

S.No. : 512

MCA 2411

No. of Printed Pages : 03

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 21212

Roll
No.

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MCA Examination 2018-2019

(Even Semester)

MOBILE COMMUNICATION SYSTEMS

Time : Three Hours]

[Maximum Marks : 60

SECTION – A

Note :- Attempt all parts of the following : $8 \times 1 = 8$

1. (a) What is wireless communication.
- (b) What is frequency reuse.
- (c) Explain voice network.
- (d) Explain first Generation mobile communication.
- (e) What is bluetooth? Where it is used?
- (f) What is onboard connectivity.
- (g) What is Iridium system.

/ P. T. O.

- (h) What is the forward and reverse link frequency for frequency for AMPS.

SECTION – B

2. Attempt any two parts of the following : $2 \times 6 = 12$
- (a) What did we choose hexagonal shape for cells in cellular system.
- (b) Explain wi-Max architecture.
- (c) Describe the state-of-art of 5G developments.
- (d) What is JMT 2000 Functional Network Architecture.

SECTION – C

- Note :-** Attempt all questions.
3. Attempt any two parts of the following : $5 \times 2 = 10$
- (a) What is Broadband wireless Access standard IEEE 802.16.
- (b) What error correction schemes are used in bluetooth baseband? Also list and define the Bluetooth baseband logical channels.
- (c) Give difference of GSM vs CDMA.

4. Attempt any two parts of the following : $5 \times 2 = 10$
- (a) What do you understand by mobile agents? What are the characteristics of mobile agents?
- (b) Discuss the hand-off strategy.
- (c) Explain Reference Architecture for satellite networks?
5. Attempt any two parts of the following : $5 \times 2 = 10$
- (a) Explain global Positioning system. What are the limitations of GPS?
- (b) Discuss transmission techniques used for EDGE technology.
- (c) Give the History of 4G and explain the application and advantages.
5. Attempt any two parts of the following : $5 \times 2 = 10$
- (a) Explain CDMA channel access method.
- (b) Discuss various types of antenna used in satellite. What is sub satellite point.
- (c) What is an Earth Station? Draw block diagram of transmit receive type earth station.