Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **14CS2064** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MOBILE COMPUTING** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Describe FDMA, TDMA, CDMA and SDMA with their application and examples. | CO1 | 10 |
| b. | Describe the architectural model of Voice XML. How does VXML fit into web environment. | CO2 | 10 |
| (OR) | | | | |
| 2. | a. | Explain the functional architecture of mobile computing with neat  diagram. | CO2 | 10 |
| b. | Draw and brief the bluetooth protocol stack. | CO2 | 10 |
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| 3. | a. | Write the necessity of the following and discuss the advantage and disadvantage of each  i. Geostationary orbit (GEO)  ii. Low Earth Orbit (LEO)  iii. Medium Earth Orbit (MEO) | CO1 | 10 |
| b. | Define active RFID? How is active RFID different from passive RFID? Describe two applications of active and passive RFID. | CO3 | 10 |
| (OR) | | | | |
| 4. | a. | Mention the role of AuC? How is authentication done in a GSM network? What are the different algorithms used for security in GSM? | CO3 | 10 |
| b. | Illustrate the working principles of xDirect Sequence Spread Spectrum Technology? Explain how it works in the CDMA Technology? | CO2 | 10 |
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| 5. | a. | In GSM network, there are some databases used for various purposes. What are these databases? What are their functions? | CO2 | 5 |
| b. | Explain the functional architecture of GSM network with neat diagram. | CO1 | 15 |
| (OR) | | | | |
| 6. | a. | Describe the Symbian OS architecture. What are the functions of different layers in this architecture? | CO3 | 10 |
| b. | Explain the difference between SM MT and SM MO? | CO3 | 10 |
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| 7. | a. | Describe the WAP protocol stack while enumerating the functions of different layers. | CO2 | 10 |
| b. | Discuss with an example how synchronized multimedia integration language (SMIL) is similar with XML and HTML. | CO1 | 10 |
| (OR) | | | | |
| 8. | a. | Describe SS7 signalling protocol stack. | CO2 | 10 |
| b. | Write down the advantages and disadvantages of using Private Network against Virtual Private Network. | CO1 | 10 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | Write down the different components of information security. | CO2 | 10 |
| b. | Explain Diffie-Hellman key exchange algorithm. | CO3 | 10 |