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**Question Paper Code : 10498**

M.E./M.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Elective

Biometrics and Cyber Security

CP 5093 – MOBILE AND PERVASIVE COMPUTING

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

(Regulation 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the major services of GPRS.
2. Give examples for 3G networks.
3. List the layers of LTE-A protocol stack.
4. What are the features of LTE-A?
5. How is context useful in pervasive systems?
6. What are the key functions of resource management?
7. What is the function of service-oriented middleware?
8. What is meant by context-aware HCI service selection?
9. How is context useful in pervasive mobile transactions?
10. What is meant by context-aware transaction?

PART B — (5 × 13 = 65 marks)

11. (a) Describe functional architecture of GSM.

Or

- (b) Explain the main components of UMTS reference architecture.

12. (a) Briefly explain LTE-A architecture.

Or

(b) Write the principles of OFDMA and explain with a block diagram.

13. (a) Write about the challenges faced in pervasive computing and comment on pervasive computing environment.

Or

(b) Briefly explain the functionality of middleware layer of pervasive computing systems.

14. (a) Describe the use of context manager in pervasive systems.

Or

(b) Explain the service combination selection algorithm.

15. (a) Briefly explain the context-aware pervasive transaction model.

Or

(b) How are dynamic pervasive mobile transactions managed? Explain.

PART C — (1 × 15 = 15 marks)

16. (a) Give architectural design for intelligent campus and explain the design.

Or

(b) Explain with relevant diagram the adoptions and architecture of wireless ATM.