

**206/236-A**

**B.C.A. (Part-II) EXAMINATION – 2019**

(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) Define Polymorphism.
- (ii) Define class.
- (iii) What is the need for typing conversions?
- (iv) What is initialization of the object?
- (v) States any two rules for overloading operator.
- (vi) Define multilevel inheritance.
- (vii) Define pure virtual function.

- (viii) Enlist any four methods provided by istream and ostream.
- (ix) List any three standard exception handling keyword in C++ with their significance.
- (x) Write a short note about private member functions.

## **Part – II**

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

- 2. Explain about various storage classes in C++ suitable example? 4
- 3. Explain unary operator in brief which are available in C++. 4
- 4. Differentiate between constructors and destructors. 4
- 5. What do you mean by access control? Explain access control keywords available in C++. 4
- 6. List and explain in brief various function required for random access file operations. 4

## **Part – III**

- 7. Write different between Object Oriented Programming and Procedure Oriented Programming in detail. 12

**OR**

- Explain the characteristics of Objected Oriented Programming in detail. 12
- 8. Describe data types in C++ in details. 12

**OR**

- Explain friend function with suitable example. What are the merits and demerits of using the friend function? 12
- 9 Write a C++ program to calculate the area of circle, rectangle and 12

square using function overloading.

**OR**

What is constructor? Explain types of constructor with example. 12

10 What does the inheritance means in C++? What are different forms of inheritance? Give an example of each 12

**OR**

Define polymorphism and explain virtual functions with example. 12  
What is the difference between static and dynamic binding?

11 What is the difference between opening a file with constructor function and opening a file with open() function 12

**OR**

What is exception handling? Explain types of exception handling and explain suitable example. 12

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