



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

Name of Program DIPLOMA (Garment and Fashion Technology)

SUBJECT CODE	Category	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
DTMA201	ODS	APPLIED MATHEMATICS- II	60	20	20	0	0	2	1	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;
***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objective (CEOs):

To introduce the students with the Fundamentals of the Advanced Engineering Mathematics.

Course Outcomes (Cos):

After the successful completion of this course students will be able to

1. apply the techniques of finding limit, continuity and differentiability of any function with conclusions.
2. understand the applications of the matrices and the determinants.
3. know the fundamentals of the partial derivatives and the 3D geometry.
4. study the properties of the integral calculus used in the field of the engineering.
5. understand the concepts and the solution of the differential equations.

Syllabus

UNIT 1

FUNCTION, LIMIT, CONTINUITY & DIFFERENTIABILITY: Function, Definitions of variables, constants, open & closed intervals. Definition & types of functions – Simple Examples, Limits, Concept & definition of Limit. Standard limits of algebraic, trigonometric, exponential and logarithmic functions. Evaluation of limits. Continuity, Definition and simple problems of continuity. DERIVATIVE: Definition of Derivatives, notations. Derivative of standard functions. Rules for differentiation in case of sum, difference, product and quotient of functions. Derivative of composite functions (Chain rule). Derivatives of inverse trigonometric

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functions. Derivatives of implicit functions. Logarithmic derivatives. Derivatives of parametric functions. Derivative of one function with respect to another function, Second order derivatives. Applications of Derivatives. Geometric meaning of derivative. Rate measurement, Maxima & Minima (one variable)

UNIT 2

MATRICES & DETERMINANTS: Define matrix and its representation state its order. State types of matrices with examples. Perform Addition, subtraction and multiplication of a matrix with a scalar and multiplication of two matrices (upto third order only). Transpose, Adjoint and Inverse of a matrix up to third order. Solution of simultaneous equations by matrix method (linear equations in two and three unknowns). Problems on above, **DETERMINANTS:** Define determinant (second and third order). Minor, CO-factor, Study properties of determinants. Cramer's Rule: (solutions of simultaneous equations of two and three unknown).

UNIT 3

PARTIAL DIFFERENTIATION & ANALYTICAL GEOMETRY IN THREE DIMENSIONS: Functions of several variables. Partial derivatives up to three independent variables, Maxima & Minima, Euler's Theorem on homogenous function for two variables. **ANALYTICAL GEOMETRY IN THREE DIMENSIONS:** Co-ordinates of a point in rectangular co-ordinate system, Distance formula, Division formula, Dcs & Drs of a line, the formula for angle between two lines with given Drs, conditions of perpendicularity and parallelism. State equation of a plane, Find equation of a plane in different forms (i) General form $Ax+By+Cz+D=0$, where A,B,C are Drs of the normal to the plane, (ii) Intercept form $(X/a+Y/b+Z/c=1)$, (iii) Normal form, Angle between two planes, Perpendicular distance from a point to a plane

UNIT 4

INTEGRAL CALCULUS: Integration as inverse process of differentiation. Indefinite and Definite Integral, Integrals of standard functions, Methods of Integration (i) Integration by Decomposition of Integrand, (ii) Integration by Substitution, (iii) Integration by parts, Methods of Integration by partial fraction. Definite Integrals, Properties of Definite Integrals. Area bounded by the curve $y=f(x)$, $x=a$, $x=b$ and x -axis and the area bounded by the curve $x=f(y)$, $y=c$, $y=d$ and y - axis.

