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

B.Sc. (Vth SEM.) ELECTRONICS Internal Exam

DATE: 03/10/2018 **SUB: US05CELE03**

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. _____ is machine control instruction.
   (A) RET (C) JNC
   (B) NOP (D) none of above
3. _____ is the 16-bit register in 8085 µp.
   (A) stack pointer (C) accumulator
   (B) flag register (D) none of above
4. _____ is machine control instruction.
   (A) HLT (C) RET
   (B) JNC (D) none of above
5. Following are control signals in 8085 µp.
   (A) $\overline{WR}$ and $\overline{RD}$ (C) SOD and SID
   (B) AD_0 (D) none of above
6. JNC is _____ byte instruction.
   (A) two (C) three
   (B) one (D) none of above
7. Which of following is two bytes instruction?
   (A) MVI B,09 H (C) JMP 2009 H
   (B) MOV C,A (D) none of above
8. Out 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 INR and INX 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 NOP 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 method of writing, assembling and executing a simple program in 8085 µp with example. **[08]**

OR

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

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

Q.5(b) Register C contain 43 H and accumulator contain 97 H. Write instructions to subtract contain of B from C. Verify answer numerically and indicate flag status of result. **[03]**

OR

Q.5(a) Explain different arithmetic 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) State conditional and un-conditional jump instructions giving suitable examples. **[04]**

Q.6 (b) Write a program to load numbers 9B H and 3C H in two different registers and add this numbers. If the sum is greater that FF H than display 01 H at output port otherwise display the sum. [04]