

March 2020

**Distribution of Marks- Questionwise and Topicwise**

Sr. No.	Name of Topic	1 Mark Question		3 Mark Question		4 Mark Question		5 Mark Question		Total Marks
		Nos.	Total	Nos.	Total	Nos.	Total	Nos.	Total	
1	Operating Systems	1	1	4	12	2	8	-	-	21
2	Data Structures	1	1	3	9	2	8	-	-	18
3	C++ Programming	1	1	4	12	2	8	4	20	41
4	HTML	1	1	1	3	-	-	2	10	14
5	Total	4	4	12	36	6	24	6	30	94

**Q. 1(A) Select correct option from the following and rewrite the sentences :**

- (a) Linux is \_\_\_\_\_ type of software. 1  
(i) Public (ii) Free  
(iii) Shareware (iv) license
- (b) \_\_\_\_\_ is collection of fields. 1  
(i) File (ii) Record  
(iii) Array (iv) Queue
- (c) \_\_\_\_\_ operator cannot be overloaded. 1  
(i) ++ (ii) +  
(iii) :: (iv) >>
- (d) \_\_\_\_\_ tag is used to create a row in table. 1  
(i) <td> (ii) <th>  
(iii) <tr> (iv) <tt>

**Ans. : (a) (ii) (b) (ii) (c) (iii) (d) (iii)**

**Q. 1(B) Answer any two of the following :**

- (a) Explain any three features of windows-98 Operating System. (Ch. 1/Q. 8/Pg. No. 1-4) 3
- (b) Explain Bubble sort algorithm with suitable examples. (Ch. 2/ Q. 19/ Pg. No. 2-13) 3
- (c) Explain general structure of HTML page. (Ch. 4/Q. 7/Pg. No. 4-3) 3

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

- (a) Explain friend function in C++ with example. (Ch. 3/Q. 46/Pg. No. 3-35) 3
- (b) Explain linked representation of binary tree in memory with suitable example. (Ch. 2/Q. 44/Pg. No. 2-32) 3
- (c) Explain memory map of single user operating system. (Ch. 1/Q. 43/Pg. No. 1-20) 3

**Q. 2(B) Answer any one the following :**

- (a) Define Operating System. In which categories operating system provide its services. (Ch. 1/Q. 1 and Q. 2/Pg. No. 1-1 and 1-2) 4
- (b) What is constructor and destructor? Explain each with the help of suitable example. (Ch. 3/Q. 51 and Q. 55/Pg. No. 3-39 and 3-42) 4

**Q. 3(A) Answer any two of the following :**

- (a) Explain internal and external fragmentation in memory management of operating system. (Ch. 1/Q. 20/Pg. No. 1-9) 3
- (b) List any six data structure operations. (Ch. 2/ Q. 3/ Pg. No. 2-2) 3
- (c) Define following terms in C++ file handling.  
(i) Ifstream                              (ii) Ofstream                              (iii) Fstream  
(Ch. 3/Q. 86 and Q. 87 /Pg. No. 3-77 and 3-78) 3

**Q. 3(B) Answer any one of the following :**

- (a) What is virus? Write any three infecting methods of virus. (Ch. 1/Q. 69 and Q. 70/Pg. No. 1-36) 4
- (b) Define Binary tree. Draw a Tree diagram for following expression.  $Y = [(a - b - c) + (a + b - c)]^{3/2}$  (Ch. 2/Q. 40 and Q. 63/Pg. No. 2-31 and 2-41) 4

**Q. 4(A) Answer any two of the following :**

- (a) Explain time sharing related to process management of operating system. (Ch. 1/Q. 39/Pg. No. 1-18) 3
- (b) Explain how a member function is defined outside class with examples. (Ch. 3/Q. 43/Pg. No. 3-32) 3
- (c) Write C++ declaration for the following.
  - (i) Array of 10 integers.                              **Ans. : int a[10];**
  - (ii) Pointer to character variable                              **Ans. : char\* p;**
  - (iii) Object of the class                              **Ans. : test t;**

