

Syllabus Unitization & Prescribed Books (Session 2023-2024)

Department of CS & IT

Class- BSc IT-IV Semester

Pattern of Question Paper - Eight questions of equal marks (Specified in the syllabus), two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Syllabus- Web Technologies

M.Marks : 75

Month wise Division	Syllabus Unitization
Jan-Feb	<u>SECTION-A</u> Introduction to websites, Static vs dynamic websites, server side and client side scripting HTML 5 : Introduction , Structure of a web page , HTML Elements, HTML attributes, Basic Text Formatting tags, Comments, Links, Lists, Image, Style, Forms, Table, Media, Classes, iframes. CSS3 : Introduction , stylesheets , selectors , styling – backgrounds, texts , fonts , links , lists , tables , Box model JAVASCRIPT: Introduction, datatypes, variables, comments ,Operators, functions and events, basics of JQuery and AJAX
March	<u>SECTION-B</u> Introduction to PHP, basics, Data types, variables, comments, control statements, functions, PHP with web design, working with files, uploading a file, sessions, cookies, error handling , database connectivity with mysql <u>SECTION-C</u> HOSTING : Overview of Domain , Hosting , SSL Certificates and steps to host a website online. Introduction to Emerging Web Technologies: Introduction to Chatbot, Artificial Intelligence and Machine Learning basics used in websites.
April	<u>SECTION-D</u> EMERGING WEB TECHNOLOGIES: Basics of Internet Of Things (IOT) used in Websites, Basics of BlockChain Technology in Websites, Augmented Reality and Virtual Reality and Basics of Single page applications websites using Angular.

Prescribed Book

Book Name – Web Technologies

Author – Balram Singh Yadav

Publisher – ABS Publications

Subject -Paper -IV JAVA & WD

M.Marks : 75

Month wise Division	Syllabus Unitization
Jan-Feb	<u>SECTION-A</u> Introduction to Concepts of Programming: Object Orientation Concepts, Platform, Independence & Cross Platform Computing. <u>SECTION-B</u> Introduction to Java: Control Statements, Operators Data Types.
March	<u>SECTION-C</u> Introduction to OOPS: Classes & Methods, constructors, Inheritance & Polymorphism. Packages & Interfaces, Multithreading in Java, Exception Handling, String handling in Java & Input/Output in Java
April	<u>SECTION-D</u> Introduction to Web Designing through HTML

Prescribed Book

Book Name – Java Programming

Author – Anshuman Sharma

Publisher –Lakhanpal Publications

Subject - DBMS

M.Marks : 75

Month wise Division	Syllabus Unitization
Jan-Feb	<u>SECTION–A</u> Introduction to data, field, record, file, database, database management system. Structure of database system, Advantage and disadvantage, levels of database system, Relational model, hierarchical model, network model, comparison of these models, E–R diagram, different keys used in a relational system, SQL.
March	<u>SECTION–B</u> DBA, responsibilities of DBA, Relational form like 1NF, 2NF, 3NF, BCNF, 4th NF, 5th NF, DBTG, concurrency control and its management, <u>SECTION–C</u> Security, recovery of database. SQL: Introduction to SQL–DDL, DML, DCL, Join methods & sub query, Union Intersection, Minus, Tree Walking, Built in Functions, Views, Security amongst users,
April	<u>SECTION–D</u> Sequences, Indexing Cursors– Implicit & Explicit, Procedures, Functions & Packages Database Triggers. Big Data: Introduction to Big Data and Analytics, Introduction to NoSQL

Prescribed Book

Book Name – Database Management System

Author – Anshuman Sharma

Publisher – Lakhanpal Publications

Subject -Paper -IV INTERNET APP

M.Marks : 75

Month wise Division	Syllabus Unitization
Jan-Feb	<u>SECTION–A</u> Introduction : About internet and its working, business use of internet, services effect by internet, evaluation of Internet, Internet Service Provider (ISP) windows environment for dial up networking (connecting to internet), audio on internet, internet addressing (DNS) and IP addresses.
March	<u>SECTION–B</u> E–Mail Basic Introduction, advantage and disadvantage, structure of an email message, working of e–mail (sending and receiving messages), managing email (creating new folder, deleting messages, forwarding messages, filtering messages, implementation of outlook express. <u>SECTION–C</u> Internet protocol Introduction, file transfer protocol (FTP), Gopher, Telnet, other protocols like HTTP and TCP/IP. WWW introduction, working of WWW, Web browsing (opening, viewing, saving and printing a web page and bookmark), web designing using HTML, DHTML with programming techniques.
April	<u>SECTION–D</u> Search engine: About search engine, component of search engine, working of search engine, difference between search engine and web directory. Intranet and extranet: Introduction, application of intranet, business value of intranet, working of intranet, role of extranet, working of extranet, difference between intranet and extranet.

Prescribed Book

Book Name – Internet Applications

Author – Anshuman Sharma

Publisher - Lakhanpal Publications