

THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Secondary Education



451/2

Paper 2

COMPUTER STUDIES (Practical)
Nov. 2023 - 2½ hours

Serial No.

10505548

Instructions to Candidates

- (a) Write your name and index number at the top right hand corner of each of the papers provided for printing.
- (b) Write your name and index number on the CD/Removable storage medium provided.
- (c) Write the name and version of the software used for each question attempted in the printouts used.
- (d) Answer **all** the questions.
- (e) All questions carry equal marks.
- (f) Passwords **should not be used** while saving files.
- (g) All files must be transferred to the CD/Removable storage medium.
- (h) Make printouts of your answers on the papers provided for printing.
- (i) Arrange your printouts and tie/staple them together.
- (j) Hand in all the printouts and the CD/Removable storage medium used.
- (k) **This paper consists of 8 printed pages.**
- (l) **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**
- (m) **Candidates should answer the questions in English.**



- 1 (a) Open a word processing program and create the following document as it appears. Save it as *Fancymusic*. (15 marks)

FANCY MUSIC SCHOOL

Fancy Music School is a top rated music school situated in Majuu. It offers comprehensive studies in both practical and theoretic music education. The school offers training in:

1. Piano
2. Guitar
3. Music production
4. Video production
5. Music theory
6. Other music related areas of study
7. Core subject.



If you are seeking a school of music, we advise you to try our school. Our school has highly trained music trainers with widespread teaching and performing experience.

The following is the course outline of the core subject in the study area:

Course Outline

- *Music studio hardware devices, their functions and connections.*
- *Sequence music in different genre from, R n B, Afro fusion, rhumba, bongo, gospel and other popular types.*
- *Mixing analogue and digital hardware mixers.*
- *How to mix on software and VST mixers.*
- *Use of digital audio workstations sequencers.*
- *Using signal processors like equalizers, compressors, maximizers, amongst others.*

AMOUNT CHARGED FOR EACH LESSON		
LESSON	TIME	AMOUNT
Piano	08.00 am TO 10.00 am	12,000
Guitar	10.30 am TO 12.30 pm	15,000
Violin	02.00 pm TO 04.00 pm	10,000



(b) Apply each of the following formats to text in the document:

(i) Drop cap to the word 'Fancy' in the first paragraph with a spacing of 7.6 mm. (1 mark)



(ii) Align the heading "course outline" to the centre and set its character size to 13 pt. (1 $\frac{1}{2}$ marks)

(iii) Three columns on the bulleted text with lines between them. Set the width of the first column to 70 mm. (1 $\frac{1}{2}$ marks)

(c) Apply each of the following formats to the table:

(i) cell spacing of 0.8 mm; (1 mark)

(ii) insert a caption "music is fun" below the table. (1 $\frac{1}{2}$ marks)

(iii) insert a row below the Violin details. Type the text **TOTAL** in the second cell of the inserted row. (1 mark)

(iv) use a function to compute total for the amount. (1 mark)

(d) (i) Create the following logo as it appears in **Figure 1**. (3 $\frac{1}{2}$ marks)

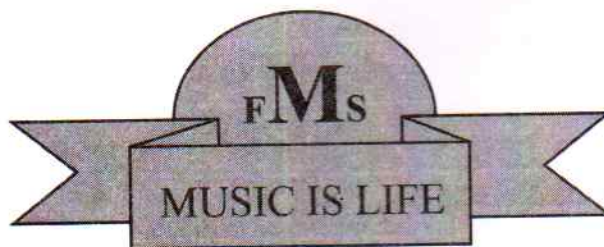



Figure 1

(ii) Move the logo to appear above the title "Fancy Music School". Align it at the centre. (1 $\frac{1}{2}$ marks)

(e) Insert page numbers of format *Page x of y* at the bottom of each page of the document. (2 marks)

- (f) The management of Fancy Music School intends to use mail merge feature to create letters inviting fans to attend an extravaganza in the school.
- (i) Open a blank word processing document and create a datasource as it appears in **Table 1**. Save the document as *invitee*. $(3\frac{1}{2}$ marks)

Table 1


Title	Name	Phone_No	Fees
Mr	Joan	0181014	8000
Mrs	Ali	0723566	7000
Dr	Dorcas	0739445	5000
Mr	John	0814613	6500

- (ii) Open a blank word processing document and create the following invitation letter. Save the document as *extravaganza*. $(7\frac{1}{2}$ marks)

Fancy Music
P.O. Box 77711
Majuu

To «Title» «Name»
«Phone_No»

Dear «Name»

RE: MUSIC EXTRAVAGANZA

- ☐ It is my pleasure to invite you for a Music extravaganza in our Music School. You are requested to pay an entry fee of Ksh «Fees» to help grace the occasion. All visitors to be seated by 9.00 am.

Your presence will be highly appreciated.

