Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Teaching Plan (Semester-I)

<u>(2018 - 2019)</u>

1. Details of Classes to be taught

Sr.	Class	Name of Asst.	Subject	Paper	Total Lectures:
No.		Prof.			
1	B.Sc.	Mrs. K. M.	Computer		60
	CS TY	Pradhan	Science	U-ORA -591 Oracle DBA	

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Date	Academic activities to be organized	No. of Test / Assignment with topic and date
	Unit I 1. Basics of DBA Functions of DBA, Oracle Instance- Starting and Stopping Instance, Memory Architecture Oracle 10G Memory structure, Background Process, Physical Database Structure - Control file, Data file, Online Redo log file, Archive file, trace file, alert log file, Parameter file SP file password file, Manual Database creation 2. Tablespaces Introduction to tablespaces - Types of tablespaces - SYSTEM, SYSAUX, Big file, Undo, default, temporary, online, offline tablespaces, read only tablespaces, Working with tablespaces Creating, Altering and deleting tablespaces, Management of tablespaces	15	25.06.2018 to 20.07.2018	PPT representation	Activity based Unit
2	Unit II 3. Physical Database Layouts & storage management. Traditional disk space storage, Resizing tablespaces and database, Moving datafile, Moving online redo log file, Moving control files, Undo basics - roll	15	21.07.2018 to		Test-I 14.09.2018 to 30.09.2018

	back, Read consistency, Database recovery, Flash backoperations 4. RAC Database Overview of Real Application Clusters, RAC database		13.08.2018	PPT Presentation	
3	Unit III . Backup and Recovery		14.08.2018		
	Logical Backup -data pump		То		
	export/import process, Physical		04.09.2018		
	backup - Offline Online backup,				
	Flash Recovery area 6. Database				
	Tuning - application				
	design, effective table design,	15		PPT Presentation	
	Distribution of CPU				
	requirements, Effective				
	application design, Tuning SQL,				
	Impact of order of load rates,				
	Additional Indexing options,				
	Generating explain plan.				
4	Unit IV Database security &	15	05.09.2018		Unit Test II
	Auditing Non database security,		То		(MCQ)
	Database authentication methods,		06.10.2018		07.10.2018
	Database authentication, DBA				to
	authentication, user and privilege				22.10.2018
	management: Creating database				
	users, Identifying system and				
	object privileges, Granting and				
	revoking privileges, Creating and				
	modifying roles, Auditing				

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur <u>Teaching Plan (Semester-I)</u> (2018 - 2019)

1. Details of Classes to be taught

Sr.	Class	Name of Asst.	Subject	Paper	Total
No.		Prof.			Lectures:
1	M.Sc.	Mrs. K. M.	Computer		60
	CS FY	Pradhan	Science	P-DAA-326 Design Analysis and Algorithms	

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Date	Academic activities to be organized	No. of Test / Assignment with topic and date
	UNIT I: Introduction A simple example of design using insertion sort, pseudo code for insertion sort, time complexity. Performance Analysis – Space complexity and Time complexity (posteriori testing and priory approach), Asymptotic Notations $(0, \Omega, \Theta)$, Examples on Asymptotic Notations, Polynomial vs. Exponential Algorithms .Average, Best and Worst case complexity.	15	09.07.2018 to 27.07.2018	PPT representation	Activity based Unit Test-I 14.09.2018 to 30.09.2018

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	2	UNIT II: Divide and Conquer				
		Algorithms, Greedy Algorithms				
		Introduction to Divide and				
		Conquer Algorithms, Finding the	15	28.07.2018		
		Maximum and Minimum, Quick		to		
		sort (Derivation of Average case		20.08.2018		
		analysis and Worst case analysis),				
		Binary Search (Derivation of			PPT Presentation	
		average case analysis), and				
		Strassen's Matrix Multiplication.				
		Introduction to Greedy				
		Algorithms – Fractional				
		Knapsack problem, Minimum				
		cost spanning trees,				
		Kruskal's and Prim's Algorithms,				
		Optimal Merge patterns and				
		Single-Source Shortest Paths.				
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3	UNIT III:Dynamic Programming, Back Tracking and Branch & Bound Algorithms				
	Dynamic Programming Definition - All-pairs shortest paths, Traveling salesman problem and optimal parameterization for product of sequence of matrices.	15	21.08.2018 To 12.09.2018	PPT Presentation	
	Back tracking and Branch and BoundAlgorithms Introduction – Nqueens Problem, Sum of Subsets problem using Back tracking algorithms. Traveling Salesman problem using branch and bound method.				
4	UNIT IV: Graphs and Heaps &	15	13.09.2018		
	Lower bound Theory Graphs		To		Unit Test II
	and Heaps Definitions –		06.10.2018		(MCQ)
	Adjacency Matrix, Adjacency				07.10.2018
	Lists. Breadth First Search and				to
	Traversal, Depth First Search				22.10.2018
	and Traversal. Priority Queues				
	using Heap and Design of Heap				
	sort using.				

