F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester-II

CS-21 : RDBMS USING ORACLE

Course outcomes:

At the end of this course, a student shall be able to:

- enhance the knowledge and understanding of Database analysis and design.
- enhance the knowledge of the processes of Database Development and Administration using SQL and PL/SQL.
- enhance Programming and Software Engineering skills and techniques using SQL and PL/SQL.

Total credits: 03 **Total lectures: 45**

Course content

1 : Transaction Concepts (10)

Describe a transaction, properties of transaction, state of the transaction.

Executing transactions concurrently associated problem in concurrent execution, Schedules, types of schedules, concept of serializability, precedence graph for Serializability, Ensuring Serializability by locks, different lock modes, 2PL and its variations, Basic timestamp method for concurrency, Thomas Write Rule, Locks with multiple granularity, dynamic database concurrency (Phantom Problem), Timestamps versus locking, Deadlock handling methods, Detection and Recovery (Wait for graph).Prevention algorithms (Wound-wait, Wait-die)

2: Relational algebra (08)

Preliminaries, Relational algebra (selection, projection, set operations, renaming joins, division

3: Relational Database Design (07)

Dependencies: Functional, transitive, multi –valued, Normalization: First, Second, Third normal form, Desirable properties of decomposition (lossless-join, dependency preservation)

4: PL/SQL (10)

Introduction, Syntax, Datatypes, Variables, Control Structure (Conditional & Iterative), block structure

5: Stored Procedure & Triggers (10)

Creating Procedure (Declarative Part, Executable Part), Syntax Applications, Using Procedures, Advantages, functions, Use of database triggers, Types of triggers, Working of Triggers

Reference Books:

1. Database System Concepts, Henry F. Korth, Abraham Silberschatz, S. Sudarshan, Tata McGraw-Hill Education
2. Database Management Systems, Raghu Ramakrishnan, Mcgraw-hill higher Education.
3. Database Systems, Shamkant B. Navathe, Ramez Elmasri, Pearson Higher Education
4. PostgreSQL, Korry Douglas, Sams
5. Practical PostgreSQL (B/CD),John Worsley, Joshua Drake, Shroff/O'reilly
6. Practical Postgresql , By Joshua D. Drake, John C Worsley (O'Reilly publications)
7. "An introduction to Database systems", Bipin C Desai, Galgotia Publications
8. Commercial Application Development Using Oracle Developer 2000,BPB Publications By Ivan Bayross

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester II

CS-22 : PROGRAMMING IN C-II

Course Outcomes:

At the end of this course, a student shall be able to:

- design, implement, test and debug programs that use loops and arrays.
- design, implement, test and debug programs that use functions.
- design, implement, test and debug programs that use arrays for character strings and that use pointers for character strings.
- analyze programming problems to choose when regular loops should be used and when recursion will produce a better program.
- design, implement, test and debug programs that use different data types, such as simple variables, arrays, and structures.

Total credits: 03 **Total lectures: 45**

Course content

1. Arrays (12)

Declaration, entering data into an array, reading data from an array, one dimensional arrays, two dimensional arrays, multi dimensional arrays, arrays and functions, character strings, declaring and initializing string variables, standard library functions, arrays of strings.

2. Structures and Unions (12)

Declaration of structures, initialization of structures, nested structures, Arrays of structures, Declaration of union, initialization of union, differentiate between structures and union.

3. Pointers (12)

Introduction to pointers, pointer declaration ,uses of pointers, applications of pointers, pointer arithmetic, pointer to pointer, pointer to constant object, pointers and arrays, pointers to functions ,pointers to structures.

4 File handling (09)

Introduction, streams, types of files, operations on file standard input-output functions, formatted input-output functions.

References Books:

- Programming in C by S . Kohan
- Born to code in C by H Schildt
- The art of C by H Schildt
- C programming by Kerninghan & Richie – 2 nd edition
- Let us C by Yashwant Kanetkar
- C programming by E- Balaguruswami

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester-II

CS-23 : Graph Theory

Course Outcomes:

At the end of this course, a student shall be able to:

- understand graph, various types of graphs, adjacency and incidence matrix.
- perform various types of operations on graph.
- find shortest path of a graph using Dijkstra's algorithm.
- solve Chinese Postman problem and Travelling Salesman problem
- explain concepts of Tree, types of tree and ability to find shortest spanning tree using Kruskal's algorithm

Total credits: 03 **Total lectures: 45**

Course content

Unit 1 : Graphs **(7)**

(1.1) Definition, Elementary terminologies and results, Graphs as Models.
(1.2) Special types of graphs. **(1.3)** Isomorphism.
(1.4) Adjacency and Incidence Matrix of a Graph.

