WEB TECHN	OLOGY ANI	ITS APPLICATION	NS	
1 23 per Choice	Dased Credit	Suntana (CDCC)	127	
(Effective fr	om the acader	nic vear 2017 - 2018)		
Subject Code	SEMIES I EI	K – VII		
Number of Lecture Hours/Week	17CS71	IA Marks		40
Total Number of Lecture Hours	04	Exam Marks		60
or rectifications	50	Exam Hours		03
Module – 1	CREDITS	<u> </u>		
				Teaching
Introduction to HTML, What is H Syntax, Semantic Markup, Struct	TMI 1 NI			Hours
Syntax, Semantic Markup, Struct HTML Elements, HTML5 Semantic	and Wh	ere did it come from	?, HTML	10 Hours
HTML Elements, HTMI 5 Semant	tie Ct	Documents, Quick	Tour of	1
What is CSS, CSS Syntax Location	ion of Cult	lements, Introduction	to CSS,	
Styles Interact, The Box Model CS	S Text Styles,	Selectors, The Casca	de: How	
Module – 2	o Text Styllig.			
HTML Tables and Forms, Introd Forms, Form Control Elements, T	lucing Tobles	Ct. 1' — — ti		
Forms, Form Control Elements, T. Advanced CSS: Layout, Normal Flo	able and Fam	Styling Tables, Int	roducing	10 Hours
Advanced CSS: Lavout Normal El	acio and Polli	Accessibility, Micro	formats,	
Constructing Multicolumn Layouts	Sw, 1 Ositioning	Elements, Floating E	lements,	
Design, CSS Frameworks.	s, ripproacties	to CSS Layout, Res	sponsive	
Module – 3				
avaScript: Client-Side Scripting, avaScript Design Principles When	What is Javas	Coming and IVI		
avaScript Design Principles, When Objects, The Document Object N	re does Javas	script and What can	it do?,	10 Hours
Objects, The Document Object M				- o ziouis
ntroduction 4 C	Model (DOM)	cript Go?, Syntax, Ja-	vaScript	110413
duoduction to Server-Side Devel	lonmout (DOM)	cript Go?, Syntax, Jar JavaScript Events,	vaScript Forms,	10419
Development, A Web Server's Res	lonmout (DOM)	cript Go?, Syntax, Jar JavaScript Events,	vaScript Forms,	20 220 213
Development, A Web Server's Resontrol, Functions	lonmout (DOM)	cript Go?, Syntax, Jar JavaScript Events,	vaScript Forms,	
Development, A Web Server's Resolution, Functions  Iodule – 4	lopment with ponsibilities, (	eript Go?, Syntax, Jar , JavaScript Events, PHP, What is Serv Quick Tour of PHP, F	vaScript Forms, ver-Side Program	
evelopment, A Web Server's Resontrol, Functions  Iodule – 4  HP Arrays and Superglobals Arrays	lopment with ponsibilities, (	Pript Go?, Syntax, Ja: JavaScript Events, PHP, What is Serv Quick Tour of PHP, F	vaScript Forms, /er-Side Program	
Development, A Web Server's Restontrol, Functions  Iodule – 4  HP Arrays and Superglobals, Array  SERVER Array, \$ Files Array	lopment with ponsibilities, (	Pript Go?, Syntax, JavaScript Events, JavaScript Events, PHP, What is Serve Quick Tour of PHP, F	VaScript Forms, Ver-Side Program Arrays,	10 Hours
Development, A Web Server's Res Control, Functions  Iodule – 4  HP Arrays and Superglobals, Array SERVER Array, \$_Files Array, bjects, Object-Oriented Overview	lopment with ponsibilities, (  s, \$_GET and Reading/Writing Classes	PIPE Go?, Syntax, JavaScript Events, JavaScript Events, PHP, What is Serve Quick Tour of PHP, Factor of PhP, Fa	Forms, yer-Side Program  Arrays,	
Development, A Web Server's Res Control, Functions  Module – 4  HP Arrays and Superglobals, Array SERVER Array, \$_Files Array, bjects, Object-Oriented Overview riented Design, Error Handling	lopment with ponsibilities, (  s, \$_GET and Reading/Writing, Classes and Validation	pript Go?, Syntax, Jar JavaScript Events, PHP, What is Serv Quick Tour of PHP, F S_POST Superglobal ing Files, PHP Class d Objects in PHP,	Forms, yer-Side Program  Arrays,	
Development, A Web Server's Res Control, Functions  Module – 4  HP Arrays and Superglobals, Array SERVER Array, \$_Files Array, bjects, Object-Oriented Overview riented Design, Error Handling	lopment with ponsibilities, (  s, \$_GET and Reading/Writing, Classes and Validation	pript Go?, Syntax, Jar JavaScript Events, PHP, What is Serv Quick Tour of PHP, F S_POST Superglobal ing Files, PHP Class d Objects in PHP,	Forms, yer-Side Program  Arrays,	
Development, A Web Server's Res Control, Functions  Iodule – 4  HP Arrays and Superglobals, Array SERVER Array, \$_Files Array, bjects, Object-Oriented Overview riented Design, Error Handling exceptions?, PHP Error Reporting, Plandle – 5	lopment with ponsibilities, (  s, \$_GET and Reading/Writing, Classes and Validation of the control of the contr	STIPLE GO?, Syntax, JavaScript Events, JavaScript Events, PHP, What is Serve Quick Tour of PHP, Factorial Serve Physics of PHP Class of Objects in PHP, on, What are Error exception Handling	Forms, ver-Side Program  Arrays, ses and Object rs and	
Development, A Web Server's Res Control, Functions  Module – 4  HP Arrays and Superglobals, Array SERVER Array, \$_Files Array, bjects, Object-Oriented Overview riented Design, Error Handling exceptions?, PHP Error Reporting, Planaging State, The Problem of State	lopment with ponsibilities, (  s, \$_GET and Reading/Writing, Classes and Validation of the policy of	STIPL Go?, Syntax, Jar JavaScript Events, PHP, What is Serv Quick Tour of PHP, F S_POST Superglobal ing Files, PHP Class d Objects in PHP, on, What are Erro exception Handling	Arrays, Sees and Object rs and	10 Hours
Development, A Web Server's Res Control, Functions  Module – 4  HP Arrays and Superglobals, Array SERVER Array, \$_Files Array, bjects, Object-Oriented Overview riented Design, Error Handling exceptions?, PHP Error Reporting, Planaging State, The Problem of State a Query Strings, Passing Information	lopment with ponsibilities, ( rs, \$_GET and Reading/Writing, Classes and Validation HP Error and Even with the LIPL provides to the LIP	STIPLE GO?, Syntax, JavaScript Go?, Syntax, JavaScript Events, PHP, What is Serve Quick Tour of PHP, For Superglobaling Files, PHP Class of Objects in PHP, on, What are Erromagnetications, Passing Information Part of Passing Information Part of Passing Informatications, Passing	Forms, ver-Side Program  Arrays, ses and Object rs and	
Development, A Web Server's Res Control, Functions  Iodule – 4  HP Arrays and Superglobals, Array SERVER Array, \$_Files Array, bjects, Object-Oriented Overview riented Design, Error Handling exceptions?, PHP Error Reporting, Planaging State, The Problem of State a Query Strings, Passing Information ession State, HTML5 Web Storage	lopment with ponsibilities, (  s, \$_GET and Reading/Writing, Classes and Validating HP Error and Even in Web Applements and the URL Cooking Advanced to the URL Cooking Ad	\$\frac{1}{2} \text{Port Go?}, Syntax, JavaScript Events, PHP, What is Serve Quick Tour of PHP, For Serve Phenomena of PHP, For Serve Phenomena of PHP, In the Serve Phenomena of Phenomena of Path, Cookies, Serializations, Passing Informath, Passing Inf	Arrays, Sees and Object rs and mation zation,	10 Hours
Development, A Web Server's Res Control, Functions  Iodule – 4  HP Arrays and Superglobals, Array SERVER Array, \$_Files Array, bjects, Object-Oriented Overview riented Design, Error Handling exceptions?, PHP Error Reporting, Plandle – 5	lopment with ponsibilities, (  s, \$_GET and Reading/Writing, Classes and Validation Applementations of the URL Caching, Advance of the Caching, Advanc	Signature (1997), Syntax, JavaScript Events, JavaScript Events, PHP, What is Serve (2006), PHP, What is Serve (2006), PHP, In the serve (2006), PHP Class (2006), What are Error (2006), Path, Cookies, Serialistications, Passing Informath, Cookies, Passing Informath, Cookie	Arrays, Sees and Object rs and mation zation,	10 Hours

