

DAY - 18

SEAT NUMBER

0 7 1 0 4 2

2018	III	15	1100	V - 434	(E)
<b>COMPUTER SCIENCE</b> <b>PAPER - I (D-9)</b>					
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 : 2 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 : 3
    - (i) Running State
    - (ii) Ready State
    - (iii) Blocked State
  - ✓ (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
- (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">
      </i> One
      </i> Two
      </i> Three
    <UL type = "square">
      </i> Monday
      </i> Tuesday
      </i> Wednesday
    </UL>
  </UL>
</body>
</html>
```

Cricket Analysis

Country	Played	Won	Lost
INDIA	30	21	09
PAKISTAN	30	09	21

OR