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(FOR THE CANDIDATES ADMITTED

19UPS615

DURING THE ACADEMIC YEAR 2019-20 ONLY)

REG.NO.

N.G.M.COLLEGE (AUTONOMOUS): POLLACHI

END-OF-SEMESTER EXAMINATIONS: JULYE 2022

B.Sc. PHYSICS

MAXIMUM MARKS: 75

SEMESTER: VI

TIME: 3 HOURS

**PART - III**

**MICROPROCESSOR MECHANISMS & PROGRAMMING IN C**

**SECTION - A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

1. In 8085 \_\_\_\_\_ pairs of registers are available.  
(a) 3 (b) 4 (c) 6 (d) 7
2. \_\_\_\_\_ is a unidirectional bus in  $\mu$ p 8085.  
(a) data bus (b) accumulator (c) stack (d) address bus
3. Direct memory access is the .....among all the modes of data transfer.  
(a) Slowest (b) Fastest (c) Moderate (d) None
4. The closed loop process control system for the growth of synthesis of quartz was developed by \_\_\_\_\_.  
(a) Robert Pettrossi (b) Milton (c) John (d) Robin
5. \_\_\_\_\_ is the derived data type  
(a) Real (b) string (c) Array (d) Integer

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES**

**(K2)**

6. What is the size of Accumulator in 8085 microprocessor?
7. What is known as address?
8. What is Relational operator on C?
9. Rows and columns are used in which dimensional array?
10. Which function calls by itself?

**SECTION – B**

**(5 X 5 = 25 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. (a) Give the Architecture of  $\mu$ P8085.

**(OR)**

(b) List the different addressing modes available in 8085  $\mu$ P and explain.

**(CONTD....2)**

12. (a) Mention the different types of data transfer schemes.

(OR)

(b) Explain microprocessor based temperature monitoring system with a block diagram.

13. (a) Briefly discuss key word and identifiers.

(OR)

(b) Explain arithmetic operators and its procedure.

14. (a) What is array ? How to declare an array in 'C'?

(OR)

(b) Explain in detail do- while loop with example.

15. (a) Write in detail about the return values and their types.

(OR)

(b) Write a short note on recursion.

**SECTION - C**

**(4 X 10 = 40 MARKS)**

**ANSWER ANY FOUR OUT OF SIX QUESTIONS**

**(16<sup>th</sup> QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS**

**(FROM Qn. No : 17 to 21)**

**(K4 (or) K5)**

16. What is closed loop process control? Explain it with an example.

17. Explain what is stack? Also explain PUSH and POP operations with example.

18. Explain interrupt driven data transfer scheme with flow diagram.

19. Explain in detail Nesting if else with an example.

20. What are string handling function? Brief it.

21. Explain in detail the terms call by value and call by reference.

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