Computer Skills Placement Objectives

Concepts of Information Technology (IT)

General Concepts

Hardware, Software, Information Technology

Understand the terms hardware, software, Information Technology (IT).

Types of Computer

Understand and distinguish between mainframe computer, network computer, personal computer, laptop, personal digital assistant (PDA) in terms of capacity, speed, cost, and typical users.

Main Parts of a Personal Computer

Know the main parts of a personal computer such as: central processing unit (CPU), hard disk, common input and output devices, types of memory. Understand the term peripheral device.

Computer Performance

Know some of the factors that impact on a computer's performance such as: CPU speed, RAM size, the number of applications running.

Hardware

Central Processing Unit

Understand some of the functions of the CPU in terms of calculations, logic control, immediate access memory. Know that the speed of the CPU is measured in megahertz immediate aci7.a.6

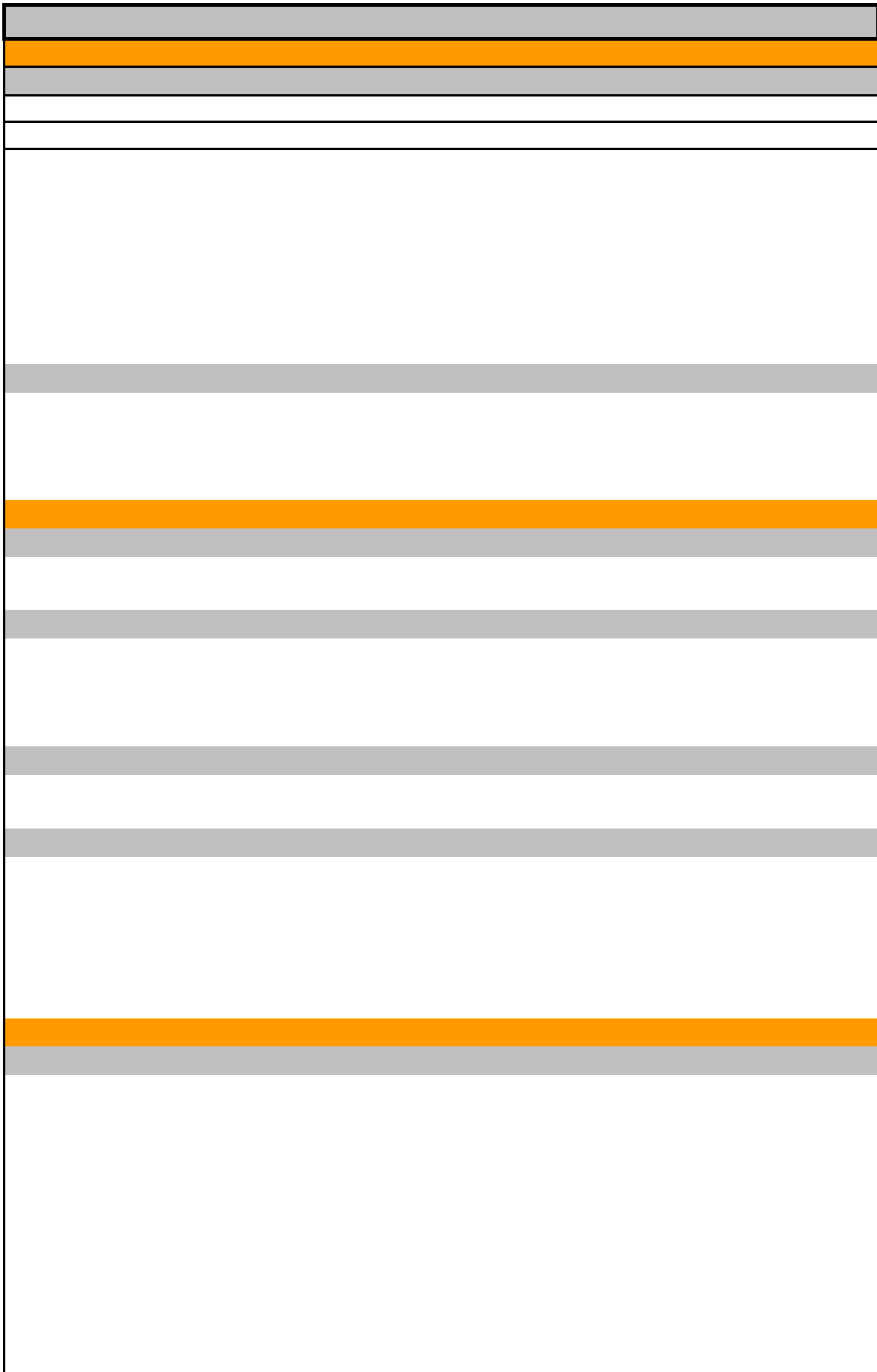| Software |
|---|
| *Types of Software* |
| Distinguish between operating systems software and applications software. Understand the reasons for software versions. |
| *Operating System Software* |
| Describe the main functions of an operating system and name some common operating systems. |
| *Applications Software* |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| Software |
| |
| |
| |
| |

Know some of the uses of computer applications in education such as: student registration and timetabling systems, computer-based training (CBT), distance learning, homework using the Internet.