**Q. 4(B) Answer any one of the following :**

- (a) Define linked list. Draw and explain labelled diagram of linked list with 5 nodes. (Ch. 2/Q. 30/Pg. No. 2-21) 4

- (b) What is polymorphism? Explain how it is achieved by : 4  
 (i) Compile time (ii) Run Time  
 (Ch. 3/Q. 79/Pg. No. 3-70)

**Q. 5 Answer any two of the following :**

- (a) Write a C++ program to accept 10 integers in an array and find its sum and average. 5  
 (Ch. 3/Q. 114/Pg. No. 3-95)
- (b) Write a C++ function to find surface area of a sphere. (Ch. 3/Q. 124/Pg. No. 3-101) 5  
 (Hint: Surface area of sphere=  $A = 4\pi r^2$ )
- (c) Write a code in HTML for following table : 5

Subject		Paper- I	Paper- II
Computer	Theory	50	50
Science	Practical	50	50

HSC Exam Scheme (Ch. 4/Q. 102/Pg. No. 4-74)

**Q. 5 Answer any two of the following :**

- (a) Write a C++ program to accept a sentence of 80 characters and count number of words in a sentence. (Ch. 3/Q. 39/Pg. No. 3-28) 5
- (b) Write a class based C++ program to accept two integers and find its G.C.D. (Greatest Common Factor) (Ch. 3/Q. 45/Pg. No. 3-34) OR (Q. 164/Pg. No. 3-124) 5
- (c) Write the exact output of the following HTML code with font specification. 5  
 (Ch. 4/Q. 69/Pg. No. 4-51)

(Note : here code is given for which output is required along with link details as mentioned)

```

<HTML>
<BODY>
<TABLE border= "3" Cellspacing="10">
<TR>
<TH colspan = "3" > STREAM </TH>
</TR>
<TR>
<TD> <A href= "Science.html" > SCIENCE </A> </TD>
<TD> <A href= "Commerce.html" > COMMERCE </A> </TD>
<TD> <A href= "Arts.html" > ARTS </A> </TD>
</TR>
</TABLE>
</BODY></HTML>

```

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**Q.1(A) Select correct option from the following and rewrite the sentences :**

- (a) \_\_\_\_\_ operator can be overloaded. 1  
 (i) + (Plus)                      (ii) || (Logical OR)  
 (iii) % (Modulus)              (iv) All i, ii and iii
- (b) Record contains \_\_\_\_\_ data. 1  
 (i) Homogenous                  (ii) Non-homogenous  
 (iii) Same                          (iv) None of these
- (c) Terminate a process is the system call available in \_\_\_\_\_ management. 1  
 (i) Process    (ii) Memory    (iii) Information              (iv) File
- (d) Border attribute is used in \_\_\_\_\_ tag. 1  
 (i) <HTML>    (ii) <P>              (iii) <TABLE>                  (iv) <TITLE>

**Ans.:** (a) (iv)                  (b) (ii)                  (c) (i)                  (d) (iii)

**Q.1(B) Answer any two of the following :**

- (a) Explain the following HTML tags with one example of each : 3  
 (i) <MARQUEE> (Ch. 4/Q. 15(a)/Pg. No. 4-8)  
 (ii) <SUB> (Ch. 4/Q. 21(2)/Pg. No. 4-13)  
 (iii) <BODY> (Ch. 4/Q. 8(iv)/Pg. No. 4-4 and 4-5)
- (b) Explain any three data structure operations. (Ch. 2/Q. 3/Pg. No. 2-2) 3
- (c) Explain three states of process in process management of operating system. 3  
 (Ch. 1/Q. 29/Pg. No. 1-13)

