MASTER OF SCIENCE (INFORMATION SECURITY) (MSCIS)

MSCIS/ASSIGN/2023

ASSIGNMENTS
JAN 2023

Semester-IV

MSE-033, MSE-034, MSE-035, MSE-036 and MSEL-037

SCHOOL OF VOCATIONAL EDUCATION AND TRAINING
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI – 110 068

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Guidelines regarding submission of assignments

1. It is compulsory for the students to submit the prescribed assignments. They will not be allowed to appear for the term-end examination of a course if they do not submit the assignments in time for that course.

2. The assignment responses should be complete in all respects. Before submission, the students should ensure that they have answered all the questions in all assignments. Incomplete answer sheets bring poor grades.

3. The University/ Regional Centre have the right to reject the assignments received after the due date. Therefore, the students are advised to submit their assignments before the due date.

4. Students should submit before the last dates prescribed for submission of assignments.

5. In case the students have already done some assignments prescribed in a course, they are required to do the **left-over assignments before taking the Term-end Examination**. If they have qualified in a course on the basis of lesser number of assignments and Term-end Examination, they will **not be eligible to re-do the assignments** with a view to improve the overall qualifying score of that course.

6. In case any student fails to submit the assignments or fails to score minimum qualifying marks, s/he has to wait for fresh assignments meant for the current batch of students.

7. For their own record, students should retain a copy of all the assignment responses, which they submit.

8. Once the students get the pass marks in an assignment, they can not re-submit it for improvement of marks. If the student secured requisite marks in Term-End Examination and Assignments, but did not get requisite overall percentage, then the student can either resubmit the assignment or reappear for the term-end examination for securing the requisite overall percentage.

9. Assignments are not subject to re-evaluation.

Instructions for Doing Assignments

While answering Assignments, the following guidelines are required to be observed:

1. The student should write their Complete correct Enrolment Number, Name, Full Address, Signature and Date on the top right hand corner of the first page of the response sheet.
2. The students should write the Programme Title, Course Code and Course Title on the left hand corner of the first page of their response sheet. Course code may be reproduced from the assignment.

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:……………………………………………………………………………...	
SIGNATURE: …………………	
DATE: …………………………..	

3. The students should write the responses in their own hand. **They should not print or type the answers. They should not reproduce their answers from the units sent to them by the University. If they reproduce from units, they will get poor marks for the respective question**.

4. The students should write each assignment separately. All the assignments should not be written in continuity.

5. The students should write the question number with each answer.

6. The students should use only foolscap size paper for their response and tie all the pages carefully. Avoid using very thin paper. They should allow a 4 cm. margin on the left and at least 4 lines in between each answer. This may facilitate the evaluator to write useful comments on the margins at appropriate places.

7. The students should not copy from the response sheets of other students. If copying is noticed, the assignments of such students will be rejected, and disciplinary action can be taken against the students as per rules of the University.

8. Please remember that it is compulsory to send scanned copies of handwritten assignments through email to the respective Regional Centre email or upload on the link provided on the respective Regional centre's website or the hard copy of handwritten assignments to your concerned Regional centre/Study centre before you can take the Term End Exams or else you will not be issued hall tickets.

    Under no circumstances should they be sent to the (SED) for evaluation.

Course Code	:	MSE-033
Course Title	:	**Web Application Testing and Audit**
Maximum Marks	:	**100**
Weightage	:	**30%**
Last date of Submission	:	**31ˢᵗ March, 2023 (For latest update, Pl. check IGNOU's Website)**

Attempt any five questions out of seven questions. Each question carries 20 marks. 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.

Q1: Describe architecture and characteristics of Web services.

Q2: Discuss Internet Security Protocols.

Q3: Explain XML in detail.

Q4: Describe Methodologies for Session Management Testing.

Q5: Explain models of Web Application Components.

Q6: What are the different ways to authenticate a web application?

Q7: Describe SET Protocols with its working.

Course Code	**:**	**MSE-034**
Course Title	**:**	**E-commerce and Cyberspace**
Maximum Marks	**:**	**100**
Weightage	**:**	**30%**
Last date of Submission	**:**	**31ˢᵗ March, 2023 (For latest update, Pl. check IGNOU's Website)**

Attempt any five questions out of seven questions. Each question carries 20 marks. 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.

Q1: Discuss types of E-commerce models in detail.

Q2: What is Domain Name? Discuss different types of Domain name.

Q3: Explain the Liability of Internet Service Providers/ intermediaries.

Q4: Explain the types of e-contracts.

Q5: Explain Copyright and Trademarks in detail.

Q6: Discuss the law relating to Consumer Protection in Cyberspace.

Q7: Explain Electronic Fund Transfer in detail.

Course Code	:	**MSE-035**
Course Title	:	**IoT Security**
Maximum Marks	:	**100**
Weightage	:	**30%**
Last date of Submission	:	**31st March, 2023 (For latest update, Pl. check IGNOU's Website)**

Attempt any five questions out of seven questions. Each question carries 20 marks. 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.

Q1: What are the characteristics and categories of IoT.

Q2: Discuss the components of IoT implementation.

Q3: Explain differences between Cloud computing and Fog computing.

Q4: What are the characteristics of IoT Sensors.

Q5: Explain connectivity technologies in detail.

Q6: Describe layers of IoT Architecture.

Q7: Explain advantages and challenges associated with fog computing.

Course Code	:	MSE-036
Course Title	:	**Latest Trends in**
		Information and Cyber Security
Maximum Marks	:	100
Weightage	:	30%
Last date of Submission	:	31st March, 2023 (For latest update, Pl. check IGNOU's Website)

Attempt any five questions out of seven questions. Each question carries 20 marks. 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.

Q1: What is botnet? What are the stages of botnet building? Also explain its control models.

Q2: What is Malware? What are its types? Also explain Malware Analysis in detail.

Q3: Explain Ransomware mitigation strategies in detail.

Q4: What is Zero-Day attack? How does Zero-Day Vulnerability lead to Zero-Day Exploitation? Explain the types of zero-day attacks.

Q5: Explain VPN Security in detail.

Q6: What is Ransomware? Explain its types and its distribution methods.

Q7: Explain Block Chain Technology and Security in detail.

| Course Code | : | MSEL-037 |
| Course Title | : | Practical (Web Application, Audits, e-commerce security and IoT) |

Maximum Marks	:	100
Weightage	:	30%
Last Dates for Submission	:	31st March, 2023 (For latest update, Pl. check IGNOU's Website)

This assignment has two Questions, answer all questions. Each Question is of 20 marks. Your Lab Records will carry 40 Marks (20 Marks for each Question). Rest 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.

Note: You must execute the program and submit the program logic, sample input and output along with the necessary documentation. Assumptions can be made wherever necessary.

Q1: Explain the OWASP concept. Write top 10 OWASP attacks with examples

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                                                              (20 marks)

Q2: Explain the concept of SQL injection Dorks with examples

                                                              (**20 marks**)

Note: Make necessary assumptions if any.