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**SET - 1**

# **BACHELOR OF COMPUTER APPLICATIONS**

**Term-End Practical Examination**

00001

**December, 2013**

## **BCSL-056 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time allowed : 1 hour*

*Maximum Marks : 50*

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**Note :** *There are two compulsory questions, 20 marks each. 10 marks are for viva-voce.*

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1. Write and run a client and a server program using C- language in UNIX with the following specification : 20
  - A UDP client will send a string to the server.
  - Server will check the string, whether it is palindrome or not.

If 'yes' server will sent "1" else "0" to the client.
2. Configure a remote server and transfer a directory to Remote Server in Linux. 20

Demonstrate step by step procedure.

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SET - 2

## BACHELOR OF COMPUTER APPLICATIONS

### Term-End Practical Examination

01951

December, 2013

### BCSL-056 : NETWORK PROGRAMMING AND ADMINISTRATION LAB

Time allowed : 1 hour

Maximum Marks : 50

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**Note :** There are *two compulsory* questions, 20 marks each. 10 marks are for *vive-voce*.

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1. Write and run a client and a server program using C language in Unix as per the following specifications : 20
    - A TCP client program will establish a connection and send a text string to the server.
    - A TCP server will accept the string and send back the sum of ASCII values of each character in the string.
  2. Write down the UNIX/LINUX Command for the following operations : (verify the results) 20
    - (a) Find the subnet marking and physical address of a machine in Unix/Linux.
    - (b) Enable authentication for single-user mode on Linux.
-

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**SET - 3**

# **BACHELOR OF COMPUTER APPLICATIONS**

**Term-End Practical Examination**

01814

**December, 2013**

## **BCSL-056 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time allowed : 1 hour*

*Maximum Marks : 50*

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**Note :** *There are two compulsory questions, 20 marks each. 10 marks are for viva-voce.*

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1. Write and run a client and a server program using C language in UNIX, with the following suggestions : 20
    - A UDP Client program should send 3 numbers to the server.
    - UDP server should send back the largest among the 3 numbers to the respective client.
  2. Run the following commands on Linux and show/write their outputs. 20

(a) IP config	(b) verifier
(c) diskperf	(d) n slookup
-

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SET - 4

# BACHELOR OF COMPUTER APPLICATIONS

Term-End Practical Examination

00755

December, 2013

## BCSL-056 : NETWORK PROGRAMMING AND ADMINISTRATION LAB

Time allowed : 1 hour

Maximum Marks : 50

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**Note :** There are two compulsory questions, 20 marks each. 10 marks are for viva-voce.

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1. Write and run a client and a server program in C language using TCP in UNIX. The client should send two strings (String 1 and String 2) to the server. The server must append to string 2 to sting 1 and send the find the client. Finally client will print the result. 20
2. Create and Configure Samba Server in Linux. Demonstrate step by step procedure. 20

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**SET - 1**

## **BACHELOR OF COMPUTER APPLICATIONS (BCA)**

**Term-End Practical Examination**

00320

**June, 2014**

**BCSL-056 : Network Programming and Administration Lab**

*Time allowed : 1 hour*

*Maximum Marks : 50*

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**Note :** *There are two compulsory questions, 20 marks each. 10 marks are for viva-voce.*

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1. Write and run a client and server program using C - language in UNIX as per following details :
  - TCP client program will establish connection and send a text string to the server.
  - The TCP server will accept the string and send back the reverse of this string.
2. Configure a Remote Server and transfer a Directory to Remote Server in Linux.

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**SET - 2**

## **BACHELOR OF COMPUTER APPLICATIONS (BCA)**

**Term-End Practical Examination**

01610

**June, 2014**

**BCSL-056 : Network Programming and Administration Lab**

*Time allowed : 1 hour*

*Maximum Marks : 50*

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**Note :** *There are two compulsory questions, 20 marks each. 10 marks are for viva-voce.*

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1. Write and run a client and a server program using C - language in UNIX, with the following details :
  - A UDP client will send 3 numbers to the server.
  - UDP server will send back the largest among 3 numbers to the respective client.
2. Configure and test the inbuilt firewall in Linux.

