END TERM EXAMINATION

SIXTH SEMESTER [BCA] MAY-JUNE 2014

Paper Code: BCA-304   Subject: Mobile Computing
(Batch 2011 Onward)

Time : 3 Hours   Maximum Marks: 75

Note: Attempt any five question, including Q.no.1 which is compulsory.
Select one question from each Unit.

Q1   Answer all the following questions briefly:-   (2.5x10=25)
(a) What is the difference between synchronous and statistical TDM?
(b) Calculate the bit rate for the 2000 baud rate and FSK modulation.
(c) Define the digital hierarchy used by telephone companies.
(d) List three protocols used for channelization.
(e) What is binary exponential back-off formula in pure ALOHA?
(f) What is unified messaging?
(g) Show the attributes of image tag.
(h) Differentiate between access pragma and meta pragma.
(i) What is the role of WTP?
(j) What are the two steps in handoff?

Unit-I

Q2   (a) What are three important radio propagation phenomena at high frequencies? Discuss various path-loss models. Shadow, transmission, dispersion   (6.5)
(b) Discuss FDM and WDM.   (6)

Q3   (a) What is the coverage of a base station that transmits a signal at 2kW given that the receiver sensitivity is -100dBm, the path loss at the first meter is 32 dB, and the path loss gradient is $\alpha=4$?   (4.5)
(b) Differentiate the following:-   (8)
(i) QAM & QPSK
(ii) DHSS & FHSS.

Unit-II

Q4   Discuss the following:-   (12.5)
(a) Hidden & Exposed terminal problem in WLAN.
(b) Pure ALOHA & slotted ALOHA
(c) CDMA

Q5   (a) Discuss the importance of DECT Protocol Layers.   (6.5)
(b) What are the different types of satellite systems and their ranges? Give examples of few important names of satellites in each system.   (6)

Unit-III

Q6   (a) What is WML script? Write a suitable code how a script is invoked from a WML card.   (6.5)
(b) Discuss the component of WAP architecture and its application environment.   (6)

Q7   (a) What are the information and transactional services provided by mobile internet?   (6.5)
(b) Write a WML script that involves anchor tag, hyperlink tag, and option tag?   (6)

Unit-IV

Q8   (a) Discuss the role of WWW in mobile internet   (6.5)
(b) What are the major difference between WAP 2.0 and WAP 1.x? What influenced the WAP 2.0 development?   (6)

Q9   (a) What are pragmas in WML script? Explain url pragma and access pragma with suitable code.   (6.5)
(b) Discuss WAP push architecture with its goals and applications.   (6)

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