V.P & R.P.T.P. SCIENCE, V.V.NAGAR

B.Sc. (Vth SEM.) INSTRUMENTATION (VOC.) Internal Exam

DATE: 06/10/2018 SUB: US05CINV05

TIME: 10:00 am to 12:00 noon MARKS-50

Q-1 Choose correct answer [08]

1. 8085 microprocessor has _____.
   (A) 40 pin (C) 8 pin
   (B) 20 pin (D) none of above
2. The content of accumulator is A5 H, after execution of CMA instruction it becomes __.
   (A) 55 H (C) A5 H
   (B) AA H (D) none of above
3. _____ is the 16-bit register in 8085 µp.
   (A) Temporary register (C) accumulator
   (B) flag register (D) none of above
4. _____ is machine control instruction.
   (A) NOP (C) MOV
   (B) JNC (D) none of above
5. Following are control signals in 8085 µp.
   (A) WR and RD (C) SOD and SID
   (B) AD_0 (D) none of above
6. JMP is _____ byte instruction.
   (A) two (C) three
   (B) one (D) none of above
7. CALL and RET are _____ type instruction.
   (A) Advance (C) Logical
   (B) Branch (D) none of above
8. RRC instruction is type of _____ instruction.
   (A) logical (C) branch
   (B) data transfer (D) none of above

Q-2 Short answer type question. (any Five) [10]

1. Why data bus is bi-directional in 8085 µp?
2. State characteristics of logical instruction.
3. Differentiate between DCR and DCX instruction.
4. State different addressing mode of 8085 µp.
5. Define looping and counting technique.
6. List pins of interrupt control section of 8085 microprocessor.
7. State meaning of RRC and RLC with illustration.
8. Explain HLT instruction.

Q.3 Draw the architectural block diagram of 8085 µp and discuss function of each section of it. [08]

OR

Q.3 Discuss concept of : 1) Bus timing 2) Generating the control signals [08]

Q.4 Explain classification of instruction 0f 8085 µp according to operation and word size with illustration. [08]

OR

Q.4 Explain method of writing, assembling and executing a simple program in 8085 µp with example. [08]

Q.5(a) Explain different logical instructions with suitable illustration. [05]

Q.5(b) Write a programme: to load 7C H and 3B H in register C and D respectively. Now increment content of C than add both the number and display the sum at output port. [03]

OR

Q.5(a) Explain different data transfer instructions with suitable example. [04]

Q.5(b) Write a programme to load two numbers in two registers now subtract one number from other such that carry flag will set and display the answer at output port. [04]

Q.6 Discuss different additional data transfer instructions and 16-bit arithmetic instructions with illustration of each. [08]

OR

Q.6(a) Discuss method of static and dynamic debugging a programme. [04]

Q.6(b) Write a program to load 8D H and A7 H in register B and C respectively. Now add both the numbers, if the sum is greater than FF H display 01 at output port 0, otherwise display the sum. [04]