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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

M.Tech I Year I Semester Regular Examinations Jan 2020

EMBEDDED SYSTEM DESIGN

(Common to VLSI & ES)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a** Discuss about the factors to be considered for selection of processor in embedded system **6M**
b Explain about the details of other hardware units available in embedded system. **6M**

OR

- 2 a** Explain the need for software in embedded systems. **6M**
b What is system on chip? Explain embedded systems change with system on chip. **6M**

UNIT-II

- 3** Explain the following communication protocols. **12M**
 i) RS232 & RS485 ii) IEEE488 bus iii) UART

OR

- 4 a** Explain about networked embedded systems. **7M**
b Explain Round robin with interrupts concept with example program. **5M**

UNIT-III

- 5 a** Explain about integrated development environment **6M**
b Explain the Interrupt service routines (ISRs). What are the advantages of ISR? **6M**

OR

- 6 a** Describe functions of Cross compiler & IDE **4M**
b Define kernel. Explain the architecture of the kernel. **8M**

UNIT-IV

- 7 a** Discuss the instruction set available in ARM processor with example. **6M**
b Explain the specifications of system design techniques. **6M**

OR

- 8 a** Discuss about various data operations of the SHARC processor with example. **6M**
b What are the differences between ARM and SHARC processors? **6M**

UNIT-V

- 9** With help of neat block diagram explain the design technique of Ink jet printer. **12M**

OR

- 10 a** Write in detail about telephone PBX **6M**
b Write short notes on PDA. **6M**

*** END ***