B. Engg. (Information Technology)
7th Semester
ITE-743: Mobile Computing

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt *five* questions in all, including Q. No. 1 which is compulsory and selecting atleast *two* questions from each Unit.

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I.
(a) List the entities of Mobile IP.
(b) Define Handover in mobile environment.
(c) List the main problems occurred in standard TCP because of mobility.
(d) What is the IEEE standard for Bluetooth?
(e) What is the problem of slow start in standard TCP?
(f) Define Agent binding in Mobile IP.
(g) What is the role of HLR/VLR in GSM?
(h) List the types of Hoarding techniques.
(i) Why RTS and CTS are required?
(j) What are Table driven protocols in MANETs? (10×1)

UNIT-I

II.
(a) Explain the GSM system architecture with the help of a diagram.
(b) Explain the problem of Near and Far terminals. (5+5)

III.
(a) What are the functions of home and foreign agents in the mobile IP protocol? How does an agent discover COA (s) when a mobile station node visits a foreign network?
(b) What is agent solicitation? How does agent advertisement differ from agent solicitation? (5+5)

IV.
(a) What is transaction oriented TCP? What are the modifications required in TCP receiver to implement the selective retransmission protocol?
(b) Differentiate between Mobile TCP and Snoop TCP. (5+5)

UNIT-II

V.
(a) Design a Local information-based and Power-aware Algorithm for Power" Aware Computing.
(b) What are the Capabilities for context awareness and its types of applications? (5+5)

VI.
(a) Describe the Security issues in MANETs.
(b) Describe ODS tor Equal-size Items and Variable -size Items. (5+5)

VII.
(a) Write short note on Cache invalidation.
(b) Explain Index Tree Technique for wireless environment. (5+5)

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