10. Explain the following in detail : 5×3
    (a) ISDN
    (b) FDM
    (c) Routers.

11. (a) What are the major components of an optical communication system? 8
    (b) Write a short note on quality of service of transport layer. 7

12. (a) Explain pocket switching in detail. 8
    (b) What are the criteria used to evaluate transmission media? Explain throughput and wavelength. 7

13. (a) What is Local Area Network (LAN)? What is the difference between LAN and WAN? 8
    (b) Write a short note on session layer. 7

N

(21216) Roll No. .....

B.C.A.-V Sem.

18023

B.C.A. Examination, Dec. 2016

Computer Network

(BCA-503)

(New Course)

Time : Three Hours] *[Maximum Marks : 75*

Note : Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

Attempt all the *five* questions. Each question carries 3 marks. Select the correct option from the given multiple choices for the following questions. 3×5=15

1. A protocol is really : 3
    (a) A sets of demands
    (b) A set of rules
    (c) A translation book of diplomats
    (d) A call with very high authorization.

2. Which of the following is used for modulation and demodulation? 3
   (a) Modem
   (b) Protocols
   (c) Gateway
   (d) Multiplexer
   (e) None of the above.

3. Error detection at the data link level is achieved by : 3
   (a) Bit stuffing
   (b) Hamming codes
   (c) Cyclic redundancy codes
   (d) Equalization.

4. At what layer does a Gateway operate at? 3
   (a) Data link layer
   (b) Application layer
   (c) Network layer
   (d) None of the above.

5. Which of the following uses the greatest number of layers in the OSI model? 3
   (a) Gateway
   (b) Repeater
   (c) Bridge
   (d) Router.

Section-B

(Short Answer Questions)

Answer any *two* questions out of the following three questions. Each question carries 7½ marks. 7½×2=15

6. (a) What do you mean by network topology? Explain the advantages and disadvantages of bus, star and ring topology. 4
   (b) What do you mean by Hub, Repeaters and Bridges? 3½

7. (a) Discuss the major functions performed by the presentation layer and application layer of ISO-OSI model. 4
   (b) Write the concept of ALOHA. 3½

8. (a) What is computer networking? What are its benefits? 4
   (b) Discuss stop and wait protocol. 3½

Section-C

(Detailed Answer Questions)

Answer any *three* questions out of the following five questions. Each question carries 15 marks. 15×3=45

9. (a) Explain the different methods for error correction and detection.
   (b) State the advantages and disadvantages of TCP/IP. 5

N

(Printed Pages 7)

(201217)

Roll No.....

B.C.A. - V Sem.

18023

B.C.A. Examination, Dec. 2017

Computer Network

(BCA-503)

(New Course)

Time : Three Hours] *[Maximum Marks : 75*

Note : Attempt questions from **all** sections as per instructions.

Section-A

(Very Short Answer Questions)

Note : Attempt all the **five** questions. Each question carries **3** marks. Select the correct option from the given multiple choices for the following questions. 3×5=15

P.T.O.

38

1. Repeater operates in which layer of OSI model? 3

(a) Application layer

(b) Presentation layer

(c) Physical layer

(d) Transport layer

2. A networking device that forwards data packets along networks and acts as a central point of network is called- 3

(a) Repeater

(b) Router

(c) Bridge

(d) Hub

3. Multiplexing technique that shifts each signal to a different carrier frequency. 3

(a) FDM

(b) TDM

(c) Either a or b

(d) Both a and b

4. A local telephone network is an example of a _____ network. 3

(a) Packet switched

(b) Circuit switched

(c) Both of the mentioned

(d) None of the mentioned

5. Which one of the following task is not done by data link layer? 3

(a) Framing

(b) error control

(c) flow control

(d) Channel coding

37

13. Explain any one of the protocols used for flow control in noisy channel fibre distributed data interface operation.

G

(21218) Roll No. .....

BCA- V Sem.

18023

B. C. A. Examination, Dec. 2018

Computer Networks

(BCA-503)

(New)

Time : Three Hours] *[Maximum Marks : 75*

Note : Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

Answer all the *five* questions. Each question carries 3 marks. Very short answer is required. 3×5=15

1. Explain how quality of service is provided through integrated services.

46

2. What is the difference between circuit switching and packet switching ?

3. Explain in detail about the steps involved in the routing process of a packet network.

4. What do you understand by Gateway ?

5. Explain ethenet protocol.

Section-B

(Short Answer Questions)

Answer any *two* questions out of the following three questions. Each question carries 7½ marks. Short answer is required. 7½×2=15

6. Explain error detection and error correction code.

7. Explain any one of the following :

   (a) NCP

   (b) PPP layers.

