

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Summer 2018 - 19 Examination

Semester: 6**Subject Code: 03105351****Subject Name: Wireless Networks and Mobile Computing****Date: 30/04/2019****Time: 10:30am To 01:00pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions - (Fill in the blanks, one word answer, MCQ-not more than Five in case of MCQ) (All are compulsory) (Each of one mark) (15)

1. _____ allows subscribers to operate in mobile phone service areas other than the service area where the service is subscribed
 - a) Roaming
 - b) Grade of service
 - c) both
 - d) neither of above
2. A small division of a given geographical area is known as
 - a) Shell
 - b) Cell
 - c) Core
 - d) Kernel
3. _____ in FDMA is assigned between the spectrum of two adjacent users
 - a) Interference band
 - b) Co-inter band
 - c) Guard band
 - d) Inference band
4. What is the access point (AP) in wireless LAN?
 - a) device that allows wireless devices to connect to a wired network
 - b) wireless devices itself
 - c) both (a) and (b)
 - d) none of the mentioned
5. Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?
 - a) CDMA
 - b) CSMA/CA
 - c) ALOHA
 - d) none of the mentioned
6. FDMA is used mainly for transmission
 - a) Digital
 - b) Analog
 - c) Both
 - d) Neither
7. In wireless LAN, there are many hidden stations so we cannot detect the
 - a) Frames
 - b) Collision
 - c) Signal
 - d) Data
8. A set that makes stationary or mobile wireless station and also have optional central base station is known as
 - a) Basic service set
 - b) Extended service set
 - c) Network point set
 - d) Access point

9. Which of the following memory device stores information such as subscriber's identification number in GSM?

- a) Register
- b) Flip flop
- c) SIM
- d) SMS

10. Which of the following subsystem provides radio transmission between mobile station and MSC?

- a) BSS
- b) NSS
- c) OSS
- d) BSC

11. GSM stands for _____.

12. SGSN stands for _____.

13. CDMA stands for _____.

14. A mobile moves into a different cell while in conversation is known as _____.

15. Cell dragging is a problem that occurs due to _____.

Q.2 Answer the following questions. (Attempt any three) (15)

- 1. Explain role of HLR & VLR in terms of GPRS.
- 2. Discuss IP Packet Delivery in mobile computing.
- 3. Define & Explain terminologies Mobile node, Correspondent Node, Foreign Agent.
- 4. What are the disadvantages of segmentation in I-TCP.

Q.3 A) Explain with diagram GSM Architecture. (07)

B) List types of handover and explain working of handover. (08)

OR

B) Explain Signal Propagation modes. (08)

Q.4 A) Analyze & detail call routing in GSM (07)

OR

A) Sketch IEEE 802.11 system architecture. Also brief what is mobile IP. (07)

B) Sketch and explain GPRS architecture. (08)