(c) Distinguish between proactive, reactive and hybrid protocol. Explain TORA and what happens if a link is broken with the help of an example?

—x—

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370

NMCA-414

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

PAPER ID : 214428

Roll No. | | | | | | | | | | |

M.C.A. (Semester-IV)

SPL. THEORY EXAMINATION, 2014-15

MOBILE COMPUTER

Time : 3 Hours] *[Total Marks : 100*

Note: Attempt all questions.

1. Attempt any four parts of the following: 5x4=20

(a) Explain the word 'mobile computing' and also give any suitable live example with merits of mobile computing.

(b) What is the main reason of using cellular systems? Explain dynamic channel allocation.

(c) Explain wireless telephony along with its major application areas.

(d) What is handoff? Discuss different types of handoff.

(e) What is GSM? Discuss its architectures.

(f) Discuss HLR and VLR.

2. Attempt any foour parts of the following : 5x4=20

(a) Describe all wireless local loop (WLL) schemes in detail.

(b) Explain the system architecture and protocol architecture of IEEE 802.11 with suitable example.

(c) Differentiate between Bluetooth and IEEE 802.11.

(d) Explain packet flow in mobile IP.

(e) Distinguish between DCF and PCF operation in context to WLAN.

(f) Give an overview of WAP architecture and compare it with typical internet architecture when using www.

3. Attempt any two parts of the following: 10x2=20

(a) Discuss major challenges related to data management in mobile computing environment.

(b) What is the general goal of a file system? Explain CODA file system.

(c) Why is data replication needed in mobile environment? Discuss different replication schemes used for this purpose.

4. Attempt any two parts of the following: 10x2=20

(a) Discuss various issues related to transaction processing in mobile computing environment.

(b) What are mobile agents? What are the benefits/ good reasons for using mobile agents? Discuss the classification of fault tolerance schemes for mobile agents.

(c) Explain the different security aspects in mobile agents.

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

(a) Discuss fundamental differences between wired and Adhoc networks related to routing.

(b) Describe AODV routing. How it is different than standard distance vector algorithm?