

[3 hours]

- a) Question No. 1 is compulsory
- b) Attempt **any three** from the remaining six questions
- c) Assumptions should be made whenever required and should be clearly stated
- d) Answers to sub questions should be answered together
- e) Illustrate answers with diagrams wherever necessary
- f) Use of Calculators is permitted

- Q1 A What is information security? Discuss the various principles of information security. 10
B Discuss one round structure of the DES algorithm. 10
- Q2 A Explain the methods of implementing security on database. 10
B What are the pros and cons of symmetric and asymmetric key encryption. Explain a method that adapts the advantages of both to get the best. 10
- Q3 A Define message digest. Explain SHA for generating the message digest and compare it with MD5. 10
B What are web services. Explain and discuss the security of web services. 10
- Q4 A Explain Kerberos and third party authentication process. 10
B What are the objectives of SSL? Explain how are the objectives achieved. 10
- Q5 A Explain the role of TLS and its use in the IEEE 802.11 standard. 10
B Explain the various implementation of IPsec. 10
- Q6 Write your notes on any four of the following. 20

Model of Cryptography

Diagrammatic
