

Mid – Semester Examination September 2022

MCA V Semester

Paper MCAE 513(223402513)

Mobile and Satellite Communication Networks

Maximum Marks: 30

Time: 1 hrs

- Q1. What Is GSM? Explain its architecture in detail. (10)**
- Q2. What do you understand by handoff? Differentiate between Hard handoff and soft hand off. (5)**
- Q3.**
- Q4.**

Test Mid Semester -
 MCA 5th Semester -
 Mobile & Subcomm Networks.
 Full Marks - 15 : Time 1 hour
 Answer any three questions.
 All questions carry equal marks

- Q1. What is displacement current? How is it different from conduction current? $(2\frac{1}{2})$ -
 How is electromagnetic wave radiated in space from Antenna? $(2\frac{1}{2})$ -
- Q2. Deduce electromagnetic wave equation as function of time and space. $(2\frac{1}{2})$
 What is plane wave? & How is it different from spherical wave? $(2\frac{1}{2})$ Spherical
- Q3. What is multi path fading? How does it occur? $(2\frac{1}{2})$ -
 In a congested area, the receiving Antenna receives a direct wave and two reflected wave ^{simultaneously} path differences λ and $\lambda/2$ w.r.t the direct wave. ^{would} there be multipath fading at receiver Antenna? $(2\frac{1}{2})$ ^{Yes} multipath.
- Q4. Why digital signals ^{can't} be directly radiated in space? $(2\frac{1}{2})$
 What is Amplitude shift keying? What is called the Bandwidth in ASK? $(2\frac{1}{2})$