SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
M.Tech I Year I Semester Regular & Supplementary Examinations February 2018
EMBEDDED SYSTEM CONCEPTS
(Common to ES, DECS & VLSI)

Time: 3 hours   Max. Marks:60

(Answer all Five Units **5 X 12 =60** Marks)

UNIT-I

1	a.	Explain the need for software in embedded system.	7M
	b.	Discuss about the factors to be considered for selection of processor in embedded system.	5M

OR

2	a.	Explain the techniques used for selection of memory in embedded systems?	7M
	b.	Explain the input and output devices used in embedded systems.	5M

UNIT-II

3	a.	Explain the selection in the embedded systems.	7M
	b.	Discuss about the round robin architecture.	5M

OR

4	a.	Illustrate the debugging technique in the embedded systems.	7M
	b.	Explain the concept of context switching in multiple interrupt mechnaism.	5M

UNIT-III

5	a.	Explain the operation of semaphore in detail.	7M
	b.	Explain message queue with an example.	5M

OR

6	a.	What is meant by kernel? Explain the kernel architecture in detail.	5M
	b.	Explain in detail about the interrupt service routine.	7M

UNIT-IV

7	a.	Compare von- Neumann and Harvard architecture.	7M
	b.	Write about the preliminaries in detail.	5M

OR

8	a.	Write a short note on inter process communication in embedded programming.	7M
	b.	Explain any six instruction sets with an example of ARM processor.	5M

UNIT-V

9	a.	What are the design methodologies? Explain in detail about design flow techniques.	7M
	b.	Explain the need for project management in embedded system and write its advantages.	5M

OR

10	a.	Mention the development phases and draw the development diagram to design set top boxes.	7M
	b.	Explain the design process of embedded system with an example of telephone box.	5M

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