

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**M.C.A.- SEMESTER – V • EXAMINATION – WINTER 2012**

**Subject code: 650016****Date: 29-12-2012****Subject Name: Wireless Communication and Mobile Programming (WC-MP)****Time: 10:30 am – 1:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1. (a)** Discuss about the different tiers in three tier architecture of mobile computing. **07**
- (b)** Write short note on (i) Semantic Web (ii) Policy Manager. **04**
- (c)** How is content rating and filtering helpful in classifying content? What is the role of RSACI and PICS in classifying content? **03**
- Q.2 (a)** Discuss the protocol Stack of Bluetooth. **07**
- (b)** What is WiMax ? How is it different from WiFi ? Explain the WiMax physical layer. **07**
- OR**
- (b)** What is RFID? Explain active RFID and passive RFID. Also describe two applications of active RFID and passive RFID. **07**
- Q.3 (a)** Explain the GPRS system architecture. **07**
- (b)** What is Mobile IP? Explain tunneling in the context of Mobile IP. **07**
- OR**
- Q.3 (a)** Discuss the GSM architecture with its constituent elements. **07**
- (b)** Discuss about SMS architecture. Also explain various strengths of SMS. **07**
- Q.4. (a)** Explain MANET (Mobile Ad hoc Network) and discuss what the issues with the moving node in network are. **07**
- (b)** What is VoIP? Distinguish H.323 and SIP **07**
- OR**
- Q.4. (a)** What are the limitations of IPv4 that are overcome by IPv6? Discuss. **07**
- (b)** Explain WAP protocol stack while enumerating the functions of different layers **07**
- Q.5. (a)** Discuss six functions where CDMA is different from GSM. **07**
- (b)** Explain advantages and disadvantages of WLANs. **07**
- OR**
- Q.5. (a)** Discuss the IEEE 802.11 family of standards. **07**
- (b)** What is called attack in terms of network security? Discuss various types of attacks. **07**

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