Web Services, XML Processing, JSON, Overview of Web Services. Course Outcomes: After studying this course, students will be able to

Define HTML and CSS syntax and semantics to build web pages.

Transmission, Animation, Backbone MVC Frameworks, XML Processing and

- Understand the concepts of Construct, visually format tables and forms using HTML
- Develop Client-Side Scripts using JavaScript and Server-Side Scripts using PHP to generate and display the contents dynamically.
- List the principles of object oriented development using PHP
- Illustrate JavaScript frameworks like jQuery and Backbone which facilitates

developer to focus on core features.

#### Question paper pattern:

The question paper will have ten questions.

There will be 2 questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer 5 full questions, selecting one full question from each Text Books:

1. Randy Connolly, Ricardo Hoar, "Fundamentals of Web Development", 1st Edition, Pearson Education India. (ISBN:978-9332575271)

#### Reference Books:

- 1) Robin Nixon, "Learning PHP, MySQL &JavaScript with jQuery, CSS and HTML5", 4th Edition, O'Reilly Publications, 2015. (ISBN:978-9352130153)
- 2) Luke Welling, Laura Thomson, "PHP and MySQL Web Development", 5th Edition, Pearson Education, 2016. (ISBN:978-9332582736)
- 3) Nicholas C Zakas, "Professional JavaScript for Web Developers", 3rd Edition, Wrox/Wiley India, 2012. (ISBN:978-8126535088)
- 4) David Sawyer Mcfarland, "JavaScript & jQuery: The Missing Manual", 1st Edition, O'Reilly/Shroff Publishers & Distributors Pvt Ltd, 2014 (ISBN:978-
- 5) Zak Ruvalcaba Anne Boehm, "Murach's HTML5 and CSS3", 3rd Edition, Murachs/Shroff Publishers & Distributors Pvt Ltd, 2016. (ISBN:978-9352133246)

Dept. Of Computer

Alva's Institute of Eagg. & Technology ionce & Engineering Mijar, MOODBIDRI - 574 225

ADVANCED	COMPLETE		
[As per Choice]	Based Credit o	ARCHITECTURES ystem (CBCS) scheme	
(Effective from	om the academ	ystem (CBCS) scheme ic year 2017 - 2018)	J
Subject Code	SEMESTER	– VII	
	17CS72	IA Marks	
Number of Lecture Hours/Week	4		40
Total Number of Lecture Hours	50	Exam Marks	60
Mala	CREDITS -	Exam Hours	03
Module – 1		04	
Theory of P. W.	7		Teaching
Multiprocess	mputer Model	c The Current	
Theory of Parallelism: Parallel Co Multiprocessors and Multicomputer and VLSI Models, Program and Ne Program Partitioning	,Multivector as	od SIMD C	uting, 10 Hours
Interconnect Architectures, Principal Metrics and Measures, Parallel Proclams, Scalability, April	es of Scalable	Performance D. S.	/stem
Metrics and Measures, Parallel Proc Laws, Scalability Analysis and Appro	essing Applica	tions Speedus D. C	iance
Laws, Scalability Analysis and Appro Module – 2	paches.	, opecuup Perform	ance
Hardware Technologia			
Hardware Technologies: Processors a Technology, Superscalar and Vector I	nd Memory Hie	erarchy Advanced D	
Technology, Superscalar and Vector I Virtual Memory Technology.	Processors, Mer	nory Hierarchy Tooks	essor 10 Hours
Module - 3		s rectified rectifion	ogy,
Bus, Cache, and Shored M.			
Shared Memory Organization	us Systems ,Ca	che Memory Organizati	0 - 10 -
1 Ipelling and Superced - T.		TOOK COnsistency Ma	3_1
Pipeline Processors Instruction Di-	les ,Linear Pipe	eline Processors Nonlin	1015
Opto 6.4).	line Design ,A	rithmetic Pipeline Des	ion
Module – 4		1 200	'gii
arallel and Scalable A 1:			
arallel and Scalable Architectures Multiprocessor System Interconnects	Multiprocess	ors and Multicomput	ere 10 II.
lechanisms Multivector and Gram	mandcolli	Message Door:	1 1
Julivector Multiprocessors C	puters , ve	Of Processing Princip	100
rganizations (Unto 8 4) Scalable 34	1.1.4	cessing SIMD Comput	ter
atency-Hiding Techniques D.	and a different state of the st	Datailow Architecture	
atency-Hiding Techniques, Princi fulticomputers, Scalable and Multithre rechitectures.	ples of Mu	ltithreading, Fine-Gra	uin
chitectures.	aded Architecti	ires, Dataflow and Hybr	rid
odule – 5			1 1
ftware for parallel programming.	allal 3.5		
ftware for parallel programming: Parallel Programming Models, Parallel	anei Models, L	anguages, and Compile	rs 10 Hours
IdlySIS Of I)ata Amorra D	-Barbos mic	Compilers Dependent	
ILLIIONIZATION and Mark:	C Scretopi	ucul and Environment	
allelism Instruction I	TIBUUU	uuli and Nyctom I	-1
old Design Issues Death	, computer	Alchitechire Contant	_
HIDHET-detected Instance:	- STITOGET (	1 a I Vnical Process	
IICI, Kegister Danami m	, opera	IU FORWARding Doord	_ 1
ffer, Register Renaming ,Tomasunitations in Exploiting Instructional	Level D	n ,Branch Prediction	,
allelism.	- Tala	lelism ,Thread Leve	1
urse outcomes: The students should be	a oblat		

