

Assam Higher Secondary Education Council (AHSEC)

2nd Year Syllabus

MULTIMEDIA AND WEB TECHNOLOGY

SYLLABUS FOR HIGHER SECONDARY COURSE

Objectives :

1. To get proficiency in Handling Computer Networks and the web.
2. To get proficiency in creating and Managing Web site.
3. To be able to write server & client scripts.
4. To design Graphical images using Image-Editing tools.
5. To get proficiency in audio & video capture and editing using software tools.
6. To get proficiency in creating presentation with Audio and Video clips.
7. To become an entrepreneur in IT field.

MULTIMEDIA AND WEB TECHNOLOGY

SYLLABUS FOR HIGHER SECONDARY FINAL YEAR COURSE

One Paper (Theory)

Time : Three Hours **Marks 70** **Periods 100**

Unitwise Distribution of Marks and Periods :

Unit No.	Title	Marks Theory	Marks Practical	Periods Theory	Periods Practical
Unit-1	Advanced Computer System	10		20	08
Unit-2	Advanced Networking	10		20	06
Unit-3	Advanced Web Technology	25	15	50	18
Unit-4	Multimedia Authoring Tools	25	10	50	18
	Viva Voce		05		
	Total	**70**	**30**	**140**	**50**

Unitwise Distribution of Course contents :

Unit-1 : ADVANCED COMPUTER SYSTEM :

Database Terminology : Data, Record/ Tuple, Table, Database

Concept of Keys : Candidate Key, Primary Key, Alternate Key and Foreign Key;

Database Tool : Using MS-Access, Creating and Saving Table, Defining Primary Key, Inserting and Deleting Column, Renaming Column, Inserting records, Deleting Records, Modifying Records, and Table Relationship

Introduction to RDBMS : Various types or RDBMS

Introduction to SQL

Creation of database, tables and views

Introduction to Stored Procedures, and Triggers

Backup and Restoring of database

Introduction of replications

Connecting to a back end database using connection string and other ways.

Unit-2 : ADVANCED NETWORKING :

Internet Protocol (IP) : IP Classes, IPV4, lPV6, CIDR, Subneting.

Mobile Computing/ Communication, GSM, CDMA, WLL, SMS, Chat, Video Conferencing.

Network Security concepts : Firewall, Cyber law, Encryption/decryption.

Unit 3 : ADVANCED WEB TECHNOLOGY :

Review of HTML/ DHTML/ XML

WEB-Server : Internet Information Server (IIS) / Personal Web Server (PWS)/Apache Server

Active Server Pages (ASP) : Concept of ASP, features of ASP, other equivalent tools– JSP, PHP;

Constants : String and Numeric ;

Data types : lnteger, Floating Point (Single, Double), String, Date, Boolean, Currency, Variant, Object;

Variables : Explicit and Implicit Declaration;

Operators :

Arithmetic : +, - (Unary and Binary), *, /, \(integer division) mod, ^;

Comparison : <, >, <=, >=, <>, =;

Logical : AND, OR, NOT, XOR, EQV, IMP;

String Operator : & or + (for Concatenation);

Functions :

Conversion functions: Abs(), CBool(),, CByte(), Clnt(), CStr(), CSng(), CLng(), CDate(); String Manipulation Functions : UCase(), LCase(), Len(), Left(), Right(), Mid(), LTrim(), InStr(), RTrim(), LTrim();

Time & Date Functions: Date(), Day(), Hour(), Left(), Len(), Minute(), Month(), Monthname(), Now();

Arrays : Declaration and use of I dimensional and 2 dimensional arrays;

Controls : IF..THEN, IF..THEN..ELSE..END IF, IF..THEN..ELSEIF..THEN..END IF, SELECT..CASE..END SELECT, FOR..NEXT, FOR EACH..NEXT, DO WHILE..LOOP, DO..LOOP WHILE, DO UNTIL. LOOP;

Procedures and Functions, Passing parameters/arguments;

Concept of object model structure (client to server and server to client);

Objects : Properties, Methods, Events, Setting Object properties, Retrieving Object properties, calling objects/methods;

Types of Objects : Response, Request, Application, Session, Server, ASPError;

Response Object : Write Method, AddHeader, AppendToLog, Binary Write, Using Shortcuts <%=value/expr%>, Controlling information : Buffer, Flush Clear, End;

Request Object : Request Object Collection : QueryString, Form, Server Variables, Cookies, Client Certificate;

Application : Contents, Lock, Unlock, Remove, RemoveAll;

ASP Components : AD Rotator, Content Rotator, Counter, Page Counter, Permission Checker;

Text Files : Open and Read content from a text file;

Elementary Database Concepts : Concept of Table/Relation, Relationship, Candidate Key, Primary

Key, Alternate Key, Foreign Key, Connecting with Databases : Creation of DSN, using OLE DB.

