Register Number: ……..

M.E DEGREE EXAMINATIONS: MAY / JUNE 2013

Second Semester

EMBEDDED SYSTEM

EST505 : Real Time Operating Systems

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. Define - system call interface
2. What is system Call?
3. What is the use of mail box
4. Define –semaphore
5. What is the drawback of run time stack ?
6. What is meant by page frames?
7. Write the use of polled loop systems?
8. Define FAULT TOLERANT
9. Draw the block diagram of real time image processing
10. Define virtual reality

PART B (5 x 16 = 80 Marks)

11. a) (i) Explain about inter process communication patterns

(OR)

b) (i) Design & implementation of process with an example (12)

(ii) WRITE the use of system call function (4)

12. a) Explain about client server model in distributed operating system

(OR)

b) (i) What is the use of Remote procedure call. Write short notes on Server crashes (10)

(ii) Write short notes on Client crashes. (6)

13. a) How to implement the complex algebra

$\mathbf{(a+bi)(a-bi)=a^2-b^2+2abi}$ using Petri net model with firing table.

(OR)

	b)	(i)	Write short notes on Event based model and Process based model	(10)
		(ii)	Write short notes on Graph based model	(6)
14.	a)	(i)	Explain about the RTOS porting to a target with a suitable example.	(8)
		(ii)	Explain about c-executive is a field proven operating system.	(8)

(OR)

	b)	(i)	Compare the QNX & VX work in task handling , memory management & interrupt task handling	(8)
		(ii)	What is the use of portable software on silicon? Explain it provide the support in multitasking environment	(8)
15.	a)	(i)	Explain RTOS application of robotic arm with open loop & Close loop system.	(8)
		(ii)	Explain the operation of RTOS in Voice over IP application.	(8)

(OR)

b) Explain the term

(i) Telepresence

(ii) Immersion

(iii) Augmented reality

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