G 5180 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2013

Eighth Semester

Branch—Computer Science and Engineering/Information Technology

SECURITY IN COMPUTING (R T)

(Regular/Supplementary)

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

Part A

Each question carries 4 *marks.*

1. What are Firewalls ?
2. Explain Encryption and Decryption.
3. Explain Hackers.
4. What is a Hash function ?
5. Explain the features of secure socket layer.
6. What is a worm ?
7. Compare RSA and DES algorithms.
8. Define Authentication.
9. What is the need for Network security ?
10. Explain Hole.

(10 × 4 = 40 marks)

Part B

Each question carries 12 *marks.*

11. Explain the different types of attacks, in detail. (12 marks)

Or

12. (a) Explain the different aspects of Network security. (6 marks)

    (b) Write a note on security services and mechanisms. (6 marks)

13. (a) Write briefly on Discretionary and mandatory Access control. (6 marks)

    (b) Explain the different Authentication mechanisms. (6 marks)

Or

Turn over

14. Discuss the security features for authentication, access control and remote execution in UNIX. (12 marks)

15. (a) Explain Digital signature. (6 marks)

    (b) Explain RSA algorithm. (6 marks)

Or

16. (a) Explain the important features of modern symmetric key algorithms. (6 marks)

    (b) Explain the concept of Cryptography. (6 marks)

17. Write short notes on :

    (a) E-mail security. (6 marks)

    (b) S/MIME. (6 marks)

Or

18. Explain the functioning of Kerberos server. (12 marks)

19. Explain Database security. Discuss the different security issues involved. (12 marks)

Or

20. Write briefly on :

    (a) Statistical database security. (6 marks)

    (b) MAC for multilevel security. (6 marks)

[5 × 12 = 60 marks]

G 5190 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2013

Eighth Semester

Branch : Information Technology

INFORMATION SYSTEMS AND MANAGEMENT (T)

(Regular/Supplementary)

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

Part A

Each question carries 4 *marks.*

1. What is meant by 'Group Psychology'?
2. Describe system approach of Management.
3. List out the different categories of information required for management.
4. What is a Databank?
5. Differentiate between 'data' and 'information'.
6. Describe 'conceptual system design' of MIS.
7. What are the benefits of ERP?
8. List out the basic components of ERP.
9. Give any four decision support tools for management.
10. What is 'Data Mining'?

(10 × 4 = 40 marks)

Part B

Each question carries 12 *marks.*

11. (a) Differentiate between production rate and productivity. Explain the factors affecting productivity.

Or

(b) Explain various functions of management in detail.

Turn over

12. (a) What is meant by 'Rule based decisions' ? How does the 'rules' formulated? Explain with examples.

Or

(b) Explain the structure and components of a Decision Support System.

13. (a) Describe the implementation modalities of the information system for a hospital.

Or

(b) What are the issues connected with the maintenance of an MIS? Explain with the help of an application area of your choice.

14. (a) Explain the ERP implementation life-cycle in detail.

Or

(b) Discuss the role of consultants and vendors in ERP implementation.

15. (a) Explain the following terms with respect to data warehouse :

Subject oriented, Integrated, Time-variant and Non-volatile.

Or

(b) What is Knowledge Management? Explain how knowledge management is a useful tool for implementing projects.

(5 × 12 = 60 marks)

G 5202 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2013

Eighth Semester

Branch : Information Technology

E–COMMERCE (T)

(Regular/Supplementary)

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

Part A

Each question carries 4 *marks.*

1. List out the various customer access devices and give their salient features.
2. Explain the concepts of just-in-time manufacturing.
3. Write notes on e-cash.
4. What are the benefits and drawbacks of credit card transactions.
5. Write notes on MIME.
6. What are EDI gateways ?
7. Explain the various types of data warehouses.
8. Briefly explain the types of digital documents.
9. Write notes on switched multi mega bit data service.
10. What is ATM ? Explain.

(10 × 4 = 40 marks)

Part B

Each question carries 12 *marks.*

11. Explain the various aspects of supply chain management.

Or

12. (a) Explain what are business-to-business transactions.

    (b) Write notes on Internet Service Providers.

13. Explain in detail the various types of risks associated with e-payment systems.

Or

14. Explain what are electronic tokens. Discuss the different types of tokens in detail.

Turn over

15. Discuss the different EDI envelopes for message transport.

Or

16. Explain the legal, security and privacy issues in EDI.

17. (a) Write notes on agile manufacturing.

    (b) Explain, what are active documents.

Or

18. (a) Write notes on IIS.

    (b) Explain, what is work flow automation.

19. (a) Write notes on mobile computing.

    (b) Usefulness of video conferencing in e-commerce.

Or

20. Discuss the benefits of marketing and advertising on the internet.

(5 × 12 = 60 marks)

G 5210 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2013

Eighth Semester

Branch : Computer Science and Engineering/Information Technology

ARTIFICIAL INTELLIGENCE (R, T)

(Regular/Supplementary)

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *questions.*

Each question carries 4 *marks.*

1. Give two different applications for AI.
2. Explain Bi-directional search.
3. Define Heuristics.
4. What do you mean by Hill climbing?
5. Mention the advantages of alpha-beta pruning.
6. State the advantages of frames.
7. Define modus ponens.
8. What is the significance of Knowledge?
9. Explain Evaluation.
10. What is Recursive search?

