SEMESTER-VI

Title of the Paper: Application Development using HTML and JavaScript		
Credit: 4 **Course Outcome:**	At the end of this course, the successful students will be able to: • Write HTML coding. • Establish navigations among HTML pages. • Incorporate JavaScript in HTML pages to enhance quality	**Theory**
Unit –I		
Program, Software, Web-Application, Window Application, Local server, Web Server, Uploading files on Web Server, The Role of Configuration file on Web-Server, Web Development tools, Static Web Page, Dynamic Web Page, Navigations across the Web-Pages.		
Unit –II		
Developing and Attaching CSS files to web-page, Basic fundamentals to Application design, feasibility analysis of web-Application, Requirement Analysis of Web-Application, Creation of internal CSS file and Creation of External CSS file.		
Unit –III		
JavaScript Definition and utilization, JavaScript Placement in web-page, Client-Side JavaScript, Server-side JavaScript, Data Types in JavaScript, Variable in JavaScript and its scope, Strings, Arrays.		
Unit –IV		
Web-Page Design with <TD> and <TR> tags, Web-Page Design with <Div> tags, The implementation of FORM tags, Text formatting, Adding Graphics, flash and Multimedia to Web-Application.		

Referenced Books:

[1] Ivan Bayross, "Web Enabled Commercial Applications Development Using HTML, JavaScript, DHTML and PHP", BPB Publication, Fourth Edition.

[2] Thomas Powell, "HTML & CSS: The Complete Reference", McGraw Hill, Fifth Edition.

Suggested Reading:

[1] Steven Holzner, "HTML Black Book", dreamtech publication.

[2] Craig Grannel, "The Essential Guide to CSS and HTML Web Design", friendsof publication.

Weblinks:

[1] http://heecontent.upsdc.gov.in/

[2] https://wtf.tw/ref/duckett.pdf

Title of the Paper: Data Communication and Computer Network		
Credit: 4		Theory
Course Outcome:	At the end of this course, the successful students will be able to: • Know different network topologies. • Know networking devices and their organization. • Protect data from malicious attacks. • Know various networking models and key standards.	
Unit –I		
Data, Information, Data Vs Information, Data Communication and its Component, Communication Media, Data transmission Modes, Modem and its major types, Computer network and its advantages, World Wide Web, Internet, LAN, MAN, WAN, Bridge, router, Switch, Repeater.		
Unit –II		
OSI reference Model, TCP/IP Model, OSI Model Vs TCP/IP Model, Network topologies, IEEE Standards for Local Area Networks, IEEE 802.3 Ethernet Technologies, IEEE 802.4 Token Bus, IEEE 802.5 Token Ring, IEEE 802.6 Distributed, Queue Dual Bus, FDDI.		
Unit –III		
Sliding Window Protocols, Point-to-Point Protocol (PPP), Multiple Access Protocols, Error Detection and Error Correction, IPV6, IPV4, FTP, SMTP.		
Unit –IV		
Network Security and AIC triad (availability, integrity and confidentiality),Cryptography: Notion of Plain Text, Encryption, Key, Cipher Text, Decryption and cryptanalysis, Public Key Encryption, digital Signatures and Authentication.		

Referenced Books:

[1] Brijendra Singh, "Data Communication and Computer Networks", PHI Publication, Fourth Edition.

[2] Brijendra Singh, "Network Security and Management", PHI Publication, Third Edition.

Suggested Readings:

[1] Behrouz A Forouzan, "Data Communication and Networking", McGraw Hill Publication, Fifth Edition.

[2] Andrew S. Tanenbaum, "Computer Networks", PHI

Weblinks:

[1] http://heecontent.upsdc.gov.in/

[2] https://www.ece.uvic.ca/~itraore/elec567-13/notes/dist-03-4.pdf

Title of the Paper: Web-Page Creation Using HTML and JavaScript		
Credit: 4		Practical
Course Outcome:	At the end of this course, the successful students will be able to: • Use different HTML tags. • Design Static Web-pages. • Use CSS to make web-page attractive. • Use JavaScript to add variety of dynamic features to pages.	

1. Implementation of single and paired tags
2. Implementation of tables and frames
3. Implementation of cell spacing and cell padding
4. Implementation of marquee
5. Implementation of row span and column span
6. Implementation of javaScript with HTML
7. CSS attachment and Implementation
8. Adding visitor clock to a web-Page JavaScript
9. Dynamic menu creation using javaScript.
10. Graphics Implementation using JavaScript.
11. Interlinking of web-pages
12. Creation of Web-forms.
13. Adding calendar to web-page with JavaScript.
14. Adding rollover effects to images.
15. Fetching images through CSS in a Web-Page.

Referenced Books:

[1] Ivan Bayross, "Web Enabled Commercial Applications Development Using HTML, JavaScript, DHTML and PHP", BPB Publication, Fourth Edition.

[2] Thomas Powell, "HTML & CSS: The Complete Reference", McGraw Hill, Fifth Edition.

Suggested Reading:

[1] Steven Holzner, "HTML Black Book", dreamtech publication.

[2] Craig Grannel, "The Essential Guide to CSS and HTML Web Design", friendsof publication.

Weblinks:

[1] http://heecontent.upsdc.gov.in/

[2] https://wtf.tw/ref/duckett.pdf

Title of the Paper: Database		
Credit: 4		Practical
Course Outcome:	At the end of this course, the successful students will be able to: • Create and structure database as per needs. • Organize records in database. • Retrieve data from database. • Remove duplication of data.	

1. Table Creation.
2. Table alteration.
3. Data Insertion
4. Data Deletion.
5. Data Retrieval
6. Data alteration.
7. Schema alteration.
8. Implementation of Primary keys.
9. Implementation of Candidate key.
10. Implementation of foreign key.
11. Implementation of Composite key.
12. Implementation of DDL command
13. Implementation of DML command
14. Implementation of 1st Normal form.
15. Implementation of 2nd Normal form.

Referenced Books:

[1] Bipin C Desai, "An Introduction to Database Systems", Galgotia Publication.

[2] Abraham Silberschatz, Henry F. Korth, S. Sudarshan "Database System Concepts", McGraw Hill.

Suggested Readings:

[1] C J Date, A. Kannan and S. Swamynathan, "An Introduction to Database Systems", Pearson

[2] P. joseph, "Introduction to Database Systems", ITL Education Solutions Limited

Weblinks:

[1] http://heecontent.upsdc.gov.in/

[2] http://www.ddegjust.ac.in/studymaterial/mca-3/ms-11.pdf

Title of the Paper: Minor Project		
Credit: 4 **Course Outcome:**	At the end of this course, the successful students will learn: • To use framework and languages to complete project. • To manage admin section of computable solution. • To deal with server end.	Project

In the six semester, the student shall convert their fifth semester problem in minor project for six semester/ new project. In this semester the student shall perform following tasks:

1. Setting up system with essential software, database and server.
2. Coding the project in appropriate language.
3. Designing Graphical User Interface.
4. Connecting database to GUI.
5. Feeding data to database.
6. Retrieving data from database.
7. Bringing the project in their final shape.
8. Preparing technical report about their project in about 60 pages.