V.P & R.P.T.P. SCIENCE, V.V.NAGAR
Internal Exam
B.Sc. (VIth SEM.) ELECTRONICS

DATE: 08/03/2019
TIME: 10:00 am to 12:00 pm

SUB: US06CELE03
MARKS-50

Q-1 **Choose correct answer** [08]

1. Maximum time delay using single register program is_____.
    - (A) 1 sec.
    - (B) 1.8 sec.
    - (C) 1.8 ms
    - (D) 1.9 ms

2. To design counter and time delay _____ and _____ techniques are used.
    - (A) Looping, Counting
    - (B) Debugging, Indexing
    - (C) Nesting, Subroutine
    - (D) none of above

3. If accumulator (A) = 39 H, after execution of ANI F0 H, the contain of Accumulator is_____.
    - (A) 30 H
    - (B) 39 H
    - (C) 03 H
    - (D) 93 H

4. The decimal equivalent of FD_H is _____.
    - (A) 253
    - (B) 532
    - (C) 235
    - (D) none of above

5. RET is _____ instruction.
    - (A) one byte
    - (B) two byte
    - (C) three byte
    - (D) none of above

6. To set the carry flag _____ instruction is used.
    - (A) STC
    - (B) PCHL
    - (C) CMC
    - (D) none of above

7. Rotate accumulator right instruction is _____.
    - (A) RAR
    - (B) RAL
    - (C) RLC
    - (D) none of above

8. A down counter counts in _____ order.
    - (A) ascending
    - (B) descending
    - (C) both A and B
    - (D) none of above

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

1. Define counter and time delay.
2. Define T-state in 8085 µp.
3. What do you mean by debugging in 8085 µp?
4. List arithmetic instructions related to memory in 8085 system.
5. Which instructions are used to stored and retrieves data from STACK?
6. Draw the flow chart of counter and time delay using single register.
7. Briefly explain ASCII code.
8. Write a program to load 4C H in register D, multiply 4C H by 2 using rotate instruction, and specify the result.

Q.3 Fifteen byte of data is stored in memory location starting at XX70. Write a programme to add all the data bytes and save the carry generated in a register. Display the entire sum at any two output ports. [08]

OR

Q.3 Discuss different Rotate and compare instructions with illustration. [08]

Q.4 Write a program to count continuously in hexadecimal from FD H to 00 H in a **[08]**
system with 2 MHz clock frequency. Install 1.5 msec. time delay between each
count and display the count at output port. (Take no. Of T-state =15)

OR

Q.4 Discuss different STACK and Subroutine instructions with illustration. **[08]**

Q.5 A set of 3packed BCD number stored in memory. The seven segment code for **[08]**
digit 0 to 9 are also stored in memory location. Write a main program and two
subroutine to unpack BCD number and select an appropriate seven segment
code for each digit and stored them in output buffer memory.

OR

Q.5 Write a programme to convert two digit BCD number stored in memory location **[08]**
to its equivalent binary number.

Q.6 A set of fifteen pack BCD number is stored in memory location stating at XX20 **[08]**
H. Write a program with subroutine to add all these numbers in BCD if carry is
generated save it in register B after adjusting it for BCD.

OR

Q.6 Discuss different advanced instructions of 8085 system with illustrations. **[08]**

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