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| **VELAMMAL COLLEGE OF ENGINEERING AND TECHNOLOGY, MADURAI – 625 009** | | | | | | | | |
| **Department of Computer Science and Engineering** | | | | | | | | |
| ***INTERNAL ASSESSMENT – I*** | | | | | | | | |
| **Branch** | | B.E.CSE | **Year/Sem./Sec.** | | III/VI/A&B | | | |
| **Course Code** | | CS8601 | **Date** | | 30-1-20 | | | |
| **Course Name** | | Mobile Computing | **Max. marks** | | 50 | | | |
| **Course Incharge** | | Mrs.S.Padma Devi  Dr.J.V.Anchitaalagammai | **Time** | | 01:30 Hours | | | |
| **PART A (Answer All Questions) (8 X 2 = 16)** | | | | | | | |
|  | | | | **K** | | **CO** | **Marks** |
| 1. | Differentiate Mobile Computing and wireless networking. | | | K1 | | CO1 | 2 |
|  | What is Mobile Computing? | | | K1 | | CO1 | 2 |
|  | List the advantages of mobile computing | | | K1 | | CO1 | 2 |
| 2. | List the applications of mobile Computing | | | K1 | | CO1 | 2 |
|  | List the characteristics of mobile Computing | | | K1 | | CO1 | 2 |
|  | What is the purpose of MAC protocols | | | K1 | | CO1 | 2 |
| 3. | Mention the properties required for MAC protocols. | | | K1 | | CO1 | 2 |
|  | Explain hidden terminal problem in infrastructure-less network | | | K1 | | CO1 | 2 |
|  | Explain Exposed terminal problem in infrastructure-less network | | | K1 | | CO1 | 2 |
| 4. | List Some Fixed Assignment schemes | | | K1 | | CO1 | 2 |
|  | List Some Random Assignment scheme | | | K1 | | CO1 | 2 |
|  | List few Reservation based Schemes | | | K1 | | CO1 | 2 |
| 5. | Define ALOHA | | | K1 | | CO1 | 2 |
|  | Define Slotted ALOHA | | | K1 | | CO1 | 2 |
|  | Define CSMA | | | K1 | | CO1 | 2 |
| 6. | Define GSM. | | | K1 | | CO2 | 2 |
|  | List out the Bearer Services provided by GSM | | | K1 | | CO2 | 2 |
|  | Name the Tele Services provided by GSM | | | K1 | | CO2 | 2 |
| 7. | What is the purpose of GMSC? | | | K1 | | CO2 | 2 |
|  | What is BSC? | | | K1 | | CO2 | 2 |
|  | Define MSC? | | | K1 | | CO2 | 2 |
| 8. | Mention the functionality of HLR | | | K1 | | CO2 | 2 |
|  | List 3 important features of GSM Security | | | K1 | | CO2 | 2 |
|  | Define GPRS | | | K1 | | CO2 | 2 |
| **PART B (Answer All Questions) (2 X 13 = 26)** | | | | | | | |
| 10. | Explain in detail about FDMA,TDMA and CDMA with suitable diagram | | | K2 | | CO1 | 13 |
| 10. | Explain about different types of multiplexing techniques with neat sketch | | | K2 | | CO1 | 13 |
| 10. | Compare different generations of mobile communication technology | | | K2 | | CO1 | 13 |
| 10. | Discuss about different spread spectrum techniques used in mobile communication | | | K2 | | CO1 | 13 |
| 11. | Explain in detail about the architecture of Global System for mobile Communication(GSM) with a neat sketch. | | | K2 | | CO2 | 13 |
| 11. | Explain in detail about the Security services that are provided by GSM | | | K2 | | CO2 | 13 |
| 11. | Explain in detail about Localization & Calling in GSM with suitable diagram | | | K2 | | CO2 | 13 |
| 11. | Explain in detail about GPRS architecture and its protocol stack with suitable diagram | | | K2 | | CO2 | 13 |
| **PART C (Answer All Questions) (1 X 8 = 8)** | | | | | | | |
| 12. | Three nodes A,B and C shares the wireless medium. What kind of problems arises when they try to share the medium. Explain the problems with neat diagram. | | | CO1 | | K2 | 8 |
| 12 | Consider the hidden terminal problem. In case of such terminals, what happens if ALOHA, Slotted ALOHA, reservation ALOHA or MACA is used | | | CO1 | | K2 | 8 |
| 12 | Rohini is working in USA. Her mother want to wish on her birthday. She tried to contact rohini through their BSNL landline telephone.Show how the call will be routed from india to USA with a neat sketch. | | | CO2 | | K2 | 8 |
| 12 | Give reasons for a handover in GSM and the problems associated with it. What are the typical steps for handover, what types of handover can occur? Which resources need to be allocated during handover? Explain how handover occurs from one BSC to another BSC | | | CO2 | | K2 | 8 |