



**MAULANA ABUL KALAM AZAD UNIVERSITY OF
TECHNOLOGY, WEST BENGAL**

Paper Code : BCA-501

PUID : 05144 (To be mentioned in the main answer script)

**DATA COMMUNICATION &
COMPUTER NETWORKS**

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own
words as far as practicable.*

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following : $10 \times 1 = 10$
- i) TCP is a/an
 - a) reliable connection oriented protocol
 - b) unreliable connection oriented protocol
 - c) reliable connectionless protocol
 - d) unreliable connectionless protocol.
 - ii) Microwaves are used for
 - a) unicast communication
 - b) multicast communication
 - c) both (a) and (b)
 - d) none of these.

- iii) UDP belongs to
 - a) network layer
 - b) transport layer
 - c) Mac layer
 - d) data link layer.
- iv) Range of class C address is
 - a) 128-191
 - b) 190-220
 - c) 192-223
 - d) 190-223.
- v) ARP protocol is used to map
 - a) hardware address to hardware address
 - b) physical address to logical address
 - c) IP network address to hardware address
 - d) none of these.
- vi) Framing is done in
 - a) network layer
 - b) transport layer
 - c) data link layer
 - d) none of these.
- vii) The standard for Token Ring is
 - a) IEEE 802.3
 - b) IEEE 802.5
 - c) IEEE 802.6
 - d) none of these.
- viii) GSM stands for
 - a) Good Service Management
 - b) Global Service Management
 - c) Good Sender Memory
 - d) Global System for Mobile Communication.
- ix) Which topology features a point-to-point line configuration ?
 - a) Mesh
 - b) Ring
 - c) Star
 - d) All of these.
- x) After a message is decrypted, it is called
 - a) plain text
 - b) cipher text
 - c) crypto text
 - d) none of these.

8. a) Explain the Stop and Wait protocol. 4
 b) What is circuit switching ? How does it differ with message switching ? 3 + 2
 c) Briefly define Repeater, Bridge and Router. 2 + 2 + 2
9. a) Encode the bit sequence 0101 using ASK, FSK, PSK. 2 + 2 + 2
 b) Briefly describe the priority access methods of Token Ring. <http://www.makaut.com> 5
 c) Compare FDM and TDM. 4
10. a) Briefly describe the function of Data Link Layer and Network Layer of OSI Model. 3 + 3
 b) What are DTE and DCE ? Explain the DTE and DCE interface. 2 + 4
 c) What is baud rate ? 1
 d) What are Private Key and Public key ? 2
11. Write short notes any *three* of the following : 3 × 5
 a) Leaky Bucket Algorithm
 b) GEO
 c) ALOHA
 d) Topology
 e) PCM.