F 4325 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, NOVEMBER 2015

Eighth Semester

Branch : Computer Science/Information Technology

SECURITY IN COMPUTING (RT)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours Maximum : 100 Marks

Part A

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

1. Explain the terms integrity and availability with respects to security.
2. Give and briefly explain any *four* attacks that threaten integrity.
3. Explain the challenge-response authentication method.
4. Explain the purpose of shadow password files in UNIX.
5. Compare and contrast RSA and DES.
6. Explain the DES's round key generation process.
7. Explain the dual signature and its purpose in Secure Electronic Transaction.
8. What is a Bastion Host ? List out any *six* of its general characteristics.
9. What all counter measures can be taken for inference attacks on statistical databases ?
10. Compare and contrast Discretionary Access Control and Mandatory Access Control.

(10 × 4 = 40 marks)

Part B

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

11. Give and explain the ITU-T standard set of security services and security mechanisms.

Or

12. Explain the modes of operation of Memory Resident Virus, Boot Sector Virus, Companion Virus and Macros Virus.

Turn over

13. Explain the Bell LaPadula multilevel security model.

Or

14. Explain the security features for Authentication and Access Control in Windows 2000.

15. Explain the Diffie Hellman key exchange. Explain the key mathematical principle used in the algorithm. Also explain any *one* attack possible against the key exchange.

Or

16. What all security features does a Message Authentication Code provide ? Explain the working of the HMAC algorithm.

17. Briefly explain the SSL handshake protocol.

Or

18. What are the services provided by PGP ? Explain how PGP provides both confidentiality and authentication.

19. What is a view in databases ? Give an SQL query to create a view from a table of your choice. What are the advantages and disadvantages of providing access control through views ?

Or

20. Explain the terms "Multilevel Relation" and "Poly instantiation". Explain how mandatory access control provides multilevel security.

(5 × 12 = 60 marks)

F 4517

(Pages : 2)

Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, NOVEMBER 2015

Eighth Semester

Branch—Computer Science and Engineering

CS 010 801—HIGH PERFORMANCE COMPUTING (CS)

(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 the advantage of parallel computing ?
2. What is vector processing ?
3. Write a note on array processors.
4. Describe semaphores.
5. Write a note on data driven languages.

(5 × 3 = 15 marks)

Part B

Each question carries 5 *marks.*

6. Briefly explain present trends in parallel processing.
7. Explain the structure of dynamic pipelines.
8. Write a note on memory organization.
9. Distinguish loosely coupled and tightly coupled multiprocessors.
10. Write a note on data flow computers.

(5 × 5 = 25 marks)

Part C

Each question carries 12 *marks.*

11. Explain the classification of parallel computers.

Or

12. Explain how parallel computing could he achieved in uniprocessor with example.

Turn over

13. Explain the classification of pipeline processors.

Or

14. Explain the design of pipeline instruction unit with sketch.

15. Explain the structure of SIMD array processors.

Or

16. Explain parallel algorithms for array processors with example.

17. Explain the language features to exploit parallelism.

Or

18. Explain process synchronization mechanisms.

19. Explain the architecture of dynamic data flow computers.

Or

20. What is data driven computing ? Explain with architecture.

(5 × 12 = 60 marks)

F 4527 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, NOVEMBER 2015

Eighth Semester

Branch : Computer Science and Engineering/Information Technology

CS010 802/IT 010 803—ARTIFICIAL INTELLIGENCE (CS, 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 a problem space ?
2. What are problems of constraint satisfaction ?
3. Define Knowledge.
4. What is rote learning ?
5. What are fuzzy sets ?

(5 × 3 = 15 marks)

Part B

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

6. Discuss the issues in hill climbing.
7. Write a note on alpha beta pruning.
8. Explain forward chaining with an example.
9. Describe the use of decision trees.
10. What are the benefits of expert systems ?

(5 × 5 = 25 marks)

Part C

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

11. Describe various features of python.

Or

12. Explain the heuristic search method with an example.

Turn over

13. Explain the AO* algorithm.

Or

14. How can you express a game as a search problem ? Give an example.

15. Describe the steps to convert a wff to clause form.

Or

16. Discuss resolution in prepositional logic with an example.

17. Explain learning by taking advice using an example.

Or

18. Explain the candidate elimination algorithm.

19. Discuss various operations on fuzzy sets.

Or

20. Describe various knowledge acquisition techniques in expert systems.

(5 × 12 = 60 marks)