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This question paper contains 4+1 printed pages]

BCA-201

B.C.A. (Second Year) EXAMINATION, 2018

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** question from each Unit.*

All questions carry equal marks.

प्रत्येक इकाई में से एक प्रश्न चुनते हुए कुल पाँच प्रश्न कीजिए । प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो । सभी प्रश्नों के अंक समान हैं ।

Part C (खण्ड 'स') [Marks : 30]

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 ।

P.T.O.

Part A

1. (i) Define Interface.
- (ii) What is bandwidth ?
- (iii) Define data encoding.
- (iv) What is meant by parity check ?
- (v) Define switching network.
- (vi) Define Time Division multiplexing.
- (vii) Define CSMA.
- (viii) What is meant by Fiber Channel ?
- (ix) Define L2 switches.
- (x) What is meant by MIME ? 10×2=20

Part B

Unit I

2. What is meant by data communication ? Explain electromagnetic spectrum and frequencies of data communication. 10

BCA-201

2

Or

✓ Explain the following :

- (i) Protocol and Protocol Architecture.
- (ii) Wireless Networks. 5+5

Unit II

3. Discuss the functional and procedural aspect of V.24. 10

Or

✓ Write a note on HDLC and other Data Link Control Protocols. 10

Unit III

4. Discuss the circuit switching. 10

Or

✓ Explain the principles of packet switching. 10

Unit IV

5. Write a note on L2 LAN switches. 10

BCA-201

3

P.T.O.

Or

Explain the following :

- (i) Token Ring
- (ii) Structured cabling 5+5

Unit V

6. Explain TCP Routing protocols. 10

Or

- Discuss the principles of Internetworking. 10

Part C

Unit I

- 7. Discuss the transmission media and wireless transmission. 7+8

Unit II

8. Write short notes on :
- (i) Bipolar AMI
 - (ii) Stop and Wait ARQ
 - (iii) Asynchronous and synchronous transmission
- 5+5+5

Unit III

9. What is meant by Routing ? Discuss the Routing in circuit switching network and brief idea of SS7. 15

Unit IV

10. (a) Discuss the latest trends in LAN Technologies.
(b) Write a note on IEEE 802 standards. 8+7

Unit V

- 11. (a) Discuss the HTTP and SMTP protocols.
(b) Write a note on IPv6. 8+7