Course outcomes: The students should be able to:

- Understand the concepts of parallel computing and hardware technologies
- Illustrate and contrast the parallel architectures
- Recall parallel programming concepts

#### Question paper pattern

The question paper will have ten questions.

There will be 2 questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer 5 full questions, selecting one full question from each

#### Text Books:

1. Kai Hwang and Naresh Jotwani, Advanced Computer Architecture (SIE): Parallelism, Scalability, Programmability, McGraw Hill Education 3/e. 2015

#### Reference Books:

1. John L. Hennessy and David A. Patterson, Computer Architecture: A quantitative approach, 5th edition, Morgan Kaufmann Elseveir, 2013

Dept. Of Computer Science & Engineering Alva's Institute of Engy. & Technology Mijar, MOODBIDRI - 574 225

IAs por Chat	MACHINE LEA	RNING		
(Effective	ce Based Credit Sy	ystem (CBCS) schem	iel	
Effective	om the academi	c year 2017 - 2019\	1	
Subject Code	SEMIESTER -	- VII		
Number of Lecture Hours/Week	17CS73	IA Marks		40
Total Number of Lecture Hours	03	Exam Marks		60
Decidic Hours	50	Exam Hours		03
Module – 1	CREDITS -	04		03
				Teachin
Introduction: Well posed learn Perspective and Issues in Machine I	ing mobile			Hours
Perspective and Issues in Machine I	earning problems, De	esigning a Learning	system	10 Hour
Concept Learning Concept 1				1 20 2204
algorithm, Version space, Candidate	Flimination al	t learning as search	n, Find-S	1
Text Book1, Sections: 1.1 - 1 3 2 1	-2.5.2.7	thm, Inductive Bias.		
1.10ddic - Z				
Decision Tree Learning: Decision decision tree learning, Basic decision in decision	tree represent the			
decision tree learning, Basic decision	tree learning at	on, Appropriate prob	lems for	10 Hours
in decision tree learning. Inductive	bias in decision to	ithm, hypothesis space	ce search	
uce learning.	in decision the	e learning, Issues in	decision	
Text Bookl, Sections: 3.1-3.7				
Wlodule – 3				
Artificial Neural Networks: In	troduction N			
	doduction Name	1 1		
Appropriate problems, Percentrone D	Backpropagation ale	l Network represe	entation,	08 Hours
Appropriate problems, Perceptrons, B Fext book 1, Sections: 4.1 – 4.6	Backpropagation alg	al Network represe corithm.	entation,	08 Hours
Appropriate problems, Perceptrons, E Fext book 1, Sections: 4.1 – 4.6 Module – 4		orium.		08 Hours
Appropriate problems, Perceptrons, B Fext book 1, Sections: 4.1 – 4.6 Module – 4 Bayesian Learning: Introduction		orithm.		08 Hours
Appropriate problems, Perceptrons, E Fext book 1, Sections: 4.1 – 4.6 Module – 4 Bayesian Learning: Introduction, carning, ML, and JS, arrest learning.	Bayes theorem, B	ayes theorem and		
Appropriate problems, Perceptrons, B Fext book 1, Sections: 4.1 – 4.6 Module – 4 Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier Power	Bayes theorem, B	ayes theorem and		08 Hours
Appropriate problems, Perceptrons, B. Fext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9	Bayes theorem, B	ayes theorem and		
Appropriate problems, Perceptrons, B Fext book 1, Sections: 4.1 – 4.6 Module – 4 Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5	Bayes theorem, Basis, ML for presian belief network	ayes theorem and of dicting probabilities, cs, EM algorithm	concept MDL	10 Hours
Appropriate problems, Perceptrons, B. Fext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Iodule – 5  valuating Hypothesis: Matientic	Bayes theorem, Basis, ML for preesian belief network	ayes theorem and odicting probabilities, cs, EM algorithm	concept MDL	10 Hours
Appropriate problems, Perceptrons, B. Fext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  valuating Hypothesis: Motivation, mpling theorem, General approach 6.	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hypo	ayes theorem and odicting probabilities, cs, EM algorithm	concept MDL	10 Hours
Appropriate problems, Perceptrons, Ext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Lodule – 5  valuating Hypothesis: Motivation, mpling theorem, General approach from of two hypothesis.	Bayes theorem, Basis, ML for preesian belief network 6.11, 6.12  Estimating hyporor deriving confidence.	ayes theorem and odicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference	concept MDL sics of	10 Hours
Appropriate problems, Perceptrons, B. Fext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  valuating Hypothesis: Motivation, mpling theorem, General approach for of two hypothesis, Comparing leastance Based Learning: Introduction, I	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confiderating algorithms.	ayes theorem and odicting probabilities, as, EM algorithm thesis accuracy, Basence intervals, Difference	concept MDL sics of	10 Hours
Appropriate problems, Perceptrons, Ext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Iodule – 5  valuating Hypothesis: Motivation, mpling theorem, General approach for of two hypothesis, Comparing leastance Based Learning: Introduceighted regression, radial basis for at a second control of the second	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confidering algorithms.  ction, k-nearest research	ayes theorem and odicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference intervals,	concept MDL sics of	10 Hours
Appropriate problems, Perceptrons, B. Fext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Lodule – 5  valuating Hypothesis: Motivation, ampling theorem, General approach for of two hypothesis, Comparing leastance Based Learning: Introduction in the comparison of the comp	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confidering algorithms.  ction, k-nearest ron, cased-based rea	ayes theorem and odicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference intervals,	concept MDL sics of	10 Hours
