QP CODE: 18103406

18103406

Reg No : .....

Name : .....

B.Sc. DEGREE (CBCS) EXAMINATION, NOVEMBER 2018

Third Semester

B.Sc Physics Model II Applied Electronics

VOCATIONAL COURSE - AE3VOT05 - MICROPROCESSOR AND INTERFACING DEVICES

2017 Admission Onwards

C51B9DAB

Maximum Marks: 60 **Time: 3 Hours**

Part A

Answer any **ten** questions.

Each question carries **1** mark.

1. What is the function of HOLD signal?
2. Write the machine code for the instruction MOV E,A if the opcode = 01, the register code for E = 011 and the register code for A = 111.
3. Explain Fetch operation.
4. Name two instructions in I/O Machine control group.
5. The instruction LHLD 7050H contains how much machine cycles and T states?
6. Let the register pair HL contains 1538H. Write a single instruction to multiply the content by 2.
7. The instruction SPHL contains how much machine cycles and T states?
8. Write the instruction to jump if the result is zero.
9. What are the programmed data transfer schemes?
10. What is the triggering level of RST 7.5?
11. What are the ports in 8255A?
12. What is the function of interrupt mask register of 8259?

(10×1=10)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. If the 8085 add 87H and 79H, specify the contents of the accumulator and status of the sign, zero and carry flags.

14. Draw the timing diagram for MOV A,B.

15. What are the different addressing modes in intel 8085? Explain one instruction from each mode.

16. Explain what operation is performed when the following instructions are executed?
(a) ORA M (b) RRC (c) CMA (d) RAL and (e) CPI 05

17. Write an assembly language program to get 2's complement of a 16 bit number.

18. If the clock frequency is 5MHz, how much time is required to execute an instruction of 10T states?

19. Explain the two schemes for address space partitioning.

20. What is control word in 8255A? Make control word when the ports of intel 8255 are defined as follows: Port A as an output port, mode of port A is mode 1, port B as an output port, mode of port B is mode 0, the remaining pins of port C as an output port.

21. Explain the important pins of Intel 8257 DMA controller.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Explain the architecture of intel 8085 microprocessor.

23. Explain ten instructions from branch control group.

24. Write a program to arrange a set of number in descending order.

25. Interface two 8K ROMs starting from memory location 2000H and two 8K RAMs starting from memory location 8000H using 74LS138.

(2×10=20)