(6 Pages)   **Reg. No. :** ....

Code No. : 20424 E   Sub. Code : SSCA 4 A

B.C.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2021.

Fourth Semester

Computer Application

Skill Based Subject — MICROPROCESSOR

(For those who joined in July 2016–2019)

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answers :

1.   Assembly language program are written using

(a) Hex code

(b) Mnemonics

(c) ASCII code

(d) None of the above

2. How many memory locations are required to store the instructions LXIH, 0800H in an 8085 assembly Language Program.

   (a) 1   (b) 2

   (c) 3   (d) 4

3. The semiconductor memories are organized as ————— dimension of array of memory locations.

   (a) One dimensional   (b) Two dimensional

   (c) Three dimensional   (d) None

4. Programmable peripheral input-output port is another name for

   (a) Serial input – output port

   (b) Parallel input – output port

   (c) Serial input port

   (d) Parallel output port

5. The input provided by the microprocessor to the read/write control logic is

   (a) RESET

   (b) ALE

   (c) WR(ACTIVE LOW)

   (d) All of the mentioned

6. The signals that are provided to maintain proper data flow and synchronization between the data transmitter and receiver are

    (a) Handshaking signals

    (b) Control signals

    (c) Input signals

    (d) None

7. The number of instructions actually executed by the microprocessor depends on the

    (a) Stack   (b) Loop count

    (c) Program counter   (d) Time duration

8. The step included in generating delays is

    (a) Determining exact required delay

    (b) Selecting instructions for delay loop

    (c) Finding period of clock frequency

    (d) All of the mentioned

9. The BSF (bit scan forward) instruction scans the operand in the order

    (a) from left to right

    (b) from right to left

    (c) from upper middle

    (d) none of the mentioned

10. Which of the following is not a bit test instruction?

   (a) BTC   (b) BTS

   (c) BSF   (d) BTR

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b) not
exceeding 250 words.

11. (a) How the process performed from computers to
       single chip micro controllers?

                  Or

   (b) Write short notes on instruction, data format
       and storage.

12. (a) What is memory? Give some example of a
       micro computer system.

                  Or

   (b) Give short note on memory interfacing.

13. (a) How to debug a program in assembly
       language?

                  Or

   (b) What is counting and indexing? Explain it.

14. (a) Explain about hexa decimal counter and give some examples.

Or

(b) Write short note on :

(i) Stack

(ii) Subroutine.

15. (a) Discus on BCD to binary conversion.

Or

(b) Explain subtraction with borrow with an example.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b) not exceeding 600 words.

16. (a) Elaborate microprocessors instruction set and computer languages.

Or

(b) How to write, store and execute simple program in 8085 microprocessor?

17. (a) Discuss on microprocessor architecture and its operations.

Or

(b) Explain the memory interfacing in 8085 microprocessor.

18. (a) What is data transfer operation? Explain about arithmetic operations and logic operations.

Or

(b) What are all the programming techniques followed in data transfer operations?

19. (a) Explain counters and time delays with an example.

Or

(b) What is conditional call and return subroutine concepts?

20. (a) Explain BCD to seven segment with neat diagram.

Or

(b) Explain :

(i) BCD addition

(ii) BCD subtraction

(iii) BCD multiplication.

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