Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

SIXTH SEMESTER B.TECH DEGREE EXAMINATION, APRIL 2018

Course Code: CS364

Course Name: MOBILE COMPUTING

Max. Marks: 100 Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks. Marks

1	Explain different types of middleware and gateways required in the architecture of mobile computing.	(3)
2	Explain the major segments to support mobile computing function with diagram.	(3)
3	Highlight the differences between DSSS and FHSS.	(3)
4	Compare and contrast Satellite systems-GEO, LEO and MEO.	(3)

PART B

Answer any two full questions, each carries 9 marks.

5	Explain in detail the three-tier architecture of mobile computing.	(9)
6	Elaborate the working of following medium access control protocols: a. TDMA b. FDMA c.CDMA	(9)
7	Explain Cellular Concepts, Channel assignment strategies and Hand-off strategies in detail using appropriate diagrams	(9)

PART C

Answer all questions, each carries 3 marks.

8	Describe the working of DHCP in Mobile computing with neat diagrams.	(3)
9	Explain the working of selective retransmission in TCP to support mobility.	(3)
10	Highlight the differences between DSR and DSDV protocols	(3)
11	Explain the procedure for Service Discovery using Mobile Agents in MANET	(3)

PART D

Answer any two full questions, each carries 9 marks.

12	Explain in detail the architecture, multiple access and addressing mechanisms in IEEE 802.11 wireless LAN standard.	(9)
13	Describe the following in Mobile IP with suitable figures a. Components of Mobile IP	(9)

b. Data transfer to a Mobile node

c. Reverse tunnelling

14 Explain in detail the working of Indirect TCP and Snooping TCP with example. (9)

PART E

Answer any four full questions, each carries 10 marks.

15 Explain slow start mechanism in conventional TCP, what is the impact of high error rate and missing acknowledgements in wireless network on slow start? (10)

16 Explain the following protocols and platforms for mobile computing (10)

a.WAP b.J2ME c. Android d. PalmOS

17 Write detailed notes on mobile TCP and Transaction oriented TCP (10)

18 Describe the LTE architecture in detail with block diagram (10)

19 What are the major components of security, explain each with examples (10)

20 Design an ad-hoc network with mobile nodes; describe in detail the working of the best routing algorithms suitable for the design. (10)

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