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

- (a) What is a Linear Array ? If lower bound is 26 and upper bound is 45, then compute length of Array. (Ch. 2/Q. 12/Pg. No. 2-9) 3
- (b) What is Class ? Explain general form of class declaration. (Ch. 3/Q. 42/Pg. No. 3-30) 3
- (c) What is a Computer Virus ? State any four methods by which virus can infect other programs. (Ch. 1/Q. 69/Pg. No. 1-36) 3

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

- (a) What is Constructor and Destructor ? Explain each with the help of suitable example. 4  
(Ch. 3/Q. 51 and Q. 55/Pg. No. 3-39 and 3-42)
- (b) What do you mean by Virtual Memory ? Explain any three terms used in Virtual Memory. (Ch. 1/Q. 53/Pg. No. 1-26) 4

**Q. 3(A) Answer any two the following :**

- (a) Write any three characteristics of Friend function. (Ch. 3/Q. 46/Pg. No. 3-35) 3
- (b) Explain Conditional Flow and Repeatative Flow used in data structure with diagram. 3  
(Ch. 2/Q. 7 and 8 OR Q. 10 /Pg. No. 2-5, 2-6 and 2-7)
- (c) Explain any three components of GUI. (Ch. 1/Q. 58/Pg. No. 1-29) 3

**Q. 3(B) Answer any one of the following :**

- (a) What is a Virtual Function ? Write any six syntax rules of Virtual Function. 4  
(Ch. 3/Q. 80 and Q. 82/Pg. No. 3-71 and 3-72)
- (b) What is Data Structure ? Define the following terms of data structure : 4
- (i) Record (Ch. 2/Q. 1(vi)/Pg. No. 2-2)
  - (ii) File (Ch. 2/Q. 1(vii)/Pg. No. 2-2)
  - (iii) Field (Ch. 2/Q. 1(v)/Pg. No. 2-1)

**Q. 4(A) Answer any two of the following :**

- (a) Write the size in bytes of following data types : 3
- |                    |                 |                  |
|--------------------|-----------------|------------------|
| (i) Float          | (ii) Double     | (iii) Short int. |
| (iv) Unsigned int. | (v) Long double | (vi) Char        |
- (Ch. 3/Q. 6(iii)/Pg. No. 3-4)
- (b) Explain any three types of inheritance. (Ch. 3/Q. 70/Pg. No. 3-56) 3
- (c) What is Operating System ? List any four operating system names. 3  
(Ch. 1/Q. 1/Pg. No. 1-1)

**Q. 4(B) Answer any one of the following :**

- (a) Explain the memory representation of Binary Tree with suitable example. 4  
(Ch. 2/Q. 44/Pg. No. 2-32)
- (b) Define following terms of process scheduling in operating system : 4
- |                    |                       |
|--------------------|-----------------------|
| (i) Through put    | (ii) Turn around time |
| (iii) Waiting time | (iv) Response time    |
- (Ch. 1/Q. 30 & Q. 31/Pg. No. 1-14)

**Q. 5 Answer any two of the following :**

- (a) Write a C++ program to accept 100 natural numbers. Find and print its sum and average. (Ch. 3/Q. 114/Pg. No. 3-95) 5  
(Note : Write  $i \leq 100$  in all for loops and  $avg = sum/100$ )
- (b) Write a C++ program to accept a sentence (max. of 80 characters) and count the occurrence of a character "J" in a given string. (Ch. 3/Q. 132/Pg. No. 3-105) 5

(c) Write the exact output of the following HTML code :

```
<HTML>
<HEAD>
<TITLE> Match summary </TITLE>
</HEAD>
<BODY>
<Table border = "1" cellspacing = "15" cellpadding = "15">
<TR>
<TH Rowspan = "2"> IND <br>
    335/4 </TH>
<TD> Virat </TD>
<TD> 185 </TD>
</TR>
<TR>
<TD> Sharma </TD>
<TD> 90 </TD>
</TR>
<TR>
<TH Rowspan = "2"> AUS <br>
    280 </TH>
<TD> Warner </TD>
<TD> 90 </TD>
</TR>
<TR>
<TD> Smith </TD>
<TD> 70 </TD>
</TR>
<TR>
<TD colspan = "3"> IND win
    by 055 Runs </TD>
</TR>
</Table>
</Body>
</HTML>
```

