



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

FIRST SEMESTER – NOVEMBER 2018

16/17/ 18PCS1MC05 – ADVANCED COMPUTER NETWORKS

Date: 30-10-2018

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

Part – A

Answer ALL the questions

10 x 2 = 20 marks

1. Differentiate between Broadcast Link and Point to Point Link.
2. State the duties of ISOC and ACM.
3. Mention the names of standard twisted pair used in analog and in digital technology.
4. Define the term frequency.
5. What are the two common challenges in Data Link Layer and Network Layer?
6. What is the Warning bit?
7. Why does Wireless communication are more prone to errors?
8. Draw the TCP header.
9. Notify any two advantages of Self Organizing networks.
10. What are Master Servers?

Part – B

Answer ALL the questions

5x 8 = 40 marks

11. a) Discuss about design issues (any four) for the in a Network software.(Or)
b) With a neat diagram, explain theresponsibilities of layers in the OSI model.
12. a) Explain briefly about the electromagnetic spectrum allocations(Or)
b) Discuss about the character count approach and flag bytes with byte stuffing.
13. a) Describe the challenges for routing and the solution for the same(Or)
b) Discuss about the Congestion control mechanisms.
14. a) Explain the elements (any four) of Transport Layer(Or)
b) Plan out a strategy to overcome the crash recovery problem and justify.

15. a) With a neat diagram, briefly explain any two physical media for wireless LAN(Or)

b) Discuss the merits and challenges of IEEE 802.11 architecture.

Part – C

Answer ANY TWO questions

2 x 20 = 40 marks

16. a) Explain the critiques of OSI and TCP/IP.

b) Compare the following with respect to Transmission media:

i) Twisted pair and Coaxial cable ii) Fiber Optics and Satellite Communications.

17. a) Explain error detection in Data Link Layer.

b) With a state diagram, explain connection establishment and connection release.

18. a) Propose a suitable network for the military operations and justify.

b) Write about the challenges and solution in the design of Network Layer.
