

BACHELOR OF COMPUTER APPLICATIONS (BCA)

(Revised Syllabus)

BCA(Revised Syllabus)/ASSIGN/SEMESTER-VI

ASSIGNMENTS

(July - 2024 & January - 2025)

**(BCS-062, MCS-022,
BCSL-063)**



**SCHOOL OF COMPUTER AND INFORMATION SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI – 110 068**

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Important Notes

1. Submit your assignments to the Coordinator of your Study Centre on or before the due date.
2. Assignment submission before due dates is compulsory to become eligible for appearing in corresponding Term End Examinations. For further details, please refer to BCA Programme Guide.
3. To become eligible for appearing the Term End Practical Examination for the lab courses, it is essential to fulfill the minimum attendance requirements as well as submission of assignments (on or before the due date). For further details, please refer to the BCA Programme Guide.

Course Code	:	BCS-062
Course Title	:	E-Commerce
Assignment Number	:	BCA(VI)062/Assignment/2024-25
Maximum Marks	:	100
Weightage	:	25%
Last Date of Submission	:	31st October, 2024 (For July, Session) 30th April, 2025 (For January, Session)

There are eight questions in this assignment. Each question carries 10 marks. Rest 20 marks are for viva-voce. Answer all the questions. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the Programme Guide for the format of presentation.

Question 1:

Discuss the evolution of eCommerce and its impact on traditional retail. Describe key milestones in the development of eCommerce. Analyze how eCommerce has transformed traditional retail businesses. Provide examples of companies that have successfully transitioned to eCommerce. **(10 Marks)**

Question 2:

Explain the different types of eCommerce models and define them. Discuss the advantages and disadvantages of each model. Provide examples of businesses operating in each model. **(10 Marks)**

Question 3:

Analyze the role of mobile commerce (mCommerce) in the eCommerce landscape. Describe the growth and significance of mCommerce. Discuss the technological advancements that have facilitated mCommerce. Explore the challenges and opportunities of mCommerce. **(10 Marks)**

Question 4:

Discuss the impact of social media on eCommerce. Explain how social media platforms can be used for eCommerce marketing. Analyze the benefits and challenges of social commerce. Provide examples of successful social media campaigns by eCommerce companies. **(10 Marks)**

Question 5:

Examine the legal and ethical issues in eCommerce. Discuss the key legal considerations for eCommerce businesses (e.g., privacy, security, intellectual property). Explore ethical issues such as consumer protection and data ethics. Provide examples of eCommerce businesses addressing these issues. **(10 Marks)**

Question 6:

Analyze the significance of payment gateways in eCommerce transactions. Describe the function of payment gateways. Discuss the factors to consider when choosing a payment gateway. Provide examples of popular payment gateways and their features. **(10 Marks)**

Question 7:

Examine the influence of emerging technologies on eCommerce. Discuss the impact of technologies such as artificial intelligence, blockchain, and augmented reality on eCommerce. Explore how these technologies can enhance the customer experience and operational efficiency. Provide examples of eCommerce businesses utilizing these technologies. **(10 Marks)**

Question 8:

Evaluate the challenges and solutions for cybersecurity in eCommerce. Discuss common cybersecurity threats faced by eCommerce businesses. Explain the measures that can be taken to protect against these threats. Provide examples of eCommerce companies with robust cybersecurity practices. **(10 Marks)**

Course Code	:	MCS-022
Course Title	:	Operating System Concepts and Networking Management
Assignment Number	:	BCA(VI)/022/Assignment/2024-25
Maximum Marks	:	100
Weightage	:	25%
Last Dates for Submission	:	31st October, 2024 (For July, Session)
	:	30th April, 2025 (For January, Session)

Answer all the questions of the assignment having 80 marks in total. 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the Programme Guide for the format of presentation. Answer of each part of the question should be confined to about 300 words.

Q1.

- (a) Compare and contrast the Distributed operating system with the Network operating system. Give an example of each. **(6 Marks)**
- (b) Define a Real Time Operating System. Give any two examples of a real time operating system. **(4 Marks)**

Q2.

- (a) What is EFS service? Describe the concept of encryption using EFS service. **(5 Marks)**
- (b) Compare TFTP and FTP. Which protocol is used by TFTP at the transport layer and why? **(5 Marks)**

Q3.

- (a) List and explain the file systems supported by Linux operating system. Also, write the security features provided by Linux in each file system. **(5 Marks)**
- (b) Compare and Contrast the "Mandatory Access Control" and "Discretionary Access Control" mechanism in windows 2000. **(5 Marks)**

Q4. Write the step-by-step procedure to create a group named "MCS022". Now add a user "SOCIS" in Windows 2000 operating system. Assume user "SOCIS" is already a member of the guest account in your system. Also explain the basic purpose of enabling the offline features in Windows 2000 operating system. **(10 Marks)**

Q5. Answer the following questions related to Linux commands: **(10 Marks)**

- (i) Show the users logged in on the network.
- (ii) List the files having more than one digit in the name.
- (iii) Tell the system to run the process continuously even if the user logs out.
- (iv) To allow a user to communicate with another user, logged in by splitting the screen and providing two-way communication.
- (v) To kill a process after one hour.

Q6.

- (a) List and describe the various security features in Windows 2000 operating system. **(5 Marks)**
- (b) What is Virtual Memory? Explain the abstract model of virtual to physical address mapping with reference to Linux operating system. **(5 Marks)**

Q7. Write a Linux shell script for automatic grouping of files given in a directory. All files will be grouped on the basis of their size and will be saved into the newly created folders based on file size groups given below: Files will be grouped into 0 to 5 kB, 5 kB to 5 MB, 5 MB to 1 GB and greater than 1 GB. **(10 Marks)**

Q8. Write short notes on the following: **(10 Marks)**

- (a) LAN Topologies
- (b) Token Ring
- (c) Network Monitoring Tools
- (d) Firewall
- (e) Active Directory in Windows 2000

Course Code	:	BCSL-063
Course Title	:	Operating System Networking Management Lab
Assignment Number	:	BCA(VI)/L-063/Assignment/2024-25
Maximum Marks	:	50
Weightage	:	25%
Last date of Submission	:	31st October, 2024 (For July, Session)
	:	30th April, 2025 (For January, Session)

Note: Answer all the questions in the assignment having 40 marks in total. 10 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the Programme Guide for the format of presentation. Make suitable assumption if necessary.

- Q1. (8 Marks)**
- Write a shell script which will accept the PID of a process and display the details of that process.
 - Create Remote Access Policy. Show how you can change to Remote Access Logging setting in Windows 2000.
- Q2. (8 Marks)**
- Write a shell program to scan all the files in a particular directory and list only those files which start (file_name) with "a" or "A".
 - Install and configure TCP/IP settings in LINUX/UNIX operating system. Explain with step by step procedure.
- Q3. (8 Marks)**
- Create a user account in the LINUX/UNIX Server. Set its password and define its permission like an administrator.
 - Configure a DNS Server as a Root Name Server in Windows 2000 Server. Explain with step by step procedure.
- Q4. (8 Marks)**
- In LINUX/UNIX system, access your account available at a remote machine. Download a file from the remote location, modify that file and upload back to the remote machine.
 - Configure TCP/IP setting in LINUX/UNIX. Assume IP address is 192.168.1.2 and Port is 446. Explain with step by step procedure.
- Q5. List and execute the following LINUX/UNIX commands: (8 Marks)**
- To list all the current users logged in the system.
 - To print and set the date.
 - To show the reference and name of the terminal.
 - To create a new file with name "abc" in the current directory.
 - To kill a process with its PID.