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CS-68

BACHELOR OF COMPUTER APPLICATIONS (BCA) (Pre-Revised)

Term-End Examination

00703

June, 2015

CS-68 : COMPUTER NETWORKS

Time : 2 hours *Maximum Marks : 60*

Note : *Question number **1** is **compulsory**. Attempt any **three** questions from the rest.*

1. (a) How is the data fragmented and again reassembled in TCP/IP ? *5*

   (b) Differentiate between Switches and Hubs. *5*

   (c) Write the differences between datagram subnet and virtual circuit. *5*

   (d) Explain selective repeat protocol with a suitable diagram. *5*

   (e) Compare and contrast between simplex, half duplex, and full duplex communication, along with an example for each. *6*

   (f) What is Congestion ? How is congestion controlled by TCP ? *4*

2. (a) What is the function of a router ? Discuss the working of open shortest path first routing. 5

(b) Explain the concept of leaky bucket and token bucket algorithms. 5

3. (a) Explain the functions of session layer and presentation layer of OSI model. 5

(b) What is the size of ATM cell header and packet ? Discuss the functions performed by ATM adaptation layers. 5

4. (a) What is flow control ? Discuss some flow control mechanisms. 4

(b) How is CSMA/CD protocol different from ethernet protocol ? How does CSMA/CD resolve the problem of line contention ? 6

5. Write short notes on the following : $4 \times 2\frac{1}{2} = 10$

(a) Gateways

(b) Frame Relay

(c) DNS

(d) ISDN