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**DHANALAKSHMI SRINIVASAN COLLEGE
OF ARTS & SCIENCE FOR WOMEN
(AUTONOMOUS)**

(For Candidates admitted from 2018-2019 onwards)



UG DEGREE EXAMINATIONS APRIL - 2021

B.Sc., - PHYSICS

FUNDAMENTALS OF MICROPROCESSOR

Time: 3 Hrs

Max.Marks: 75

PART - A

CHOOSE THE CORRECT ANSWER

(10X1=10)

1. Which is the only register without internal on-chip RAM address in MCS-51?
a) Stack Pointer b) Program Counter c) Data Pointer d) Timer Register
2. The number of status flags in 8085 are _____.
a) Five b) Four c) Six d) Seven
3. In the instruction of 8085 microprocessor, how many bytes are present?
a) One /Two b) One, Two/ Three c) only one d) Two /Three
4. A machine language instruction format consists of -
a) Operation code field b) Operation code field & operand field
c) Operand field d) none of the mentioned
5. Assembly language programs are written using
a) Hex code b) Mnemonics c) ASCII code d) None of these View
6. The instruction JNC 16 -bit refers to jump to 16-bit address if?
a) Sign flag is set b) carry flag is reset c) zero flag is set d) parity flag is reset
7. How many memory locations are required to store the instruction LXIH, 0800H in an 8085 assembly language program?
a) 1 b) 2 c) 3 d) 4
8. The instructions like MOV or ADD are called as _____.
a) OP-Code b) Operators c) Commands d) None of the mentioned
9. How many memory locations are required to store the instruction LXIH, 0800H in an 8085 assembly language program?
a) 1 b) 2 c) 3 d) 4
10. The instructions like MOV or ADD are called as _____.
a) OP-Code b) Operators c) Commands d) None of the mentioned

PART - B

ANSWER ALL THE QUESTIONS

(5X7=35)

11. a) Draw and explain the pin diagram of 8085 microprocessor.

(OR)

b) Describe the interrupts signals of microprocessor.

12. a) With a neat diagram explain the architecture of 8085 microprocessor.

(OR)

b) What is the function of stack pointer? Discuss PUSH and POP operation.

13. a) Describe the instruction set of 8085 microprocessor.

(OR)

b) List out logical operator's symbolic representation with example.

14. a) Write an assembly language program to add two 8-bit numbers, the sum may be of 16 bits.

(OR)

b) Explain what operation will take place when the following instructions are executed:

A) LXI rp,data B)LDA addr C) LHL D) STA addr E)SHLD addr

15. a) Write an assembly language program to arrange the number in a ascending order

(OR)

b) Write an assembly language program to calculate the sum of N number.

PART - C

ANSWER ANY THREE QUESTIONS

(3X10=30)

16. Explain the functional Block diagram of microcomputer.

17. Classify 8085 instructions in various groups. Give example of instruction for each group.

18. Discuss in detail about the addressing modes of microprocessor 8085 with suitable example.

19. Write an assembly language program to division two 8-bit numbers, the sum may be of 16 bits.

20. Write an assembly language program to find the largest number in a data array.