

F 3822

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, NOVEMBER 2016

Eighth Semester

Branch : Information Technology

IT 010 801—WIRELESS COMMUNICATION (IT)

(New Scheme—2010 Admission onwards)

[Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. What is Multipath interference ?
2. How multicarrier code division multiple access works ?
3. List the three separate lists an equipment identity register may contain.
4. List the four classes QoS requirements in universal mobile telecommunication system (UMTS) can be divided into.
5. How wireless local loop (WLL) connects subscribers to public switched telephone network (PSTN) ?

(5 × 3 = 15 marks)

Part B

Answer all questions.

Each question carries 5 marks.

6. Why efficient power control is important for code division multiple access network performance ?
7. How frequency-hopping code division multiple access works ?
8. What is Asynchronous transfer mode ? Discuss.
9. Define IP multimedia subsystem (IMS) and list the functional elements that comprise it.
10. What is digital video broadcasting-handheld (DVB-H) ?

(5 × 5 = 25 marks)

Turn over

Part C

*Answer all questions.
Each full question carries 12 marks.*

11. Explain hybrid frequency division multiple access / time division multiple access with example and diagrammatic illustration.

Or

12. (a) What is Handover ? Explain soft handover and hard handover. (8 marks)
(b) What are intersystem handovers ? Discuss. (4 marks)
13. What is a Carrier signal ? Explain how a carrier signal can be modulated using amplitude shift keying, frequency shift keying and phase shift keying.

Or

14. (a) Explain Hamming distance with example. (6 marks)
(b) List the functions of the sublayer medium access control of the data-link layer in the wideband code division multiple access air interface protocol stack. (6 marks)
15. (a) What is a Mobile switching center ? List the functions of a mobile switching center. (6 marks)
(b) What is Visitor location register ? What information a visitor location register subscriber data entry includes ? (6 marks)

Or

16. Explain with diagrammatic illustration the location services architecture in the universal mobile telecommunication system (UMTS) network.
17. List and Explain the service categories provided by universal mobile telecommunication system (UMTS).

Or

18. Explain with diagrammatic illustration IP multimedia subsystem (IMS) architecture.
19. Explain with diagrammatic illustration wireless local loop (WLL) architecture.

Or

20. Discuss local multipoint distribution service (LMDS) technology.

[5 × 12 = 60 marks]

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Reg. No.....

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2016

Eighth Semester

Branch : Information Technology

CS 010 802—CRYPTOGRAPHY AND NETWORK SECURITY (IT)

(New Scheme—2010 Admission onwards)

[Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A

*Answer all questions.
Each question carries 3 marks.*

1. How to perform primality test ?
2. What are block ciphers ?
3. Explain man-in-the-middle attack ?
4. What is IP security ?
5. How to detect intrusion ?

(5 × 3 = 15 marks)

Part B

*Answer all questions.
Each question carries 5 marks.*

6. Find $gcd(200, 180 \text{ and } 450)$.
7. What is the relation between confidentiality and encryption ? Explain.
8. Explain the general process in asymmetric key cryptography.
9. What are the services provided by SSL ?
10. What is DDoS attack ?

(5 × 5 = 25 marks)

Part C

*Answer all questions.
Each full question carries 12 marks.*

11. With an example, show the addition and multiplication process using $GF(2^8)$ finite fields.

Or

12. With an example, explain Chinese remainder theorem.

Turn over

13. Explain any *one* symmetric key cryptography technique.

Or

14. Compare AES and DES algorithms.

15. Explain any *one* key exchange algorithm.

Or

16. Explain ElGamal Cryptosystem.

17. Write a note on :

(a) Pretty Good privacy.

(b) Kerberos.

Or

18. Write a note on :

(a) Electronic Mail security.

(b) S/MIME.

19. How to detect and overcome from DDoS attacks ? Explain.

Or

20. Write a note on :

(a) Password management.

(b) Intrusion detection.

(5 × 12 = 60 marks)

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2016

Eighth Semester

Branch : Information Technology

IT 010 805 G 04—ELECTRONIC BUSINESS AND SERVICES (Elective IV) [IT]

(New Scheme—2010 Admission onwards)

[Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. Distinguish between *e-commerce* and *m-commerce*.
2. Briefly explain the working of a Payment Gateway.
3. What is a Digital Signature ? What are its main components and why is it required ?
4. Discuss the concept of Peer to Peer networks in E-Commerce.
5. Define Profile Analyzer and Deviation Analyzer.

(5 × 3 = 15 marks)

Part B

Answer all questions.

Each question carries 5 marks.

6. Write a note on the XML formats used for C2C *e-commerce*.
7. List the different kinds of card related faults. Briefly discuss any *two* types.
8. What is EFT ? Explain the process of EFT with a clear diagram.
9. What is the role of a Transaction History Database in Dempster-Shafer theory ? Briefly discuss.
10. Describe the applications of multimedia in E-commerce.

(5 × 5 = 25 marks)

Part C

Answer all questions.

Each full question carries 12 marks.

11. Briefly describe the various issues involved in effective Intellectual Property Rights Management.

Or

12. Describe the shortcomings of the IT Act of 2000. Explain in detail the amendments proposed in IT Act 2008.

Turn over

13. Explain the BLAST-SSAHA hybridization in CCFD.

Or

14. Explain the process of implementing the following :

- (i) Self Organizing Maps (SOM).
- (ii) Two stage CCFD using sequence alignment.
- (iii) Interpretation of the output of SOM.

15. Explain the Dempster-Shafer Theory and Bayesian Inferencing in detail.

Or

16. Write a note on the SET protocol. How does SET ensure secure credit card transactions ? Explain the main components and their role, with a neat diagram.

17. Explain in detail, the RSA algorithm, with a detailed example.

Or

18. Distinguish between Symmetric and Asymmetric Data Encryption methods. Explain any *one* Symmetric Data Encryption method in detail.

19. Write a note on EDI standards. What is their purpose and how are they implemented.

Or

20. What is EDIFACT ? Explain in detail its purpose and working.

(5 × 12 = 60 marks)