UNIT 5

DIFFERENTIAL EQUATION: Differential equation, Order and degree of a differential equation, Formation of first order first degree differential equation. Solution of first order and first degree differential equation by the following methods (i) separation of variables (ii) Linear (iii) Exact

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Text Books:

1. A. Sarkar, Mathematics (First Semester), Naba Prakashani
2. G.P. Samanta, A Text Book of Diploma Engineering Mathematics, Volume-1, Learning Press
3. Dr. S. Bose & S. Saha, A Complete Text Book of Mathematics, Lakshmi Prakasan

Reference Books:

1. H.S. Hall & S.R. Knight, Higher Algebra Book Palace, New Delhi
2. S.L. Loney, Trigonometry S. Chand & Co.
3. H.K. Dass Engineering Mathematics S. Chand & Co.
4. T.M. Apostol Calculus, Volume-1, John Wiley & Sons
5. B.K.Pal, K.Das, Engineering Mathematics, Volume-1, U.N. Dhar & Sons
6. B.C. Das & B.N. Mukherjee, Differential Calculus U.N. Dhar & Sons
7. KAR, Engineering Mathematics, Tata McGraw- Hill
8. SINGH, Engineering Mathematics Tata McGraw- Hill

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			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
DTCH101	ODS	APPLIED CHEMISTRY	60	20	20	30	20	2	1	2	4

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Objectives:-

To give basic knowledge of polymer science.

To understand and apply the knowledge of electro-chemistry and its laws.

To give basic knowledge of corrosion and control over it.

To understand the various sophisticated instrumental techniques.

To give basic knowledge of water, lubricants and different properties of water.

Course Outcomes:-

After completion of this course the students are expected to be able to demonstrate following knowledge, skills and attitudes. The student will demonstrate capability of

CO1. Theoretical understanding of various high polymers and their properties.

CO2. Became aware of the importance of electro-chemistry and its laws in the field of technology and dealing with its numerical approach.

CO3. Understanding metal corrosion and control over it.

CO4. Implementing instrumental techniques as powerful tool for qualitative and quantitative analysis of compounds.

CO5. Analyzing boiler feed water for industrial use and drinking water for domestic use.

Syllabus

Unit-I

POLYMERS AND REINFORCED PLASTICS

Classification of polymers - types of polymerization reactions - mechanism of addition polymerization: free radical, ionic and Ziegler - Natta - effect of structure on the properties of

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polymers - strength, plastic deformation, elasticity and crystallinity -Preparation and properties of important resins: Polyethylene, PVC, PMMA, Polyester, Teflon, Bakelite and Epoxy resins.

Unit-II

(A) Electrochemistry:

Arrhenius theory of electrolytic dissociation, Transport number, Kohlrausch's law, Solubility product, Redox reaction, Electrochemical and concentration cells.

(B) CORROSION AND ITS CONTROL

Corrosion: Basic concepts - mechanism of chemical, electrochemical corrosion - Pilling Bedworth rule – Types of Electrochemical corrosion - galvanic corrosion - differential aeration corrosion - pitting corrosion - stress corrosion – Measurement of corrosion (wt. loss method only) - factors influencing corrosion. Corrosion control: Cathodic protection - sacrificial anodic method – corrosion inhibitors, Protective coating.

Unit-III

Basic Instrumental Techniques

Basic principles, instrumentation and applications of potentiometry, UV - visible spectroscopy, infrared spectroscopy, atomic absorption spectroscopy and flame photometry.

Unit-IV

(A) WATER TREATMENT: Water quality parameters: Physical, Chemical & Biological significance - Hardness of water - estimation of hardness (EDTA method) - Dissolved oxygen – determination (Winkler's method), Alkalinity - determination - disadvantages of using hard water in boilers: Scale, sludge formation - disadvantages - prevention - treatment: Internal conditioning - phosphate, carbon and carbonate conditioning methods - External: Zeolite, ion exchange, Lime Soda methods & Numericals- desalination - reverse osmosis and electrodialysis - domestic water treatment.

(B) Lubricants: Mechanism of lubrication, Classification of lubricants, Properties & testing of lubricating oil. Definition of viscosity of a liquid; Determination of Viscosity; Shear Viscosity; Intrinsic Viscosity; Molecular weight from Viscosity measurement & Numerical problems based on viscosity index.

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Unit-V

Metal in Industry

Structure of coordination compounds corresponding to coordination number up to 6, Types of ligands, Isomerism [geometrical, optical, ionization, linkage and coordination], Theories of bonding in coordination compounds- crystal field theory, Valence bond theory, Chelation.

