SARDAR PATEL UNIVERSITY
B.Sc. (5th Semester) Examination
Friday, 26th October 2018
10:00 a.m. to 1:00 p.m.
US05CELE03 - 8-bit Microprocessor programming and applications

Total Marks : 70

Q.1 Choose the correct answer [10]

1. Data Bus is _____.
   (a) Unidirectional (b) Bidirectional (c) Tridirectional

2. In 8085 microprocessor address lines are _____.
   (a) 16 (b) 15 (c) 12

3. _____ is machine controlled instruction.
   (a) RET (b) HLT (c) JNC

4. To clear the content of accumulator _____ instruction is used.
   (a) CMA (b) SUB A (c) ORA A

5. Instructions can be classified according to their _____.
   (a) LSB & MSB (b) Number size (c) Word size

6. In the data transfer instruction the data is copied from _____.
   (a) Source to destination (b) Destination to source (c) None of these

7. To reset the system _____ key pushed.
   (a) Reset (b) Enter (c) Shift

8. Increment the content of register pair by one is _____.
   (a) INX Rp (b) DCX Rp (c) INR R

9. JNC is _____ instruction.
   (a) 1-byte (b) 2-byte (c) 3-byte

10. The technique which is used to to repeat the task is called _____.
    (a) Looping (b) Indexing (c) Immediate addressing

Q.2 Answer any TEN questions in brief [20]

1. What is Opcode ?
2. Name the interupt signals .
3. After execution of SUB A, ANA B instruction, In which register the answer will be stored?
4. Which instructions are used to increment and decrement the content of specified register?
5. How many addressing modes are there and name them.
6. How many ways we can classify the instructions?
7. Define Looping and Counting techniques.

(1)

8. State the meaning of CALL and RET instructions.
9. Explain NOP instruction.
10. List the Data transfer instructions.
11. What is the difference between INR R and DCR R instructions.
12. Which instructions are used to mask the higher nibble and lower nibble of 8 bit data?

Q.3   Discuss in detail the architecture of 8085 microprocessor.   [10]
                                    OR
Q.3   Draw the pin out diagram of 8085 microprocessor. Explain in detail the functions of
        each pin.   [10]

Q.4   Discuss in detail the data transfer instruction.   [10]
                                    OR
Q.4   Discuss in detail the arithmetic instructions.   [10]

Q.5   Discuss in detail the Addressing modes.   [10]
                                    OR
Q.5   Classify the instructions according to their word size and explain them in detail. [10]

Q.6   Discuss in detail the additional data transfer and 16 bit arithmetic instructions. [10]
                                    OR
Q.6   Discuss in detail the conditional and unconditional jump instructions.   [10]

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