MASTER OF COMPUTER APPLICATIONS (MCA_NEW)

ASSIGNMENTS
OF MCA_NEW (2Yrs) PROGRAMME
SEMESTER-I

(January - 2025 & July - 2025)

MCS-211, MCS-212, MCS-213, MCS-214, MCS-215

MCSL-216, MCSL-217

SCHOOL OF COMPUTER AND INFORMATION SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI – 110 068

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Important Notes

1. Submit your assignments to the Coordinator of your Study Centre on or before the due date.
2. Assignment submission before due dates is compulsory to become eligible for appearing in corresponding Term End Examinations. For further details, please refer to Programme Guide of MCA (2Yrs).
3. To become eligible for appearing the Term End Practical Examination for the lab courses, it is essential to fulfill the minimum attendance requirements as well as submission of assignments (on or before the due date). For further details, please refer to the Programme Guide of MCA (2yrs).
4. The viva voce is compulsory for the assignments. For any course, if a student submitted the assignment and not attended the viva-voce, then the assignment is treated as not successfully completed and would be marked as ZERO.

Course Code	**:**	**MCS-215**
Course Title	**:**	**Security and Cyber Laws**
Assignment Number	**:**	**MCA_NEW(I)/215/Assign/2025**
Maximum Marks	**:**	**100**
Weightage	**:**	**30%**
Last date of Submission	**:**	**30th April 2025 (for January session)** **31st October 2025 (for July session)**

This assignment has six questions. Answer all questions. The remaining 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 the presentation.

Q1: **(3*4= 12 Marks)**

(a) Explain the terms Confidentiality, Integrity and Availability in digital security. Explain the Pros and Cons of digital security.

(b) Explain the following in the context of security issues/attacks:

(i) Unauthorised access
(ii) Social Engineering Attacks
(iii) Internet of Things (IoT) attacks

(c) Explain (any three) ways technology can help you to counter different types of cyber security attacks.

(d) What are the laws related to Distributed Denial of Service Attacks and Crypto-jacking?

Q2: Explain the following terms with the help of an example of each. **(3*6=18 Marks)**

(a) Transposition Ciphers
(b) Advantages and Disadvantages of Symmetric Key Cryptography
(c) Steganography
(d) Data Encryption Standard (DES)
(e) Hash functions
(f) Key Establishment, Management and Certification in the context of cryptography

Q3: **(3*4= 12 Marks)**

(a) What are the practices for implementing the CIA triad in data security? Explain.

(b) Explain the following:

(i) Ransomware attacks
(ii) Cyber-physical attacks

(c) Explain the following data security measures:

(i) Email Security
(ii) Risk-Assessment Analysis

(d) What is a Security audit? Explain with the help of an example. What are the different trade-offs between security and usability?

Q4: **(3*4= 12 Marks)**

(a) How can cyberspace be regulated? Explain.
(b) What are the different approaches of regulating Internet content? Explain.
(c) What are the doctrines and Articles of UNCITRAL model law? Explain.
(d) What are the regulations for cyberspace content in India? Explain

Q5: **(3*5= 15 Marks)**

(a) How is cybercrime defined? Explain the classification of cybercrimes with the help of examples.
(b) List the Penalties and compensation in Section 44 of the Information Technology Act 2000.
(c) List any six offences under sections 65 and 66 as per the Information Technology Act, 2000.

(d) What are the grounds which exempt the network service providers from liability? Explain.
(e) What are the different cyber forensic investigation tools? Explain

Q6: **(6+3+2= 11 Marks)**

(a) Explain the following forms of IPR with the help of an example of each:
(i) Copyrights and related rights.
(ii) Trade Secrets
(iii) Geographical Indication
(b) Explain cyber-squatting and abuse of search engines with the help of an example of each.
(c) What remedies are available against infringement of IPR?