References

1. Applied Chemistry – Theory and Practice, O.P. Viramani, A.K. Narula, New AgePub.
2. Polymer Science – Ghosh, Tata McGraw Hill.
3. Chemistry for Environmental Engineering – Sawyer, McCarty and Parkin – McGraw Hill, International.
4. Basic Lubrication theory – Alistair Cameron
5. Engineering chemistry- Dr. Jyoti Mitna
6. Engineering chemistry- Dr. Sunita Ratan
7. Applied Chemistry – S.M. Khopkar
8. Polymer Science- V.R. Gowawriker
9. Introduction of polymer science- G.S. Mishra

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List of experiments.

- Exp. 01.** To estimate the strength of the given unknown solution of Mohr's salt (Ferrous ammonium sulphate ($\text{FeSO}_4(\text{NH}_4)_2\text{SO}_4 \cdot 6\text{H}_2\text{O}$) using KMnO_4 solution as an intermediate.
- Exp.02** Estimation of hardness by EDTA method.
- Exp.03.** Conductometric titration - determination of strength of an acid
- Exp.04.** Estimation of iron by potentiometry.
- Exp.05.** Determination of molecular weight of polymer by viscosity average method
- Exp.06.** Determination of Na / K in water sample by Flame photometry (Demonstration)
- Exp.07.** Determination of total alkalinity and acidity of a water sample
- Exp.08** Estimation of calcium ions present in tap water. (TDS)
- Exp.09** To determine the viscosity of a given liquid (30% sugar solution) at room temperature using Ostwald's viscometer.
- Exp.10** Testing of Flash point of lubricating oil by Pensky Martins apparatus.
- Exp.11** To determine the viscosity index by Red wood Viscometer 1 & 2.

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DTTX201	DCS	INTRODUCTION TO TEXTILE FIBRES	60	20	20	30	20	2	1	2	4

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objective (CEOs):

Student will be introduced with the knowledge of natural and synthetic fibres with their manufacturing process and properties.

Course Outcomes (Cos):

Student will:

1. Develop the new fibre with combination of different fibres.
2. Design the new products with the help fibres.
3. Solve various technical problems occur during the manufacturing process.
4. Indentify the physical and chemical behaviour of fibre.

SYLLABUS

UNIT I

Classification of fibres. Uses of cotton fibre, bast fibers, wool and silk fibres. Introduction to other natural fibre like banana, bamboo, pineapple, sunhemp and their uses.

UNIT II

Concept of manufacturing process of all important man-made fibres e.g. Viscose, nylon, polyester, acrylic, etc. Idea about the physical and chemical properties of above mentioned fibres and their uses.

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UNIT III

Structure of fibres- basic requirements for fiber formation, Physical structure of principal natural and man-made fibers. Introduction and general idea about methods of investigating fiber structures e.g. X-ray diffraction, optical and electron microscopy, I R absorption, thermal methods NMR.

UNIT IV

Concept of New Fibres Glass, Carbon, Aramid, Spandex, Spectra, Vectran, PLA, ceramic, Metallic fibre, Lyocell, and Teflon etc.

UNIT V

Concept of Texturing - Importance, basic principle, false twisting, Textured yarns like stuffer box, crimping, edge crimping, knit-de-knit, gear crimping etc. properties of such yarn. Principle of air bulking and properties of air-jet textured yarn.

References:

1. Shennai VA; Fibre Science.
2. Vaidya Synthetic Fibre
3. Murthy HVS; Introduction to Textile Fibre.
4. Gohl and Vilensky LD; Textile Science
5. Mishra SP; A text book of Fibre Science & Technology

List of Practicals:

1. Identification of various natural fibers (such as cotton, flax, jute, silk, wool etc) by feeling test.
2. Identification of various manmade fibers (such as polyester, nylon, Viscose rayon, acrylic, polypropylene etc) by feeling test.
3. Identification of various natural fibers (such as cotton, flax, jute, silk, wool etc) by burning test.
4. Identification of various manmade fibres (such as polyester, nylon, Viscose rayon, acrylic, polypropylene etc) by burning test.

