Reg. No. : .....

Code No. : 30702 E **Sub. Code : SSCA 4 A**

B.C.A (CBCS) DEGREE EXAMINATION,
NOVEMBER 2020.

Fourth Semester

Computer Application – Core

Skill Based Subject – MICRO PROCESSOR

(For those who joined in July 2017 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The _____ is a programmable integrated device that has computing and decision-making capability similar to that of the CPU.

   (a) Micro Controller

   (b) Micro Processor

   (c) Micro Computer

   (d) Macro Controller

2. The 8085 has six general-purpose registers to store _____ data.

   (a) 4-bit (b) 8-bit

   (c) 16-bit (d) 32-bit

3. The Address Bus and Data Bus are _____ and _____ respectively.

   (a) Unidirectional, Unidirectional

   (b) Bidirectional, Bidirectional

   (c) Unidirectional, Bidirectional

   (d) Bidirectional, Unidirectional

4. The 8085 has _____ signal lines that are used as the address bus.

   (a) 2 (b) 4

   (c) 8 (d) 16

5. The 8085 performs subtraction by using the method of

   (a) 2's complement (b) 1's complement

   (c) Addition Carry (d) Register Carry

6. The 8085 instruction set includes the instruction IN to _____ data from input devices such as switches, keyboards, and A/D data converters.

   (a) Command (b) Manipulate

   (c) Read (d) Write

7. _____ are used primarily to keep track of events.

   (a) Counters

   (b) Timers

   (c) Registers

   (d) Micro processor

8. A _____ is a group of instructions written separately from the main program to performa function that occurs repeatedly in the main program.

   (a) Function

   (b) Procedure

   (c) Sub-function

   (d) Subroutine

9. ABCD number between 0 and 99 is stored in a R/W memory location called the _____.

   (a) Buffer (b) Register

   (c) INBUF (d) OUTBUF

10. A binary number is stored in memory location _____.

   (a) BINBYT (b) BINBCD

   (c) NXTBUF (d) PWRTEN

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Describe High-Level Languages.

Or

(b) Explain about the Data Transfer Operations.

12. (a) Explain about the Microprocessor-Initiated Operations and 8085 Bus Organization.

Or

(b) Explain in detail about the ALU.

13. (a) Describe about the Addressing Modes of the Micro Processor.

Or

(b) Explain about Dynamic Debugging.

14. (a) Explain about Counter and Time Delay.

Or

(b) Explain the concept of Subroutine and its instructions.

15. (a) Convert 72_{BCD} into its binary equivalent.

Or

(b) Add two packed BCD numbers : 77 and 48.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe the evolution from Large computers to Single-Chip Microcontrollers.

Or

(b) Explain 8085 Programming Model.

17. (a) Explain about the Classification of Memory.

Or

(b) Explain the Basic Concepts in Memory Interfacing.

18. (a) Explain about Arithmetic Operations.

Or

(b) Explain about the logical rotate Operations.

19. (a) Illustrate Modulo ten counter.

Or

(b) Explain in detail about Stack.

20. (a) Write a program to convert an 8 - Bit Binary number into a BCD number.

Or

(b) Write a subroutine to subtract one packed BCD number from another BCD number. The minuend is placed in register B, and the subtrahend is placed in register C by the calling program. Return the answer into the accumulator.

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