

First Terminal Examination 2022–2023

Subject-Computer science –I

CLASS-XII

Time: 2:30 Hr

Marks: 50 M

Q.1. A) Select the correct alternative and rewrite the following: 4

- 1) Termination of a process is done by
 - a) Memory management
 - b) Time sharing
 - c) Process management
 - d) none of these
- 2) Maximum number of nodes of symmetric binary tree with depth n are
 - a) $2n$
 - b) n^2
 - c) $\log_2 n$
 - d) $2n-1$
- 3) The name of the constructor is similar to the name of the
 - a) Object
 - b) Class
 - c) Data
 - d) None of these
- 4) A derived class with several base classes inheritance.
 - a) Single
 - b) Multiple
 - c) Multilevel
 - d) heirarchical

Q.1. B) Answer any TWO of the following: 6

- 1) Explain the following terms.
 - a) Program manager
 - b) File Manager
 - c) Control Panel :
- 2) Explain ‘ call by value’ & ‘ call by reference’ with one example.
- 3) What is polymorphism ? Explain runtime & compile polymorphism.

Q.2.A) Answer any TWO of the following: 6

- 1) State algorithm for inserting an element in an Array.
- 2) What is Paging ?
- 3) What is Constructor ? Give Characteristics of Constructor .

Q.2. B) Answer any ONE of the following: 4

- 1) What is sorting ? write an Algorithm for Bubble sort.
- 2) What is Inheritance ? Explain difference types of Inheritance with suitable diagram.

Q.3. A) Answer any TWO of the following

6

- 1) State the following file stream classes.
i) ifstream ii) ofstream iii) filebuf
- 2) What is operator overloading ? write advantages of operator overloading .
- 3) Different Method by which virus can affect other program? .

Q.3. B) Answer any ONE of the following:

4

- 1) What is GUI ? State features & advantages of GUI.
- 2) What is link list ? Explain with suitable example? State the advantages of link list.

Q.4. A) Answer any TWO of the following

6

- 1) Define Virus Detection , removal & prevention. .
- 2) What is Binary Tree? Explain with suitable example total number of nodes and depth of the tree .
- 3) Explain in short the steps involved in the process of operator overloading in C ++ .

Q.4 B) Answer any ONE of the following:

4

- 1) What is process ? Explain running, ready and blocked process states of process Management .
- 2) State any eight rules for operator overloading in C++ .

Q.5.A)Answer any TWO of the following:

10

- 1) Write a program in C++ to print first 20 terms of Fibonacci series (series is – 0,1,1,2,3,5,8,.....)
- 2) What is Virtual Function in C++? Give any six rules to write Virtual Functions.
- 3) Write a code in HTML for following table :

Computer Science	Paper I	Paper II	Total
	100	100	200

OR

- 1) Write a program in C++ to find factorial of entered number .
- 2) Write a program in C++ to find area of circle using class.
- 3) Write HTML code for the following :

Roll No.	Name	Marks		Total
		CS1	CS2	
1	RINA	75	70	145
2	RONAK	80	90	170
3	TINA	70	85	155