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5th Sem / Branch : Eltx. Power Eltx.
Sub.: Microcontrollers / Microcontrollers & Applications

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 How many bytes of bit addressable memory is present in 8051 based microcontrollers? (CO1)

a) 8 bytes b) 32 bytes
c) 16 bytes d) 128 bytes

Q.2 8 Input DAC has _____. (CO3)

a) 8 discrete voltage levels
b) 64 Discrete voltage levels
c) 124 discrete voltage levels
d) 256 discrete voltage levels

Q.3 Auto reload mode is allowed in which mode of the timer? (CO3)

a) Mode 0 b) Mode 1
c) Mode 2 d) Mode 3

Q.4 Which operator is the most important while assigning any instruction as register indirect instruction? (CO2)

a) $ b) #
c) @ d) &

Q.5 Which of the following signal control the flow of data? (CO3)

a) RTS b) DTR
c) RTS & DTR d) None of the mentioned

Q.6 LCALL instruction takes (CO3)

a) 1 byte b) 2 bytes
c) 3 bytes d) 4 bytes

Q.7 What is the clock source for the timers? (CO1)

a) Some external crystal applied to the micro controller for executing the timer
b) From the crystal applied to the micro controller
c) Through the software
d) Through programming

Q.8 Which of the following registers are not bit addressable? (CO2)

a) SCON b) PCON
c) A d) PSW

Q.9 If we push data onto the stack then the stack pointer (CO3)

a) Increases with every push
b) Decreases with every push
c) Increases & decreases with every push
d) None of the mentioned

Q.10 8051 is _____ bit microcontroller. (CO1)

a) 4 b) 8
c) 16 d) 32

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 What is the full form of ALE? (CO1)

Q.12 Define Program Counter. (CO1)

Q.13 Write full form of PIC. (CO3)

Q.14 Define Subroutine. (CO2)

Q.15 What is the width of the Address bus in 8051? (CO1)

Q.16 PIC microcontroller uses Harvard architecture. (True/False) (CO1)

Q.17 Expand DAC. (CO3)

Q.18 Expand PSW. (CO2)

Q.19 Define operand. (CO1)

Q.20 8051 Microcontoller has one serial port. (CO1)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 What are various SFR's of 8051? Give their details. (CO2)

Q.22 Explain memory organization in8051. (CO1)

Q.23 Explain any five SFR is 8051 Micro controller? (CO2)

Q.24 Write a short note on "Compiler operations". (CO2)

Q.25 Write a short note on I/O port structure of 8051. (CO1)

Q.26 Explain CISC. (CO1)

Q.27 Explain Flag Register of 8051 micro controller. (CO1)

Q.28 Write a short note on "Analog to Digital (ADC) interface." (CO3)

Q.29 Explain the interfacing of the LCD with mirco controller. (CO3)

Q.30 What do you understand from High Level Language? Give examples. (CO1)

Q.31 Explain Push and Pop instructions with example. (CO2)

Q.32 What is the Von Neumann Architecture? (CO1)

Q.33 Give the specifications of PIC Micro controller? (CO3)

Q.34 Explain assembler directives. (CO3)

Q.35 Write a short note on "Serial Port operation in 8051 Micro controller." (CO2)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Write and explain any five instructions belonging to logical instruction of 8051. (CO2)

Q.37 Draw the pin diagram of 8051. Explain each pin in detail. (CO1)

Q.38 What is interrupt? Explain different interrupts used in 8051. (CO2)