(Ch. 4/Q. 100/Pg. No. 7-73)

OR

**Q. 5 Answer any two of the following :**

- (a) Write a C++ function to accept two integers and find its G.C.D (Greatest Common Divisor). (Ch. 3/Q. 164/Pg. No. 3-124) 5
- (b) Write a class based C++ program to find the area of a sphere. (Ch. 3/Q. 171/Pg. No. 3-130) 5
- (c) Write the HTML Code for following output : 5
- (1) Computer Science Theory
    - (i) Paper 1 – 50 Marks
    - (ii) Paper 2 – 50 Marks
  - (2) Computer Science Practicals
    - (i) Paper 1 – 50 Marks
    - (ii) Paper 2 – 50 Marks (Ch. 4/Q. 101/Pg. No. 4-174)

March 2019

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3	C++ Programming	1	1	4	12	2	8	4	20	41
4	HTML	1	1	1	3	-	-	2	10	14
5	Total	4	4	12	36	6	24	6	30	94

**Q. 1 (A) Select correct option from the following and rewrite sentence :**

- (a) Bulleted list in HTML is created by \_\_\_\_\_ tag. 1  
 (i) <UL> (ii) <OL> (iii) <B> (iv) <BR>
- (b) \_\_\_\_\_ is very useful in situation when data is to be stored and retrieved in reverse order. 1  
 (i) Stack (ii) Queue (iii) Linked List (iv) Tree
- (c) What will be the value of x after execution of following expression in C++? 1  
 X = ++ m + n ++ ; where m = 10 and n = 15.  
 (i) 25 (ii) 27 (iii) 26 (iv) 28
- (d) \_\_\_\_\_ is free software. 1  
 (i) UNIX (ii) WINDOWS  
 (iii) LINUX (iv) DOS

**Ans. : (a) - (i), (b) - (i), (c) - (iii), (d) - (iii)**

**Q. 1 (B) Answer any two of the following :**

- (a) List any six features of LINUX Operating System. (Ch. 1/Q. 10/Pg. No. 1-5) 3
- (b) What is a pointer in C++ ? Give suitable example. (Ch. 3/Q. 29/Pg. No. 3-21) 3
- (c) Write advantages and disadvantages of HTML. (Ch. 4/Q. 3,4/Pg. No. 4-2) 3

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

- (a) Explain the syntax of C++ program structure with example. (Ch. 3/Q. 16/Pg. No. 3-12) 3
- (b) Explain Binary Search algorithm with a suitable example. (Ch. 2/Q. 23/Pg. No. 2-17) 3
- (c) Write the difference between Worm and Virus. (Ch. 1/Q. 73/Pg. No. 1-38) 3

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

- (a) Explain operator overloading with suitable example. Write any two characteristics of operator overloading. (Ch. 3/Q. 61, 62, 63/Pg. No. 3-48) 4



- What is Binary Tree ? Draw the Tree diagram for the expression.  
 $B = (3R/5T)^2 - (R + Q^3)$  (Ch. 2/Q. 40 and Q. 62/Pg. No. 2-31 and 2-41) 4
- 1.3 (A) Answer any two of the following : 4
- 1) What is a constructor in C++ ? State any four special characteristics of constructor function. (Ch. 3/Q. 51 & Q. 52/Pg. No. 3-39) 3
- 2) Explain the function of the following in Operating System : 3
- (i) Virus Detection (ii) Virus Removal 3
- (iii) Virus Prevention (Ch. 1/Q. 72/Pg. No. 1-37)
- 3) Write two features of each of data structure : 3
- (i) Record (Ch. 2/Q. 26/Pg. No. 2-19)
- (ii) Array (Ch. 2/Q. 12/Pg. No. 2-9)
- (iii) Linked List (Ch. 2/Q. 46(b)/Pg. No. 2-35)
- 1.3 (B) Answer any one of the following :
- 1) Explain any two types of type conversion in C++ with example. (Ch. 3/Q. 66/Pg. No. 3-51) 4
- 2) What are the functions of Memory management ? State any two types of continuous Real Memory Management System. (Ch. 1/Q. 42/Pg. No. 1-20) 4
- 1.4 (A) Answer any two of the following :
- 1) Explain any six operators used in C++. 3

