

Roll No. _____

Paper Code
3C3004

MCA III-Sem (Main & Back) Exam Jan 2026
MCA-304(N) Information Security
3C3004

Time : 3 Hours

Maximum Marks : 70

Instructions To Candidates:

- 1) The question paper is divided in three parts.
 - 2) Part A contains 10 questions which are compulsory. Part B contains eight questions out of which five are to be attempted. Part C contains one question which is compulsory.
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Part A (Word limit 25)

All questions are compulsory

(10x2=20)

- Q.1 Define vulnerability in the context of information security.
- Q.2 What is ciphertext ?
- Q.3 What is MAC ?
- Q.4 What is buffer overflow?
- Q.5 What is DSS ?
- Q.6 What is Trapdoor ?
- Q.7 What is honeypot in network security?
- Q.8 Define PGP.
- Q.9 What do you understand by legal privacy ?
- Q.10 Mention any two ethical issues in computer security.

Part B

Attempt any five questions.

(5x6=30)

- Q.1 Explain any two Encryption Techniques with suitable examples.
- Q.2 Explain the working of RSA Algorithm.

- Q.3 Explain DES Algorithm.
- Q.4 Describe the "Man - In- the middle" attack with a suitable scenario.
- Q.5 What are firewalls ? Explain in types of firewalls used in networks.
- Q.6 Describe the architecture and controls involved in network security.
- Q.7 Explain the key components of organizational security policies.
- Q.8 Write short notes on :
- (a) Digital signatures.
 - (b) Block cipher and stream cipher

Part-C
Compulsory

(10+10=20)

- Q.1 (a) Explain different types of attacks in information security.
- (b) State and explain the key responsibilities of employers & employees in maintaining information security with suitable examples.