Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Sixth Semester B.Tech Degree (S,FE) Examination May 2022 (2015 Scheme)

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 any three characteristics of mobile computing environment.	(3)
2	List the characteristics of Ad-hoc networks.	(3)
3	Explain spread-spectrum technology and list the various spread spectrum techniques.	(3)
4	List the functions of Operation and Support Subsystem (OSS) in GSM.	(3)

PART B

Answer any two full questions, each carries 9 marks.

5	a)	Discuss the functions of Transaction Processing (TP) middleware.	(4)
	b)	Explain Internet Content Adaptation Protocol (ICAP) and illustrate the data flow in an ICAP environment.	(5)
6	a)	Explain handover/handoff procedure in GSM networks.	(6)
	b)	List the various categories of mobile applications based on lifestyles with examples.	(3)
7		Illustrate the working of GSM Architecture with the help of neat diagram.	(9)

PART C

Answer all questions, each carries 3 marks.

8	Explain Mobile ad-hoc networks (MANETs) and list out any two example scenarios where MANET can be used.	(3)
9	Define Exposed terminal problem.	(3)
10	Discuss the client initialization procedure in Dynamic Host Configuration Protocol (DHCP).	(3)
11	Explain the Slow start behaviour of TCP.	(3)

PART D
Answer any two full questions, each carries 9 marks.

12   Explain the working of Indirect TCP (I-TCP) along with its merits and demerits.   (9)

13   Explain Carrier Sense Multiple Access/Collision Avoidance (CSMA/CA) in detail.   (9)

14   a)   Discuss IEEE 802.11 protocol architecture.   (6)

     b)   Illustrate the steps involved in route discovery of Dynamic Source Routing (DSR).   (3)

PART E
Answer any four full questions, each carries 10 marks.

15   a)   Discuss on Snooping TCP for Mobile transport layer.   (6)

     b)   Explain any four features of Android operating system.   (4)

16   a)   Explain WAP Application Environment (WAE) with the help of a suitable diagram.   (6)

     b)   List the features of Extensible Markup Language (XML).   (4)

17   Explain Bluetooth Protocol Stack with required diagrams.   (10)

18   a)   Discuss various attacks on dynamic assets (an information asset in transit).   (5)

     b)   Explain super core concept in 5G and list its features.   (5)

19   Explain the various components of information security.   (10)

20   a)   List the features and applications of Lifi.   (5)

     b)   Explain Multiple Input Multiple Output (MIMO) in 5G.   (5)

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