Ans. : An operator is a symbol that tells the computer to perform mathematical and logical manipulation. Operators are used in program to manipulate data and variables. C++ has a rich set of operators. They are classified into following categories.

- |                                      |                            |
|--------------------------------------|----------------------------|
| 1. Arithmetic Operators              | 2. Relational Operators    |
| 3. Logical Operators                 | 4. Assignment Operators    |
| 5. Increment and Decrement Operators | 6. Conditional Operators   |
| 7. Bitwise Operator                  | 8. Special Operator of C++ |

#### Arithmetic Operators :

C++ performs its numerical calculations by means of five arithmetic operators as follows:

Operators	Meaning
+	Addition or unary plus
-	Substraction or unary minus
*	Multiplication
/	Division
%	Modulo division

2) **Relational Operators :-**

Relational Operators compare values to see if they are equal or if one of them is greater than other and so on.

Following operators are used to perform relation between two variables:-

Operators	Meaning
<	Less than
<=	Less than or equal to
>	Greater than
>=	Greater than or equal to
==	Equal to
!=	Not equal to

3) **Logical Operators :-** The operators which are used to perform logical operation such as logical AND, logical OR and logical NOT are called logical operators.

These are as follows-

Operator	Meaning
&&	Logical AND
	Logical OR
!	Logic NOT

4) **Assignment Operator :-** Assignment Operators are used to assign the result of an expression or constant to a variable. Assignment operator in C++ is equal sign(=). In addition to this operator, C++ also includes following composite operator.

Operator	Meaning
+=	$x += y$ means $x = x + y$
-=	$x -= y$ means $x = x - y$
*=	$x *= y$ means $x = x * y$
/=	$x /= y$ means $x = x / y$
%=	$x \% = y$ means $x = x \% y$

5) **Increment and Decrement operators :-** C++ has two unary operators called increment and decrement operators. These are very useful operators used for adding one and subtracting one from variable.

Operator	Meaning
++	Increment Ex. $b++$ means $b = b + 1$
--	Decrement Ex $b--$ means $b = b - 1$

Each of these operators has two version -preversion and post version .

Example of pre version is

if  $x = 50$  and  $y = ++ x$  then  $y$  value will be 51

Example of post version is

if  $x = 50$  and  $y = x ++$  then  $y = 50$  and  $x$  will be 51

6) **Conditional Operators :-** C++ includes very special operator called the ternary or conditional operator. It is called ternary because it uses three expressions. Its general format is

expression 1 ? expression 2 : expression 3

Ex -  $x = y > 5 ? 50 : 80$

It means  $x$  is assigned the value 50 if  $y$  is greater than 5, otherwise  $x$  is assigned 80.

7) **Bitwise Operators :-** These are certain situations where in bitwise operations are to be performed. These permits the programmer to access and to manipulate individual bits. Bitwise operators can be used with char and int data types.