Unit 2 : Operations on Graphs **(8)**

(2.1) Subgraphs, induced subgraphs, Vertex delition, Edge delition, edge contraction.
(2.2) Complement of a graph and self-complementary graphs.
(2.3) Union, Intersection and Product of graphs. **(2.4)** Fusion of vertices.

Unit 3 : Connected Graphs. **(12)**

(3.1) Walk, Trail, Path, Cycle: Definitions and elementary properties.
(3.2) Connected Graphs: definition and properties.
(3.3) Distance between two vertices, eccentricity, center, radius & diameter of a graph.
(3.4) Isthmus, Cut vertex: Definition and properties.
(3.5) Cutset, edge-connectivity, vertex connectivity.
(3.6) Weighted Graph and Dijkstra's Algorithm.

Unit 4 : Eulerian and Hamiltonian Graphs **(8)**

(4.1) Seven Bridge Problem, Eulerian Graph: Definition and Examples, Necessary and Sufficient condition. **(4.2)** Fleury's Algorithm.
(4.3) Hamiltonian Graphs: Definition and Examples, Necessary Condition.
(4.4) Introduction of Chinese Postman Problem and Travelling Salesman Problem.

Unit 5 : Trees **(10)**

(5.1) Definition, Properties of trees. **(5.2)** Center of a tree.
(5.3) Binary Tree: Definition and properties.
(5.4) Tree Traversal : Ordered rooted Tree, Preorder traversal, inorder traversal and postorder traversal, Prefix Notation.
(5.5) Spanning Tree: Definition, Properties, Shortest Spanning Tree, Kruskal's Algorithm.

Reference Books:

1. Kenneth Rosen, Discrete Mathematics and It's Applications (Tata McGraw Hill)
2. C. L. Liu ,Elements of Discrete Mathematics, (Tata McGraw Hill)
3. John Clark and Derek Holton, A First Look at Graph Theory (Allied Publishers)
4. S.R. Patil, R.S.Bhamare, M.D.Bhagat, D.M.Pandhare, S.M Waingade, N.M Phatangare;
5. Discrete Mathematics; Nirali Prakasha.

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester-II

CS-24: Algebra-II

Course Outcomes:

At the end of this course,a student shall be able to :

- understand the concepts of group, types of groups, subgroups and its examples.
- know the terms normal subgroups, its properties and examples.
- understand Homomorphism and Isomorphism, its examples and simple properties.
- explain rings, integral domain, fields and its examples.

Total credits: 03 **Total lectures: 45**

Course content

Unit 1: Groups (20)

(1.1) Binary Operations, Semigroups, Monoids, Groups: Definitions and Examples, Simple, Properties

(1.2) Abelian Group, Finite Group, Infinite Group

(1.3) Order of an element of a Group

(1.4) Subgroups: Definition, Necessary and Sufficient Conditions, Examples on finding subgroups of finite groups, Union and Intersection of Subgroups

(1.5) Cyclic Subgroups: Definition, Simple Properties.

(1.6) Coset : Definition & Simple Properties.

(1.7) Lagrange's theorem (with proof) & its Corollaries.

(1.8) Permutation Groups: Definition of S_n and detail discussion of the group S_3, Cycles and Transpositions, Even and Odd Permutations, Order of Permutation, Properties: a) $0(S_n) = n!$ b) A_n is subgroup of S_n .

Unit 2: Normal Subgroups, Homomorphism & Isomorphism (17)

(2.1) Normal Subgroups: Definition, properties with examples

a) If g is abelian group then every subgroup of G is normal.

b) H is normal subgroup of G iff $xhx^{-1} = H$,

c) H is normal subgroup of G iff every left coset of H in G is also a right coset of H in G. (all with proof).

d) H is normal subgroup of G iff product of two right coset of H in G is also a right coset of H in G

e) If H is subgroup of index 2 in G then H is normal subgroup of G

f) If H is the only subgroup in G of a fixed finite order then H is normal subgroup of G. (all without proof.).

