Reg. No…….. Name…… **19U208**

B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH/APRIL 2019

SEMESTER **– 2: COMPUTER APPLICATION (CORE COURSE)**

COURSE: **15U2CRCAP3, MICRO PROCESSORS AND COMPUTER ORGANIZATION**

(Common for Regular 2018/Supplementary – Improvement 2017/ 2016 / 2015 Admission)

Time: Three Hours Max. Marks: 75

PART A

Answer all questions. Each question carries 1 mark.

1. What is a stack Segment?
2. Define addressing modes.
3. What is the Maximum clock frequency in 8086?
4. What are SIM and RIM instructions?
5. Logic calculations are done in which type of registers?
6. Which are the different functional units?
7. Which Flags can be set or reset by the programmer and also used to control the operation of the processor?
8. What is the importance of EU?
9. What is the maximum memory size that can be addressed by 8086?
10. What are the various interrupts in 8086? (1 x 10 = 10)

PART B

Answer any eight questions. Each question carries 2 marks.

11. Which are the four multipurpose registers in 8086 microprocessor?
12. State the reason. Why there are two ground pins on the 8086 microprocessor?
13. Distinguish between Maskable interrupts and Non-Maskable interrupts?
14. What is the use of the extra segment in 8086 processor?
15. Why 8086 takes two cycles to fetch the data from odd address?
16. Which are the different flag available in status register?
17. What are the two modes of operations present in 8086?
18. List down the two classification of microprocessor based on the architecture.
19. A computer's memory is composed of 8K words of 32 bits each, and a byte is 8 bits. How many bytes does this memory contain?
20. What is an arithmetic/logic unit (ALU)? (2 x 8 = 16)

PART C

Answer any five questions. Each question carries 5 marks.

21. Explain stack structure of 8086
22. Explain the different addressing modes in 8086.
23. What are the functions of bus interface unit (BIU)?
24. Explain the process control instructions.

25. List down the function of the following pins and their use in 8086 based system.
    (I) A19/s6- A16/s3
    (ii) BHE/s7
26. What are the features of 80386?
27. Draw the functional block diagram of Pentium pro.
28. A computer has 128 MB of memory. Each word in this computer is eight bytes. How many bits are needed to address any single word in memory? (5 x 5 = 25)

PART D

Answer any two questions. Each question carries 12 marks.

29. Explain the bus structure Connecting CPU and memory.
30. Comment on the basic features of 80386 and 80486 in detail.
31. Explain in detail the comparisons between 8086, 80286, 80386 and Pentium?
32. Explain 8086 Instruction Format. (12 x 2 = 24)

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