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AI—161—2017

FACULTY OF COMPUTER STUDIES

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

MARCH/APRIL, 2017

(CBCS Pattern)

COMPUTER SCIENCE

Paper (CS-202)

(Mobile Communication)

(Monday, 24-4-2017)

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) Explain the applications of mobile communication in vehicles and business.
 - (b) Explain the basic cellular system.
 - (c) Describe the regulations for frequencies.
 - (d) Explain the concept of Hidden exposed terminals.
 - (e) Explain the bluetooth architecture.
2. Answer the following (any *three*) : 15
 - (a) Explain the location dependent services.
 - (b) Explain the operations of cellular system.
 - (c) What is multiplexing ? Explain frequency division multiplexing.
 - (d) Explain the slotted Aloha scheme.
3. Answer the following (any *three*) : 15
 - (a) Explain in brief the mobile services.
 - (b) Explain the concept of infrastructure Ad-hoc Network.
 - (c) Explain in detail TDMA.
 - (d) Explain the simplified reference model.
4. Answer the following (any *three*) : 15
 - (a) Draw the diagram of GSM system architecture and explain network and switching subsystem.

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- (b) What is modulation ? Explain amplitude shift keying.
 - (c) Explain HIPER LAN 1.
 - (d) Explain the types of antennas.
5. Write short notes on (any *three*) : 15
- (a) History of GSM
 - (b) Planning a cellular system
 - (c) CDMA
 - (d) Applications of satellite system
 - (e) Space division multiplexing .