Appropriate problems, Perceptrons, Ext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, Pearning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  valuating Hypothesis: Motivation, Impling theorem, General approach for or of two hypothesis, Comparing least ance Based Learning: Introduction eighted regression, radial basis function in the control of t	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confidering algorithms.  ction, k-nearest roon, cased-based rean, Learning Task, Q	ayes theorem and odicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference inte	concept MDL sics of	10 Hours
Appropriate problems, Perceptrons, B. Text book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  valuating Hypothesis: Motivation, ampling theorem, General approach for of two hypothesis, Comparing leastance Based Learning: Introduction ext book 1, Sections: 5.1-5.6, 8.1-8.5  ourse Outcomes: After studying this	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confidering algorithms. Confidering algorithms. Confidering Task, Quantum Task	ayes theorem and odicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference inte	sics of ence in	10 Hours
Appropriate problems, Perceptrons, B. Text book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  valuating Hypothesis: Motivation, ampling theorem, General approach for of two hypothesis, Comparing leastance Based Learning: Introduction ext book 1, Sections: 5.1-5.6, 8.1-8.5  ourse Outcomes: After studying this	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confidering algorithms. Confidering algorithms. Confidering Task, Quantum Task	ayes theorem and odicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference inte	sics of ence in	12 Hours
Appropriate problems, Perceptrons, B.  Fext book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  Valuating Hypothesis: Motivation, ampling theorem, General approach for of two hypothesis, Comparing leastance Based Learning: Introduction eighted regression, radial basis function in the control of the sections: 5.1-5.6, 8.1-8.5 aurse Outcomes: After studying this or reinforcement learning.	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporory for deriving confidering algorithms. Conf. cased-based read, Learning Task, Quita 13.1-13.3  course, students with the course, students with the course of t	ayes theorem and of dicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference in	sics of ence in locally	10 Hours
Appropriate problems, Perceptrons, B.  Text book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  Valuating Hypothesis: Motivation, extra many many many many many many many man	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confidering algorithms. Cition, k-nearest roon, cased-based ream, Learning Task, Quitality, Learning Task, Q	ayes theorem and of dicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference in	concept MDL sics of ence in locally	10 Hours
Appropriate problems, Perceptrons, B.  Text book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  Valuating Hypothesis: Motivation, extra many many many many many many many man	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confidering algorithms. Cition, k-nearest roon, cased-based ream, Learning Task, Quitality, Learning Task, Q	ayes theorem and of dicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference in	concept MDL sics of ence in locally	10 Hours
Appropriate problems, Perceptrons, B.  Text book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, lodule – 5  valuating Hypothesis: Motivation, mpling theorem, General approach for of two hypothesis, Comparing leastance Based Learning: Introduction ext book 1, Sections: 5.1-5.6, 8.1-8.5  eighted regression, radial basis function ext book 1, Sections: 5.1-5.6, 8.1-8.5  eurse Outcomes: After studying this extra or reinforcement learning.  Understand theory of probability  Illustrate concept learning, ANN estion paper pattern:	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hyporor deriving confidering algorithms. Control, k-nearest roon, cased-based read, Learning Task, Quitality, Learning Task, Quitality, Learning. And selection and statistics related, Bayes classifier, k	ayes theorem and of dicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference in	concept MDL sics of ence in locally	10 Hours
Appropriate problems, Perceptrons, B.  Text book 1, Sections: 4.1 – 4.6  Module – 4  Bayesian Learning: Introduction, earning, ML and LS error hypotherinciple, Naive Bayes classifier, Bayes ext book 1, Sections: 6.1 – 6.6, 6.9, Module – 5  Valuating Hypothesis: Motivation, extra many many many many many many many man	Bayes theorem, Basis, ML for presian belief network 6.11, 6.12  Estimating hypororem by the basis of deriving confidering algorithms. Confidering algorithms. Confidering Task, Quantum	ayes theorem and of dicting probabilities, as, EM algorithm  thesis accuracy, Basence intervals, Difference in	concept MDL sics of ence in locally	10 Hours

Each question will have questions covering all the topics under a module.

The students will have to answer 5 full questions, selecting one full question from each module.

#### **Text Books:**

1. Tom M. Mitchell, Machine Learning, India Edition 2013, McGraw Hill Education.

#### Reference Books:

1. Trevor Hastie, Robert Tibshirani, Jerome Friedman, h The Elements of Statistical Learning, 2nd edition, springer series in statistics.

Ethem Alpaydın, Introduction to machine learning, second edition, MIT press.

