

## TENTATIVE LESSON PLAN: R1942051

<b>Course Title: MANAGEMENT AND ORGANIZATIONAL BEHAVIOR (R1942051)</b>		
<b>Section: CSE A</b>	<b>Date : 03/12/2022</b>	<b>Page No : 01 of 03</b>
<b>Revision No : 00</b>	<b>Prepared By : T.SOWJANYA</b>	<b>Approved By : HOD</b>

**Tools : Black board, PPTs**

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT –I INTRODUCTION</b>			
<b>CO1: After completion of the Course the student will acquire the knowledge on management functions, global leadership and organizational structure.</b>			
<b>TB: L. M. Prasad, Principles and Practice of Management.</b>			
1.	Introduction	<b>From:</b> 05/12/2022 <b>To:</b> 28/12/2022	Lecture interspersed with discussions
2.	Management and organizations concepts		
3.	Nature and importance of management		
4.	Functions of management		
5.	System approach to management		
6.	Taylor,s scientific management		
7.	Fayol,s principles of management		
8.	Leadership styles		
9.	Social responsibilities of management		
10.	Basic concepts related to organization		
11.	Decentralization and departmentation, MBO		
12.	<b>Tutorial</b>		
<b>UNIT-II FUNCTIONAL MANAGEMENT</b>			
<b>CO2: Will familiarize with the concepts of functional management that is HRM and marketing of new product developments.</b>			
<b>TB: Kotler Philip &amp; Keller Kevin Lane : Marketing Management</b>			
13.	Human resource management concepts	<b>From:</b> 29/12/2022 <b>To:</b> 20/01/2023	Lecture interspersed with discussions
14.	Basic functions of hr manager		
15.	Manpower planning		
16.	Recruitment, selection		
17.	Training and development, Wage and salary administration		
18.	Job evaluation		
19.	Merit rating		
20.	Marketing management		
21.	Concepts of marketing management		
22.	Marketing mix elements		
23.	Marketing strategies		
24.	Marketing importance		
25.	Marketing coping strategies		
26.	<b>Tutorial</b>		



## TENTATIVE LESSON PLAN: HS4201

<b>Course Title: MANAGEMENT AND ORGANIZATIONAL BEHAVIOR (HS4201)</b>		<b>Page No : 02 of 03</b>
<b>Section: CSE A</b>	<b>Date: 03/12/2022</b>	<b>Approved By : HOD</b>
<b>Revision No: 00</b>	<b>Prepared By : T.SOWJANYA</b>	

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT-III STRATEGIC MANAGEMENT</b>			
<b>CO3: The learner is able to think in strategically through contemporary management practices.</b>			
<b>TB: Kanishka Bedi, Production and Operations Management, Oxford University Press,2007.</b>			
27.	Strategic management and contemporary strategic issues	<b>From:</b> 21/01/2023  <b>To:</b> 10/02/2023	Lecture interspersed with discussions
28.	Mission, goals		
29.	Objectives, policy		
30.	Strategy, programmes		
31.	Elements of corporate planning process		
32.	Environment scanning		
33.	Value chain analysis, swot analysis, Steps in strategy formulation and implementation		
34.	Balance scorecard, benchmarking		
35.	<b>Tutorial</b>		
<b>UNIT-IV INDIVIDUAL BEHAVIOR</b>			
<b>CO4: The learner can develop positive attitude through personality development and can equip with motivational theories.</b>			
<b>TB: Subba Rao P, Organizational Behavior, Himalaya Publishing House. Mumbai.</b>			
36.	Perception and its process	<b>From:</b> 11/02/2023  <b>To:</b> 10/03/2023	Lecture interspersed with discussions
37.	Impression management		
38.	Personality development		
39.	Socialization, attitude, positive attitude		
40.	Change, learning, reinforcement motivation		
41.	Motivation theories		
42.	<b>Tutorial</b>		
<b>UNIT-V GROUP DYNAMICS</b>			
<b>CO5: The student can attain the group performance and grievance handling in managing the organizational culture.</b>			
<b>TB: Subba Rao P, Organizational Behavior, Himalaya Publishing House. Mumbai.</b>			
43.	Types of groups	<b>From:</b> 11/03/2023  <b>To:</b> 01/04/2023	Lecture interspersed with discussions
44.	Stages of group development		
45.	Group behavior and group performance factors		
46.	Organizational conflicts		
47.	Strategies of solving conflicts		
48.	Organizational culture		
49.	Organizational climate		
50.	Stress and its causes		



## TENTATIVE LESSON PLAN: HS4201

<b>Course Title: MANAGEMENT AND ORGANIZATIONAL BEHAVIOR (HS4201)</b>		
<b>Section : CSE A</b>	<b>Date : 03/12/2022</b>	<b>Page No: 03 of 03</b>
<b>Revision No : 00</b>	<b>Prepared By: T.SOWJANYA</b>	<b>Approved By : HOD</b>

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
51.	Stress effects		Lecture interspersed with discussions
52.	Coping strategies of stress		
53.	Types of conflicts		
54.	<b>Tutorial</b>		

M. Sowjanya  
03/12/2022  
Signature of the Faculty

B. [Signature]  
Signature of the HoD



**TENTATIVE LESSON PLAN: R194203R**  
**ENTREPRENEURSHIP**

2022-23

<b>Course Title: ENTREPRENEURSHIP</b>		<b>Course code: R1</b>	
<b>Date: 05/12/22</b>		<b>SEC- A</b>	
<b>Revision No: 00</b>		<b>Prepared By: U. Tanoj</b>	
<b>Tools: BLACK BOARD, PPT's</b>		<b>Approved By: H</b>	
No. of Periods	TOPIC	Date	Delivery
<b>UNIT-I ENTREPRENEURIAL COMPETENCE</b>			
<b>CO1: To develop Competences &amp; Entrepreneurship Skills by explaining different stories of some leading entrepreneurs to become an entrepreneur.</b>			
<b>TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand &amp; Company Limited, New Delhi, 2001.</b>			
1	Introduction to Entrepreneurship Concept	From 05/12/22 To: 24/12/22	Lecture interspersed with discussions
2	Types of Entrepreneurship & Entrepreneurships as a Career		
3	Entrepreneurial Personality		
4	Characteristics of Successful Entrepreneur		
5	Entrepreneur Knowledge & Skills		
<b>UNIT-II ENTREPRENEURIAL ENVIRONMENT &amp; POLICIES</b>			
<b>CO2: To acquaint with various laws, forces and regulatory measures governing business operations in India.</b>			
<b>TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand &amp; Company Limited, New Delhi, 2001.</b>			
6	Business Environment	From 26/12/22 To: 10/01/23	Lecture interspersed with discussions
7	Role of family & Society		
8	Entrepreneurship Development Training & other support organizational services		
9	Central & State Govt Industrial Policies & Regulations		
10	International business policies & regulations		
<b>UNIT-III BUSINESS PLAN PREPERATION</b>			
<b>CO3: To Understand the sources required for business &amp; its report analysis for criteria selection &amp; project</b>			
<b>TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand &amp; Company Limited, New Delhi, 2001.</b>			
11	Sources of Product for Business	From 11/01/23 To: 28/01/23	Lecture interspersed with discussions
12	Concept of Feasibility & Pre-feasibility studies		
13	Criteria for Selection of Product		
14	Ownership, Capital & Budgeting Project Profile Preparation		
15	Matching Entrepreneur with the Project		
16	Feasibility Report Preparation & Evaluation Criteria		
<b>UNIT-IV LAUNCHING OF SMALL BUSINESS</b>			
<b>CO4: To Understand the sources required for finance mobilization &amp; growth strategies of market &amp; product launching in launching a small business</b>			
<b>TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand &amp; Company Limited, New Delhi, 2001.</b>			
17	Operations & Planning	From 06/02/23 To: 04/03/23	Lecture interspersed with discussions
18	Market & Channel Selection		
19	Growth Strategies		
20	Product launching		
21	Incubation		
22	Venture capital & IT Startups		



**UNIT-V MANAGEMENT OF SMALL BUSINESS**

**CO5: To develop & monitor effective management skills in small business by preventing rehabilitation**  
**TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand & Company Limited, New Delhi, 2001.**

23	Monitoring & Evaluation of Business	From 06/03/23 To: 01/04/23	Lecture interspersed with discussions
24	Preventing Sickness & Rehabilitation of Business Units		
25	Effective Management of Small Business		

**Signature of Faculty**

**Signature of HOD**



## TENTATIVE LESSON PLAN: R1942051

<b>Course Title: MANAGEMENT AND ORGANIZATIONAL BEHAVIOR (R1942051)</b>		
<b>Section: CSE B</b>	<b>Date : 03/12/2022</b>	<b>Page No : 01 of 03</b>
<b>Revision No : 00</b>	<b>Prepared By : T.SOWJANYA</b>	<b>Approved By : HOD</b>

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT –I INTRODUCTION</b>			
<b>CO1: After completion of the Course the student will acquire the knowledge on management functions, global leadership and organizational structure.</b>			
<b>TB: L. M. Prasad, Principles and Practice of Management.</b>			
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<b>CO2: Will familiarize with the concepts of functional management that is HRM and marketing of new product developments.</b>			
<b>TB: Kotler Philip &amp; Keller Kevin Lane : Marketing Management</b>			
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23.	Marketing strategies		
24.	Marketing importance		
25.	Marketing coping strategies		
26.	<b>Tutorial</b>		



## TENTATIVE LESSON PLAN: HS4201

<b>Course Title: MANAGEMENT AND ORGANIZATIONAL BEHAVIOR (HS4201)</b>		Page No : 02 of 03
Section: CSE A	Date: 03/12/2022	Approved By : HOD
Revision No: 00	Prepared By : T.SOWJANYA	

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT-III STRATEGIC MANAGEMENT</b> <b>CO3: The learner is able to think in strategically through contemporary management practices.</b> <b>TB: Kanishka Bedi, Production and Operations Management, Oxford University Press,2007.</b>			
27.	Strategic management and contemporary strategic issues	<b>From:</b> 21/01/2023  <b>To:</b> 10/02/2023	Lecture interspersed with discussions
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32.	Environment scanning		
33.	Value chain analysis, swot analysis, Steps in strategy formulation and implementation		
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<b>Course Title: MANAGEMENT AND ORGANIZATIONAL BEHAVIOR (HS4201)</b>		<b>Page No: 03 of 03</b>
<b>Section : CSE A</b>	<b>Date : 03/12/2022</b>	<b>Approved By : HOD</b>
<b>Revision No : 00</b>	<b>Prepared By: T.SOWJANYA</b>	

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
51.	Stress effects		Lecture interspersed with discussions
52.	Coping strategies of stress		
53.	Types of conflicts		
54.	<b>Tutorial</b>		

M. Srijanya 03/12/2022  
Signature of the Faculty

B. [Signature]  
Signature of the HoD



**TENTATIVE LESSON PLAN: R194203R**  
**ENTREPRENEURSHIP**

<b>Course Title: ENTREPRENEURSHIP</b>		<b>Course code: R194203R</b>	
<b>Date: 05/12/22</b>		<b>SEC- B</b>	
<b>Revision No: 00</b>		<b>Prepared By: U. Tanoj</b>	
		<b>Approved By: HOD</b>	
<b>Tools: BLACK BOARD, PPT's</b>			
No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT-I ENTREPRENEURIAL COMPETENCE</b>			
<b>CO1: To develop Competences &amp; Entrepreneurship Skills by explaining different stories of some leading entrepreneurs to become an entrepreneur.</b>			
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<b>UNIT-II ENTREPRENEURIAL ENVIRONMENT &amp; POLICIES</b>			
<b>CO2: To acquaint with various laws, forces and regulatory measures governing business operations in India.</b>			
<b>TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand &amp; Company Limited, New Delhi, 2001.</b>			
6	Business Environment	From 26/12/22 To: 10/01/23	Lecture interspersed with discussions
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<b>TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand &amp; Company Limited, New Delhi, 2001.</b>			
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<b>UNIT-IV LAUNCHING OF SMALL BUSINESS</b>			
<b>CO4: To Understand the sources required for finance mobilization &amp; growth strategies of market &amp; product launching in launching a small business</b>			
<b>TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand &amp; Company Limited, New Delhi, 2001.</b>			
17	Operations & Planning	From 06/02/23 To: 04/03/23	Lecture interspersed with discussions
18	Market & Channel Selection		
19	Growth Strategies		
20	Product launching		
21	Incubation		
22	Venture capital & IT Startups		



**UNIT-V MANAGEMENT OF SMALL BUSINESS**

**CO5: To develop & monitor effective management skills in small business by preventing rehabilitation**  
**TB 1: "ENTREPRENEURSHIP DEVELOPMENT", S.S. Khanka, S. Chand & Company Limited, New Delhi, 2001.**

23	Monitoring & Evaluation of Business	From 06/03/23 To: 01/04/23	Lecture interspersed with discussions
24	Preventing Sickness & Rehabilitation of Business Units		
25	Effective Management of Small Business		

**Signature of Faculty**

**Signature of HOD**



**TENTATIVE LESSON PLAN:  
MACHINE LEARNING**

<b>Course Title : MACHINE LEARNING</b>		
<b>Section : CSE A</b>	<b>Date : 06-02-2023</b>	
<b>Revision No : 00</b>	<b>Prepared By : Dr.A.Radhika</b>	<b>Approved By : HOD</b>

**Tools: Black Board**

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT-1: Introduction.</b>			
<b>CO-1:</b> Explain the fundamental usage of the concept Machine Learning system			
<b>Text Book:</b>			
1) Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.			
2) Data Science and Machine Learning Mathematical and Statistical Methods, Dirk P. Kroese, Zdravko I. Botev, Thomas Taimre, Radislav Vaisman, 25th November 2020			
1.	Introduction to - Artificial Intelligence	<b>09-01-2023 TO 25-01-2023</b>	Lecture interspersed with discussions
2.	Introduction to - Machine Learning, Deep learning		
3.	Difference between Artificial Intelligence, Machine Learning, Deep learning.		
4.	Types of Machine Learning Systems		
5.	Main Challenges of Machine Learning		
6.	Introduction to Statistical Learning		
7.	Supervised and Unsupervised Learning		
8.	Training and Test Loss		
9.	Tradeoffs in Statistical Learning		
10.	Estimating Risk Statistics		
11.	Sampling distribution of an estimator		
12.	Empirical Risk Minimization		
<b>UNIT-2: Supervised Learning(Regression/Classification):</b>			
<b>CO-2:</b> Demonstrate on various regression Technique ,SVM, MNIST, Ranking.			
<b>Text Book :</b> Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.			
13.	Basic Methods: Distance based Methods	<b>27-01-2023 To 22-02-2023</b>	Lecture interspersed with discussions
14.	Nearest Neighbors		
15.	Decision Trees		
16.	Naive Bayes		
17.	Linear Models: Linear Regression		
18.	Logistic Regression		
19.	Generalized Linear Models		
20.	Support Vector Machines		
21.	Binary Classification		
22.	Multiclass/Structured outputs		
23.	MNIST		
24.	Ranking		
<b>UNIT -3 : Ensemble Learning and Random Forests</b>			
<b>CO-3:</b> Analyze the Ensemble Learning Methods and Random Forests			
<b>Text Book :</b> Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.			
25.	Introduction to Ensemble Learning and Random Forests	<b>23-02-2023 To 04-03-2023  &amp;</b>	Lecture interspersed with discussions
26.	Voting Classifiers		
27.	Bagging and Pasting		
28.	Random Forests		



