



Guru Aanklan

**GRAND
TEST**

**Computer Science - I
Code - [A]**

**Marks : 50
Duration: 3 Hrs**

Q.1(A) Select correct Alternatives and rewrite the following statements:

[4]

- (a) Following operator cannot be overloaded.
 (i) ++ (ii) :: (iii) & (iv) *
- (b) Record contains _____ Data
 (i) Homogeneous (ii) Non-Homogenous (iii) Same (iv) None of these
- (c) 'Terminate a process' is the system call available in _____
 (i) Process (ii) Memory (iii) Information (iv) File
- (d) Border attribute is used in _____ tag.
 (i) <HTML> (ii) <P> (iii) <TABLE> (iv) <TITLE>

Q.1(B) Attempt any TWO of the following

[6]

- (a) Explain the following HTML tags with one example of each:
 (i) <MARQUEE> (ii) <SUB> (iii) <BODY>
- (b) Explain use of the following HTML Tags with example:
 (i) <P> (ii)
 (iii) <HR>
- (c) Explain in brief any Six Data structure operations.

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

[6]

- (a) What are linked lists? Show a linked list with suitable example having six nodes with a properly labelled diagram.
- (b) What is a class? Explain general form of class declaration.
- (c) What is C++? What are the advantage of C++?

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

[4]

- (a) State any six features of object oriented programming.
- (b) What is VDU? Explain the following terms :
 (i) Dumb Terminal (ii) Intelligent Terminal

Q.3 (A) Answer any TWO of the following. [6]

- What is destructor? Give syntax rules for writing destructor function.
- State any three advantages and three disadvantages of HTML.
- What is computer virus? State any four methods by which virus can infect other programs.

Q.3 (B) Answer any ONE of the following: [4]

- Describe how member functions of class can be defined outside the class definition and inside the class definition?
- What is pointers? What are the Advantages of pointer in C++?

Q.4 (A) Answer any TWO of the following [6]

- What are the features of Linux?
- Discuss virus detection, removal and prevention philosophies
- Write any three characteristics of friend function?

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

- Distinguish between computer worm and computer virus.
- What is a record? How it differs from a linear array?

Q.5 Answer any TWO of the following: [10]

- Implement a class temperature to convert degree Fahrenheit value to degree Celsius value.
[Hint: $C/5 = F - 32/9$, where C is temperature in degree Celsius and F is temperature in Fahrenheit degree]
- Write a C++ program by using swap function to interchange given two numbers.
Void swap (int &x, int &y);
- Write an HTML Code to display the following table on Web Page :

STUDENT RECORD

| YEAR | BOYS | GIRLS | TOTAL |
|------|------|-------|-------|
| 2010 | 519 | 710 | 1229 |
| 2011 | 800 | 930 | 1730 |

OR

Q.5 Answer any TWO of the following : [10]

- Write a program in C++ to find sum of first 100 Natural numbers.
- Write a C++ program to count occurrence of a character "J" in a given string.
- Write the exact output of the following HTML code :

```
<html>
<head>
<title></title>
</head>
<body>
<h1> Languages </h1>
<ol>
<li> English </li>
<li> Second Languages ... </li>
</ol>
<ul>
<li> Marathi </li>
<li> Hindi </li>
<li> French </li>
<li> Sanskrit </li>
</ul>
</body>
</html>
```