Dept. Of Computer Science & Engineering Alva's Institute of Engg. & Tach............ Mijar, MOODSIDRI - 574 225

		OGRAMMING	
(Effective fi	rom the acade	OGRAMMING System (CBCS) scheme mic year 2017 - 2018)	<b>:</b> ]
	SEMESTE	unc vear /iii7 2040)	-
Subject Code	17CS744		•
Number of Lecture Hours/Week	3	IA Marks	40
Total Number of Lecture Hours	40	Exam Marks	60
	CREDITS	Exam Hours	03
Module – 1	CIGEDITS	- 03	
Introduction I Day	7		Teachin
Introduction: UNIX and ANSI Stan C++ Standards, Difference between The POSIX 1 FIRS Standards	dards: The AN	SIC Store 1 1 mm	Hours
C++ Standards, Difference between The POSIX.1 FIPS Standard, The POSIX APIS THE P	n ANSI C and	C++ The POOR T	I/ISO 8 Hours
The POSIX APIs, The UNIX and Common Characteristics	X/Open Standa	ords I NIX and DOGSE	dards,
The POSIX APIs, The UNIX an Common Characteristics.  Module - 2	d POSIX Dev	elonment Environment	APIs:
UNIX Files and ADI. Til			
UNIX and POSIX File April	The UNIX as	nd POSIX File System	Tri la
UNIX and POSIX File Attributes, Program Interface to Files, UNIX & Stream Pointers and File Descriptors UNIX File APIS: Compared to The Position of the Positi	Inodes in Ul	VIX System V Applica	The 8 Hours
Stream Pointers and File Description	Cernel Support	for Files, Relationship	of C
Stream Pointers and File Descriptors UNIX File APIs: General File APIs APIs, Device File APIs, FIFO File AI	, Directory File	s, Hard and Symbolic 1:	nko
TO THE APIC FIELD ELL AV	s, File and Rec	ord Locking, Directory	Eile
UNIX Processes and Dress G			
ntroduction, main function Process	1: The Environ	ment of Thirm	
	Ta	ment of a UNIX Proces	C. OIL
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#### Question paper pattern:

The question paper will have ten questions.

There will be 2 questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer 5 full questions, selecting one full question from each module.

#### Text Books:

1

1. Unix System Programming Using C++ - Terrence Chan, PHI, 1999.

2. Advanced Programming in the UNIX Environment - W.Richard Stevens, Stephen A. Rago, 3nd Edition, Pearson Education / PHI, 2005.

#### Reference Books:

- Advanced Unix Programming- Marc J. Rochkind, 2nd Edition, Pearson Education, 2005.
- 2. The Design of the UNIX Operating System Maurice.J.Bach, Pearson Education / PHI, 1987.
- 3. Unix Internals Uresh Vahalia, Pearson Education, 2001.

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[As per Choice Ba (Effective from	AGE AREA NETW nsed Credit System n the academic yea SEMESTER – VII	i (CBCS) scheme] ir 2017 - 2018)	
Subject Code	17CS754	IA Marks	40
Number of Lecture Hours/Week	3	Exam Marks	60
Total Number of Lecture Hours	40	Exam Hours	03
	CREDITS - 03		
Module – 1	20.		Teaching Hours
Storage System Introduction to evolution elements, virtualization, and cloud conformation (or compute), connectivity, storage, environments. RAID implementation impact of RAID on application persystems and virtual storage provimplementations.  Module – 2	omputing. Key data and application in ons, techniques, and formance.Compone	a center elements – H both classic and virt d levels along with outs of intelligent stor	lost tual the
Storage Networking Technologies components, connectivity options, mechanism 'zoning", FC protocol structualization and VSAN technologicacess over IP network, Converged I Attached Storage (NAS) - compostorage virtualization, Object based structure Module - 3	and topologies included, addressing and gy, iSCSI and FCI protocol FCoE and enents, protocol and	luding access protect d operations, SAN-ba P protocols for stor- its components, Netw d operations, File le	ion sed age ork
Backup, Archive, and Replication and business continuity solutions environments. Business continuity Clustering and multipathing architect and recovery - methods, targets and to virtualized environment, Fixed conclassic and virtual environments, environments, Three-site remote replication.	in both virtualizy terminologies, puture to avoid single topologies, Data decitent and data architemate replication	zed and non-virtualing and solution points of failure, Backuplication and backupive, Local replication in classic and vir	zed ons, kup p in
Module – 4  Cloud Computing Characteristics business drivers, definition, essential Cloud. ,Business drivers for Cloud Characteristics of Cloud computing, data center to Cloud computing env Cloud infrastructure components, Clo Module – 5	characteristics, and computing, Definit Steps involved in t vironment Services	I phases of journey to tion of Cloud comput ransitioning from Cla and deployment mod	the ing, ssic
Securing and Managing Storage framework and domains of storage implementation at storage networking	ge security along ag. Security threats ons for FC-SAN ad and cloud environs structure componer	with covering secures, and countermeasured, IP-SAN and Nonments, Monitoring onto in classic and virus in classic a	rity. es in NAS and tual

#### Cloud service management activities

#### Course outcomes: The students should be able to:

- Identify key challenges in managing information and analyze different storage networking technologies and virtualization
- Explain components and the implementation of NAS
- Describe CAS architecture and types of archives and forms of virtualization
- Illustrate the storage infrastructure and management activities

#### Question paper pattern:

The question paper will have ten questions.

There will be 2 questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer 5 full questions, selecting one full question from each module.

#### Text Books:

- Information Storage and Management, Author: EMC Education Services, Publisher: Wiley ISBN: 9781118094839
- 2. Storage Virtualization, Author: Clark Tom, Publisher: Addison Wesley Publishing Company ISBN: 9780321262516

#### Reference Books:

NIL

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Lys her Choice I	m the academic	tem (CBCS) scheme	
Subject Code	SEMESTER – 1		
Number of Lecture Hours/Week	01I + 02P	IA Marks	40
Total Number of Lecture Hours	40	Exam Marks	60
	CREDITS - 02	Exam Hours	03
Description (If any):			
<ol> <li>The programs can be implem</li> <li>For Problems 1 to 6 and 10, classes or APIs of Java/Pytho</li> <li>Data sets can (https://archive.ics.uci.edu/ml</li> </ol> Lab Experiments:	programs are to b	be developed without u	
<ol> <li>Implement and demonstrate hypothesis based on a given s .CSV file.</li> <li>For a given set of training demonstrate the Candidate-H of all hypotheses consistent was a second or set of the contract of the c</li></ol>	the FIND-Salgor et of training data data examples ste Climination algor	rithm for finding the samples. Read the train ored in a .CSV file, ithmto output a descrip	most specifing data from
3. Write a program to demon algorithm. Use an appropriate knowledge to classify a new sa  4. Build an Artificial Neural algorithm and test the same uses  5. Write a program to implement data set stored as a .CSV file. of test data sets.  6. Assuming a set of the	mple.  Network by in sing appropriate dant the naïve Baye Compute the accurate	nplementing the Bac ata sets.  sian classifier for a sa racy of the classifier, co	and apply thi  kpropagation  ample training possidering few
<ul> <li>6. Assuming a set of documents Classifier model to perform the the program. Calculate the accu</li> <li>7. Write a program to construct a model to demonstrate the diag</li> </ul>	racy, precision, ar	ava classes/API can be ad recall for your data s	used to write et.
8. Apply EM algorithm to cluster set for clustering using k-Me	hon ML library clar r a set of data stor	asses/API.  ed in a .CSV file. Use	Heart Disease the same data
algorithms and samuel M-1VIE	e quality of almet	Compare the results pring. You can add law	of these two
9. Write a program to implement	m.		a/Python ML
9. Write a program to implement data set. Print both correct and vibe used for this problem	wrong predictions.	<b>bour algorithm</b> to cla Java/Python ML librar	a/Python ML assify the iris y classes can
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2. Design Java/Python programs for various Learning algorithms.

