

**7E4238**

Roll No. : \_\_\_\_\_

Total Printed Pages : **3****7E4238**

B. Tech. (Sem. VII) (Main/Back) Examination, **December-2012**  
 Computer Engg. (Common for CS & IT)  
 7CS2 Wireless Communication & Networks

Time : 3 Hours]

[Maximum Marks : 80

[Min. Passing Marks : 24

*Attempt overall Five questions, selecting any one question from each unit. All questions carry equal marks.*

Use of following supporting material is permitted during examination.  
 (Mentioned in form No. 205)

1. \_\_\_\_\_ Nil \_\_\_\_\_

2. \_\_\_\_\_ Nil \_\_\_\_\_

**UNIT - I**

- 1 (a) Compare between 2G and 3G. Explain type of fading and error compensation. 8
- (b) Discuss about the complete evolution of mobile radio communications. 8

**OR**

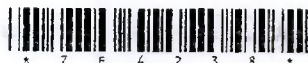
- 2 (a) How to improve coverage and capacity in cellular systems? What is effect of multipath propagation? 8
- (b) Compare between digital and analog data transmission with suitable examples. 8

**UNIT - II**

- 3 Compare different mechanisms with respect to idea, terminal, signal separation, advantages, disadvantages and comments of SDMA, TDMA, FDMA and CDMA. 16

**OR**

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[Contd...

- 4 (a) Why and when are different signalling channels needed? What are the differences between them? 8
- (b) What are the functions of authentication of encryption in GSM? How is system security maintained? 8

**UNIT - III**

- 5 Compare IEEE 802.11 and HIPERLAN with respect to their ad hoc capabilities. Where is the focus of these technologies? 16

**OR**

- 6 What are the security problems of WLANs? What are the basic differences between wireless WANs and WLANs? What are the common features between them? Why is the PHY layer in IEEE 802.11 subdivided? 16

**UNIT - IV**

- 7 What are general problems of mobile IP regarding security and support of QoS? What are advantages of Ad Hoc network? 16

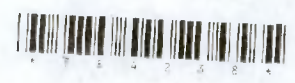
**OR**

- 8 Compare all Indirect TCP, snooping TCP, M- TCP and Transaction oriented TCP comparison with respect to mechanism, advantages and disadvantages. What is basic purpose of DHCP? 16

**UNIT - V**

- 9 (a) Why is strong consistency of file systems problematic in a wireless and mobile environment? What are alternatives? 8
- (b) What are the enhancements of WAE to the - classic, client/server model of the web ? What are functions of this enhancement? 8

**OR**



10 (a) What advantages has statelessness of HTTP? In what situation is state useful and how is it provided today? Where is long-term state stored, where short-term?

8

(b) What is the role of a WTA server? What are the different ways of integrating WTA servers into the WAP architecture?

8