29.	Boosting	13-03-2023 To 22-03-2023	
30.	Stacking		
31.	Support Vector Machine: Linear SVM Classification		
32.	Nonlinear SVM Classification		
33.	SVM Regression		
34.	Naïve Bayes Classifiers		

**UNIT – 4: Unsupervised Learning Techniques**

**CO-4:** Illustrate the Clustering Techniques and Dimensionality Reduction Models in Machine Learning

**Text Book :** Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.

No. of Periods	TOPIC	DATE	Mode of Delivery
35.	Unsupervised Learning Techniques: Clustering	23-03-2023 TO 18-04-2023	Lecture interspersed with discussions
36.	K-Means, Limits of K-Means		
37.	Using Clustering for Image Segmentation		
38.	Using Clustering for Preprocessing		
39.	Using Clustering for Semi-Supervised Learning		
40.	DBSCAN		
41.	Gaussian Mixtures		
42.	Dimensionality Reduction: The Curse of Dimensionality		
43.	PCA		
44.	Using Scikit-Learn		
45.	Randomized PCA		
46.	Kernel PCA		

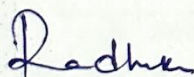
**UNIT – 5: Neural Networks and Deep Learning**

**CO-5 :** Discuss the Neural Network Models and Fundamentals concepts of Deep Learning

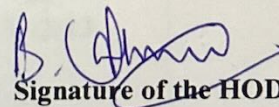
**Text Book:**

- 1) Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.

47.	Introduction to Artificial Neural Networks with Keras	19-04-2023 TO 06-05-2023	Lecture interspersed with discussions
48.	Implementing MLPs with Keras		
49.	Installing TensorFlow 2		
50.	Loading and Preprocessing Data with TensorFlow		



Signature of the Faculty



Signature of the HOD



**TENTATIVE LESSON PLAN: ( R2032052)**

<b>Course Title: COMPILER DESIGN</b>		
<b>Section: III CSE II SEM (A)</b>	<b>Date: 09-01-2023</b>	<b>Page No: 01 of 04</b>
<b>Revision No: 00</b>	<b>Prepared By: R.LAKSHMI</b>	<b>Approved By: HOD</b>

**Tools: MS Teams, PPTs, Moodle**

No. of Periods	Topic	Date	Mode of Delivery
<b>Unit-1: Lexical Analysis</b>			
<b>CO1:</b> At the end of the course, student will be able to Demonstrate phases in the design of compiler			
<b>TB:</b> Compilers: Principles, Techniques and Tools, Second Edition, Alfred V. Aho, Monica S. Lam, Ravi Sethi, Jeffry D. Ullman, Pearson Publishers, 2007.			
1	Language Processors.	<b>From 18/1/2023 TO 30/1/2023</b>	<b>Lecture Interspersed With discussions</b>
2	Lexical Analysis, Structure of a Compiler.		
3	Bootstrapping.		
4	Specification of Tokens.		
5	Recognition of Tokens.		
6	The Role of Lexical Analyzer.		
7	Input Buffering.		
8	Lexical Analyzer Generator-LEX.		
9	Finite Automata.		
10	Regular Expressions and Finite Automata		
11	Design of a Lexical Analyzer Generator.		
<b>UNIT-II: Syntax Analysis</b>			
<b>CO2:</b> Organize Syntax Analysis, Top Down and LL(1) grammars			
<b>TB:</b> Compiler Construction, Principles and Practice, Kenneth C Louden, Cengage Learning, 2006			
1	The Role of the Parser,	<b>From 1/02/23 To 25/02/23</b>	<b>Lecture Interspersed With discussions</b>
2	Context-Free Grammars,		
3	Parse Trees		
4	Left Recursion, Left Factoring,		
5	Pre Processing Steps of Top Down Parsing		
6	Backtracking, , Derivations		
7	Recursive Descent Parsing		
8	Ambiguity		
9	Backtracking,		
10	LL (1) Grammars, Non-recursive Predictive Parsing		
11	Error Recovery in Predictive Parsing		
<b>UNIT-III: Bottom Up Parsing</b>			
<b>CO3:</b> Organize Syntax Analysis, Top Down and LL(1) grammars			
<b>TB :</b> Modern compiler implementation in C, Andrew W Appel, Revised edition, Cambridge University Press. 3			



1	Introduction, Difference between LR and LL Parsers,	<b>From</b> <b>27/02/23</b> <b>To</b> <b>28/03/23</b>	<b>Lecture</b> <b>Interspersed</b> <b>With</b> <b>discussions</b>
2	Types of LR Parsers		
3	SLR Parsers		
4	Construction of SLR Parsing Tables		
5	More Powerful LR Parses		
6	Construction of CLR (1) and LALR Parsing Tables		
7	Dangling Else Ambiguity,		
8	Error Recovery in LR Parsing,		
9	Handling Ambiguity Grammar with LR Parsers.		
10	Syntax-Directed Definitions		
11	Evaluation Orders for SDD's		
12	Applications of Syntax Directed Translation		
13	Syntax-Directed Translation Schemes		
14	Implementing L-Attributed SDD's.		
15	Intermediate Code Generation: Variants of Syntax Trees		
16	Three Address Code,		
17	Types and Declarations		
18	Translation of Expressions,		
10	Type Checking, Control Flow		
19	Backpatching		
20	Intermediate Code for Procedures.		

**UNIT-IV: Run Time Environments**

**CO 4:** Design Bottom Up Parsing and Construction of LR parsers

**TB :** Optimizing Compilers for Modern Architectures, Randy Allen, Ken Kennedy, Morgan Kauffmann, 2001

1.	Storage Organization.	<b>From</b> <b>29/03/23</b> <b>To</b> <b>17/04/23</b>	<b>Lecture</b> <b>Interspersed</b> <b>With</b> <b>discussions</b>
2.	Run Time Storage Allocation.		
3.	Activation Records ,Procedure Calls		
4.	Displays, Code Optimization		
5.	The Principle Sources of Optimization		
6.	Data-Flow Analysis		
7.	Basic Blocks, Optimization of Basic Blocks.		
8.	Structure Preserving Transformations.		
9.	Flow Graphs, Loop Optimization.		
10.	Peephole Optimization.		

**UNIT-V: Code Generation**

**CO5 :** Analyze synthesized, inherited attributes and syntax directed translation schemes

**TB :** Levine, J.R., T. Mason and D. Brown, Lex and Yacc, edition, O'Reilly & Associates, 1990

1	Issues in the Design of a Code	<b>From</b>	
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	Generator.	18/04/23 To 07/05/22	Lecture Interspersed With discussions
2	Object Code Forms, eGeneration Algorithm,		
3	Code Generation Algorithm,		
4	Register Allocation and Assignment.		

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6/3/23

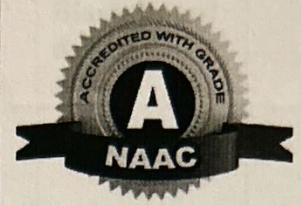
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Signature of HOD 6/3/23





**SRK INSTITUTE OF TECHNOLOGY**  
Enikepadu, Vijayawada 521108  
Approved by AICTE, Affiliated to JNTUK, Kakinada  
(ISO 9001:2015 Certified Institution)  
Accredited with NAAC 'A' grade  
Department of Computer Science and Engineering



**TENTATIVE LESSON PLAN: R2032053**

<b>Course Title: CRYPTOGRAPHY AND NETWORK SECURITY</b>		
<b>Section : CSE-A</b>	<b>Date :9/1/2023</b>	<b>Page No : 01 of 03</b>
<b>Revision No : 01</b>	<b>Prepared by: K. Jyothi</b>	<b>Approved by : HOD</b>

**Tools: Black board, PPTs**

**UNIT 1: Basic Principles**

**CO1 :** Explain different security threats and countermeasures and foundation course of cryptography mathematics.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill,2015.

<b>No. of periods</b>	<b>TOPIC</b>	<b>Expected Date</b>	<b>Mode of Delivery</b>
1.	Security Goals	<b>From:</b> 9-1-2023 <b>To:</b> 28-1-2023	<b>Black board &amp; PPT</b>
2.	Cryptographic Attacks		
3.	Services and Mechanisms		
4.	Mathematics of Cryptography		
5.	System Boot, Tutorial		

**UNIT 2: Symmetric Encryption**

**CO2:** Classify the basic principles of symmetric key algorithms and operations of some symmetric key algorithms and asymmetric key cryptography.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill,2015.

<b>No. of periods</b>	<b>TOPIC</b>	<b>ExpectedDate</b>	<b>Mode of Delivery</b>
6.	Mathematics of Symmetric key Cryptography		



7.	Introduction to Modern Symmetric Key Ciphers	FROM: 30-01-2023 TO: 15-2-2023	Black Board & PPT
8.	Data Encryption Standard		
9.	Advanced Encryption Standard		

### UNIT 3: Asymmetric Encryption

**CO 3:** Revise the basic principles of public key algorithms and working operations of some Asymmetric key algorithms such as RSA,ECC and some more.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill,2015.

No. of periods	TOPIC	Expected Date	Mode of Delivery
10.	Mathematics of Asymmetric key Cryptography	FROM:	Black Board & PPT
11.	Asymmetric key Cryptography	16-2-2023	
		TO:22-3-2023	

### UNIT 4: Data Integrity, Digital Signature Schemes & Key Management

**CO4:** Design applications of hash algorithms, digital signatures and key management techniques.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill,2015

No. of periods	TOPIC	Expected Date	Mode of Delivery
12.	Message Integrity and Message Authentication	FROM: 23-3-2023 TO:13-4-2023	Black Board & PPT
13.	Cryptographic Hash functions		
14.	Digital Signature		
15.	Key Management		

### UNIT 5: Network Security- I, Network Security- II,

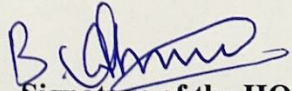
**CO5:** Determine the knowledge of Application layer, Transport layer and network layer security protocols such as PGP, S/MIME,SSL,TSL, and IPsec.



**TB: Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill,2015**

<b>No. of periods</b>	<b>TOPIC</b>	<b>Expected Date</b>	<b>Mode of Delivery</b>
16.	Security at Application layer: PGP and S/MIME	<b>FROM:</b>	<b>Black Board &amp; PPT</b>
17.	Security at Transport layer: SSL and TLS	<b>17-4-2023</b>	
18.	Security at Network layer: IP Sec , System Security	<b>TO:</b> <b>3-5-2023</b>	

  
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**SRK INSTITUTE OF TECHNOLOGY**  
**Enikepadu, Vijayawada 521108**  
**Department of Computer Science Engineering**  
**TENTATIVE LESSONPLAN**

**TENTATIVE LESSON PLAN: R203205C**

<b>Course Title: OBJECT ORIENTED ANALYSIS AND DESIGN(OOAD)</b>		
<b>Section : CSE-A</b>	<b>Date :09/01/2023</b>	<b>Page No : 01 of 03</b>
<b>Revision No : 01</b>	<b>Prepared by:D.Sailaja</b>	<b>Approved by : HOD</b>

**Tools: Black board, PPTs**

**UNIT 1: Introduction**

**CO1 :** Become familiar with all phases of OOAD

**TB:** Grady BOOCH, Robert A. Maksimchuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston , “**Object- Oriented Analysis and Design with Applications**”, 3rd edition,2013, PEARSON.

No. of periods	TOPIC	Expected Date	Mode of Delivery
1.	The Structure of Complex systems	FROM: 09-01-2023  TO 30-01-2023	Black Board & PPT
2.	The Inherent Complexity of Software		
3.	Attributes of Complex System		
4.	Organized and Disorganized Complexity		
5.	Bringing Order to Chaos		
6.	Designing Complex Systems		
7.	<b>Case Study:</b> System Architecture: Satellite-Based Navigation		

**UNIT 2: Introduction to UML, Basic Structural Modeling**

**CO2:** Master the main features of the UML

**TB:** Grady BOOCH, Robert A. Maksim Chuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston , “**Object- Oriented Analysis and Design with Applications**”, 3rd edition,2013, PEARSON.

No. of periods	TOPIC	Date	Mode of Delivery
8.	Importance of modeling	FROM: 31-01-2023	Black Board & PPT
9.	Principles of modeling		
10.	Object oriented modeling		
11.	Conceptual model of the UML		
12.	Architecture, and Software Development Life		





## SRK INSTITUTE OF TECHNOLOGY

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Department of Computer Science Engineering

TENTATIVE LESSONPLAN

	Cycle.		
13.	Basic Structural Modeling: Classes	<b>TO:</b> <b>22-02-2023</b>	
14.	Basic Structural Modeling: Relationships		
15.	Basic Structural Modeling: Common Mechanisms, and diagrams.		
16.	<b>Case Study:</b> Control System: Traffic Management.		

### UNIT 3: Class & Object Diagrams, Advanced Structural Modeling

**CO 3:** Master the main concepts of Object Technologies and how to apply them at work and develop the ability to analyze and solve challenging problem in various domains.

**TB:** Grady BOOCH, Robert A. Maksim Chuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston , “Object- Oriented Analysis and Design with Applications”, 3rd edition, 2013, PEARSON.

No. of periods	TOPIC	Date	Mode of Delivery
17.	Class & Object Diagrams: Terms	<b>FROM:</b> <b>23-02-2023</b>  <b>TO:</b> <b>25-03-2023</b>	<b>Black Board &amp; PPT</b>
18.	Class & Object Diagrams: Concepts		
19.	Class & Object Diagrams: Modeling techniques for Class & Object Diagrams.		
20.	Advanced Structural Modeling: Advanced classes		
21.	Advanced Structural Modeling: Advanced Relationships		
22.	Advanced Structural Modeling: Interfaces		
23.	Advanced Structural Modeling: Types and Roles		
24.	Advanced Structural Modeling: Packages		
25.	<b>Case Study:</b> AI: Cryptanalysis		

### UNIT 4: Basic Behavioral Modeling - I

**CO 4:** Master the main concepts of Object Technologies and how to apply them at work and develop the ability to analyze and solve challenging problem in various domains.