3. Apply appropriate data sets to the Machine Learning algorithms.

4. Identify and apply Machine Learning algorithms to solve real world problems. **Conduction of Practical Examination:** 

- All laboratory experiments are to be included for practical examination.
- Students are allowed to pick one experiment from the lot.
- Strictly follow the instructions as printed on the cover page of answer script
- Marks distribution: Procedure + Conduction + Viva:15 + 70 +15 (100)

Change of experiment is allowed only once and marks allotted to the procedure part to

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#### WEB TECHNOLOGY LABORATORY WITH MINI PROJECT

[As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2017 - 2018)

#### SEMESTER - VII

	OBITEDO I BILL	· • •	
Subject Code	17CSL77	IA Marks	40
Number of Lecture Hours/Week	01I + 02P	Exam Marks	60
Total Number of Lecture Hours	40	Exam Hours	03
	CDEDIMO	•	

#### CREDITS - 02

#### Description (If any):

NIL

#### Lab Experiments:

#### PART A

- 1. Write a JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient.
- 2. Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10 and outputs HTML text that displays the resulting values in an HTML table format.
- 3. Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, when the font size reaches 50pt it displays "TEXT-SHRINKING" in BLUE color. Then the font size decreases to 5pt.
- 4. Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems:
  - a. Parameter: A string
  - b. Output: The position in the string of the left-most vowel
  - c. Parameter: A number
  - d. Output: The number with its digits in the reverse order
- 5. Design an XML document to store information about a student in an engineering college affiliated to VTU. The information must include USN, Name, and Name of the College, Branch, Year of Joining, and email id. Make up sample data for 3 students. Create a CSS style sheet and use it to display the document.
- 6. Write a PHP program to keep track of the number of visitors visiting the web page and to display this count of visitors, with proper headings.
- 7. Write a PHP program to display a digital clock which displays the current time of the server.
- 8. Write the PHP programs to do the following:
  - a. Implement simple calculator operations.
  - b. Find the transpose of a matrix.
  - c. Multiplication of two matrices.
  - d. Addition of two matrices.
- 9. Write a PHP program named states.py that declares a variable states with value "Mississippi Alabama Texas Massachusetts Kansas". write a PHP program that does the following:
  - Search for a word in variable states that ends in xas. Store this word in element 0 of a list named statesList.

- b. Search for a word in states that begins with k and ends in s. Perform a caseinsensitive comparison. [Note: Passing re.Ias a second parameter to method compile performs a case-insensitive comparison.] Store this word in element1 of statesList.
- c. Search for a word in states that begins with M and ends in s. Store this word in element 2 of the list.
- d. Search for a word in states that ends in a. Store this word in element 3 of the list.
- 10. Write a PHP program to sort the student records which are stored in the database using selection sort.

#### Study Experiment / Project:

Develop a web application project using the languages and concepts learnt in the theory and exercises listed in part A with a good look and feel effects. You can use any web technologies and frameworks and databases.

#### Note:

- 1. In the examination each student picks one question from part A.
- 2. A team of two or three students must develop the mini project. However during the examination, each student must demonstrate the project individually.
- 3. The team must submit a brief project report (15-20 pages) that must include the following
  - a. Introduction
  - b. Requirement Analysis
  - c. Software Requirement Specification
  - d. Analysis and Design
  - e. Implementation
  - f. Testing

#### Course outcomes: The students should be able to:

- Design and develop dynamic web pages with good aesthetic sense of designing and latest technical know-how's.
- Understand the concepts of Web Application Terminologies, Internet Tools other web services.
- Recall how to link and publish web sites

#### Conduction of Practical Examination:

- 1. All laboratory experiments from part A are to be included for practical examination.
- 2. Mini project has to be evaluated for 40 Marks.
- 3. Report should be prepared in a standard format prescribed for project work.
- 4. Students are allowed to pick one experiment from the lot.
- 5. Strictly follow the instructions as printed on the cover page of answer script.
- Marks distribution:
  - a) Part A: Procedure + Conduction + Viva: 09 + 42 +09 =60 Marks
- b) Part B: Demonstration + Report + Viva voce 20+14+06 = 40 Marks Change of experiment is allowed only once and marks allotted to the procedure part to be

