

This question paper contains 2 printed pages]

BR—196—2016

FACULTY OF COMPUTER STUDIES

M.Sc. (First Year) (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2016

(CBCS Course)

COMPUTER SCIENCE

Paper CS-202

(Mobile Communication)

(Saturday, 19-11-2016)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—75

N.B. :— (i) Attempt All questions.

(ii) Assume suitable data, if necessary.

1. Attempt any *three* of the following : 15
 - (a) Describe the applications of mobile communication in vehicles and Emergencies.
 - (b) Explain the basic cellular system.
 - (c) Describe the frequencies for Radio transmission.
 - (d) Explain the concept of Hidden and Exposed terminals.
 - (e) Explain applications of satellite systems.
2. Answer the following (any *three*) : 15
 - (a) Describe the mobile and wireless devices.
 - (b) Explain the operations of a cellular system.
 - (c) What is multiplexing ? Explain time division multiplexing.
 - (d) Explain in detail slotted Aloha scheme.
3. Solve the following (any *three*) : 15
 - (a) Discuss in brief history of GSM and explain tele services.
 - (b) Explain the concept of infrastructure and Ad-hoc Network.
 - (c) Explain in detail FDMA.
 - (d) Explain the simplified reference model.

P.T.O.

4. Answer the following (any *three*) : 15
- (a) Draw the diagram for GSM system architecture and explain operation subsystem.
 - (b) What is modulation ? Explain amplitude shift keying.
 - (c) Explain the phases of HIPER LAN 1 EY-NPMA access scheme.
 - (d) Discuss the advantages and disadvantages of cellular systems with small cells.
5. Write short notes on any *three* : 15
- (a) Market for mobile communication
 - (b) Planning a cellular system
 - (c) Code division multiplexing
 - (d) Bluetooth architecture
 - (e) SDMA.