

12. Describe overloading of template function with suitable example.
13. (a) Explain the concept of thread priorities and scheduling in detail.
- (b) Explain the delegation event model with suitable example.

**PGDCA-03/MSCCS-03/  
PGDCA-103/MSCCS-103/  
MSCCSC-103/MCA-103/CPCJ**

**June – Examination 2024**

**PGDCA/MSCCS (Previous)/  
CPCJ/MCA (Ist Year) Examination  
OOPS PROGRAMMING WITH C++ AND  
JAVA**

**Paper : PGDCA-03/MSCCS-03/  
PGDCA-103/MSCCS-103/MSCCSC-103/  
MCA-103/CPCJ**

*Time : 3 Hours ]*

*[ Maximum Marks : 80*

*Note :-* The question paper is divided into three Sections A, B and C. Write answers as per the given instructions.

**Section-A**

**8×2=16**

**(Very Short Answer Type Questions)**

*Note :-* Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 2 marks.

1. (i) What do you mean by Dynamic Binding ?
- (ii) What do you mean by Parameter passing by Reference ?
- (iii) Define Constructor.
- (iv) What do you mean by Predefined Stream Classes ?
- (v) Define an applet in Java.
- (vi) What do you mean by Abstract Classes ?
- (vii) What do you mean by Card Layout ?
- (viii) What do you mean by Adapter Classes ?

**Section-B** **4×8=32**

**(Short Answer Type Questions)**

**Note** :- Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 8 marks.

2. Explain the concept of Polymorphism.
3. Explain the purpose of using static member variables.
4. Describe the usage of new and delete operator in C++.

5. Explain the concept of garbage collection in C++.
6. Explain thread life cycle in brief.
7. Differentiate between thread class and runnable interface.
8. Explain the usage of 'break' statement in Java.
9. Explain the concept of inner classes.

**Section-C** **2×16=32**

**(Long Answer Type Questions)**

**Note** :- Answer any *two* questions. You have to delimit your each answer maximum up to **500** words. Each question carries 16 marks.

10. (a) Write a program in C++ to find out an entered no. by the user is prime or not.
- (b) Write a program in Java to check an entered no. by the user is odd or even.
11. Explain the concept of overloading unary operators with suitable example.