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INTERN [As per Choice	ET OF THING	S TECHNOLOGY System (CBCS) schem		
(Effective f	rom the	System (CBCS) schem	el	
			~1	
Subject Code	SEMESTER 17CS81	<u> </u>		
Number of Lecture Hours/Week	04	IA Marks		40
Total Number of Lecture Hours		Exam Marks		60
	50	Exam Hours		03
Modul	CREDITS.	- 04		
Module – 1				
		1		70
What is IoT, Genesis of IoT, IoT and IoT, IoT Challenges, IoT Network Network Architectures, Comparing A.	21		P.	Teachin
IoT, IoT Challenges, IoT Network Network Architectures, Comparing Io The Core IoT Functional Stack IoT P	Digitization, lo	Impact C-		Hours
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Network Architectures, Comparing Io The Core IoT Functional Stack, IoT Da	ta Management	and Complified IoT Ar	chitecture.	
The Core IoT Functional Stack, IoT Day  Module – 2		ulu Compute Stack.	,	
Smart Objects: The "Things" in I To	0	89		
Smart Objects: The "Things" in IoT, Networks, Connecting Smart Objection	Sensors, Actuar	ors, and Smart Obi-	- 0	
Technologies. Obje	cts, Communic	Cations Criterio 1 7	s, Sensor	10 Hours
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as the IoT Network Layer. The Ru	siness C- C			
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Transport Layer, IoT Application Transp	ompliances, App	lication Protocols for	In The	10 Hours
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Data and Analytics 5	The same of the sa			
earning Die Die for IoT, An Intro	duction to Dat	a Anglesti o		
Data and Analytics for IoT, An Intro Learning, Big Data Analytics Tools	and Technology	Eda C. For IoT, 1	Machine 1	0 Hours
Learning, Big Data Analytics Tools Network Analytics, Securing IoT, A Brid	ef History of OT	, Edge Streaming A	nalytics.	- ALOUIS
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NO, Installing the Software, Fundamen hysical Devices and Endpoints - Rasph	tale of A-1 ·	roduction to Arduino. A	Arduino 10	Hours
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d Connected C:	ensors, Remote	access to Page 1	SSH,	- 1
Connected the As Ist C.	,	uccess iii kaenhar ii:	Smart	
Mart City Security Architecture, Smart Ci	ty Use-Case Eva	males	ecture,	ι.
ourse Outcomes: After studying this cou	Cuse Exa	mpies.		
After studying this cou	rse, students wil	be able to		
<ul> <li>Interpret the impact and challeng models.</li> </ul>				
models.	ges posed by Io	T networks leading to	nous - 1:	
Compare and control it.		reading to	new archite	ectural
<ul> <li>Compare and contrast the deploym to network.</li> </ul>	ent of smart obj	ects and the test		
to network.		and the technologie	s to connect	them
				1

- Appraise the role of IoT protocols for efficient network communication.
- Elaborate the need for Data Analytics and Security in IoT.
- Illustrate different sensor technologies for sensing real world entities and identify the applications of IoT in Industry.

#### Question paper pattern:

The question paper will have ten questions.

There will be 2 questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer 5 full questions, selecting one full question from each module.

- 1. David Hanes, Gonzalo Salgueiro, Patrick Grossetete, Robert Barton, Jerome Henry,"IoT Fundamentals: Networking Technologies, Protocols, and Use Cases for the Internet of Things", 1st Edition, Pearson Education (Cisco Press Indian Reprint). (ISBN: 978-
- 2. Srinivasa K G, "Internet of Things", CENGAGE Leaning India, 2017

#### Reference Books:

Vijay Madisetti and ArshdeepBahga, "Internet of Things (A Hands-on-Approach)", 1st Edition, VPT, 2014. (ISBN: 978-8173719547)

2. Raj Kamal, "Internet of Things: Architecture and Design Principles", 1st Edition, McGraw Hill Education, 2017. (ISBN: 978-9352605224)

> Dept. Of Computer Science & Engineering Alva's Institute of Engg. 3. Technology Mijar, MOODBIDRI - 574 225

BI	G DATA ANA	ALYTICS	
[As per Choice I	Based Credit S	System (CBCS) schemel	
(Effective fro	m the academ	ic year 2017 - 2018)	
	SEMESTER.	– VIII	
Subject Code	17CS82	IA Marks	40
Number of Lecture Hours/Week	4	Exam Marks	60
Total Number of Lecture Hours	50	Exam Hours	03
	CREDITS -		03
Module – 1	r		Tanahina
			Teaching Hours
Hadoop Distributed File System	Basics, Runni	ing Example Programs a	and 10 Hours
Benefitiarks, Hadoop Wapkeduce Fr	amework, Mar	Reduce Programming	and 10 Hours
Module - Z			
Essential Hadoop Tools, Hadoop YA	ARN Application	ions, Managing Hadoop w	ith 10 Hours
Apache Ambari, Basic Hadoop Admi Module – 3	inistration Proc	edures	10 Hours
Business Intelligence Concepts an	d Application	a, Data Warehousing, Da	ita 10 Hours
Mining, Data Visualization  Module – 4			
		E. C. De C	
Decision Trees, Regression, Artific Association Rule Mining	cial Neural N	letworks, Cluster Analysi	is, 10 Hours
Module – 5			
Text Mining, Naïve-Bayes Analysis	Support Van	40 M. 1: W. 1	
Social Network Analysis	, support vec	for Machines, Web Mining	g, 10 Hours
Course outcomes: The students shou	ld be able to:		
Explain the concepts of HDFS		ce framavioris	
Investigate Hadoop related to  Administration	ols for Big Da	ata Analytics and newface t	
Authinstration			-
Recognize the role of Busines decision making	s Intelligence.	Data warehousing and Vi-	sualization in
accioion making		The second secon	sualization in
• Infer the importance of core da	ta mining tech	niques for data analytics	
<ul> <li>Compare and contrast different</li> </ul>	Text Mining 7	Techniques	1
Juestion paper pattern:			
he question paper will have ten quest	ions.		
here will be 2 questions from each mo	odule.		
ach question will have questions cove	ering all the top	pics under a module.	1
the students will have to answer 5 full nodule.	questions, sele	ecting one full question fron	n each
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#### Text Books:

- Douglas Eadline, "Hadoop 2 Quick-Start Guide: Learn the Essentials of Big Data Computing in the Apache Hadoop 2 Ecosystem", 1st Edition, Pearson Education, 2016. ISBN-13: 978-9332570351
- Anil Maheshwari, "Data Analytics", 1<sup>st</sup> Edition, McGraw Hill Education, 2017. ISBN-13: 978-9352604180

#### Reference Books:

- 1) Tom White, "Hadoop: The Definitive Guide", 4th Edition, O'Reilly Media, 2015.ISBN-13: 978-9352130672
- 2) Boris Lublinsky, Kevin T.Smith, Alexey Yakubovich,"Professional Hadoop

Solutions", 1st Edition, Wrox Press, 2014ISBN-13: 978-8126551071

3) Eric Sammer, "Hadoop Operations: A Guide for Developers Administrators", 1st Edition, O'Reilly Media, 2012. ISBN-13: 978-9350239261

and

Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

As per Choice Based Credit System (CBCS) scheme  (Effective from the academic year 2017 - 2018)   SEMESTER - VIII	Subject Code SEMESTER  17CS834  Number of Lecture Hours/Week 3  Total Number of Lecture Week	nc year 2017 - 2018) – VIII	
Subject Code    Subject Code	Subject Code SEMESTER  17CS834  Number of Lecture Hours/Week 3  Total Number of Lecture Week	nc year 2017 - 2018) – VIII	
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4LOC UHICOMASS. The object of the control of the co	urse outcomes: The students should be able to:		1

- Explain the system concept and apply functional modeling method to model the activities of a static system
- Describe the behavior of a dynamic system and create an analogous model for a
- Illustrate the operation of a dynamic system and make improvement according to the

### Question paper pattern:

The question paper will have ten questions.

