

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

Term-End Examination

00505

June, 2018

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 Selective Repeat ARQ better than Go-Back-N ARQ Protocol ? Explain. 5
- (b) Explain the factors that cause congestion in the subnet. 5
- (c) Which switching method is used in telephone networks ? Discuss how the message is transmitted. 5
- (d) Draw and explain the structure of ATM adaptation layer. 5
- (e) Differentiate between simplex, half-duplex and full-duplex. 6
- (f) Explain the concept of piggybacking and pipelining with the help of an example for each. 4

2. (a) What are the different types of twisted pair cables ? Explain the feature of each. 5
- (b) Differentiate between virtual circuit subnet and datagram subnet. 5
3. (a) Which layer(s) of OSI model handles the "Flow Control" ? Explain the functions of this/these layer(s). 6
- (b) Why is multiplexing needed in data communication system ? Briefly explain TDM and FDM. 4
4. (a) What is a Gateway ? How do X.25 gateways link hosts and LANs ? Explain. 5
- (b) List one advantage and one disadvantage each of any five network topologies. 5
5. Write short notes on the following : $4 \times 2 \frac{1}{2} = 10$
- (a) IEEE 802.5
- (b) CSMA/CD
- (c) DNS
- (d) Firewall
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