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Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, NOVEMBER 2022

Fourth Semester

Core Course—MICROPROCESSOR AND ASSEMBLY LANGUAGE PROGRAMMING

(For B.Sc. Computer Science)

[2013—2016 Admissions]

Time : Three Hours Maximum Marks : 80

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. How many address lines are there in Intel 8085 microprocessor ?
2. What is STA instruction in 8085 ?
3. How many bits are there in the address bus of 8086 ?
4. How many I/O ports are provided by 8086 ?
5. What is stack pointer in 8086 ?
6. What is a Flag ?
7. What is a memory map ?
8. What is a Label ?
9. What is DMA ?
10. How many bit processor in 80386 ?

(10 × 1 = 10)

Part B

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. How many I/O ports are there in 8085 ?
12. What are the various hardware interrupts in 8085 ?
13. What is SUB instruction in 8085 ?
14. What are the 2 modes of operation of 8086 ?
15. What is the role of a base pointer in 8086 ?

Turn over

16. What is source index in 8086 ?
17. What is a macro in 8086 ?
18. What us a delay loop in 8086 ?
19. What is the difference between PUSH and POP instructions in 8086 ?
20. What are the various control flags in 8086 ?
21. What is the functionality of 8259A ?
22. What is the special feature of 80486 processors ?

(8 × 2 = 16)

Part C

Answer any **six** *questions.*
Each question carries 4 *marks.*

23. Briefly, explain the Read machine cycle of 8086.
24. Briefly, explain the data addressing modes of 8086.
25. Briefly, explain CALL and RET operations in 8086 ?
26. Briefly, explain arithmetic instructions in 8086.
27. Briefly, explain string instructions in 8086.
28. Briefly, explain conditional jump instructions in 8086.
29. Briefly, explain various interrupts in 8086.
30. Briefly, explain basic 8253 instructions.
31. Briefly, explain RISC processors.

(6 × 4 = 24)

Part D

Answer any **two** *questions.*
Each question carries 15 *marks.*

32. Explain the basic architecture of 8085 with diagrams and illustrations.
33. Explain the basic architecture of 8086 with diagrams and illustrations.
34. Explain the basic architecture of 8257 with diagrams and illustrations.
35. Explain the basic architecture of 80286 with diagrams and illustrations.

(2 × 15 = 30)