Binod Bihari Mahto Koyalanchal University, Dhanbad

Syllabus of SEC (Skill Enhancement Course)- Digital Education

Semester – I

No Internal Examination will be conducted

Full Marks 75   Pass Marks - 30

Credit – 3

Unit – 1:   Introduction to Computer (10 Lectures)

Introduction, Objectives, Computer and Latest IT gadgets, Computers & its applications, IT gadgets and their applications, Basics of Hardware and Software, Hardware, Central Processing Unit, Input devices, Output devices, Computer Memory & storage, Connecting Keyboard, Mouse, Monitor and Printer to CPU, Software, Application Software, Systems Software, Mobile Apps

Unit – 2:   Introduction to Operating System (10 Lectures)

Introduction, Objectives, Operating System, Operating Systems for Desktop and Laptop, Operating Systems for Mobile Phone and Tablets, User Interface for Desktop and Laptop, Task Bar, Icons & Shortcuts, Running an Application, Operating System Simple Setting, Using Mouse, Changing System Date and Time, Changing Display Properties, To Add or Remove Program and Features, File and Folder Management, Types of File Extensions

Unit – 3:   Introduction to linux (10 Lectures)

Introduction to Linux, History and development of Linux, Basic concepts and terminology, Linux installation and configuration, Hardware requirements, Partitioning and file systems, Installation methods, Linux command, line interface, Basic commands and utilities, File management, User and group management

Unit – 4:   Word Processing (15 Lectures)

Introduction, Objective, Word Processing Basics, Opening Word Processing Package, Title Bar, Menu Bar, Toolbars & Sidebar, Creating a New Document, Opening and Closing Documents, Save and Save As, Using The Help, Page Setup, Print Preview, Printing of Documents, PDF file and Saving a Document as PDF file, Text Creation and manipulation, Text Selection, Cut, Copy and Paste, Font, Color, Style and Size selection, Alignment of Text, Undo & Redo, AutoCorrect, Spelling & Grammar, Find and Replace, Bullets and Numbering, Change case, Header & Footer, Table Manipulation, Insert & Draw Table, Changing cell width and height, Alignment of Text in cell, Delete / Insertion of Row, Column and Merging & Splitting of Cells, Border and Shading, Shortcut Keys

Recommended Books:

1. Introduction to Computer Science, Second Edition, Pearson Publications.
2. Computer Fundamentals by Puneet kumar and Sushil Bhardwaj, Kalyani Publishers
3. LibreOffice 5.2 Getting started Guide by Libre Office documentation Team

11/10/2023

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Semester – II
No Internal Examination will be conducted

Full Marks 75   Pass Marks - 30

Credit – 3

Unit – 1: Creating Presentations (15 Lectures)

Introduction, Objectives, Creation of Presentation, Creating a Presentation Using a Template, Creating a Blank Presentation, Inserting & Editing Text on Slides, Inserting and Deleting Slides in a Presentation, Saving a Presentation, Manipulating Slides, Inserting Table, Adding ClipArt Pictures, Presentation of Slides, Choosing a Set Up for Presentation, Running a Slide Show, Transition and Slide Timings, Automating a Slide Show, Printing Slides and Handouts

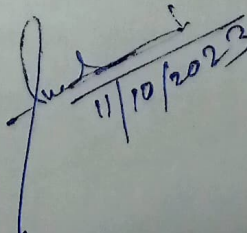**Unit – 2: Introduction to Network & Internet (15 Lectures)**

Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Internet, Concept of Internet & WWW, Applications of Internet, Website Address and URL, ISP and Role of ISP, Modes of Connecting Internet(Hotspot, Wi-Fi, LAN Cable, Broadband, USB Tethering), Popular Web Browsers (Internet Explorer/Edge, Chrome, Mozilla Firefox, Opera etc.), Surfing the web, Popular Search Engines, Searching on Internet, Downloading Web Pages, Printing Web Pages, Structure of E-mail, Using E-mails, Opening Email account, Mailbox: Inbox and Outbox, Creating and Sending a new E-mail, Replying to an E-mail message, Forwarding an E-mail message, Instant Messaging (WhatsApp, Facebook Messenger, Telegram), Digital Locker

