

F 6533

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch—Computer Science and Engineering/Information Technology

SECURITY IN COMPUTING (RT)

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

1. What are the different types of attacks ?
2. List the functions of SSL.
3. Explain crackers.
4. Write briefly on statistical database security.
5. What is Cryptography ?
6. What is a Virus ?
7. Write briefly on OS security.
8. What are firewalls ?
9. Define Authentication.
10. What is Digital signature ?

(10 × 4 = 40 marks)

Part B

Each full question carries 12 marks.

11. What is the need for Network security ? Explain the different aspects of Network security.

Or

12. Explain the common intrusion techniques in detail.
13. Discuss the concept of hole. What are the different types of holes ?

Or

14. Explain the protection mechanisms involved for OS security.

Turn over

15. Explain DES algorithm. Discuss its strengths.

Or

16. (a) Explain Diffie Hellman method of key Exchange.

(b) Compare RSA and DES algorithms.

17. Explain :

(a) PGP.

(b) Secure Electronic Transaction.

Or

18. Explain the security mechanisms in Java platform.

19. Explain Database security. What are the issues related to database security ? Explain.

Or

20. Explain how multi-level security is achieved using MAC.

(5 × 12 = 60 marks)

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch : Computer Science and Engineering

HIGH PERFORMANCE COMPUTING (R)

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 4 marks.

1. Explain briefly the basic concepts of pipelined processor.
2. Give a brief description of Serial *vs.* Parallel processing.
3. Explain the characteristics of vector processing.
4. What is reconfigurability? Explain.
5. What is masking? Explain.
6. Explain bit-parallel and bit-serial organizations in associative memory.
7. Explain asymmetric I/O subsystem in a multiprocessor system.
8. Explain Lock mechanism.
9. Explain major design issues of data flow computer.
10. What are the key attributes of VLSI computing structures?

(10 × 4 = 40 marks)

Part B

Each full question carries 12 marks.

11. Discuss the trends towards parallel processing.

Or

12. What are the architectural configuration of parallel computers? Explain any *one* in detail.

Turn over

13. Briefly explain the classification of pipeline processors.

Or

14. Explain with figure, the architecture of Croy-1.

15. Discuss the architectural configuration of SIMD array processor.

Or

16. Explain parallel sorting on array processors.

17. Explain in detail Loosely couple multiprocessors.

Or

18. Explain in detail synchronization with semaphores.

19. Explain in detail the architecture of a static data flow computer.

Or

20. Describe the data flow design alternatives.

(5 × 12 = 60 marks)

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch : Computer Science and Engineering

PRINCIPLES OF PROGRAMMING LANGUAGES (R)

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 4 marks.

1. Which are the computational models that describe programming.
2. Briefly explain effects of environment on programming language.
3. What is dynamic type checking ?
4. Which are the different storage representations for data structures.
5. Briefly explain any four elements requiring storage.
6. Differentiate implicit and explicit sequence control.
7. What is global and local referencing ?
8. What is a recursive rule program ?
9. Explain what are exceptions.
10. What is a critical region ?

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each question carries 12 marks.

11. Explain in detail virtual computer and hierarchy of virtual computer.

Or

12. Explain the attributes of a good language.
13. Explain in detail type checking and type conversion.

Or

14. What are the specifications of data structure types and operations on data structure ?

Turn over

15. Describe the encapsulation by subprogram.

Or

16. Explain in detail the concept of abstract data types.

17. Describe in detail inheritance.

Or

18. What are the attributes of data control ?

19. Explain how synchronisation of task is done.

Or

20. Describe the two processor design approaches.

(5 × 12 = 60 marks)

F 6563

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch : Computer Science and Engineering / Information Technology

ARTIFICIAL INTELLIGENCE (RT)

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 4 marks.

1. Define AI.
2. Explain Uniform cost search.
3. Define Informed search.
4. What do you mean by Iterative deepening?
5. Explain Imperfect decisions.
6. State the advantages of Semantic nets.
7. Define Unification.
8. Explain the advantages of forward reasoning.
9. Explain Evaluation.
10. What is called meta interpreter?

(10 × 4 = 40 marks)

Part B

Answer one question from each module.

Each question carries 12 marks.

11. (a) Explain depth first search and depth limited search.

