

Third Year B.C.A.(Semester - II)Examination
Paper - 15BCA309
Mobile Computing

Time : Three hours]

[Full Marks - 60

- N.B. :**
- i) All questions carry equal marks
 - ii) Due credit will be given to neatness & adequate dimensions.
 - iii) Assume suitable data wherever necessary.
 - iv) Diagrams & Equations should be given wherever necessary.
 - v) Use Blue/Black ink/refill only for writing the answer book.

- Q.1 Choose correct alternatives. 5
- a) The shape of the cellular region for maximum radio coverage is _____
 - i) Circular ii) Square
 - iii) Oval iv) Hexagon
 - b) DECT stands for
 - i) Digital European Cellular Telex
 - ii) Digital Emergency Cellular Telephone
 - iii) Digital European Cordless Telephone
 - iv) Digital European Cellular Telephone
 - c) Half duplex system for communication has.
 - i) Communication is single direction
 - ii) Communication is single direction
 - iii) Communication is both direction at the same time
 - iv) None of the above
 - d) IMT - 2000 is a digital mobile system that functions as
 - i) Pager ii) Cordless
 - iii) Low earth orbit satellites
 - iv) All of the above

- e) Commonly used mode for 3G Network is
 i) TDMA ii) FDMA
 iii) TDD iv) FDD

- Q.2 a) Define Mobile communication. Explain its application. 5
 b) Explain following terms. 6
 i) Multiplexing
 ii) Single Propagation

OR

- Q.3 a) Explain simplified Reference model for mobile communication. 5
 b) Explain following. 6
 i) Spread Spectrum
 ii) Modulation

- Q.4 a) Explain the need of specialized medium access control mechanism in mobile communication. 5
 b) Compare SDMA with TDMA. 6

OR

- Q.5 a) Explain the functional architecture of a GSM system. 5
 b) Explain :- 6
 i) DECT
 ii) UMTS

- Q.6 a) Explain the application of satellite system. 5
 b) Explain :- 6
 i) Routing
 ii) Handover

OR

- Q.7 a) Explain the overview of digital audio broadcasting. 5
 b) Explain :- 6
 i) Cyclical Repetition of Data
 ii) Convergence of Broadcasting

- Q.8 a) Compare the Infra-Red Transmission with Radio Transmission. 5
 b) Explain Adhoc Network ? Explain its advantages. 6

OR

- Q.9 a) What is Bluetooth ? Explain its importance. 5
 b) Explain :- 6
 i) IEEE 802.11
 ii) HIPERLAN

- Q.10 a) What are the improvement in 3G Network compare to 2G network. 5
 b) Explain :- 6
 i) WAP 2.0
 ii) I - mode

OR

- Q.11 a) Explain various file system which support mobility. 5
 b) Explain Traditional TCP and classical TCP improvements for mobile transport layer. 6
