



DIPLOMA IN CYBER SECURITY (DCS)

ASSIGNMENTS

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

SESSION: 2015-16

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 code in the top sheet of the assignment answer booklet.

The top of the first page of your response sheet for each assignment should look like this:

PROGRAMME TITLE:ENROLMENT No.:

COURSE CODE: NAME:

COURSE TITLE:

ADDRESS:.....

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.
5. You should not print or type the answers. No printed or photocopy of assignments responses will be accepted.

WEIGHTAGE FOR EACH ASSIGNMENT:

1. Each assignment will carry 25% weightages and term-end examination 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

| Assignment Sl. No. | Course Code | Name of the Course | Date of Submission | Day (as per Calendar) |
|----------------------|-------------|--------------------------------------|-----------------------------|-----------------------|
| SEMESTER - I | | | | |
| 1 | DCS-01 | Operating Systems (Windows-7, Linux) | 25 th Sept. 2016 | Sunday |
| 2 | DCS-02 | Networking Fundamentals | 9 th Oct. 2016 | Sunday |
| 3 | DCS-03 | Networking Advanced | 23 rd Oct. 2016 | Sunday |
| SEMESTER - II | | | | |
| 4 | DCS-04 | Security Management | 30 th Oct. 2016 | Sunday |
| 5 | DCS-05 | System and Application Security | 6 th Nov. 2016 | Sunday |

DCS-01: OPERATING SYSTEMS (100 MARKS)

Write any five questions (each question carries equal marks)

1. Write the steps of Installing RPM and YUM in Linux.
2. Write different operations of file commands used in Linux ?
3. Write different operations of file commands using command prompt in windows?
(Different operations of file: create, open, copy, modify and delete file)
4. Study of different user management commands used in Linux.
5. Study of different group management commands used in Linux.
6. Study the working of IPconfig, ping, arp, whois, Winipcg commands.
7. Write the steps of formatting a hard disk and loading an operating system.

DCS-02 NETWORKING FUNDAMENTALS (100 MARKS)

Write any five questions (each question carries equal marks)

1. Explain the steps to assign IP address and subnet mask to the PC in the network.
2. Write the ways of accessing resources in the local network and use of ftp.
3. Explain how to know the name, IP address and MAC address of a Personal Computer in the network.
4. Identification of network components in CISCO Packet Tracer
5. Study of Bus and Star topology using CISCO Packet Tracer.
6. Discuss how to secure one's connectivity of a PC with the Internet.
7. Study of different digital signature techniques in the cyber environment.

DCS-03 –NETWORKING ADVANCED (100 MARKS)

Write any five 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. Write the ways to protect files and folders from other users in your personal computer.
3. Discuss the role and features of firewall in providing network security.
4. Study of security precautions to be taken while using E-commerce services.
5. Discuss the techniques of penetration testing.
6. Discuss the features of any intrusion detection tool that you have used.
7. Discuss the mechanism of secret key cryptography using any one substitution technique.

DCS-04 – SECURITY MANAGEMENT (100 MARKS)

Write any five questions (each question carries equal marks)

1. Analyze the security features of Email Services in the Internet.
2. Study of any one of the Mobile Security Apps.
3. Write different techniques for passwords cracking.
4. Study of Security in Web browsers: Mozilla Firefox.
5. Study of any Ethical hacking tool and its working.
6. Study of Security in Web browser: Google Chrome.
7. Study of different types of vulnerabilities for hacking a websites.

DCS-05 – SYSTEM AND APPLICATION SECURITY

(100 MARKS)

Write any five questions (each question carries equal marks).

1. Enumerate different ways of securing a Personal Computer(Desktops, notebooks or laptops) in a network computing environment from the approach of security requirements among users, process of implementing and enforcing security policies.
2. Study of different wireless network components and techniques to secure wireless networks.
3. Study of security vulnerabilities of any one Operating system.
4. Study of different tools and techniques of cryptography.
5. Discuss various methods of database security.
6. Discuss the role of PGP and MIME in E-Mail security.
7. Analyze the requirements for designing a secured operation system.