

DIPLOMA IN CYBER LAW

COURSE OUTLINE

| Sl.No | Course Code | Name of the Course | L | T | P | Credits |
|---------------------|-------------|---|---|---|---|-----------|
| SEMESTER I | | | | | | |
| 1 | DCL 101 | Basics of Internet | 3 | 1 | | 4 |
| 2 | DCL 102 | Law and Internet | 3 | 1 | | 4 |
| 3 | DCL 103 | IT Law | 3 | 1 | | 4 |
| 4 | DCL 104 | Internet Crime & Protection | 3 | 1 | | 4 |
| 5 | DCL 105 | Term Paper | 1 | | 6 | 4 |
| TOTAL CREDIT | | | | | | 20 |
| SEMESTER II | | | | | | |
| 1 | DCL 201 | Network Security | 3 | 1 | | 4 |
| 2 | DCL 202 | Intellectual Property Rights & Cyber Protection | 3 | 1 | | 4 |
| 3 | DCL 203 | E Governance & Regulations | 3 | 1 | | 4 |
| 4 | DCL 204 | E Commerce & Cyber Crime | 3 | 1 | | 4 |
| 5 | DCL 205 | Term Paper | 1 | | 6 | 4 |
| TOTAL CREDIT | | | | | | 20 |

SEMESTER-I

PAPER DCL 101 : BASIC OF INTERNET (Credit – 4)

[40 Hours]

- Basic Computer architecture, Computer Data Ports: Printer, Serial Port, RJ11, RJ45, USB, Software: System Software, Application Software, Open Source Software, Concept of Computer Virus, Malwares, Spywares, Antivirus Tools
- Computer Networks: Need, advantages, topologies, security issues, Need for larger networks
- Internet: Concept, History – NPL Network, ARPANet, UUCP and UseNet, NSFNet, CERN Network, World Wide Web, Global Internet, Internet implementation over the continents
- Internet architecture (Backbone, national, regional and local networks); Traffic Routing over the Basic Concepts on Transmission Control Protocol (TCP) and Internet Protocol (IP), Domain Name Systems (DNS), Domain Name Space and Domain Name Architecture, IP4 Address, Major Internet Domains, Hyper Text Transfer Protocol (HTTP), File Transfer Protocol (FTP), Universal Datagram Protocol (UDP). Routing protocols.
- Features of Internet, Services provided by Internet (File transfer, Email,), Common Internet browsers, Advantages of Internet; Internet Service Providers (ISP) and tasks performed by ISPs, Internet Access methods- Dial Up, Broadband LAN, Internet over Cable TV, Wireless over Cellular Network, Satellite Based Internet
- Setting up of Internet in PC and Basic security aspects, Cyber Security for common Computer use, Identity and Financial Information protection, Good Practices for common Internet users, Case studies

[Pattern of Question:

2 marks x 5 Questions (5 questions out of 7) = 10 marks

5 marks x 4 Questions (4 questions out of 6) = 20 marks

10 marks x 4 Questions (4 questions out of 6) = 40 marks]

PAPER DCL 102 : LAW AND INTERNET (Credit – 4)

[48 Hours]

- Meaning and Basics of Law:
- Object and definition of Law, fundamentals of formation and discharge of contract, Concept of crime and its essentials (including mensrea and actus reus), Fundamental features of Intellectual Property and its types.
- Overview of Cyber Law:
- Introduction to Cyber space, Scope of Cyber laws (e-commerce, online contracts, IPRs and Cyber laws (copyright, trademarks, software patenting), e-taxation, e-governance, etc
- Regulatory Framework:
- International Legal Regime: European Convention on Cyber Crimes, Hague Convention on Jurisdiction and Foreign Judgments: Jurisdiction Agreement
- IPR issues: Copyright issues (Linking, Inlining, Framing), Trademark issues (Domain Name Dispute, Cybersquatting, Uniform Dispute Resolution Policy, Meta Tags and Key words), Computer software and IPR issues

- > Jurisdictional aspects in Cyber Law: Issues of jurisdiction in cyberspace, Types of jurisdiction, Prerequisites of jurisdiction, The tests involved (Minimum contact theory, Sliding Scale Theory, Effects Test and International targeting), Jurisdiction under IT Act, 2000
- > Cyber Law in India: Information Technology Act, 2000 (with upto date amendments): Digital Signature, E-Governance, Certifying Authority, Duties of subscriber, Penalties and Adjudication, offences under the Act.