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**SET - 3**

## **BACHELOR OF COMPUTER APPLICATIONS (BCA)**

### **Term-End Practical Examination**

00260

**June, 2014**

#### **BCSL-056 : Network Programming and Administration Lab**

*Time allowed : 1 hour*

*Maximum Marks : 50*

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**Note :** *There are two compulsory questions, 20 marks each. 10 marks are for viva-voce.*

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1. Write and run a client and a server program using C - language in UNIX with the following specification :
  - A UDP client will send a string to the server.
  - Server will check the string and send its ASCII value to the respective client.
2. Configure FTP server in Linux then install and test a FTP client.

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**SET - 4**

# **BACHELOR OF COMPUTER APPLICATIONS (BCA)**

**Term-End Practical Examination**

00090

**June, 2014**

**BCSL-056 : Network Programming and Administration Lab**

*Time allowed : 1 hour*

*Maximum Marks : 50*

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**Note :** *There are two compulsory questions, 20 marks each. 10 marks are for viva-voce.*

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1. Write and run a client and a server program using C - language in UNIX as per following specification :
  - A TCP client program will establish a connection and send a text string to the server.
  - TCP server will accept the string and send back the number of vowels in the string.
2. Configure and test *Telnet* in Linux.

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**BCSL-056(P)/S1**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

**December, 2015**

**BCSL-056(P)/S1 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce.*

---

1. Write and run a TCP Client and a TCP Server program using 'C' language in Unix/Linux according to the following specifications : 20
    - Client will send a text string to the Server.
    - Server will send back the number of characters in the string to the respective Client.
  2. Configure a Remote Server and transfer a directory to the Remote Server in Linux. Demonstrate the step-by-step procedure. 20
-

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**BCSL-056(P)/S2**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00019

**Term-End Practical Examination**

**December, 2015**

**BCSL-056(P)/S2 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce.*

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1. Write and run a Client and a Server program using 'C' language in Unix/Linux with the following specifications : 20
    - UDP Client will send a list of numbers to the Server.
    - UDP Server will return the smallest number to the respective Client.
  2. Configure FTP Server in Linux machine and install FTP Client. Also show the file transfer. 20
-

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**BCSL-056(P)/S3**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00549

**Term-End Practical Examination**

**December, 2015**

**BCSL-056(P)/S3 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce.*

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1. Write and run a UDP Client and a UDP Server program using 'C' language in Unix/Linux as per the following specifications : 20
  - Client will send two numbers to the Server.
  - Server will return multiplication of these numbers back to the respective Client.
2. Configure Telnet Service in the Linux. Also test the Communication. 20

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**BCSL-056(P)/S4**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

00939

**December, 2015**

**BCSL-056(P)/S4 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce.*

- 
1. Write and run a UDP Client and a UDP Server program using 'C' language in Unix/Linux operating system as per the following specifications : 20
    - Client will sent "hello" message to the Server.
    - UDP Server will return back with a "welcome" message to that Client.
  2. Create a group named "Student" using GUI tool in Linux. Write the rules and set permission for this new group. 20

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**BCSL-056(P)/S1**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00988

**Term-End Practical Examination**

**June, 2016**

**BCSL-056(P)/S1 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

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1. Write and run a TCP Client and a TCP Server program using 'C' language in Unix/Linux according to the following details : 20
  - Client will send a character to the server, after connection establishment.
  - Server will return back the ASCII value of this character to the respective client. Assume the server can have maximum 5 concurrent clients.
2. Configure an FTP Server on a Linux/Unix operating system. Test the FTP Client/Server communication through different machines. 20

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BCSL-056(P)/S2

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

**June, 2016**

**BCSL-056(P)/S2 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

1. Write and run a TCP Client and a TCP Server program using 'C' language in Unix/Linux as per the following details : 20
  - Client program will send a string including characters and numbers, to the server.
  - Server will extract these numbers from this string and return back to the client.
2. Configure and test Telnet in Linux. 20

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**BCSL-056(P)/S3**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00616