Understand the term teleworking. List some of the advantages of teleworking such as: reduced or no commuting time, greater ability to focus on one task, flexible schedules, reduced company space requirements. List some disadvantages of teleworking such as: lack of human contact, less emphasis on teamwork.

Electronic World

Understand the term electronic mail (e-mail) and know its main uses.

Understand the term e-Commerce. Understand the concept of purchasing goods and services online, including giving personal details before a transaction can be carried out, payment methods, consumer's basic right to return unsatisfactory goods.

List some of the advantages of purchasing goods and services online, such as: services available 24 hours a day, opportunity to view a wide range of products. List some of the disadvantages of purchasing goods and services online such as: choosing from a virtual store, no human contact, risk of insecure payment methods.

Health and Safety, Environment

Ergonomics

Understand what elements and practices can help create a good, working environment such as: appropriate positioning of monitors, keyboards and adjustable chairs, use of a mouse mat, use of a monitor filter, provision of adequate lighting and ventilation, frequent breaks away from the computer.

Health Issues

List some common health problems which can be associated with using a computer such as: injuries to wrists caused by prolonged typing, eye strain caused by screen glare, back problems associated with poor seating or bad posture.

Precautions

List some safety precautions when using a computer such as: ensuring power cables are safely secured, power points are not overloaded.

The Environment

Be aware that recycling printed outputs, recycling printer toner cartridges, using a monitor that consumes less power while the computer is inactive can help the environment.

Understand that using electronic documents can help reduce the need for printed materials.

Security
Information Security
Understand the term information security and the benefits to an organization of being proactive in dealing with security risks such as: adopting an information security policy with respect to handling sensitive data, having procedures for reporting security incidents, making staff members aware of their responsibilities with respect to information security.
Know about privacy issues associated with computers, such as adopting good password policies. Understand what is meant by user ID and differentiate between user ID and password. Understand the term access rights and know why access rights are important.
Know about the purpose and value of backing up data, software to a removable storage device.
Be aware of possible implications of theft of a laptop computer, PDA, mobile phone such as: possible misuse of confidential files, loss of files, loss of important contact details if not available on a separate source, possible misuse of telephone numbers.
Computer Viruses
Understand the term virus when used in computing and understand that there are different types of virus. Be aware when and how viruses can enter a computer system.
Know about anti-virus measures and what to do when a virus infects a computer. Be aware of the limitations of anti-virus software. Understand what 'disinfecting' files means.
Understand good practice when downloading files, accessing file attachments, such as: use of virus scanning software, not opening unrecognized e-mail messages, not opening attachments contained within unrecognized e-mail messages.
Copyright and the Law
Copyright
Understand the concept of copyright when applied to software, and also to files such as: graphics, text, audio, video. Understand copyright issues involved in downloading information from the Internet.
Understand copyright issues associated with using and distributing materials stored on removable media such as CD's, Zip disks, diskettes.
Know how to check the Product ID number for a software product. Understand the terms shareware, freeware, end-user license agreement.
Data Protection Legislation
Know about data protection legislation or conventions in your country. Understand the implications of data protection legislation for data subjects and data holders. Describe some of the uses of personal data.

Working with Files

Word Processing
First steps with Word Processing
Open (and close) a word processing application.
Open one, several documents.
Create a new document (based on default, other available template).
Save a document to a location on a drive.
Save a document under another name.
Save a document in another file type such as: text file, Rich Text Format, HTML, template, software specific file extension, version number.
Switch between open documents.
Use available Help functions.
Close a document.
Adjust Settings
Change between page view modes.
Use magnification/zoom tools.
Display, hide built-in toolbars.
Display or hide non-printing characters
Modify basic options/preferences in the application: user name, default directory/folder to open, save documents.
Main Operations
Insert Data
Insert Text
Insert special characters, symbols.
Select Data
Select character, word, line, sentence, paragraph, entire body text.
Edit Data
Edit content by inserting new characters, words within existing text, over-typing to replace existing text.
Use the undo, redo command.
Duplicate, Move, Delete

