

R17**Code No: 844AE****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA IV Semester Examinations, October/ November - 2020****INFORMATION SECURITY****Time: 2 Hours****Max.Marks:75**

Answer any five questions
All questions carry equal marks

- 1.a) List and explain the security services.
b) Explain how Cipher Feedback mode can convert a block cipher to stream cipher. [7+8]
2. Explain how a plain text block is encrypted using Blowfish algorithm. [15]
- 3.a) Perform encryption and decryption using RSA algorithm of the following. $p=17$; $q=11$; $e=7$; $M=88$.
b) With a neat diagram explain how to transfer a message confidentially and at the same time ensure integrity and authenticity. [7+8]
- 4.a) Explain Kerberos V4 authentication dialogue in detail.
b) What is the purpose of Digital certificates? Explain. [7+8]
- 5.a) Explain the fields of PGP User Public key Ring?
b) Write down the applications of Authentication protocols. [7+8]
- 6.a) List and describe the security services offered by S/MIME.
b) What are the requirements of web security? [7+8]
- 7.a) Describe how e-transactions are secured.
b) What is the purpose of SSL Change Cipher Specification protocol? [7+8]
- 8.a) List and explain different types of intruders.
b) Explain any two approaches of intrusion detection. [7+8]

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