

**B.Tech. SEM -VII ( Computer) 2014 Course (CBCS) : SUMMER - 2019**

**SUBJECT: NETWORK SECURITY AND CRYPTOGRAPHY**

Day: Saturday  
Date: 11/05/2019

Time: 02.30 PM TO 05.30 PM  
Max Marks. 60

S-2019-2802

**N.B. :**

- 1) All questions are **COMPULSORY**.
- 2) Neat diagrams must be drawn **WHEREVER** necessary.
- 3) Figures to the right indicate **FULL** marks.
- 4) Assume suitable data, if necessary.

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- Q.1** a) Differentiate between Authentication and Authorization. (05)  
b) Draw and explain model for network security. (05)

**OR**

- Q.1** a) Explain the denial of service attack in detail. (05)  
b) Define the terms: (05)  
i) Security policy  
ii) Security mechanism

- Q.2** a) Compare secret key and public key cryptography. (05)  
b) Discuss substitution cipher techniques with example. (05)

**OR**

- Q.2** a) Explain working of RSA with example. (05)  
b) What is the purpose of S- Boxes in DES? (05)

- Q.3** a) Write a short note on Hash functions. (05)  
b) Explain knapsack algorithm in detail. (05)

**OR**

- Q.3** a) Explain in detail digital signature algorithm. (05)  
b) What is key management? Explain its use. (05)

- Q.4** a) Explain SSL protocol stack and record protocol. (05)  
b) Write a short note on Kerberos. (05)

**OR**

- Q.4** a) What is PGP? Explain various PGP services. (05)  
b) Explain time stamping protocol in detail. (05)

- Q.5** a) Define the following terms: (05)  
i) DNS  
ii) SNMP  
b) Explain the IP security services in detail. (05)

**OR**

- Q.5** a) Write a short note on point to point tunneling protocol. (05)  
b) Draw and explain Encapsulating security payload (ESP) protocol. (05)

- Q.6** a) Explain intrusion detection system to monitor network traffic only. (05)  
b) Write a short note on DMZ network. (05)

**OR**

- Q.6** a) Explain the term honeypots in detail. (05)  
b) Explain different types of firewalls. (05)

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