Align text left, centre, right, justified.
Indent paragraphs: left, right, first line, hanging.
Apply single, double line spacing within paragraphs
Apply spacing above, below paragraphs.
Set, remove and use tabs: left, centre, right, decimal
Apply bullets, numbers to a single level list. Remove bullets, numbers from a single level list.
Change between the style of bullets, numbers in a single level list from built-in standard options
Add a top and bottom border, box border and shading to a paragraph.
Document Formatting
Change document orientation, portrait, landscape. Change paper size.
Change margins of entire document, top, bottom, left, right.
Insert, delete a page break in a document.
Add, modify text in Headers, Footers.
Add fields in Headers, Footers: date, pa

Spreadsheets
Using the application
First Steps with Spreadsheets
Open (and close) a spreadsheet application
Open one, several (workbooks) spreadsheets.
Create a new spreadsheet (default template).
Save a spreadsheet to a location on a drive
Save a s

Sort Data

Sort a cell range by one criterion in ascending, descending numeric order, ascending, descending alphabetic order.

Handling Worksheets

Insert a new worksheet

Rename a worksheet

Delete a worksheet

Duplicate a worksheet within a spreadsheet, between open (workbooks) spreadsheets

Move a worksheet within a (workbook) spreadsheet, between open (workbook) spreadsheets

Formulas and Functions

Arithmetic and Logical Formulas

Generate formulas using cell references and arithmetic operators (addition, subtraction,

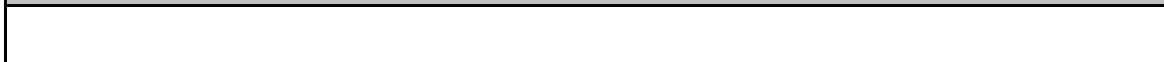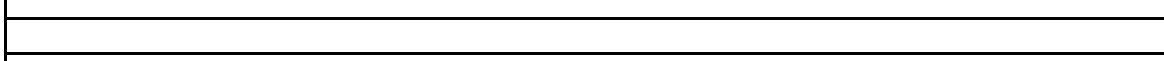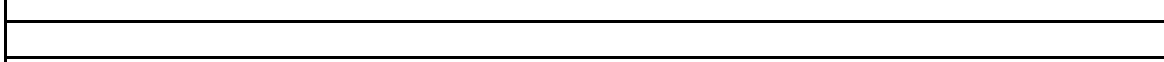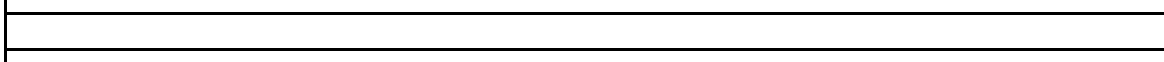| Prepare Outputs |
|---|
| **Worksheet Setup** |
| Change page margins: top, bottom, left, right. |
| Change page orientation: portrait, landscape. Change paper size. |
| Adjust page setup to fit worksheet contents on one page, on a specific number of pages. |
| Add, modify text in Headers, Footers in a worksheet |
| Insert fields: Page numbering information, date, time, file name, worksheet name into Headers, Footers. |
| **Preparation** |
| Understand the importance of checking spreadsheet calculations and text before distribution. |
| Preview a worksheet |
| Turn on, off display of gridlines, display of row and column headings for printing purposes |
| Apply automatic title row(s) viewing on every page of a printed worksheet. |
| **Printing** |
| Print a cell range from a worksheet, an entire worksheet, number of copies of a worksheet, the entire spreadsheet, a selected chart. |

Databases

Using the Application

Database concepts

Understand what a database is.

Understand how a database is organized in terms of tables, records, fields, and with field data types, field properties.

Understand what a primary key is.

Understand what an index is.

Understand the purpose of relating tables in a database.

Understand the importance of setting rules to ensure relationships between tables are valid.

First steps with databases

Open (and close) a database application.

Open, log onto an existing database.

Create a new database.

Save a database to a location on a drive.

Use available Help functions.

Close a database.

Adjust settings

Change between view modes in a table, form, report.

Display, hide built in toolbars.

Tables

Main operations

Create and save a table, and specify fields with their data types.

Add, delete records in a table.

Add a field to an existing table.

Add, modify data in a record.

Delete data in a record.

Use the Undo command.

Navigate within a table to next record, previous record, first record, last record, specific record.

Delete a table.

Save and close a table.

Define keys

Define a primary key.

Index a field with, without duplicates allowed.

Table design/layout

Change field format attributes such as: field size, number format, date format.

Understand consequences of changing field size attributes in a table.

Create a simple validation rule for number, text, date/time, currency.

Change width of columns in a table.

Move a column within a table

Table relationships

Create a one-to-one, one-to-many relationship between tables.

