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Reg. No. : FIN

(6 pages)

Code No. : 10486 E

Sub. Code : CSCA 41

B.C.A. (CBCS) DEGREE EXAMINATION,  
APRIL 2023

Fourth Semester

Computer Application — Skill Based Subject

MICROPROCESSOR

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. A set of instructions written for the microprocessor to perform a task is called a \_\_\_\_\_
  - (a) hardware
  - (b) program
  - (c) software
  - (d) None

2. Bit is an abbreviation for the term \_\_\_\_\_
  - (a) binary
  - (b) decimal
  - (c) binary digit
  - (d) Both (a) and (b)
3. Counters and time delays can be designed using \_\_\_\_\_
  - (a) Hardware
  - (b) Software
  - (c) Microprocessor
  - (d) All the above
4. Each instruction of the 8085 microprocessor can be divided into few basic operations called \_\_\_\_\_
  - (a) write cycle
  - (b) Machine cycle
  - (c) control cycle
  - (d) None 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. Counters and time delays can be designed using

- (a) Hardware  
(b) Software  
(c) Microprocessor  
(d) All the above

8. A counter design generally includes a \_\_\_\_\_ loop.

- (a) Delay (b) For  
(c) While (d) Down while

9. Write binary equivalent for 7210.

- (a) 0111 0010  
(b) 0111 0111  
(c) 0111 0010  
(d) 1010 1001

10. \_\_\_\_\_ places the stack pointer content in HL.

- (a) SBB (b) DAI  
(c) DAD (d) LXI

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Define High level language. Write short notes on it.

Or

(b) Give the model of assembly language program.

12. (a) What are I/O operations?

Or

(b) Discuss the following : (i) ROM (ii) Flash memory.

13. (a) Write short notes on addressing modes.

Or

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

14. (a) Discuss Time Delay using register.

Or

(b) Write about generating pulse waveforms.

15. (a) Write short notes on subtraction with carry with examples.

Or

- (b) What is BCD addition? Discuss it.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Explain about Microprocessor Architecture with algorithm.

Or

- (b) Write assembly language program to subtract two numbers.

17. (a) Explain about microprocessor-initiated operations and 8085 bus organization with diagrams.

Or

- (b) How does an 8085 based single board microcomputer work?

18. (a) What are Branch operations in 8085? Discuss it.

Or

- (b) Explain about arithmetic operation related to memory.

19. (a) Define stack. Write its instructions.

Or

- (b) How subroutine and its instructions working in Assembly program.

20. (a) Explain about BCD-to-Seven segment LED code conversion.

Or

- (b) Define ASCII. How to convert ASCII number to binary.