

## B.Sc Sem.-6 (Rep) Examination

SE 311

## Electronics (A) Modern Comm.

Time : 2-30 Hours]

October-2024

[Max. Marks : 70

- Instructions: (1) All questions carry equal marks  
 (2) The symbols have their usual meanings & figures to the right indicate marks.

- 1 (A) Provide a detailed explanation of the Basic Telephone Set, including a discussion on Dialing Circuits and Handset Circuits. 7  
 (B) Draw the block diagram of Cordless telephone. Explain its Features, Capabilities & limitations. 7  
 OR  
 (A) Explain in detail single chip electronic telephone with block diagram. 7  
 (B) Explain BORSCHT functions in the Subscriber Interface with block diagram. 7
- 2 (A) Explain cellular concepts and frequency allocation in detail with diagram. 7  
 (B) Draw the block diagram of typical AMPS unit. Explain AMPS receiver. 7  
 OR  
 (A) Explain multiple access in detail with diagram. 7  
 (B) Write short note on advanced cell phones. 7
- 3 (A) Explain E-mail, File Transfer, WWW, E-commerce, Searches, VoIP and Video over internet protocol. 7  
 (B) Explain TCP headers and IP header in detail with figure. 7  
 OR  
 (A) Explain the packet-switching concept showing nodes in the backbone. 7  
 (B) Write a note on Storage Area Networks with block diagram. 7
- 4 (A) Explain with diagram receive and transmit mode functions in the basic telephone system. Draw block diagram of basic telephone set. 7  
 (B) Explain TDMA and SDMA with diagrams. 7  
 OR  
 (A) Explain standard telephone circuit diagram showing connection to central office. 7  
 (B) Explain the sequence of operations for accessing data by using the iSCSI protocol. 7
- 5 Attempt any **SEVEN** out of twelve. 14
  - 1 A basic telephone set is an analog \_\_\_\_\_ transceiver.
  - 2 A switch hook is a \_\_\_\_\_ pole mechanical switch.
  - 3 Full form of MDMF is \_\_\_\_\_.
  - 4 Full form of DSSS is \_\_\_\_\_.
  - 5 Full form of MTSS is \_\_\_\_\_.
  - 6 SDMA uses highly directional antennas to pinpoint users and reject others on the \_\_\_\_\_ frequency.
  - 7 Full form of MIN is \_\_\_\_\_.
  - 8 Each GSM frame has eight time slots for \_\_\_\_\_.
  - 9 \_\_\_\_\_ is a method that allows different pages or websites to be linked.
  - 10 Frame relay is a \_\_\_\_\_ switching protocol.
  - 11 SONET is by far most widely used \_\_\_\_\_ data transmission network in the United States.
  - 12 Full form of SDH is \_\_\_\_\_.