**TB:** Grady BOOCH, Robert A. Maksim Chuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston , “Object- Oriented Analysis and Design with Applications”, 3rd edition, 2013, PEARSON.





# SRK INSTITUTE OF TECHNOLOGY

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Department of Computer Science Engineering

TENTATIVE LESSONPLAN

No. of periods	TOPIC	Date	Mode of Delivery
26.	Basic Behavioral Modeling-I: Interactions	<b>FROM:</b> 27-03-2023  <b>TO:</b> 13-04-2023	<b>Black Board &amp; PPT</b>
27.	Basic Behavioral Modeling-I: Interaction diagrams		
28.	Basic Behavioral Modeling-I: Use cases		
29.	Basic Behavioral Modeling-I: Use case Diagrams		
30.	Basic Behavioral Modeling-I: Activity Diagrams		
31.	<b>Case Study:</b> Web Application: Vacation Tracking System		

## UNIT 5: Advanced Behavioral Modelling & Architectural Modelling

**CO5:** Learn the Object design Principles and understand how to apply them towards implementation.  
**TB:** Grady BOOCH, Robert A. Maksim Chuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston , “Object- Oriented Analysis and Design with Applications”, 3rd edition,2013, PEARSON.

No. of periods	TOPIC	Date	Mode of Delivery
32.	Advanced Behavioral Modeling: Events and signals	<b>FROM:</b> 17-04-2023  <b>TO:</b> 03-05-2023	<b>Black Board &amp; PPT</b>
33.	Advanced Behavioral Modeling: state machines		
34.	Advanced Behavioral Modeling: processes and Threads		
35.	Advanced Behavioral Modeling: time and space		
36.	Advanced Behavioral Modeling: state chart diagrams.		
37.	Architectural Modeling: Component		
38.	Architectural Modeling: Deployment		
39.	Architectural Modeling: Component diagrams		
40.	Architectural Modeling: Deployment diagrams		
41.	<b>Case Study:</b> Weather Forecasting		

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**TENTATIVE LESSON PLAN:  
MEAN STACK DEVELOPMENT**

<b>Course Title : MEAN STACK DEVELOPMENT</b>		
<b>Section : CSE- A</b>	<b>Date : 09/1/2023</b>	
<b>Revision No : 00</b>	<b>Prepared By : J.SIVA NAGA JYOTHI</b>	<b>Approved By : HOD</b>

**Tools: Black Board**

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT-1: HTML5.</b> <b>CO-1: Buil Stactic Programming HTML 5 elements.</b> <b>Text Book:</b> 1) Programming the World Wide Web, 7th Edition, Robet W Sebesta, Pearson. 2. Pro Mean Stack Development, 1st Edition, ELadElrom, Apress O'Reilly.			
1.	Introduction to Web, Overview of Web Technologies	<b>From</b>  <b>9-01-2023</b> <b>To</b> <b>31-01-2023</b>	Lecture interspersed with discussions
2.	HTML - Introduction, HTML - Need, Case-insensitivity, Platform-independency		
3.	DOCTYPE Declaration, Types of Elements, HTML Elements		
4.	Attributes, Metadata Element, Sectioning Elements, Paragraph Element		
5.	Division and Span Elements, List Element, Link Element, Character Entities		
6.	HTML5 Global Attributes, Creating Table Elements, Table Elements : Colspan/ Rowspan Attributes		
7.	Border, cellpadding and cellspacing attributes, Creating Form Elements, Input Elements - Attributes		
8.	Color and Date Pickers, Select and Datalist Elements, Editing Elements		
9.	Media, Why HTML Security		
10.	HTML Injection, Clickjacking		
11.	Iframe		
12.	HTML5 Attributes & Events Vulnerabilities,		
13.	Local Storage Vulnerabilities		
14.	HTML5 - Cross-browser support, Best Practices For HTML Web Pages		
<b>UNIT-2: Java Script</b> <b>CO-1: Apply JavaScript to embed programming interface for web pages and also to perform Client side validations</b> <b>Text Book:</b> Full Stack JavaScript Development with MEAN, Colin J Ihrig, Adam Bretz, 1st edition, SitePoint, SitePoint Pty. Ltd., O'Reilly Media 1)			
15.	Why we need JavaScript, What is JavaScript, Environment Setup, Working with Identifiers	<b>From</b>  <b>01-02-2023</b> <b>To</b> <b>25-02-2023</b>	Lecture interspersed with discussions
16.	Type of Identifiers, Primitive and Non Primitive Data Types		
17.	Operators and Types of Operators		
18.	Types of Statements, Non - Conditional Statements, Types of Conditional Statements, If and Switch Statements		
19.	Types of Loops, Types of Functions, Declaring and Invoking Function		
20.	Arrow Function, Function Parameters, Nested Function		
21.	Built-in Functions, Variable Scope in Functions		
22.	Working With Classes, Creating and Inheriting Classes		
23.	In-built Events and Handlers		
24.	Working with Objects, Types of Objects		
25.	Creating Objects, Combining and cloning Objects using Spread operator		
26.	Destructuring Objects, Browser and Document Object Model		
27.	reating Arrays, Destructuring Arrays, Accessing Arrays, Array Methods		



28.	Introduction to Asynchronous Programming		
29.	Callbacks, Promises, Async and Await, Executing Network Requests using Fetch API		
30.	Creating and consuming Modules		

### UNIT –3 : Node. Js and Express.JS.

**CO-2:** To build a basic web server using Node.js, work with Node Package Manager (NPM) and recognize the need for Express.js

**Text Book:**

- 1) The Comprehensive Guide to Server-Side JavaScript Programming

31.	Why and What Node.js, How to use Node.js	<b>From</b>  <b>26 -02-2023</b>  <b>To</b>  <b>4-03-2023</b>  <b>From:</b> <b>13-03-2023</b>  <b>To</b> <b>01-04-2023</b>	Lecture interspersed with discussions
32.	Create a web server in Node.js, Node Package Manager		
33.	Modular programming in Node.js		
34.	Restarting Node Application, File Operations		
35.	Express Development Environment, Defining a route, Handling Routes		
36.	Route and Query Parameters		
37.	How Middleware works, Chaining of Middlewares, Types of Middlewares,		
38.	Connecting to MongoDB with Mongoose, Validation Types and Defaults		
39.	Models, CRUD Operations, API Development		
40.	Why Session management, Cookies, Sessions		
41.	Why and What Security, Helmet Middleware		
42.	Using a Template Engine Middleware, Stylus CSS Preprocessor		

### UNIT – 4:, Typescript, MongoDB

**CO-2:** Develop JavaScript applications using typescript and work with document database using MongoDB.

**Text Book:**

1. MongoDB – The Definitive Guide, 2nd Edition, Kristina Chodorow, O'Reilly
2. Programming Typescript Boris Cherny

No. of Periods	TOPIC	DATE	Mode of Delivery
43.	Installing TypeScript, Basics of TypeScript, Function, Parameter Types and Return Types	<b>From</b> <b>03-04-2023</b> <b>To</b> <b>24-04-2023</b>	Lecture interspersed with discussions
44.	Arrow Function, Function Types, Optional and Default Parameters, Rest Parameter		
45.	Creating an Interface, Duck Typing, Function Types		
46.	Extending Interfaces, Classes, Constructor, Access Modifiers, Properties and Methods		
47.	Creating and using Namespaces, Creating and using Modules, Module Formats and Loaders		
48.	Module Vs Namespace, What is Generics, What are Type Parameters, Generic Functions		
49.	Generic Constraints		
50.	Module Vs Namespace, What is Generics, What are Type Parameters, Generic Functions		



51.	Generic Constraints		
52.	Introduction Module Overview, Document Database Overview		
53.	Understanding JSON, MongoDB Structure and Architecture		
54.	MongoDB Remote Management, Installing MongoDB on the local computer (Mac or Windows)		
55.	Introduction to MongoDB Cloud, Create MongoDB Atlas Cluster		
56.	GUI tools Overview, Install and Configure MongoDB Compass		
57.	Introduction to the MongoDB Shell, MongoDB Shell JavaScript Engine		
58.	MongoDB Shell JavaScript Syntax, Introduction to the MongoDB Data Types		
59.	Introduction to the CRUD Operations on documents		
60.	Create and Delete Databases and Collections, Introduction to MongoDB Queries.		


**UNIT – 5: Angular.JS**

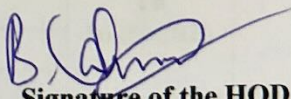
**CO-3 :** To design dynamic and responsive web pages using Angular.js

**Text Book:**

Angular Js, Brad Green, Shyam Seshadri

61.	What is Angular, Features of Angular, Angular Application Setup	<p><b>From</b> 25-04-2023</p> <p><b>To</b> 06-05-2023</p> <p>Lecture interspersed with discussions</p>
62.	Components and Modules, Executing Angular Application	
63.	Elements of Template, Change Detection, Structural Directives	
64.	ngIf, ngFor, ngSwitch, Custom Structural Directive	
65.	Attribute Directives - ngStyle, ngClass, Custom Attribute Directive, Property Binding, Attribute Binding	
66.	Style and Event Binding, Built in Pipes, Passing Parameters to Pipes	
67.	Nested Components Basics, Passing data from Container Component to Child Component	
68.	Passing data from Child Component to ContainerComponent	
69.	Shadow DOM, Component Life Cycle, Template Driven Forms	
70.	Model Driven Forms or Reactive Forms, Custom Validators in Reactive Forms	
71.	Custom Validators in Template Driven forms	
72.	Dependency Injection, Services Basics, RxJS Observables	
73.	Server Communication using HttpClient	
74.	Communicating with different backend services using Angular HttpClient	
75.	, Routing Basics, Router Links, Route Guards	
76.	Asynchronous Routing, Nested Routes.	

  
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**TENTATIVE LESSON PLAN  
MEAN STACK DEVELOPMENT**

<b>Course Title : MEAN STACK DEVELOPMENT</b>		
<b>Section : CSE-A</b>	<b>Date : 06-02-2023</b>	
<b>Revision No : 00</b>	<b>Prepared By : J.Siva Naga Jyothi</b>	<b>Approved By : HOD</b>

**Tools: Black Board**

No. of Periods	TOPIC	Date	Mode of Delivery
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**UNIT-1: HTML5.**

**CO-1:** Buil Stactic Programming HTML 5 elements.

**Text Book:**

- 1) Programming the World Wide Web, 7th Edition, Robet W Sebesta, Pearson. 2. Pro Mean Stack Development, 1st Edition, ELadElrom, Apress O'Reilly.

1.	Introduction to Web, Overview of Web Technologies	<b>02-01-2023 TO 25-01-2023</b>	Lecture interspersed with discussions
2.	HTML - Introduction, HTML - Need, Case-insensitivity, Platform-independency		
3.	DOCTYPE Declaration, Types of Elements, HTML Elements		
4.	Attributes, Metadata Element, Sectioning Elements, Paragraph Element		
5.	Division and Span Elements, List Element, Link Element, Character Entities		
6.	HTML5 Global Attributes, Creating Table Elements, Table Elements : Colspan/ Rowspan Attributes		
7.	Border, cellpadding and cellspacing attributes, Creating Form Elements, Input Elements - Attributes		
8.	Color and Date Pickers, Select and Datalist Elements, Editing Elements		
9.	Media, Why HTML Security		
10.	HTML Injection, Clickjacking		
11.	Iframe		
12.	HTML5 Attributes & Events Vulnerabilities,		
13.	Local Storage Vulnerabilities		
14.	HTML5 - Cross-browser support, Best Practices For HTML Web Pages		

**UNIT-2: Java Script**

**CO-1:** Apply JavaScript to embed programming interface for web pages and also to perform Client side validations

**Text Book:** Full Stack JavaScript Development with MEAN, Colin J Ihrig, Adam Bretz, 1st edition, SitePoint, SitePoint Pty. Ltd., O'Reilly Media

1)

15.	Why we need JavaScript, What is JavaScript, Environment Setup, Working with Identifiers	<b>26-01-2023 To 16-02-2023</b>	Lecture interspersed with discussions
16.	Type of Identifiers, Primitive and Non Primitive Data Types		
17.	Operators and Types of Operators		
18.	Types of Statements, Non - Conditional Statements, Types of Conditional Statements, If and Switch Statements		
19.	Types of Loops, Types of Functions, Declaring and Invoking Function		
20.	Arrow Function, Function Parameters, Nested Function		
21.	Built-in Functions, Variable Scope in Functions		
22.	Working With Classes, Creating and Inheriting Classes		
23.	In-built Events and Handlers		
24.	Working with Objects, Types of Objects		
25.	Creating Objects, Combining and cloning Objects using Spread operator		
26.	Destructuring Objects, Browser and Document Object Model		
27.	reating Arrays, Destructuring Arrays, Accessing Arrays, Array Methods		



28.	Introduction to Asynchronous Programming		
29.	Callbacks, Promises, Async and Await, Executing Network Requests using Fetch API		
30.	Creating and consuming Modules		

**UNIT –3 : Node. Js and Express.JS.**

**CO-2:** To build a basic web server using Node.js, work with Node Package Manager (NPM) and recognize the need for Express.js

**Text Book:**

- 1) The Comprehensive Guide to Server-Side JavaScript Programming

31.	Why and What Node.js, How to use Node.js	<b>17-02-2023 TO 25-02-2023</b>  <b>&amp;</b>  <b>06-03-2023 To 16-03-2023</b>	Lecture interspersed with discussions
32.	Create a web server in Node.js, Node Package Manager		
33.	Modular programming in Node.js		
34.	Restarting Node Application, File Operations		
35.	Express Development Environment, Defining a route, Handling Routes		
36.	Route and Query Parameters		
37.	How Middleware works, Chaining of Middlewares, Types of Middlewares,		
38.	Connecting to MongoDB with Mongoose, Validation Types and Defaults		
39.	Models, CRUD Operations, API Development		
40.	Why Session management, Cookies, Sessions		
41.	Why and What Security, Helmet Middleware		
42.	Using a Template Engine Middleware, Stylus CSS Preprocessor		

**UNIT – 4:, Typescript, MongoDB**

**CO-2:** Develop JavaScript applications using typescript and work with document database using MongoDB.

**Text Book:**

1. MongoDB – The Definitive Guide, 2nd Edition, Kristina Chodorow, O'Reilly
2. Programming Typescript Boris Cherny

No. of Periods	TOPIC	DATE	Mode of Delivery
43.	Installing TypeScript, Basics of TypeScript, Function, Parameter Types and Return Types	<b>17-03-2023 TO 10-04-2023</b>	Lecture interspersed with discussions
44.	Arrow Function, Function Types, Optional and Default Parameters, Rest Parameter		
45.	Creating an Interface, Duck Typing, Function Types		
46.	Extending Interfaces, Classes, Constructor, Access Modifiers, Properties and Methods		
47.	Creating and using Namespaces, Creating and using Modules, Module Formats and Loaders		
48.	Module Vs Namespace, What is Generics, What are Type Parameters, Generic Functions		
49.	Generic Constraints		
50.	Module Vs Namespace, What is Generics, What are Type Parameters, Generic Functions		



51.	Generic Constraints		
52.	Introduction Module Overview, Document Database Overview		
53.	Understanding JSON, MongoDB Structure and Architecture		
54.	MongoDB Remote Management, Installing MongoDB on the local computer (Mac or Windows)		
55.	Introduction to MongoDB Cloud, Create MongoDB Atlas Cluster		
56.	GUI tools Overview, Install and Configure MongoDB Compass		
57.	Introduction to the MongoDB Shell, MongoDB Shell JavaScript Engine		
58.	MongoDB Shell JavaScript Syntax, Introduction to the MongoDB Data Types		
59.	Introduction to the CRUD Operations on documents		
60.	Create and Delete Databases and Collections, Introduction to MongoDB Queries.		

