

**206/236-A**

**B.C.A. (Part-II) EXAMINATION – 2016**

(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 data encapsulation?
- (ii) What are abstract data types?
- (iii) Define friend function with simple example.
- (iv) States any four C++ operators.
- (v) What is inline function? What is the use of it?
- (vi) What is meant by an abstract class?
- (vii) What is scope resolution operator? Write its uses.

- (viii) Give the need for exception handling in a programming language.
- (ix) Why do we need template?
- (x) What is modularity?

## **Part – II**

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

- 2. Write advantage of OOP's. 4
- 3. Differentiate between jumping statements and loop. 4
- 4. Explain the utilization of destructors in C++. 4
- 5. Write short note on virtual functions. 4
- 6. Discuss briefly various exceptions handling option. 4

## **Part – III**

- 7. Explain the concept of OOP's in detail with suitable example. 12
- OR
- Write short notes on:
  - a. User defined data types 12
  - b. Functional programming language
- 8. Explain C++ token in details? 12
- OR
- Explain various programming constructors of C++. 12
- 9. Compare the various parameters parsing mechanism supported by C++ with example 12
- OR
- Define constructors. Describe various types of constructors. 12
- 10. Explain different type of inheritance with suitable example. 12
- OR

Write program

- a. Write a C++ program to implement function overloading.
- b. Write a C++ program to implement operator overloading using a friend function.

12

11 Explain I/O stream in detail

12

OR

Write short notes on:

- a. Template
- b. Exception handling

12

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