(2.2) Quotient Groups: Definition and Examples

(2.3) Homomorphism and Isomorphism: Definitions, Examples, Simple properties.

Unit 3: Rings & Fields (08)

(3.1) Rings, Integral Domains: Definitions, Some results (without proof), Examples.

(3.2) Fields , Skew Field: Definitions ,Some results (without proof),Examples.

Reference Books:

1. J.B. Fraleigh, A. First Course in Abstract Algebra, Third Ed., Narosa, New Delhi, 1990
2. S.R. Patil, R.S. Bhamare, M.D. Bhagat, D.M. Pandhare; Algebra; Nirali Prakashan, 1998
3. S.R. Patil, R.S. Bhamare, M.D. Bhagat, D.M. Pandhare; Algebra; Nirali Prakashan, 2003.
4. P.B. Bhattacharya, S.K. Jain, S.R. Nagpaul : Basic abstract algebra (second edition).

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) semester II

CS-25 : Principles of Analog Electronics – II

Course Outcomes

At the end of this course, a student shall be able to:

- infer the DC and AC characteristics of operational amplifiers and its effect on output and their compensation techniques
- elucidate and design the linear and non linear applications of an op-amp and special application ICs
- explain the concepts of feedback and construct feedback amplifiers and oscillators
- summarizes the performance parameters of amplifiers with and without feedback
- understand the working features of oscillators
- understand the design of power supply and build it

Total credits: 03 **Total lectures: 45**

Course content

1.Differential amplifier (05)

Black box concept; Different modes of operation; Parameters of differential amplifier Differential Amplifier with constant current source; Concept of feedback; Types of feedback

2.Operational Amplifier (15)

Introduction to OP-AMP; Block diagram; Concept of virtual ground; OP-AMP IC 741 OPAMP applications - Inverting and non inverting amplifier, adder, subtractor, comparator, integrator and differentiator; Numerical problems.

3.Oscillators (15)

Introduction to Oscillators; Concept of positive feedback; Barkhausen criteria; Classification of oscillators; Weinbridge oscillator, Phase Shift oscillator; Hartley, Colpitt oscillator; Crystal oscillator; Numerical problems.

4.Power Supply (10)

Review of rectifiers, Types of regulations. Block diagram, working and specifications of regulated power supply, Switching mode power supply **(SMPS**), Uninterrupted power supply **(UPS**)

Reference Books:

1. Integrated circuits by Milliman.
2. Electronic Devices and circuits: A. Motorshed, Prentice Hall of India.
3. Basic Electronics:Bernard Grob, McGraw Hill Publication, 8th Revised Edition,2010
4. Electronic Principles: Albert Malvino, David J Bates, McGraw Hill 7th Edition. 2012
5. Principals of Electronics: V.K. Mehta, S.Chand and Co.
6. A text book of electrical technology: B.L.Theraja, S.Chand and Co.

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester II

CS – 26 : Principles of Digital Electronics –II

Course Outcomes:

At the end of this course, a student shall be able to:

- understand the concept of flip-flops
- understand the working of counters and implement it
- understand the concept of shift registers and design it
- explain and compare the working of multi vibrators using special application IC 555
- compare the utilization of semiconductor memory

Total credits: 03 **Total lectures: 45**

Course content

1.Flip-flops (15)

Introduction to flip flop, RS flip-flop, Clock R-S flip-flop, JK flip-flop, Master-slave JK flip flop, D and T flip-flop, Race around condition, Triggering in flip-flops, Preset Clear, Delay (Definitions only), Examples of commonly used flip-flops and their applications.

2.Counters (15)

Introductions to counters, Asynchronous counters, Synchronous counter, Modulus of counter, Ring counter , Up-down counter, study of IC 7490 (Internal block diagram) Frequency division in IC 7490(MOD 2,MOD 4, MOD 6 ,MOD 8, MOD 10)

3.Study of shift registers

Serial and parallel data shifting. SISO (right and left shift), SIPO, PIPO and PISO. Study of IC 7495

4.Clock generating circuits (10)

Multivibrators, Introduction to IC555, Working of IC 555 as a clock generator(Astable, monostable, bistable multivibrator), Working of IC 741 as a clock generator (No derivations expected for the above, only formula and problems), Duty cycle, Problems.

