Model Question Paper
(Model III)

MAHATMA GANDHI UNIVERSITY

V SEMESTER B.Sc. PROGRAMME EXAMINATION …20

B. Sc. PHYSICS -INSTRUMENTATION (Model III)

PH5B61U- MICROPROCESSORS

Instructions:

1. Time allotted for the examination is 3 Hours.
2. Answer **all** questions in Part A. This contains 4 bunches of 4 objective type questions. For each bunch, Grade A will be awarded if all the 4 questions are correct, B for 3, C for 2, D for 1 and E for 0.
   Answer any 5 questions from Part B, any 4 from Part C and any 2 from Part D.
3. Candidates can use …….(type of calculator/tables)

Part A (Objective type- weight 1 each)

Bunch I

Choose the correct answer from the bracket given below

1.-----is a logic circuit which amplifies the current or power.
(buffer ,counter)

2.----- is a non maskable interrupt.
(TRAP,INTR)

3.----- instruction is used to copy data from the accumalator into the memory location specified by the 16 bit operand.
(LDA 16 bit,STA 16 bit)

4. 8085 is a --- bit processor.
(8,16)

Bunch II

.Select the suitable word for the following statements, given in bracket.

(address bus,zero,eight,16,8)

5. ---------- is a group of lines that are used to send a memory address from the MPU to the memory location or the periferal.

6. In memory mapped I/O, the MPU uses---- address lines to identify an I/O device.

7. ---- flag is set if the ALU operation result is zero.

8.The flag register is ---- bit wide ,for an 8085 processor.

Bunch III

Write whether true or false

9. ROM is volatile type memory.

10 Encoder is a logic circuit that provides an appropriate code for each input signal.

11.Data bus is unidirectional

12. ADD B is a 1 byte instruction.

Bunch IV

Match the following.

13. I/O mapped I/O	interrupt request
14. INTR	memory location
15.Stack	1 byte instruction
16.POP Rp	IN and OUT instructions

Part B (Short answer questions-weight 1 each)

17.Define machine cycle.

18.What is the function of accumulator?

19.Specify the four control signals used in 8085 processor.

20.What is flag?

21.What is meant by peripheral mapped I/O?

22.Define opcode and operand with examples.

23.What is immediate addressing?

24.What is the difference between JMP and CALL instruction?

Part C (Short Essays / Problems-weight 4 each)

25. Write four instructions to clear the accumulator.

26. What you meant by the software interrupts?

27. Explain the flow control instructions in 8085 processor programming.

28. List out the priority of interrupt signals in detail.

29.What is a PPI ?

30. How can we interface an A/D converter with 8085 processor?

Part D (Essay type questions-weight 4 each)

31. With neat block diagram explain the architecture of 8085 processor.

32. With neat sketches explain the keyboard interface.

33. Explain the classification of instructions in 8085 processor.

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