Solved

"प्रश्न–पत्र पर क्रमांक (रोल नम्बर) के अतिरिक्त कुछ भी न लिखें, अन्यथा इसे अनुचित साधनों का प्रयोग माना जायेगा तथा नियमों के अनुसार कार्यवाही की जायेगी।"

"Do not write anything on question-paper except Roll Number, otherwise it shall be deemed as an act of indulging in unfair means and action shall be taken as per rules."

Roll No. 1SBCA3345

B.C.A. (III) **Compt.Netw.**
1733

B.C.A. (Part-III) Examination 2017

Paper- III

BCA 303- Computer Networks

Time - Three Hours
Maximum Marks - 80

नोट :– (1) प्रश्न संख्या एक अनिवार्य है। शेष प्रश्नों में से किन्ही चार को हल कीजिए।

Note:- (1) Question No. 1 is Compulsory. Attempt any four question from the remaining questions.

नोट :– (2) सभी प्रश्नों के अंक समान है।

(2) All questions carry equal marks.

1- Answer the following questions (Compulsory). (2 x 8=16)

(a) What is an interfacing?
How many types of it. (only name).

(b) What is bandwidth?

(c) What is a modulation?
How many types of it. (only name).

(d) Full Form of ALOHA and CSMA.

(e) Differentiate between Star and Bus topology.

(f) What is a circuit switching?

(g) What do you mean by logical and physical topology?

(h) What is a Hamming Code?

2- What do you mean by Computer Network? Explain the elements of Network. 16

3- Define an architecture of OSI model. Briefly. 16

4- What do you mean by Error detection? Explain parity generation and detection. 16

5- What do you mean by transmission? Explain the role of optical fiber in transmission media. 16

6- What do you mean by CRC? Explain with an Example.

7- What do you mean by Topology? Explain any two LAN topologies with comparison study. 16

8- Explain any two LAN technologies. Briefly. 16

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Roll No. ...1.6.B.C.A.2.0.2.8.8

B.C.A. (III)
1733

Compt. Netw.

B.C.A. (Part-III) EXAMINATION, 2018
PAPER-III
BCA: 303- COMPUTER NETWORKS

Time Allowed - Three Hours
Maximum Marks - 80

नोट :– (1) प्रश्न संख्या 1 अनिवार्य है। शेष प्रश्नों में से किन्हीं चार को हल कीजिये।

(2) सभी प्रश्नों के अंक समान है।

Note :- (1) Question No. 1 is compulsory. Attempt any FOUR questions from the remaining questions.

(2) All questions carry equal marks.

1. (a) What is the need of amplitude modulation? Write down and general principles of frequency modulation.

(b) Write down the characteristics of local area networks and wide area Networks.

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2. (a) How can we set-up a local area network with 20 computers and one server. List out the necessary network interconnecting devices with number of ports and cable types used for connections. How can we connect the LAN systems with Internet ?

(b) What do you mean by a network protocols. List out the main protocols used LAN, WAN and MAN.

3. (a) Write down the functions of Physical layer, the data link layer and Network layer. What are two reasons for using layered protocols ?

(b) Compare the packet switching and circuit switching. Draw the suitable diagram showing the timing of events showing the timing of events in both methods.

4. (a) Compare the serial communication standards and parallel communication interfacing.

(b) What is baseband transmission ? Explain the NRZ (Non-Return-to-zero) and NRZI (Non-Return-to-zero Invert) coding with example. Define bit rate and band rate.

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5. (a) Compare the frequency division multiplexing and time division multiplexing.

(b) What is pulse code modulation ? Compare the data rates and Bandwidth of twisted pair cable and optical fiber transmission media.

6. (a) What do you mean by byte stuffing and bit stuffing? Explain the hamming codes and parity check codes with example.

(b) What do you mean by cyclic Redundancy check ? Write down the algorithem for computing the cyclia Redundancy check.

7. (a) Write down the difference between physical LAN Topologies and Logical Topologies. Compare the Ring and stare LAN Topologies.

