

BACHELOR OF COMPUTER APPLICATIONS (BCA)

(Revised Syllabus)

BCA(Revised Syllabus)/ASSIGN/SEMESTER-VI

ASSIGNMENTS

(July - 2019 & January - 2020)

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



**SCHOOL OF COMPUTER AND INFORMATION SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
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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/2019-20
Maximum Marks	:	100
Weightage	:	25%
Last Date of Submission	:	15th October, 2019 (For July 2019 Session)
	:	15th April, 2020 (For January 2020 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 M-Commerce portal. How does it differ from designing a secure E-Commerce portal. Make necessary assumptions as well as list them. **(40)**
- Q2.** Give any one example of a Mobile APP using which you can order food. List the features of that APP which you liked and those which you did not like. **(40)**

Course Code	:	MCS-022
Course Title	:	Operating System Concepts and Networking Management
Assignment Number	:	MCA (6)/022/Assignment/2019-20
Maximum Marks	:	100
Weightage	:	25%
Last Date of Submission	:	15th October, 2019 (For July 2019 session) 15th April, 2020 (For January 2020 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) What are the two criteria for classification of the advanced operating systems ? Discuss any two operating systems in both the categories. **(6)**
- (b) Discuss the key characteristics of modern operating system. **(5)**
- Q2.** Discuss the objectives and primary functions of the following connecting devices: **(6)**
- (i) Repeaters
- (ii) Hubs
- Q3.** Explain virtual to physical address mapping concepts with the help of an abstract model. **(4)**
- Q4.** Describe important Linux directories and files. **(4)**
- Q5.** (a) What will be the output of followings: **(6)**
- ```
$ cat my file. text | head-7 | tail-5
$ cat file name | more | ls - l > temp
$ sort my file. text | unique.
$ cat my file . text | grep "mohan" | wc - l
$ ls - l | grep "jan"
$ ls - l | grep | sort
```
- (b) What options can be used with grep command ? **(3)**
- Q6.** Briefly describe the features of followings and how are they configured in Linux ? **(6)**
- (i) Apache webserver
- (ii) DNS
- (iii) NFS server

- Q7.** What are the purposes of dynamic addressing and directory services in Windows 2000 ? How are they configured ? (5)
- Q8.** What is the purpose of VPN and name VPN technologies supported by Windows 2000 ? (5)
- Q9.** What are intrusion detection systems(IDS) ? What IDS can do? (5)
- Q10.** Elaborate the primary aspects of firewall ? What are the limitation of firewall ? (5)
- Q11.** How does RAID support fault tolerance systems ? How is it implemented in Windows 2000 ? (5)
- Q12.** List the different types of malicious code and compare the virus protection tools. (5)
- Q13.** What is Kerberos ? Describe Kerberos management in Windows operating system. (5)
- Q14.** Define IPSec? What are its features ? Discuss its implementation in Windows 2000. (5)

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|--------------------------------|---|---------------------------------------------------------------|
| <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/2019-20</b>                        |
| <b>Maximum Marks</b>           | : | <b>50</b>                                                     |
| <b>Weightage</b>               | : | <b>25%</b>                                                    |
| <b>Last date of Submission</b> | : | <b>15<sup>th</sup> October, 2019 (For July 2019 Session)</b>  |
|                                | : | <b>15<sup>th</sup> April, 2020 (For January 2020 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 is necessary.**

- Q1.** (a) Run the following commands and write/show output (5)
- (i) ping
  - (ii) arp
  - (iii) finger
  - (iv) diskperf
  - (v) rcp
- (b) Explore the following directories and write its contents: (5)
- (i) /bin
  - (ii) /use/bin
  - (iii) /sbn
  - (iv) /temp
  - (v) /boot
- Q2.** (a) Write a shell script that determines whether the given file exists in the home directory or not. (4)
- (b) Write a shell script to check a proper utilization of disk space and send an email to the user currently logged in. (6)
- Q3.** Perform the following tasks: (20)
- (a) Set the execution time of two jobs so that it can run automatically tomorrow one at 11:00 a.m. and another at 1:00 p.m. After this setting, how can you change the time of execution of the job?
  - (b) Add different user's and groups. Also configure their permissions.
  - (c) Share any folder available in your directory. Also configure its share permissions for different users.
  - (d) Configure the DHCP Server Service.
  - (e) Monitor the IP Routing status.