Reg. No. : | | | | | | | | | | |

Question Paper Code: 53P22

M.E. DEGREE EXAMINATION, NOV 2017

Third Semester

Communication Systems

15PCM302 – TELECOMMUNICATION SWITCHING AND MANAGEMENT

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. A switching network with N inlets and M outlets is said to be symmetric network when

   (a) N>M (b) N=M (c) N<M (d) None of these

2. To activate the appropriate control signal, a control word in binary conditions contains

   (a) bit pattern (b) frames (c) packets (d) stream of bits

3. At night time, which of the following layer disappear due to absence of ultraviolet radiation

   (a) D (b) E (c) F1 (d) F2

4. The information rate used in D transmission channel is

   (a) 64 Kbps (b) 384 Kbps (c) 1536 Kbps (d) 1920 Kbps

5. Measure of traffic intensity is

   (a) call seconds (b) call minutes (c) centum call second (d) all the above

PART B - (5 x 3 = 15 Marks)

6. List out the factors which affect the functioning of uniselector.

7. Describe the different operating modes in dual processor.

8. Draw the architecture of SS7.

9. Why two-stage dialing is less preferred than single-stage dialing?

10. Discuss on Grade of service for better service.

PART C - (5 x 16 = 80 Marks)

11. (a) Describe in detail about the strowger switching mechanism. (16)

Or

(b) Describe and distinguish blocking and non blocking networks. (16)

12. (a) Apply the stored program concept to improve the functioning of centralized switching system. (16)

Or

(b) Compare and contrast the functioning of time division and time multiplexed time switching. (16)

13. (a) Explain about the different factors used to define transmission loss. (16)

Or

(b) Discuss in detail on various charges on a subscriber for a telecommunication service. (16)

14. (a) Explain, how the information can be transferred in open channel teletext. (16)

Or

(b) Describe in detail about coexistence of ISDN with other networks. Also explain the technique used to improve the data rate supported by ISDN. (16)

15. (a) Discuss in detail on TMN using its functional model and logical model. (16)

Or

(b) How will you improve the grade of services in terms blocking probability? (16)

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