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Question Paper Code	12435
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B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2023

Fifth Semester

Computer Science and Engineering
20CSPC503 - MOBILE COMPUTING
(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

- | | <i>Marks,
K-Level, CO</i> |
|---|-------------------------------|
| 1. What are the limitations / challenges of mobile computing? | <i>2,K1,CO1</i> |
| 2. Show hidden terminal problem with example. | <i>2,K1,CO1</i> |
| 3. Define Handoff. What are its types? | <i>2,K1,CO2</i> |
| 4. What is the frequency range of uplink and downlink in GSM network? | <i>2,K1,CO2</i> |
| 5. Differentiate UMTS networks from 2G networks? | <i>2,K2,CO3</i> |
| 6. List the Characteristics of 5G. | <i>2,K1,CO3</i> |
| 7. Define WDP protocol. | <i>2,K1,CO5</i> |
| 8. List the functions of WTLS. | <i>2,K1,CO5</i> |
| 9. Define microkernel operating system? | <i>2,K1,CO6</i> |
| 10. Justify whether security is an issue in Mobile Payment. | <i>2,K2,CO6</i> |

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Summarize the functions of Fixed assignment schemes in MAC protocols. *13,K2,CO1*

OR

- b) Compare the various generations of Mobile Computing. *13,K2,CO1*

12. a) Draw and explain the system architecture and services of GSM in detail. *13,K2,CO2*

OR

- b) Describe in detail the functional architecture of GPRS and Protocol stack with neat sketch. *13,K2,CO2*

13. a) Illustrate the architecture of LTE with a neat diagram and services. *13,K2,CO3*

OR

- b) Explain the UMTS architecture with neat diagrams and services. *13,K2,CO3*
14. a) Discuss in detail about Mobile TCP. *13,K2,CO5*

OR

- b) Identify the requirements of WAP and Explain its architectural components. *13,K2,CO5*
15. a) Discuss the following:
- (i). Android SDK *5,K2,CO6*
 - (ii). iOS SDK *5,K2,CO6*
 - (iii). Windows Phone SDK *3,K2,CO6*

OR

- b) Explain in detail about the structure of M Commerce, its applications and Pros and Cons. *13,K2,CO6*

PART - C (1 × 15 = 15 Marks)

16. a) (i) Identify the Characteristics, Applications of MANET. *7,K3,CO4*
(ii) Explain DSR Routing Protocol in detail. *8 ,K3,CO4*

OR

- b) (i) Infer the discovery of care of address in the context of movement of a mobile to a foreign network. *7,K3,CO4*
(ii) Interpret how the concept of tunnelling and encapsulation is done in Mobile IP. *8 ,K3,CO4*