



Dr. Bhasa Science

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Nuture your dreams

A-level ICT

SENIOR Five term 3

TOPIC 2/2: Electronic Spreadsheet

Competency: The learner organises, manipulates, and visualises data to draw insights for data driven decision-making.

Electronic Spreadsheet software

Electronic spreadsheet software is an application program used to organize, analyze, and store data in tabular form. It allows users to perform calculations, create charts, and manage large sets of information efficiently.

Key Features of Spreadsheet Software

- **Rows and columns** – data is arranged in cells for easy organization.
- **Formulas and functions** – perform calculations automatically (e.g., SUM, AVERAGE, IF).
- **Data analysis tools** – sorting, filtering, pivot tables, and conditional formatting.
- **Charts and graphs** – visualize data trends (bar, line, pie charts).
- **What-if analysis** – test scenarios using tools like Goal Seek.
- **Collaboration** – multiple users can edit spreadsheets online.
- **Automation** – macros and scripts for repetitive tasks.

Examples of Spreadsheet Software

Microsoft Excel, Google Sheets, LibreOffice Calc, Apple Numbers and Zoho Sheet

Uses of Spreadsheet Software

- **Education** – managing student grades, timetables, and research data.
- **Business** – budgeting, financial analysis, inventory management.
- **Personal use** – expense tracking, household planning.
- **Data science** – organizing datasets before deeper analysis.

In short: **electronic spreadsheet software is a powerful tool for organizing, calculating, analyzing, and visualizing data across education, business, and personal use.**

Task: perform the following numbers for your practice

1. The following is an end of term marksheet in % for 14 students of term 1 of Balumya secondary school

Name	Percentage mark					
	English	Mathematics	Hist	Geography	Chemistry	Physics
Ali	58	63	40	36	56	30
David	40	16	47	43	54	17
Sarah	60	52	45	70	69	44
Abdul	25	43	67	34	55	23
Mary	80	50	56	47	44	49
Julius	78	33	44	57	64	30
Pius	75	72	34	51	68	54
Moses	72	56	50	48	70	41

- Enter the above information into an appropriate worksheet. (02 marks)
 - Create the columns: TOTAL, AVERAGE, POSITION and COMMENT.
 - Use appropriate formulas to determine for each student the:
 - TOTAL mark (02marks)
 - AVERAGE mark (02marks)
 - POSITION (03 marks)
 - COMMENT promoted for position 5 or below and Repeat otherwise.
 - Insert a column chart showing students total mark. Include chart and axes titles (04marks)
 - Insert a header of your name and personal number (01 mark)
 - Save and print your work
2. The following students sat for their term two examinations in Mathematics (mat) Computer studies (comp) and Commerce (com) and obtained the following marks.
- John scored 40 in mat, 20 in comp and 50 in com. Mary scored 90 in mat, 60 in comp and 30 in com. Tania scored 70 in mat, 65 in comp and 90 in com. Samuel scored 55 in mat, 40 in comp and 80 in com. Paul scored 50 in mat, 20 in comp and 35 in com. Albert scored 50 in mat, 60 in comp and 50 in com. Cissy scored 60 in mat, 70 in comp and 50 in com. Mersey scored 20 in mat, 90 in comp and 77 in com. Muzamil scored 80 in mat, 69 in comp and 50 in com. While Timothy scored 30 in mat, 60 in comp and 57 in com.
- Enter the given data in a spreadsheet using appropriate column headings and table title. Save your work as your name and personal number. (06marks)
 - Use a formula in column E to compute the average score for each student and name it AVERAGE MARK. (02 marks)
 - Sort the data in descending order based on column E (01mark)

- (d) Incline the column headings to an angle 45° (02marks)
- (e) (i) Create a column graph for students' marks in the three subjects. Label your graph appropriately.
(ii) Move the graph to a new sheet and rename it as students' Marks (04marks)
- (f) Use an appropriate formula in column F to grade the students with the criteria below
EXCELLENT for all students with an average mark of 70 and above
PASS for those with an average mark of 50 and above, but less than 70 and FAIL for all students with an average mark below 50. (03marks)
- (g) Apply all border on the data. (01marks)
- (h) Save and print all your work. (01mark)

3. The statistics below shows the rainfall in millimeters (mm) received in Kisoro district in 2012:

January 63	February 81	March 117	April 186	May 156	June 15
July 12	August 36	September 147	October 144	November 153	December 60

- (a) Use any spreadsheet application to enter the data above
Save it as your name and personal number (06 marks)
- (b) Insert a suitable heading for the data. (02 marks)
- (c) Use appropriate formulae to compute the rainfall received every month in:
 - (i) 2013, if there was an increase of 5% from the previous year 2012. (02marks)
 - (ii) 2014, if there was a decrease of 10% from that of 2013. (02marks)
- (d) (i) Create a 3-D column chart showing month and actual rainfall received in the 3 years.
(03marks)
(ii) Insert a suitable title for the graph and label the axes. (02marks)
- (e) Insert your name as header and personal number as the footer. (02marks)
- (f) Save and print. (01mark)

Thank You

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