Operator	Meaning
~	Bitwise One's complement
&	Bitwise AND
	Bitwise OR
^	Bitwise x OR
>>	Bitwise right shift
<<	Bitwise left shift

8) **Special operators of C++ :-**

New operators in C++ are

Scope resolution operator	::
Pointer to member declarator	::*
pointer to member operator	-> *
pointer to member operator	.*
memory release operator	delete
line feed operator	endl
memory allocation operator	new
Field width operator	setw

(b) Write a short note on Paging. (Ch. 1/Q. 49/Pg. No. 1-23) 3

(c) Explain Pointer Array with example. (Ch. 2/Q. 25/Pg. No. 2-18) 3

Q.4 (B) Answer any one of the following :

(a) With reference to process management, explain the terms : 4

(i) External Priority (ii) Purchase Priority

(iii) Internal Priority (iv) Time Slice

(Ch. 1/Q. 35/Pg. No. 1-16)

(b) Explain memory representation of linked list with example. 4

(Ch. 2/Q. 32/Pg. No. 2-23)

**Q. 5 Solve any two of the following :**

- (a) Write a C++ program to accept a sentence (maximum 50 characters) and print sentence in reverse. (Ch. 3/Q. 168/Pg. No. 3-128) 5
- (b) Write a function in C++ to accept four integers. Find the smallest integer and print it. (Ch. 3/Q. 115/Pg. No. 3-96) 5
- (c) Write exact output of the following HTML code : (Ch. 4/Q. 98/Pg. No. 4-71) 5

```
<HTML>
  <BODY>
    <OL start = "10">
      <li> English
      <li> Second language
    </OL>
    <OL Type = "a">
      <li> Compulsory
      <li> Optional
    </OL>
    <UL type = "Square">
      <Li> Science
      <Li> Arts
      <Li> Commerce
    </UL>
  </BODY>
</HTML>
```

**OR**

**Q. 5 Solve any two of the following :**

- (a) Write a C++ program to find smallest in an array of 10 floats using pointer. (Ch. 3/Q. 169/Pg. No. 3-129) 5
- (b) Write a class based program in C++ to find area of a Triangle. (Ch. 3/Q. 170/Pg. No. 3-129) 5
- (c) Write HTML code for the following output : (Ch. 4/Q. 99/Pg. No. 4-72) 5

My Page	_   ■   X
HTML is hypertext	
Markup language. The basic language of HTML is ASCII code.	
This is only text oriented language.	
■	<u>One</u>
■	<u>Two</u>
1.	One
2.	Two

March 2018

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**Q. 1 (A) Select correct option from the following and rewrite sentence :**

- (a) If the page size for 2 MB memory is 2KB then the number of higher order bits on address bus used to denote page number is \_\_\_\_\_. 1  
 (i) 11 (ii) 10 (iii) 9 (iv) 8
- (b) Data items are divided into sub item is called as \_\_\_\_\_. 1  
 (i) Group Item (ii) Elementary Item (iii) Nodes (iv) Arrays
- (c) Object is a are \_\_\_\_\_. 1  
 (i) Variable (ii) Data type  
 (iii) Run Time Entity (iv) Both (i) and (iii)
- (d) In HTML, for Red colour, RGB code is \_\_\_\_\_. 1  
 (i) # 00 00 00 (ii) # ff 00 00  
 (iii) # 00 ff 00 (iv) # 00 00 ff

**Ans. : (a) - (ii), (b) - (i), (c) - (iii), (d) - (ii)**

**Q. 1 (B) Answer any two of the following :**

- (a) What is File System ? Explain tape based and disk based file system. 3  
**(Ch. 1 / Q. 12 / Pg. 1-6)**
- (b) What is VDU ? Explain following terms of VDU : 3  
 (i) Dumb Terminal (ii) Intelligent Terminal **(Ch. 1 / Q. 22 / Pg. 1-10)**
- (c) What is Array ? Write an algorithm for Traversing linear Array. 3  
**(Ch. 2 / Q. 15 / Pg. 2-10)**

**(A) Answer any two of the following :**

Define OOP. Write its features. (Ch. 3 / Q. 40 / Pg. 3-29) 3

Explain <OL> and <UL> tag used in HTML with example. (Ch. 4 / Q. 19 & Q. 20 / Pg. 4-11 & 4-12) 3