Or

(b) Explain (i) Bi-directional search ; (ii) Breadth first search.
12. (a) Explain (i) Hill climbing ; (ii) Simulated annealing.

Or

(b) Explain Heuristic for constraint satisfaction problem.

Turn over

13. (a) Explain (i) Game tree ; and (ii) State of art game programs.

Or

(b) Draw two Frames and explain its features and advantages.

14. (a) Explain the various steps in 'conversion to clause form'.

Or

(b) Explain review of representation and reasoning with logic.

15. (a) Explain (i) Representing facts ; (ii) Matching.

Or

(b) Explain (i) Meta predicates ; (ii) Recursive search.

(5 × 12 = 60 marks)

F 6591

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch : Computer Science and Engineering

E-COMMERCE (Elective II) (R)

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

1. Explain the concepts of just-in-time manufacturing.
2. What are middle ware services? Explain.
3. What are the three categories of message security? Explain.
4. Discuss the secret key encryption technique.
5. What are the advantages and disadvantages of e-cash?
6. Explain what are smart cards?
7. What is MIME?
8. Write notes on EDI gateways.
9. What is ISDN?
10. Write notes on wireless computing.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. (a) Explain what are hyper text and hyper media. Discuss their advantages.
(b) What is meant by Quick response retailing ?

Or

12. Discuss the e-commerce organisational applications.

Turn over

13. Discuss in detail the problems and their solutions related to security of client server networks.

Or

14. What are firewalls? Discuss the various types of firewalls.

15. (a) What is meant by third party processing of electronic payments? Explain.

(b) Write notes on e-checks.

Or

16. What are credit cards? How are they used? What are their advantages?

17. Discuss the benefits of using EDI.

Or

18. Explain the layered architecture of EDI.

19. Write notes on :

(a) Lossy and lossless compression schemes.

(b) Cell relay.

Or

20. Write notes on :

(a) Switched multi megabit data service.

(b) Connectionless and connection oriented services.

(5 × 12 = 60 marks)

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch—Computer Science and Engineering/Information Technology

CLIENT SERVER COMPUTING (Elective II) (RT)

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

*Answer all questions.
Each question carries 4 marks.*

1. Differentiate client socket and server socket.
2. List and explain the advantages of client server computing.
3. Explain client-server interaction protocols.
4. What is meant by execution of requests ? Explain.
5. Why use multi-threading ? Explain.
6. What is a child processor ? Explain.
7. What is the role of processing queues in synchronization ?
8. Explain briefly about critical sections.
9. Explain file transfer protocols.
10. Explain briefly Network file systems.

(10 × 4 = 40 marks)

Part B

Each full question carries 12 marks.

11. Explain the following :—

- (a) Cross-platform computing. (6 marks)
- (b) History of client-server computing. (6 marks)

Or

12. Describe in detail how the cost of client-server computing is estimated. (12 marks)
13. Briefly describe the fundamentals of client-server design.

Or

Turn over

14. Write notes on :

- (i) Client-server interaction using message. (6 marks)
- (ii) Communication Techniques protocols. (6 marks)

15. Explain how thread priorities affect scheduling. (12 marks)

Or

16. With a case study explain multitasking in windows NT. (12 marks)

17. Explain the following :—

- (i) Mutual exclusion. (6 marks)
- (ii) Semaphores. (6 marks)

Or

18. Discuss the semaphore implementation in Network.

19. Briefly discuss the protocols used in Network communication systems. (12 marks)

Or

20. Discuss, how interprocess communication is done. Also give the protocols used. (12 marks)

[5 × 12 = 60 marks]

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch—Computer Science and Engineering/Information Technology

DISTRIBUTED COMPUTING (Elective II) (RT)

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

1. Explain versatile message transport protocol.
2. What are the main advantages and disadvantages of distributed computing system over centralized ones.
3. Write note on CODA.
4. How does AFS deal with the risk that call back messages may be lost ?
5. Explain thrashing.
6. What is false sharing ? When is it likely to occur ?
7. What are the advantages of process migration ?
8. Discuss the typical assumptions found in task assignment work.
9. Explain byzantine failure with the aid of an example.
10. What are the four necessary conditions for deadlock to occur ?

(10 × 4 = 40 marks)

Part B

Each full question carries 12 marks.

