B. Tech.

(SEM. VIII) THEORY EXAMINATION, 2014-15
ELECTRONICS SWITCHING

Time : **3 Hours**]   [Total Marks : **100**

1   Attempt **any four** parts :   5×4=20

   (a)   Explain and draw general trunking diagram.

   (b)   Explain how packet switching is better than circuit switching for data communication system.

   (c)   Explain Read electronic switch with support of diagram.

   (d)   Explain one motion and two motion selector.

   (e)   Explain register translator sender system.

2   Attempt **any four** parts :   5×4=20

   (a)   write down the difference between single stage and multistage network.

   (b)   Briefly describe digital time division switching. Differentiate it with analog time division switching

(c) Derive blocking probability of a three stage network using lee graph.

(d) Explain triangular cross point switches. Calculate the total number of cross points in a triangular crosspoint matrix with 100 subscribers.

(e) Explain consolidation and segregation.

3 Attempt **any two** parts :   10×2=20

(a) Define pure birth process and derive the expression for the probability of K arrival. On average, one call arrive every 5 sec. During a period of 10 sec, calculate the probability that.

    (a) No call arrives.

    (b) One call arrives.

    (c) Two call arrive.

    (d) more than two call arrives.

(b) Derive and explain erlang B formula and compare it with erlang C formula.

(c) Derive an equation of grade of service and blocking probability of lost call cleared service.

4 Attempt **any two** parts :   10×2=20

(a) Explain common channel signalling with SS7 architecture. Compare common channel signalling with in channel.

(b) Explain the sequence of operation in call processing function.

(c) What do you understand by system software of SPC software.

10×2=20

5 Attempt **any two** parts :

(a) Explain memory space memory switch. Draw 8×8 banyan switch network.

(b) Discuss TCP/IP reference model.

(c) Write a short note on:

    (a) Fixed path routing.

    (b) Space memory switch.

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