

B.Sc. Semester-6 Examination

SE 311

Electronics (A)

April-2023

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 (i) Draw the block diagram of basic telephone system. With block diagram explain Basic telephone set in detail. 7
 (ii) With block diagram explain BORSCHT functions in the Subscriber Interface at the central office. 7
OR
 (i) Explain standard telephone circuit diagram showing connection to central office. 7
 (ii) Explain single chip electronic telephone with block diagram. 7
- 2 (i) Explain the term Multiple Access. Explain Frequency Reuse, FDMA, TDMA in detail with diagram. 7
 (ii) With the help of general block diagram explain in detail advanced cell phones. 7
OR
 (i) Draw the block diagram of typical AMPS unit. Draw and explain AMPS transmitter in detail. 7
 (ii) Draw and explain CDMA and SDMA in detail. 7
- 3 (i) Explain E-mail, File Transfer, WWW, E-commerce, Searches, VoIP and Video over internet protocol. 7
 (ii) Explain Internet Backbone with simplified diagram of the Internet. 7
OR
 (i) With the help of figure explain Frame Relay packet and Asynchronous Transfer Mode packet. 7
 (ii) Explain routers in detail with the help of general block diagram of a router. 7
- 4 (i) Draw the block diagram of Cordless telephone. Explain its Features, Capabilities & limitations. 7
 (ii) Draw and explain cellular concepts and frequency allocation in detail. 7
OR
 (i) With block diagram explain Private Telephone System in detail. 7
 (ii) Draw and explain the basic architecture of a SAN. 7
- 5 Attempt any **SEVEN** out of twelve. 14
- 1 A basic telephone set is an analog _____ transceiver.
 - 2 Full form of DTMF is _____.
 - 3 The tone ringer is driven by the _____ Hz ringing signal from the phone line.
 - 4 _____ is another name of A/D conversion and D/A conversion.
 - 5 Full form of MTSO is _____.
 - 6 TDMA relies on _____ signals and operate on a single channel.
 - 7 SDMA uses highly directional antennas to pinpoint users and reject others on the _____ frequency.
 - 8 Full form of NAM is _____.
 - 9 _____ is a method that allows different pages or websites to be linked.
 - 10 Frame relay is a _____ switching protocol.
 - 11 Full form of STS is _____.
 - 12 The MAC address is a unique address assigned to the _____ device.

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