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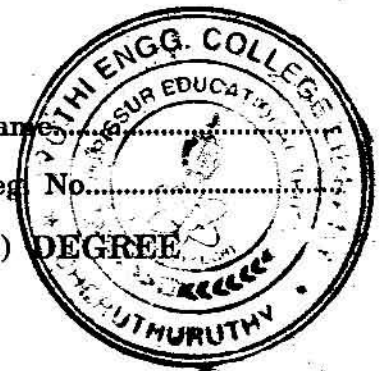
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Name.....

Reg. No.....

SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, NOVEMBER 2013

IT 09 L21—BLUETOOTH TECHNOLOGY



Maximum : 70 Marks

Time : Three Hours

Part A

- I. (a) What is the data throughput speed of a Bluetooth connection ?
(b) How does Bluetooth fit in with WiFi ?
(c) What are Bluetooth profiles ?
(d) Define PM_ADDR and AR_ADDR.
(e) Name few applications of Bluetooth.

(5 × 2 = 10 marks)

Part B

- II. (a) Explain the Bluetooth device roles and states.
(b) Explain the piconet routing with reference of ISO/OSI model.
(c) Explain how data transfer is performed in Scatternet.
(d) Explain the role of Bluetooth clock in a Bluetooth device.
(e) Explain about the frequency bands and RF channel of a Bluetooth device.
(f) Explain the Bluetooth network topology.

(4 × 5 = 20 marks)

Part C

- III. (a) Explain with neat diagram Bluetooth protocol Architecture.

Or

- (b) Explain in detail about the Bluetooth Personal Area Networking (Piconet-PAN).

- IV. (a) Explain the steps involved in connection establishment.

Or

- (b) Enumerate the types of services offered by Bluetooth and its packet header.

- V. (a) Explain the notable aspects of connection establishment together with modes of connection.

Or

Turn over

(b) Explain the steps involved in device authentication.

VI. (a) Explain the following secondary Bluetooth profiles :—

1. Fax profile

2. Dial-up networking profile

3. Headset profile.

Or

(b) Explain about the key management used in Bluetooth systems to ensure transmission security.

(4 × 10 = 40 marks)