**Term-End Practical Examination**

**June, 2016**

**BCSL-056(P)/S3 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

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1. Write and run a UDP Client and a UDP Server program using 'C' language in Unix/Linux as per the following details : 20
  - Client program will send any two numbers to the UDP Server (randomly).
  - Server program will return the multiplication of these numbers to the respective UDP Client.
2. Install and configure the POP and IMAP Server in Linux. 20

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**BCSL-056(P)/S4**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00916

**Term-End Practical Examination**

**June, 2016**

**BCSL-056(P)/S4 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

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1. Write and run a UDP Client and a UDP Server program using 'C' language in Unix/Linux as per the following details : 20
  - Client will send a text string to the server program.
  - Server will check whether this given string is a "Palindrome" or not. If yes, the server will return "Yes" otherwise "No" to the respective client.
2. Install and configure a proxy server on Linux. 20

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**BCSL-056(P)/S1**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

01003

**Term-End Practical Examination**

**December, 2016**

**BCSL-056(P)/S1 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a TCP client and a TCP server program using 'C' language in Unix/Linux as per the following details : 20
    - A TCP client program should send 3 numbers to the server. Server can have maximum 3 clients at a time.
    - The server should send back the largest among the 3 numbers to the respective client.
  2. Create and configure Samba Server in Linux. Demonstrate the step-by-step procedure. 20
-

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**BCSL-056(P)/S2**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

**December, 2016**

01433

**BCSL-056(P)/S2 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a client and a server program using 'C' language in Unix/Linux with the following specifications : 20
    - A UDP client will send a string to the server.
    - The server will check the string, whether it is a palindrome or not. If yes, the server will send reply as "palindrome found" else send the string "no palindrome found" to the respective client.
  2. Configure a remote server and transfer a directory to the remote server in Linux. Demonstrate the step-by-step procedure. 20
-

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**BCSL-056(P)/S3**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00813

**Term-End Practical Examination**

**December, 2016**

**BCSL-056(P)/S3 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a TCP Client and a TCP Server program using 'C' language in Unix/Linux according to the following details : 20
    - Client will send a character to the server.
    - Server will return back the ASCII value of this character to the respective client.
  2. Create a Group named Student in Unix/Linux. Write the rules and set permission for this group so that only students and teacher can create files and folders. 20
-

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**BCSL-056(P)/S4**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

**December, 2016**

**BCSL-056(P)/S4 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a UDP client and a UDP server program using 'C' language in Unix/Linux as per the following specifications : 20
    - Client will send a roll number to the server.
    - Server will fetch the corresponding name against this roll number from the stored record and send back to the respective client.
  2. Configure and test the inbuilt Firewall in Linux Operating System. 20
-

No. of Printed Pages : 1

**BCSL-056(P)/S1**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

02325

**June, 2017**

**BCSL-056(P)/S1 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a TCP client and a TCP server program using 'C' language in Unix/Linux according to the following specifications : 20
  - Client program will send a string of characters to the specific server.
  - Server program will count the number of characters in the given string and return back to the respective client.
2. Configure an FTP server on Linux/Unix platform. Test the FTP server by sending files from different FTP clients available at different machines in a LAN. 20

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**BCSL-056(P)/S2**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**01885**

**Term-End Practical Examination**

**June, 2017**

**BCSL-056(P)/S2 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

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1. Write a UDP client and a UDP server program in 'C' language in Unix/Linux as per the following specifications : 20
    - A UDP client program and a UDP server should be available at different machines in a LAN. UDP client should send a series of numbers to the server.
    - UDP server will find the largest number and return back to the respective client.
  2. Create and configure Samba server in Linux. Demonstrate each and every step. 20
-

No. of Printed Pages : 1

**BCSL-056(P)/S3**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00795

**Term-End Practical Examination**

**June, 2017**

**BCSL-056(P)/S3 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

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1. Write and run a TCP client and a TCP server program in 'C' language in Unix/Linux. TCP client will send two text strings to the server i.e., String A and String B. TCP server will concatenate String A and String B and send the result back to the respective client. 20
  2. Write down the Unix/Linux commands for the following operations (verify the results) : 20
    - (a) Enable authentication for single-user mode on Linux operating system.
    - (b) Find the subnet mask and physical address of a machine in Unix/Linux.
-

