M.Sc. DEGREE EXAMINATION,NOVEMBER 2018 II Year III Semester Core Elective -IV CRYPTOGRAPHY

Time : 3 Hours

Max.marks :75

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

- 1. What is encryption?
- 2. Differentiate substitution and transposition ciphers.
- 3. State Euler's Theorem.
- 4. Define the Chinese Remainder Theorem.
- 5. What is public key cryptography?
- 6. What is man in the middle attack?
- 7. What is a Hash Fucntion ? Why it is used?
- 8. State the importance of authentication.
- 9. What are credentials?
- 10. Expand MAC.
- 11. What is a brute force attack?
- 12. What is cryptanalysis?

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

- 13. Explain the model of encryption, with appropriate diagram.
- 14. Discuss about Testing for primality.
- 15. Elaborate on Diffie-Hellman Key Exchange.
- 16. Discuss about Message Authentication Codes.
- 17. Discuss about authentication.
- 18. Explain about Transposition ciphers.
- 19. Discuss about DES algorithm.

Section C $(3 \times 10 = 30)$ Marks

Answer any $\ensuremath{\mathsf{THREE}}$ questions

- 20. Discuss about AES algorithm in detail.
- 21. Explain about Euclidean Algorithm.
- 22. Discuss about RSA algorithm in detail.
- 23. Explain the Secure Hash Algorithm.
- 24. Discuss about Digital Signatures in detail.

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