[Pattern of Question:

2 marks x 5 Questions (5 questions out of 7) = 10 marks

5 marks x 4 Questions (4 questions out of 6) = 20 marks

10 marks x 4 Questions (4 questions out of 6) = 40 marks]

PAPER DCL 103 : IT LAW (Credit – 4)

[48Hours]

- > Introduction to IT Law, Evolution of IT Law.
- > Regulatory Framework of Information and Technology Act
- > Digital Signature; E-Signature; Electronic Records; Electronic Evidence and Electronic Governance.
- > Controller & Certifying Authority.
- > Cyber Appellate Tribunal.
- > Network and Network Security, Access and Unauthorized Access, Data Security, E Contracts and E Forms.
- > Offences and Penalties Information Technology (Amendment) Act 2008; Objective, Applicability and Jurisdiction; Various Cyber-Crimes under Sections 43 (a) to (j), 43A, 65, 66, 66A to 66F, 67, 67A, 67B, 70, 70A, 70B, 80 etc. along with respective Penalties, Punishment and Fines.
- > Penal Provisions for Phishing, Spam, Virus, Worms, Malware, Hacking, Trespass and Stalking; Human Rights in Cyberspace.
- > International Co-operation in Investigating Cybercrimes.

[Pattern of Question:

2 marks x 5 Questions (5 questions out of 7) = 10 marks

5 marks x 4 Questions (4 questions out of 6) = 20 marks

10 marks x 4 Questions (4 questions out of 6) = 40 marks]

PAPER DCL 104 : INTERNET CRIME & PROTECTION (Credit – 4)

[48 Hours]

- > Introduction of Internet and Crime.
- > Concept of Internet Crime; Features of Internet Crime; Comparison with other Crime;
- > Internet Crimes; Tempering with Computer Source Code; Hacking; Obscenity; Misrepresentation; Breach of Trust; Pornography; Child Pornography; Cyber Squatting, Cyber Espionage, Cyber Warfare, Defamation; Cyber Defamation; Data Theft; Identity Theft; Fraud; Criminal Trespass; Criminal Mischief; Computer Fraud and Abuse; Computer Misuse;
- > Computer Evidence; Computer Forensic;
- > Liability of Internet Service Provider
- > Remedies against Internet Crime.
- > Configuring firewall.
- > Social Media; Online Safety for Women and Children on Online; Misuse of Private Information
- > Landmark Cases relating to Internet Crime.

[Pattern of Question:

2 marks x 5 Questions (5 questions out of 7) = 10 marks

5 marks x 4 Questions (4 questions out of 6) = 20 marks

10 marks x 4 Questions (4 questions out of 6) = 40 marks]

PAPER DCL 105: TERM PAPER

[60 Hours]

To be allotted by the teacher and conducted under the guidance of a teacher.

Marks distribution of Term End Project Report/ Term Paper:

Project Report : 50 Marks

Presentation : 25 Marks

Viva : 25 Marks

The Project Report shall be of 10000 words and shall be evaluated on the basis of 50 marks (Contents 30 marks; Research and Methodology 10 marks; Language 10 marks) AND the presentation of project shall be evaluated on the basis of 25 marks (Contents 15 marks, Articulation 5 marks; and Response to questions 5 marks).

SEMESTER-II

PAPER DCL 201: NETWORK SECURITY (Credit – 4)

[48 Hours]

- **Computer & Cyber Security:** Types of Attacks, Network Security, Services and Mechanisms, Overview of Security threats, Hacking Techniques, Password cracking , Insecure Network connections, Brief history of cryptography.
- **Symmetric Ciphers:** Substitution & Transposition Techniques, Block Cipher, DES, Triple DES, Stream Ciphers, RC4.
- **Public Key Cryptography:** Need and Principles of Public Key Cryptosystems, RSA Algorithm, Key Distribution and Management, Diffie-Hellman Key Exchange, Digital Signatures.
- **Authentication:** Authentication Requirements, Message Authentication Codes, Hashes, MD5 & SHA, Digital Certificate. User Authentication: Password, Certificate based & Biometric Authentication, Kerberos.
- **Network Security:** Firewalls, IP Security, VPN. Intrusion Detection, Web Security, SSL, TLS.

