

Total No. of printed pages = 3

ECE 181505

09/01/23

Roll No. of candidate

--	--	--	--	--	--	--	--	--	--

2022

BINA CHOWDHURY CENTRAL LIBRARY  
(GIMT & GIPS)  
Azara, Halaakhwapara,  
Guwahati-781017

B.Tech. 5<sup>th</sup> Semester End-Term Examination

ECE

COMPUTER NETWORKS

(New Regulation and New Syllabus)

Full Marks – 70

Time – 3 hours

The figures in the margin indicate full marks for the questions.

Answer question no.1 and any four from the rest

1. Answer the following (MCQ/ Fill in the blanks) : (10 × 1 = 10)

- (i) What are different approaches of packet switching
  - (a) Datagram and virtual channel
  - (b) Datagram and virtual circuit
  - (c) Virtual channel and virtual path
  - (d) Virtual circuit and virtual path
- (ii) A PVC is a transmission path in \_\_\_\_\_ switching.
- (iii) WWW is an \_\_\_\_\_ layer protocol.
- (iv) In which of the following switching the information is in binary type?
  - (a) Circuit
  - (b) Packet
  - (c) Message
  - (d) None of the above
- (v) The full form of WLL is \_\_\_\_\_
- (vi) The connection oriented protocol is \_\_\_\_\_.
- (vii) What is A HUB
  - (a) Software
  - (b) Computing Devices
  - (c) Network device
  - (d) Calculating device

[Turn over

(viii) What is the collection of the hyperlinked document on the internet known as?

- (a) HTML
- (b) Email
- (c) WWW
- (d) Internet

(ix) Which type of topology is best suited for large businesses which must carefully control and coordinate the operation of distributed branch outlets?

- (a) Ring
- (b) Local area
- (c) Hierarchical
- (d) Star

(x) Which of the following transmission directions listed is not a legitimate channel?

- (a) Simplex
- (b) Half duplex
- (c) Full duplex
- (d) Double duplex

BINA CHOWDHURY CENTRAL LIBRARY  
(GMIT & GIPS)  
Azara, 1st khowagar, Guwahati-781017

2. (a) Briefly describe working principle of the Client/server model. (5)
- (b) What are different layers of OSI model? Explain each one of them. (6)
- (c) What is the difference between internet architecture and OSI model. (4)
3. (a) What do you mean by topology in computer network? How many topologies are there explain briefly. (8)
- (b) Write advantages of LAN over WAN. (3)
- (c) Discuss about different types of issues in data link layer. (4)
4. (a) What do you mean by framing? In which layer it is used? (2+1=3)
- (b) How many types of framing are there explain each in brief. (6)
- (c) Explain about pure Aloha and Slotted Aloha. (6)
5. (a) Describe the shortest path algorithm used for network layer design. (5)
- (b) Why optical fibre cable is preferred over twisted and coaxial cable? (5)
- (c) Discuss the issues related to Network design. (5)
6. (a) Describe High Level Data Link Protocol. (5)
- (b) Compare the TCP and UDP protocol. (4)
- (c) Discuss the uses of Application Layer. (3)
- (d) What is HTTP. (3)

7. Write short notes on any three.

(3 × 5 = 15)

- (a) IP address
- (b) Point-to-point protocol
- (c) Ethernet
- (d) SNR (signal to noise ratio)

BINA CHOWDHURY CENTRAL LIBRARY  
(GIMT & GIPS)  
Azara, Haikhowapara,  
Guwahati - 781017