

**A-31-B**

Roll No.....

Total No. of Questions : 8]

[Total No. of Printed Pages : 7

**12<sup>th</sup>SZARJD22**

**6031-B**

**COMPUTER SCIENCE**

Time : 2.30 Hours]

[Maximum Marks : 70

**Section-1**

1. (i) Explain the concept of Object Oriented Programming. Enlist its advantages.

*Or*

Explain concepts of Data Encapsulation and Data Hiding. 4

(ii) What is Class ? Describe the syntax of class declaration. 3

(iii) Write a program to implement concept of function overloading. 3

(iv) Explain Scope Resolution Operator. 2

12<sup>th</sup>SZARJD22-6031-B

Turn Over

**A-31-B**

- (v) Define a Member Function. 1
- (vi) Objects are called physical constructs. (True/False) 1
- (vii) Correct way of declaring object of class is :
- (A) Class classname objectname
  - (B) Classname object objectname
  - (C) Classname objectname
  - (D) None of these 1

### Section-2

2. (i) What is a Constructor ? Describe parameterized constructor. 3
- (ii) Destructors is not return type function. (True/False) 1
- (iii) A constructor that accepts no parameters is called :
- (A) Parameterized constructor
  - (B) Default constructor
  - (C) Both (A) and (B)
  - (D) None of these 1

**Section-3**

3. (i) What is Inheritance ? Describe the concept of multiple inheritance. 3
- (ii) Define a Derived Class. 1
- (iii) In multiple inheritance, a subclass is derived from one base class. (True/False) 1

**Section-4**

4. (i) Giving a suitable example, explain a "Pointer". 3
- (ii) A pointer is a user defined data type. (True/False) 1
- (iii) A new operator is used to :
- (A) Allocate the memory
- (B) Deallocate the memory
- (C) Both (A) and (B)
- (D) None of these 1

**Section-5**

5. (i) Explain Binary Search.

*Or*

Define an Array. Describe its Memory Representation. 4

(ii) Define Stack. Describe *two* main operations performed on stack. 3

(iii) Define term Sorting. 2

(iv) Queue is a data structure which follows :

(A) FIFO principle

(B) LIFO principle

(C) Both (A) and (B)

(D) None of these

**Section-6**

6. (i) Define Database. What are its advantages ?

*Or*

What is DDL ? Discuss its commands. 4

- (ii) Define SQL. What are its advantages ? 3

- (iii) Write the use of Insert Command and Delete Command. 2

- (iv) Write the use of SQL function Max( ). 1

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**Section-7**

7. (i) Explain Universal Gate behaviour of NAND Gate.

*Or*

Giving Logic Gate symbol and truth table, describe the principle

operation of OR Gate. 4

(ii) State and explain De Morgan's laws using truth table. 3

(iii) Explain AND Operator using truth table. 2

(iv) The output of NOR Gate is 1 when the two inputs are :

(A) 0 and 1

(B) 1 and 1

(C) 0 and 0

(D) None of these 1

### Section-8

8. (i) Define Network Topology. Explain Star Topology.

*Or*

Define Cyber Bullying. What are its preventive measures ? 4

- (ii) Write down a note on Safe Social Networking. 3
- (iii) Describe the use of Modem. 2
- (iv) In networking LAN stands for ..... 1

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