11. Discuss the issues in designing distributed systems.

Or

12. Differentiate among the following types of OS by defining their essential properties :—

- | | |
|-------------------|--------------------------|
| (a) Time sharing. | (b) Parallel processing. |
| (c) Network. | (d) Distributed. |

13. Explain file service architecture.

Or

Turn over

14. Write notes on :

(a) Name space.

(b) Domain name sytem.

15. (a) Explain the concept of logical clocks and their importance in distributed systems. (6 marks)

(b) Explain any *two* clock synchronization algorithm used in distributed system. (6 marks)

Or

16. What is stub ? How are stubs generated ? Explain how the use of stubs help in making an RPC mechanism transparent.

17. Discuss the issues in designing load balancing algorithm.

Or

18. Explain the desirable features of a good global scheduling algorithm.

19. Explain any *two* fully distributed approach for dead lock detection.

Or

20. Enumerate the different types of faults ? Explain fault tolerance using primary back up method.

[5 × 12 = 60 marks]

F 6627

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch : Computer Science and Engineering

MULTIMEDIA SYSTEMS (Elective III) [R]

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 4 marks.

1. Define multimedia. Name different media types.
2. What is meant by basic tools in multimedia ? Explain.
3. Define text and hypertext. Differentiate between them.
4. What is JPEG ? Explain its role in image compression.
5. Why CDs are called so ? Give storage capacity of different CD families.
6. Define and explain Quick time.
7. Explain about media classes.
8. Explain the role of synchronization.
9. Describe method of perform realistic image synthetisis.
10. Explain briefly on future multimedia.

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each full question carries 12 marks.

11. Describe the following :—

(i) Analog and digital video.

(6 marks)

(ii) Music and MIDI.

(6 marks)

Or

12. (a) Describe the different methods used to create animation and explain any one in detail.

(8 marks)

(b) Write short notes on 3D-animation.

(4 marks)

Turn over

13. (a) Describe the audio and video encoding methods using MPEG. (6 marks)
(b) Describe about MPEG 2 and MPEG 4. (6 marks)

Or

14. Describe the following :—
(i) Fractal compression. (6 marks)
(ii) Wavlet compression. (6 marks)
15. Explain the following terms in CD-ROM :—
(i) Blocks.
(ii) Data format.
(iii) Modes.

(3 × 4 = 12 marks)

Or

16. Describe the form I and form II architecture and explain how to compress data of different media.
17. Describe the following :—
(i) Intra and Inter object synchronization. (6 marks)
(ii) Live and synthetic synchronization. (6 marks)

Or

18. Explain the format and component classes in detail.
19. (a) What are the problems faced by a multimedia network ? (4 marks)
(b) Explain about the distributed multimedia network. (8 marks)

Or

20. Write short notes on :
(i) Virtual reality. (6 marks)
(ii) Human factors related to virtual reality design considerations. (6 marks)

[5 × 12 = 60 marks]

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2013

Eighth Semester

Branch : Computer Science and Engineering/Information Technology

BIOMETRICS (Elective III) [RT]

(Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

1. Differentiate between Verification and Identification.
2. What is ability-to-verify rate ? What is its significance ?
3. What are the causes of FTE in facial scan ?
4. What are the advantages of finger scan ?
5. Discuss on the sensors used in iris scan.
6. Explain how templates are created in voice scan.
7. What are the distinctive features of hand scan ?
8. Differentiate between Physiological and Behavioural biometrics.
9. Are biometrics the only possible authentication solution ?
10. What is biometric middle wave ?

(10 × 4 = 40 marks)

Part B

Each full question carries 12 marks.

11. What are the advantages and disadvantages of biometric security ?
Or
12. What are the performance matrices used in biometrics ?
13. Explain with diagrams the steps involved in finger scan technology.
Or
14. Write a note on competing facial scan technologies.

Turn over

15. Describe the merits and demerits of iris scan biometrics system.

Or

16. Explain with diagrams the working of a voice scan system.

17. Explain with a block diagram the principle of operation of an AFIS system.

Or

18. Describe key stroke scan as a biometric system.

19. Write a note on the applications of biometric systems.

Or

20. Discuss on the ways to protect biometric systems.

(5 × 12 = 60 marks)