Roll No. ☐☐☐☐☐☐☐☐☐☐☐   **Total No. of Pages : 02**

Total No. of Questions : 18

B.Tech.(IT) /(CSE) (2011 Onwards E-I) (Sem.–6)
INFORMATION SECURITY
Subject Code : BTCS-904
M.Code : 71113

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

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

Write briefly :

1. What is data Integrity?

2. Discuss the use of steganography.

3. Define transposition techniques.

4. What is traffic confidentiality?

5. Give the role of Key management in cryptography.

6. Define Euler's Theorem.

7. Give the syntax of MD5 algorithm.

8. Write the purpose of SSL.

9. What is X. 509 and why is it important?

10. What are Intruders in Information Security?

SECTION-B

11. Explain and draw the OSI security architecture.

12. Explain the principle of RSA algorithm by taking an example.

13. What are the message authentication functions? What are its requirements?

14. How Pretty Good Privacy is used for sending secure encrypted messages in network?

15. What is Kerberos and how it works to provide the security?

SECTION-C

16. Explain the importance of DES algorithm by using the block diagram. Discuss the modified modes of DES.

17. What is IP Security? How IP security architecture is used to provide the security to network packets?

18. Show how Firewalls inspects network traffic passing through it, and denies or permits based on a set of rules.

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC case against the Student.