05/06/18 (Fr

Reg. No. :

Question Paper Code : 70155

M.E./M.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Elective

Computer Science and Engineering

CP 5093 – MOBILE AND PERVASIVE COMPUTING

(Common to M.E. Computer Science and Engineering (With Specialization in Networks))

(Regulations 2017)

Time : Three Hours   Maximum : 100 Marks

PART – A   (10×2=20 Marks)

1. What is TETRA ?

2. What do you mean by Polling ?

3. Define the terms (i) Uplink (ii) Downlink (iii) Earth station.

4. Mention the requirements of LTE.

5. Why does power consumption plays a vital role in pervasive computing ?

6. Why is device management important in Pervasive computing ?

7. Define HCI service selection.

8. Define service combination selection algorithm.

9. What are the challenges faced in pervasive mobile transactions ?

10. Define dynamic transaction management.

PART – B   (5×13=65 Marks)

11. a) Explain the architecture of GSM in detail. Define localization, calling and hangover.   (13)

(OR)

    b) Explain the architecture of GPRS in detail.   (13)

70155

12. a) Explain LTE architecture and its requirements with detailed diagram. Difference between LTE and LTE-A. (13)

    (OR)

    b) Explain OFDMA in detail along with its principles. (13)

13. a) Explain in detail about the Pervasive computing concepts, structure and elements and challenges of the pervasive systems. (13)

    (OR)

    b) Illustrate in detail about the Pervasive systems management. (13)

14. a) Explain in detail about the HCI in Pervasive Environments. (13)

    (OR)

    b) Explain in detail about the services supported in pervasive computing. (13)

15. a) Explain in detail about the Pervasive concepts and framework in mobile environment. (13)

    (OR)

    b) Explain in detail about the Pervasive mobile transactions with illustrations. (13)

PART – C   (1×15=15 Marks)

16. a) i) What is the reaction of standard TCP in case of packet loss ? In what situation does this reaction make sense and why it is quite problematic in the case of wireless networks and mobility ? (8)

    ii) Can the problems using TCP for mobile communication be solved by replacing TCP with snooping TCP ? Justify your answer. (7)

    (OR)

    b) Explain any model by incorporating the pervasive mobile transactions with the framework.

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