

Name Index No.

481/2

COMPUTER STUDIES

Paper 2

(Practical)

July/August 2014

Time: 2½ Hours

WESTLANDS FORM 4 JOINT EXAMINATION
Kenya Certificate of Secondary Education

COMPUTER STUDIES

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INSTRUCTIONS TO CANDIDATES

- * *Type your name, school and index number at the top right hand corner of each printout.*
- * *Write your name and index number on the CD / removable storage medium provided*
- * *Write the name and version of the software used for each question attempted in the answer sheet provided*
- * *Answer **all** questions*
- * *All questions carry equal marks*
- * *Passwords should not be used while saving on the CD / removable storage medium*
- * *Make printout of the answers on answer sheets*
- * *Hand in all the printouts and the CD / removable storage medium*

1. The following data is an extract of data obtained from Chai company records. Study the data and answer the questions that follow.

Area	Producer Id	Name	Quantity delivered (kg)	Gross pay	Transport cost	Deduction	Net pay
101B	115	John Kamau	4562				
79A	145	Mathew B	1254				
79A	012	Kanuga Syron	235				
79A	561	Vin Wangige	8954				
101B	016	Joseph Kaitano	9658				
20Z	123	Namachanja Esther	7895				
20Z	458	Kerobo Betty	456				
101B	654	Flo Ngina	421				
79A	758	Mary Nguriareng	7895				

- Enter the data shown in the table above into a spreadsheet giving it an appropriate title which is centred and bolded across the worksheet.
 - Save the workbook as CHATOOL.
 - Rename the worksheet as June records. (10 marks)
- Copy the data to a new worksheet and add the details of producer James Kirega of area 101 B, Id 452 with quantity of produce of 2, 700kg in an appropriate row. (1 mark)
- Insert borders after every cell and every row. (2 marks)
- Use a function to calculate the gross pay for the producer with id number 115 given that the price per Kg of the produce is Sh.41 .00 (2 marks)
- Use the formula for gross pay obtained for producer John Kamau to calculate the gross pay for all the farmers (2 marks)
- Use if function to calculate transport cost for all the producers given that transport is charged per Kg as follows. (5 marks)

	AREA		Price per kg
101B			5.00
20Z			3.50
79A			4.00

- Insert the value 20% in cell E14. Using absolute cell referencing calculate: Deductions given that the deduction is 20% of the cost. (4 marks)
- Using a function calculate the net pay given that Net pay is Gross pay-deductions and transport cost. (4marks)
- Format the columns containing currency values to currency with 2 decimal places and prefix Ksh. Rename the worksheet PRODUCE PAY and save it as CHAI 002 (3 marks)
- Arrange the records in ascending order of the producer id. (2 marks)

k) By applying suitable filter condition, display records for all producers except those from area 79A. Save it as CHAT 003. (4 marks)

l) Use subtotals function to calculate subtotals for the quantity delivered, gross pay and net pay from each area. (3 marks)

m) Create an embedded pie chart showing the total quantity of produce delivered for each area the chart should have the following details.)

(i) Chart title Area Total produce delivered

(ii) Legend Position Right

(iii) Save it as CHART 001

(5 marks)

n) Print CHAT 001, CHAT 002, and CHART 1 in landscape orientation.

(3 marks)

2. TechBit Computer College and Consultancy centre have set up a special advertising campaign to market its course. As a DTP expert, you have been appointed to assist the marketing team in designing a brochure. The rear page of the brochure is given in the next sheet. The fonts, borders and graphics used should be relevant to the publication as may be available in your software.

a) Prepare a publication with the following specifications:

i) Paper size set to A4, landscape.

(2 marks)

ii) Set margins to 10mm (0.4") all round

(2 marks)

iii) Set the publication to be in three columns measuring 38mm, 84mm and 93mm respectively.

(2 marks)

iv) Set the space between columns to 6mm.

(2 marks)

(b) Key in the text as shown in columns 1 and 3 in the sample provided.
Save your work as SAMPLE_1.

(8 marks)

c) In column (title pane), format the various items as follows:

i) Set the transparency of the fill colour to 25%

(2 marks)

ii) Bold and italicize the mission statement heading

(2 marks)

iii) Italicize and centre the "mission statement".

(2 marks)

iv) Set the vertical alignment of the text box bearing the words "The Best College for You" to middle

(2 mark)

v) Apply blue and green fill to stars on your left and right respectively as shown in the sample

(3 marks)

vi) Place the clipart and word art appropriately as shown in column 3 of the SAMPLE_1.

(4 marks)

vii) Save your work as SAMPLE_2

(1 mark)

d) In column I (Liaison offices), format the text as follows;

i) Apply shadow to the title Liaison Offices and set the font size to 20

(2 marks)

ii) Apply double underline to each of the telephone numbers

(2 marks)

iii) Set the colour of the names of the buildings to blue

(2 marks)

iv) Insert the footer: *Registration and enquiries at our head office*

(1 mark)

v) Apply blue outline to the textbox bearing the title Liaison Offices

(1 mark)

e) Create a mailing coupon as it appears in column 2.

