



QP CODE: 22103288



22103288

Reg No : .....

Name : .....

**B.Sc/BCA DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE  
EXAMINATIONS, OCTOBER 2022**

**Second Semester**

**Core Course - CS2CRT05 - COMPUTER ORGANIZATION AND ARCHITECTURE**

(Common for B.Sc Computer Science Model III, B.Sc Information Technology Model III, Bachelor of  
Computer Applications)

2017 ADMISSION ONWARDS

D1D17FC6

Time: 3 Hours

Max. Marks : 80

**Part A**

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Define the terms: computer organization and computer architecture.
2. What is opcode?
3. What do you mean by a register?
4. What do you mean by instruction cycle?
5. What is LIFO?
6. What is relative address mode?
7. What are the uses of data transfer operations?
8. Write the use of bootstrap loader program.
9. What is auxiliary memory?
10. What do you mean by aging registers?
11. Write note on various parallel processing mechanisms.
12. When data dependency occurs?

(10×2=20)

**Part B**

*Answer any **six** questions.*

*Each question carries **5** marks.*





13. Write a note on instruction formats.
14. Explain the importance of timing and control unit.
15. Explain bus structure.
16. List and explain different types of interrupts.
17. Explain organization of RAM.
18. Explain ROM.
19. Describe address space and memory space.
20. Describe SISD and SIMD.
21. Explain pipeline processing with the help of suitable example.

(6×5=30)

### Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Describe general register organization with the help of neat diagram.
23. What is cache memory? Discuss different mapping processes while considering the organization of cache memory.
24. Explain multiprocessing systems.
25. a) Draw the block diagram and explain the architecture of a vector processor.  
b) How vector processing is different from Array processing and give their application areas?

(2×15=30)

