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4th Sem. / Automation and Robotics

Subject : Microprocessor and Micro-Controllers

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 8051 Microcontroller has_____ no. of pins . (CO1)

a) 24 b) 32

c) 36 d) 40

Q.2 8051 has internal ROM of _____ K bytes. (CO1)

a) 2 b) 4

c) 8 d) 16

Q.3 _____ has highest interrupt priority. (CO3)

a) INT0 b) INT1

c) TF0 d) Tf1

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain in detail the architecture of 8051 microcontroller. (CO1)

Q.24 Explain different addressing modes of 8051. (CO3)

Q.25 How ADC is interfaced with 8051, explain with diagrams. (CO5)

(**Note:** Course outcome/CO is for office use only)

Q.4 8051 has _____ 16 bit up counters. (CO1)

a) 1 b) 2

c) 3 d) 4

Q.5 On reset, the contents of Stack Pointer register are_____ (CO2)

a) 05H b) 06H

c) 07H d) 08H

Q.6 8051 has internal RAM of _____ bytes. (CO1)

a) 32 b) 64

c) 128 d) 256

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 What is function of ALE? (CO1)

Q.8 Write any one data transfer instruction. (CO2)

Q.9 In how many modes, 8051 can operate? (CO3)

Q.10 What is function of DPTR? (CO3)

Q.11 Expand the term LCD. (CO5)

Q.12 Define machine language. (CO2)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 How microcontroller is different from microprocessor? (CO1)

Q.14 What is purpose of special function registers in 8051? (CO1)

Q.15 What is function of PUSH & POP instructions? (CO1)

Q.16 What is use of timer in 8051? (CO3)

Q.17 Explain in brief SCON Special function register. (CO1)

Q.18 What are different types of interrupts in 8051? (CO4)

Q.19 Differentiate between half & full duplex transmission. (CO4)

Q.20 How C Language is helpful for programming of 8051? (CO2)

Q.21 Explain in brief the signal conditioning. (CO5)

Q.22 What is RS 232 interface in microcontrollers? (CO5)