

Code No: **R164105C**

R16

Set No. 1

IV B.Tech I Semester Regular/Supplementary Examinations, Jan/Feb - 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 HLR entity in a GSM network? [2]
b) List any two advantages of WLANs. [2]
c) How DHCP helps in mobility? [2]
d) What is Snooping TCP? [2]
e) What are the advantages of data broadcast over point-to-point access? [3]
f) What are the routing metrics in wireless adhoc networks? [3]

PART-B (4x14 = 56 Marks)

2. a) Explain GSM architecture with a neat sketch. [7]
b) Write about the novel applications and limitations of mobile computing. [7]
3. a) Explain about the format and different fields in IEEE 802.11 MAC data frames. [7]
b) Discuss the measures to avoid hidden and exposed terminal problems. [7]
4. a) Explain in detail about IP-in-IP encapsulation. [7]
b) What is the purpose of ICMP messages over the Internet? Explain different fields in ICMP header. [7]
5. a) How does a supervisory host send TCP packets to the mobile node and to a fixed TCP connection? [7]
b) Write about different cache invalidation mechanisms. [7]
6. a) Explain the functions of pull based mechanisms. [7]
b) Discuss in detail about communication asymmetry with an example. [7]
7. a) Draw and explain core protocols in Bluetooth protocol stack. [7]
b) Describe Dynamic Source Routing Protocol with an example. [7]

