Hall Ticket Number :										

R11

Code: 1G181

IV B.Tech. II Semester Regular & Supplementary Examinations Mar/Apr 2016

Artificial Neural Networks

(Computer Science & Engineering)

Max. Marks: 70 Time: 3 Hours

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1.	a)	Define artificial Intelligence	4M
	b)	Explain the model of artificial neuron	5M
	c)	Explain classification of learning methods?	5M
2.	a)	Explain activation dynamics models?	7M
	b)	Explain about stability and convergence?	7M
3.	a)	Describe identification of pattern recognition problem?	7M
	b)	Explain about basic functional units?	7M
4.	a)	Explain about linear inseparability: Hard problems?	7M
	b)	Write about the geometrical interpretation of hard problems: multilayer perception?	7M
5.	a)	Explain about Boltzmann machine?	10M
	b)	Write about issues in implementation of Boltzmann learning?	4M
6.		Discuss about analysis of feedback layer for different output functions?	14M
7.	a)	Explain about RBF networks for pattern classification?	7M
	b)	Write about counter propagation networks?	7M
8.	a)	Explain about associate memory and pattern classification in direct applications?	7M
	b)	Discuss about recognition of printed characters?	7M

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Hall Ticket Number :										

R11

Code: 1G182

IV B.Tech. II Semester Regular & Supplementary Examinations Mar/Apr 2016

Design Patterns

(Computer Science & Engineering)

Max. Marks: 70 Time: 3 Hours

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1.	a)	Explain in detail about Design Pattern solves Design problems?	7M
	b)	Illustrate the use of design pattern?	7M
2.	a)	Write in detail about Immutable Object?	7M
	b)	When can be a Private Methods effectively be applicable? Explain in detail?	7M
3.		Compare and contrast Prototype and Singleton Creational pattern?	14M
4.	a)	Discuss about the benefits and liabilities of the Visitor pattern?	7M
	b)	Relate Flyweight and Iterator design patterns?	7M
5.	a)	Explain about the indent and motivation of Facade pattern?	7M
	b)	Discuss in detail about the applicability and structure of Bridge pattern?	7M
6.	a)	Discuss about the structure and participants of Interpreter pattern?	7M
	b)	What are the implementation issues to be considered in Strategy design pattern?	7M
7		What is the intent of Common Attribute Registry? When this patterns are used? What is its structure? Write the sample code of Common Attribute Registry pattern?	14M
8.	a)	Discuss the importance of implementation in Critical Section?	7M
	b)	What are the benefits and liabilities of Consistent Lock Order?	7M

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R11

Code: 1G184

IV B.Tech. II Semester Regular & Supplementary Examinations Mar/Apr 2016

Virtual Reality

(Computer Science & Engineering)

Max. Marks: 70 Time: 3 Hours

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1.	a)	Define VR and give importance of three I's of Virtual Reality.	8M
	b)	Discuss about Commercial VR technology.	6M
2.		Briefly explain gesture interfaces with example.	14M
3.	a)	What is the role of the 'CONVOLVOTRON' in enhancing the sound systems?	7M
	b)	Explain importance of Haptic feedback.	7M
4.	a)	Discuss about kinematic modeling in detail.	10M
	b)	Distinguish between physical modeling and behavioral modeling.	4M
5.	a)	Give importance of User performance studies for human factors.	7M
	b)	Write short note on VR Health and safety issues.	7M
6.		Explain how VR plays major role in military applications in detail.	14M
7.		Discuss in detail about loading and manipulating of external models using Java 3D.	14M
8.		Write short notes on	
		a) Animated 3D sprites.	7M
		b) Particle Systems.	7M

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Hall Ticket Number :										

R11

Code: 1G187

IV B.Tech. II Semester Regular & Supplementary Examinations Mar/Apr 2016

Software Testing Methodologies

(Computer Science & Engineering)

Max. Marks: 70 Time: 3 Hours

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1. a) Give brief explanation of white box testing and block box testing and give the differences between them 9M

   b) What are the differences between static data and dynamic data? 5M

2. a) Explain about control flow graphs. 7M

   b) What are the advantages and disadvantages of Control flow graphs 7M

3. a) How does Data flow Testing is helpful in fulfilling the gaps in path testing? 4M

   b) Explain about data flow graphs for testing. 10M

4. Explain the domain boundary bugs in detail for two dimensional domains. 14M

5. Write the steps involved in Node Reduction Procedure. Illustrate all the steps with help of neat labeled diagrams 14M

6. a) Write Boolean Algebra rules. Illustrate the rules with path expressions. 7M

   b) Use a Karnaugh map to minimize

   F= AB'C'D'+A'B'C'D'+ABC'D +A'BCD+ABD+B'CD'+A'BC'D 7M

7. Write short notes on

   (a) Transition bugs

   (b) Dead states

   (c) State bugs

   (d) Encoding bugs 14M

8. Write a Node Reduction algorithm in terms of Matrix operations. 14M

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