

(44) Seat No: \_\_\_\_\_

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**SARDAR PATEL UNIVERSITY**

**M.Sc.(Information Technology)**

**I-Semester Examination -2016**

**PS01CINT02 (Advance Programming Concepts & Data Structure)**

**DATE: 21/10/2016, Friday**

**Marks:70**

**Time:10:00A.M To 1:00 P.M**

**Q:1 Give Answers of following Multiple Choice Questions**

**[08]**

- [1] Destructor is declare in C++ with \_\_\_\_\_ symbol.  
(A) ~ (B) @  
(C) # (D) None of these
- [2] \_\_\_\_\_ define one name multiple form.  
(A) Inheritance (B) Abstraction  
(C) Polymorphism (D) None of these
- [3] If we create a file by 'ifstream', then the default mode of the file is \_\_\_\_\_.  
(A) ios :: out (B) ios :: in  
(C) ios :: app (D) None of these
- [4] An array element is accessed using \_\_\_\_\_.  
(A) a FIFO approach (B) An Index number  
(C) The Operator (D) A Member Name
- [5] \_\_\_\_\_ is considering as a non linear data structure.  
(A) Queue (B) Link List  
(C) Tree (D) None of these.
- [6] In a stack elements are accessed at only one end is called \_\_\_\_\_.  
(A) Top (B) Rear  
(C) Middle (D) All of these
- [7] In the context of operator overloading which of the following statement is valid.  
(A) We cannot change operator templates.  
(B) We can change the associativity of the C++ operators.  
(C) We can create new C++ operators.  
(D) We can change the precedence of the C++ operators.
- [8] In a \_\_\_\_\_ file, records are store one after the other on a storage device.  
(A) Random (B) Sequential  
(C) Both A & B (D) None of these

**Q:2 Do as directed (Any Seven)**

**[14]**

- [1] What are command line arguments?
- [2] List out various modes of file management with their meaning.
- [3] List special characteristics of constructor.
- [4] Explain in short: Access specifiers.
- [5] Define pointer. Why it is required?
- [6] What is Data Structure? Write any four application of Data Structure.
- [7] What is Queue? What is queue overflow condition?
- [9] Write a brief note on Variable length records.

Q:3 [A] What is polymorphism? Explain function overloading with help of example. [6]

[B] What is Macros? Explain different types of Macros. [6]

OR

[B] What is OOP? List and explain features of object oriented programming language. [6]

Q:4 [A] Write a note on inheritance in C++. [6]

[B] Write a brief note on new and delete operators used in C++. [6]

OR

[B] What is virtual function? Why it is required? Discuss virtual function with example. [6]

Q-5 [A] What is stack? Explain ANY TWO operations of them with their algorithm. [6]

[B] Explain in detail Threaded Representation of Binary tree. [6]

OR

[B] What is binary tree? Explain preorder traversal mode of binary tree. [6]

Q-6 [A] What is hashing? List all hashing functions and explain ANY TWO with example. [6]

[B] What is heap? Explain it with example. [6]

OR

[B] Write a note on ISAM. [6]

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