



‘समानो यन्त्रः समितिः समानी’

UNIVERSITY OF NORTH BENGAL
BCA Major 1st Semester Examination, 2025

BCAPMAJ101-BACHELOR OF COMPUTER APPLICATION

COMPUTER FUNDAMENTALS

Time Allotted: 2 Hours 30 Minutes

Full Marks: 60

The figures in the margin indicate full marks.

GROUP-A

Answer any four questions

3×4 = 12

1. What is a computer? What are the characteristics of a computer?
2. Explain the working principle of Optical Character Recognition (OCR).
3. Explain BIOS:
4. What is a Cache memory? Why is it important?
5. What is a software? List different types of software.
6. Differentiate between ROM and RAM.

GROUP-B

Answer any four questions

6×4 = 24

7. Explain the classification of computers based on logic used and size.
8. Explain input and output devices with a suitable example.
9. What are the components of a motherboard?
10. What is an operating system? What are its advantages and disadvantages?
11. Explain the working of light pen and touch screen.
12. Explain the working of Optical Mark Recognition (OMR) and its applications.

GROUP-C

Answer any two questions

12×2 = 24

13. Discuss in detail the five generations of computers along with their technology and application.
14. Draw and explain the block diagram of a digital computer. Describe each unit.
15. Explain in detail primary memory and secondary memory with its types.
16. What is a flowchart? Draw neat flowchart for finding whether a number is even or odd.

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সমানো মন্ত্র: সপিতি: সমানী

UNIVERSITY OF NORTH BENGAL
BCA Major 1st Semester Examination, 2025

**BCAPMAJ102-BACHELOR OF COMPUTER APPLICATION
PROGRAMMING FUNDAMENTALS USING C**

Time Allotted: 2 Hours 30 Minutes

Full Marks: 60

The figures in the margin indicate full marks.

GROUP-A

Answer any four questions

3×4 = 12

1. What is recursion? Give a suitable example.
2. What is a structure?
3. What is pointer? Provide an example.
4. How is fopen() used in C programming?
5. What is variable?
6. What is array?

GROUP-B

Answer any four questions

6×4 = 24

7. What is Algorithm? Write an algorithm to find whether a number is even or odd. 2+4
8. What is flowchart? Draw a flowchart that will find the maximum of three numbers. 2+4
9. Write a C program to calculate GCD of two natural numbers.
10. What do you mean by Call by Value and Call by Reference in C programming?
11. Define Command Line Arguments in C programming with suitable example.
12. Differentiate between structures and unions.

GROUP-C

Answer any two questions

12×2 = 24

13. What is type-casting? What are the basic differences between break and continue statements? Write a program in C language to check whether a number is prime or not. 3+3+6
14. Discuss different if construct that are used in C programming.
15. What are operators? Write about Arithmetic and Bitwise operators used in C programming. 2+(5+5)
16. What is file? How put(), get(), read() and write() functions are used in C programming? 2+(2½×4)

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