I/48—22   Roll No. ....

Annual Examination, 2022

B.Sc. Part II

INFORMATION TECHNOLOGY

Paper II

(Programming in C++)

Time : 3 Hours]   [MAXIMUM MARKS : 50

Note : *Section 'A' is Objective type and is compulsory. It should be written on the **first page** of Answer-book. Section 'B' is Short answer type and Section 'C' is Long answer type.*

Section 'A'

(Multiple Choice Questions)   **1×10=10**

Choose the correct answer from following questions :

(i) Cout is a/an :

(a) Operation   (b) Function

(c) Macro   (d) Object.

(ii) Within is switch statement :

(a) Continue can be used but Break can not be used

P.T.O.

(b) Continue can not be used but Break can be used

(c) Both Continue and Break can be used

(d) Neither Continue nor Break can be used.

(iii) Writing a keyword while as while in C++ program causes a :

(a) Fatal error

(b) Syntax error

(c) Terminating error

(d) None of them.

(iv) Which of the following statement can be used to explicitly control looping ?

(a) If   (b) While

(c) Break   (d) All of the mentioned.

(v) Which is used to create a pure virtual function ?

(a) $ (b) =0

(c) &   (d) !.

(vi) Which of the following is not the member of class ?

(a) Static function   (b) Friend function

(c) Const function   (d) Virtual function.

I/48—22

(vii) Which allows you to create a derived class that inherits properties from more than one base class ?

(a) Multilevel inheritance

(b) Multiple inheritance

(c) Hybrid inheritance

(d) Hierarchical inheritance.

(viii) Overloading the function operator :

(a) Requires a class with an overloaded operator.

(b) Requires a class with an overloaded [ ] operator.

(c) Allows you to create objects that act syntactically like functions.

(d) Usually make use of a constructor that takes arguments.

(ix) Which function is used to position back from the end of file object ?

(a) Seekg   (b) Seekp

(c) Both seekg & seekp (d) Seekf

(x) Which header file is used for reading and writing to a file ?

(a) #include<iostream> (b) #include<fstream>

(c) #include<file>   (d) #include<fe>.

Section 'B'

(Short Answer Type Questions)   3×5=15

Note : *All the* *five* *questions are compulsory.*

1. Define Dynamic initialization of variables.

Or

What is abstraction concept in C^{++} ?

2. Discuss returning by reference with example.

Or

Write a C^{++} program for find factorial of a given number using recursion function.

3. What is static member function ?

Or

Differentiate between structure and class.

4. What is late binding ?

Or

Discuss this pointer.

5. Discuss manipulators in C^{++} ?

Or

List the library classes that handle streams in C^{++}.

Section 'C'

(Long Answer Type Questions)   5×5=25

Note : *All the **five** questions are compulsory.*

1. Write the steps of compilation and execution process of C^{++} program and explain.

Or

Write and explain basic terminology of object oriented programming in detail.

2. How passing struct variable into function ? Explain with example.

Or

Write a C^{++} program to create inline function to take two arguments and should return the minimum values.

3. What are null and default constructor ? Explain with example.

Or

Write C^{++} Program to subtract complex number using operator overloading.

P.T.O.

4. Write a C^{++} program to calculate the sum of following series where n is input by user.

$1 + 1/2 + 1/3 + 1/4 + 1/5 + ... 1/n.$

Or

What is pointer ? Explain the use of constant pointers and pointers to constant with an example.

5. Write any four operations possible on string objects in file handling.

Or

Describe various stream classes for console I/O operations.

✪ ✪ ✪ ✪ ✪ c ✪ ✪ ✪ ✪ ✪