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Total No. of Printed Pages: 1

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**B.Sc. (IT) (Semester – 6<sup>th</sup>)  
NETWORK SECURITY  
Subject Code: BITE1-666  
Paper ID: [130434]**

**Time: 03 Hours**

**Maximum Marks: 60**

**Instruction for candidates:**

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

**Section – A**

**(2 marks each)**

Q1. Attempt the following:

- a) Define FDDI.
- b) What is HTTP?
- c) What is the role of Digital Signatures in network security?
- d) Write the range of various classes of IP addressing.
- e) What is the difference between threat and attack?
- f) What are the roles of public and private keys?
- g) Differentiate encryption and Decryption.
- h) What is the difference between substitution and transposition technique?
- i) Why security is necessary to protect data from unauthorized user?
- j) Define HIPPI.

**Section – B**

**(5 marks each)**

- Q2. Difference between OSI and TCP/IP model.
- Q3. Explain various security mechanisms of networking.
- Q4. Explain SSL layer of network security in detail.
- Q5. Write a note on application programming interface for IPv6.
- Q6. Explain transaction oriented applications of TCP.

**Section – C**

**(10 marks each)**

- Q7. Explain IP security architecture and show how HTTP and ESP works?
- Q8. Define IP multicasting? Explain multicasting protocols.
- Q9. Explain seven layer architecture of OSI model.