Delete relationships between tables.

Apply rule(s) to relationships such that fields that join tables are not deleted as long as links to another table exist.

Forms
Working with forms
Open a form.
Create and save a form.
Use a form to enter, modify, delete records.
Go to next record, previous record, first record in a form, last record, specific record using form display.
Add, modify text in Headers, Footers in a form
Delete a form.
Save and close a form.
Retrieving information
Main operations
Use the search command for a specific word, number, date in a field.
Apply a filter to a table, form.
Remove a filter from a table, form.
Queries
Create and save a single table query, two-table query using specific search criteria.
Add criteria to a query using any of the following operators: < (Less than) <= (Less than or equals) > (Greater than) >= (Greater than or equals) =(Equals) <> (Not equal to) And, Or.
Edit a query by adding, removing criteria.
Edit a query: add, move, remove, hide, unhide fields.
Run a query.
Delete a query
Save and close a query.
Sort records
Sort data in a table, form, query output, in ascending, descending numeric, alphabetic order.
Reports
Working with reports
Create and save a report based on a table, query.
Change arrangement of data fields and headings within a report layout
Group data under a specific heading (

Pictures, Images
Insert a picture into a slide
Insert an ima
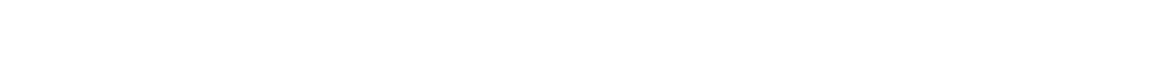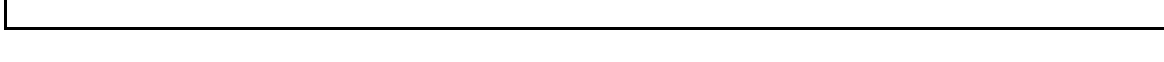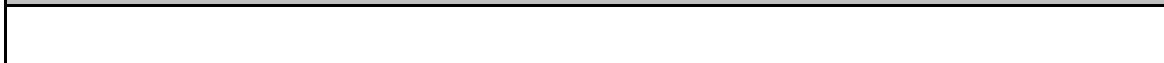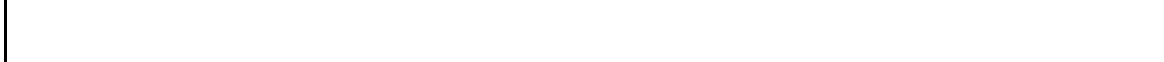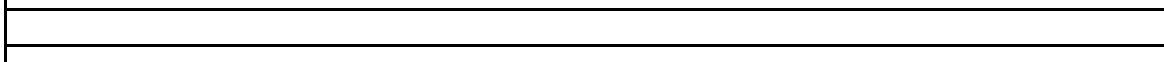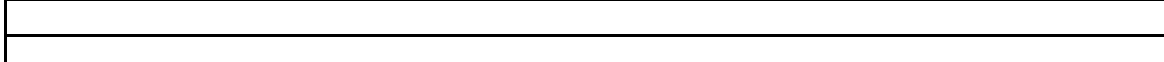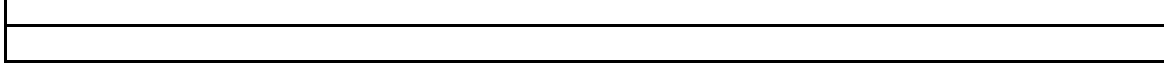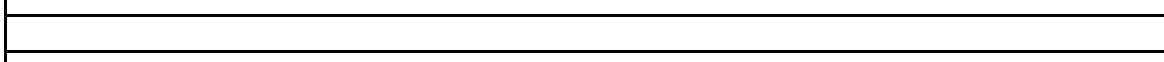
Prepare Outputs
Preparation
Select appropriate output format for slide presentation such as: overhead, handout, 35 mm slides, on-screen show.
Spell-check a presentation and make changes such as: correcting spelling errors, deleting repeated words.
Add notes for the presenter to slides.
Change slide setup, slide orientation to portrait, landscape. Change paper size.
Duplicate, move slides within the presentation, between open presentations.
Delete a slide, slides.
Printing
Print entire presentation, specific slides, handouts, notes pages, outline view of slides, number of copies of a presentation.
Deliver a Presentation
Hide, show slides.
Start a slide show, start a slide show on any slide.

Information and Communication
The Internet
Concepts/Terms
Understand and distinguish between the Internet and the World Wide Web nderstand and distin

Web Searching

Using a Search Engine

Select a specific search engine.

Carry out a search for sp