

Roll No

EX-7001 (CBGS)**B.E. VII Semester**

Examination, November 2018

Choice Based Grading System (CBGS)**Computer Network***Time : Three Hours**Maximum Marks : 70***Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain different types of switches and their operation in detail. <https://www.rgpvonline.com> 7
b) Explain TCP/IP architecture. Show the comparison with the OSI model with the help of schematic diagram. 7
2. a) Explain stop and wait protocol used in data link layer. 7
b) What is network topology? Explain mesh, using ring and star topologies bringout their merits and demerits. 7
3. a) Prove that utilization of sliding window protocol for error free channel is $U = \frac{W}{1+2a}$ where 'W' is window size and 'a' is the ratio of propagation time to transmission line. 7
b) Explain the working of stop and wait and selective repeat ARQ protocol. <https://www.rgpvonline.com> 7
4. a) Discuss about pure and slotted ALOHA. 7
b) Distinguish between following 7
i) Static and dynamic routing
ii) Centralized and distributed routing

5. a) What is CSMA scheme? Discuss non-persistent, I-persistent and P-persistent CSMA with a diagram. 7
b) Explain use of different network devices. 7
6. a) Explain function of TCP header format fields. 7
b) How simple mail transfer protocol? SMTP interacts with local mails and TCP. 7
7. a) How are transport layer protocol different from data link layer protocol? <https://www.rgpvonline.com> 7
b) Discuss the concept of E-mail and world wide web in with respect to application layer working. 7
8. Write short notes (any two) 14
a) Mobile Networking
b) B-ISDN and ATM
c) Fiber optic LAN
