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M.TECH CMPE208

2nd Sem M.Tech Regular/ Back Examination – 2014-15 SUBJECT NAME: COMPUTER AIDED PROCESS PLANNING BRANCH(S): CAD/CAM

Time: 3 Hours Max marks: 70 Q.CODE:T506

Answer Question No.1 which is compulsory and any five from the rest.

The figures in the right hand margin indicate marks.

Q1	a) b) c) d) e) f) g) h) i)	Answer the following questions: What methods are available for taking decisions in the process of developing a process plan? How CAPP systems facilitate the integration of CAD and CAM? Describe the typical features of a drafting package. What do you mean by MICLASS system? Explain. Differentiate between variant and knowledge based process planning. What is concurrent engineering? What are its advantages? What is AUTOPLAN? Explain. What are the benefits of implementing CAD? What do you mean by Forward and Backward planning? Describe the activities of process planning in a manufacturing cycle?	(2 x 10)
Q2	a)	Describe the importance of process planning in concurrent	(5)
	b)	engineering? What are the advantages of process planning? What is group technology? What are the benefits of group technology?	(5)
Q3	a)	What is Computer Aided Process Planning? What are its advantages over experience based planning?	(5)
	b)	Describe Opitz classification system. By using this classification system, develop a form code for the part design given below.	(5)
Q4		Describe about production planning, process planning and operation planning. Explain briefly with neat sketches.	(10)
Q5	a)	What is the main functions of the input devices and explain about the	(5)
	b)	input devices? Discuss generative process planning. Explain different methods used for the implementation of generative process planning.	(5)
Q6	a) b)	Discuss the implementation consideration of CAPP. What are the major modules of a process planning software and	(5) (5)

database required?

- Q7 a) What are the structures used in parts classification and coding (5) schemes?
 - b) Describe geometrical tolerances with suitable examples. (5)
- Q8 Write any two questions (5 x 2)
 - a) MIPLAN
 - b) Conventional tolerance
 - c) Data Structure
 - d) CAM-I