Printed Pages : 3

MCAE-34

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 214569

Roll No.

# M. C. A.

## (SEM. V) (ODD SEM.) THEORY EXAMINATION, 2014-15

## MOBILE COMPUTING

Time : 3 Hours] [Total Marks : 100

**Note :** Attempt **all** questions.

1 Attempt any **four** parts of the following : 5×4= 20

(a) Explain mobile computing and its standards.

(b) Explain GSM architecture and its elements.

(c) Explain Hand Off and its types with reference to network.

(d) Discuss Channel allocation and its method in brief.

(e) Describe HSCSD and GPRS of GSM network.

(f) Explain spread spectrum and write difference between DSSS and FHSS.

2 Attempt any **four** parts of the following : **5×4= 20**

(a) What is Bluetooth Protocol stack and also explain the functionality of each layer ?

(b) Discuss hidden node and exposed node problem in wireless LAN.

(c) Compare WAP Architecture with Internet Architecture when using WWW.

(d) Explain Mobile IP and IP packet Delivery in brief.

(e) Explain the impact of Piconet when Bluetooth device are connected to mobile unit.

(f) Explain Tunneling and Encapsulation in brief.

3 Attempt any **two** parts of the following : **10×2=20**

(a) Discuss clustering giving the detail of adaptive clustering for mobile wireless network. and write the requirement of clustering.

(b) Explain CODA file systeih and its features.

(c) Enumerate the Issues and challenges of data management in 3G mobile standards

4 Attempt any **two** parts of the following : **10×2=20**

(a) Discuss mobile agent and its security design and performance issues.

(b) What is Mobile TCP ? Discuss the advantages and disadvantages of it.

(c) Explain the following terms w.r.t. mobile computing :

(i) Query processing

(ii) Caching for data management



5 Attempt any **two** parts of the following : **2×10=20**

(a) Explain Proactive and Reactive routing protocol and its differences. Explain with examples.

(b) Explain in detail GSR (Global State Routing) with example.

(c) Explain Temporary ordered routing algorithm (TORA) with example.

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