451/2 COMPUTER STUDIES- PAPER 2 (PRACTICAL)
JULY 2021
2 ½ hours

MOKASA 1 JOINT EXAMINATION
Kenya Certificate of Secondary Education
(K.C.S.E)

Instructions to candidates

(a) Indicate your name and index number at the top right hand corner of each printout

(b) Write your name and index number on the CD/Removable storage medium provided.

(c) Answer all the questions

(d) All questions carry equal marks

(e) Passwords should to be used while saving in the CD/Removable storage medium

(f) All answers must be saved in your CD/Removable storage medium

(g) Make a printout of the answers on the answer sheet

(h) Arrange your printouts and tie/staple them together

(i) Hand in all the printouts and the CD/Removable storage medium used

(j) This paper consist of 5 printed pages

(k) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that o questions are missing

1. MASL is a company thatengages in the sales of the following Mobile service providers: Faiba, Gateway, vodafone and SAF. The company uses sales representatives who operate at various regions in Nakuru town. Each sales representative presents monthly sales to the manager (Values are in Ksh).

	A	B	C	D	E	F
1	**Mobile_Accessories Sales LTD**					
2		**Product type**				
3	**Sales Rep.**	**Faiba**	**Gateway**	**Vodafone**	**SAF**	**Total Sales**
4	Kipkulei	24000	37500	39500	49500	
5	Tom	15000	26500	21500	25500	
6	Sharon	5500	14800	3500	16500	
7	Oscar	7000	15500	14500	64500	
8	Linda	11000	69000	2200	64500	
9	Danelaw	33500	12000	14500	25500	
10	Muriithi	15500	80000	17200	23500	

(a) Using spreadsheet package,
   (i) Enter the information given in the table 1 into a worksheet.Save workbook as **MASLREPS** and rename sheet 1 as **Sales.**   (20 marks)
   (ii) Validate all the cells in the Product Type columns to allow entry of numeric data **only**. A message, "Invalid data! Enter numbers" should be displayed whenever a cell is typed with non-numeric data.   (3 marks)
(b) Using formulae, determine the;
   (i)   Total sales for each Sales representative   (2 marks)
   (ii)   Producttype Total Sales for each month.   (2 marks)
(c) Each sales person earns Bonus points for the sales of each product type based on the following criteria.

   • 1 point if sales are greater than 50,000 for Faiba,

   • 2 points if sales are greater than 60,000 Gateway,

   • 3 points if sales are greater than 50,000 Vodafone

   • 2 points if sales are greater than 60,000 for SAF

   Insert a column **BonusPoints** and compute the points of each sales Person.   (4 marks)
(d) Insert a blank column **Awards** and based on the **Total Sales** earned by each sales representative. Use a function to display the remarks on Awards as follows: (5 marks)

Total Sales	Awards
More than 250,000	Cash
More than 100, 000 and less than 250,000	Voucher
Less than 100,000	Try again

(e) Format the figures in worksheet as follows: (4 marks)
   • Title and subtitle:
      ✓ Double underline
      ✓ Font type – Algerian
      ✓ Font size 26
   • Apply borders to the data in the workbook.

(f) Rotate Up, all the Product Type heading labels in the worksheet.   (1 mark)

(g) Generate a column chart to representthe Total sales for each salesrepresentative. Label your chart accordingly and place it in worksheet 2 renamed as CHART.   (7 marks)

(h) Print MASL and CHART   (2 marks)

2. Using word processing program type the document as it appears and save it as **EDUC AI**

ARTIFICIAL INTELLIGENCE IN EDUCATION

For decades, science fiction authors, futurists, and movie makers alike have been predicting the amazing (and sometimes catastrophic) changes that will arise with the advent of widespread artificial intelligence. So far, AI hasn't made any such crazy waves, and in many ways has quietly become ubiquitous in numerous aspects of our daily lives. From the intelligent sensors that help us take perfect pictures, to the automatic parking features in cars, to the sometimes frustrating personal assistants in smart phones, artificial intelligence of one kind of another is all around us, all the time.

While we may not see humanoid robots acting as teachers within the next decade, there are many projects already in the works that use computer intelligence to help students and teachers get more out of the educational experience. Here are just a few of the ways those tools, and those that will follow them, will shape and define the educational experience of the future.

α Automation of basic activities in education, like grading.
α Educational software can be adapted to student needs.
α It can point out places where courses need to improve.

α Students could get additional support from AI tutors.
α AI may change where students learn and how they acquire basic skills.
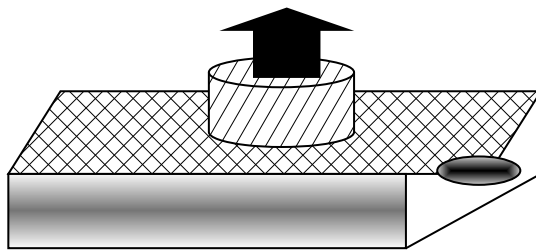α It is altering how we find and interact with information.

Automation basic activities in education, like grading.
In lower grades, teachers often find that grading takes up a significant amount of time, time that could be used to interact with students, prepare for class, or work on professional development.A1 can be used to automate grading systems and present the output in tables .

GRADE THREE COMMON EXAMINATION				
SIR NAME	**LANGUAGE SKILLS**	**COMPUTING SKILLS**	**ENVIRONMENTAL SKILLS**	*Total Score*
Macmillan	87	50	78	
Trevor	92	95	76	
Johnstone	73	85	90	
Kathleen	67	56	75	
Count				
Highest Scores				

Educational software can be adapted to student needs.
From kindergarten to graduate school, one of the key ways artificial intelligence will impact education is through the use of application programs.learners can draw 3D diagrams such as the one shown below

Teachers may not always be aware of gaps in their lectures and educational materials that can leave students confused about certain concepts. Artificial intelligence offers a way to solve that problem.

a. using a word processing application software type the document below as it appears and save it as EDUC AI (22 Marks)

b. Copy the document EDUC AI in a new document and save it as EDUC AI2 then use it to answer the questions that follows (2 Marks)

c. Format the heading as follows;

- Center align, font size – 14, font color – red, font type – Algerian, double underline, scale – 130% (3 Marks)

d. Insert your name, Adm No ,system time as a header and your class and page number as a footer (2 Marks)

e. Spell check the document to remove all typing errors (2 Marks)

f. Center align the first paragraph (1 Mark)

g. Find all occurrences of the word AI in the document and replace with "**Artificial Intelligence** " (1 Mark)

h. Resize the diagram between the last two paragraphs and move it to the second paragraph and send it behind text (3 Marks)

i. On the grade three table,

i. Split the cells in the total score column to separate each students' marks (1 Mark)

ii. Insert a new row at the bottom of the table to display the average total scores and merge the first four columns of the row (3 Marks)

j. Use appropriate function to calculate:

i. Total score (2 Marks)

ii. Number of students who did each exam (2 Marks)

iii. Highest score attained in each subject (2 Marks)

iv. Average total scores (2 Marks)

i. Print EDUC AI (1 Mark)

ii. EDUC AI2 (1 Mark)