

B.Sc. Sem.-6 Examination

SE-311

Electronics (A)

April-2025

Time : 2-30 Hours]

[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) Explain standard telephone circuit diagram showing connection to central office. 7
 (B) Draw the block diagram of Cordless telephone. Explain its Features, Capabilities & limitations. 7
OR
 (A) With the help of block diagram explain BORSCHT functions in the Subscriber Interface. 7
 (B) With the help of block diagram explain PBX in detail. 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 transmitter or receiver. 7
OR
 (A) Explain multiple access in detail with diagram. 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
- 3 (A) Explain Frame Relay and Asynchronous Transfer Mode with figure. 7
 (B) Explain the packet-switching concept showing nodes in the backbone. 7
OR
 (A) Discuss Internet Backbone with block diagram. 7
 (B) Explain TCP headers and IP header in detail with figure. 7
- 4 (A) Write note on Telephone Hierarchy with organization of the telephone system in the United States. 7
 (B) Explain EDGE in detail. What makes EDGE faster than GPRS? 7
OR
 (A) Discuss about Basic Telephone Set in detail. Explain Switch Hook and Dialing Circuits. 7
 (B) Explain Network Mask and Subnet Mask in detail. 7
- 5 Attempt any **SEVEN** out of twelve. 14
- 1 A basic telephone set is an analog _____ transceiver.
 - 2 Full form of MDMF is _____.
 - 3 Full form of DSSS is _____.
 - 4 Most PBXs are set up to handle _____ or more telephone interconnections.
 - 5 In FDD, _____ frequency channels are assigned for transmit and receive functions.
 - 6 TDMA relies on _____ signals and operate on a single channel.
 - 7 Full form of NAM is _____.
 - 8 Full form of MIN is _____.
 - 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 A new connection system called iSCSI uses installed Ethernet LAN plus Ethernet _____.