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5. Identification of various natural fibres (such as cotton, flax, jute, silk, wool etc) by density measurement test.
6. Identification of various manmade fibres (such as polyester, nylon, Viscose rayon, acrylic, polypropylene etc) by density measurement test.
7. Identification of various natural fibres (such as cotton, flax, jute, silk, wool etc) by solubility test.
8. Identification of various manmade fibres (such as polyester, nylon, Viscose rayon, acrylic, polypropylene etc) by solubility test.
9. Identification of various natural fibres (such as cotton, flax, jute, silk, wool etc) by staining test.
10. Identification of various manmade fibres (such as polyester, nylon, Viscose rayon, acrylic, polypropylene etc) by staining test.

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DTTX202	DCS	INTRODUCTION TO TEXTIE PROCESS	60	20	20	0	0	2	1	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

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Course Educational Objective (CEOs):

The course will provide with comprehensive understanding of Textile industry, its products and its impact in a global scenario. It will also develop the knowledge of different textile processes.

Course Outcomes (Cos):

Student will:

1. Understand the influence of textile industry on India and global economy
2. Demonstrate the fundamentals of textile fiber classifications.
3. Have better understanding of textile spinning processes of the industries.
4. Have better understanding of textile Weaving processes of the industries.
5. Have better understanding of textile chemical processes of the industries.
6. Have better understanding of Garment Processes of the industries.

SYLLABUS

UNIT I

Textile Fibres: Over all View Of Textile industries in India, Textile terminology, Classification of fibres, Identification of fibers, General properties of fibres (length, strength, flexibility, spinability, uniformity, density, luster, moisture and moisture regain, elasticity, elastic recovery, elongation, water repellant fibres, resiliency and Compressibility)

UNIT II


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Yarn Manufacturing/ Spinning: Definition - Staple fibre , Staple length, lint, linters etc types of yarns - spun yarn and filament yarn , Yarn count and yarn twist, yarn numbering system and Novelty yarns, introduction to the process of conversion of fibre to yarn,

UNIT III

Fabric Manufacturing: Introduction to process of Conversion of yarn into fabric, Basic weaves and design, Knitted fabrics, Non-woven fabrics, Grey fabric inspection intro. To terry towel and sheeting

UNIT IV

Textile Chemical Processing: Introduction to pretreatment process, Introduction to dyeing and printing, classification of dyes. Introduction to textile finishes, their object and functions.

UNIT V

Garment Technology: Introduction to Garment Technology, overview of garment industry, process flow chart of garment manufacturing, Brief description of garment sampling, grading, marking, spreading, cutting, sewing, finishing and packing.

References:

1. Talukdar MK; Winding & Warping.
2. Shennai VA; Fibre Science.
3. Klein; Technology of Short Staple Spinning.

List of Practicals:

1. To study contamination in cotton
2. To study of spinning lab
3. To study of Weaving lab
4. To study of chemistry lab
5. To study of testing lab
6. To study of garment lab
7. To calculation of yarn count & Study yarn faults
8. Material passage through yarn manufacturing process
9. Material passage through weaving preparatory process
10. Material passage through weaving machine
11. Process flow of pretreatment and Dyeing process.
12. Process flow of garment manufacturing.

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			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
DTME102	ODS	BASIC MECHANICAL ENGINEERING	60	20	20	30	20	3	0	2	4

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objectives (CEOs):

To introduce the(A) main & sub domains of Mechanical engineering(B)To introduce the scope latest& future trends, jobs & research opportunities in the field of Mechanical Engineering.

Course Outcomes (COs):

1. To introduce Mechanical Engineering with the help of case studies, magazine, documentaries, presentation and industrial visit.
2. To introduce the basic concepts of thermodynamics, heat engines, IC engine, production and case studies.
3. To introduce basic Manufacturing Process.

