

Code No: R164105C

R16

Set No. 1

IV B.Tech I Semester Advanced Supplementary Examinations, May - 2022

MOBILE COMPUTING

(Common to Computer Science and Engineering and Information Technology)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any FOUR questions from Part-B

PART-A (14 Marks)

1. a) What is the role of VLR entity in a GSM network? [2]
b) Present the limitations of WLANs. [2]
c) How does a mobile node discover it has moved? [2]
d) List advantages of hoarding the data at mobile device. [3]
e) What are index-based methods? [2]
f) How does WSP solve HTTP problems in wireless mobile environments? [3]

PART-B (4x14 = 56 Marks)

2. a) With a neat sketch explain the steps involved in a mobile terminated call in GSM. [7]
b) Explain how GPRS networks replace circuit switch services on second generation GSM communications. [7]
3. a) Draw and discuss the protocol architecture of IEEE 802.11. [7]
b) Briefly explain about various multiple access techniques. [7]
4. a) Write a detailed notes on Dynamic Host Configuration Protocol. [7]
b) What are the challenges with mobile IP with respect to high-speed mobility? [7]
How does cellular IP solve some of these challenges?
5. a) What is snooping TCP? What are its advantages and disadvantages? [7]
b) Explain ACID transaction rules that should be maintained by database transactional models. [7]
6. a) Describe domain-dependent specific rules for data synchronization. [7]
b) Explain Query-processing architecture for processing a query using distributed databases. [7]
7. a) Explain the session establishment procedure in WSP/B. [7]
b) How MANETs are different from cellular mobile networks? Explain. [7]