**UNIT – 5: Angular.JS**

**CO-3 :** To design dynamic and responsive web pages using Angular.js

**Text Book:**

Angular Js, Brad Green, Shyam Seshadri

61.	What is Angular, Features of Angular, Angular Application Setup	<b>11-04-2023 TO 28-04-2023</b>	Lecture interspersed with discussions
62.	Components and Modules, Executing Angular Application		
63.	Elements of Template, Change Detection, Structural Directives		
64.	ngIf, ngFor, ngSwitch, Custom Structural Directive		
65.	Attribute Directives - ngStyle, ngClass, Custom Attribute Directive, Property Binding, Attribute Binding		
66.	Style and Event Binding, Built in Pipes, Passing Parameters to Pipes		
67.	Nested Components Basics, Passing data from Container Component to Child Component		
68.	Passing data from Child Component to ContainerComponent		
69.	Shadow DOM, Component Life Cycle, Template Driven Forms		
70.	Model Driven Forms or Reactive Forms, Custom Validators in Reactive Forms		
71.	Custom Validators in Template Driven forms		
72.	Dependency Injection, Services Basics, RxJS Observables		
73.	Server Communication using HttpClient		
74.	Communicating with different backend services using Angular HttpClient		
75.	, Routing Basics, Router Links, Route Guards		
76.	Asynchronous Routing, Nested Routes.		

Signature of the Faculty

B. [Signature]  
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**TENTATIVE LESSON PLAN: R2032051**  
**MACHINE LEARNING**

<b>Course Title : MACHINE LEARNING</b>		
<b>Section : CSE B</b>	<b>Date : 06-02-2023</b>	
<b>Revision No : 00</b>	<b>Prepared By : Dr.A.Radhika</b>	<b>Approved By : HOD</b>

**Tools: Black Board**

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT-1: Introduction.</b>			
<b>CO-1:</b> Explain the fundamental usage of the concept Machine Learning system			
<b>Text Book:</b>			
1) Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.			
2) Data Science and Machine Learning Mathematical and Statistical Methods, Dirk P. Kroese, Zdravko I. Botev, Thomas Taimre, Radislav Vaisman, 25th November 2020			
1.	Introduction to - Artificial Intelligence	<b>09-01-2023 TO 25-01-2023</b>	Lecture interspersed with discussions
2.	Introduction to - Machine Learning, Deep learning		
3.	Difference between Artificial Intelligence, Machine Learning, Deep learning.		
4.	Types of Machine Learning Systems		
5.	Main Challenges of Machine Learning		
6.	Introduction to Statistical Learning		
7.	Supervised and Unsupervised Learning		
8.	Training and Test Loss		
9.	Tradeoffs in Statistical Learning		
10.	Estimating Risk Statistics		
11.	Sampling distribution of an estimator		
12.	Empirical Risk Minimization		
<b>UNIT-2: Supervised Learning(Regression/Classification):</b>			
<b>CO-2:</b> Demonstrate on various regression Technique ,SVM, MNIST, Ranking.			
<b>Text Book :</b> Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.			
13.	Basic Methods: Distance based Methods	<b>27-01-2023 To 22-02-2023</b>	Lecture interspersed with discussions
14.	Nearest Neighbors		
15.	Decision Trees		
16.	Naive Bayes		
17.	Linear Models: Linear Regression		
18.	Logistic Regression		
19.	Generalized Linear Models		
20.	Support Vector Machines		
21.	Binary Classification		
22.	Multiclass/Structured outputs		
23.	MNIST		
24.	Ranking		
<b>UNIT -3 : Ensemble Learning and Random Forests</b>			
<b>CO-3:</b> Analyze the Ensemble Learning Methods and Random Forests			
<b>Text Book :</b> Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.			
25.	Introduction to Ensemble Learning and Random Forests	<b>23-02-2023 To 04-03-2023</b>	Lecture interspersed with discussions
26.	Voting Classifiers		
27.	Bagging and Pasting		
28.	Random Forests	&	



29.	Boosting	13-03-2023 To 22-03-2023	
30.	Stacking		
31.	Support Vector Machine: Linear SVM Classification		
32.	Nonlinear SVM Classification		
33.	SVM Regression		
34.	Naïve Bayes Classifiers		

**UNIT – 4: Unsupervised Learning Techniques**

**CO-4:** Illustrate the Clustering Techniques and Dimensionality Reduction Models in Machine Learning

**Text Book :** Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.

No. of Periods	TOPIC	DATE	Mode of Delivery
35.	Unsupervised Learning Techniques: Clustering	23-03-2023 TO 18-04-2023	Lecture interspersed with discussions
36.	K-Means, Limits of K-Means		
37.	Using Clustering for Image Segmentation		
38.	Using Clustering for Preprocessing		
39.	Using Clustering for Semi-Supervised Learning		
40.	DBSCAN		
41.	Gaussian Mixtures		
42.	Dimensionality Reduction: The Curse of Dimensionality		
43.	PCA		
44.	Using Scikit-Learn		
45.	Randomized PCA		
46.	Kernel PCA		

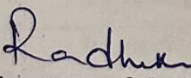
**UNIT – 5: Neural Networks and Deep Learning**

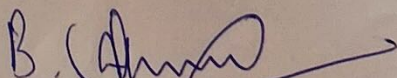
**CO-5 :** Discuss the Neural Network Models and Fundamentals concepts of Deep Learning

**Text Book:**

- 1) Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, 2nd Edition, O'Reilly Publications, 2019.

47.	Introduction to Artificial Neural Networks with Keras	19-04-2023 TO 06-05-2023	Lecture interspersed with discussions
48.	Implementing MLPs with Keras		
49.	Installing TensorFlow 2		
50.	Loading and Preprocessing Data with TensorFlow		

  
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**TENTATIVE LESSON PLAN: ( R2032052)**

<b>Course Title: COMPILER DESIGN</b>		
<b>Section: III CSE-B II-SEM</b>	<b>Date: 09-01-2023</b>	<b>Page No: 01 of 04</b>
<b>Revision No: 00</b>	<b>Prepared By: R.LAKSHMI</b>	<b>Approved By: HOD</b>

**Tools: MS Teams, PPTs, Moodle**

No. of Periods	Topic	Date	Mode of Delivery
<b>Unit-1: Lexical Analysis</b> <b>CO1:</b> At the end of the course, student will be able to Demonstrate phases in the design of compiler <b>TB:</b> Compilers: Principles, Techniques and Tools, Second Edition, Alfred V. Aho, Monica S. Lam, Ravi Sethi, Jeffry D. Ullman, Pearson Publishers, 2007.			
1	Language Processors.	<b>From 18/1/2023 TO 30/1/2023</b>	<b>Lecture Interspersed With discussions</b>
2	Lexical Analysis, Structure of a Compiler.		
3	Bootstrapping.		
4	Specification of Tokens.		
5	Recognition of Tokens.		
6	The Role of Lexical Analyzer.		
7	Input Buffering.		
8	Lexical Analyzer Generator-LEX.		
9	Finite Automata.		
10	Regular Expressions and Finite Automata		
11	Design of a Lexical Analyzer Generator.		
<b>UNIT-II: Syntax Analysis</b> <b>CO2:</b> Organize Syntax Analysis, Top Down and LL(1) grammars <b>TB:</b> Compiler Construction, Principles and Practice, Kenneth C Louden, Cengage Learning, 2006			
1	The Role of the Parser,	<b>From 1/02/23 To 25/02/23</b>	<b>Lecture Interspersed With discussions</b>
2	Context-Free Grammars,		
3	Parse Trees		
4	Left Recursion, Left Factoring,		
5	Pre Processing Steps of Top Down Parsing		
6	Backtracking, , Derivations		
7	Recursive Descent Parsing		
8	Ambiguity		
9	Backtracking,		
10	LL (1) Grammars, Non-recursive Predictive Parsing		
11	Error Recovery in Predictive Parsing		
<b>UNIT-III: Bottom Up Parsing</b> <b>CO3:</b> Organize Syntax Analysis, Top Down and LL(1) grammars <b>TB :</b> Modern compiler implementation in C, Andrew W Appel, Revised edition, Cambridge University Press. 3			



1	Introduction, Difference between LR and LL Parsers,	<b>From</b> <b>27/02/23</b> <b>To</b> <b>28/03/23</b>	<b>Lecture</b> <b>Interspersed</b> <b>With</b> <b>discussions</b>
2	Types of LR Parsers		
3	SLR Parsers		
4	Construction of SLR Parsing Tables		
5	More Powerful LR Parses		
6	Construction of CLR (1) and LALR Parsing Tables		
7	Dangling Else Ambiguity,		
8	Error Recovery in LR Parsing,		
9	Handling Ambiguity Grammar with LR Parsers.		
10	Syntax-Directed Definitions		
11	Evaluation Orders for SDD's		
12	Applications of Syntax Directed Translation		
13	Syntax-Directed Translation Schemes		
14	Implementing L-Attributed SDD's.		
15	Intermediate Code Generation: Variants of Syntax Trees		
16	Three Address Code,		
17	Types and Declarations		
18	Translation of Expressions,		
10	Type Checking, Control Flow		
19	Backpatching		
20	Intermediate Code for Procedures.		

**UNIT-IV: Run Time Environments**

**CO 4:** Design Bottom Up Parsing and Construction of LR parsers

**TB :** Optimizing Compilers for Modern Architectures, Randy Allen, Ken Kennedy, Morgan Kauffmann, 2001

1.	Storage Organization.	<b>From</b> <b>29/03/23</b> <b>To</b> <b>17/04/23</b>	<b>Lecture</b> <b>Interspersed</b> <b>With</b> <b>discussions</b>
2.	Run Time Storage Allocation.		
3.	Activation Records ,Procedure Calls		
4.	Displays, Code Optimization		
5.	The Principle Sources of Optimization		
6.	Data-Flow Analysis		
7.	Basic Blocks, Optimization of Basic Blocks.		
8.	Structure Preserving Transformations.		
9.	Flow Graphs, Loop Optimization.		
10.	Peephole Optimization.		

**UNIT-V: Code Generation**

**CO5 :** Analyze synthesized, inherited attributes and syntax directed translation schemes

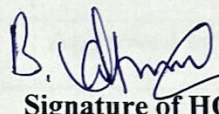
**TB :** Levine, J.R., T. Mason and D. Brown, Lex and Yacc, edition, O'Reilly & Associates, 1990

1	Issues in the Design of a Code	<b>From</b>	
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	Generator.	18/04/23 To 07/05/22	Lecture Interspersed With discussions
2	Object Code Forms, eGeneration Algorithm,		
3	Code Generation Algorithm,		
4	Register Allocation and Assignment.		

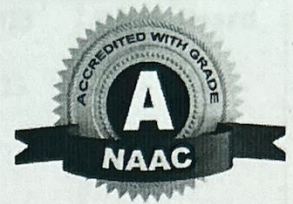
  
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Signature of HOD





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 Accredited with NAAC 'A' grade  
 Department of Computer Science and Engineering



**TENTATIVE LESSON PLAN: R2032053**

<b>Course Title: CRYPTOGRAPHY AND NETWORK SECURITY</b>		
<b>Section :CSE- B</b>	<b>Date : 9/1/2023</b>	<b>Page No : 01 of 03</b>
<b>Revision No : 01</b>	<b>Prepared by: K. Jyothi</b>	<b>Approved by : HOD</b>

**Tools: Black board, PPTs**

**UNIT 1: Basic Principles**

**CO1 :** Explain different security threats and countermeasures and foundation course of cryptography mathematics.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill,2015.

No. of periods	TOPIC	Expected Date	Mode of Delivery
1.	Security Goals	<b>From:</b> <b>9-1-2023</b>  <b>To:</b> <b>28-1-2023</b>	<b>Black board</b>  <b>&amp; PPT</b>
2.	Cryptographic Attacks		
3.	Services and Mechanisms		
4.	Mathematics of Cryptography		
5.	System Boot, Tutorial		

**UNIT 2: Symmetric Encryption**

**CO2:** Classify the basic principles of symmetric key algorithms and operations of some symmetric key algorithms and asymmetric key cryptography.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill,2015.

No. of periods	TOPIC	Expected Date	Mode of Delivery
6.	Mathematics of Symmetric key Cryptography	<b>FROM:</b>	



7.	Introduction to Modern Symmetric Key Ciphers	30-01-2023 TO: 15-2-2023	Black Board & PPT
8.	Data Encryption Standard		
9.	Advanced Encryption Standard		

**UNIT 3: Asymmetric Encryption**

**CO 3:** Revise the basic principles of public key algorithms and working operations of some Asymmetric key algorithms such as RSA, ECC and some more.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill, 2015.

No. of periods	TOPIC	Expected Date	Mode of Delivery
10.	Mathematics of Asymmetric key Cryptography	FROM: 16-2-2023 TO: 22-3-2023	Black Board & PPT
11.	Asymmetric key Cryptography		

**UNIT 4: Data Integrity, Digital Signature Schemes & Key Management**

**CO4:** Design applications of hash algorithms, digital signatures and key management techniques.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill, 2015

No. of periods	TOPIC	Expected Date	Mode of Delivery
12.	Message Integrity and Message Authentication	FROM: 23-3-2023 TO: 13-4-2023	Black Board & PPT
13.	Cryptographic Hash functions		
14.	Digital Signature		
15.	Key Management		

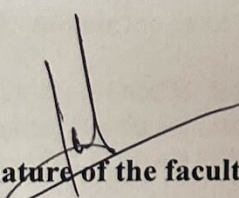


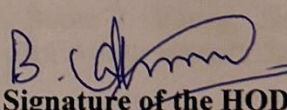
**UNIT 5: Network Security- I, Network Security- II,**

**CO5:** Determine the knowledge of Application layer, Transport layer and network layer security protocols such as PGP, S/MIME, SSL, TLS, and IPsec.

