flow diagram for the data, showing where and how many parts enter and exit the system

   (c) Compute the percentage of in-sequence moves and the percentage of backtracking moves in the solution.

   (d) Develop a feasible layout plan for the cell. [16]

5

R05

Set No. 1

From	To			
	1	2	3	4
1	0	10	0	40
2	0	0	0	0
3	50	0	0	20
4	0	50	0	0

⋆ ⋆ ⋆ ⋆ ⋆

Code No: R05321401 | **R05** | **Set No. 3**

III B.Tech II Semester Examinations,December 2010
CAD CAM
Mechatronics

Time: 3 hours | Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. Compare the JIT production system and Conventional system with respect to the following:

   (a) Batch size and

   (b) Setup time. [8+8]

2. (a) Explain the working of BTR type of interface used in DNC?

   (b) What are the differences between CNC and DNC? [8+8]

3. Let us assume that you are in an office or a computer lab. If you look around you, there are many objects that serve as good CAD models. Classify each of the following objects as $2\frac{1}{2}$D, composite $2\frac{1}{2}$D, or 3D models: keyboard, mouse, mouse cable, computer monitor, printer, chair, computer tables, a cell phone, a printer cable, your backpack, trash paper basket, and computer-system box. [16]

4. Explain different display control commands in AutoCAD. [16]

5. Four machines used to produce a family of parts are to be arranged into a GT cell. The From-To data for the parts processed by the machines are shown in the Table below.

   (a) Determine the most logical sequence of machines for this data using Hollier Method.

   (b) Construct the flow diagram for the data, showing where and how many parts enter and exit the system

   (c) Compute the percentage of in-sequence moves and the percentage of back-tracking moves in the solution.

   (d) Develop a feasible layout plan for the cell. [16]

From	To			
	1	2	3	4
1	0	10	0	40
2	0	0	0	0
3	50	0	0	20
4	0	50	0	0

6. (a) Briefly explain the concept of various coordinate systems required for geometric display systems. Give examples.

(b) Briefly explain the requirements for a graphic database. [8+8]

7. (a) What is the difference between GOTO and GO/TO commands used in APT.

(b) Give a list of various computer-aided part programming languages. [8+8]

8. Find the equation of an open quadratic B-spline curve defined by five control points.
[16]

$\star\star\star\star\star$

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