

CE1.5-R4: MOBILE COMPUTING

NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours

Total Marks: 100

1.

- a) Describe the various limitations of GPRS.
- b) What is WAP push? How is push different from pull?
- c) What are the different kinds of mobility generally defined in network system?
- d) Differentiate Hard handoff Vs Soft handoff.
- e) Differentiate Ad hoc Vs Infrastructure mode wireless Networks.
- f) Describe J2ME features
- g) Compare Infrared and Radio wave communication.

(7x4)

2.

- a) What is the difference between GSM and GPRS? Explain the network elements in GPRS that are different or enhanced from GSM?
- b) Describe the Symbian OS architecture. What are the functions of different layers in this architecture?
- c) Draw and describe the WAP Protocol Stack.

(6+6+6)

3.

- a) What are the security algorithms used in GSM for authentication and data encryption?
- b) Which are the different components of information security? Explain any four components.
- c) Write short note on Broadcast Disks.

(6+6+6)

4.

- a) What is a hashing algorithm? Discuss any two types.
- b) Which are the basic requirements of Mobile Databases?
- c) Write a short note on Mobile IP.

(6+6+6)

5.

- a) Explain different types of attacks on static assets.
- b) List out the advantages and disadvantages of Hoarding of Data at mobile devices.
- c) Compare Indirect TCP, Snooping TCP and Transaction oriented TCP.

(6+6+6)

6.

- a) Explain stream ciphering and block ciphering algorithms.
- b) Compare Zigbee and Bluetooth.
- c) Explain cache invalidation mechanism with advantages and disadvantages.

(6+6+6)

7.

- a) Draw Blue Tooth Protocol Stack & explain four basic layers according to their functions.
- b) Explain AODV (Adhoc On-demand Distance Vector) Routing Algorithm with its advantages and disadvantages.

(9+9)