SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY :: PUTTUR
(AUTONOMOUS)

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QUESTION BANK

Subject with Code: CAD/CAM (16ME321) **Course & Branch: B. Tech – ME**
Year/ Sem : III-B. Tech & II-Sem **Regulation: R16**

UNIT –I

OVERVIEW OF CAD/CAM & COMPUTER GRAPHICS

1	a)	Draw the CAD/CAM product cycle with neat sketch	(5M)
	b)	Explain the product cycle and CAD/CAM product cycle?	(5M)
2		Discuss clearly the functions of a graphics package.	(10M)
3		With neat sketch explain the main elements of CIM systems.	(10M)
4	a)	Explain the various types of display devices?	(5M)
	b)	List the Evaluation criteria CAD standards	(5M)
5		Briefly explain the term scaling, translation and rotation used in Graphics.	(10M)
6	a)	Explain briefly about the elements of a CAD system.	(5M)
	b)	Utilization in an Industrial Environment of CAD	(5M)
7		Illustrate the Data base management systems.	(10M)
8		Briefly explain the term clipping and hidden line removal.	(10M)
9		Discuss Brief about the 2D and 3D transformations.	(10M)
10	a)	Explain homogeneous transformations?	(5M)
	b)	Write short notes on Co-ordinate systems	(5M)

UNIT – II

GEOMETRIC MODELING & SOLID MODELING

1		Discuss various types of geometric modeling with neat sketches.	(10M)
2		Explain the Constructive Solid Geometry (CSG) method to create models.	(10M)
3		Write a short notes Methods of Creating Solid Models	(10M)
4		Compare Parametric and non Parametric representations.	(10M)
5		Explain detail surface modeling and their representation.	(10M)
6	a)	Explain detail about analytic representations.	(5M)

	b)	Short notes about synthetic representations.	(5M)
7	a)	Define the solid modeling and Explain any one type of solid modeling	(5M)
	b)	Compare 2-D and 3-D wire frame models.	(5M)
8		Describe briefly the following methods of surface modeling with a few application examples: (a) B-spline surface. (b) Bezier surface.	(5M) (5M)
9	a)	Explain about boundary representation approach.	(5M)
	b)	What are the Fundamentals of solid modeling	(5M)
10		Explain detail solid modeling and their representation.	(10M)

UNIT – III

NUMERICAL CONTROL &CNC PART PROGRAMMING

1	(a)	List out and Explain about basic components of an NC system and CNC system.	(5M)
	(b)	Explain detail about motion statement.	(5M)
2		Illustrate Brief about NC motion control systems.	(10M)
3	(a)	Differentiate Manual part programming and Computer assisted part programming	(5M)
	(b)	What are the advantages and disadvantages of Numerical control?	(5M)
4	(a)	Briefly explain about NC Coordinate systems.	(5M)
	(b)	Explain various applications of NC and CNC system	(5M)
5		Explain about various NC words used in part programming.	(10M)
6		Explain briefly about Computer Assisted Part Programming with example.	(10M)
7	(a)	Explain detail about geometry statement.	(5M)
	(b)	Write a short notes on types of numerical control	(5M)
8		Explain detail about auxiliary statement.	(10M)
9		With neat sketch and describe the canned cycles	(10M)
10		Explain horizontal machining center with diagram	(10M)

UNIT – IV

FMS &COMPUTER AIDED QUALITY CONTROL

1		Explain FMS and explain about material handling systems with neat sketch.	(10M)
2		Explain production flow analysis and Benefits of G.T.	(10M)
3	(a)	Explain detail about material handling systems.	(5M)
	(b)	Write the advantage of material handling system.	(5M)
4		Explain the integration of CAQC with CAD/CAM	(10M)

5		Explain the various contact inspection method	(10M)
6	(a)	Define quality inspection with neat sketch	(5M)
	(b)	Explain briefly optical non-contact inspection methods	(5M)
7		Explain the non-contact inspection methods-optical non-contact inspection methods-non-optical Computer aided testing.	(10M)
8		Explain detail about terminology in quality control.	(10M)
9	(a)	Short notes on manufacturing system	(5M)
	(b)	What are the Types of manufacturing system and Explain any one	(5M)
10		Write brief notes on computer integrated manufacturing with neat flow chart	(10M)

UNIT – V

CAPP&CIPP

1		Explain the Retrieval type system with neat sketch and explain the Benefits of CAPP?	(10M)
2		Explain the Generative CAPP type system with neat sketch .	(10M)
3		What is CAPP? Explain the any one type of Capp with neat sketches.	(10M)
4		Explain Capacity planning and MRP.	(10M)
5		Explain briefly MRP-II With neat sketch and explain CIM Benefits.	(10M)
6		Define quality inspection? Explain briefly optical non-contact inspection methods	(10M)
7	(a)	Differentiate MRP-I and MRP-II.	(5M)
	(b)	Write Short notes on MRP-II and advantage and dis advantage	(5M)
8	(a)	Brief about the shop floor control	(5M)
	(b)	Explain the function of shop floor control	(5M)
9		Describe briefly the following methods of manufacturing Sustainable manufacturing Lean Manufacturing	 (5M) (5M)
10		Write brief notes on inventory control system	(10M)

Prepared by Mr. B.Anandan , J.Mani