

SOLVED MODEL QUESTION PAPER

Computer Networks (As Per R -18 Pattern)

IIIrd Year B. Tech., Sem - I, (CSE)

Time : 3 Hours]

[Maximum Marks : 75

Notes : This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

- Q.1 a) What is a network ? (Refer Q.1 of Chapter - 1) [2]
b) What is an Internet ? (Refer Q.23 of Chapter - 1) [2]
c) Define flow control. (Refer Q.12 of Chapter - 2) [2]
d) What is CRC checker ? (Refer Q.15 of Chapter - 2) [2]
e) Define source routing. (Refer Q.21 of Chapter - 3) [2]
f) Define a network congestion ? (Refer Q.38 of Chapter - 3) [3]
g) List some of the quality of service parameters of transport layer. (Refer Q.6 of Chapter - 4) [3]
h) Define slow start. (Refer Q.28 of Chapter - 4) [3]
i) List the components of DNS. (Refer Q.9 of Chapter - 5) [3]
j) Explain difference between persistent and non persistent HTTP. (Refer Q.69 of Chapter - 5) [3]

PART - B

(50 Marks)

- Q.2 a) What is ARPANET ? Draw and explain original ARPANET design. (Refer Q.25 of Chapter - 1)
b) Discuss about unguided transmission media. (Refer Q.36 of Chapter - 1) [5 + 5]

OR

- Q.3 a) Draw the layered architecture of the OSI reference model and write two services provided by each layer of the model. (Refer Q.18 of Chapter - 1)
b) State and explain four basic network topologies and write advantages of each type. (Refer Q.6 of Chapter - 1) [5 + 5]
Q.4 a) What is bit and byte stuffing ? Explain with an example. (Refer Q.10 of Chapter - 2)
b) Explain about the Go-Back-N protocol. (Refer Q.41 of Chapter - 2) [5 + 5]

OR

- Q.5 a) Explain MAC sub layer protocol in detail. (Refer Q.6 of Chapter - 2)
b) Explain frame format of IEEE 802.4 standard. (Refer Q.57 of Chapter - 2) [5 + 5]
Q.6 a) What is congestion ? Explain any one of the congestion control mechanism. (Refer Q.43 of Chapter - 3)

b) How connectionless service is implemented ? (Refer Q.10 of Chapter - 3)

OR

[5 + 5]

Q.7 a) What are the design goals of routing ? (Refer Q.25 of Chapter - 3)

b) Explain Leaky bucket algorithm and token bucket algorithm. (Refer Q.57 of Chapter - 3)

Q.8 a) Explain TCP transmission policy. (Refer Q.39 of Chapter - 4)

[5 + 5]

b) Explain socket programming with its primitives. (Refer Q.17 of Chapter - 4)

[5 + 5]

OR

Q.9 a) Draw and explain TCP header format. (Refer Q.34 of Chapter - 4)

b) Explain TCP transmission policy. (Refer Q.39 of Chapter - 4)

[5 + 5]

Q.10 a) What is electronic mail ? (Refer Q.30 of Chapter - 5)

b) Draw and explain header message format of DNS. (Refer Q.13 of Chapter - 5)

[5 + 5]

OR

Q.11 a) Explain SMTP protocol in detail. (Refer Q.40 of Chapter - 5)

b) What is domain name space ? Explain the hierarchy of name server. (Refer Q.11 of Chapter - 5)

[5 + 5]

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