



DIPLOMA IN CYBER SECURITY (DCS)

ASSIGNMENTS

**DCS-01 to DCS-05
(Practical)**

SESSION: 2016-17

Please read the instructions carefully before attempting assignment questions.

INSTRUCTIONS FOR DOING ASSIGNMENTS

Dear Learner,

You are required to submit one assignment per course within the stipulated time in order to become eligible to appear in the term-end examination. The assignments will be evaluated by the counselors at your Study Centre. Please submit your assignment solutions to the Coordinator of your Study Center.

Purpose of Assignments:

1. Assignments are part of the continuous evaluation process in Open and Distance Learning (ODL) system. Due weightage is given to the marks/grades you obtain in assignments. This will help you for better performance in the term-end examination. If you secure good grades/marks in assignments, your overall performance will improve.
2. Assignments are also a part of the teaching-learning process in ODL system. Your assignment, after evaluation, will be returned back to you with specific and general comments by the evaluator. This will help you to know your strength as well as your weakness. Thus, it will establish a two-way communication between learner and evaluator.

HOW TO WRITE ASSIGNMENTS:

Please read the instructions for writing the response of an assignment before you start writing your answer.

1. Write your name, programme code, course title, enrolment no. and study center name with code in the top sheet of the assignment answer booklet as per the format given below.

PROGRAMME TITLE:ENROLMENT No.:

NAME:

ADDRESS:.....

COURSECODE.....COURSE TITLE:.....

ASSIGNMENT CODE:SIGNATURE:

STUDY CENTRE:DATE:

2. Before you attempt the assignments, please go through the course materials and practical sessions, consult with your counselor concerned and write answers in your own language.
3. Write the answers in your own handwriting. Give sufficient margin in the left side of each page so that the evaluator will give comments on each paragraph/page.
4. Your handwriting should be neat and readable.

WEIGHTAGE FOR EACH ASSIGNMENT:

1. Each assignment will carry 25% weightage and term-end examinations will carry 75% weightage.
2. Each assignment will be of 100 marks. But it will carry 25% weightage.
3. You have to score minimum pass mark i.e. 40% in each assignment. In case you do not submit assignment or get fail mark in assignment you have to re-submit in the next year.

SUBMISSION DATES FOR ASSIGNMENTS

Sl.No.	Course Code	Name of the Course	Date of Submission	Day (as per Calendar)
SEMESTER - I				
1	DCS-01	Operating Systems Basics (Windows-7, Linux)	23 rd Oct.2016	Sunday
2	DCS-02	Data Communication and Networking	23 rd Oct.2016	Sunday
3	DCS-03	Information Security	30 th Oct.2016	Sunday
SEMESTER - II				
4	DCS-04	Application Cyber Security	23 rd April 2017	Sunday
5	DCS-05	Network Cyber Security	30 th April 2017	Sunday

DCS-01: OPERATING SYSTEM BASICS (100 MARKS)

Write any FOUR questions (each question carries equal marks)

1. Write the steps of installing any version of Linux.
2. Write the steps of installing any version of Windows.
3. Write the usages of different file operations commands used in Linux?
4. Write the usages of different file operation commands using in windows command prompt.
(Different file operations are: create, open, copy, modify and delete)
5. Write the steps of Installing python software and remove python software.
6. Explain different user management and group management commands used in Linux.

DCS-02 DATA COMMUNICATION AND NETWORKING

(100 MARKS)

Write any FOUR questions (each question carries equal marks)

1. Explain about different physical equipments used for networking.
2. Explain different internetwork devices used in Computer Networks.
3. Study of basic networking and troubleshooting commands.
(hostname, ifconfig, ping, host, telnet, ftp, net, arp, Winipcg, nslookup)
4. Explain the steps to assign IP address and subnet mask to the PC in a network.
5. Write steps to connect the computers in Local Area Network.
6. Write Steps to create a network topology using CISCO packet tracer software.

DCS-03 – INFORMATION SECURITY (100 MARKS)

Write any FOUR questions (each question carries equal marks)

1. Explain the detail about Private Key and Public Key cryptographic systems.
2. Discuss the mechanism of secret key cryptography using any one substitution and one transposition technique with example of each.
3. Analyse the encryption and decryption of RSA – Public Key Cryptography Algorithm with an example.
4. Discuss the features of any intrusion detection System (IDS) tool that you have used.
5. Write the steps you will take to avoid Virus and Malware in your personal computer.
6. Write the important steps to be taken in order to protect your PC from Hackers.

DCS-04 – APPLICATION CYBER SECURITY (100 MARKS)

Write any FOUR questions (each question carries equal marks)

1. Write the steps to protect your personal computer system by creating User Accounts with Passwords and types of User Accounts for safety and security.
2. Discuss various methods of protecting databases.
3. How can you make strong passwords? Write different techniques for passwords cracking.
4. Discuss any Ethical hacking tool and its working.
5. Discuss the security and vulnerabilities of any one Operating system.
6. Discuss the techniques of penetration testing.

DCS-05 – NETWORK CYBER SECURITY (100 MARKS)

Write any FOUR questions (each question carries equal marks)

1. Explain different wireless network components and discuss the features of any one of the Mobile Security Apps.
2. Discuss the role and features of firewall in providing network security.
3. Explain the mechanisms for ensuring Security of any one web browser (Mozilla Firefox/Google Chrome)
4. Mention different types of vulnerabilities for hacking a websites.
5. Outline the security precautions to be taken while using E-commerce services
6. Analyze the security features of Email Services in the Internet.