Mrs. K. M.Pradhan

Teacher

Dept. of Computer Science Rajarshi Shahu Mahavidyalaya, Latur

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(Autonomous)

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Teaching Plan (Semester-II)

(2018 - 2019)

4. Details of Classes to be taught

Sr.	Class	Name of Asst.	Subject	Paper	Total
No.		Prof.			Lectures:
1	M.Sc.	Mrs. K. M.	Computer		60
	CS FY	Pradhan	Science	P-NUM-126 Numerical Methods	

5. Summary of Lesson Plan

6.

Sr.	Unit and Chapter to be covered	Expected	Date	Academic	No. of Test
No.		No. of		activities to be	
		Lectures		organized	Assignment
					with topic
					and date
	Unit-I: Computer Arithmetic & Solution of Algebraic equations Computer Arithmetic .Floating Point representation of Numbers, Arithmetic operation with Normalized floating point, Solution of algebraic equations, Bisection method, Method of false position, Newton-Raphson Method	20	29.11.2018 to 24.12.2018	PPT representation	
2	Unit-II: Interpolation and Numerical Differentiation & Integration Finite differences [forward & backward] Lagrange interpolation , Difference tables Numerical differentiation & numerical integration, Trapezoidalrule, Simpson's 1/3 Rule, Simpson's 3/8 Rule	14	25.12.2018 to 12.01.2019	PPT Presentation	Activity based Unit Test-I

3	Unit-III: Matrices & Linear system		15.01.2019		
	of equations Introduction,		То		
	Solution of linear system, Matrix inversion method, problems		02.02.2019		
	Gaussian elimination method, Modification of gauss method to compute the inverse	10		PPT Presentation	-
4	Unit-IV: Curve Fitting	15	04.02.2019		
	Least square Curve fitting, Fitting a		То		Unit Test II
	straight line Problems		22.02.2019		(MCQ)
	Non linear curve fitting:problems				
	polynomial of nth degree				
	problems				

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur <u>Teaching Plan (Semester-IV)</u>

(2018 - 2019)

7. Details of Classes to be taught

Sr.	Class	Name of Asst.	Subject	Paper	Total Lectures:
No.		Prof.			
1	M.Sc.	Mrs. K. M.	Computer		60
	CS SY	Pradhan	Science	P-SFC-408 Soft Computing	

8. Summary of Lesson Plan

9.

Sr.	Unit and Chapter to be covered	Expected	Date	Academic	No. of Test
No.		No. of		activities to be	
		Lectures		organized	Assignment
					with topic
					and date
1	Unit –I: Introduction to Fuzzy Logic				
	Crisp Sets: an Overview ,				
	Fuzzy Sets: Basic Types,			PPT	
	Fuzzy Sets: Basic	20	29.11.2018		
	Concepts,		to	representation	
	Fuzzy Sets Vs Crisp Sets,		24.12.2018		
	Additional Properties of alpha				Activity
	cuts, Presentation of fuzzy sets,				based Unit
	Extension principle for fuzzy				Test-I
	sets.				

	Unit -II: Operations on fuzzy sets & Introduction to Neural Networks Fuzzy complements, Fuzzy Union, Fuzzy Intersections, Crisp & Fuzzy Relation, Binary Fuzzy Relation, Binary Relation on single set, Fuzzy Equivalence Relations, Fuzzy Compatibility Relation. Introduction to Neural Networks and Difference	14	25.12.2018 to 15.01.2019	PPT Presentation	
3	Unit- III: Introduction to Neural Networks, Multilayer Feed forward Network		16.01.2019 To 04.02.2019		
	Learning Rules-Supervised Learning-Unsupervised Learning Perceptron Learning- Reinforcement Learning- Delta Learning Rule Multilayer Feed forward Network Generalized Delta Learning, Back propagations training algorithm and derivation of weight, Variant in Back propagations, Radial Basis Function (RBF), Application of BP and RBF N/W	15		PPT Presentation	

4		15	05.02.2019	
	Unit-IV : Recurrent Network and Unsupervised Learning, Fuzzy		То	
	System, Neuro Fuzzy System and Applications Hopfield Network,		23.03.2019	
	Counter propagation			Unit Test II
	networks,Boltzmann			(MCQ)
	Machine,			
	Adaptive Resonance			
	theory(ART).Fuzzy System,			
	Neuro Fuzzy System and			
	Applications			
	Fuzzy neurons, Fuzzy Neural			
	Network,Fuzzy associative memory,			
	Applicationin Pattern Recognition,			
	Character, Face, Finger, Palm, Iris			
	Recognitions,			
	Application in Expert System			

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