67218

MCA 5th Semester CBCS Scheme (w.e.f. 2018-19)

Examination – May, 2019 MOBILE COMPUTING

Paper: 18MCA35DB2

Time: Three Hours]

[Maximum Marks: 80

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Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note: Attempt five questions in all, selecting one question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

- 1. (a) What should be the characteristic of mobile computing devices? $2 \times 8 = 16$
 - (b) What is database hoarding?
 - (c) Describe the significance of core, edge and access network.
 - (d) What is the principle of TDMA system?
 - (e) Describe the variants of mobile computing.
 - (f) Mention one advantage and one disadvantage of mobile computing.

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(g) Mention two differences between 2G and 3G network.

(h) What is called an attack in term of network security?

UNIT-I

- 2. (a) What is the principle of CDMA? How a particular user's data is decoded at the base station? Explain it citing an example.
 - (b) Represent GSM architecture diagrammatically.Describe the functions of the modules.6
- 3. (a) Write briefly notes on:
 - (i) GPS
 - (ii) Mobile computing through internet
 - (b) Give examples for five mobile computings applications. https://www.haryanapapers.com 8

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UNIT - II

- 4. (a) List the entities of mobile-IP architecture. Briefly describe each of entities.
 - (b) Explain infrastructure based and ad-hoc network architecture of IEEE 802.11 WLAN.
- Give the comparison of various TCP advantage and disadvantages in wireless networking.

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- (a) What are the functions of authentication and encryption in GSM? How is system security maintained?
- (b) What are multicast routing protocols?
- (c) Explain mobile payment models and security issues.

UNIT - III

- 6. (a) What are the advantages of hoarding the data at the mobile device?
 - (b) What is context aware and explain in detail about context aware computing?
 - (c) Define Qos and does internet provide Qos? Justify your answer.
- 7. Explain the following selective tuning techniques: 16
 - Temporal addressing
 - (ii) Broadcast Addressing
 - (iii) Index based method
 - (iv) Distributed index based method

UNIT - IV

- 8. (a) List the MANET routing protocols. Describe any two protocols in detail.
 - (b) What are the security threats to a MAN ET? Why a MANET faces greater security threats than a fixed infrastructure networks?

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9. (a) Explain destination sequence distance vector routing algorithm in MANETs. (b) Describe the properties of MANETS. (c) List the applications of MANETS. 4

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