ASSIGNMENTS

CSP- 10, 11 & 12

(Theory & Practical)

SESSION: 2019-20

PG DIPLOMA IN CYBER SECURITY (PGDCS)

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 carefully, understand the same and write answers in your own language and style.

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 Assignments:

1. Each Theory Assignment will carry 15% weightage and each Practical Assignment will carry 10% weightage 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

1st Semester
July Session

Sl. No.	Course Code	Name of the Course	Last Date of Submission	Day (As per Calendar)
Theory				
1	CSP-10	Operating System Basics	**20th October 2019**	Sunday
2	CSP-11	Data Communication & Networking	**20th October 2019**	Sunday
3	CSP-12	Information Security	**20th October 2019**	Sunday
Practical				
4	CSPL-10	Operating System Basics Lab	**20th October 2019**	Sunday
5	CSPL-11	Data Communication & Networking Lab	**20th October 2019**	Sunday
6	CSPL-12	Information Security Lab	**20th October 2019**	Sunday

ASSIGNMENTS
Operating System Basics (CSP-10)
(Theory)

Full Marks - 100

Group 'A'

Q. No 1 (Answer all the questions, each within one word or one sentences)   Mark: 1 X 10 = 10

a) What is Application Software?
b) Write the command to clear screen in Windows and Linux?
c) What are the basic functions of a Computer?
d) What is DOS?
e) What is BIOS?
f) What is kernel in Linux?
g) What is the work of antivirus?
h) _____ command is used to remove a file in DOS and Terminal.
i) DVD stands for.
j) What is SCSI?

Group 'B'

Q. No 2. Short answer-type Questions (Word Limit: 100 Words)   Marks:5 X 4 = 20

a) Discuss what are the various flavors of Windows?
b) What is Terminal in Linux?
c) Explain the advantages of Linux over Windows Operating System.
d) What is Kernel?

Group 'C'

Q. No 3. Medium answer-type Questions (Word Limit: 200 Words)   Marks: 10 X 4 = 40

a) What are the various distributions of Linux? Write down the features of Linux?
b) Discuss about the file system hierarchy of Linux.
c) What is an active directory?
d) Explain any 10 file management commands in UNIX with example.

Group 'D'

Q. No 4. Long answer-type Questions (Word Limit: 300 Words)   Marks: 15 X 2 = 30

a) Explain the file system hierarchy in Linux Operating System.
b) Notes on File Permission, USB and Mother Board.

ASSIGNMENTS
Data Communication & Networking (CSP-11)
(Theory)

Full Mark – 100

GROUP- 'A'
Q. No. 1 Answer all the questions, each within one word or one sentences   Marks: 1 × 10= 10

a) What is difference between full duplex and half duplex?
b) Small computer networks that are confined to a localized area is known as _____
c) _____ network is a one-cable topology in which all workstations are connected to a single cable that is terminated at each end.
d) The process of converting analog data to analog signal is known as _____
e) Name the different layer of OSI reference Model.
f) Write down two uses of Router?
g) What is TCP/IP?
h) In which layer routing takes place?
i) What is firewall?
j) URL stands for?

Group 'B'
Q. No 2. Short answer-type Questions (Word Limit: 100 Words)   Marks:5 X 4 = 20

a) Differentiate between Circuit Switching and Packet Switching?
b) Differentiate between guided media and unguided media?
c) Differentiate between TCP and UDP?
d) Differentiate between Analog Signal and Digital Signal.

Group 'C'
Q. No 3. Medium answer-type Questions (Word Limit: 200 Words)   Marks: 10 X 4 = 40

a) What is Modulation? Explain different types of Modulation.
b) Differentiate between LAN, MAN and WAN.
c) What is Repeater? What are its functions?
d) Classify the different line coding scheme?

Group 'D'
Q. No 4. Long answer-type Questions (Word Limit: 300 Words)   Marks: 15 X 2 = 30

a) Explain with diagram different types of Topology in Networking.
b) Explain OSI Reference Model.

ASSIGNMENTS
Information Security (CSP-12)
(Theory)

Full Marks - 100

Group 'A'

Q. No 1 Answer all the questions, each within one word or one sentences   Mark: 1 X 10 = 10

  a) _____ is a technique to conceal the existence of the message.

  b) _____ is a type of malware which is used for forced advertising.

  c) What is Phishing?

  d) What is DDoS Attack?

  e) What is adversary in Cyber Security?

  f) What is System integrity?

  g) What is Repudiation?

  h) What is Ransomware?

  i) What is Software Piracy?

  j) What is do you mean by Information Security?

Group 'B'

Q. No 2. Short answer-type Questions (Word Limit: 100 Words)   Marks:5 X 4 = 20

  a) What are the types of Cryptography?

  b) Differentiate between Block cipher and Stream cipher.

  c) What is the requirement of Hash function?

  d) Differentiate between threat and attack.

Group 'C'

Q. No 3. Medium answer-type Questions (Word Limit: 200 Words) Marks: 10 X 4 = 40

  a) What is Steganography? Explain it.

  b) Explain different types of Computer Hackers.

  c) What are the moral responsibilities of Information Security professionals?

  d) What is spamming? Define the criteria based on which an email can be classified as spam.

Group 'D'

Q. No 4. Long answer-type Questions (Word Limit: 300 Words)   Marks: 15 X 2 = 30

  a) Explain different goals of Information Security.

  b) What is Malware? How it is different from Virus? Explain different types of Malware.

ASSIGNMENTS
Operating System Basics Lab (CSPL-10)
(Practical)   Full Marks - 25

Answer All (each question carries 05 marks)
1. Write down the steps to format a hard disk and load Windows Operating System.
2. Write down the steps to compress and extract a file in LINUX Operating System.
3. Explain any five File management commands in LINUX Operating System with example.
4. Write down the steps to change user password in LINUX Operating System.
5. Write down the steps to perform the following operation in Windows Operating System.
   a. Create a folder in Windows
   b. Create a file in notepad and save it under the newly created folder.
   c. Copy a file to another folder
   d. Rename a folder
   e. Hide the file and unhide the file

ASSIGNMENTS
Data Communication and Networking (CSPL-11)
(Practical)

1. **Full Mark – 25**

Answer All the Questions (each question carries 05 marks)
1. Explain about different physical equipment's used for networking.
2. Write the steps to Assigning IP address to the PC and Connect to the internet.
3. Explain about different internetworking devices in a computer network.
4. Write the steps how to connect a network printer in Windows.
5. Describe OSI Reference Model with diagram.

ASSIGNMENTS
Information Security Lab (CSPL-12)
(Practical)   Full Marks - 25

Answer Any Five (each question carries 05 marks)
1. Perform encryption and decryption using the RSA algorithm, based on the following:
   Two Prime Number P=3 and Q=11; Public Key e=7; Plain text (N) =5
2. What is Substitution Encryption Technique? Write the procedure of Caesar Cipher Encryption Technique. Here is a plain text below. Encrypt and decrypt the below plain text using Caesar Cipher encryption, using a left shift of 21.
   Plain Text: India is a democratic country
3. Discuss different counter measures of to avoid Virus and Malware in one's PC
4. What are the different ways to avoid Software piracy?
5. Explain the different Hacking tools and techniques.