328848(28)

B. E. (Eighth Semester) Examination, APR-MAY 2020 ∧

(New Scheme)

(Et. & T Engg. Branch)

TELECOMMUNICATION SWITCHING CIRCUITS and NETWORKS

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

*Note : All questions are compulsory. Part (a) is compulsory and from remaining you have to attempt any **two** parts (b), (c) & (d) of each question. The figures in the right hand margin indicate marks.*

Unit-I

1. (a) What do you mean by folded and non-folded network? 2

(b) Discuss basic elements of switching system.　　　7

(c) Explain the principle of switching and its switch configuration with neat sketch.　　　7

(d) What is centralised SPC? Explain its working with different modes of configuration.　　　7

Unit-II

2. (a) What do you understand by Digital Switching System? 2

(b) Explain time division space switching with suitable diagram.　　　7

(c) Explain software architecture of call processing in briefly.　　　7

(d) Discuss the various electronic exchanges in India.　　7

Unit-III

3. (a) What is GOS of a delay system?　　　2

(b) Explain Birth-Death process with its probabilities.　　7

(c) How to work in echo suppessors in transmission plan? 7

(d) What is the basic difference betwenn in-channel signalling and common channel signalling?   7

Unit-IV

4. (a) Explain to data networks are classified according to geographical coverage.   7

   (b) Discuss various switching techniques for data transmission in PSTN.   7

   (c) Explain the role and importance of end-to-end layers in data communication architecture.   7

   (d) Calculate the through put of pure ALOHA and slotted ALOHA in satellite based data network (SBDN).   7

Unit-V

5. (a) What do you mean by ISDN?   2

   (b) What are various new service supported by ISDN? Give a brief description of few services.   7

   (c) Explain network and protocol architecture of ISDN.   7

(d) Explain user level signalling and network level
signalling in detail. 7

Unit IV

4. (a) Explain 1-5 data network protocol/message
to protocol/message.

(b) Discuss various switching techniques for data
transmission in PSTN.

(c) Explain the role and importance of each two-end layers
in data communication architecture.

(d) Calculate the through put of pure ALOHA and slotted
ALOHA in satellite based data network (SBDN). 7

Unit V

5. (a) What do you mean by ISDN?

(b) What are various new service supported by ISDN?
Give a brief description of Tele services. 7

(c) Explain network and protocol architecture of ISDN 7