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**BCSL-056(P)/S4**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00805

**Term-End Practical Examination**

**June, 2017**

**BCSL-056(P)/S4 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a TCP client and a TCP server program in 'C' language in Unix/Linux as per the following specifications : 20
    - Client program will send a string of characters to the server.
    - Server will extract the vowels in the given string and return back to the respective client.
  2. Configure and test the **Telnet** server in Linux. 20
-



**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

**December, 2017**

00532

**BCSL-056(P)/S1 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a TCP client and a TCP server program using 'C' language in Unix/Linux as per the following details : 20
    - TCP client will establish a connection and send any two numbers to the server.
    - TCP server will return the multiplication of these numbers to the client.
  2. Create a group named "BCA" using GUI tool in Linux. Also, create a group administrator for this group "BCA". Write the rules and set the permissions for this group and group admin. 20
-

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**BCSL-056(P)/S2**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

**December, 2017**

01562

**BCSL-056(P)/S2 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

- 
1. Write and run a UDP client and a UDP server program using 'C' language in Unix/Linux operating system as per the following details : 20
    - UDP client will send a text string to the client.
    - UDP server will return its reverse order to the client.
  2. Configure and set the rules in the inbuilt firewall of Linux server. 20
-

No. of Printed Pages : 1

**BCSL-056(P)/S3**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

00552

**December, 2017**

**BCSL-056(P)/S3 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

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1. Write and run a UDP client and a UDP server program using 'C' language in Unix/Linux as per the following details : 20
    - UDP client will send an enrollment number of a BCA student.
    - UDP server will fetch the corresponding name against this enrollment number from the stored records and send back to the client.
  2. Configure the Samba server in the Linux operating system. 20
-

No. of Printed Pages : 1

**BCSL-056(P)/S4**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

00252

**December, 2017**

**BCSL-056(P)/S4 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

- 
1. Write and run a TCP client and a TCP server program in 'C' language in Unix/Linux as per the following details : 20
    - TCP client will establish a connection with the server and send two text strings to the server.
    - TCP server will concatenate these strings and send back to the client.
  2. Install and configure the POP and IMAP server in Linux operating system. 20
-

No. of Printed Pages : 1

**BCSL-056(P)/S1**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

**June, 2018**

01989

**BCSL-056(P)/S1 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a TCP client and a TCP server program using 'C' language in Unix/Linux as per the following details : 20
    - Client program will send three numbers to the server.
    - Server will return the smallest number to the client.
  2. Write the command(s) to perform the following operations : 20
    - (a) To enable authentication for single user mode on Linux.
    - (b) Find the Round Trip Time (RTT) of a packet from the server.
-

No. of Printed Pages : 1

**BCSL-056(P)/S2**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

01097

**Term-End Practical Examination**

**June, 2018**

**BCSL-056(P)/S2 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a UDP client and a UDP server program using 'C' language in Unix/Linux as per the following details : 20
    - UDP client will send a string to the server.
    - Server will return the ASCII value of that string to the client.
  2. Write the command(s) to perform the following operations : 20
    - (a) Print out the header of network packets.
    - (b) List the routers your connection crosses when reaching out to a remote system.
-

No. of Printed Pages : 1

**BCSL-056(P)/S3**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

00689

**Term-End Practical Examination**

**June, 2018**

**BCSL-056(P)/S3 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a UDP client and a UDP server program using 'C' language in Unix/Linux as per the following details : 20
    - Client program will send employee ID to the server.
    - Server will fetch the corresponding name against this employee ID from the stored file and send back to the client.
  2. Configure the DHCP Server on the Linux operating system. 20
-

No. of Printed Pages : 1

**BCSL-056(P)/S4**

**BACHELOR OF COMPUTER APPLICATIONS (Revised)  
(BCA)**

**Term-End Practical Examination**

**June, 2018**

00291

**BCSL-056(P)/S4 : NETWORK PROGRAMMING AND ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** *There are two **compulsory** questions carrying 20 marks each. Remaining 10 marks are for viva-voce. Make suitable assumptions, if any.*

