

(6 pages)

Reg. No. :

Code No. : 21246

Sub. Code : JMCA 4 A

B.C.A. (CBCS) DEGREE EXAMINATION,
APRIL 2018.

Fourth Semester

Computer Applications – Main

Major Elective — MICRO PROCESSOR

(For those who joined in July 2016 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 microprocessor signals can be classified into _____ groups.
 - (a) Two
 - (b) Three
 - (c) Five
 - (d) Six
4. The 8085 has two _____ register
 - (a) 16 bit
 - (b) 8 bit
 - (c) 32 bit
 - (d) 64 bit
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 _____ is a group of instructions that performs a subtask of repeated occurrence.

- (a) Subroutine (b) Stack
(c) Queue (d) None of these

9. Write binary equivalent for 7210

- (a) 0111 0010 (b) 0111 0111
(c) 0101 0010 (d) 1010 1001

10. _____ Place 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) Write short notes on :

- (i) Flags in 8085 programming mode
(ii) Program counter and stack pointer.

Or

(b) Explain about data format in 8085 microprocessor.

12. (a) Write short notes on :

- (i) I/O's with 8 bit addresses (Peripheral mapped I/O)
(ii) Memory mapped I/O.

Or

(b) Explain about interfacing circuit.

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

Or

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



14. (a) Write short notes on Time Delay using register.

Or

- (b) Write short notes on Restart, Conditional call and Return instructions.

15. (a) Write short notes on Multiplication technology used in BCD to Binary conversion.

Or

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

PART C — (5 × 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 8085 programming model with its structure.

17. (a) Explain about address decoding and memory address diagram.

Or

- (b) Explain about microprocessor-initiated operations and 8085 bus organization with diagram.

18. (a) Explain about Logical operations in 8085.

Or

- (b) Write about conditional loop and counter.

19. (a) Explain about counter design with time delay.

Or

- (b) Discuss about stack and its instruction in 8085.

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

Or

- (b) Write about BCD addition with example.

