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5th Sem / Eltx, Power Eltx
Subject:-Microcontrollers/ Microcontrollers & Applications

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Timer 0 in model is_____ bit timer

a) 8 bit b) 13 bit
c) 16 bit d) None of the above

Q.2 Range of bit addressable memory in 8051 microcontroller is_____

a) 10 to 1FH b) 20 to 2FH
c) 80 to 8FH d) 40 to 4FH

Q.3 The value of PC after reset for 8051 microcontroller is _____

a) 0000H b) FFFFH
c) 0007H d) None of the above

Q.4 What is the role of port 3.0 of 8051 microcontroller

a) Serial 0/p port b) Serial i/p port
c) Timer 0 i/p d) Timer 1 i/p

Q.5 PSW of 8051 is_____ bit wide.

a) 1 b) 4
c) 8 d) 16

Q.6 Which type of memory retains the data even when the power is turned OFF

a) RAM b) EEPROM
c) Cache memory d) none of the above

Q.7 SP in 8051 is_____ bit wide

a) 1 bit b) 4 bit
c) 8 bit d) 16 bit

Q.8 The full form of ALE is

a) Address level enable
b) address latch enable
c) address level extension
d) Address latch extension

Q.9 Which among the following is not bit addressable in 8051

a) A b) P0
c) PSW d) SP

Q.10 Default register bank in 8051 is

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

SECTION-B

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

Q.11 8051 has _____ I/O Pins.

Q.12 Internal ROM size of 8051 is_____.

Q.13 One Byte = _____ bits

Q.14 The 8051 microcontroller operates on Harvard architecture. (True/False)

Q.15 Full form of SFR is_____.

Q.16 8051 microcontroller has a on chip 8 bit-analog to digital converter. (True/False)

Q.17 Address location associated with Tf0 interrupt is_____

Q.18 Port 1 of 8051 is used as multiplexed address and data bus. (True/False)

Q.19 Number of Timers available in 8051 is_____.

Q.20 Full form of PIC is_____.

SECTION-C

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

Q.21 Give five differences between microprocessor and microcontroller.

Q.22 Give 2 difference between Assembler and Compiler.

Q.23 Explain EQU and DB assembly directive.

Q.24 Explain the internal memory organization of 8051.

Q.25 Explain different buses of 8051.

Q.26 Draw the pin diagram of 8051.

Q.27 Draw the internal structure of Port 3 of 8051

Q.28 Briefly explain the interrupt system of 8051 microcontroller

Q.29 Explain the interfacing of seven segment LED with 8051.

Q.30 Explain the working of timer in mode 2.

Q.31 Explain the interfacing of keypad with microcontroller.

Q.32 What do you mean by addressing mode

Q.33 Explain two data transfer instruction of 8051

Q.34 Explain the operation of timer of 8051.

Q.35 Give 5 differences between PIC and 8051 microcontroller.

SECTION-D

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

Q.36 Explain the block diagram of 8051.

Q.37 Explain the interfacing of analog of digital converter with 8051 microcontroller.

Q.38 Explain the role of any two SFR of 8051 microcontroller.