

C 29709

Name.....

Reg. No.....



**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION  
OCTOBER 2012**

IT 09 L-21—BLUETOOTH TECHNOLOGY

(2009 admissions)

Time : Three Hours

Maximum : 70 Marks

**Part A**

*Answer all questions.*

- I. (a) Give *two* differences between Bluetooth and Infrared technology.  
(b) Define Piconet.  
(c) What is cable replacement protocol ?  
(d) Who is Security Manager in Bluetooth device ?  
(e) List the basic concepts of Bluetooth technology.

(5 × 2 = 10 marks)

**Part B**

*Answer any four questions.*

- II. (a) Explain the Generic access profile.  
(b) Discuss the states of a node in Bluetooth piconet.  
(c) Explain the user's scenarios of Bluetooth transmission. And list the services offered by the Bluetooth.  
(d) Discuss the issues of Infrared technology.  
(e) Briefly explain the various versions of Bluetooth along with its specifications and features.  
(f) What are the uses of antenna ? List its types. Explain the antennas patterns, gain and losses.

(4 × 5 = 20 marks)

**Part C**

*Answer all questions.*

- III. (a) Explain with neat diagram Bluetooth protocol architecture.  
*Or*  
(b) What is Bluetooth technology ? Explain the packet frame format for a Bluetooth device.
- IV. (a) How security is maintained in Bluetooth ? Discuss about Bluetooth security.  
*Or*  
(b) Enumerate the types of services offered by Bluetooth and its packet header.
- V. (a) Explain about Cordless telephone profile.  
*Or*  
(b) Enumerate the difference Bluetooth and Wi-Fi IEEE 802.11 in networking.
- VI. (a) Explain the security encryption and security key generation in a Bluetooth host.  
*Or*  
(b) What are Bluetooth devices ? Explain how they can be used to setup Personnel Area Networks.

(4 × 10 = 40 marks)