

**B.Tech. – VIEP – COMPUTER SCIENCE AND  
ENGINEERING (BTCSVI)**

**Term-End Examination**

**December, 2016**

00623

**BICSE-014 : MOBILE COMPUTING**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Attempt any seven questions. Each question carries equal marks.*

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1. (a) What are the issues in mobile computing ? 5  
(b) List and explain the characteristics of a communication device. 5
2. (a) Explain WAP architecture with the help of a neat diagram. 5  
(b) Discuss in brief the cell site hand-off and intersystem hand-off. 5
3. Explain the code division multiplexing and also explain its advantages and disadvantages. 10
4. (a) Explain 'Mobile Computing' with the help of any suitable example. 5  
(b) Describe the system architecture and protocol architecture of IEEE 802.11 with the help of suitable examples. 5

5. (a) What is Bluetooth ? Where is it used ? Describe the general format of packet and packet header in Bluetooth technology. 5
- (b) What are the main reasons for using cellular systems ? Describe the dynamic channel allocation in cellular systems. 5
6. Describe the security problems in mobile and wireless computing systems and suggest solutions. 10
7. How is data management done in mobile computing ? Explain it by giving a suitable example. 10
8. Explain the WAP protocol stack in detail using a suitable diagram. 10
9. Explain how a foreign agent is discovered in Mobile IP. 10
10. Write short notes on any *two* of the following :  $2 \times 5 = 10$
- (a) Temporally Ordered Routing Algorithm (TORA)
- (b) DSR
- (c) GSM