

DAY - ⑤

SEAT NUMBER

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2019 VIII 02

1030

V - 534

(E)

COMPUTER SCIENCE  
PAPER - 1 (D-9)

Time : 3 Hours

5 Pages

Max. Marks : 50

- Instructions : (1) All questions are compulsory.  
(2) Figure to the right indicate full mark.  
(3) Use of any type of calculator is not allowed.  
(4) Draw a neat diagram wherever necessary.

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

(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>

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

(a) Explain the following HTML tags with one example of each :

3

(i) <MARQUEE>

(ii) <SUB>

(iii) <BODY>

(b) Explain any three data structure operations.

3

(c) Explain three states of process in process management of operating system.

3

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.

3

(b) What is Class ? Explain general form of class declaration.

3

(c) What is a Computer Virus ? State any four methods by which virus can infect other programs.

3

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

(a) What is Constructor and Destructor ? Explain each with the help of suitable example.

4

(b) What do you mean by Virtual Memory ? Explain any three terms used in Virtual Memory.

4

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

(a) Write any three characteristics of Friend Function.

3

(b) Explain Conditional Flow and Repeatative Flow used in data structure with diagram.

3

(c) Explain any three components of GUI.

3

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

(a) What is a Virtual Function ? Write any six syntax rules of Virtual Function. 4

(b) What is Data Structure ? Define the following terms of data structure ; 4

(i) Record

(ii) File

(iii) Field

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

(b) Explain any three types of inheritance. 3

(c) What is Operating System ? List any four operating system names. 3

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

(a) Explain the memory representation of Binary Tree with suitable example. 4

(b) Define following terms of process scheduling in operating system : 4

(i) Through put

(ii) Turn around time

(iii) Waiting time

(iv) Response time

5. Answer any two of the following :

(a) Write a C++ program to accept 100 natural numbers. Find and print its sum and average. 5

(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. 5

(c) Write the exact output of the following HTML Code : 5

```
<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>

```

**OR**

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). | <b>5</b> |
| (b) Write a class based C++ program to find the area of a sphere.                              | <b>5</b> |
| (c) Write the HTML Code for following output :   | <b>5</b> |
- 
- |                                 |  |
|---------------------------------|--|
| (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         |  |