

Exam.Code:0918  
Sub. Code: 6792

24/6/22 (E)  
6/12/22

2062  
B.E. (Computer Science and Engineering)  
Sixth Semester  
CS-601: Computer Networks and Security

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) What is the difference between broad casting and multicasting?
- b) What are the transport layer protocols?
- c) Write about UDP.
- d) What is the function of SMTP?
- e) What are the advantages of having layered architecture?
- f) Discuss about unguided transmission media
- g) What is the significance of network security?
- h) What is Multicast Routing?
- i) Discuss Email Security
- j) What is key management? (10x1)

**UNIT - I**

- II. What are the responsibilities of Presentation layer and Session layer of OSI model?  
What is Internet? Explain the Architecture of Internet with a neat Sketch. (10)
- III. Explain Broadcast routing algorithm with an example. Differentiate the open loop congestion control and closed loop congestion control. (10)
- IV. Give the general principles of various congestion control algorithms. With an example, explain the distance vector routing.  
Distinguish between Leaky Bucket algorithm and Token Bucket algorithm. (2x5)

**UNIT - II**

- V. What is DNS? What resource records are associated with it? Explain. What are the five basic functions supported in e-mail systems? Explain. (10)

P.T.O.

(2)

- VI. Explain in brief about the formats of HTTP request and Response messages? Describe importance of DNS in application layer. (10)
- VII. Write short notes on:-
- a) Firewalls
  - b) S/MIME
- (2x5)

x-x-x