5.Semiconductor Memory (05)

Introduction to memory devices, RAM,ROM, PROM,EPROM

Reference Books:

1. Digital Electronics: Jain R.P., Tata McGraw Hill
2. Digital Principles and Applications:Malvino Leach, Tata McGraw-Hill.
3. Digital Fundamentals: Floyd T.M., Jain R.P., Pearson Education

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester II

CS PIII : COMPUTER SCIENCE PRACTICAL-III

Course outcomes:
After completion of this course a student shall be able to:

- gain the knowledge of PL/SQL Block Structures
- explore the knowledge about PL/SQL control Structures
- work with handling errors, Procedures and triggers.

Total credits: 02

Course content

Practical Examination

A) Internal Marks 40: Completion of journal, attendance and involvement in activities.

B) Semester examination: 60 Marks in One session of 3 Hrs.
60 marks Distribution: Practical work 50 marks and 10 marks for oral

List of Topics

1. Assignment on nested queries.
2. Introduction to PL/SQL blocks structure.
3. Simple PL/SQL blocks
4. Assignments based on PL/SQL Conditional statements
5. Assignments based on PL/SQL Looping statements
6. Usage of procedures.
7. Assignments based on exception Handling
8. Usage of triggers.

NOTE: At least 8assignments must be performed.

Note: An Industrial visit should be arranged and report should be submitted at the end of academic year.

F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester II

CS PIV : Computer Science Practical -IV

Total credits: 02

Course Outcomes:

At the end of this course, a student shall be able to:

- write simple program using various loops available in C programming language
- understand and implement use of different types of operators and data types
- understand and write program using function
- understand and write program using structure

Course content

Practical Examination

A) Internal Marks 40: Completion of journal, attendance and involvement in activities.
B) Semester examination: 60 Marks in One session of 3 Hrs. 60 marks Distribution: Practical work 50 marks and 10 marks for oral

List of Topics

1. Programs using one dimensional and two dimensional array
2. Programs based on character array. (Counting of character words, lines and white spaces etc.)
3. Programs on pointer
4. Programs on Structure and Unions.
5. Programs on structure within structure
6. Programs on File handling.

NOTE : At least 8 assignments must be performed.

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semeter-II

CS EII : Electronics Practical –II

Course Outcomes

At the end of this course, a student shall be able to:

- understand basic concepts for building various applications in electronics.
- understand design procedures of different electronic circuits as per requirement.
- build experimental setup and test the circuits.
- develop skills of analyzing test results of given experiments

Total credits: 02

Course content

- One activity equivalent to 2 experiments by the student.

a. Electronics project

b. Documentation type experiments

c. Presentation/Seminar on Electronics /advanced topic/research topics.

- One activity equivalent to 2 experiments to be arranged by the teacher – Arrange at least two practical demonstrations / Workshops /Industrial visit which will enhance quality and skills of the student.
- Examination will be conducted on 8 experiments as well as on activities

Practical Examination

A) Internal Marks 40: Completion of journal, attendance and involvement in activities.

B) Semester examination: 60 Marks in One session of 3 Hrs.

60 marks Distribution: Practical work 50 marks and 10 marks for oral

Distribuition of 50 marks

Circuit diagram / flowchart and algorithm	15
Connection / program	10
Demonstration and working explanation	10
Observation table	10
Result analysis / conclusion	05

List of Topics:

1. Study of phase shift oscillator
2. Study of Wein bridge oscillator.
3. Study of Crystal Oscillator.
4. OP-AMP application as an adder
5. OP-AMP application as subtractor
6. OP-AMP application as an integrator
7. OP-AMP application as differentiator
8. Study of 7490 as a counter.
9. Study of flip-flops
10. Study of shift register IC 7495.
11. Study of up down counter
12. Build and Test Diode matrix ROM
13. Study of Four bit Universal Adder/Subtractor

NOTE : At least 8 Practical's must be performed

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester II

CS – 27 : Computer Oriented Statistical Techniques -II

Course Outcomes:
At the end of this course, a student shall be able to:

- distinguish between deterministic and non-deterministic experiments & knowledge related to different types of events.
- understand probability of events including axiomatic approach, simultaneously they are learning conditional probability& knowledge related to concept of discrete and continuous random variable and their probability distributions including expectations and moments.
- understand the important discrete and continuous distributions such as Binomial distribution, Poisson's distribution and Normal distribution.
- acumen to apply standard discrete and continuous distributions to different situations.
- summarize test of significance, small sample test, large sample test and its applications.

