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Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, SEPTEMBER 2024

Sixth Semester

Core Course—COMPUTER NETWORKS

[Common for B.Sc. Electronics and B.Sc. Computer Maintenance and Electronics]

(Prior to 2013 Admissions)

Time : Three Hours Maximum Weight : 25

Part A

Answer **all** *questions.*
Each bunch of **four** *questions carries a weight* 1.

I. 1 Which multiplexing technique transmits digital signals ?

a) FDM. b) TDM.

c) WDM. d) FDM and WDM.

2 What are the Methods to move data through a network of links and switches ?

a) Packet switching. b) Circuit switching.

c) Line switching. d) Both Packet switching and Circuit switching.

3 The packet of information at the application layer is called ————————.

a) Packet. b) Message.

c) Segment. d) Frame.

4 Electronic mail uses which Application layer protocol ?

a) SMTP. b) HTTP.

c) FTP. d) SIP.

II. Say True *or* False :

5 In packet switching resources areallocated on demand.

6 Physical layer concerns with frames.

Turn over

7 Bluetooth is an example of virtual private network.

8 In asynchronous serial communication the physical layer provides start and stop signalling

III. Match the following :

9	Virtual circuit	–	Cash recovery.
10	Datagram	–	Telnet.
11	Application Layer	–	Connectionless.
12	Session layer	–	Connection oriented.

IV. 13 Fibre optics posses———————— property.

14 The data link layer takes the packets from ———————— and encapsulates them into frames for transmission.

15 Which layer is responsible for process to process delivery ?

16 A ———————— is a TCP name for a transport service access point.

(4 × 1 = 4)

Part B

Answer any **five** *questions.*
Each question carries a weight of 1.

17 Explain about WAN.

18 What are TCP and UDP protocols ?

19 What is ETHERNET ?

20 Explain about HTTP.

21 What is the difference between broadcasting and multicasting ?

22 Write a short note on DTE and DCE.

23 What are Firewalls ?

24 What is a Modem ? What are its functions ?

(5 × 1 = 5)

Part C

Answer any **four** *questions.*
Each question carries a weight of 2.

25 What is thesignificance of Switching ? What are the different types of Switching techniques ?

26 What is the significance of DNS.

27 With a neat diagram explain the basic concepts involved in stop and wait protocol.

28 What is the significance of topologies ? What are the different types of topologies?

29 Explain thedifference between TCP model and OSI model.

30 What is the difference between PURE and slotted ALOHA ?

(4 × 2 = 8)

Part D

Answer any **two** *questions.*
Each question carries a weight of 4.

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

32 What are the general principles of congestion control ? Explain.

33 Explain the different error detection techniques.

(2 × 4 = 8)