QP CODE: 21103328

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Reg No : .....

Name : .....

B.Sc/BCA DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, DECEMBER 2021

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

17ADCA4A

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. Define computer system organization.
2. Briefly state immediate operand.
3. What is a data register?
4. What is one address instruction?
5. What is control word?
6. Write the use of mode field in an instruction.
7. Write the purpose of using software interrupts in a program.
8. Compare volatile and non volatile memory.
9. Compare synchronous DRAM and asynchronous DRAM
10. What is EEPROM?
11. What is MIMD?
12. What do you mean by speedup ratio?

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. Describe instruction cycle.

14. Describe two types of control organizations for a digital computer.

15. Explain about single bus structure with neat diagram.

16. Explain difference between push and pop operations of stack.

17. Explain hard disk operation.

18. Explain the methods used to write into cache.

19. What is LRU? How is it implemented?

20. Describe multiprocessor systems..

21. Explain attached array processor. Show the interconnection with the help of a diagram.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Explain different types of instructions.

23. Explain the concept of main memory. What are the different types?

24. Explain different parallel processing mechanisms in a uniprocessor system.

25. Describe (a)Instruction Pipeline (b) Arithmetic Pipeline

(2×15=30)