R13

Code No: 813AR

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA III Semester Examinations, January - 2018
COMPUTER NETWORKS

Time: 3 Hours   Max. Marks: 60

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

PART - A

5 × 4 Marks = 20

1.a)	Why protocols and standards needed.	[4]
b)	Define about random access of channel.	[4]
c)	Write the functionality of network layer.	[4]
d)	What is meant by Tunneling?	[4]
e)	Explain about TELNET.	[4]

PART - B

5 × 8 Marks = 40

2.a) What is meant by CRC codes?
b) Compare and contrast the Go-Back-N ARQ protocol and Selective Repeat ARQ protocol.
[4+4]

OR

3.a) Define Piggybacking and its usefulness.
b) Explain the TCP/IP Protocol suite. [4+4]

4.a) Describe in detail about pure ALOHA.
b) What are the uses of a router and gateway? [4+4]

OR

5.a) What is the importance of spanning tree bridges.
b) Explain about CSMA/CA. [4+4]

6.a) Explain Distance vector routing with an example.
b) Give a detailed description on store and forward packet switching. [4+4]

OR

7.a) What is meant by congestion in network? Explain any algorithm for congestion avoidance.
b) What is meant by hierarchical routing explain? [4+4]

8.a) Compare and Contrast the fields in the main header of IPv4 and IPv6.
b) Explain the addressing mechanism in transport layer. [4+4]

OR

9.a) Explain the extension headers of IPv6.
b) Explain about connection establishment and release in Transport layer. [4+4]

10. Write short on Application layer protocols
   a) HTTP
   b) FTP [4+4]

OR

11.a) What are the services provided by the User agent of Electronic mail system explain.
b) Explain the header fields of TCP. [4+4]