

R19

Code No: 864AD

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MCA IV Semester Examinations, March/April - 2022

MOBILE COMPUTING

Time: 3 Hours

Max.Marks:75

Answer any five questions

All questions carry equal marks

- 1.a) How the handover decision takes place in GSM depending on receiver signal Strength? Explain.
- b) Explain the applications of Mobile Computing. [10+5]
- 2.a) Show with a diagram the steps involved in a mobile terminated call a station calling a mobile station in GSM.
- b) In detail describe the functions and limitations of operating systems in handheld devices. [8+7]
3. Describe the various multiple access techniques in detail with neat diagram. [15]
- 4.a) Explain how DHCP used for mobility and also how it supports mobile IP.
- b) How can we avoid hidden and exposed terminal problems? Explain in detail. [8+7]
- 5.a) Explain in detail different cache invalidation mechanisms.
- b) Explain how congestion control, slow start and fast retransmit mechanisms influence the efficiency of TCP in mobile environment. [8+7]
- 6.a) How a packet is delivered in Indirect TCP? Explain.
- b) List the various advantages and disadvantages of I-TCP.
- c) Explain ACID transaction rules that should be maintained by database transactional models to achieve data integrity. [5+5+5]
- 7.a) Describe synchronization usage models in mobile applications.
- b) What is selective tuning and indexing? Explain different methods of selective tuning and indexing. [7+8]
- 8.a) What is Dynamic source routing protocol? Illustrate an example.
- b) Discuss the challenges and issues in implementing MANETs. [9+6]

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