

Roll No:

--	--	--	--	--	--	--	--	--	--

The Assam Royal Global University, Guwahati

Royal School of Engineering and Technology

B.Tech. CSE 7th Sem

Special Supplementary Examination, August 2024

Course Title: Mobile Computing

Course Code: CSE022D701

Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per the instructions given.

The figures in the right-hand margin indicate marks.

Section – A

1. Attempt **all** questions. (Maximum word limit 50) 2 x 8
- Give two design goals of Mobile IP.
 - How does CSMA minimize fading?
 - How are ad-hoc networks different from cellular networks?
 - What is the MAC address of a device?
 - Write down the various applications of mobile computing.
 - Write the functions of the Home Location Register (HLR) and Visitors Location Register (VLR) in GSM.
 - Write down the main characteristics of 5G.
 - Explain how DHCP is used for mobility.

Section – B

2. Attempt **any two** of the following: 6x 2
- Discuss the problems with Traditional TCP in wireless environments.
 - List out and briefly explain various Traffic and Control data channels present in GSM.
 - Explain the integration process of tele, bearer, and supplementary services through GSM.
3. Attempt **any two** of the following: 7 x 2
- Explain how ICMP protocol has been used to facilitate Mobile IP protocol.
 - Why have we used specialized MAC protocol in Mobile computing? Describe the 802.11 frame format with a diagram.
 - Explain direct and indirect routing methods for a mobile node.
4. Attempt **any two** of the following: 7 x 2
- Explain data dissemination techniques in mobile computing.
 - Classify different data delivery methods in mobile computing.
 - What is the selective tuning and indexing method?
5. Attempt **any two** of the following: 7 x 2
- Write a short note on SymbianOS and Android.
 - Classify the routing algorithms used in Mobile Ad hoc networks (MANET). Briefly explain the working of AODV protocol.
 - Explain WAP protocol architecture with a neat diagram.