2017/ODD/08/24/MCS–704 (C)/
MS–104 (C)/131

PG Odd Semester (CBCS) Exam., December—2017

COMPUTER SCIENCE

(7th Semester / 1st Semester)

Course No. : MCS–704 (C)/MS–104 (C)

(Wireless and Mobile Computing)

Full Marks : 75
Pass Marks : 30

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, selecting **one** from each Unit

UNIT—I

1. *(a)* Compare and contrast between wireless networks and fixed networks. 5

(b) Explain the concept of cellular topology with proper example. 7

(c) How can we calculate the number of simultaneous users? How can we increase the capacity of a network? 3

2. *(a)* Describe the cellular hierarchy. 5

(b) Write short notes on (any *two*) : 5+5=10

(i) 2nd generation (2G) cellular networks

(ii) 3rd generation (3G) wireless networks

(iii) FDMA and TDMA

UNIT—II

3. Explain the various types of wireless LAN. What are the advantages of using wireless LAN? 10+5=15

4. Write short notes on the following : 5×3=15

(a) Bluetooth

(b) 4G wireless systems

(c) CDMA

UNIT—III

5. *(a)* Explain with diagrams : 5+5=10

(i) Mobile-originated calls

(ii) Mobile-terminated calls

(b) Explain with diagram the various types of handover. 5

6. *(a)* What are the various types of locatation updates and paying methods? Explain. 10

(b) Explain the functions of MSC and OSS. 5

UNIT—IV

7. *(a)* Draw the architecture of CDPD and explain its constituent parts. 10

(b) Describe the advantages of using WLL. 5

8. *(a)* Explain the concepts of GPRS. 7

(b) What are the CDPD services? Draw the reference architecture of CDPD. 4+4=8

UNIT—V

9. *(a)* Explain in detail the working of iridium, global star and teledesic system. 12

(b) What are the applications of GPS. 3

10. *(a)* Explain how global satellite communication works. 9

(b) Explain the concept of changeover from one satellite to other. 6

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