Roll No. | | | | | | | | | | | | |

Total No. of Questions: 09 **Total No. of Pages: 02**

MCA (Sem. 3)
INFORMATION SECURITY
SUBJECT CODE: MCA-302
Paper ID: 74074

Time: 3 Hrs. **Max. Marks: 60**

Instructions to Candidates:

1) **Attempt any ONE question from Sections A, B, C and D and carrying TEN marks each.**
2) **Section - E is Compulsory and carrying TWO marks each.**

SECTION A

l. a) Draw and explain the security Architecture for the open systems.
b) What are random and Pseudo-random numbers? How they are being used?

2. Explain various computer security trends in detail.

SECTION B

3. What do you mean by Authentication? Explain with real life example of token based authentication in detail.

4. What are the different principles of access control? Explain with the concept of access control with suitable example.

SECTION C

5. What are Denial-of-Service attacks? Discuss distributed Denial-of-Service attacks. How can one do defenses against Denial-of-Service attacks and how to respond to Denial-of-Service attack?

6. What are the various Software security issues that must be taken in account while working with the software's?

SECTION D

7. Write a note on system security planning. How can we provide security to windows and Unix/Linux Operating systems?

8. What is IT Security management? How security risk assessment can be done and provide detailed security Risk analysis methods.

SECTION E

9.

a) Define IT security plan.

b) What are trusted systems?

c) Define term Virtualization security.

d) What are flooding attacks?

e) Define stack overflows.

f) Write a short note on phishing and spyware.

g) How can we provide security to cloud?

h) What are statistical databases?

i) What is Role-based access control?

j) Differentiate between authentication and authorization.