DETAILED SYLLABUS FOR THE POST OF TRADESMAN - COMPUTER ENGINEERING IN TECHNICAL EDUCATION - DIRECT RECRUITMENT

(Cat. Nos: 426/2023)

(TOTAL MARKS – 100)

UNIT – 1

INTRODUCTION TO COMPUTER   **10 Marks**

Identify computer peripherals and internal components of a desktop computer, Concepts of Hardware, and Software, Function of motherboard components and various processors, Various Input/Output devices in use and their feature, Introduction to operating System, Main features of Windows OS, Concept of various shortcut commands. Introduction to various types of memories and their features, Basic Hardware and software issues and their solutions, Usage of Application software and Antivirus. Introduction to basic DOS Internal and External Commands. Introduction to Open-Source Software, Introduction to Linux Operating System features, structure, files, and processes, Basic Linux commands.

UNIT – 2

USING WORD PROCESSING SOFTWARE   **10 Marks**

Introduction to the various applications in MS office. Introduction to Word features, Office button, toolbars. Creating, saving, and formatting and printing documents using Word. Working with objects, macro, mail merge, templates, and other tools in Word.

UNIT – 3

USING SPREAD SHEET APPLICATION   **10 Marks**

Introduction to Excel features and Data Types, Cell referencing and linking Sheets, Introduction to various functions in all categories of Excel, Concepts of sorting, filtering, and validating data, analysing data using charts, data tables, pivot tables, goal seek and scenarios.

UNIT – 4

USING POWER POINT PRESENTATION   **10 Marks**

Image editing, Presentations, Introduction to the properties and editing of images, Introduction to different formats of images and

their uses. Introduction to Power Point and its advantages. Creating Slide Shows. Fine tuning the presentation and good presentation technique.

UNIT – 5

DATABASE CONCEPTS   10 Marks

Concept of DBMS, RDBMS, Data Models, Concept of DBA, Database Users. Database Schema, Designing Database using Normalization Rules. Various data types Data integrity, DDL DML and DCL statements. Enforcing Primary key and foreign key. Adding Indices. Concepts of Transactions. ACID Property of Transaction Constraints. Joining of tables. Sub Queries, Functions used in query like sum, average, max, min, count etc.,

UNIT – 6

NETWORKING CONCEPTS   10 Marks

Introduction to Computer Networks, Necessity and Advantages. Client Server and peer to Peer networking concepts, Concept of Proxy Server and proxy firewall server, Concept of DHCP Server, Network topologies. Introduction to LAN, WAN and MAN, Network components- Modem, Hub, Switch, Router, Bridge, Gateway, etc., Network Cables, Wireless networks, and Blue Tooth technology. Concept of ISO - OSI 7Layer Model, Overview of various Network protocols - TCP/IP, FTP, Telnet etc., Concept of Logical and Physical Addresses, Subnetting and Classes of Networks.

Internet Concepts

Introduction to www, Concept of Internet, Web Browsers, internet servers and search engines. Concepts of Domain Naming Systems and E mail communication, Introduction to video chatting tools and Social Networking concepts.

UNIT – 7

WEBDESIGN CONCEPTS   10 Marks

Concepts of Static and Dynamic Web pages, Introduction to HTML and various tags in HTML, Concepts of different controls used in Web Pages, Concepts of CSS and applying CSS to HTML. Introduction to open-source CMS - Joomla, Word press etc. and Web authoring tools - Kompozer, Front Page etc., Concept of good web page designing techniques.

UNIT – 8

JAVASCRIPT AND CREATING WEBPAGE   10 Marks

Introduction to Programming and Scripting Languages, Introduction to JavaScript and its application for the web. Introduction to Web Servers and their features. JavaScript Basics – Datatypes, Variables, Constants and Conversion between datatypes. Arithmetic, Comparison, Logical Operators in JavaScript. Operator precedence. Program Control Statements and loops in JavaScript. Arrays in JavaScript –concepts, types, and usage. The String data type in JavaScript. Introduction to String, Math and Date. Introduction to Functions in JavaScript. Built in JavaScript functions, Concepts of Pop-Up boxes in JavaScript. Introduction to the Document Object Model.

UNIT – 9

E-COMMERCE   10 Marks

Introduction to E-Commerce and advantages, Building business on the net. Payment and Order Processing, Authorization, Charge back and other payment methods, Security issues and payment gateways.

UNIT – 10

CYBER SECURITY   10 Marks

Overview of Information Security, SSL, HTTPS, Security threats, information Security vulnerability and Risk management. Introduction to Directory Services, Access Control, Security, Privacy protection, Audit and Security. Introduction to IT Act and penalties for cybercrimes.

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper.

. . . .