BCA-201

B.C.A. Second Year Examination, 2017

Paper–I

(Computer Communication and Networking)

Time Allowed : Three Hours

Maximum Marks : 100

PART–A (खण्ड–अ)   [Marks : 20

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर 50 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART–B (खण्ड–ब)   [Marks : 50

Answer five questions (250 words each), selecting one from each Unit. All questions carry equal marks.

प्रत्येक इकाई में से एक-एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

Answer any **two** questions (300 words each).

All questions carry equal marks.

कोई **दो** प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART-A

(खण्ड-अ)

1. Answer the following questions :

   (i)   Define the Protocol.

   (ii)   Define the concept of Frequency and bandwidth.

   (iii)   What is meant by Parity check?

   (iv)   Define Data encoding.

   (v)   Define Multiplexing.

   (vi)   What is meant by Routing?

   (vii)   What is meant by Passive components?

   (viii) Define Fiber Channels.

   (ix)   Define Multicasting.

   (x)   What is meant by Internetworking?

$$10×2=20$$

PART-B

UNIT-I

2. Discuss the TCP/IP Model. 10

3. Discuss the various mode of wireless transmission. 10

UNIT-II

4. Explain functional and Procedural aspects of V.24. 10

5. Write short notes on the following :

   (i) Asynchronous and Synchronous transmission.

   (ii) Data Link control. 5+5=10

UNIT-III

6. Discuss the routing in circuit switching Network. 10

7. Write short notes on the following :

   (i) Space Division switching

   (ii) Control signalling. 5+5=10

UNIT-IV

8. Write a note on LAN architecture and IEEE 802 standards. 10

9. Explain Medium Access Control (MAC). 10

UNIT-V

10. Explain the Principles of Internetworking.   10

11. Write a note on TCP and HTTP.   10

PART-C

12. Discuss the various transmission media and their comparative study.   15

13. Write short notes on the following :

    (i) Full and Half duplex

    (ii) Error detection and control

    (iii) HDLC.   5+5+5=15

14. Discuss in brief SS7, Packet switching and X.25.   15

15. What is meant by Wireless LANS? Discuss the LAN devices and Latest trends in LAN technologies.   15

16. Write short notes on the following :

    (i) IPV6

    (ii) SNMP and SMTP

    (iii) Connection Less Internetworking.   5+5+5=15

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