

SE (EXTC) Sem IV 'C' scheme Summer 2015 Date - 15/5/25

Duration: 3hrs

Max Marks:80

- N.B. : (1) Question No 1 is Compulsory.  
 (2) Attempt any three questions out of the remaining five.  
 (3) All questions carry equal marks.  
 (4) Assume suitable data, if required and state it clearly.

- 1 Attempt any FOUR [20]
- a What does ARM stand for in technology? 5
- b What are the steps involved in executing instructions in a microprocessor from memory? 5
- c List the features of NXP89v51RD2. 5
- d In what scenarios is secondary memory preferred over primary memory? 5
- e If the value of TMOD register is 4CH then write status of timer use in 8051 microcontroller. 5
- 2 a Differentiate between segmentation and paging in concern with the memory system. [10]
- b Write a program to add 0AH, 0BH data and store 8 bit result in memory location 10H and status of result in 11H memory location. [10]
- 3 a Display Character "A" serially using mode1 with baud rate 9600, using 8051 microcontroller. Draw format of SCON register. [10]
- b Explain following instruction of ARM7 [10]
1. MVN R0, 0x25H      2. SUB R0,R1,#0x12H
- 4 a How do you choose the right microcontroller for a given application? [10]
- b Which register is used to access stack memory? Explain stack structure of 8051. [10]
- 5 a What is the size of registers in ARM7? Explain the register model of ARM7. [10]
- b Write a program to find a large number among 10 numbers using 8051 microcontroller. [10]
- 6 a Explain the internal and external memory architecture of the 8051 microcontroller [10]
- b Explain port0 and port3 structure of 8051 microcontroller. [10]