

**R16**

**Code No: 136CX**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech III Year II Semester Examinations, February - 2023**

**MOBILE COMPUTING**

**(Common to CSE, IT)**

**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) What is meant by mobile computing? [2]
- b) What are the tele services of GSM Protocol? [3]
- c) Write about the exposed terminal problem? [2]
- d) What is meant by encapsulation in Mobile IP Protocol? [3]
- e) What is Capture effect in TCP over ad hoc links? [2]
- f) State the advantage of Snooping TCP protocol. [3]
- g) Briefly write about Push model for data delivery to Mobile host? [2]
- h) What is the role of indexing technique in mobile data dissemination? [3]
- i) State the disadvantage of reactive protocols for Manet routing. [2]
- j) What is meant by multi-hop communication? [3]

**PART – B**

**(50 Marks)**

- 2.a) Describe briefly about GSM protocol.
  - b) Explain the difference between MOC and MTC in GSM. [5+5]
- OR**
3. With a neat sketch, write about the distinct components of GPRS compared to GSM. [10]
  4. Explain how the problems of IP for host mobility are addressed using Mobile IP. [10]
- OR**
5. Write about IEEE 802.11 standard giving its protocol architecture. [10]
  - 6.a) Illustrate the effect of TCP congestion control policy on mobile links.
  - b) Explain how S-TCP overcomes the disadvantages of I-TCP. [5+5]
- OR**
- 7.a) Explain the terms- hoarding, caching, and Adaptation in mobile environment.
  - b) Explain the Kangaroo transaction model for mobile clients. [5+5]

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8. Illustrate the working mechanism of Broadcast Disk model with an example. [10]

**OR**

9.a) What is meant by selective tuning? How it helps in data delivery to mobile hosts. [5+5]  
b) Write about client-side adaptation in mobile environment.

10. Explain how route discovery is done in reactive protocol for Manet routing. [10]

**OR**

11. Illustrate the Manet routing mechanism using DSDV protocol. [10]

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