Roll No.: .....

Total No. of Questions : 11] [Total No. of Printed Pages : 6

PK-425

M.Sc. II Semester Computer Science (Reg./ATKT) Examination June 2018

COMPUTER NETWORKS WITH WINDOWS NT

Paper - III

Time Allowed : Three Hours] *[Maximum Marks : 85*

Note : All questions are compulsory.

Section - A
Objective Type Questions

Q.1. Choose the correct answers: 1.5×10=15

i) What is a Firewall in Computer Network?

(a) The physical boundary of Network

(b) An operating System of Computer Network

(c) A system designed to prevent unauthorized access

(d) A web browsing Software

ii) How many layers does OSI Reference Model has?

(a) 4 (b) 5

(c) 6 (d) 7

iii) DHCP is the abbreviation of

(a) Dynamic Host Control Protocol

(b) Dynamic Host Configuration Protocol

(c) Dynamic Hyper Control Protocol

(d) Dynamic Hyper Configuration Protocol

iv) IPv4 Address is

(a) 8 bit (b) 16 bit

(c) 32 bit (d) 64 bit

v) DNS is the abbreviation of

(a) Dynamic Name System

(b) Dynamic Network System

(c) Domain Name System

(d) Domain Network Service

vi) What is the meaning of Bandwidth in Network?

(a) Transmission capacity of a communication channels

(b) Connected Computers in the Network

(c) Class of IP used in Network

(d) None of Above

vii) ADSL is the abbreviation of

(a) Asymmetric Dual Subscriber Line

(b) Asymmetric Digital System Line

(c) Asymmetric Dual System Line

(d) Asymmetric Digital Subscriber Line

viii) What is the use of Bridge in Network?

(a) To connect LANs

(b) To separate LANs

(c) To control Network Speed

(d) All of the above

ix) Router operates in which layer of OSI Reference Model?

(a) Layer 1 (Physical Layer)

(b) Layer 3 (Network Layer)

(c) Layer 4 (Transport Layer)

(d) Layer 7 (Application Layer)

x) The values GET, POST, HEAD etc are specified in _____ of HTTP message

(a) Request line

(b) Header line

(c) Status line

(d) Entity body

Section - B
Short Answer Type Questions

5×5=25

Q.2. Explain the different topologies of the network.

OR

What are different multiplexing techniques used for analog signals? Explain.

Q.3. Explain the significance of Switching? What are different switching techniques used in computer networks? Discuss.

OR

List out the situations in which pure ALOHA and slotted ALOHA performs better. Justify your answer.

Q.4. What are the reasons for congestion? What are the problems with congestion?

OR

With an example explain the distance vector routing algorithms used in computer networks.

Q.5. Write about RSA algorithm in detail.

OR

Explain the following:

i) HTTP

ii) TELNET

iii) SMTP

iv) UDP

v) FTP

Q.6. Explain various features of Windows NT also compare Windows NT with other windows environment Operating system.

OR

What do you mean by domain group access?

Section - C
Long Answer Type Questions

5×9=45

Q.7. What is the significance of layered architecture? Explain the OSI layered architecture with neat sketch.

OR

Give the structure and working principle of WAN with virtual private networks and Internet Service Provider and also explain its role in Internet.

Q.8. What is the difference between the routing process in datagram networks and in virtual circuit networks? Explain.

OR

What is CSMA with CD? What are the three different states a CSMA/CD can be in? Explain with a neat diagram.

Q.9. Explain the concept of ATM and its interfaces. How addressing is achieved in ATM?

OR

Explain the shortest path routing algorithms used in computer networks with example.

Q.10. Describe cryptography and its process with its applications.

OR

What is the significance of ISDN? Explain the basic concept of ISDN. Give the protocol architecture of ISDN?

Q.11. Explain various security models in detail:

i) System level restriction

ii) Server application security

OR

Give statements on Windows NT workstations versus server in detail.

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