

**COMPUTER SCIENCE
SAMPLE QUESTION PAPER
CLASS-XII**

Max. Marks: 70

TIME: 3 hrs

General Instructions:

- All questions are compulsory.
- Question paper is divided into 8 sections pertaining to 8 units respectively.

SECTION-1			
Q1.	(a)	What are the advantages of Object Oriented Programming? (OR) Write a program in C++ to implement concept of function overloading.	4
	(b)	Explain the concept of data hiding and data encapsulation.	3
	(c)	Explain the public and private access specifiers.	3
	(d)	Briefly explain the use of scope resolution operator.	2
	(e)	Define an object.	1
	(f)	The members of a class are by default private. (true/false)	1
	(h)	Private members of a class can be accessed by 1. Private member functions of the class 2. Public member functions of the class 3. Both 1 and 2 4. None of the above	1
SECTION-2			
Q2.	(a)	Write down the special characteristics of a constructor.	3
	(b)	Define a destructor.	1

	(c)	A destructor is used to 1. Destroy the classes 2. Destroy the objects 3. Destroy the functions 4. None of the above	1
SECTION-3			
Q3.	(a)	Explain the concept of multiple inheritance using a diagram.	3
	(b)	Define a base class.	1
	(c)	Inheritance is used to 1. Rename a class 2. Reuse a class 3. Hide the class members 4. Overload a function	1
SECTION-4			
Q4.	(a)	Explain pointer initialization with an example.	3
	(b)	Define dynamic memory allocation.	1
	(c)	An integer pointer can store 1. An integer value 2. Address of an integer variable 3. Both 1 and 2 4. None of the above	1
SECTION-5			
Q5.	(a)	Define an Array? Explain 1D and 2D arrays. (OR) Write a program in C++ to implement linear search.	4

Q5.	(b)	Explain push and pop operations used on a stack.	3
	(c)	Define sorting.	2
	(d)	An enqueue operation means to 1. Insert an element into a stack 2. Delete an element from a stack 3. Insert an element into a queue 4. Delete an element from a queue	1
SECTION-6			
Q6.	(a)	What is SQL? Write down the advantages of SQL. (OR) Explain the concept of relational data model.	4
	(b)	Define relation, tuple and primary key.	3
	(c)	Define degree of a relation.	2
	(d)	Alter command is used to: 1. Delete a table 2. Delete a record 3. To modify the data 4. To modify the table structure	1
SECTION-7			
Q7.	(a)	What is a logic gate? Explain AND gate using truth table and logic diagram. (OR) Explain the functioning of the AND and OR operators using truth table.	4
	(b)	State and prove DeMorgan's law using truth table.	3

	(c)	Draw a circuit diagram for the following expression using AND, OR and NOT gates: $f=A+(B.C)'+D'$	2
	(d)	If an OR gate is given input as 1 and 0, the output will be 1. 1 2. 0 3. 2 4. None of the above	1
SECTION-8			
Q8.	(a)	Define networking. Explain different types of networks. (OR) Define transmission medium. Write a note on optical fibre.	4
	(b)	Write down measures for safe social networking.	3
	(c)	Differentiate between bus topology and star topology.	2
	(d)	A network topology in which all the nodes are connected through a hub is known as 1. Star topology 2. Ring topology 3. Bus topology 4. None of the above	1