

Code No: 864AD**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA IV Semester Examinations, March/April - 2023
MOBILE COMPUTING****Time: 3 Hours****Max.Marks:75****Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) List the bearer and tele services of GSM protocol. [5]
- b) What concepts of mobile IP address the limitations of IP for host mobility? [5]
- c) Explain how S-TCP meets the requirement of end-to-end semantics. [5]
- d) Enumerate the data dissemination methods for mobile data delivery. [5]
- e) Briefly write about mobile agents. [5]

PART – B**(50 Marks)**

2. With a neat sketch, write about GSM protocol architecture. [10]
OR
- 3.a) Mentioning the radio services, write about NSS subsystem of GSM.
b) Write about different components of GSM that maintain databases in GSM. [5+5]
4. Illustrate with a diagram how data is delivered to mobile hosts using Mobile IP. [10]
OR
- 5.a) Explain the concepts – Tunneling and Encapsulation.
b) What is meant by Care of Address (COA) in Mobile IP? [5+5]
- 6.a) List the reasons for poor performance of TCP over Mobile Hosts.
b) Briefly write about mobile transactions. [5+5]
OR
- 7.a) Write about Indirect TCP giving its pros and cons.
b) Write about Kangaroo Transaction model. [5+5]
8. With the help of simple example, illustrate the concept of Broadcast Disk Model giving its algorithm. [10]
OR
- 9.a) Explain the motivation for Push-Pull hybrid model for mobile data delivery.
b) Write about any one indexing technique for mobile data broadcast. [5+5]
- 10.a) Write about novel applications and limitations of mobile ad hoc networks (Manets).
b) Briefly mention the central theme of DSDV protocol for Manet routing. [5+5]
OR
- 11.a) Mention the important challenges for routing in Manets.
b) Illustrate the working of AODV protocol. [5+5]

---ooOoo---