

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

Term-End Examination

00216

June, 2016

BICSE-014 : MOBILE COMPUTING

Time : 3 hours

Maximum Marks : 70

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

1. (a) What are the different types of common channels of GSM ? Explain how they are used. 5
- (b) Draw and explain the forward channel structure of CDMA. 5
2. (a) How is data management done in mobile computing ? Explain by giving a suitable example. 5
- (b) Explain the three cell and seven cell clustering for mobile wireless network used in a cellular system. 5
3. What are the main differences between ad hoc networks and other networks ? What advantages do ad hoc networks offer ? Explain in detail by giving a suitable example. 10

4. Describe the security problems in mobile and wireless computing systems and suggest the solutions. 10
 5. Explain the code division multiplexing and also explain its advantages and disadvantages. 10
 6. Explain the role of HLR and VLR in call processing in detail. 10
 7. Explain the methods of tunnelling and encapsulation in Mobile-IP. 10
 8. List the main elements of GSM's system architecture and briefly explain their functionalities. 10
 9. Explain in detail how a foreign agent is discovered in mobile IP. 10
 10. Write short notes on any *two* of the following : $5+5=10$
 - (a) GPRS
 - (b) QOS in Ad hoc Network
 - (c) Bluetooth
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