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AA—26—2019

FACULTY OF SCIENCE

B.Sc. (Fifth Semester) EXAMINATION

OCTOBER/NOVEMBER, 2019

(CBCS Pattern)

COMPUTER SCIENCE

(Mobile Communication)

(Elective)

(Wednesday, 16-10-2019)   **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 Hours   *Maximum Marks—75*

N.B. :— (i)   *All* questions are compulsory.

(ii)   Figures to the right indicate full marks.

1.   Attempt any *five* of the following :   15

(a)   Market for Mobile Communication

(b)   Planning a cellular system

(c)   SDMA

(d)   TETRA

(e)   Advantages of WLANs

(f)   Encapsulation in mobile IP

(g)   Logical channels in GSM.

2.   Attempt any *two* of the following :   10

(a)   Discuss a short history of wireless communication.

(b)   Explain a simplified reference model of wireless communication.

(c)   Explain various applications of wireless communication.

3.   Attempt any *two* of the following :   10

(a)   Explain basic cellular system in detail.

(b)   Explain planning of a cellular system.

(c)   Explain performance criteria of cellular system.

P.T.O.

4. Attempt any *two* of the following : 10

   (*a*) Explain hidden and enposed terminals problem in detail.

   (*b*) Explain TDMA in detail.

   (*c*) Explain FDMA in detail.

5. Attempt any *two* of the following : 10

   (*a*) Explain different services of GSM in detail.

   (*b*) Explain the system architecture of DECT.

   (*c*) Explain GSM with suitable system architecture.

6. Attempt any *two* of the following : 10

   (*a*) Explain IEEE 802.11 WLAN in detail.

   (*b*) Explain infrared *Vs* radio transmission in detail.

   (*c*) Explain Bluetooth in detail.

7. Attempt any *two* of the following : 10

   (*a*) Discuss mobile IP in detail.

   (*b*) Explain Rooting in mobile Ad-hoc networks.

   (*c*) Explain Dynamic host configuration protocol in detail.