(b) Compare the pure ALOHA and Slotted ALOHA with suitable diagram.

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8. Write short notes on any four :-

(a) IBM SNA network architecture

(b) Signal Formats used in LAN

(c) Double error detection and correction codes.

(d) Token Ring and Token Bus.

(e) Network reliability and Security.

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Sultan Pass

"प्रश्न–पत्र पर क्रमांक (रोल नम्बर) के अतिरिक्त कुछ भी न लिखें, अन्यथा इसे अनुचित साधनों का प्रयोग माना जायेगा तथा नियमों के अनुसार कार्यवाही की जायेगी।"

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Roll No. 17.BCA.00286.

B.C.A. (III)

1733 **Compt. Netw.**

B.C.A. (Part-III) Examination 2019

Paper- III
BCA-303: COMPUTER NETWORKS

Time Allowed - Three Hours
Maximum Marks - 80

नोट :– (1) प्रश्न संख्या **1** अनिवार्य है। शेष प्रश्नों में से किन्हीं चार को हल कीजिये।

(2) सभी प्रश्नों के अंक समान हैं।

Note:- (1) Question No. **1** is compulsory. Attempt any **FOUR** questions from the remaining questions.

(2) All questions carry equal marks.

(2x8=16)

1- a) What is Active and passive Hub.
b) What is Gateway.
c) What is Bandwidth.
d) What is Bitrate.
e) Wat is Dumb Terminal.
f) What is IEEE.
g) What is DHCP.
h) What is IP Address and MAC Address.

2- a) Explain various steps to convert analog signal into digital signal using PCM method. (8)
b) Explain Differences between circuit and packet switching with suitable diagram. (8)

3- a) Explain various guided and unguided Transmission media. (8)
b) Explain Ring, Stor and bus topologies with their advantages and disadvantages. (8)

4- a) What is carrier signal in Modulation, Explain all types of Modulation. (8)
b) Explain Statistical Multiplexing and time division multiplexing. (8)

5- a) Differences between Asycronous and sycronous transmission with example. (8)
b) Compare between simplex, Half duplex and full duplex. (8)

6- a) Explain the NRZ and NRZI coding with example. (4+4=8)
b) What is ISO and OSI. Explain Network, session and presentation layers in detar. (2+6=8)

7- a) Explain IEEE 802.4 and IEEE 802.5 . (4+4=8)
b) What is error iin data transmission, Explain CRC and Haming code method with example. (2+3+3=8)

8- a) Compare the pure ALOHA and Slotted ALOHA with suitable diagram. (4+4=8)
b) Explain broadcast Techniques. (8)

"प्रश्न–पत्र पर क्रमांक (रोल नम्बर) के अतिरिक्त कुछ भी न लिखें, अन्यथा इसे अनुचित साधनों का प्रयोग माना जायेगा तथा नियमों के अनुसार कार्यवाही की जायेगी।"

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Roll No. 12BCA0239

B.C.A. (III)

1733 Compt. Netw.

B.C.A. (PART - III) EXAMINATION - 2020

Paper - III

BCA-303 : COMPUTER NETWORKS

Time - Three Hours

Maximum Marks - 80

Note:- (1) Question No.1 is compulsory. Attempt any FOUR questions from the remaining questions.

(2) All questions carry equal marks.

नोट:– (1) प्रश्न संख्या एक अनिवार्य है। शेष प्रश्नों में से किन्हीं चार को हल कीजिये।

(2) सभी प्रश्नों के अंक समान हैं।

1. (a) Define half duplex & duplex communication.

(b) What is baud rate ?

(c) Explain CDMA.

(d) Differentiate between Broadcast, Multicast & Unicast.

(e) Write the TCP/IP protocol stack.

(f) What is Network ? Define types of network.

(g) What is CRC?

(h) Differentiate between FDM & TDM.

2. (a) Compare OSI & TCP/IP model? Discuss different layer's & protocol briefly.

(b) Discuss 4 diff Topologies in details.

