

R07**Code: R7320402**

B.Tech III Year II Semester (R07) Supplementary Examinations December/January 2015/2016

TELECOMMUNICATION SWITCHING SYSTEMS

(Electronics and Communication Engineering)

(For 2008 regular admitted batch only)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Distinguish between local battery and central battery exchanges.
(b) If the signal input to an amplifier is 0 dBm, what is the power output in MW, if the gain of the amplifier is 20 dB?
- 2 (a) Explain the principle of time-multiplexed switches.
(b) An analog non folded time division space switch is to be designed to support 32 inlets and outlets each. Assuming bidirectional traffic:
(i) What is the time duration that is available for exchanging samples for one connection?
(ii) What is the size of the control memory if the switch is output controlled?
(iii) What is the clock rate?
- 3 (a) Describe the switching hierarchy of telephone network.
(b) Define the following terms:
(i) Party lines.
(ii) Concentrators.
(iii) Carrier system.
- 4 (a) Define overload traffic and explain different ways of handling it.
(b) Over a 20-minute observation interval, 40 subscribers initiate calls. Total duration of the calls is 4800 seconds. Calculate the load offered to the network by the subscribers and the average subscriber traffic.
- 5 (a) Draw a peer-to-peer client/server network and discuss their features.
(b) Differentiate data terminal equipment and data communications equipment.
- 6 (a) Discuss about the structure of circuit switches.
(b) What is a router? How it is different from a bridge?
- 7 (a) What are the new services supported by ISDN? Explain any four of them in detail.
(b) How functional modules are interconnected in BISDN?
- 8 (a) What is ADSL? Explain about the modem used in ADSL.
(b) What is meant by virtual tributaries? What are their types?
