3740

BOARD DIPLOMA EXAMINATION, (C–09)

MARCH/APRIL—2014

DCME—SIXTH SEMESTER EXAMINATION

MOBILE COMPUTING

Time : 3 hours]   [*Total Marks* : 80

PART—A   3×10=30

Instructions : (1) Answer **all** questions.

              (2) Each question carries **three** marks.

              (3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. List the applications of mobile communication.

2. What are the different security services offered by GSM?

3. Explain radio interface of GSM.

4. What are the applications of satellite systems?

5. Explain the localization in satellite systems.

6. Explain CDMA.

7. What do you mean by piconets and scatternets?

8. What are the different types of logical channels provided by L2CAP?

9. What is reverse tunnelling?

10. List the features of 4G.

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PART—B   10×5=50

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Instructions : (1) Answer *any* **five** questions.

                (2) Each question carries **ten** marks.

                (3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the following with neat sketches :   5+5

     (a) Hidden and Exposed Terminals

     (b) Near and Far Terminals

12. Explain in detail GSM architecture with the help of a neat sketch.   10

13. *(a)* What are the reasons for handover in GSM?   2

     (b) Explain different handover scenarios in GSM with a neat sketch.   8

14. *(a)* Explain different broadcast patterns.   3

     (b) Explain DVB with a neat sketch.   7

15. *(a)* Compare among GEO, LEO and MEO.   6

     (b) Explain the multimedia object transport protocol.   4

16. *(a)* Compare between WLAN and Bluetooth.   5

     (b) Explain the architecture of ad-hoc network in WLAN.   5

17. Explain, in detail, Bluetooth protocol with a neat diagram.   10

18. Illustrate with a neat sketch IP packet delivery to and from the MN (mobile node) in Mobile IP.   10

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