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42 (PGDCA-2) OOPR

2018

**OBJECT ORIENTED PROGRAMMING
WITH C++**

Paper : PGDCA-EL 4

Full Marks : 70

Time : Three hours

***The figures in the margin indicate
full marks for the questions.***

1.

1×5=5

- (a) What do mean by Class ?
- (b) Write *one* difference between variables and constant.
- (c) Define the concept of Data hiding.
- (d) What do mean by Destructor ?
- (e) What do mean by Data abstraction ?

Contd.

2.

2×5=10

- (a) Define Object with an example.
- (b) What is the use of new and delete operator in C++ ?
- (c) What do you mean by pass by value and pass by reference in a function ?
- (d) Define base class and derived class in OOPS.
- (e) How do you declare a constructor in a class ?

3. Answer **any four** questions :

4×5=20

- (a) Briefly explain the concept of Polymorphism with an example.
- (b) What is function ? How can you define member function in inside and outside class ?
- (c) What do mean by this pointer ? Give *one* example.
- (d) Define Inline function. Give *one* proper example.
- (e) What are the main differences between object oriented and procedure oriented programming ?

(f) Briefly explain the protected access specifier with an example.

4. Answer **any five** questions : 5×7=35

(a) Write a program to create a class EMPLOYEE which store information such as Emp_id, Emp_name, and E_age. Write member functions for creating and displaying the values of various class and objects.

(b) What do mean by Inheritance ? Write a C++ program to implement single inheritance.

(c) Write a C++ program to implement the operator overloading concept.

(d) Discuss the advantages and functions of OOPS.

(e) What are the differences between structure and class ? Briefly explain with proper example.

(f) Briefly explain the concept of dynamic binding with an example.

(g) Briefly explain the abstract class and pure virtual function.

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42 (2) OOPR

2021

(Held in 2022)

**OBJECT-ORIENTED PROGRAMMING
AND C++**

Paper : PGDCA EL4

Full Marks : 70

Time : Three hours

***The figures in the margin indicate
full marks for the questions.***

*Answer **any seven** questions.*

1. (a) What do you mean by Object-Oriented Programming? Discuss its major advantages. 5
- (b) Define a class. Explain with one example. 3
- (c) Define data abstraction. 2
2. (a) What are the major differences between procedure-oriented programming and object-oriented programming? 4

Contd.

(b) What are the three principles of object-oriented programming ? Explain briefly with an example. 6

3. (a) What are Keywords and Identifiers in C++ ? Give examples. 4

(b) Define Arrays and Strings. Give example. 4

(c) What are the basic data types in C++ ? 2

4. (a) Define Looping. What is the difference between while and do..while loop ? 5

(b) Define a Function. What do you mean by call by value and call by reference ? Explain. 5

5. Explain the following with proper examples : $2 \times 5 = 10$
(any two)

(a) Constructor and Destructor

(b) Class and Object

(c) Derived and Base Class.

6. (a) What do you mean by operator overloading ? Explain with the help of one example. 6

(b) Define a pointer. How do we declare it? What do you mean by an array of pointers ? 4

(a) What do you mean by Inheritance ? Explain different types of Inheritance. 5

(b) What are new and delete operators ? 2

(c) What are public, private, and protected access specifiers in C++ ? 3

8. Define the following terms : $2 \times 5 = 10$

Pure virtual function, Data Encapsulation, Early and late binding, Inline function, Function overloading.
