C 21435   (Pages : 2)   Name...........................
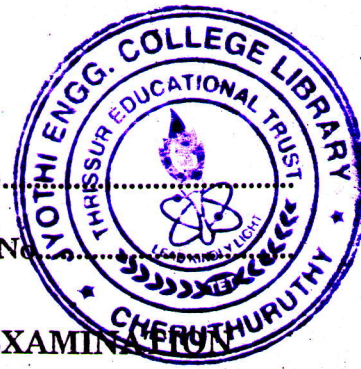
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EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION APRIL 2017

EC / PTEC 09 803 L 20 – MOBILE COMPUTING

(2009 Admission)

Time : Three Hours   Maximum : 70 Marks

Part A

Answer all questions.

1. What are the various identifiers used in GSM ? Give their use.

2. Identify the deficiencies in IEEE 802. 11a and IEEE 802. 11b standards when compared to IEEE 802. 11g standard.

3. Mention the features of HIPERLAN.

4. What are the features added by DSDV to distance vector algorithm ?

5. Draw the components and interface of the WAP 1.× architecture.

(5 × 2 = 10 marks)

Part B

Answer any four questions.

1. Sketch the functional architecture of GSM system.

2. Write a note on Bluetooth security components and protocols.

3. Discuss the various phases of the HIPERLAN EY-NPMA access scheme in detail.

4. Give the differences between wired network and adhoc wireless network related to routing.

5. What are the features of WML script ? Explain WML scripting language with example.

6. Explain the components of WAP.

(4 × 5 = 20 marks)

Part C

1. (a) Describe the GSM architecture with its constituent elements. In GSM network, there is some database used for various purposes. What are they ? What are their functions ?

Or

   (b) Explain in detail about UMTS and IMT-2000.

Turn over

2. (a) Explain the following with respect to Bluetooth: Services Offered; Bluetooth Packet Format; Security and Link Management.

Or

(b) Discuss in detail about IEEE 802. 11 and its architecture, frequency hopping spread spectrum.

3. (a) What are the concepts behind techniques like tunneling, reverse tunneling and encapsulation in Mobile IP ?

Or

(b) Discuss the following in DSDV protocol and assess how it differs from the 'Distance Vector': (i) Route advertisements (ii) Routing table (iii) Route selection criteria.

4. (a) With a neat diagram, explain WAP protocol stack and each module in WAP protocol.

Or

(b) Discuss how Transport Layer Security is maintained in WAP.

(4 × 10 = 40 marks)