

DAY - 18

SEAT NUMBER

0 0 2 0 3 7

2018

III

15

1100

V - 434

(E)

**COMPUTER SCIENCE**  
**PAPER - I (D-9)**

Time : 3 Hours

4 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 not allowed.
  - (4) Draw a neat diagram wherever necessary.

1. (A) Select the correct alternative 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

(B) Answer any two of the following :

(a) What is File System ? Explain tape based and disk based file system.

3

(b) What is VDU ? Explain following terms of VDU :

3

(i) Dumb Terminal

(ii) Intelligent Terminal

(c) What is Array ? Write an algorithm for Traversing Linear Array.

3

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

(a) Define OOP. Write its features.

3

(b) Explain <OL> and <UL> tag used in HTML with example.

3

(c) Explain how member functions of class can be defined outside the class definition and inside class definition with example in C++.

3

(B) Answer any one of the following :

(a) Write the use of following file pointers with example :

4

(i) seekg()

(ii) seekp()

(iii) tellg()

(iv) tellp()

(b) What is GUI ? Explain the following components of GUI :

4

(i) Menu Bar

(ii) Title Bar

(iii) Scroll Bar

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

(a) Explain the following process states :

1/2

(i) Running State

3

(ii) Ready State

(iii) Blocked State

1/2

(b) Explain Constructor and Destructor with example in C++.

3

(c) What is Data Structure ? Explain Linear Data Structure and Non-linear Data Structure.

3

- (B) Answer any one of the following :
- (a) Write any eight basic rules for virtual function that satisfies the compiler requirements. 4
- 2 (b) Define Security. Explain the different elements of security. 4
4. (A) Answer any two of the following :
- (a) Differentiate between Traditional Procedural Programming Approach and Object Oriented Programming Approach. 3
- (b) Define following Terms : 3
- (i) Group Item
- (ii) Elementary Item
- (iii) Entity
- (c) What is Binary Tree ? With suitable example show the relationship between Total Number of Nodes and Depth of Binary Tree. 3
- (B) Answer any one of the following :
- (a) What is Record ? Explain how records are represented in memory using array ? 4
- (b) Explain following terms in case of Process Scheduling : 4
- (i) Turn-around Time
- (ii) Waiting Time
- (iii) Terminal Response Time
- (iv) Event Response Time
5. (A) Solve any two of the following :
- (a) Write a C++ program to accept an integer number and test whether it is prime or not. 5
- (b) Write a program in C++ using OOP technique to compute circumference of circle. 5
- (c) Write HTML code for following output : 5

**Cricket Analysis**

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

OR



5. Solve any two of the following :

- (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). 5
- (b) Write an object oriented program in C++ to read an integer number and find the sum of digits of integer [Hind : input 125 output 8 i.e. 1+2+5=8] 5
- (c) Write the output of the following HTML code : 5

```
<html>
  <body>
    <UL type = "circle">
      <li> One
      <li> Two
      1147 <li> Three
    <UL type = "square">
      <li> Monday
      <li> Tuesday
      <li> Wednesday
    </UL>
    <UL>
  </body>
</html>
```

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