**TB:** Cryptography and Network security, 3<sup>rd</sup> edition Behrouz A Forouzan, Deb deep Mukhopadhyay, McGraw Hill, 2015

No. of periods	TOPIC	Expected Date	Mode of Delivery
16.	Security at Application layer: PGP and S/MIME	<b>FROM:</b> 17-4-2023 <b>TO:</b> 3-5-2023	<b>Black Board &amp; PPT</b>
17.	Security at Transport layer: SSL and TLS		
18.	Security at Network layer: IP Sec , System Security		

  
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**TENTATIVE LESSONPLAN**

**TENTATIVE LESSON PLAN: R203205C**

<b>Course Title: OBJECT ORIENTED ANALYSIS AND DESIGN(OOAD)</b>		
<b>Section : CSE-B</b>	<b>Date :09/01/2023</b>	<b>Page No : 01 of 03</b>
<b>Revision No : 01</b>	<b>Prepared by:D.Sailaja</b>	<b>Approved by : HOD</b>

**Tools: Black board, PPTs**

**UNIT 1: Introduction**

**CO1 :** Become familiar with all phases of OOAD

**TB:** Grady BOOCH, Robert A. Maksimchuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston , “Object- Oriented Analysis and Design with Applications”, 3rd edition,2013, PEARSON.

<b>No. of periods</b>	<b>TOPIC</b>	<b>Expected Date</b>	<b>Mode of Delivery</b>
1.	The Structure of Complex systems	<b>FROM:</b> 09-01-2023  <b>TO</b> 30-01-2023	<b>Black Board &amp; PPT</b>
2.	The Inherent Complexity of Software		
3.	Attributes of Complex System		
4.	Organized and Disorganized Complexity		
5.	Bringing Order to Chaos		
6.	Designing Complex Systems		
7.	<b>Case Study:</b> System Architecture: Satellite-Based Navigation		

**UNIT 2: Introduction to UML, Basic Structural Modeling**

**CO2:** Master the main features of the UML

**TB:** Grady BOOCH, Robert A. Maksim Chuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston , “Object- Oriented Analysis and Design with Applications”, 3rd edition,2013, PEARSON.

<b>No. of periods</b>	<b>TOPIC</b>	<b>Date</b>	<b>Mode of Delivery</b>
8.	Importance of modeling	<b>FROM:</b> 31-01-2023	
9.	Principles of modeling		
10.	Object oriented modeling		
11.	Conceptual model of the UML		
12.	Architecture, and Software Development Life		





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**TENTATIVE LESSONPLAN**

	Cycle.		
13.	Basic Structural Modeling: Classes	<b>TO:</b> <b>22-02-2023</b>	<b>Black Board &amp; PPT</b>
14.	Basic Structural Modeling: Relationships		
15.	Basic Structural Modeling: Common Mechanisms, and diagrams.		
16.	<b>Case Study:</b> Control System: Traffic Management.		

**UNIT 3: Class & Object Diagrams, Advanced Structural Modeling**

**CO 3:** Master the main concepts of Object Technologies and how to apply them at work and develop the ability to analyze and solve challenging problem in various domains.

**TB:** Grady BOOCH, Robert A. Maksim Chuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston, "Object- Oriented Analysis and Design with Applications", 3rd edition, 2013, PEARSON.

No. of periods	TOPIC	Date	Mode of Delivery
17.	Class & Object Diagrams: Terms	<b>FROM:</b> <b>23-02-2023</b>  <b>TO:</b> <b>25-03-2023</b>	<b>Black Board &amp; PPT</b>
18.	Class & Object Diagrams: Concepts		
19.	Class & Object Diagrams: Modeling techniques for Class & Object Diagrams.		
20.	Advanced Structural Modeling: Advanced classes		
21.	Advanced Structural Modeling: Advanced Relationships		
22.	Advanced Structural Modeling: Interfaces		
23.	Advanced Structural Modeling: Types and Roles		
24.	Advanced Structural Modeling: Packages		
25.	<b>Case Study:</b> AI: Cryptanalysis		

**UNIT 4: Basic Behavioral Modeling - I**

**CO 4:** Master the main concepts of Object Technologies and how to apply them at work and develop the ability to analyze and solve challenging problem in various domains.

**TB:** Grady BOOCH, Robert A. Maksim Chuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston, "Object- Oriented Analysis and Design with Applications", 3rd edition, 2013, PEARSON.





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TENTATIVE LESSONPLAN

No. of periods	TOPIC	Date	Mode of Delivery
26.	Basic Behavioral Modeling-I: Interactions	<b>FROM:</b> 27-03-2023  <b>TO:</b> 13-04-2023	<b>Black Board &amp; PPT</b>
27.	Basic Behavioral Modeling-I: Interaction diagrams		
28.	Basic Behavioral Modeling-I: Use cases		
29.	Basic Behavioral Modeling-I: Use case Diagrams		
30.	Basic Behavioral Modeling-I: Activity Diagrams		
31.	<b>Case Study:</b> Web Application: Vacation Tracking System		

## UNIT 5: Advanced Behavioral Modelling & Architectural Modelling

**CO5:** Learn the Object design Principles and understand how to apply them towards implementation.  
**TB:** Grady BOOCH, Robert A. Maksim Chuk, Michael W. ENGLE, Bobbi J. Young, Jim Conallen, Kellia Houston, "Object- Oriented Analysis and Design with Applications", 3rd edition, 2013, PEARSON.

No. of periods	TOPIC	Date	Mode of Delivery
32.	Advanced Behavioral Modeling: Events and signals	<b>FROM:</b> 17-04-2023  <b>TO:</b> 03-05-2023	<b>Black Board &amp; PPT</b>
33.	Advanced Behavioral Modeling: state machines		
34.	Advanced Behavioral Modeling: processes and Threads		
35.	Advanced Behavioral Modeling: time and space		
36.	Advanced Behavioral Modeling: state chart diagrams.		
37.	Architectural Modeling: Component		
38.	Architectural Modeling: Deployment		
39.	Architectural Modeling: Component diagrams		
40.	Architectural Modeling: Deployment diagrams		
41.	<b>Case Study:</b> Weather Forecasting		

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**TENTATIVE LESSON PLAN:  
MEAN STACK DEVELOPMENT**

<b>Course Title : MEAN STACK DEVELOPMENT</b>		
<b>Section : CSE- B</b>	<b>Date : 09/1/2023</b>	
<b>Revision No : 00</b>	<b>Prepared By : J.SIVA NAGA JYOTHI</b>	<b>Approved By : HOD</b>

**Tools: Black Board**

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT-1: HTML5.</b>			
<b>CO-1: Buil Stactic Programming HTML 5 elements.</b>			
<b>Text Book:</b>			
1) Programming the World Wide Web, 7th Edition, Robet W Sebesta, Pearson. 2. Pro Mean Stack Development, 1st Edition, ELadElrom, Apress O'Reilly.			
1.	Introduction to Web, Overview of Web Technologies	<b>From 9-01-2023 To 31-01-2023</b>	Lecture interspersed with discussions
2.	HTML - Introduction, HTML - Need, Case-insensitivity, Platform-independency		
3.	DOCTYPE Declaration, Types of Elements, HTML Elements		
4.	Attributes, Metadata Element, Sectioning Elements, Paragraph Element		
5.	Division and Span Elements, List Element, Link Element, Character Entities		
6.	HTML5 Global Attributes, Creating Table Elements, Table Elements : Colspan/ Rowspan Attributes		
7.	Border, cellpadding and cellspacing attributes, Creating Form Elements, Input Elements - Attributes		
8.	Color and Date Pickers, Select and Datalist Elements, Editing Elements		
9.	Media, Why HTML Security		
10.	HTML Injection, Clickjacking		
11.	Iframe		
12.	HTML5 Attributes & Events Vulnerabilities,		
13.	Local Storage Vulnerabilities		
14.	HTML5 - Cross-browser support, Best Practices For HTML Web Pages		
<b>UNIT-2: Java Script</b>			
<b>CO-1: Apply JavaScript to embed programming interface for web pages and also to perform Client side validations</b>			
<b>Text Book: Full Stack JavaScript Development with MEAN, Colin J Ihrig, Adam Bretz, 1st edition, SitePoint, SitePoint Pty. Ltd., O'Reilly Media</b>			
1)			
15.	Why we need JavaScript, What is JavaScript, Environment Setup, Working with Identifiers	<b>From 01-02-2023 To 25-02-2023</b>	Lecture interspersed with discussions
16.	Type of Identifiers, Primitive and Non Primitive Data Types		
17.	Operators and Types of Operators		
18.	Types of Statements, Non - Conditional Statements, Types of Conditional Statements, If and Switch Statements		
19.	Types of Loops, Types of Functions, Declaring and Invoking Function		
20.	Arrow Function, Function Parameters, Nested Function		
21.	Built-in Functions, Variable Scope in Functions		
22.	Working With Classes, Creating and Inheriting Classes		
23.	In-built Events and Handlers		
24.	Working with Objects, Types of Objects		
25.	Creating Objects, Combining and cloning Objects using Spread operator		
26.	Destructuring Objects, Browser and Document Object Model		
27.	reating Arrays, Destructuring Arrays, Accessing Arrays, Array Methods		



28.	Introduction to Asynchronous Programming		
29.	Callbacks, Promises, Async and Await, Executing Network Requests using Fetch API		
30.	Creating and consuming Modules		

### UNIT -3 : Node. Js and Express.JS.

**CO-2:** To build a basic web server using Node.js, work with Node Package Manager (NPM) and recognize the need for Express.js

**Text Book:**

- 1) The Comprehensive Guide to Server-Side JavaScript Programming

31.	Why and What Node.js, How to use Node.js	<b>From</b>  <b>26-02-2023</b>  <b>To</b> <b>4-03-2023</b>  <b>From:</b> <b>13-03-2023</b>  <b>To</b> <b>01-04-2023</b>	Lecture interspersed with discussions
32.	Create a web server in Node.js, Node Package Manager		
33.	Modular programming in Node.js		
34.	Restarting Node Application, File Operations		
35.	Express Development Environment, Defining a route, Handling Routes		
36.	Route and Query Parameters		
37.	How Middleware works, Chaining of Middlewares, Types of Middlewares,		
38.	Connecting to MongoDB with Mongoose, Validation Types and Defaults		
39.	Models, CRUD Operations, API Development		
40.	Why Session management, Cookies, Sessions		
41.	Why and What Security, Helmet Middleware		
42.	Using a Template Engine Middleware, Stylus CSS Preprocessor		

### UNIT - 4:, Typescript, MongoDB

**CO-2:** Develop JavaScript applications using typescript and work with document database using MongoDB.

**Text Book:**

1. MongoDB – The Definitive Guide, 2nd Edition, Kristina Chodorow, O'Reilly
2. Programming Typescript Boris Cherny

No. of Periods	TOPIC	DATE	Mode of Delivery
43.	Installing TypeScript, Basics of TypeScript, Function, Parameter Types and Return Types	<b>From</b> <b>03-04-2023</b> <b>To</b> <b>24-04-2023</b>	Lecture interspersed with discussions
44.	Arrow Function, Function Types, Optional and Default Parameters, Rest Parameter		
45.	Creating an Interface, Duck Typing, Function Types		
46.	Extending Interfaces, Classes, Constructor, Access Modifiers, Properties and Methods		
47.	Creating and using Namespaces, Creating and using Modules, Module Formats and Loaders		
48.	Module Vs Namespace, What is Generics, What are Type Parameters, Generic Functions		
49.	Generic Constraints		
50.	Module Vs Namespace, What is Generics, What are Type Parameters, Generic Functions		



51.	Generic Constraints		
52.	Introduction Module Overview, Document Database Overview		
53.	Understanding JSON, MongoDB Structure and Architecture		
54.	MongoDB Remote Management, Installing MongoDB on the local computer (Mac or Windows)		
55.	Introduction to MongoDB Cloud, Create MongoDB Atlas Cluster		
56.	GUI tools Overview, Install and Configure MongoDB Compass		
57.	Introduction to the MongoDB Shell, MongoDB Shell JavaScript Engine		
58.	MongoDB Shell JavaScript Syntax, Introduction to the MongoDB Data Types		
59.	Introduction to the CRUD Operations on documents		
60.	Create and Delete Databases and Collections, Introduction to MongoDB Queries.		

**UNIT – 5: Angular.JS**

**CO-3 :** To design dynamic and responsive web pages using Angular.js

**Text Book:**

Angular Js, Brad Green, Shyam Seshadri

61.	What is Angular, Features of Angular, Angular Application Setup		
62.	Components and Modules, Executing Angular Application		
63.	Elements of Template, Change Detection, Structural Directives		
64.	ngIf, ngFor, ngSwitch, Custom Structural Directive		
65.	Attribute Directives - ngStyle, ngClass, Custom Attribute Directive, Property Binding, Attribute Binding		
66.	Style and Event Binding, Built in Pipes, Passing Parameters to		

**From**  
**25-04-2023**




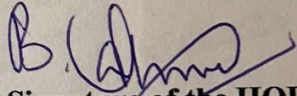
Pipes

67. Nested Components Basics, Passing data from Container Component to Child Component
68. Passing data from Child Component to ContainerComponent
69. Shadow DOM, Component Life Cycle, Template Driven Forms
70. Model Driven Forms or Reactive Forms, Custom Validators in Reactive Forms
71. Custom Validators in Template Driven forms
72. Dependency Injection, Services Basics, RxJS Observables
73. Server Communication using HttpClient
74. Communicating with different backend services using Angular HttpClient
75. , Routing Basics, Router Links, Route Guards
76. Asynchronous Routing, Nested Routes.

