JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech III Year I Semester Examinations, May/June - 2019
COMPUTER NETWORKS
(Common to CSE, IT)

Time: 3 hours   **Max. Marks: 75**

Note: 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)

1.a)	What are the advantages of layered protocol suites?	[2]
b)	Mention the comparison of fiber optics and copper wire.	[3]
c)	Define Gigabit Ethernet.	[2]
d)	Write about P-Persistent CSMA.	[3]
e)	Write short note on design issues of network layer.	[2]
f)	What are the approaches to apply on the congestion control?	[3]
g)	What is meant by Internetwork routing?	[2]
h)	Mention the differences between IPv4 and IPv6.	[3]
i)	Write short notes on TELNET.	[2]
j)	Write about client-server model in brief.	[3]

PART - B

(50 Marks)

2.   Explain OSI reference models, and compare with TCP/IP reference model.   [10]

OR

3.a)   Explain sliding window protocol with an illustration.
b)   Explain the Hamming Code with an example.   [4+6]

4.   Explain the following:
a) Ethernet MAC sub layer protocol.
b) ALOHA protocol.   [5+5]

OR

5.   Explain about the following devices:
a) Hub
b) Switches
c) Router
d) Gateway.   [10]

6.   Write in detail about Link-state routing algorithm and mention its advantages and disadvantages.   [10]

OR

7.   What are the principles of congestion control? Explain it with virtual circuit subnets.
[10]

8.   Describe about flow Control and buffering in transport layer.   [10]

OR

9.   Write in detail about the Internet control message protocol.   [10]

10.   How does the Remote procedure call works? Explain it.   [10]

OR

11.   Write short notes on the following:
       a) HTTP
       b) DNS.   [5+5]

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