**St. Joseph’s College (Autonomous), Bangalore**

**Date: 13-04-2018 (9AM)**

**II Semester Examination, April 2018**

**B C A II Semester**

**CA 2215 : Microprocessor**

**Time 2.5 Hrs Max Marks 70**

**This Question Paper Contains Two printed papers and Three parts**

(For supplementary candidates)

Do not write the register number on the question paper

Please attach the question paper along with the answer script.

**PART-A**

**Answer all TEN questions 2 x10 = 20**

1. What are the functions of a microprocessor?
2. What determines that microprocessor is an 8bit, 16 bit or 32bit?
3. How address lines and data lines are multiplexed in 8085.
4. What are the functions of flags in 8085?
5. How looping is implemented in ALP?
6. What are the two uses of jump instructions?
7. Explain in brief about parallel and serial data transfer.
8. Why is Trap known as NMI?
9. What is the role of microprocessor in DMA data transfer?
10. Which are the peripheral mapped I/O instructions?

**PART-B**

**ANSWER ANY FIVE QUESTIONS 6 x5 = 30**

1. Explain any six 3-byte data transfer instructions in 8085 instruction set.
2. Explain the working of following instructions with suitable programming examples

a) LXI B,8110H b) LHLD 8110H

1. Explain the pin configuration of 8085 with a neat diagram.
2. Explain the various interrupts in 8085.
3. Explain the control word format of 8255 PPI.
4. Write a program to check whether a number is positive, negative

or zero using subroutines.

1. Write a program to divide two 8 bit numbers.

CA-2215-A-17

**PART-C**

**ANSWER ANY TWO QUESTIONS 10 x2 = 20**

1. Draw 8085 architecture and explain the function of all the components.
2. a) Explain the differences between peripheral mapped I/O and

memory mapped I/O.

b) Explain the steps for interfacing 8085 with a seven segment

Display.

1. a) Explain any five arithmetic instructions with programming

examples for each.

b) Write a program to perform linear search in a list of 8 bit numbers.