To  
06-05-2023

Lecture  
interspersed  
with  
discussions

  
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**TENTATIVE LESSON PLAN:  
MEAN STACK DEVELOPMENT**

<b>Course Title : MEAN STACK DEVELOPMENT</b>		
<b>Section : CSE-B</b>	<b>Date : 06-02-2023</b>	
<b>Revision No : 00</b>	<b>Prepared By : J. Siva Naga Jyothi</b>	<b>Approved By : HOD</b>

**Tools: Black Board**

No. of Periods	TOPIC	Date	Mode of Delivery
<b>UNIT-1: HTML5.</b>			
<b>CO-1: Buil Stactic Programming HTML 5 elements.</b>			
<b>Text Book:</b>			
1) Programming the World Wide Web, 7th Edition, Robet W Sebesta, Pearson. 2. Pro Mean Stack Development, 1st Edition, ELadElrom, Apress O'Reilly.			
1.	Introduction to Web, Overview of Web Technologies	<b>02-01-2023 TO 25-01-2023</b>	Lecture interspersed with discussions
2.	HTML - Introduction, HTML - Need, Case-insensitivity, Platform-independency		
3.	DOCTYPE Declaration, Types of Elements, HTML Elements		
4.	Attributes, Metadata Element, Sectioning Elements, Paragraph Element		
5.	Division and Span Elements, List Element, Link Element, Character Entities		
6.	HTML5 Global Attributes, Creating Table Elements, Table Elements : Colspan/ Rowspan Attributes		
7.	Border, cellpadding and cellspacing attributes, Creating Form Elements, Input Elements - Attributes		
8.	Color and Date Pickers, Select and Datalist Elements, Editing Elements		
9.	Media, Why HTML Security		
10.	HTML Injection, Clickjacking		
11.	Iframe		
12.	HTML5 Attributes & Events Vulnerabilities,		
13.	Local Storage Vulnerabilities		
14.	HTML5 - Cross-browser support, Best Practices For HTML Web Pages		
<b>UNIT-2: Java Script</b>			
<b>CO-1: Apply JavaScript to embed programming interface for web pages and also to perform Client side validations</b>			
<b>Text Book:</b> Full Stack JavaScript Development with MEAN, Colin J Ihrig, Adam Bretz, 1st edition, SitePoint, SitePoint Pty. Ltd., O'Reilly Media			
15.	Why we need JavaScript, What is JavaScript, Environment Setup, Working with Identifiers	<b>26-01-2023 To 16-02-2023</b>	Lecture interspersed with discussions
16.	Type of Identifiers, Primitive and Non Primitive Data Types		
17.	Operators and Types of Operators		
18.	Types of Statements, Non - Conditional Statements, Types of Conditional Statements, If and Switch Statements		
19.	Types of Loops, Types of Functions, Declaring and Invoking Function		
20.	Arrow Function, Function Parameters, Nested Function		
21.	Built-in Functions, Variable Scope in Functions		
22.	Working With Classes, Creating and Inheriting Classes		
23.	In-built Events and Handlers		
24.	Working with Objects, Types of Objects		
25.	Creating Objects, Combining and cloning Objects using Spread operator		
26.	Destructuring Objects, Browser and Document Object Model		
27.	reating Arrays, Destructuring Arrays, Accessing Arrays, Array Methods		



28.	Introduction to Asynchronous Programming		
29.	Callbacks, Promises, Async and Await, Executing Network Requests using Fetch API		
30.	Creating and consuming Modules		

**UNIT –3 : Node. Js and Express.JS.**

**CO-2:** To build a basic web server using Node.js, work with Node Package Manager (NPM) and recognize the need for Express.js

**Text Book:**

- 1) The Comprehensive Guide to Server-Side JavaScript Programming

31.	Why and What Node.js, How to use Node.js	<b>17-02-2023 TO 25-02-2023  &amp; 06-03-2023 To 16-03-2023</b>	<b>Lecture interspersed with discussions</b>
32.	Create a web server in Node.js, Node Package Manager		
33.	Modular programming in Node.js		
34.	Restarting Node Application, File Operations		
35.	Express Development Environment, Defining a route, Handling Routes		
36.	Route and Query Parameters		
37.	How Middleware works, Chaining of Middlewares, Types of Middlewares,		
38.	Connecting to MongoDB with Mongoose, Validation Types and Defaults		
39.	Models, CRUD Operations, API Development		
40.	Why Session management, Cookies, Sessions		
41.	Why and What Security, Helmet Middleware		
42.	Using a Template Engine Middleware, Stylus CSS Preprocessor		

**UNIT – 4:, Typescript, MongoDB**

**CO-2:** Develop JavaScript applications using typescript and work with document database using MongoDB.

**Text Book:**

1. MongoDB – The Definitive Guide, 2nd Edition, Kristina Chodorow, O'Reilly
2. Programming Typescript Boris Cherny

No. of Periods	TOPIC	DATE	Mode of Delivery
43.	Installing TypeScript, Basics of TypeScript, Function, Parameter Types and Return Types	<b>17-03-2023 TO 10-04-2023</b>	<b>Lecture interspersed with discussions</b>
44.	Arrow Function, Function Types, Optional and Default Parameters, Rest Parameter		
45.	Creating an Interface, Duck Typing, Function Types		
46.	Extending Interfaces, Classes, Constructor, Access Modifiers, Properties and Methods		
47.	Creating and using Namespaces, Creating and using Modules, Module Formats and Loaders		



48.	Module Vs Namespace, What is Generics, What are Type Parameters, Generic Functions		
49.	Generic Constraints		
50.	Introduction Module Overview, Document Database Overview		
51.	Understanding JSON, MongoDB Structure and Architecture		
52.	MongoDB Remote Management, Installing MongoDB on the local computer (Mac or Windows)		
53.	Introduction to MongoDB Cloud, Create MongoDB Atlas Cluster		
54.	GUI tools Overview, Install and Configure MongoDB Compass		
55.	Introduction to the MongoDB Shell, MongoDB Shell JavaScript Engine		
56.	MongoDB Shell JavaScript Syntax, Introduction to the MongoDB Data Types		
57.	Introduction to the CRUD Operations on documents		
58.	Create and Delete Databases and Collections, Introduction to MongoDB Queries.		

**UNIT – 5: Angular.JS**

**CO-3 :** To design dynamic and responsive web pages using Angular.js

**Text Book:**

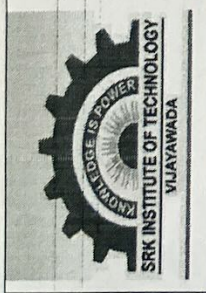
**Angular Js, Brad Green, Shyam Seshadri**

59.	What is Angular, Features of Angular, Angular Application Setup		
60.	Components and Modules, Executing Angular Application		
61.	Elements of Template, Change Detection, Structural Directives		
62.	ngIf, ngFor, ngSwitch, Custom Structural Directive		
63.	Attribute Directives - ngStyle, ngClass, Custom Attribute Directive, Property Binding, Attribute Binding		
64.	Style and Event Binding, Built in Pipes, Passing Parameters to Pipes		
65.	Nested Components Basics, Passing data from Container Component to Child Component		
66.	Passing data from Child Component to ContainerComponent		
67.	Shadow DOM, Component Life Cycle, Template Driven Forms		
68.	Model Driven Forms or Reactive Forms, Custom Validators in Reactive Forms	11-04-2023 TO 28-04-2023	Lecture interspersed with discussions
69.	Custom Validators in Template Driven forms		
70.	Dependency Injection, Services Basics, RxJS Observables		
71.	Server Communication using HttpClient		
72.	Communicating with different backend services using Angular HttpClient		
73.	, Routing Basics, Router Links, Route Guards		
74.	Asynchronous Routing, Nested Routes.		

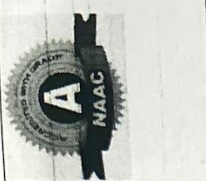
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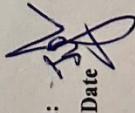


**SRK INSTITUTE OF TECHNOLOGY**  
 Enikepadu, Vijayawada 521108  
 Approved by AICTE, Affiliated to JNTUK, Kakina  
 (ISO 9001:2015 Certified Institution)  
 NAAC Accredited with 'A' grade  
 Department of Computer Science and Engineering  
**TEACHING NOTES**



**Academic year: 2022-2023**      **Name of the faculty: J. Siva Naga Jyothi**  
**Subject: Mean Stack Development**      **Date: 15-02-2023**  
**Year / semester: III year II semester**      **Section : Cse-A**

S. No	Unit No	Chapter Name	Title of the text book	Author	Reference book	Teaching Methodology
1	I	HTML 5	Programming the World Wide Web, 7th Edition, Robert W Sebesta, Pearson. 2. Pro Mean Stack Development, 1st Edition, ELadElrom, Apress O'Reilly.	Robert W Sebesta	. An Introduction to Web Design, Programming, 1st Edition, Paul S Wang, SandaSKatila, Cengage Learning	Black Board & Projector
2	II	JavaScript	Full Stack JavaScript Development with MEAN, Colin J Ihrig, Adam Bretz, 1st edition, SitePoint, SitePoint Pty. Ltd., O'Reilly Media	Colin J Ihrig, Adam Bretz	Web Technologies, HTML, JavaScript, PHP, Java, JSP, XML and AJAX, Black book, 1st Edition, Dream Tech.	Black Board & Projector
3	III	Node.Js Express.js	Node.js: The Comprehensive Guide to Server-Side JavaScript Programming	Sebastian Springer	Beginning Node.js, Express & MongoDB Development	Black Board & Projector
4	IV	Typescript MongoDB	Programming Typescript Boris Cherny MongoDB – The Definitive Guide, 2nd Edition, Kristina Chodorow, O'Reilly	Boris Cherny Chodorow, O'Reilly	Effective Typescript 62 Specific Ways to Improve your Typescript	Black Board & Projector
5	V	Angular.js	Angular Js	Brad Green Shyam Seshadri	Beginning angular JS	Black Board & Projector

**Prepared: -**   
**Faculty / Date**

**Verified:**   
**HOD / Date**



**TENTATIVE LESSON PLAN:R2022051**  
**Probability and Statistics**

<b>Course Title: Probability and Statistics</b>				
<b>Section: CSEA</b>		<b>Date :30 -01-2023</b>	<b>Page No :00</b>	
<b>Revision No :00</b>		<b>Prepared By: G.Koteswaramma</b>	<b>Approved By : HOD</b>	
<b>Tools: Black board</b>				
CO1: Classify the concepts of data science and its importance (L4) or (L2). "Fundamental of Mathematical Statistics" by S. C. Gupta and V.K. Kapoor,				
No. of Periods	TOPIC	DATE	Mode of Delivery	
	<b>UNIT-I: Descriptive statistics and methods for data science</b>		Lecture interspersed with discussions	
1.	Data science and introduction to statistics	From: 30-01-2023 To: 17-02-2023		
2.	Population VS sample			
3.	Collection of data			
4.	Primary data and secondary data			
5.	Type of variables: dependent and independent variables.			
6.	Categorical and continuous variables.			
7.	Data visualization.			
8.	Measures of central tendency			
9.	Mean, median, mode, G.M, H.M.			
10.	Measures of variability.			
11.	Range, quartile deviation, mean deviation, standard deviation.			
12.	Skewness and kurtosis			
13.	Revision			
	<b>UNIT-II: Correlation and curve fitting</b>		Lecture interspersed with discussions	
CO2: Interpret the association of characteristics and through correlation and regression tools "Fundamental of Mathematical Statistics" by S. C. Gupta and V.K. Kapoor,				
14.	Correlation	From: 21-02-2023 To: 10-03-2023		
15.	Correlation coefficient			
16.	Correlation coefficient problems			
17.	Rank correlation, problems			
18.	Regression coefficients			
19.	Regression properties			
20.	Regression lines			
21.	Method of least squares			
22.	Straight line, problems			
23.	Parabola, problems			
24.	Exponential curves, power curves			
25.	Exponential curves, power curves problems.			
	<b>UNIT III: Probability and statistics</b>			
CO3: Make use of the concepts of probability and their applications. CO4: Apply discrete and continuous probability distributions				



<b>“Fundamental Of Mathematical Statistics”By S. C. Gupta And V.K. Kapoor,</b>		<p style="text-align: center;">From: 14-03-2023 To: 07-04-2023</p>	Lecture interspersed with discussions
26.	Definition of probability.		
27.	Conditional probability and their problems.		
28.	Baye’s theorem and their problems.		
29.	Random variables		
30.	Discrete random variables.		
31.	problems.		
32.	Continuous random variables		
33.	problems.		
34.	Distribution function		
35.	problems		
36.	Mathematical expectation and variance		
37.	problems		
38.	Binomial distribution		
39.	Poisson distribution		
40.	Uniform distribution		
41.	Normal distribution		
42.	problems		
<b>UNIT IV: Sampling theory</b>			
CO5: design the components of a classical hypothesis test <b>“Fundamental Of Mathematical Statistics”By S. C. Gupta And V.K. Kapoor,</b>			
43.	Population and samples	<p style="text-align: center;">From: 11-04-2023 To: 21-04-2021</p>	Lecture interspersed with discussions
44.	Sampling distribution of means and variances(definition only)		
45.	Central limit theorem (without proof)		
46.	Introduction to t distribution		
47.	Introduction to chew square distribution		
48.	Introduction to,F-distributions		
49.	Point and interval distribution		
50.	problems		
51.	Maximum error of estimate.		
52.	problems		
53.	Sampling distribution of means and variances(definition only)		
54.	problems		
<b>UNIT V:Tests of hypothesis</b>			
CO6: Infer the statistical inferential methods based on small and large sampling tests <b>“Fundamental Of Mathematical Statistics”By S. C. Gupta And V.K. Kapoor,</b>			
55.	Introduction	<p style="text-align: center;">From: 25-04-2023 To: 12-05-2023</p>	
56.	Hypothesis		
57.	Null and alternative hypothesis		
58.	Type I&II errors		
59.	Level of significance		
60.	One tail and two tail tests		



61.	Tests concerning one mean and two means		Lecture interspersed with discussions
62.	Tests concerning one mean and two means		
63.	Large and small samples		
64.	Two means problems(large samples)		
65.	Two means problems(small samples)		
66.	Single mean problems(large samples)		
67.	Single mean problems(small samples)		
68.	Tests on proportion		
69.	Problems		
70.	Tests on proportion		
71.	Problems		

G. Koteswaramma

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**TENTATIVE LESSON PLAN: R2022054**

