GUJARAT TECHNOLOGICAL UNIVERSITEME – SEMESTER III (OLD) – • EXAMINATION – SUMMER		GUJARAT TECHNOLOGICAL UNIVERSITY	
		Code: 730203 Date:05/05/202	
Ti	me: 1 tructio 1. 2.	0:30 am to 01:00 pm Total Marks:	70
Q.1	(a) (b)	What do you mean by Real time System? Explain its characteristics. Give the classification of Timing Constraint and Explain each with example.	07 07
Q.2	(a) (b)	Compare Clock driven Schedulers with Event driven Schedulers. Draw and explain feedback control real-time scheduling architecture? OR	07 07
	(b)		07
Q.3	(a)	Explain EDF scheduling algorithm with example? What are the shortcomings of EDF?	07
	(b)	When task deadline and periods differ then RMA is no longer optimal scheduling algorithm justify with example. How to solve such problem? OR	07
Q.3	(a)	What is fault-tolerance? Explain its type and what is the possible structure for performing fault-tolerance?	07
	(b)	What are the need of scheduling in multiprocessor real time system and how to perform scheduling in multiprocessor real time system?	07
Q.4	(a)	What is DRTS? Explain Global scheduling with various policy for load migrating from one node to another.	07
	(b)	What is packet scheduling and how to perform it in real time network? OR	07
Q.4	(a)	Explain the basic priority-ceiling protocol with its rules and how to avoid deadlock using priority-ceiling protocol?	07

(b) What are Rate monotonic algorithms? Explain necessary and sufficient **07** condition for a given set of periodic task with example, check it is schedulable or not under RMA?

(a) What is CORBA? Explain it with reference to real time system? **Q.5 07 (b)** Write short note on RT-Linux? **07**

OR

(a) What is real time Database? Explain its type and design issue for database Q.5 **07** design in real time database.

(b) Explain concurrency control in real time database?

07