



'সমানো মন্ত্র: সমিতি: সমানী'

**UNIVERSITY OF NORTH BENGAL**  
BCA Honours 2nd Semester Examination, 2023

**CC4-BACHELOR OF COMPUTER APPLICATION (23)**

Time Allotted: 2 Hours

Full Marks: 40

**GROUP-A**

**Answer any *five* from the following**

1×5 = 5

1. Define the term Computer Architecture.
2. Differentiate DRAM and SRAM.
3. What are the functions of control unit?
4. What is throughput and response time?
5. What is Pipelining?
6. What is associate memory?
7. Define binary counter.
8. Convert  $(41.25)_5$  to its equivalent decimal.

**GROUP-B**

**Answer any *three* from the following**

5×3 = 15

9. Explain how a full adder can be built using two half adders.
10. Convert the given expression in canonical SOP form  $Y = AC + AB + BC$ .
11. Give the comparison between combinational circuits and sequential circuits.
12. Discuss overflow and underflow with examples.
13. Which gates are called as the universal gates? What are its advantages? Give example.

**GROUP-C**

**Answer any *two* from the following**

10×2 = 20

14. Explain the different types of Computer memory with suitable example.
15. Define Addressing mode and explain the basic addressing modes with an example for each.
16. What are the different types of flip-flops? Discuss operation of SR flip-flop.
17. What are the types of shift register? Discuss briefly about 4-bit binary register.

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