Course Title: JAVA PROGRAMMING			
Section : CSE-A		Date:06-02-2023	Page: 01 of 03
Revision No: 00		Prepared By: Dr.Saravana Priya	Approved By:HOD
Tools: Black Board, PPTs			
S.No	TOPIC	Date	Mode of Delivery
<b>UNIT –I Program Structure in Java: I</b> <b>CO1:</b> Able to realize the concept of Object Oriented Programming & Java Programming Constructs. <b>TB :</b> The complete Reference Java, 8th edition, Herbert Schildt, TMH.			
1	Program Structure in Java: Introduction, Writing Simple Java Programs, Elements or tokens in java program, Java Statements	<b>From: 06-02-2023</b>  <b>To: 26-02-2023</b>	Lecture interspersed with discussions
2	Command Line Arguments, User Input to Programs, Escape Sequences Comments, Programming Style,		
3	Introduction, Data Types in Java, Declaration of Variables		
4	Type Casting, Scope of Variable Identifier, Literal Constants, Symbolic Constants, Formatted Output with printf() Method, Static Variables and Methods, Attribute Final		
5	Introduction to Operators, Precedence and Associativity of Operators, Assignment Operator (=), Basic Arithmetic Operators,		
6	Increment (++) and Decrement (- -) Operators, TernaryOperator, Relational Operators		
7	Boolean Logical Operators, Bitwise Logical Operators, Control Statements: Introduction, if Expression,		
8	Nested if Expressions, if-else Expressions, Ternary Operator?;, Switch Statement		
9	Iteration Statements, while Expression, do-while Loop		
10	for Loop, Nested for Loop		
11	For-Each for Loop, Break Statement, Continue Statement		
12	Tutorial		
<b>UNIT –II Classes and Objects:</b> <b>CO2:</b> Able to describe the basic concepts of Java such as operators, classes, objects, inheritance, packages, Enumeration, and various keywords. <b>TB :</b> The complete Reference Java, 8th edition, Herbert Schildt, TMH..			
13	Classes and Objects: Introduction, Class Declaration and Modifiers, Class Members, Declaration of Class Objects	<b>From:27-02-2023</b>  <b>To:28-03-2023</b>	Lecture interspersed with discussions
14	Assigning One Object to Another, Access Control for Class Members, Accessing Private Members of Class		
15	Constructor Methods for Class		
16	Overloaded Constructor Methods		
17	Nested Classes, Final Class and Methods		
18	Passing Arguments by Value and by Reference, Keyword this		
19	Methods: Introduction, Defining Methods, Overloaded Methods, Overloaded Constructor Methods		



20	Class Objects as Parameters in Methods, Access Control		
21	Overriding Methods, Attributes Final and Static		

**UNIT –III Arrays:**

**CO3:** Apply the concept of exception handling and Input/ Output operations.

**TB:** The complete Reference Java, 8th edition, Herbert Schildt, TMH..

22	Arrays: Introduction, Declaration and Initialization of Arrays	<b>From:29-3-2023</b> <b>To:11-4-2023</b>	Lecture interspersed with discussions
23	Storage of Array in Computer Memory, Accessing Elements of Arrays		
24	Operations on Array Elements, Assigning Array to Another Array		
25	Dynamic Change of Array Size, Sorting of Arrays		
26	Search for Values in Arrays, Class Arrays,		
27	Two-dimensional Arrays, Arrays of Varying Lengths		
28	Three-dimensional Arrays, Arrays as Vectors		
29	Inheritance: Introduction, Process of Inheritance, Types of Inheritances		
30	Arrays: Introduction, Declaration and Initialization of Arrays		
31	Universal Super Class Object Class, Inhibiting Inheritance of Class Using Final, Access		
32	Control and Inheritance, Multilevel Inheritance, Application of Keyword Super		
30	Constructor Method and Inheritance, Method Overriding, Dynamic Method Dispatch, Abstract Classes, Interfaces		
33	Interfaces: Introduction, Declaration of Interface,		
34	Implementation of Interface, Multiple Interfaces		
35	Nested Interfaces, Inheritance of Interfaces, Default Methods in Interfaces		
36	Static Methods in Interface, Functional Interfaces, Annotations.		
37	Tutorial		

**UNIT –IV Packages and Java Library:**

**CO4:** Able to design the applications of Java & Java applet

**TB :** The complete Reference Java, 8th edition, Herbert Schildt, TMH

38	Packages and Java Library: Introduction, Defining Package, Importing Packages and Classes into Programs	<b>From:19-4-2023</b> <b>To:29-4-2023</b>	Lecture interspersed with discussions
39	Path and Class Path, Access Control, Packages in Java SE		
40	Java.lang Package and its Classes, Class Object, Enumeration		
41	class Math, Wrapper Classes, Auto-boxing and Auto-unboxing		
42	Java util Classes and Interfaces		
43	Formatter Class, Random Class, Time Package		
44	Class Instant (java.time.Instant), Formatting for Date/Time in Java, Temporal Adjusters Class		
45	Exception Handling: Introduction, Hierarchy of Standard Exception Classes		
46	Keywords throws and throw, try, catch, and finally Blocks		
47	Multiple Catch Clauses, Class Throwable		



48	Unchecked Exceptions, Checked Exceptions		
49	try-with-resources, Catching Subclass Exception		
50	Custom Exceptions , Nested try and catch Blocks		
51	Rethrowing Exception, Throws		
<b>UNIT – V String Handling in Java:</b> <b>CO5:</b> Able to Analyze & Design the concept of Event Handling and Abstract Window Toolkit. <b>TB ::</b> The complete Reference Java, 8th edition, Herbert Schildt, TMH			
52	String Handling in Java: Introduction, Interface Char Sequence, Class String	<b>From: 30-4-2023</b>  <b>To: 3-5-2023</b>	Lecture interspersed with discussions
53	Methods for Extracting Characters from Strings Methods for Comparison of Strings, Methods for Modifying Strings		
54	Methods for Searching Strings, Data Conversion and Miscellaneous Methods, Class String Buffer		
55	Multithreaded Programming: Introduction, Need for Multiple Threads		
56	Multithreaded Programming for Multi-core Processor, Thread Class, Main Thread- Creation of New Threads, Thread States		
57	Thread Priority-Synchronization, Deadlock and Race Situations		
58	Inter-thread Communication - Suspending, Resuming, and Stopping of Threads,		
59	Java Database Connectivity: Introduction, JDBC Architecture,		
60	Installing MySQL and MySQL Connector/J, JDBC Environment Setup,JDBC Connection		
61	Inter-thread Communication - Suspending, Resuming, and Stopping of Threads,		

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# TENTATIVE LESSON PLAN: MANAGERIAL ECONOMICS & FINANCIAL ACCOUNTANCY

<b>Course Title: MANAGERIAL ECONOMICS &amp; FINANCIAL ACCOUNTANCY</b>		
<b>Section: CSE-A</b>	<b>Date: 30/01/2023</b>	<b>Page No: 01 of 03</b>
<b>Revision No: 00</b>	<b>Prepared By: SRINIVAS.V</b>	<b>Approved By: HOD</b>

Tools: Black board, PPTs,

SL. NO.	TOPIC	Date	Mode of Delivery
<b>UNIT –I INTRODUCTION TO MANAGERIAL ECONOMICS</b>			
<b>CO1:</b> The Learning objectives of this paper are to understand the concept and nature of Managerial Economics and its relationship with other disciplines and also to understand the Concept of Demand and Demand forecasting. <b>TB: A.R. Arya Sri, "Managerial Economics &amp; Financial Analysis", 2005, TMH.</b>			
1.	Introduction to Managerial Economics, Definitions	From 30-01-2023 to 21-02-2023	Lecture interspersed with discussions
2.	Scope of Managerial Economics and its related to Other subjects		
3.	Introduction to Demand – Meaning & Definition, Features of Demand		
4.	Determinants of Demand		
5.	Law of Demand & Its exceptions, Demand Function		
6.	Elasticity of Demand, Types of Elasticity of Demand		
7.	Types of price Elasticity of Demand		
8.	Measurement of Price Elasticity of Demand		
9.	Introduction: Demand Forecasting		
10.	Importance of Demand Forecasting		
11.	Demand Forecasting Methods		
12.	Concept of Supply, Law of supply		
<b>UNIT –II PRODUCTION &amp; COST ANALYSIS</b>			
<b>CO2:</b> To familiarize about the Production function, Input Output relationship, Cost-Output relationship and Cost-Volume-Profit Analysis <b>TB: A.R. Arya Sri, "Managerial Economics &amp; Financial Analysis", 2005, TMH.</b>			
13.	Introduction to Production: Meaning & Definition, Production Function	From 22-02-2023 to 10-03-2023	Lecture interspersed with discussions
14.	Factors of production, production function with one variable factor		
15.	Law of Variable Proportions		
16.	Factors of production, production function with two variable factors		
17.	Concept of Iso-costs, Isoquants		
18.	MRTS, Least Cost Combination		
19.	Cobb-Douglas Production Function		
20.	Economies of Scale & diseconomies of scale		
21.	Returns to Scale & returns to factors		
22.	Concept of cost & Various Cost Concepts		
23.	Introduction to Break Even Analysis		
24.	Determination of Break Even Point with Graph		
25.	Calculation of Break-Even Point (BEP) algebraic method		



**UNIT - III INTRODUCTION TO MARKETS, THEORIES OF THE FIRM AND PRICING POLICIES**

**CO3:** To understand the nature of markets, Methods of Pricing in the different market structures and to know the different forms of Business organization and the concept of Business Cycles

**TB:** A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH.

26.	Introduction to Markets: Meaning & Definition, Features	From 13/03/2023 To 10/04/2023	Lecture interspersed with discussions
27.	Types of markets, market structure		
28.	Price Determination under perfect competition		
29.	Equilibrium-point of firm and industry		
30.	Price Determination under Monopoly		
31.	Equilibrium-point of firm and industry in monopoly		
32.	Price Determination under Monopolistic Competition		
33.	Price Determination under Oligopoly		
34.	Managerial Theories of the Firm		
35.	Marries and Williamson theory of firm		
36.	Pricing, pricing objectives.		
37.	Various Methods of Pricing		
38.	Introduction to Business: Definition, Features		
39.	Sole Proprietorship: Features, Merits, Demerits		
40.	Partnership: Features, Merits, Demerits, kinds of partners		
41.	Joint Stock Company: Features, Merits, Demerits		
42.	Public limited and private limited companies, features		
43.	Public Enterprises: Features, Merits, Demerits		
44.	Phases of Business Cycles		

**UNIT - IV INTRODUCTION TO ACCOUNTING & FINANCING ANALYSIS:**

**CO4:** To learn different Accounting Systems, preparation of Financial Statement and uses of different tools for performance evaluation

**TB:** A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH.

SL. NO.	TOPIC	DATE	Mode of Delivery
45.	Introduction to Accounting: Meaning & Definition, Classification of Accounts	From 11/04/2023 To 30/04/2023	Lecture interspersed with discussions
46.	Accounting Process		
47.	Principles of accounting (GAAP)		
48.	Accounting cycle		
49.	Preparation of Journal: Problems		
50.	Preparation of Ledger: Problems		
51.	Preparation of Trail Balance: Problems		
52.	Final Accounts (Trading, profit & loss A/C, Balance Sheet)		
53.	Final Accounts with Adjustments		
54.	Treatment of adjustments in preparation of final accounts.		
55.	Introduction to Financial Statement Analysis: Importance, Objectives.		
56.	Classification of Ratios: Liquidity Ratios		
57.	Classification of Ratios: Activity Ratios		



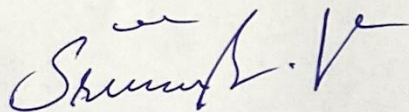
58.	Classification of Ratios: Solvency Ratios		
59.	Classification of Ratios: Profitability Ratios		
60.	Preparation of Changes in Working Capital		
61.	Preparation of Funds Flow Statement		
62.	Preparation of Cash Flow Statement		

**UNIT – V CAPITAL, CAPITAL BUDGETING**

**CO5:** To understand the concept of Capital, Capital Budgeting and the techniques used to evaluate Capital Budgeting proposals

**TB:** A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH

SL. NO.	TOPIC	DATE	Mode of Delivery
63.	Introduction to Capital Budgeting: Meaning, Definition, and Need.	From 01/05/2023 To 13/05/2023	Lecture interspersed with discussions
64.	Methods of Capital Budgeting: Pay Back Period (PBP),		
65.	Calculation of Accounting Rate of Return (ARR)		
66.	Calculation of Net Present Value (NPV)		
67.	Calculation of Internal Rate of Return (IRR)		
68.	Calculation of Profitability Index		
69.	Merits and Demerits of Capital Budgeting Techniques.		



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T CSEB

**TENTATIVE LESSON PLAN:R2022051**  
**Probability and Statistics**

<b>Course Title: Probability and Statistics</b>				
<b>Section: CSEB</b>		<b>Date :30 -01-2023</b>	<b>Page No :00</b>	
<b>Revision No :00</b>		<b>Prepared By: G.Koteswaramma</b>	<b>Approved By : HOD</b>	
<b>Tools: Black board</b>				
CO1: Classify the concepts of data science and its importance (L4) or (L2). <b>“Fundamental of Mathematical Statistics” by S. C. Gupta and V.K. Kapoor,</b>				
<b>No. of Periods</b>	<b>TOPIC</b>	<b>DATE</b>	<b>Mode of Delivery</b>	
	<b>UNIT-I: Descriptive statistics and methods for data science</b>		Lecture interspersed with discussions	
1.	Data science and introduction to statistics	From: 30-01-2023 To: 17-02-2023		
2.	Population VS sample			
3.	Collection of data			
4.	Primary data and secondary data			
5.	Type of variables: dependent and independent variables.			
6.	Categorical and continuous variables.			
7.	Data visualization.			
8.	Measures of central tendency			
9.	Mean, median, mode, G.M, H.M.			
10.	Measures of variability.			
11.	Range, quartile deviation, mean deviation, standard deviation.			
12.	Skewness and kurtosis			
13.	Revision			
	<b>UNIT-II: Correlation and curve fitting</b>		Lecture interspersed with discussions	
CO2: Interpret the association of characteristics and through correlation and regression tools <b>“Fundamental of Mathematical Statistics” by S. C. Gupta and V.K. Kapoor,</b>				
14.	Correlation	From: 21-02-2023 To: 10-03-2023		
15.	Correlation coefficient			
16.	Correlation coefficient problems			
17.	Rank correlation, problems			
18.	Regression coefficients			
19.	Regression properties			
20.	Regression lines			
21.	Method of least squares			
22.	Straight line, problems			
23.	Parabola, problems			
24.	Exponential curves, power curves			
25.	Exponential curves, power curves problems.			
	<b>UNIT III: Probability and statistics</b>		Lecture interspersed with discussions	
CO3: Make use of the concepts of probability and their applications. CO4: Apply discrete and continuous probability distributions				



