Q.23 Write a short note on the working on microcontroller.

Q.24 Write a short note on the bit level logical operation.

Q.25 Explain the functions of compiler.

Q.26 Write a short note on the feature of 8051 microcontroller.

Q.27 Explain the serial Communication 8051 microcontroller in a short note.

Q.28 What is program counter? Explain in a short note.

Q.29 What is Rotate operation? Explain in a short note.

Q.30 Write a short note on the stack pointer.

Q.31 Explain the output ports in a short note.

Q.32 Write a short note on the maskable interrupts.

Q.33 Explain the seven-segment display in a short note.

Q.34 What is ALU? Explain in a short note.

Q.35 Explain any one interrupt in a short note.

SECTION-D

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

Q.36 What is microcontroller interfacing? Explain its methods.

Q.37 Draw the architecture of 8051 microcontroller and explain it.

Q.38 Write the definition instruction and explain the types of instructions of 8051.

No. of Printed Pages : 4 183243

Roll No. .....

4th Sem.

Branch : Med. Eltx.

Sub.: Microcontrollers Applications in Medical Technology

Time : 3 Hrs. M.M. : 100

SECTION-A

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

Q.1 Which of the following is the basic functions of a timer?

a) It can control the compare, capture mode

b) It provided a time delay

c) It can act as a counter

d) All of the mentioned

Q.2 The total space for the data memory available in the AVR-based microcontroller is?

a) FFFH b) FH

c) FFFFH d) FFFFFFFH

Q.3 Which of the following buses are present in a microcontroller for transferring data from one place one another?

a) Data bus only

b) Data bus, address bus

c) Address bus only

d) Address bus, data bus, control bus

Q.4 The address space of the 8051 is divided into four distinct areas : Internal data, external data, internal code, and external code.

a) True b) False

Q.5 When the microcontroller executes some arithmetic operations, then the flag bits on which of the following register are affected?

a) DPTR b) PSW

c) PC d) SP

Q.6 The internal RAM memory of the 8051 is :

a) 32 bytes b) 64 bytes

c) 128 bytes d) 256 bytes

Q.7 An alternate function of port pin P3. 4 in the 8051 is:

a) Timer 0 b) Timer 1

c) Interrupt 0 d) Interrupt 1

Q.8 The 8255 is a _____chip

a) Digital to Analog

b) Input/Output

c) Analog to Digital

d) None of the mentioned

Q.9 Which of the following architecture is followed by general purpose microprocessors?

a) Von Neumann architecture

b) Harvard architecture

c) None of the mentioned

d) All of the mentioned

Q.10 A HIGH on which pin resets the 8051 microcontrollers?

a) RESET b) RST

c) PSEN d) RSET

SECTION-B

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

Q.11 Write the full form of LED.

Q.12 At _____ ROM location we store 1st opcode of 8051 program.

Q.13 Seven segment display is basically a combination of.

Q.14 Timer mode ____ is spilt time mode.

Q.15 Expand SCON.

Q.16 The accumulator is a special purpose and the versatile ____ bits register of 8051 microcontrollers.

Q.17 Write the full form of PSW.

Q.18 Interrupts which can be ignored are called_____.

Q.19 Expand SMOD.

Q.20 8051 Microcontroller has _____ I/O ports.

SECTION-C

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

Q.21 Write a short note on Push opcode.

Q.22 Explain any one addressing mode in a short note.