

Bachelor in Information Technology (BIT)**Term-End Examination****June, 2007****CSI-09 : COMMUNICATION TECHNOLOGY***Time : 3 Hours**Maximum Marks : 75*

Note : *There are **two** sections in this paper. Section A is **compulsory** and consists of 10 objective type questions and descriptive questions. Section B consists of 4 questions from which you have to answer any **three** questions.*

SECTION A

1. (A) There are 10 objective type questions in this section. There are four choices given for each question. Select the best choice as your answer. If you feel that none of the given choices are correct then mark '0' as your answer. Attempt all the questions. Each question carries one mark. $10 \times 1 = 10$
- (i) Broadcasting in which picture and other information is converted into and transmitted as a series of discrete bits or numbers which represent the picture or information being broadcast is
- (a) Analog broadcasting
 - (b) Terrestrial broadcasting
 - (c) Digital broadcasting
 - (d) None of the above
- (ii) The purpose of a Bridge is
- (a) Isolates networks by MAC addresses
 - (b) Manages network traffic by filtering packets
 - (c) Translates from one protocol to another
 - (d) All the above
- (iii) _____ are used where the network is being locally (physical location) segmented.
- (a) Translation Bridges
 - (b) Local Bridges
 - (c) Remote Bridges
 - (d) None of the above

- (iv) RIPEM email public key system was developed by
 - (a) Mark Riordan
 - (b) Zimmermann
 - (c) Lai
 - (d) Massey
- (v) The high performance WAN protocol that operates at the physical and data link layers of the OSI reference model is
 - (a) X.25
 - (b) Frame relay
 - (c) LAP-B
 - (d) CSV/DSV
- (vi) RAID 0 is known as
 - (a) Mirroring
 - (b) Parity striping
 - (c) Disk striping
 - (d) None of the above
- (vii) Public key cryptographic technique was first published by
 - (a) Len Adleman
 - (b) Ron Rivest
 - (c) Adi Shamir
 - (d) Diffie Hellman
- (viii) Ethernet, linked by virtual point to point links, is called as
 - (a) Channels
 - (b) Tunnels
 - (c) Cables
 - (d) None of the above
- (ix) The technique whereby a router can dynamically initiate and close a circuit switched session as transmitting and station demand is
 - (a) Dial Backup
 - (b) PPP
 - (c) Dial on demand routing
 - (d) None of the above
- (x) SSL stands for
 - (a) Secure Socket Layer
 - (b) Socket Secure Layer
 - (c) Secret Secure Layer
 - (d) Secret Security Layer

(B) Mention the differences between the Base band communication and Broad band communication. What kind of communication is employed in ISDN ? Explain the various ISDN services and also list at least 3 applications of ISDN.

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(C) What is switching ? Differentiate between Circuit switching and Packet switching.

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SECTION B

Answer any **three** from the following (numbered from 2 to 5).

2. (a) Explain the layered architecture of ATM in comparison with the OSI reference model. 7
- (b) Discuss at least four modes of electronic payments in E-commerce. 8
3. (a) What is a Modem ? Explain the standards in modems and modem indicators. 7
- (b) Explain the following public key algorithms : 8
 - (i) RSA
 - (ii) RC4
4. (a) Discuss the reasons for the growth of the Intranets in recent years. Also, mention different applications of Intranet. 7
- (b) With the help of an example data, explain the Network Cost Analyzer. 8
5. Explain the following WAN protocols : 15
 - (i) X.25
 - (ii) Frame Relay
 - (iii) IP
 - (iv) IPv6
 - (v) IPv3