[Pattern of Question:

2 marks x 5 Questions (5 questions out of 7) = 10 marks

5 marks x 4 Questions (4 questions out of 6) = 20 marks

10 marks x 4 Questions (4 questions out of 6) = 40 marks]

PAPER DCL 202: INTELLECTUAL PROPERTY RIGHTS & CYBER PROTECTION (Credit – 4)

[48 Hours]

- Introduction to IPR, Introduction to rights, Property and meaning of Intellectual in IPR,

Defining IPR, Kinds of IPRs and their duration, Rights granted by IP, The origin of Intellectual Property, and Growth of Intellectual Property.

- Patents- Trips Definition. kind of inventions protected by patent-Patentable and Non patentable inventions, Patent application process: Searching a patent- Drafting of a patent- Filing of a patent- Types of patent applications- Patent document: specification and claims.
- Trademarks- Rights of trademark- kind of signs used as trademarks-types. purpose and functions of a trademark, trademark protection.
- Copyrights- Introduction, Origin and evolution of Copyright, Copyright in India.
- Geographical Indication of Goods: Types, why and how GI need protection and GI laws, Indian GI act.
- Introduction and protection of Industrial Design
- Technological and Legal Developments in Intellectual Property
- Computer Programs: Brief History of the Protection of Computer Programs. Protection of Computer Programs under Patents or under Copyright. International Norms Concerning Copyright Protection of Computer Programs, National Legislation on the Protection of Computer Programs, Creation and Use of Works by Means of Computers, Data Protection Law In Respect of Information Technology Enabled Services. cyber security strategies-IT law, cyber squatting- Domain names

[Pattern of Question:

2 marks x 5 Questions (5 questions out of 7) = 10 marks

5 marks x 4 Questions (4 questions out of 6) = 20 marks

10 marks x 4 Questions (4 questions out of 6) = 40 marks]

PAPER DCL 203 : E-GOVERNANCE AND REGULATIONS (Credit - 4) [48 Hours]

- **Introduction to E-Governance** : Concept of e-Governance, Definition of e Governance ,Benefits, and Limitation of e- Governance, Types of e Governance Services (G2C, G2B, G2B)
- **Current Trends and Practices of e- Governance**: e-Transformation, Whole of Government Perspectives, Citizen-Centric Approach, e-Inclusion, e-Leadership,

and Change Management, Need for Process re-engineering, Secured Digital Identification.

- **Managing e- Governance:** Approaches to managing e- Governance System, Selection of suitable Approach, Key Performance Indicators for e- Governance Systems, Management of Public Data.
- **Technology and standards for e- Governance:** Enterprise Architecture, Service Oriented Architecture, Enterprise Service Bus, Security Architecture and Standards, Common Authentication Systems, Datacenters, Cloud Computing, Open Standards, Cryptography, and PKI (Public Key Infrastructure).

[Pattern of Question:

2 marks x 5 Questions (5 questions out of 7) = 10 marks

5 marks x 4 Questions (4 questions out of 6) = 20 marks

10 marks x 4 Questions (4 questions out of 6) = 40 marks]

PAPER DCL 204 : E-COMMERCE & CYBER CRIME (Credit – 4)

[48 Hours]

- Introduction to E-Commerce and Cyber Crime; Concept and Practicability in India
- E-Commerce; Issues and Legal Provisions in India;
- Digital Signature and Electronic Signature in India
- E-Contracts and its validity in India
- E-Taxation Issues in Cyberspace and E-filing and Assessment
- Cyber Appellate Tribunal;
- Offence Relating to E-Commerce and Cyber Regulations of E-Commerce
- Cyber Space Jurisdiction; Jurisdiction Issues under IT Act, 2000; Traditional Principals of Jurisdiction; Extra-Territorial Jurisdiction; Case Laws on Cyber Space Jurisdiction
- Landmark Cases relating to E-Commerce.

[Pattern of Question:

2 marks x 5 Questions (5 questions out of 7) = 10 marks

5 marks x 4 Questions (4 questions out of 6) = 20 marks

10 marks x 4 Questions (4 questions out of 6) = 40 marks]

To be allotted by the teacher and conducted under the guidance of a teacher.

Marks distribution of Term End Project Report/ Term Paper:

Project Report : 50 Marks

Presentation : 25 Marks

Viva : 25 Marks

The Project Report shall be of 10000 words and shall be evaluated on the basis of 50 marks (Contents 30 marks; Research and Methodology 10 marks; Language 10 marks) AND the presentation of project shall be evaluated on the basis of 25 marks (Contents 15 marks, Articulation 5 marks; and Response to questions 5 marks).