Sea	ıt No.:	Enrolment No.	
	GUJARAT TECHNOLOGICAL UNIVERSITY ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016		
Subject Code: 2720813 Date: 27/05		2016	
Ti	me: 1 tructio 1.	Name: Computer Aided Process Planning 0:30 am to 01:00 pm Total Marks: ons: Attempt all questions. Make suitable assumptions wherever necessary.	70
		Figures to the right indicate full marks.	
Q-1	(a)	Why the need for CAPP arises? What are the various steps in developing a process plan?	07
	(b)	Define Part families. Briefly discuss the various benefits of implementing a GT in a firm. Also bring out the advantages and limitation of using GT.	07
Q.2	(a) (b)	Explain the concept of Concurrent Engineering. Describe its elements. When variant process planning is used, a GT code may fit several part family matrices? How can one resolve this problem? OR	07 07
	(b)	What is cellular manufacturing? Describe the composite part concept in cellular manufacturing.	07
Q.3	(a)	Write short notes on process capability analysis.	07
	(b)	Describe the importance and objectives of Production Flow Analysis (PFA). OR	07
Q.3	(a)	With the aid of an example, explain OPITZ parts classification and coding systems	07
	(b)	Describe the MIPLAN, APPAS and AUTOPLAN.	07
Q.4	(a) (b)	Differentiate between the Pull type and Push type KANBAN system. Describe the salient features of forward and backward planning methods with reference to process planning.	07 07
		OR	
Q.4	(a)	Write a short note on "Artificial Intelligence (AI)".	07

What is the philosophy of Just in Time (JIT)? Explain the approaches to be

Describe the application of Hollier method for arranging various machines of a

OR

Explain the steps used in "Work Cell Design". Also mention the benefits

Explain all the statistical learning method available in "AI".

followed to achieve the goals of JIT.

obtained due to "Work cell balance".

Expert process planning.

GT cell, using a flow chart.

(b) Explain in brief:

(i)

(ii)

Q.5

Q.5

07

07

07

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07