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Reg. No.....

Name.....

M.Sc. (BIOMEDICAL INSTRUMENTATION) DEGREE EXAMINATION SEPTEMBER 2023

Second Semester

OBJECT ORIENTED PROGRAMMING

(2016 Admission onwards—Regular/Supplementary/Mercy Chance)

Time : Three Hours Maximum Marks : 100

Part A

Answer any **five** *questions.*
Each question carries 10 *marks.*

1. Explain the concept of inheritance. Why inheritance is introduced in OOP languages ?
2. Discuss on the motivation for OOP languages.
3. Explain with examples the operators used in C^{++}.
4. Explain with suitable examples the uses of pointers.
5. Discuss on the dynamic memory management C^{++}.
6. Write a C^{++} program to count the number of words in a string and the number of characters, except spaces.

(5 × 10 = 50)

Part B

Answer any **ten** *questions.*
Each question carries 5 *marks.*

1. Explain the concept of classes and objects in OOP.
2. Explain the concept and uses of abstraction in OOP.
3. Explain how data is safe if encapsulated ?
4. What are the benefits of modularity ?
5. Write a note on the data types used in C^{++}.

Turn over

6. Explain the methods of argument passing in functions.

7. Explain the concept of operator overloading.

8. Write a note on constructors and destructors.

9. Explain the concept and uses of virtual functions.

10. What is dynamic binding ?

11. What is Polymorphism ?

12. Compare the characteristics of C and C^{++} programming languages.

$(10 \times 5 = 50)$