There will be 2 questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer 5 full questions, selecting one full question from each module.

#### Text Books:

1. Jerry Banks, John S. Carson II, Barry L. Nelson, David M. Nicol: Discrete-Event System Simulation, 5 th Edition, Pearson Education, 2010.

#### Reference Books:

- 1. Lawrence M. Leemis, Stephen K. Park: Discrete Event Simulation: A First Course, Pearson Education, 2006.
- 2. Averill M. Law: Simulation Modeling and Analysis, 4th Edition, Tata McGraw-

Dapt. Of Computer Science & Engineering Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225

# INTERNSHIP / PROFESSIONAL PRACTISE [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2017 -2018)

	Subject Code (Effective from the academic y	cm (CBCS) scheme] (ear 2017 -2018)
F	Duration 17CS84 4 weeks	IA Marks 50 Exam Marks 50
E	Description (If any):	Exam Hours 03

With reference to the above subject, this is to inform that the following are the guidelines to be followed for the Internship Programme and the earlier circular as cited in ref (i) is hereby withdrawn:

- 1) As per the 150B.9 the Internship Programme duration is of Eight weeks. However it has been reduced to Four weeks and it should be carried out between (VI and VII Semester) Vacation and/or (VII and VIII Semester) Vacation.
- 2) The internship can be carried out in any Industry/R and D Organization/Research Institute/ Educational institute of repute.
- 3) The Institutions may also suggest the students to enrol for the Internshala platform for free internships as there is a MoU with the AICTE for the beneficial of the affiliated Institutions (<a href="https://internshala.com/">https://internshala.com/</a>)
- 4) The Examination of Internship will be carried out in line with the University Project Viva-voce examination.
- 5) (a) The Department/college shall nominate staff member/s to facilitate, guide and supervise students under internship. (b) The Internal Guide has to visit place of internship at least once during the student's internship.
- 6) The students shall report the progress of the internship to the guide in regular intervals and seek his/her advice.
- 7) After the completion of Internship, students shall submit a report with completion and attendance certificates to the Head of the Department with the approval of both internal and external guides.
- 8) The Examination of Internship will be carried out in line with the University Project Viva-voce examination.
- 9) There will be 50 marks for CIE (Seminar: 25, Internship report: 25) and 50 marks for Viva Voce conducted during SEE. The minimum requirement of CIE marks shall be 50% of the maximum marks.
- 10) The internal guide shall award the marks for seminar and internship report after evaluation. He/she will also be the internal examiner for Viva Voce conducted during
- 11) The external guide from the industry shall be an examiner for the viva voce on Internship. Viva-Voce on internship shall be conducted at the college and the date of Viva-Voce shall be fixed in consultation with the external Guide. The Examiners shall jointly award the Viva Voce marks.

- 12) In case the external Guide expresses his inability to conduct viva voce, the Chief Superintendent of the institution shall appoint a senior faculty of the Department to conduct viva-voce along with the internal guide. The same shall be informed in writing to the concerned Chairperson, Board of Examiners (BOE).
- 13) The students are permitted to carry out the internship anywhere in India or abroad. The University will not provide any kind of financial assistance to any student for carrying out the Internship.

## Course outcomes: The students should be able to:

- 1. Adapt easily to the industry environment
- 2. Take part in team work
- 3. Make use of modern tools
- 4. Decide upon project planning and financing.
- 5. Adapt ethical values.
- 6. Motivate for lifelong learning

Dept. Of Computer Science & Engineering Alva's Institute of Engo, & Vechnology

Mijar, MOODBIDRI - 574 225

#### PROJECT WORK PHASE II

#### [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2017 -2018)

#### SEMESTER - VIII

A Marks	100
xam Marks	100
xam Hours	03
K	am Hours

#### CREDITS - 06

#### Description (If any):

- Project: Carried out at the Institution or at an Industry.
- Project work shall preferably be batch wise, the strength of each batch shall not exceed maximum of four students
- Viva-voce examination in project work shall be conducted batch-wise.
- For Project Phase –I and Project seminar and Project Phase –II, the CIE shall be 100 respectively.
- The CIE marks in the case of projects in the final year shall be based on the
  evaluation at the end of VIII semester by a committee consisting of the Head of the
  concerned Department and two senior faculty members of the Department, one of
  whom shall be the project guide.
- Minimum requirement of CIE marks for Project work shall be 50% of the maximum marks.
- Students failing to secure a minimum of 50% of the CIE marks in Project work shall
  not be eligible for the Project examination conducted by the University and they shall
  be considered as failed in that/those Course/s. However, they can appear for
  University examinations conducted in other Courses of the same semester and
  backlog Courses if any. Students after satisfying the prescribed minimum CIE marks
  in the Course/s when offered during subsequent semester shall appear for SEE.
- Improvement of CIE marks shall not be allowed in Project where the student has already secured the minimum required marks
- For a pass in a Project/Viva-voce examination, a student shall secure a minimum of 40% of the maximum marks prescribed for the University Examination. The Minimum Passing Grade in a Course is 'E'.
- The student who desires to reject the results of a semester shall reject performance in all the Courses of the semester, irrespective of whether the student has passed or failed in any Course. However, the rejection of performance of VIII semester project shall not be permitted

#### Course outcomes: The students should be able to:

- Identify a issue and derive problem related to society, environment, economics, energy and technology
- 2. Formulate and Analyze the problem and determine the scope of the solution chosen
- 3. Determine, dissect, and estimate the parameters, required in the solution.
- 4. Evaluate the solution by considering the standard data / Objective function and by using appropriate performance metrics.
- 5. Compile the report and take part in present / publishing the finding in a reputed conference / publications

Attempt to obtain ownership of the solution / product developed.