Question Paper

MANIPAL UNIVERSITY

SCHOOL OF INFORMATION SCIENCES
FIRST SEMESTER MASTER OF ENGINEERIN - ME(Embedded and Wireless Technology)
DEGREE EXAMINATIONG - NOVEMBER 2017
DATE : Saturday, November 18, 2017
TIME : 10:00AM - 1:00PM
Advanced Network Protocols [EWT 615]

Marks: 100   **Duration: 180 mins.**

Answer all the questions.

1) Explain the responsibilities of data link and transport layers of OSI reference model with suitable diagrams (10)

2) Draw the header format of IPv6 and briefly explain all the fields in the IPv6 header (10)

3) Explain with suitable diagram how are the queuing operations of UDP at the client and server sites performed? (10)

4) What is RTP? Describe the functions of RTP with suitable diagram. (10)

5) Write the purpose of HTTP in internet. Explain briefly about functions of HTTP (10)

6) A total of 33 MHz bandwidth is allocated to a FDD cellular system with two 25 KHz simplex channels to provide full duplex voice and control channels. Compute the number of channels available per cell if the system uses
    (i) 4 cell and
    (ii) 7 cell reuse technique.
    Assume 1MHz of spectrum is allocated to control channels. Give a distribution of voice and control channels. (10)

7) Describe the functional components of IEEE 802.11 architecture of an infrastructure network. (10)

8) Define the following
    terms: 2 ½ * 4
    Marks

    a. Home network and visited network
    b. Permanent address and Care-of-address
    c. Home agent and foreign agent (10)

d. Correspondent and anchor foreign agent.

9)   What is indirect TCP? Give the reasons for the development (10) of I-TCP? Explain with neat diagram about the functions of I-TCP.

10)   Explain the routing table updates and path re-configuration (10) mechanism involved in Destination Sequenced Distance Vector Routing Protocol (DSDV) routing algorithm.

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