

VVM's
Shree Damodar College of Commerce and Economics, Margao-Goa

S.Y.B.C.A, Semester- IV, End Semester Examination, April 2016

COMPUTER NETWORKS (BCA-402)

Duration:2 hours

Marks-50

Instructions :

1. All questions are compulsory
2. Start each new question on fresh page
3. Figures to the right indicate maximum marks

Q.1 Answer the following

10 marks

A) Define the following terms

(6 X 1 =6)

- | | | | |
|----------------|---------------|------------------|----------------------|
| i) Modulation | ii) Bandwidth | iii) Subnet Mask | iv) Datagram circuit |
| v) Burst error | vi) Framing | | |

B) Answer in one or two lines .

(2 X 2 =4)

1. Write the working principle of Stop and wait protocol.
2. What is the core idea behind working of pure ALOHA ?

Q.2 Answer the Following

10 Marks

- a) List two reasons for using repeaters in the network (2 Marks)
- b) Give five points of difference between star topology and ring topology. (3 Marks)
- c) Explain the various transformations that take place in the data as it travels from bottom layer to the top layer . (5 Marks)

Q.3 Answer the Following

10 Marks

- a) Using bit Pattern method show , how a sender would perform stuffing on data :
111111001101111101111110011 , flag:01111110 (2 Marks)
- b) Explain the piggybacking method and its advantages . (3 Marks)
- c) What are the drawbacks of stop and wait protocol and how are they overcome in sliding window protocol (5 Marks)

Q.4 Answer the Following

10 Marks

- a) How does TCP handles handshake for connection establishment? (2 Marks)
- b) Describe the network classes based on IP addressing (3 Marks)
- c) Identify the Network Class, Network id, host id for the following IP addresses:
 - i) 1.0.0.0 ii) 126.12 .24.22 iii) 239.200.77.19
 - iv) 191.192.156.55 v) 255.255.255.255(5 Marks)

Q.5 Answer the Following

10 Marks

- a) What is symmetric key cryptography? (2 marks)
- b) What are the main functions of presentation layer and transport layer? (3 Marks)
- c) Explain in brief DHCP. (5 Marks)