<b>"Fundamental Of Mathematical Statistics" By S. C. Gupta And V.K. Kapoor,</b>		<p>From: 14-03-2023 To: 07-04-2023</p>	Lecture interspersed with discussions
26.	Definition of probability.		
27.	Conditional probability and their problems.		
28.	Baye's theorem and their problems.		
29.	Random variables		
30.	Discrete random variables.		
31.	problems.		
32.	Continuous random variables		
33.	problems.		
34.	Distribution function		
35.	problems		
36.	Mathematical expectation and variance		
37.	problems		
38.	Binomial distribution		
39.	Poisson distribution		
40.	Uniform distribution		
41.	Normal distribution		
42.	problems		
<b>UNIT IV: Sampling theory</b>			Lecture interspersed with discussions
CO5: design the components of a classical hypothesis test			
<b>"Fundamental Of Mathematical Statistics" By S. C. Gupta And V.K. Kapoor,</b>			
43.	Population and samples		
44.	Sampling distribution of means and variances(definition only)		
45.	Central limit theorem (without proof)		
46.	Introduction to t distribution		
47.	Introduction to chew square distribution		
48.	Introduction to ,F-distributions		
49.	Point and interval distribution		
50.	problems		
51.	Maximum error of estimate.		
52.	problems		
53.	Sampling distribution of means and variances(definition only)		
54.	problems		
<b>UNIT V: Tests of hypothesis</b>			
CO6: Infer the statistical inferential methods based on small and large sampling tests			
<b>"Fundamental Of Mathematical Statistics" By S. C. Gupta And V.K. Kapoor,</b>			
55.	Introduction	<p>From: 25-04-2023 To: 12-05-2023</p>	
56.	Hypothesis		
57.	Null and alternative hypothesis		
58.	Type I&II errors		
59.	Level of significance		
60.	One tail and two tail tests		



61.	Tests concerning one mean and two means		Lecture interspersed with discussions
62.	Tests concerning one mean and two means		
63.	Large and small samples		
64.	Two means problems(large samples)		
65.	Two means problems(small samples)		
66.	Single mean problems(large samples)		
67.	Single mean problems(small samples)		
68.	Tests on proportion		
69.	Problems		
70.	Tests on proportion		
71.	Problems		

G. Koteswaramma

Faculty Signature

B. (Signature)

HOD Signature



**TENTATIVE LESSON PLAN: R2022054**

Course Title: JAVA PROGRAMMING			
Section : CSE-B	Date:06-02-2023	Page: 01 of 03	
Revision No: 00	Prepared By: Dr.Senthil Kumar	Approved By:HOD	
Tools: Black Board, PPTs			
S.No	TOPIC	Date	Mode of Delivery
<b>UNIT –I Program Structure in Java: I</b> <b>CO1:</b> Able to realize the concept of Object Oriented Programming & Java Programming Constructs. <b>TB :</b> The complete Reference Java, 8th edition, Herbert Schildt, TMH.			
1	Program Structure in Java: Introduction, Writing Simple Java Programs, Elements or tokens in java program, Java Statements	<b>From: 06-02-2023</b>  <b>To: 26-02-2023</b>	Lecture interspersed with discussions
2	Command Line Arguments, User Input to Programs, Escape Sequences Comments, Programming Style,		
3	Introduction, Data Types in Java, Declaration of Variables		
4	Type Casting, Scope of Variable Identifier, Literal Constants, Symbolic Constants, Formatted Output with printf() Method, Static Variables and Methods, Attribute Final		
5	Introduction to Operators, Precedence and Associativity of Operators, Assignment Operator ( = ), Basic Arithmetic Operators,		
6	Increment (++) and Decrement ( - - ) Operators, TernaryOperator, Relational Operators		
7	Boolean Logical Operators, Bitwise Logical Operators, Control Statements: Introduction, if Expression,		
8	Nested if Expressions, if–else Expressions, Ternary Operator?;, Switch Statement		
9	Iteration Statements, while Expression, do–while Loop		
10	for Loop, Nested for Loop		
11	For–Each for Loop, Break Statement, Continue Statement		
12	Tutorial		
<b>UNIT –II Classes and Objects:</b> <b>CO2:</b> Able to describe the basic concepts of Java such as operators, classes, objects, inheritance, packages, Enumeration, and various keywords. <b>TB :</b> The complete Reference Java, 8th edition, Herbert Schildt, TMH..			
13	Classes and Objects: Introduction, Class Declaration and Modifiers, Class Members, Declaration of Class Objects	<b>From:27-02-2023</b>  <b>To:28-03-2023</b>	Lecture interspersed with discussions
14	Assigning One Object to Another, Access Control for Class Members, Accessing Private Members of Class		
15	Constructor Methods for Class		
16	Overloaded Constructor Methods		
17	Nested Classes, Final Class and Methods		
18	Passing Arguments by Value and by Reference, Keyword this		
19	Methods: Introduction, Defining Methods, Overloaded Methods, Overloaded Constructor Methods		



20	Class Objects as Parameters in Methods, Access Control		
21	Overriding Methods, Attributes Final and Static		

**UNIT –III Arrays:**

**CO3:** Apply the concept of exception handling and Input/ Output operations.

**TB:**The complete Reference Java, 8th edition, Herbert Schildt, TMH..

22	Arrays: Introduction, Declaration and Initialization of Arrays	<b>From:29-3-2023 To:11-4-2023</b>	Lecture interspersed with discussions
23	Storage of Array in Computer Memory, Accessing Elements of Arrays		
24	Operations on Array Elements, Assigning Array to Another Array		
25	Dynamic Change of Array Size, Sorting of Arrays		
26	Search for Values in Arrays, Class Arrays,		
27	Two-dimensional Arrays, Arrays of Varying Lengths		
28	Three-dimensional Arrays, Arrays as Vectors		
29	Inheritance: Introduction, Process of Inheritance, Types of Inheritances		
30	Arrays: Introduction, Declaration and Initialization of Arrays		
31	Universal Super Class Object Class, Inhibiting Inheritance of Class Using Final, Access		
32	Control and Inheritance, Multilevel Inheritance, Application of Keyword Super		
30	Constructor Method and Inheritance, Method Overriding, Dynamic Method Dispatch, Abstract Classes, Interfaces		
33	Interfaces: Introduction, Declaration of Interface,		
34	Implementation of Interface, Multiple Interfaces		
35	Nested Interfaces, Inheritance of Interfaces, Default Methods in Interfaces		
36	Static Methods in Interface, Functional Interfaces, Annotations.		
37	Tutorial		

**UNIT –IV Packages and Java Library:**

**CO4:** Able to design the applications of Java & Java applet

**TB :**The complete Reference Java, 8th edition, Herbert Schildt, TMH

38	Packages and Java Library: Introduction, Defining Package, Importing Packages and Classes into Programs	<b>From:19-4-2023 To:29-4-2023</b>	Lecture interspersed with discussions
39	Path and Class Path, Access Control, Packages in Java SE		
40	Java.lang Package and its Classes, Class Object, Enumeration		
41	class Math, Wrapper Classes, Auto-boxing and Auto-unboxing		
42	Java util Classes and Interfaces		
43	Formatter Class, Random Class, Time Package		
44	Class Instant (java.time.Instant), Formatting for Date/Time in Java, Temporal Adjusters Class		
45	Exception Handling: Introduction, Hierarchy of Standard Exception Classes		
46	Keywords throws and throw, try, catch, and finally Blocks		
47	Multiple Catch Clauses, Class Throwable		
48	Unchecked Exceptions, Checked Exceptions		
49	try-with-resources, Catching Subclass Exception		



50	Custom Exceptions , Nested try and catch Blocks		
51	Rethrowing Exception, Throws		
<b>UNIT – V String Handling in Java:</b> <b>CO5:</b> Able to Analyze & Design the concept of Event Handling and Abstract Window Toolkit. <b>TB ::</b> The complete Reference Java, 8th edition, Herbert Schildt, TMH			
52	String Handling in Java: Introduction, Interface Char Sequence, Class String	<b>From: 30-4-2023</b>  <b>To: 3-5-2023</b>	Lecture interspersed with discussions
53	Methods for Extracting Characters from Strings Methods for Comparison of Strings, Methods for Modifying Strings		
54	Methods for Searching Strings, Data Conversion and Miscellaneous Methods, Class String Buffer		
55	Multithreaded Programming: Introduction, Need for Multiple Threads		
56	Multithreaded Programming for Multi-core Processor, Thread Class, Main Thread- Creation of New Threads, Thread States		
57	Thread Priority-Synchronization, Deadlock and Race Situations		
58	Inter-thread Communication - Suspending, Resuming, and Stopping of Threads,		
59	Java Database Connectivity: Introduction, JDBC Architecture,		
60	Installing MySQL and MySQL Connector/J, JDBC Environment Setup,JDBC Connection		
61	Inter-thread Communication - Suspending, Resuming, and Stopping of Threads,		

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Signature of HOD



# TENTATIVE LESSON PLAN: MANAGERIAL ECONOMICS & FINANCIAL ACCOUNTANCY

<b>Course Title: MANAGERIAL ECONOMICS &amp; FINANCIAL ACCOUNTANCY</b>		
<b>Section: CSE-B</b>	<b>Date: 30/01/2023</b>	<b>Page No: 01 of 03</b>
<b>Revision No: 00</b>	<b>Prepared By: SRINIVAS.V</b>	<b>Approved By: HOD</b>

Tools: Black board, PPTs,

SL. NO.	TOPIC	Date	Mode of Delivery
<b>UNIT –I INTRODUCTION TO MANAGERIAL ECONOMICS</b>			
<b>CO1:</b> The Learning objectives of this paper are to understand the concept and nature of Managerial Economics and its relationship with other disciplines and to understand the Concept of Demand and Demand forecasting.			
<b>TB: A.R. Arya Sri, “Managerial Economics &amp; Financial Analysis”, 2005, TMH.</b>			
1.	Introduction to Managerial Economics, Definitions	From 30-01-2023 to 21-02-2023	Lecture interspersed with discussions
2.	Scope of Managerial Economics and its related to Other subjects		
3.	Introduction to Demand – Meaning & Definition, Features of Demand		
4.	Determinants of Demand		
5.	Law of Demand & Its exceptions, Demand Function		
6.	Elasticity of Demand, Types of Elasticity of Demand		
7.	Types of price Elasticity of Demand		
8.	Measurement of Price Elasticity of Demand		
9.	Introduction: Demand Forecasting		
10.	Importance of Demand Forecasting		
11.	Demand Forecasting Methods		
12.	Concept of Supply, Law of supply		
<b>UNIT –II PRODUCTION &amp; COST ANALYSIS</b>			
<b>CO2:</b> To familiarize about the Production function, Input Output relationship, Cost-Output relationship and Cost-Volume-Profit Analysis			
<b>TB: A.R. Arya Sri, “Managerial Economics &amp; Financial Analysis”, 2005, TMH.</b>			
13.	Introduction to Production: Meaning & Definition, Production Function	From 22-02-2023 to 10-03-2023	Lecture interspersed with discussions
14.	Factors of production, production function with one variable factor		
15.	Law of Variable Proportions		
16.	Factors of production, production function with two variable factors		
17.	Concept of Iso-costs, Isoquants		
18.	MRTS, Least Cost Combination		
19.	Cobb-Douglas Production Function		
20.	Economies of Scale & diseconomies of scale		
21.	Returns to Scale & returns to factors		
22.	Concept of cost & Various Cost Concepts		
23.	Introduction to Break Even Analysis		
24.	Determination of Break Even Point with Graph		
25.	Calculation of Break-Even Point (BEP) algebraic method		



**UNIT - III INTRODUCTION TO MARKETS, THEORIES OF THE FIRM AND PRICING POLICIES**

**CO3:** To understand the nature of markets, Methods of Pricing in the different market structures and to know the different forms of Business organization and the concept of Business Cycles

**TB:** A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH.

26.	Introduction to Markets: Meaning & Definition, Features	From 13/03/2023 To 10/04/2023	Lecture interspersed with discussions
27.	Types of markets, market structure		
28.	Price Determination under perfect competition		
29.	Equilibrium-point of firm and industry		
30.	Price Determination under Monopoly		
31.	Equilibrium-point of firm and industry in monopoly		
32.	Price Determination under Monopolistic Competition		
33.	Price Determination under Oligopoly		
34.	Managerial Theories of the Firm		
35.	Marries and Williamson theory of firm		
36.	Pricing, pricing objectives.		
37.	Various Methods of Pricing		
38.	Introduction to Business: Definition, Features		
39.	Sole Proprietorship: Features, Merits, Demerits		
40.	Partnership: Features, Merits, Demerits, kinds of partners		
41.	Joint Stock Company: Features, Merits, Demerits		
42.	Public limited and private limited companies, features		
43.	Public Enterprises: Features, Merits, Demerits		
44.	Phases of Business Cycles		

**UNIT - IV INTRODUCTION TO ACCOUNTING & FINANCING ANALYSIS:**

**CO4:** To learn different Accounting Systems, preparation of Financial Statement and uses of different tools for performance evaluation

**TB:** A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH.

SL. NO.	TOPIC	DATE	Mode of Delivery
45.	Introduction to Accounting: Meaning & Definition, Classification of Accounts	From 11/04/2023 To 30/04/2023	Lecture interspersed with discussions
46.	Accounting Process		
47.	Principles of accounting (GAAP)		
48.	Accounting cycle		
49.	Preparation of Journal: Problems		
50.	Preparation of Ledger: Problems		
51.	Preparation of Trail Balance: Problems		
52.	Final Accounts (Trading, profit & loss A/C, Balance Sheet)		
53.	Final Accounts with Adjustments		
54.	Treatment of adjustments in preparation of final accounts.		
55.	Introduction to Financial Statement Analysis: Importance, Objectives.		
56.	Classification of Ratios: Liquidity Ratios		
57.	Classification of Ratios: Activity Ratios		



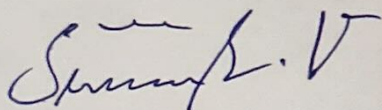
58.	Classification of Ratios: Solvency Ratios		
59.	Classification of Ratios: Profitability Ratios		
60.	Preparation of Changes in Working Capital		
61.	Preparation of Funds Flow Statement		
62.	Preparation of Cash Flow Statement		

**UNIT – V CAPITAL, CAPITAL BUDGETING**

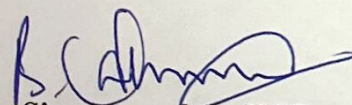
**CO5:** To understand the concept of Capital, Capital Budgeting and the techniques used to evaluate Capital Budgeting proposals.

**TB:** A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH

SL. NO.	TOPIC	DATE	Mode of Delivery
63.	Introduction to Capital Budgeting: Meaning, Definition, and Need.	From 01/05/2023 To 13/05/2023	Lecture interspersed with discussions
64.	Methods of Capital Budgeting: Pay Back Period (PBP),		
65.	Calculation of Accounting Rate of Return (ARR)		
66.	Calculation of Net Present Value (NPV)		
67.	Calculation of Internal Rate of Return (IRR)		
68.	Calculation of Profitability Index		
69.	Merits and Demerits of Capital Budgeting Techniques.		



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