Syllabus

Unit- I

Overview of engineering: Introduction to engineering, classification of engineering disciplines, overview of mechanical engineering, domain and scope for mechanical engineers, specialization in mechanical engineering and job opportunities

Unit - II

Thermodynamics: Introduction & basic definition of thermodynamics, terminology related with thermodynamics, laws of thermodynamics, properties of steam. Case study on topic related to thermodynamics

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Unit - III

Measurement: Introduction, various measuring instruments & devices, linear & angular measurement, measurement of displacement, velocity and acceleration (translational and rotational), force, torque and strain, vibration and shock, measurement of pressure, flow, temperature and liquid level, viscosity and humidity. Case study on topic related to the any measuring devices.

Unit - IV

Heat Engine: Introduction to IC engine, terminology of IC engine, cycles used in IC engine, two and four stroke petrol and diesel engines. Introduction to boiler, types of steam boilers, properties of steam, terminology related to steam and boilers, mounting and accessories of steam boiler. Case study on topic related to the heat engines

Unit - V

Manufacturing Processes: Material properties, definition and classification of basic manufacturing process, introduction to casting, rolling, extrusion, welding, brazing, soldering. Case study on topic related with manufacturing engineering.

References

1. *Mechanical Engineering* by R. K. Rajput
2. *Basic Mechanical Engineering* by D. K. Gupta
3. *Basic Mechanical Engineering (MP)* by Domkundwar
4. *Engineering Metrology and Measurements*, Bentley, Pearson Education
5. *A course in Mechanical Measurements and Instrumentation*, A K Sawhney, Dhanpat Rai Publications
6. *Mechanical Engineering Handbook* (CRC Press)
7. *Mechanical Engineering Reference Book* by E.H. Smith
8. *An Introduction to Mechanical Engineering* by Wickert/Lewis
9. *Engineering Fundamentals: An Introduction to Engineering* by Moaveni

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List of Experiments

1. To study Two-Stroke & Four-Stroke Diesel Engines.
2. To study Two-Stroke & Four-Stroke Petrol Engines.
3. To study the Cochran and Babcock & Wilcox boilers.
4. To study the working and function of mountings and accessories in boilers.
5. To conduct experiment on temperature measurement and check different characteristics of measurements.
6. To conduct experiment on linear and angular measurements and check different characteristics of measurements.
7. To conduct experiment on Stress, strain and force measurements and check different characteristics of measurements.
8. To conduct experiment on Speed/Velocity, acceleration measurements.

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DTME103	ODS	WORKSHOP PRACTICE	0	0	0	30	20	0	0	4	2

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

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Course Educational Objectives (CEOs):

- (A) Use drawing equipment, instruments & Materials (B) Follow and apply standard practice as per bureau of I.S. Develop the ability to draw various curves used in engineering practice. (C) Develop the ability to draw orthographic view of objects and draw the projections of point, line and planes.

Course Outcome (COs):

1. Develop the ability to draw sectional view of various types of solids and construct development of surfaces.
2. Develop the concept and ability to draw the isometric projections and views.
3. Sketch the various Fasteners & tools used in mechanical engineering.

Syllabus

Unit-I

Uses of Drawing Aids: Drawing equipment instruments and materials, planning & layout of drawing, I.S. codes for planning & layout. **Lines, lettering & dimensioning:** Different types of lines, Vertical capital & lower case letters, inclined capital & lower case letters, Numerals & Greek alphabets. **Dimensioning methods-** aligned method & unilateral with chain, parallel, progressive & combined dimensioning.

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Unit-II

Engineering Curves: Construction of Polygons. Various types of curves like Ellipse, parabola, hyperbola, cycloid, epicycloid, hypocycloid, Involute & spiral.

Unit-III

Projections of Points, Lines & Planes: Reference planes, Orthographic projections, 1st Angle and 3rd Angle projection, Projections of points, Projections of Lines- Determination of true lengths & inclinations, Projections of plane- circular, square, rhombus, triangular, regular Pentagonal & hexagonal plane surfaces, determination of true shape.

Unit-IV

Orthographic Projections: Simple Orthographic and Sectional Orthographic Projections of simple machine parts. **Isometric Projections:** Difference between isometric projections & isometric drawing. Isometric views & isometric projections.