8. What is the difference between TCP and OSI model ?

Section-C

(Detailed Answer Questions)

Answer any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. 15×3=45

9. Explain the connection management of transmission control protocol.

10. Explain the functions of session presentation and application layer.

11. Explain the design issues of network layer.

12. What is Congestion Control Algo ? Explain with example.

4 5

A

Printed Pages : 3

(21119)

Roll No. .....

B.C.A.-V Sem.

18023

B.C.A. Examination, November-2019

COMPUTER NETWORKS

(BCA-503)

Time : Three Hours] *[Maximum Marks : 75*

Note : Attempt questions from ***all*** sections as per instructions.

Section–A

(Very Short Answer Questions)

Note : Attempt all the ***five*** questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words. 5×3=15

1. Which is the best topology for a local area network in a building ? Justify your answer.

2. The power of a signal is 100 mW and the power of the noise is 10μW; what are the values of SNR and SNR_{dB} ?

3. How frequency division multiplexing works ?

4. Differentiate Bridges and Repeaters.

5. What are the services of transport layer ?

Section–B
(Short Answer Questions)

Note : Answer any ***two*** questions out of the following three questions. Each question carries 7½ marks. Short answer is required not exceeding 200 words.

2×7½=15

6. Explain any *one* of the following :
   (a) Transmission modes
   (b) LAN and MAN

7. How flow control and error control is done at data link layer ?

8. Explain the functions of session layer.

Section–C
(Detailed Answer Questions)

Note : Attempt any ***three*** questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. 3×15=45

9. Explain the Link state routing gorithm with an example.

10. Discuss the different unguided m lias with the uses.

11. How packet switching works in a etwork ? Explain in detail.

12. Discuss different protocols at ap ication layer.

13. What is the essence of Modems How DTE-DCE interface works.

3. Four channels, each with a 100-KHz band width, are to be multiplexed together, what is the minimum bandwidth of the link if there is a need for a guard band of 10 KHz between the channels to prevent interference?

4. Differentiate gateways & routers.

5. What is connection-less service provided by the transport layer?

Section-B

(Short Answer Questions)

Note : Attempt any **two** questions out of the following **three** questions. Each question carries **7½** marks. Short answer is required. 7½×2=15

6. Explain any **one** of the following:-
   (a) Ring & star topology.
   (b) Transmission modes.

7. Discuss point-to-point protocol (PPP).

8. Explain the functions of presentation layer.

Section-C

(Detailed Answer Questions)

Note : Attempt any **three** questions out of the following **five** questions. Each question carries **15** marks. Answer is required in detail. 15×3=45

9. Explain the distance vector routing algorithm with an example.

10. Discuss the different guided medias with the uses.

11. How circuit switching works in a network, explain in detail.

12. Discuss different protocols at application layers.

13. How DTE-DCE interface works? Also discuss the essence of modems. 10+5

D (Printed Pages 4)

(20221) Roll No. .....

BCA.-V Sem.

18023

B.C.A. Examination, Dec.-2020

Computer Networks

(BCA-503)

Time : Three Hours] *[Maximum Marks : 75*

Note : Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

Note : Answer all the **five** questions. Each question carries **3** marks. Very short answer is required. 3×5=15

1. Enlist the components of data communication.
2. Explain attenuation in a signal.

A (Printed Pages 3)

(20222) Roll No. .....

BCA-V Sem.

18023 (CV-III)

B.C.A. Examination, Dec.-2021

COMPUTER NETWORKS

(BCA-503)

Time : 1½ Hours] *[Maximum Marks :75*

Note : Attempt **all** the sections as per instructions.

Section-A

Note : Attempt any **two** questions. Each question carries **7.5** marks. 2×7.5=15

1. What is UDP?
2. What is DTE-DCE interface?
3. Write a short note on computer network.

Section-B

Note : Attempt any **one** question out of the following **three** questions. Each question carries **15** marks. 1×15=15

6. Discuss ISDN, its services & layers.
7. What do you mean by guided & unguided media? Explain with example.
8. Draw a neat diagram of OSI model and explain the functioning of each layer.

Section-C

Note : Attempt any **two** questions out of the following **five** questions. Each question carries **22.5** marks. 2×22.5=45

9. What do you understand by routing? Explain any routing protocal in detail. Differentiate between static and dynamic routing.

10. Write short notes on:
    (a) Throughput & Wavelength
    (b) Synchronous protocols
    (c) Routers
11. Explain TCP packet format in detail.
12. Give a brief description of session layer and explain the functions of session layer.
13. Write short notes on:
    (a) Network topology
    (b) LCP
    (c) Error control