

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Winter 2017 - 18 Examination

Semester: 1**Subject Code: 03201102****Subject Name: Wireless Network and Mobile Computing****Date: 28/12/2017****Time: 02:00PM to 04:30PM****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 A) Draw and explain Bluetooth Protocol architecture. **(05)**

B) What is Mobile Computing? Explain its merits and limitations. **(05)**

C) Define following:

i) Intersymbol Interference (ISI) ii) Handover iii) Frequency iv) MSRN v) GGSN **(05)**

Q.2 Answer the following questions. (Attempt any three) (Each five mark) **(15)**

A) What is Multiplexing? How code division multiplexing works? Write advantage of code division multiplexing.

B) Explain call routing in GSM

C) Discuss the IEEE 802.11 family of standards.

D) Consider Global System for Mobile ,which is FDMA/FDD systems that uses 12.5 MHz simplex band with 10KHz as a Guard band and channel bandwidth is 30KHz.Find the number of channels available in a system.

Q.3 A) In a CDMA network, assume there are three stations A (chip sequence: 0101) , B (chip sequence:011) and C (chip sequence : 0000). Figure shows two cases of all stations transmitting at the same time. Show the transmitted sequences S1,S2 and S3 and how DSSS does the recovery at receiver. **(07)**

A sent 0 0

B sent 1 0

C sent 1 1

B) Draw and discuss GSM architecture . **(08)**

OR

B) Explain GPRS reference architecture. **(08)**

Q.4 A) Explain Indirect TCP **(07)**

OR

A) Explain snooping TCP. **(07)**

B) Write short note on Mobile IP. **(08)**