Explain how member functions of class can be defined outside the class definition and inside class definition with example in C++. (Ch. 3 / Q. 43 / Pg. 3-32) 3

**(B) Answer any one of the following :**

Write the use of following file pointers with example. 4

(i) seekg() (ii) seekp() (iii) tellg() (iv) tellp() (Ch. 3 / Q. 93 / Pg. 3-81)

What is GUI ? explain the following components of GUI : 4

(i) Menu Bar (Ch. 1 / Q. 58 / Pg. 1-29)

(ii) Title Bar (Ch. 1 / Q. 60 / Pg. 1-30)

(iii) Scroll Bar (Ch. 1 / Q. 58 / Pg. 1-29)

**(A) Answer any two of the following :**

Explain the following process states : 3

(i) Running State (ii) Ready State

(iii) Blocked State (Ch. 1 / Q. 29 / Pg. 1-13)

Explain Constructor and Destructor with example in C++.

(Ch. 3 / Q. 51 & Q. 55 / Pg. 3-39 & 3-42) 3

What is Data structure ? Explain Linear Data Structure and Non-linear Data Structure. (Ch. 2 / Q. 2 / Pg. 2-2) 3

**(B) Answer any one of the following :**

Write any eight basic rules for virtual function that satisfies the compiler requirements. (Ch. 3 / Q. 82 / Pg. 3-72) 4

Define Security. Explain the different elements of security. (Ch. 1 / Q. 65 / Pg. 1-33) 4

**(A) Answer any two of the following :**

Differentiate between Traditional procedural Programming Approach and Object Oriented programming Approach. (Ch. 3 / Q. 2 / Pg. 3-2) 3

Define following terms : 3

(i) Group Item (ii) Elementary Item

(iii) Entity (Ch. 2 / Q. 1 / Pg. 2-1)

What is Binary Tree ? With suitable example show the relationship between Total Number Nodes and Depth of Binary Tree. (Ch. 2 / Q. 42 / Pg. 2-32) 3

**(B) Answer any one of the following :**

What is Record ? Explain how records are represented in memory using array ? 4

(Ch. 2 / Q. 26 & Q. 28 / Pg. 2-19 & 2-21)

Explain following terms in case of Process Scheduling : 4

(i) Turn-around Time (ii) Waiting Time

(iii) Terminal Response Time (iv) Event Response Time (Ch. 1 / Q. 31 / Pg. 1-14)

**Q. 5 Solve any two of the following :**

- (a) Write a C++ program to accept an integer number and test whether it is prime or not. (Ch. 3 / Q. 106 / Pg. 3-91) 5
- (b) Write a program in C++ using OOP technique to compute circumference of circle. (Ch. 3 / Q. 148 / Pg. 3-115) 5
- (c) Write HTML code for following output : (Ch. 4 / Q. 91 / Pg. 4-67) 5

**Cricket Analysis**

Country	Played	Won	Lose
INDIA	30	27	03
PAKISTAN	30	03	27

**OR**

**Q. 5 Solve any two :**

- (a) Write a C" program to find the smallest of four given integers using function min( ) that returns the smallest of four given integers. The function prototype is as below int min (int, int, int, int). (Ch. 3 / Q. 115 / Pg. 3-96) 5
- (b) Write an object oriented program in CH to read an integer number and find the sum of digits of integer [Hint : input 125 output 8 i.e. 1 + 2 + 5 = 8] (Ch. 3 / Q. 167 / Pg. 3-125) 5
- (c) Write the output of the following HTML code :

```
<html>
  <body>
    <UL type = "circle">
      <Li> One
      <Li> Two
      <Li> Three
    <UL type = "square">
      <Li> Monday
      <Li> Tuesday
      <Li> Wednesday
    </UL>
  </UL>
</body>
</html>
```

(Ch. 4 / Q. 92 / Pg. 4-68)