Your faithfully

John Harry



Event Coordinator



- (iii) Merge the invitee data source in (i) with the extrayaganza document. Save the merged document as **musicinvites**. (5 $\frac{1}{2}$ marks)

(g) Print out later, each of the following:

- Fancymusic;
- Invitee;
- Merged letter for Dorcas.

(3 marks)

- 2 **Figure 2** is a spreadsheet extract showing income and distance covered by taxis on different dates and time. Study it to answer the questions that follow:

- (a) Open a spreadsheet program and key in the data in sheet 1 as it appears in **Figure 2**. Save the file as **Taxisincome**. (8 marks)

	A	B	C	D	E	F
1	REGISTRATION NUMBER	DATE	4.00 AM-9.00AM	9.00 AM-1.00 P.M.	1.00PM-5.00PM	DISTANCE (KM)
2	KBBT 1002	15/1/2023	4000	2000	3000	45
3	KCCT 1004	17/1/2023	3000	1500	2000	36
4	KCCT 1005	18/1/2023	700	500	900	25
5	KVCT 7005	19/1/2023	6000	800	900	38
6	KJCT 1222	17/1/2023	1000	800	1250	18
7	KTTX 2545	18/1/2023	1800	1900	3000	34
8	KLTX 1345	19/1/2023	1700	2000	2000	33
9	KMCT 4445	15/1/2023	900	4000	25000	34
10	KUCT 140L	19/1/2023	1300	3000	700	22
11	KRRT 1678	15/1/2023	1000	2000	800	32
12						
13						
14	FUEL PER KM	25				

Figure 2

- (b) (i) Insert the following column headings to the cells indicated.

- Total income in G2
- Fuel Expenditure in H2
- Parking Fee in I2
- Commission in J2
- Profit in K2

(1 mark)

- (ii) Format the cells containing column headings as follows:

- Background colour: Black;
- Font colour: White.

(1 mark)

- (c) (i) Insert a row above the column headings. ($\frac{1}{2}$ mark)
- (ii) Merge and centre the cells in the range A1: K1. (1 mark)
- (iii) Enter the text "INCOME GENERATED FROM TAXIS" in the merged cell and bold the text. (1 mark)
- (iv) Change the worksheet orientation to landscape. Scale the worksheet to 65%. (2 marks)
- (d) (i) Copy the content of sheet 1 to sheet 2. Rename sheet 2 as **income computed**. ($1\frac{1}{2}$ marks)
- (ii) Apply thousand comma separator to the values in the range C3:E12. (1 mark)
- (iii) Use the conditional format feature to apply a red fill with dark yellow text for values that are less than 1000 in the cell range C3:E11. (3 marks)
- (e) Using a formula and cell addresses only, compute each of the following:
- (i) Total income generated by each Taxi. ($1\frac{1}{2}$ marks)
- (ii) Total income generated by all the taxis from 4.00 am to 9.00 am. (1 mark)
- (iii) Fuel expenditure for each Taxi, given that the expenditure is obtained as a product of distance (km) and the constant rate indicated in cell B15. ($2\frac{1}{2}$ marks)
- (iv) Parking fee given that is charged at 2% of the total income. ($1\frac{1}{2}$ marks)
- (f) The commission paid to each taxi driver is computed using the criteria shown in **Table 2**.

Total income	Commission Rate (%)
Greater than 10,000	10
Greater than or equal to 5000 and less than or equal to 10000	7
Less than 5000	4

Use the if function to compute the commission for each Taxi driver.

($5\frac{1}{2}$ marks)

- (g) Using the Countif function, compute the number of Taxis that did not operate on 15/01/2023. (3 marks)

- (h) (i) Insert your name and index number at the bottom centre of the footer. (1 mark)
- (ii) Set the worksheet margins to 1 cm all round. (1 mark)
- (iii) Insert single line borders to all the cells with values. ($\frac{1}{2}$ mark)
- (i) (i) Insert a *clustered bar* chart that compares income generated by the following taxis; KBBT 1002, KVCT 7005, KMCT 4445 between 4.00 am - 9.00 am and 1.00 pm - 5.00 pm. (3 $\frac{1}{2}$ marks)
- (ii) Apply the following formats to the chart: (6 marks)
- Chart title: INCOME GENERATED COMPARISON
 - X - axis: Registration Number
 - Y-axis: Income in Ksh
 - Data table: Enabled
 - Bars representing data for 4.00 am -9.00 am to be filled with black colour.
 - Bars representing data for 1.00 pm -5.00 pm to be filled with orange colour.
- (iii) Move the chart to a new chart sheet and rename the sheet as **comparison**. (1 mark)
- (j) Save the changes to print out later each of the following:
- Income-computed;
 - Comparison.



(2 marks)

THIS IS THE LAST PRINTED PAGE.