Unit-V

Introduction to Computer Drafting: Introduction to different commands in the drawing software.

References

1. *Elements of Engg. Drawing* – N.D. Bhatt
2. *Engineering Drawing* – P.J. Shah.
3. *Fundamentals of Engg. Drawing* – W.J. Luz Zadar.
4. *Fundamentals of Drawing* – K.R. Gopal Krishna
5. *Fundamentals of Engg. Drawing* – French & Vierck

List of experiments

1. Three sheets on problems from geometrical constructions, lettering & types of lines
2. Five Sheets on the topic of Engineering Curves.
3. Four Sheets on Projections of Points & Projections of Straight Lines.
4. Three Sheets on Projections of Planes.
5. Five Sheets on the topic of Orthographic Projections.
6. Demonstration of drafting software to the students.

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DTCS201	ODS	Computer Application-II	-	-	-	30	20	-	-	4	2

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Course Objectives:

1. Students should be able to explain the object oriented concepts.
2. Students should be able to Write programs using object-based programming techniques including classes, objects and inheritance
3. Able to use of various system libraries.
4. Be aware of the important topics and principles of software development.
5. Have the ability to write a computer program to solves specified problems.

Course Outcomes:

1. Explain & implement the Object Oriented Programming concepts.
2. Explain packages and interfaces using Java program.
3. implement Exception Handling in Java.
4. Design graphical user interface and Event Handling in Java.
5. Develop and deploy Applet in Java.

Syllabus

Unit-I

Basics of Java

Java - What, Where and Why? History and Features of Java , Difference between JDK,JRE and JVM ,Variable and Data Type, operators, Naming Convention.

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Unit-II

OOPS Concepts

Advantage of OOPs, Object and Class, Method Overloading, Constructor, static variable, method and block, this keyword, Inheritance (IS-A), Aggregation and Composition (HAS-A), Method Overriding, super keyword, final keyword, Polymorphism, Abstract class and Interface, Package and Access Modifiers, Encapsulation.

Unit-III

String Handling

String, Immutable String, String Comparison, String Concatenation, Substring, Methods of String class, String Buffer class, toString method.

Unit-IV

Exception Handling

Exceptions: Need for exceptions, Exception hierarchy: Checked Unchecked exceptions, Try, catch, finally, Throw, throws, creating exceptions.

Unit-V

Multi threading

Multi threading advantages and issues, Multi threading advantages, Thread Life cycle, Simple thread program, Priorities and scheduling.

Text Books:

1. Java- Head First 2nd edition Kathy Sierra, Bert Bates.
2. Programming with Java A Primer, E. Balaguruswamy Tata McGraw Hill Companies.
3. Java Programming John P. Flynt Thomson 2nd.

References:

1. Java Programming Language Ken Arnold Pearson.
2. The complete reference JAVA2, Hervertschildt. TMH.
3. Big Java, Cay Horstmann 2nd edition, Wiley India Edition.
4. Java – Balaguruswamy.

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List of experiments (Expandable):

Programming assignments may be given to students so that they can better understand the concepts of object oriented programming such as objects, classes, class-relationships, association, aggregation, inheritance, polymorphism etc.

Installation of J2SDK

1. Write a program to show Scope of Variables
2. Write a program to show Concept of CLASS in JAVA
3. Write a program to show Type Casting in JAVA Write a program to show
4. How Exception Handling is in JAVA
5. Write a Program to show Inheritance
6. Write a program to show Polymorphism
7. Write a program to show Access Specifiers (Public, Private, Protected) in JAVA Write a program to show use and Advantages of CONSTRUCTOR
8. Write a program to show Interfacing between two classes
9. Write a program to Add a Class to a Package
10. Write a program to show Life Cycle of a Thread
11. Write a program to demonstrate AWT.
12. Write a program to Hide a Class
13. Write a Program to show Data Base Connectivity Using JAVA
14. Write a Program to show "HELLO JAVA " in Explorer using Applet
15. Write a Program to show Connectivity using JDBC
16. Write a program to demonstrate multithreading using Java.

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