Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code: 54B01

B.E./B.Tech. DEGREE EXAMINATION, DEC 2020

Fifth Semester

Biomedical Engineering

15UBM501 -MICROPROCESSOR AND MICROCONTROLLER

(Regulation 2015)

Duration: 1.15 hrs   Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The address bus is a group of _____   CO1- R

   (a) 8 lines   (b) 10 lines   (c) 16 lines   (d) 12 lines

2. The addressing mode in instruction CMP M is   CO1- R

   (a) Direct   (b) Register   (c) Indirect   (d) Implied

3. The _____ instruction tells the assembler the address of the   CO2- R
   memory location for the next instruction or data byte should be
   assembled.

   (a) ORG   (b) OGR   (c) RGN   (d) CLR

4. Which one of the following is not a one byte instruction set of   CO2- R
   8085?

   (a) CMP M   (b) CMA   (c) MOV A,M   (d) MVI A,08H

5. The microcontroller 8051 has _____ ports   CO3- R

   (a) 2   (b)4   (c)8   (d)16

6. What are the status of the carry, auxiliary carry and parity flag   CO3- R
   affected if the write instruction

   MOVA,#9C
   ADD A,#64H

   (a) CY=0,AC=0,P=0   (b) Y=1,AC=1,P=0   (c) CY=0,AC=1,P=0   (d) CY=1,AC=1,P=1

7. Telephone modem is one of the examples of _____   CO4-R

   (a) ADC   (b) DAC   (c) BOTH   (d) NONE

8. The following 8051 port is not having multi-functionalities   CO4- R

   (a) Port 0   (b) Port 1   (c) Port 2   (d) Port 3

9. RISC is a _____ type architecture.   CO5- R

   (a) Harvard   (b) Von Neumann   (c) both   (d) none

10. Working Register is also called as   CO5- R

   (a) Status Register   (b) A Register   (c) PCL register   (d) PC

<center>PART – B (3 x 8= 24 Marks)</center>

<center>**(Answer any three of the following questions)**</center>

11. Draw and explain the functional block diagram of 8085   CO1-U   (8)
microprocessor.

12. Discuss the Interrupts available in 8085 with an example.   CO2-U   (8)

13. Explain the Special Function Registers (SFR) in 8051   CO3- U   (8)

14. Draw the circuit diagram to interface an LCD display with 8051   CO4- U   (8)
microcontroller and explain how to display a character using LCD
display.

15. Explain the architecture of PIC processor   CO5- U   (8)

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