(10 × 4 = 40 marks)

Part B

Answer **one** *question from each module.*

Each question carries 12 *marks.*

11. (a) Explain problem characteristics and depth limited search.

Or

(b) Explain : (i) Uniform cost search ; (ii) Constraint satisfaction search.

12. (a) Explain : (i) Iterative deepening ; (ii) Simulated annealing.

Or

Turn over

(b) Explain A * algorithm.

13. (a) Draw a game tree and explain Mini-Max with alpha beta pruning.

Or

(b) Draw two Semantic networks and explain its features and advantages.

14. (a) Explain the steps in Resolution method.

Or

(b) Explain and compare forward reasoning and backward reasoning.

15. (a) Explain alternative search strategies.

Or

(b) Describe Semantic nets and frames in Prolog.

(5 × 12 = 60 marks)

G 5239 (Pages : 2) Reg. No.....

Name.....

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B.TECH. DEGREE EXAMINATION, MAY 2013

Eighth Semester

Branch—Computer Science and Engineering/Information Technology

CLIENT SERVER COMPUTING (R, T) [Elective II]

(Regular/Supplementary)

Time : Three Hours Maximum : 100 Marks

Part A

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

1. What are the uses of client server computing ?
2. What is a socket ? Explain.
3. Explain the functions of protocols.
4. How do a client-server model is designed ?
5. Explain the life cycle of a thread.
6. What is a process ? Draw the transition diagram of process states.
7. Explain the functions of semophores.
8. Explain how synchronization can be achieved.
9. Explain interprocess messages.
10. What is the use of mail boxes in interprocess communication ? Explain.

(10 × 4 = 40 marks)

Part B

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

11. Explain the following :—
    (i) Hetrogeneous computing. (6 marks)
    (ii) Client server Databases. (6 marks)

Or

12. Write notes on :
    (i) Client-server computing. (6 marks)
    (ii) Distributed computing. (6 marks)

Turn over

13. Describe in detail how will you manage the interaction of client and server.

Or

14. Write notes on :

    (i) Optimizing applications for client server. (6 marks)

    (ii) Client-server implementation. (6 marks)

15. Discuss pre-emptive and non-pre-emptive multi-tasking.

Or

16. Describe the steps for developing server applications.

17. Explain briefly context switching pre-emptive systems.

Or

18. Discuss the semaphore implementation in windows NT.

19. Explain different types of Network communication systems.

Or

20. How will you build a portable client server applications ?

[5 × 12 = 60 marks]

G 5242 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2013

Eighth Semester

Branch—Information Technology

HIGH PERFORMANCE COMPUTING (Elective II) [T]

(Regular/Supplementary)

Time : Three Hours Maximum : 100 Marks

Part A

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

1. List and explain the three parallel approaches to computer system design.
2. What is an instruction cycle ? Explain.
3. Explain linear pipeline processor for overlapped processing of multiple task.
4. List and explain the data-dependent hazards.
5. Explain briefly data Routing mechanisms.
6. Explain the operation mode of inter-PE-communication.
7. What is a multiport memory ? Explain.
8. What is condition synchronisation ? Explain.
9. Explain the different tokens used in data flow computers.
10. What type of languages are used in data flow computers.

(10 × 4 = 40 marks)

Part B

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

11. Briefly explain parallel processing mechanisms.

Or

12. Explain Flynn's classification of machine organizations.
13. Briefly discuss the principles of pipelining.

Or

14. With diagram explain dynamic pipelines.

Turn over

15. Explain architectural configuration of SIMD array processors.

Or

16. Discuss mesh connected networks.

17. Explain process synchronisation mechanisms.

Or

18. With diagram explain tightly coupled multiprocessors.

19. Describe in detail the control flow *vs.* Dataflow computers.

Or

20. Briefly explain Dataflow design alternatives.

(5 × 12 = 60 marks)

G 5275 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2013

Eighth Semester

Branch : Computer Science and Engineering/Information Technology

NEURAL NETWORKS (Elective III [RT]

(Regular/Supplementary)

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

Part A

Each question carries 4 *marks.*

1. Compare biological neuron and artificial neuron.
2. Differentiate between Training and Learning processes.
3. What is generalized delta learning rule ?
4. What is network paralysis ? What are the measures to avoid this ?
5. What is grossberg learning rule ?
6. How is the weight vector pre-initialized in Kohanen layer ?
7. State the application algorithm used in Boltzmann machine.
8. How is Cauchy machine formed from the Boltzmann machine ?
9. What is pattern association ?
10. What is learning trail ?

(10 × 4 = 40 marks)

Part B

Each question carries 12 *marks.*

11. Explain with diagrams the activation functions used in ANNs. Compare their characteristics also.

Or

12. Explain with a diagram the architecture, working and applications of multilayer ANNs.
13. Discuss in detail the training algorithm used in BPN.

Or

14. Discuss on the choice of parameters of a BPN.
15. State and explain the application algorithm used in full CPN.

Or

16. Discuss on the Kohanon and Grossberg training rules.

Turn over

17. Explain the architecture and training algorithm of preobabilistic neural net.

Or

18. Explain in detail the method used in simulated annealing.

19. Describe the architecture and training algorithm used in Hopfield net.

Or

20. Explain the learning rules used in ART network.

(5 × 12 = 60 marks)