

**206/236-A**

**B.C.A. (Part-II) EXAMINATION – 2021**

(Faculty of Science)  
(Three-Year Scheme of 10+2+3 Pattern)

**OBJECT ORIENTED PROGRAMMING CONCEPTS (Through C++)**

Time Allowed: Three Hours

Maximum Marks: 100

Answers of **all** the questions (Short answer as well as descriptive) are to be given in the main answer-book only. Answers of Short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

*Write your roll number on question paper before start writing answers of questions*

Question paper consists of three parts.  
*All THREE parts are compulsory*

**Part - I** (very short answer) consists 10 questions of two marks each with two questions from each unit. Maximum limit for each question is up to 40 words.

**Part - II** (short answer) consists 5 questions of four marks each with one question from each unit. Maximum limit for each question is up to 80 words.

**Part - III** (Long answer) consists 5 questions of twelve marks each with one question from each unit with internal choice.

**Part – I**

**Attempt all questions. Each question carries 2 marks.**

**10 x 2=20**

1. (i) What is OOP?
- (ii) Write any two advantages of OOP.
- (iii) What do you mean by type conversion?
- (iv) What is Ternary Operator?
- (v) What is 'this' pointer?
- (vi) What is Member Data and Member Function?

- (vii) What is Inheritance?
- (viii) What is Late Binding?
- (ix) What is Binary file?
- (x) What is template?

### **Part – II**

**Attempt all questions. Each question carries 4 marks.**

- 2. Explain brief evolution of OOP. 4
- 3. What is expression? Explain logical expression with example. 4
- 4. What is access specifiers? Explain each. 4
- 5. What is pure virtual function? Explain with example. 4
- 6. What is function template? Write the syntax with example. 4

### **Part – III**

- 7. What is user define data type in C++? Explain the various user define data type in C++. 12

**OR**

What are the basic concepts of OOPs language? Explain each. 12

- 8. Explain the various types of jumping statements in C++ with example. 12

**OR**

Write a C++ program read n values into array find sum and average using pointer with function. 12

- 9. How to define member function of a class? Explain with example. 12

**OR**

What is friend function? What are the general characteristics of friend function? Write a C++ program calculate factorial value using friend function. 3+4+5

10 Write a C++ program to demonstrate multiple inheritance, assume suitable data or (data member) for defining classes. 12

**OR**

What is operator overloading? Explain with suitable example. 4+8

11 Explain the various file stream classes used in C++. 12

**OR**

What is exception? How many types of exception? How to handle exception in C++? Explain. 2+2+8

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