

COMPUTER NETWORKS (23CY404)

Previous Question Papers

JNTUH (Sd paper Aug-2022)

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))

R18

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 $x^3 + 1$ 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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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

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

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:

- a) Domain name system
- b) HTTP.

OR

11.a) Describe the components of electronic mail system. [5+5]

b) Differentiate between WWW and Internet.

[5+5]

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JNTUH Used papers 2023