Unit -3: Boolean Algebra(15 Lectures)

Introduction to Boolean algebra, History and development of Boolean algebra, Basic concepts and terminology, Boolean functions and logic gates, Truth tables and logical operations, Logic gates and their symbols, Boolean expressions and simplification, Boolean algebra laws and theorems, Commutative, associative, and distributive laws, De Morgan's laws, Idempotent, complement, and absorption laws, Karnaugh maps, Constructing Karnaugh maps, Minimizing Boolean expressions using Karnaugh maps

Recommended Books:
1. LibreOffice 5.2 Getting started Guide by LibreOffice documentation Team.
2. The Internet A users Guide by K. L. James, PHI publication
3. Digital Principles by Sajjan Singh and Gurpreet Sandhu, Kalyani Publishers

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Semester – III

No Internal Examination will be conducted

Full Marks 75   Pass Marks - 30

Credit – 3

Unit – 1:   Spreadsheet (15 Lectures)

Elements of Spread Sheet, Creating of Spread Sheet, Concept of Cell Address [Row and Column] and selecting a Cell, Entering Data [text, number, date] in Cells, Page Setup, Printing of Sheet, Saving Spreadsheet, Opening and Closing, Manipulation of Cells & Sheet, Modifying / Editing Cell Content , Formatting Cell (Font, Alignment, Style), Cut, Copy, Paste & Paste Special, Changing Cell Height and Width, Inserting and Deleting Rows, Column, AutoFill, Sorting & Filtering, Freezing panes, Formulas, Functions and Charts, Using Formulas for Numbers (Addition, Subtraction, Multiplication & Division), AutoSum, Functions (Sum, Count, MAX, MIN, AVERAGE),Sort, Filter, Advanced Filter, Database Functions (DSUM, DMIN,DMAX, DCOUNT, DCOUNTA), What-if Analysis, Pivot table Charts (Bar, Column, Pie, Line), Data Validation.

Unit – 2:   E-mail, Social Networking and e-Governance Services (10 Lectures)

Structure of E-mail, Using E-mails, Opening Email account, Mailbox: Inbox and Outbox, Creating and Sending a new E-mail, Replying to an E-mail message, Forwarding an E-mail message, Searching emails, Attaching files with email, Email Signature, Social Networking & e-Commerce, Facebook, Twitter, Linkedin, Instagram, Instant Messaging (Whatsapp, Facebook Messenger, Telegram), Introduction to Blogs, Basics of E-commerce, Overview of e-Governance Services like Railway Reservation, Passport, eHospital [ORS], Accessing e-Governance Services on Mobile Using "UMANG APP", Digital Locker

Unit – 3:   Digital Financial Tools and Applications (10 Lectures)

Digital Financial Tools, Understanding OTP [One Time Password]and QR [Quick Response] Code, UPI [Unified Payment Interface], AEPS [Aadhaar Enabled Payment System], USSD[Unstructured Supplementary Service Data],Card [Credit / Debit], eWallet, PoS [Point of Sale], Internet Banking, National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate Payment Service (IMPS), Online Bill Payment

Unit – 4:   Overview of Future skills and Cyber Security (10Lectures)

Introduction to Internet of Things (IoT), Big Data Analytics, Cloud Computing, Virtual Reality, Artificial Intelligence, Social & Mobile, Blockchain Technology, 3D Printing/ Additive Manufacturing, Robotics Process Automation, Cyber Security, Need of Cyber Security, Securing PC, Securing Smart Phone.

Recommended Books:

1. Openoffice.org for dummies by Gurdy Leete, Ellen Finkelstein and Marry Leete, Wiley Publishing, Inc.
2. The Internet A users Guide by K. L. James, PHI publication
3. Digital Principles by Sajjan Singh and Gurpreet Sandhu, Kalyani Publishers.
4. Fundamentals of Cyber Scurity by Mayank Bhusan, Rajkumar Singh and Aatif Jamshed, BPB Publications.

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