Total credits: 03 **Total lectures: 45**

Course content

Unit 1. Probability **(15)**

1.1 Idea of deterministic and non-deterministic models
1.2 Sample space (Finite and countably finite)
1.3 Events: types of events, operations on events
1.4 Probability: classical definition, relative frequency approach, probability models
1.5 Axioms of probability
1.6 Probability of events
1.7 Theorems on probability :

1) $0 \leq P(A) \leq 1$
2) $P(A)+P(A')=1$
3) $P(A) \leq P(B)$ when $A \subset B$
4) $P(A \cup B) = P(A)+P(B)-P(A \cap B)$

1.8 Concept and definitions of conditional probability $P(A \cap B)=P(A)\ P(B/A)$
1.9 Concept and definitions of independence of two events
1.10 Numerical problems

Unit 2. Discrete Random Variables and some Standard Discrete Probability Distributions **(10)**

2.1 Definition of random variable and discrete random variable.
2.2 Definition of probability distribution and distribution, Probability mass function.
2.3 Definition of expectation and variance, theorems on expectation.
2.4 Binomial distribution: definition, mean. Variance, additive property, illustrations of real life situations.
2.5 Poisson distribution: definition, mean, variance, additive property, approximation to binomial, illustrations of real life situations.
2.6 Numerical problems

Unit 3. Continuous random variables and some Standard Continuous Probability Distribution (10)

3.1 Definition through p.d.f.
3.2 Distribution function: definition, statements of properties
3.3 Definitions of mean and variance
3.4 Exponential distribution: p.d.f. with mean, nature of probability curve, mean, variance, lack of memory property.
3.5 Normal distribution: defination of p.d.f., identification of parameters, Probability curve, standard normal distribution.
3.6 Numerical problems

Unit 4. Test of Hypothesis and Some Large and Small sample Tests (10)

4.1 Definitions: random sample, parameter, statistic, standard error of statistic.
4.2 Concept of null and alternative hypothesis, critical region, level of significance, types of error, Concept of test of hypothesis, one sided and two sided tests.
4.3 $H_0 ; \mu = \mu_0$ Vs $H_1 = \mu \neq \mu_0$
4.4 $H_0 = P = Po$ Vs $H_1 = P \neq Po$
4.5 Chi-square test for goodness of fit and 2 X2 contingency table
4.6 t-test for testing $H_0 ; \mu = \mu_0$ Vs $H_1 = \mu \neq \mu_0$
4.7 Numerical problems

Reference Books :

1. Hogg R. V. and Craig, R. G. Introduction to Mathematical Statistics.
2. Hoel. P. G. Introduction to Mathematical Statistics.
3. Feller. W Introduction to probability Theory and it's Applications. Vol –I
4. Mood A. M., Grabill, F. A. Boes D. C. Introduction to Theory of Statistics.
5. Meyar P. L. Introduction to Probability and Statistical Applications.
6. Goon, Gupta and Das Gupta. Fundamentals of Statistics Vol I & II
7. S. P. Gupta. Statistical methods.
8. Waikar and Lev. Elementary Statistical Methods.
9. BIS Publicationn. Statistical Quality Control (Hand Book)
10. ATAG (Automotive Industries Action Group) :SPC/MMS manuals.
11. Samprit Chatterjee and Bertram Price. Regression analysis by Example (1991). John Wiley and sons. Inc.
12. Guilford, J. P. and Fruchter B: Fundamental Statistics in Psychology and Education (1980), Mc Graw Hill.
13. Mathur, Rajiv. Learning Excel-97 for windows step by step Galgotia

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F. Y. B. Sc. (Computer Science)(CBCS 2018 Course) Semester – II
CS 28: Compulsory English – II

Course Outcomes:
At the end of this course, a student shall be able to:

- get exposed to the prose passages, poems and communicative grammar skills
- read and interpret the various types of texts on their own and discuss them among peers
- communicate effectively by developing their proficiency in language
- understand their language abilities and facilitate them to with the necessary online & offline resources

Total Credits: 03 **Total Lectures: 45**

Course Content:

