Q.P. Code – 68503

Fifth Semester B.C.A. Degree Examination, October/November 2019

(CBCS Scheme)

Computer Science

COMPUTER ARCHITECTURE

Time : 3 Hours] *[Max. Marks : 90*

Instructions to Candidates : Answers ALL Sections.

SECTION – A

I. Answer any **TEN** questions : **(10 × 1 = 10)**

1. Define computer architecture.
2. What is an interrupt?
3. Give the usage of program counter.
4. Define bus.
5. Mention the parts of instruction.
6. Define seek time.
7. What is associative mapping?
8. Define band rate.
9. What is cache memory?
10. How floating point number is represented?
11. Differentiate between LDA and SDA commands.
12. Give the usage of zero flag.

SECTION – B

II. Answer any **FIVE** questions : **(5 × 3 = 15)**

13. Explain LDA and STA.
14. Explain I/O processor.
15. Explain various types of RAM.

16. Explain parallel processing.

17. Give the functions of input/output module.

18. Explain the types of CPU organization.

19. Explain any three arithmetic commands in assembly language with example each.

SECTION – C

III. Answer any **SIX** questions : **(6 × 5 = 30)**

20. Explain instruction cycle.

21. Differentiate between RISC and CISC.

22. Explain the types of interrupts.

23. Perform the following : **(3+2)**

    (a) Subtract – 12 from – 25 using 1's complement

    (b) Add 28 and -12.

24. Explain DMA.

25. Explain different addressing modes.

26. Write assembly language program to make subtraction of 16 bit numbers.

27. Explain the PIN diagram of intel 8085.

SECTION – D

IV. Answer any **FIVE** questions : **(5 × 7 = 35)**

28. Give flow chart for computer operation with interrupt cycle.

29. Explain error detecting and correcting code by taking an example.

30. Explain different program control instruction.

31. (a) Write flowchart of programmed input/output.

    (b) Explain system bus structure. **(4 + 3)**

32. (a) Write assembly language program to find largest and smallest of 2 numbers.

    (b) Write assembly language program to find addition of two 8 bit number. **(4 + 3)**

33. Write a note on RAID.

34. Give timing diagram for memory read cycle.
