

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

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**Code No. : 20700 E      Sub. Code : SSCA 4 A**

B.A. (CBCS) DEGREE EXAMINATION, APRIL 2021.

## Fourth Semester

## Computer Application

Skill Base Subject –MICROPROCESSOR

(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 microprocessor communicates and operates in the binary numbers 0 and 1 called \_\_\_\_\_.
  - (a) Bits
  - (b) Byte
  - (c) GB
  - (d) TB
2. The memory \_\_\_\_\_.
  - (a) Stores binary information called instruction and data
  - (b) Provide the instruction and data to the microprocessor on request
  - (c) Store results and data for the microprocessor
  - (d) All of the above

3. The 8085 has two \_\_\_\_\_ register
- (a) 16 bit (b) 8 bit  
(c) 32 bit (d) 64 bit
4. The data bus and the low order address bus are \_\_\_\_\_
- (a) Multiplexed (b) De Multiplexed  
(c) Fetched (d) Bone of these
5. Choose the arithmetic instruction from the following:
- (a) ADD R (b) MUI R  
(c) ANA R (d) XRA R
6. Logic operation rotates has now many instructions?
- (a) Four (b) Two  
(c) Three (d) Six
7. A \_\_\_\_\_ is a group of instructions that perform a subtask of repeated occurrence.
- (a) Subroutine (b) Stack  
(c) Queue (d) None of these

8. A counter design generally includes a \_\_\_\_\_ loop.
- (a) Delay (b) For  
(c) While (d) Down while
9. \_\_\_\_\_ ADD register content with carry.
- (a) ADC (b) ACI  
(c) ADD (d) None
10. \_\_\_\_\_ Exchange the content of HL with DE
- (a) XTHL (b) HCHG  
(c) LHLD (d) SPHL

PART B — ( $5 \times 5 = 25$  marks)

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

Each answer should not exceed 250 words.

11. (a) Write short notes on:
- (i) Flags in 8085 programming mode  
(ii) Program counter and stack pointer.
- Or
- (b) Write short notes on:
- (i) One-byte instruction  
(ii) Two-byte instruction  
(iii) Three-byte instruction.

12. (a) Explain about interfacing circuit.

Or

- (b) Explain about:

- (i) ROM
- (ii) Flash memory
- (iii) EPROM.

13. (a) Explain about logic operation compare and its instruction.

Or

- (b) Write short notes on 16 bit data transfer to Register pairs (LXI).

14. (a) Write short notes on Restart. Conditional call and Return instructions.

Or

- (b) Write short notes on time Delay using register.

15. (a) Write about BCD-to-Seven segment LED code conversion.

Or

- (b) Write short notes on BCD addition.

PART C — ( $5 \times 8 = 40$  marks)

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

Each answer should not exceed 600 words.

16. (a) Discuss about operating systems with its structure.

Or

- (b) Explain about the difference between machine language and assembly language of the 8085 microprocessor.

17. (a) Explain about 8085 microprocessor.

Or

- (b) Explain about address decoding and memory address diagram.

18. (a) Write about conditional loop and counter.

Or

- (b) Explain about debugging a program.

19. (a) Explain about subroutine and its instructions.

Or

- (b) Explain about stack and its instruction.

20. (a) Explain about Binary to ASCII and ASCII to Binary code conversion.

Or

- (b) Explain about subtraction with carry with example.
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