This question paper contains **2** printed pages.

Roll No. ....

B.C.A. (Part - II)

Obj.Ori.Pro.Con.

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 of **10** questions of **two** marks each. Maximum limit for each question is upto **40** words.*

PART - II : *(Short answer) consists of **5** questions of **four** marks each. Maximum limit for each question is upto **80** words.*

PART - III : *(Long answer) consists of **5** questions of **twelve** marks each answer **one** question from each unit, each question is with an internal choice.*

PART - I

1. Attempt **all** the questions. 10x2=20
    (a) What is OOP ?
    (b) Write any two advantages of OOP.
    (c) What do you mean by type conversion ?
    (d) What is ternary operator ?
    (e) What is 'this' pointer ?
    (f) What is member data and member function ?
    (g) What is Inheritance ?
    (h) What is late binding ?
    (i) What is binary file ?
    (j) What is template ?

PART - II

Attempt **all** the questions. 5x4=20

2. Explain in brief evolution of OOP.

3. What is an expression ? Explain logical expression with example.

4. What is access specifiers ? Explain each.

5. What is pure virtual function ? Explain with example.

6. What is function template ? Write the syntax with example.

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P.T.O.

PART - III

7. What is user define data type in C++ ? Explain the various user define data type in C++.   2+10

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 functions of a class ? Explain with example.   12

OR

What is friend function ? What are the general characteristic 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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This question paper contains 3 printed pages]　　　　　Roll No.

Sl.No.　　　　　　　　　　　　　　　　　　　　　　**236(A)**

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B.C.A. (Part - II) EXAMINATION, 2017
(Faculty of Science)
(Three-year scheme of 10 + 2 + 3 Pattern)
Paper - 236 - A
OBJECT ORIENTED PROGRAMMING CONCEPTS (Through C++)

Time : Three Hours]　　　　　　　　　　　　*[Maximum Marks : 100*

Answer 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 numbers 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 of 10 questions of two marks each. Maximum limit for each question is up to 40 words.*

PART II:　*(Short Answer) consists of 5 questions of four marks each. Maximum limit for each question is up to 80 words.*

PART III:　*(Long answer) consists of 5 questions of twelve marks each with internal choice.*

PART - I

1.　a)　What are objects?

　　b)　What is a class?

　　c)　What is Data abstraction?

　　d)　What are Tokens?

　　e)　What are keywords?

　　f)　What are data members and member functions?

　　g)　Define Inline Function?

　　h)　What is Derived class?

　　i)　What is File?

　　j)　Define Templates?

　　　　　　　　　　　　　　　　　　　　　　　　[10 × 2 = 20]

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PART - II

2. a) What is functional programming?

   b) Define Pointer with suitable example?

   c) What are Friend Functions? Write the syntax of Friend Function?

   d) Write short notes on virtual base class?

   e) What are streams?

   [5 × 4 = 20]

PART - III

3. Define OOPs? Describe characteristics of OOPs.   [12]

OR

Describe object and class concept in detail?   [12]

4. Describe Array in C++ in detail?   [12]

OR

What are operators? Explain its types.   [12]

5. What is Constructor and Destructor? Explain various types of Constructor. [12]

OR

Write short notes on:-   [2 × 6 = 12]

a) Member Function.

b) This Pointer.

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6. Explain the concept of polymorphism in detail? [12]

OR

Define Inheritance? Explain various types of Inheritance. [12]

7. Define File system in C++? Describe basic operations of file system with suitable example. [12]

OR

Define Exception Handling? Describe Exception Handling with suitable example. [12]

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This question paper contains 2 printed pages.

B.C.A. (Part - II)

Roll No................

236 (A)

Obj. Ori. Pro. Con.

B.C.A (PART - II) EXAMINATION - 2018

(Faculty of Science)

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

Paper - 236 (A)

Object Oriented Programming Concepts (Through C + +)

Time Allowed : Three hours

Maximum Marks : 100

Question paper consists of three Parts. All THREE Parts are compulsory.

Part I :   (Very Short Answer) consist of 10 questions of two marks each with two questions form each unit. Maximum limit for each question is up to 40 words.

Part II: (Short answer) consists of 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 of 5 questions of twelve marks each with one question from each unit with internal choice.

PART - I

1.   **Attempt all the questions**   (10 x 2 = 10)

   (a). What is an inline function?

   (b)   What is the difference between function overloading and function overriding?

   (e)   Why do we need the preprocessor directive #include <iostream> in C++?

   (d)   What do you mean by type casting?

   (e)   List the characteristics of a friend function.

   (f)   Give any four applications of OOPS.

   (g)   List out any four operators that cannot be overloaded.

   (h)   What is meant by Abstract base class?

   (i)   What is the difference between actual and formal parameters?

   (j)   What are Exceptions? Write any four exceptions of C++.

PART - II

2.   **Attempt all the questions**   (5x4=20)

   (a)   Compare object oriented programming with procedure oriented programming.

   (b)   Explain all the data types available in C++.

   (c)   Define copy constructor.

   (d)   List the types of inheritances. Write a C++ program to implement single inheritance.

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(e) Explain the use of if stream and of stream classes for file input and output.

PART III

3. Explain the following concepts of object oriented programming in detail with an example

(i) Data abstraction (ii) Inheritance

(iii) Polymorphism (iv) Objects (4 x 3 = 12)

OR

State the important features of object oriented programming. (12)

4. Explain all the looping statements available in C++. (12)

OR

Write Short Note on: (3x4 = 12)

(i) C++ tokens

(ii) Jumping Statements

(iii) Array

5. List out the rules for defining constructor with appropriate example. (12)

OR

Write a short note on access specifiers in C++. (12)

6. Write a C++ program to illustrate multiple inheritace. (12)

OR

Explain with an example the order of invocation of constructors and destructors in multiple inheritance. (12)

7. Define exception handling. Explain with example the use of try, catch and throw for exception handling in C++. (12)

OR

What is class template? Write the syntax for class template. Write an example program for class template. (12)