3. (a) What is Network ? Explain it's type and advantages & disadvantages.

(b) Differentiate between circuit switching & packet switching with example.

4. (a) Explain distance vector & link state routing explain with example.

(b) Are the flow control & error control mechanism handled at the data layer? If yes define the techniques which it can be handled explain with proper reason.

5. (a) Define repeater's bridge, gateways & routers.

(b) Explain wire & wireless transmission media.

6. What is multiplexing & De-multiplexing ? Explain in detail FDM, TDM & WDM.

7. (a) Explain error in data transmission ? Explain Haming code method with example.

   (b) Different between Broadband & Baseband ?

8. (a) Define LAN Access Techniques ALOHA, Token Ring & CSMA in detail.

   (b) What is sliding window protocol ? For what purpose this protocol is used ?

9. Write short notes :

   (a) IBM SNA Architecture

   (b) Network Security

   (c) IEEE 802.4 & IEEE 802.5

   (d) Synchronous & Asynchronous transmission.

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Roll No. 19BCAD2

B.C.A. (III)

1733 **Compt. Netw.**

B.C.A. Part-III

EXAMINATION - 2021

Paper - III

BCA 303 - Computer Networks

Time Allowed : **Three** Hours

Maximum Marks : **80**

Note : 1. Question No. 1 is Compulsory. Attempt any four from the remaining questions.

2. All questions carry equal marks.

1. (a) Define computer networks. 2×8=16

(b) What is Bandwidth?

(c) What is IEEE?

(d) Difference between IP address and MAC address?

(e) What is CRC?

(f) What is band rate?

(g) What is LAN and WAN?

(h) What is Protocol?

2. (a) Explain various guided and unguided Transmission media. 8

(b) Explain Ring, Bus and STAR topologies with their advantages and disadvantages. 8

3. (a) Explain the Pure Aloha and Slotted Aloha with suitable diagram. 4+4=8

(b) Difference between broadband and baseband. 8

4. What is ISO and OSI? Explain OSI layers in detail with diagram. 2+14=16

5. (a) Explain Asynchronous and Synchronous transmission with example. 4+4=8

(b) Define Half Duplex, Simplex, Full Duplex with suitable diagram. 8

6. (a) Explain byte stuffing and bit stuffing. 4+4=8

(b) Explain error in data transmission. Explain Haming Code method with example. 4+4=8

7. (a) What is Switching technique? 2

(b) Differentiate between Circuit Switching and Packet Switching with example. 4+4=8

(c) Explain wire and wireless transmission media. 3+3=6

8. Write short notes : 4×4=16

(a) IEEE 802.4 and IEEE 802.5

(b) Network Security

(c) CRC

(d) CDMA.

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Roll No. 20.BCA.5D/135

B.C.A. (III)

1733 **Compt. Netw.**

B.C.A. Part-III EXAMINATION - 2022

Paper - III

BCA 303 - Computer Networks

Time Allowed : **Three** Hours

Maximum Marks : **80**

Note : 1. Question No. 1 is Compulsory. Attempt any four from the remaining questions.

2. All questions carry equal marks.

1. (i) Define Network Security

(ii) CRC

(iii) CDMA

(iv) IEEE 802.4 and IEEE 802.5

(v) Difference between IP address and Mac address.

(vi) Difference between broadband and baseband.

(vii) What is Protocol?

(viii) Data link layer and physical layer.

2. (a) What do you mean by Network Topology?

(b) Explain Ring, Bus and STAR topologies with advantages and disadvantages?

3. What is the OSI Model? Explain the different layers of the OSI model with example?

4. (a) What do you mean by TCP and UDP?

(b) Describe HUB, Switch, Router and gateway.

5. (a) Explain error in data transmission.

(b) Explain Haming Code method with example.

6. (a) Difference between circuit switching and packet switching.

(b) What do you mean by DNS and Proxy server?

7. Define data transmission mode with suitable example?

8. (a) Classes of Network

(b) NIC

(c) SLIP Protocol

(d) SMTP Protocol.

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