

KAMARAJ COLLEGE (Autonomous)

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

THOOTHUKUDI - 628 003

(4 Pages)

Reg. No:

Question. Code No : 2400145

Sub Code : 24PECA14

PG Degree - End Semester Examinations, November 2024

First Semester

M.C.A

Elective - ADVANCED COMPUTER NETWORKS

(For those who joined in July 2024 onwards)

Time : 3 Hours

Maximum : 75 Marks

PART A - (10 × 1 = 10 Marks)

Answer All the Questions

Choose the Correct Answer

1. Which transmission media provides the highest transmission speed in a network?
(a) Coaxial cable (b) Twisted pair cable
(c) Optical Fiber (d) Electrical cable
2. Which layer is determining how packets are routed from source to destination?

- (a) Transport Layer (b) Network Layer
(c) Application Layer (d) Data link Layer
3. Which frames are used for the initial communication between stations and access points?
(a) Management (b) Control
(c) Data (d) All of these
4. Which generation of cellular telephony was mainly designed for digitized voice?
(a) First (b) Second
(c) Third (d) Fourth
5. ____ is the network layer protocol.
(a) SMTP (b) HTTP
(c) IP (d) TCB
6. The ____ addresses are used to define a group of hosts instead of just one.
(a) Any cast (b) Reserved
(c) Local (d) Multicast
7. ____ are the transport layer protocols used in networking.
(a) TCP and FTP (b) TCP and UDP
(c) UDP and HTTP (d) HTTP and FTP
8. Two identifiers are needed to define the processes at the transport layer
(a) Logical address (b) Physical address
(c) Port address (d) IP address
9. What is the generic domain of international organization?
(a) Org (b) Com
(c) Int (d) Co
10. When displaying a web page, the application layer uses the __

- (a) FTP protocol (b) HTTP Protocol
(c) TCP Protocol (d) SMTP Protocol

PART B - (5X5=25Marks)

**Answer ALL Questions choosing either (a) or (b).
Answer should not exceed 250 words.**

11. (a) Describe the protocol hierarchies with neat diagram.

(OR)

(b) Write the difference between connection oriented and connectionless service.

12. (a) Examine hamming error correcting code with example.

(OR)

(b) Illustrate the simplex stop-and-wait protocol for an noisy channel.

13. (a) Describe broadcast routing algorithm.

(OR)

(b) Illustrate IP address formats.

14. (a) Write notes on any two congestion detection and recovery techniques.

(OR)

(b) Write notes on QoS provided by the transport layer.

15. (a) Write short notes on Name Space.

(OR)

(b) Validate the File Transfer Protocol (FTP).

PART- C (5 × 8 = 40 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 600 words.

16. (a) Examine the OSI model and its layers with neat diagram

(OR)

(b) Discuss on guided transmission media.

17. (a) Illustrate error detecting code with example

(OR)

(b) Illustrate three categories of satellites.

18. (a) Write in detail about IPv6.

(OR)

(b) State the difference between unicast and multicast routing.

19. (a) Generalize the services provided by the transport layer.

(OR)

(b) Illustrate UDP?

20. (a) Justify on Domain Name System (DNS) in the Internet.

(OR)

(b) Construct the E-mail architecture with diagram.