---

1. Write and run a TCP client and a TCP server program in 'C' language in Unix/Linux as per the following details : 20
    - TCP client will establish a connection with the server and send two numbers to the server.
    - TCP server will calculate the multiplication of these numbers and return to client.
  2. Install and configure the SMTP Server on Linux operating system. 20
-



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BCSL-056/S1

**Bachelor of Computer  
Application (Revised) (BCA)  
Term-End Examination  
December, 2018  
NETWORK PROGRAMMING AND  
ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

- 
- Note :**
- (i) There are *two* compulsory questions of 20 marks each.
  - (ii) Rest 10 marks are for viva-voce.
  - (iii) Make suitable assumptions if any.
-

[2]

1. Write and run a TCP client and a server program using C-language in Linux/Unix environment to perform the following tasks : 20
  - (a) Establish a TCP connection between a TCP client and a TCP server.
  - (b) The client program sends two strings to the server.
  - (c) The server program returns 'YES' if both the strings are equal and 'NO' if both are not equal.
2. Write the commands to perform the following tasks : 20
  - (a) To provide information about network interfaces and all assigned IP addresses.
  - (b) To provide a list of all routers your connection cross when reaching out to a remote system.

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**BCSL-056/S2**

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**December, 2018**

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*Time : 1 Hour*

*Maximum Marks : 50*

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- Note :**
- (i) There are *two* compulsory questions of 20 marks each.
  - (ii) Rest 10 marks are for viva-voce.
  - (iii) Make suitable assumptions if any.
-

[2]

MCSL-045/S3

1. Write and run a UDP client and a UDP server using C-language in Unix/Linux for performing the following tasks : 20
  - (a) Establish a UDP connection between a UDP client and a UDP server.
  - (b) UDP client will send two variables  $a$  and  $b$  with values 15 and 20 respectively.
  - (c) The server program will swap the values of these variables i. e.,  $a$  will have 20 and  $b$  will be assigned to 15 and return it to the client.
2. Write the commands to perform the following tasks : 20
  - (a) Does a DNS query for the user (i. e. find out IP address for a particular system or system name).
  - (b) To ensure that a network connection can be established with a remote system or test whether a network connection is good or not.

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**Bachelor of Computer  
Application (Revised) (BCA)  
Term-End Examination**

**December, 2018**

**NETWORK PROGRAMMING AND  
ADMINISTRATION LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

- 
- Note :** (i) There are *two* compulsory questions of 20 marks each.
- (ii) Rest 10 marks are for viva-voce.
- (iii) Make suitable assumptions, if any.
- 
-

[2]

MCSL-045/S3

1. Write and run a UDP client and a UDP server program using 'C' language in Unix/Linux for performing the following tasks : 20
  - (a) Establish a UDP connection between a UDP client and a UDP server.
  - (b) A UDP client will send a string to a server.
  - (c) The server program counts the number of vowels in the string and returns the value to the client.
2. Write the commands to perform the following tasks : 20
  - (a) Displays all connections including TCP and UDP as well as all multicast connections.
  - (b) To enable authentication for a single user mode on Linux.

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BCSL-056/S3

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**BCSL-056/S4**

**Bachelor of Computer  
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Term-End Examination  
December, 2018**

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*Time : 1 Hour*

*Maximum Marks : 50*

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- Note :** (i) There are *two* compulsory questions of 20 marks each.
- (ii) Rest 10 marks are for viva-voce.
- (iii) Make suitable assumptions, if any.
- 
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[2]

MCSL-045/S3

1. Write and run a TCP client and a TCP server program in C-language in Linux/Unix environment to perform the following tasks : 20

- (a) Establish a TCP connection between a TCP client and a TCP server.
- (b) A TCP client program will send the following numbers :

5, 10, 2, 4, 7, 3

to the server program.

- (c) A TCP server will sort the numbers in descending order.

2. Write the command(s) to perform the following tasks : 20

- (a) Checking the status of destination host and communication with another host name.
- (b) Finding host/domain name and IP address.

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BCSL-056/S4

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