Hall Ticket Number:

Code No.: 9125 M

VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD

M.Tech. I Year (CSE) I-Semester (Make Up) Examinations, March-2016

Mobile Computing

Time: 3 hours Max. Marks: 70

*Note: Answer ALL questions in **Part-A** and any FIVE questions from **Part-B***

Part-A (10 X 2=20 Marks)

1. Why we say that mobile elements are resource-poor relative to static elements?
2. Can we say CSMA/CA prevents collisions? Justify.
3. What are different interleaving and repetition schemes applied by DAB to objects and segments?
4. How privacy is provided in GSM?
5. How many channels exists between 5500MHz and 5725MHz with 16MHz for each channel? Consider 20MHz for spacing between channels.
6. Write the applications of Adhoc networks.
7. What is CoA in mobile IP?
8. State the layers in WAP Architecture.
9. What is the latest version of iOS in the market? Which programming language is used to build an iOS app?
10. List the protocols used in mobile commerce.

Part-B (5 X 10=50 Marks)

11. a) Briefly describe FHSS and DSSS with neat diagrams. [6]
    b) Given a channel with an intended capacity of 30 Mbps, the bandwidth of the channel is 3 MHz. What is the signal to noise (S/N) ratio required to achieve this capacity? [4]
12. a) Why GSM is also called 2G? Explain its architecture and services. [5]
    b) What do you mean by multiple access? Explain how CDMA make use of vector multiplication technique to send unique signals on air. [5]
13. a) Differentiate piconet and scatternet in Bluetooth technology. What are the new specifications supported by current Bluetooth? [6]
    b) Describe the MAC mechanism DFWMAC with RTS/CTS extension. [4]
14. a) What are the different kinds of broadcast models? Explain the model in which the server disseminates information using a periodic and aperiodic broadcast program [6]
    b) Wireless Application Protocol (WAP) is a technical standard for accessing information over a mobile wireless network. Justify [4]
15. a) Explain the recovery model for Mobile Transactions. [5]
    b) What's the difference between a Mobile Website and an App? Which is Better – an App or a Mobile Website? [5]
16. a) Explain different modulation techniques in detail. [6]
    b) Discuss the handover mechanisms in satellite systems. [4]
17. Write short notes on any **two** of the following:
    a) IEEE 802.11a [5]
    b) Mobile IP [5]
    c) Android development tools. [5]

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