

**MASTER OF SCIENCE (INFORMATION
SECURITY)
(MSCIS)**

MSCIS/ASSIGN/2026

**ASSIGNMENTS
JAN 2026**

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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| | | |
|--------------------------------|---|---|
| Course Code | : | MSE-033 |
| Course Title | : | Web Application Testing and Audit |
| Maximum Marks | : | 100 |
| Weightage | : | 30% |
| Last date of Submission | : | 31st March, 2026 (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: Explain models of Web Application Components.
- Q2: Describe SET Protocols with its working.
- Q3: Explain XML in detail.
- Q4: Describe Methodologies for Session Management Testing.
- Q5: Describe architecture and characteristics of Web services.
- Q6: What are the different ways to authenticate a web application?
- Q7: Discuss Internet Security Protocols.

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|--------------------------------|----------|---|
| Course Code | : | MSE-034 |
| Course Title | : | E-commerce and Cyberspace |
| Maximum Marks | : | 100 |
| Weightage | : | 30% |
| Last date of Submission | : | 31st March, 2026 (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: Explain the types of e-contracts.

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

Q3: Explain Electronic Fund Transfer in detail.

Q4: Discuss types of E-commerce models in detail.

Q5: Explain Copyright and Trademarks in detail.

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

Q7: Explain the Liability of Internet Service Providers/ intermediaries.

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| | | |
|--------------------------------|----------|---|
| Course Code | : | MSE-035 |
| Course Title | : | IoT Security |
| Maximum Marks | : | 100 |
| Weightage | : | 30% |
| Last date of Submission | : | 31st March, 2026 (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 of IoT Sensors.
- Q2: Discuss the components of IoT implementation.
- Q3: Explain advantages and challenges associated with fog computing.
- Q4: What are the characteristics and categories of IoT.
- Q5: Explain connectivity technologies in detail.
- Q6: Describe layers of IoT Architecture.
- Q7: Explain differences between Cloud computing and Fog computing.

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| Course Code | : | MSE-036 |
| Course Title | : | Latest Trends Information and Cyber Security |
| Maximum Marks | : | 100 |
| Weightage | : | 30% |
| Last date of Submission | : | 31st March, 2026 (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: Explain Ransomware mitigation strategies in detail.

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

Q3: What is botnet? What are the stages of botnet building? Also explain its control models.

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 Block Chain Technology and Security in detail.

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

Q7: Explain VPN Security in detail.

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| 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, 2026 (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 concept of SQL injection Dorks with examples
(20 marks)

Q2: Explain the OWASP concept. Write top 10 OWASP attacks with examples
(20 marks)

Note: Make necessary assumptions if any.