

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

## **(Revised Syllabus)**

BCA(Revised Syllabus)/ASSIGN/SEMESTER-VI

### **ASSIGNMENTS**

**(July - 2021 & January - 2022)**

**(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(6)062/Assignment/2021-22**  
**Maximum Marks** : **100**  
**Weightage** : **25%**  
**Last Date of Submission** : **31<sup>st</sup> October, 2021 (For July, Session)**  
**15<sup>th</sup> April, 2022 (For January, Session)**

**This assignment has two questions for a total of 80 marks. Answer both the questions. Rest 20 marks are for viva voce.**

**Q1:** Explain the process of designing a secure E-Commerce portal. Make necessary assumptions as well as list them. **(40 Marks)**

**Q2:** Give any one example of a Mobile APP using which you can use for translating English to Hindi and vice-versa. List the features of that APP which you liked and those which you did not like. **(40 Marks)**

<b>Course Code</b>	:	<b>MCS-022</b>
<b>Course Title</b>	:	<b>Operating System Concepts and Networking Management</b>
<b>Assignment Number</b>	:	<b>BCA(6)/022/Assignment/2021-22</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Weightage</b>	:	<b>25%</b>
<b>Last Dates for Submission</b>	:	<b>31<sup>st</sup> October, 2021 (For July, Session)</b>
	:	<b>15<sup>th</sup> April, 2022 (For January, Session)</b>

**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) Discuss the two approaches which improves the performance of a system through overlapping of input, output and processing operations. **(5 Marks)**
- (b) Briefly explain the purpose of the following directories of Linux OS. **(3 Marks)**
- (i) /usr/bin
- (ii) /sbin
- (iii) /mnt
- Q2:** What are the two modes in which windows 2000 OS works? Discuss its architecture with the help of a diagram. **(8 Marks)**
- Q3:** (i) Explain the process used by Kerberos to authenticate network clients logging onto a windows 2000 domain. **(6 Marks)**
- (ii) What is meant by a trust relationship? Explain the importance of Kerberos and Domain controllers in maintaining trust relationship. **(6 Marks)**
- Q4:** (i) What is a fire wall? How does It secure the system? Explain its limitations. **(6 Marks)**
- (ii) What are the security services provided by the Ip Sec? **(5 Marks)**
- Q5:** Explain the step by step processes of sharing files, folders and devices in windows XP. **(6 Marks)**
- Q6:** Write the purpose of VPN and list VPN technologies supported by windows 2000. **(5 Marks)**
- Q7:** Explain the followings with reference to “Hardening in windows 2000 OS. **(6 Marks)**
- (i) Hardening the OS and application code
- (ii) Hardening the files system security
- Q8:** Explain the various components of Linux OS. **(8 Marks)**

- Q9:** Explain the architecture of Simple Network Management Protocol (SNMP) **(8 Marks)**
- Q10:** Describe the various file access control mechanisms provided by Linux OS with appropriate examples. **(8 Marks)**

<b>Course Code</b>	:	<b>BCSL-063</b>
<b>Course Title</b>	:	<b>Operating System Networking Management Lab</b>
<b>Assignment Number</b>	:	<b>BCA(6)/L-063/Assignment/2021-22</b>
<b>Maximum Marks</b>	:	<b>50</b>
<b>Weightage</b>	:	<b>25%</b>
<b>Last date of Submission</b>	:	<b>31<sup>st</sup> October, 2021 (For July, Session)</b>
	:	<b>15<sup>th</sup> April, 2022 (For January, Session)</b>

**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:** Run the following commands and write its outputs and its uses. **(10 Marks)**

(i) Ping (ii) Ipconfig (iii) nslookup (iv) finger (v) nettime

**Q2: (i)** Write and run a simple shell script that takes a path of a directory as a command line argument and list all files and folders inside the given directory. **(5 Marks)**

**(ii)** Write and run a simple shell script which displays each of the command line arguments, one at a time and stops displaying command line arguments when it gets an argument whose value is “stop”. **(5 Marks)**

**Q3:** Write the procedures for the following tasks:

(i) To configure a DNS server as a sort name server in windows 2000. **(6 Marks)**

(ii) Configure a window client as a VPN client in windows 2000. **(6 Marks)**

(iii) Installation and configuration of a DHCP server services in windows 2000. **(8 Marks)**