Prescribed Text: ***Views & Visions: An English Course book for Undergraduates*** *by* Orient BS

Prose:

1.	The Task of Education	*Vinoba Bhave*
2.	A Letter by Hazlitt to His Son	*William Hazlitt*
3.	The Bet	*Anton Chekov*
4.	Curious Mishaps	*Vikram Seth*
5.	Refund	*Fritz Karinthy*

Poetry:

1.	Polonius to Laertes	*William Shakespeare*
2.	No Men are Foreign	*James Kirkup*
3.	Stopping by Woods on a Snow Evening	*Robert Frost*
4.	The Golden Pitcher	*Acharya Vidyasagar Maharaj*

Grammar, Usage and Composition:

1. Degrees of Comparison
2. One-word Substitution
3. Synonyms and Antonyms
4. Paragraph Writing
5. Reading Comprehension
6. Summarising

(Note: All the units as covered in the prescribed text.)

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester-II

CS-29 : Operating Environment

Course Outcomes:

At the end of this course a student shall be able to:

- study the computer fundamentals
- apply knowledge of computer structure
- understand concepts of information technology
- develop skills of practically MS Office package

Total credits: 03 **Total lectures: 45**

Course content

1. Computer definition, uses, block diagram, functions of ALU, input/output, scanner, plotter, keyboard, mouse, MICR, bar decoder, OCR, joystick, monitor, printer, memory unit and CPU. **(07)**
2. Software-types, compilers, interpreter, assembler, linker, loader, high level and low-level languages. Files-types and operations, indexed, sequential and hashed organization. Sorting, merging, indexing and updating functions, concept of a file allocation table. **(10)**
3. Operating System-types-timesharing, batch processing, multiprogramming, real- time; functions of operating systems – Introduction to file management, detailed study of DOS and Windows. **(08)**
4. Networking - Data communication concepts, classification, communication media, LAN, Wan, Man, Internet, Intranet, Extranet , and their efficient use. **(10)**
5. Study of office 2000(MS-Word, MS-Power Point, MS-Excel) **(10)**

Reference Books :

1. A First course in computers by Ravi Saxena
2. Computer Fundamentals :Milind Oak
3. Computer Fundamentals : P.K.Sinha

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F.Y.B.Sc. (Computer Science) (CBCS 2018 Course) Semester-II

UGSEC 21 : HTML Programming

Course outcomes:

After completion of this course a student shall be able to:

- create local HTML pages
- design and develop basic web pages using HTML and CSS.
- use graphics in Web pages.
- use tables in Web pages.

Total credits: 02 **Total lectures: 30**

Course Content

Unit- 1 Introduction **(03)**

HTML file structure, HTML tags, types of tags

Unit-2 The Basics **(05)**

The Head, Body tag, Colors, Attributes Lists, ordered and unordered

Unit-3 Links **(05)**

Introduction, Relative Links, Absolute Links, Link Attributes, Using the ID Attribute to Link within a Document

Unit-4: Images **(08)**

Putting an Image on a Page, Using Images as Links, Putting an Image in the Background

Unit 5: – Tables **(04)**

Creating a Table, Table Headers, Captions, Spanning Multiple Columns, Styling Table

Unit 6 – Forms **(05)**

Basic Input and Attributes, Other Kinds of Inputs, Styling forms with CSS

Book Recommended:

1. Introduction to **HTML** and CSS -- O'Reilly, 2010
2. HTML, DHTML, JavaScript, Perl CGI-Ivan Byross

Software Lab Based on HTML:

Q.1. Create an HTML document with the following formatting options:

I. Bold II. Italics III. Underline IV. Headings (Using H1 to H6 heading styles)

V. Font (Type, Size and Color) VI. Background (Colored background/Image in background)

VII. Paragraph VIII. Line Break IX. Horizontal Rule

X. Pre tag

Q.2. Create an HTML document which consists of:

I. Ordered List II. Unordered List

III. Nested List IV. Image

Q.3. Create an HTML document which implements Internal linking as well as External linking.

Q.4. Create a table using HTML which consists of columns for Roll No., Student's name and grade.

Roll No.	Name	Grade

Q.5. Create HTML documents having multiple frames.

Q.6. Create HTML documents using input tags to design student registration form.

Q.7. Create HTML documents to add audio and video file on web page.

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