

Seat No. : _____

SM-115
September-2020
B.Sc., Sem.-VI
311 : Electronics

Time : 2 Hours]

[Max. Marks : 50

- Instructions :** (1) **All** Questions in **Section-I** carry equal marks.
(2) Attempt any **THREE** questions in **Section-I**.
(3) Question-9 in **Section-II** is **COMPULSORY**.

Section – I

1. Write the following :
 - (A) Draw the block diagram of Basic Telephone Set. Explain ringer, switch hook & handset. 7
 - (B) With block diagram, explain the Subscriber Interface at the central office. 7

2.
 - (A) With the help of block diagram, explain Private Telephone System in detail. 7
 - (B) Draw general block diagram of a cordless telephone. Explain Cordless telephone concepts and frequency allocations. 7

3. Write the following :
 - (A) Explain FDMA, TDMA and CDMA with diagrams. 7
 - (B) Draw block diagram of typical AMPS unit. Give the sequence of operations that occur when a person initiates a cellular telephone call. 7

4.
 - (A) Explain cellular concepts and frequency allocation in detail with diagram. 7
 - (B) Write a short note on Base Stations. 7

5. Write the following :
 - (A) Explain E-mail, File Transfer, WWW, E-commerce, Searches, VoIP and Video over internet protocol. 7
 - (B) With simplified diagram of the internet, explain the Internet Backbone. 7

6. (A) With figure explain frame relay and Asynchronous Transfer Mode. 7
 (B) Draw basic architecture of a SAN and explain it in detail. 7

7. Write the following :
 - (A) With block diagram explain ring topology & bus topology. 7
 - (B) With diagram explain how Bridges & Gateways are used in LAN. 7

8. (A) Explain the term Node. Explain WANs, MANs and LANs in detail. 7
 (B) With diagram explain how Repeaters & Hubs are used in LAN. 7

Section – II

9. Attempt any **Eight** : 8
 - (A) A basic telephone set is an analog _____ transceiver.
 - (B) A switch hook is a _____ pole mechanical switch.
 - (C) Full form of DSSS is _____.
 - (D) Full form of DECT is _____.
 - (E) Full form of MTSO is _____.
 - (F) SDMA uses highly directional antennas to pin-point users and reject others on the _____ frequency.
 - (G) In FDD, _____ frequency channels are assigned for transmit and receive functions.
 - (H) In AMPS, the receiver is typically a _____ conversion superheterodyne.
 - (I) Frame relay is a _____ switching protocol.
 - (J) _____ is a method that allows different pages or websites to be linked.

- (K) TCP is used only to prepare the packets for transmission and _____ the packets when received.
 - (L) The MAC address is a unique address assigned to the _____ device.
 - (M) The interconnection between the nodes is referred to as the _____ link.
 - (N) PANs are referred to as _____ networks that are setup for a specific single purpose.
 - (O) The most popular and widely used groupware program is _____.
 - (P) Fiber optic cable is a non-conducting cable consisting of a glass or _____.
- _____

