

COMPUTER NETWORKS (23CY404)

Previous Question Papers

R18

Code No: 154CG
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech II Year II Semester Examinations, August/September - 2022
COMPUTER NETWORKS
(Common to CSE(CS), CSE(N))

Time: 3 Hours Max.Marks: 75

Answer any five questions
All questions carry equal marks

1.a) Compare and contrast the OSI and TCP/IP reference models.
b) Explain the functions of the following network hardware devices:
i) Hub ii) Bridge iii) Router iv) Gateway [7+8]

2.a) Explain about various transmission media in physical layer with a neat sketch.
b) Write any four reasons for using layered protocols. [10+5]

3.a) What are the different types of error detection methods? Explain the CRC error detection technique using generator polynomial x^2+x^3+1 and data 11100011.
b) What are the functions of medium access sub layers? Explain. [10+5]

4.a) What is the purpose of CSMA CD? Explain.
b) Elaborate on the design issues of data link layer. [8+7]

5.a) Describe Dijkstra shortest path algorithm. Also show working of Dijkstra algorithm with the help of an example.
b) Describe congestion control in datagram subnets. [10+5]

6.a) What is classful addressing? Discuss class A, class B, class C, class D, class E address with its range in decimal dotted notation and example.
b) Elucidate the special IP addresses used in internet. [10+5]

7.a) Discuss the elements of Transport layer protocol.
b) Explain the types of Transport layer Services. [10+5]

8.a) Describe DNS with diagrams and real-time examples.
b) What are the three elements of SNMP? Explain. [10+5]

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B. Tech II Year II Semester Examinations, April/May - 2023

COMPUTER NETWORKS

(Common to CSE(CS), CSE(N))

Time 3 Hours

Max. Marks: 75

- Note:** i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

- 1.a) What is internet? [2]
- b) Write a brief note on ARPANET. [3]
- c) What is the purpose of using sliding window protocol? [2]
- d) List the three types of requests for the noisy channels. [3]
- e) What is shortest path routing? [2]
- f) Differentiate between connection oriented and connectionless network services. [3]
- g) What is multiplexing? [2]
- h) What is the functionality of transport Layer? [3]
- i) State the functions of application layer. [2]
- j) List the protocols of application layer. [3]

PART – B

(50 Marks)

- 2.a) Explain the functioning of various layers in TCP/IP reference model. [5+5]
 - b) Give a brief overview on guided transmission media. [5+5]
- OR**
3. Explain the following: [5+5]
 - a) Network software
 - b) Wireless transmission.
 - 4.a) Describe the features of the ALOHA protocol. [5+5]
 - b) Compare i-persistent, non-persistent and p-persistent CSMA. [5+5]
- OR**
- 5.a) Explain bit-map and binary countdown collision free protocols. [5+5]
 - b) Classify and explain about framing in data link layer. [5+5]
 - 6.a) With an example, explain reverse path routing. [5+5]
 - b) Write short notes on the network layer in the internet. [5+5]
- OR**
- 7.a) Compare multicasting with broadcasting. [5+5]
 - b) Explain in detail about hierarchical routing. [5+5]



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8. Write a detailed summary on TCP and UDP protocols. [10]
OR
9. State and explain the elements of transport protocols. [10]
10. Explain the following: [5+5]
a) Domain name system
b) HTTP.
- OR**
11. a) Describe the components of electronic mail system. [5+5]
b) Differentiate between WWW and Internet.

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