ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ, ସମ୍ବଲପୁର, ଓଡ଼ିଶା
**Odisha State Open University, Sambalpur, Odisha**
Established by an Act of Government of Odisha.

# DIPLOMA IN CYBER SECURITY (DCS)/
# P.G. DIPLOMA IN CYBER SECURITY (PGDCS)
# 1st and 2nd Semester

## ASSIGNMENTS

## CSP-010 to DCS-014
## (Practical)
## SESSION: 2017-18

*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…………COURSETITLE:……………………………………………………

   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 | CSP-010 | Operating Systems Basics (Windows-7, Linux) | 26$^{th}$ Nov. 2017 | Sunday |
| 2 | CSP-011 | Data Communication and Networking | 26$^{th}$ Nov. 2017 | Sunday |
| 3 | CSP-012 | Information Security | 26$^{th}$ Nov. 2017 | Sunday |
| **SEMESTER - II** | | | | |
| 4 | CSP-013 | Application Cyber Security | 22$^{nd}$ April 2018 | Sunday |
| 5 | CSP-014 | Network Cyber Security | 22$^{nd}$ April 2018 | Sunday |

# CSP-010: OPERATING SYSTEM BASICS (100 MARKS)

*Write any FOUR questions (each question carries equal marks)* [25x4=100]

1.  Write the steps of installing any version of Windows.

2.  Write the steps to execute the Linux commands to perform the following.

    a.  Create a new directory

    b.  Display the list of contents in a directory

    c.  Create a file

    d.  Display the contents of a file

    e.  Move the file from one location to the other.

3.  Show and write the steps for the following actions in Windows.

    a.  Create a file in windows

    b.  Create a folder in Windows

    c.  Copy a file to a folder

    d.  Rename a folder

    e.  Hide the file and unhide the file

4.  (a) Perform the following operations using Linux commands.

    i.  Listing the users

    ii.  Creating a new user

    (b) Write the steps for the following operations in windows.

    i.  Steps to create user accounts

    ii.  Changing Your Password

    iii.  Steps to hide a folder

5.  Explain different user management and group management commands used in Linux.

# CSP-011 DATA COMMUNICATION AND NETWORKING

## (100 MARKS)

*Write any FOUR questions (each question carries equal marks)* [25x4=100]

1. Write the uses of the following commands.
   a) ifconfig
   b) Ping
   c) who
   d) whoami,
   e) telnet

2. Explain and write the steps to assign IP address and subnet mask to the PC in the network.

3. Explain how to know the name, IP address and MAC address of a Personal Computer in the network.

4. Write the steps to create a network topology using CISCO packet tracer software.

5. Show and write the ways of accessing resources in the local network through ftp.

# CSP-012 – INFORMATION SECURITY (100 MARKS)

*Write any FOUR questions (each question carries equal marks)* [25x4=100]

1. Write the steps required to avoid Virus and Malware in a personal computer.

2. Discuss the encryption and decryption of a message using Caesar cipher technique with example.

3. What is intrusion detection System (IDS)? Discuss the features of any IDS tool.

4. Explain how to secure one's connectivity of a PC with the Internet.

5. State and explain RSA algorithm. Perform encryption and decryption using RSA algorithm for given p=7; q=11; e=17; m=8.

# CSP-013 – APPLICATION CYBER SECURITY (100 MARKS)

*Write any FOUR questions (each question carries equal marks)* [25x4=100]

1. Explain the steps to protect your personal computer system by creating User Accounts with Passwords and types of User Accounts for safety and security.

2. What do you mean by database security? Discuss various methods of protecting databases.

3. What are the characteristics of a strong password? Write different techniques for passwords cracking.

4. Write the steps to protect your files and folders from other users in your personal computer.

5. Explain different penetration testing techniques citing examples.

# CSP-014 – NETWORK CYBER SECURITY (100 MARKS)

*Write any FOUR questions (each question carries equal marks)* [25x4=100]

1. Explain different internetworking devices used in wireless networks.
2. Analyze different types of vulnerabilities of Web Applications with examples.
3. Explain and write the steps to secure your Web browser: Mozilla Firefox or Google Chrome.
4. Write and explain the security settings in Web browsers: Mozilla Firefox.
5. Write the security features of Email Services in the Internet.