

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)
(Affiliated to the University of Madras and Re-accredited with A+ Grade by NAAC) Chromepet,
Chennai — 600 044.

B.Sc. END SEMESTER EXAMINATION APRIL/NOV - 2021
SEMESTER - V

13UPHCT5012 & UPH/CT/5012 - Microprocessor Architecture and Programming

Total Duration : 3 Hrs	Total Marks : 75
MCQ : 30 Mins	MCQ : 15
Descriptive : 2 Hrs.30 Mins	Descriptive : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. What is hexadecimal number system? Convert $4BE_{16}$ to binary number.
2. Discuss flag register of 8085 microprocessor.
3. Write a short note on arithmetic instructions.
4. Illustrate the instructions which control machine functions.
5. Write an assembly language program to multiply two 8-bit numbers.
6. What do you mean by SRAM and DRAM?
7. How does the microprocessor differentiate between data and instruction?
8. Briefly discuss assembly and machine languages.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. a) What is the hexa decimal equivalent of decimal 62329, 16389
b) Convert hexadecimal 2F49, 7FE4
10. With the help of neat diagram explain the architecture of 8085 microprocessor in detail.
11. What is meant by an instruction? Describe various types of data transfer instruction together with examples of each type.
12. Explain the various addressing modes of 8085 microprocessor with example.
13. Write a program with a flowchart for arranging an array of 8-bit numbers in ascending order.