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Question Paper Code : 90420

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022.

Sixth Semester

Computer Science and Engineering

CS 8601 — MOBILE COMPUTING

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the challenges in mobile communication?
2. List out the applications of Mobile Computing.
3. Mention the services offered by GPRS.
4. What are the supplementary services in GSM?
5. What is the need for Mobile IP?
6. Compare MANET Vs VANET.
7. Show the structure of a Mobile TCP segment.
8. Mention the need for WTLS.
9. Write about SDK.
10. List any four Mobile OS.

PART B — (5 × 13 = 65 marks)

11. (a) Explain the characteristics and the structure of Mobile Computing Applications.

Or

- (b) Compare and contrast FDMA, TDMA and CDMA.

12. (a) Describe GSM architecture, its services, authentication and security in detail.

Or

- (b) Describe in detail about GPRS and UMTS architecture.
13. (a) Discuss the design issues of MANET routing protocols in detail.

Or

- (b) Explain about the key mechanism and Agent Discovery Process in Mobile IP.
14. (a) Describe how mobile TCP improves TCP efficiency for mobile networks? Explain Indirect TCP with a neat diagram.

Or

- (b) Explain the WAP architecture in detail.
15. (a) Compare and contrast the various Mobile OS in detail.

Or

- (b) Explain android software stack with suitable diagram.

PART C — (1 × 15 = 15 marks)

16. (a) Elaborate the process followed in Mobile Payment System with different payment schemes to complete a fund transaction happens between buyer and seller.

Or

- (b) Illustrate the factors that make MANET more vulnerable to security attacks compared to the traditional networks. Also discuss the mechanisms available to overcome the security attacks.