NEW

Part-III 3-Tier

2018

COMPUTER SCIENCE

PAPER—IVA

(General)

Full Marks : 45

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group—A

Answer any *one* question :   1×15

1. (a) What are the advantages of oops in C++.   3

   (b) Why iostream header file is used ?   2

(c) What do you mean by cascading of I/0 operator ?

3

(d) What is constructor ? 2

(e) What is inheritance and what are the types of inheritance ? 2+3

2. (a) Briefly describe the seven layered architecture of TCP/IP Model. 8

(b) What are the major component of LAN ? Describe each of them. 7

Group—B

Answer *Q. No. 3* and any *two* from the rest : 4+(2×8)

3. Briefly describe the principle operation of a MODEM.

4

4. (a) What is a Domain Name System (DNS) ? 3+5

(b) Define NetId and HostId of a network. Classify IPv4 addresses and specifly their ranges.

(Continued)

5. Distinguish between Router, Gateway Hub and Bridge.

8

6. (a) Write a C++ program to check whether a number is prime or not. 5

(b) Write the characteristics of friend function. 3

Group—C

Answer *Q. No. 7* and any *two* from Q. No. 8 :

2+(2×4)

7. What is full duplex line ? 2

8. Write short notes on (any *two*) : 4×2

(a) TDM ;

(b) CRC ;

(c) Scope resolution operator.

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(Turn Over)

NEW

Part-III

2018

COMPUTER SCIENCE

PAPER—IVB

(General)

Full Marks : 20

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer any *one* question :   1×15

1. Write a program in C++ to find maximum of three numbers.   15

2. Write a program in C++ to generate a Fibonacci number between 15 and 50.   15

3. Write a program in C++ using constructor to find average of two numbers.   **15**

4. Write a program in C++ to show the concept of single inheritance.   **15**

5. Write a program in C++ to draw the following figure :

```
  *
 * *
  * * *
   * * * *
```
    15

6. Write a program in C++ to add two matrices.   **15**

7. Write a program in C++ to find the square root of a number using inline function.   **15**

8. Write a program in C++ to show function overloading.

9. Write a program in C++ to arrange a set of numbers in ascending order.   **15**

10. Write a program in C++ to find whether a given number is divisible by 3, 5 or 7.   **15**

[*Viva + PNB — 05 Marks*]

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