

Exam.Code: 0999

Sub. Code: 34978

2125

M.E. Computer Science and Engineering

First Semester

CS-8103: Advanced Computer Networks

(Common with ME Comp. Sci. Cyber Security CSN 8102)

(For UIET only)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) What is the purpose of MAC protocols?
- b) What is IPv6 tunneling?
- c) What is SDN?
- d) Mention some issues in Adhoc Networks.
- e) Define Cell Splitting.

(5x2)

UNIT - I

II. Explain the OSI reference model and briefly compare it with the TCP/IP model. (10)

III. Explain Neighbor Discovery Protocol and its functions. (10)

IV. Discuss Mobile IPv6 handover mechanism, route optimization and their quantitative impact on latency and TCP congestion window. (10)

UNIT - II

V. Discuss Bluetooth architecture, piconet / scatternet formation, frequency hopping technique, and real deployment challenges. (10)

VI. Explain Frequency Reuse factor, channel assignment strategies, interference analysis, and reuse distance calculations. (10)

VII. Discuss Wireless Sensor Network architecture, QoS issues, and energy constraints. (10)

x-x-x