

NEW
Part-III 3-Tier
2016
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 is Duplex? Give one example of it.
(b) Differentiate between Mesh Topology and Star Topology.
(c) Write the application of Data Link Layer.
3+4+8

2. (a) What is guided media? Write the applications of different types of guided media.
(b) Differentiate between guided media and unguided media.
(c) Write a few advantages of communication through fiber-optic.
(2+6)+4+3

(Turn Over)

Group—B

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

3. What are the differences between OSI and TCP/IP model? 4
4. (a) What are the characteristics of LAN?
(b) Compare between LAN and WAN. 4+4
5. (a) What is PROTOCOL? What is www?
(b) Describe Data Link layer protocol. (2+2)+4
6. What is modulation? Write down the different techniques of Analog signal modulation. 2+6

Group—C

Answer Q. No. 7 and any two from the rest: 2+(4×2)

7. What is Internet? 2
8. Explain the terms — Repeaters and a Routers. 2+2
9. Write short note on ISDN. 4
10. Briefly discuss e-mail system. 4

NEW
Part-III 3-Tier
2016
COMPUTER SCIENCE
PAPER—IVB (SET — 1)
(General)
(PRACTICAL)

Full Marks : 25

Time : 1 $\frac{1}{2}$ Hours

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

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any one from the rest.

1. (a) Identify the following components of a computer system and explain their functions : 5
- (i) Function key on key board ;
 - (ii) USB Port ;
 - (iii) Laser printer ;
 - (iv) Port ;
 - (v) Optical mouse.

(Turn Over)

(b) Connect the following parts of the computer system :

5

(i) RAM ;

(ii) Hard disk ;

(iii) Mouse ;

(iv) C.P.U. ;

(v) Key board.

2. Write a program in VB or VC++ to verify whether the current year is leap year or not. 10

3. Write a program in VB or VC++ to find all the prime numbers within a given range. 10

4. Write a program in VB or VC++ to sum the following series*

$$1 - \frac{1}{2} + \frac{1}{3} \dots \dots + \frac{1}{n} . \quad 10$$

5. Write a program in VB or VC++ to check whether a number is perfect square or not. 10

6. Write a program in VB or VC++ to print the non-Fibonacci Series from 1 to 100. 10

[VIVA + PNB — 05 marks]

NEW
Part-III 3-Tier
2016
COMPUTER SCIENCE
PAPER—IVB (SET — 2)
(General)
(PRACTICAL)

Full Marks : 25

Time : 1 $\frac{1}{2}$ 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 Q. No. 1 and any one from the rest.

1. (a) Identify the following components of a computer system and explain their functions : 5
- (i) Micro SD Card ;
 - (ii) Bluetooth device ;
 - (iii) Electronic Pen ;
 - (iv) Optical Mark reader ;
 - (v) Scanner.

(Turn Over)

(b) Connect the following parts of the computer system :

5

- (i) Monitor ;
- (ii) Printer ;
- (iii) Internet connection ;
- (iv) Mouse ;
- (v) WiFi.

2. Write a program in VB or VC++ to add first seven terms of the following series : 10

$$\frac{1}{1!} + \frac{2}{2!} + \frac{3}{3!} + \dots$$

3. Write a program in VB or VC++ to generate all combinations of 1, 2 and 3. 10

4. Write a program in VB or VC++ to print all prime numbers from 1 to 100. 10

5. Write a program in VB or VC++ to print the multiplication table of the number entered by the user. The table should get displayed in the following form. 10

$$15 * 1 = 15$$

$$15 * 2 = 30.$$

6. Write a program in VB or VC++ that connects the MS-Access database and display the employee details in the level from the employee table is given below :

Emp (empname, empcode, address, salary) 10

[PNB + VIVA — 05 marks]