Working on Database : Inserting, Retrieving, Modifying/Updation of records from Tables in Databases using server objects (ADODB. Connection, ADODB. Recordset);

Server Variables : HTTP_User_Agent, REMOTE_ADDER, REMOTE_HOST, SERVER_NAME;

Unit-4 : MULTIMEDIA AUTHORING TOOLS :

Movie File Formats : AVI, MPEG, SWF, MOV, DAT;

Movie Frames : Concept or Frame, Frame Buffer and Frame Rate;

Authoring Tools; Making Animation, Embedding Audio/Video, and Embedding on the web page;

Multimedia Authoring Using Macromedia Flash

Making of Simple Flash Movie, Setting Properties, Frame Rate, Dimensions, and Background Color;

Scene : Concept of Scene, Duplicate Scone, Add Scene, Delete Scene, and Navigating between Scenes;

Layers : Concept of Layer, Layer Properties, Layer Name, Show/Hide/Lock layers, Type of Layer - Normal/Guide/Mask, Outline Color, Viewing Layer as outline, Layer Height,

Adding/deleting a layer; Frame : Concept or Frame;

Creating a Key Frame, Inserting Text Into the Frame, Inserting Graphical Elements into the frame, Converting Text/Graphics to Symbol, Inserting Symbol into the Frame, Setting

Symbol Property (Graphics/Button/Movie), Inserting Blank Frame, Inserting Blank Key Frame, Inserting Key Frame into the Blank frame, Selecting all/Specific frames of a Layer Copying/ Pasting selected Frames,

Special Effects : Motion Tweening, Shape Tweening, Color effect, Inserting Sound Layer; Testing a Scene and Movie;

Import/ Export (Movie/Sound and other multimedia objects)

Publishing : Publishing A Flash Movie; Changing publish Settings; Producing

SWF (Flash Movie), HTML page, GIF image, JPEG Image (*jpg), PNG Image, Windows Projector (*.exe), Macintosh Projector (*.hqx), Quick Time (*mov), Real Player (*smil); Testing with Publish Preview.

SYLLABUS FOR MULTIMEDIA AND WEB TECHNOLOGY PRACTICAL

Total Marks : 30

1. Advanced Web Technology : Marks-15

A website, based on a particular topic, has to be developed by each student using various commands covered in HTML, VB Script and ASP with at least 4 web pages.

Web page should be designed with following features.

- ❖ HTML Basic Tags (html/head/title/body/B/I/U/BR/HR)
- ❖ Functions
- ❖ Conditional and Control Statements
- ❖ Objects : Response/Request/ Application
- ❖ Session /Server /ASP error
- ❖ Image Editing using Photo Shop /Corel draw
- ❖ Merging layers /Moving and Copying Layers

❖ Use of Multimedia Authoring (Using Macromedia Flash)

(**Note :** Output as Web page/Flash Movie/ Windows Projector/ Quick Time)

2. Multimedia : Marks-10

Create an electronic movie with various pictures, audio clipping, movie clippings, and factual text related to school/ organisation :

❖ Introduction to 3D Animation (Using 3D Studio)
❖ Embedding video and audio in web pages.
❖ An introduction to interactive walk-through.
Embedding walk-through into web pages .

4. Viva Voce : Marks-5

Five questions from topics covered in the curriculum

Reference Books :

1. HTML Complete– Sybex (BPB)
2. Mastering HTML 4 Premium Edition– Ray (BPB)
3. HTML Example Book– Farrar (BPB)
4 Mastering WEB DESIGNING– Maccoy (BPB)
5. Inside Adobe Photoshop 6– Bouton (BPB)
6. Multimedia on the PC– Sinclair (BPB)
7. Multimedia Magic– Gokul, S (BPB)
8. Mastering CorelDraw 9– Altman (BPB)
9. CorelDraw 9 - Training Guide– Lotia, M (BPB)
10. Effective Web Design– Navarro (BPB)
11. ASP, ADO and XML Complete– Sybex (BPB)
12. Mastering Active Server Pages 3– Russell (BPB)
13. Inside Flash 5– Kea thing (BPB)
14. MP3 Complete– Hart (BPB)
15. Computer Science Vol-I by P. H. Talukdar & Utpal Bhattacharjee.
16. Computer science and Applications vol-II, by P.H. Talukdar and Mr S. Kalita.

***

Study Materials

aglasem.com

Model Papers

Sample Papers

Half Yearly Sample Papers

Important Resources

Periodic Table

Writing Skills / Formats

Maps of India / World

Notes

- [ ] Class 6 Notes
- [ ] Class 7 Notes
- [ ] Class 8 Notes
- [ ] Class 9 Notes
- [ ] Class 10 Notes
- [ ] Class 11 Notes
- [ ] Class 12 Notes

Books and Solutions

NCERT Books

NCERT Book Solutions

HC Verma Chapter Wise Solutions

RD Sharma Solutions

CGBSE Solutions