(2 marks)

f) Format the mailing coupon as follows:

i) Bolden and centre the address as shown in the sample

(2 marks)

ii) Draw and enter Place stamp here caption at the top right corner

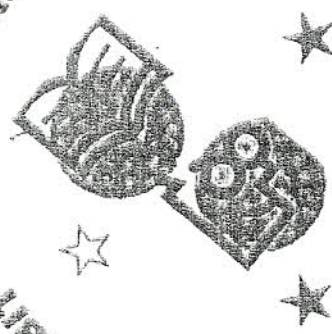
(2 marks)

iii) Save your work as sample 3

(1 mark)

g) Print SAMPE-1, SAMPLE-2 AND SAMPLE-3

(3 marks)



Mission Statement

To provide quality training in ICT skills to develop individuals and corporations towards satisfaction of global ICT needs

The Best College for You

Inspiration precedes perspiration

POSTAL INFORMATION



TECHBIT COMPUTER COLLEGE & CONSULTANCY SERVICE
P.O. BOX 802909
NAIROBI

NAME _____
ADDRESS _____
CITY _____
POSTAL CODE _____

NAIROBI LIAISON OFFICES
Nyenda House
Barabara Road
P.O. BOX 82828-00100
TEL: +254 828 7923 893

NAKURU LIAISON OFFICES
Nyumba House
Karibu Road
P.O. BOX 8905-00900
TEL: +254 898 00878

KITALE LIAISON OFFICES
Vision Gate
Hakuna Road
P.O. BOX 23223-50200
TEL: +254 424 5265 65

MIGORI LIAISON OFFICES
Oladhe House
Fipina Road
P.O. BOX 992-5060
TEL: +254 9999999

Liaison Offices

SECTION B : (60 Marks)

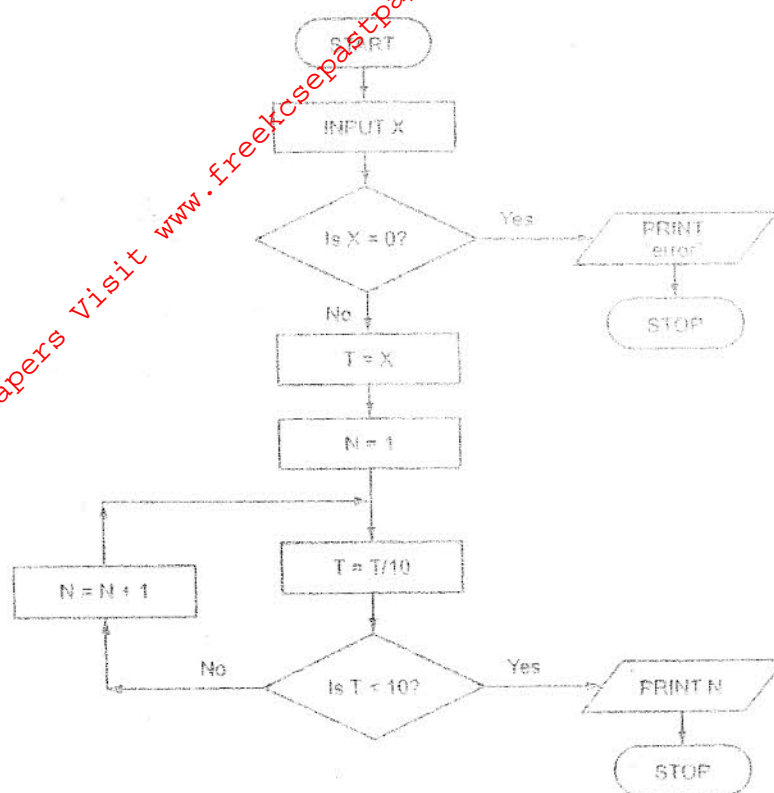
Answer questions 16 and any other three questions from this section in the spaces provided.

16. a) Write an algorithm, using pseudocode or a flowchart, which :
- inputs 50 numbers
 - outputs how many of the numbers were ≥ 100

(3 marks)

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b) Study the following flow chart very carefully:



What output would you expect if the following data was input into the flowchart? (3 marks)

X	Output
-150	
540	
0	

c) A hospital has a local area network that links all the departments in the hospital.

a) i) State what is meant by term local area network (LAN)

(2 marks)

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ii) State three purposes the LAN might be used by a hospital doctor.

(3 marks)

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b) The hospital is linked to other hospitals in the region by a wide area network.

i) State what is meant by the term wide area network (WAN)

(2 marks)

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ii) State three purposes the WAN might be used by a hospital doctor.

(3 marks)

iii) The hospital also uses an intranet for some tasks.

i) State what is meant by the term intranet

(2 marks)

ii) State three purposes a hospital might use the intranet

(3 marks)

18. a) Give two ways that computers can help teachers teach a lesson.

(2 marks)

b) Give two ways that teachers could use a computer system to send work electronically to students who are absent from a lesson.

(2 marks)

c) A supermarket makes use of barcodes on all its goods as part of its automatic stock control system. Describe how the price is found for each item sold.

(4 marks)

- d) The following are steps in the automatic stock control system. Number the steps in the correct order. (4 marks)

if stock level \leq minimum stock level	
report printed out for the manager	
stock level reduced by 1	
new stock value written back to file	
more items are ordered automatically	

- e) Give three file management tasks that are done by a computer operating system. (3 marks)

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19. a) Two methods of connecting to the internet are dial-up and broadband. Give two advantages of using broadband. (2 marks)

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- b) Computers often use wireless (WiFi) technology to connect to the Internet. Give one advantage and one disadvantage of using WiFi (2 marks)

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- c) Apart from computers, name four devices that uses WiFi technology. (4 marks)

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- d) The password is typed in twice. Why is this done? (1 mark)

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e) A menu then appears on her screen. She chooses to connect to the internet.

Describe two ways her computer system is protected against loss or corruption of files once the computer system is connected to the Internet. (2 marks)

f) The worker leaves her computer system for a 10-minute break.

i) From a health and safety aspect, why does she need to take a regular break? (1 mark)

ii) Apart from switching off her machine, how could she ensure her computer system was secure whilst taking her regular break? (1 mark)

g) Give two reasons why video-conferencing is gaining in popularity. (2 marks)

20. A database showing the population of world cities has been produced. A section of the database is shown below.

Ref No.	Name of City	Country	Area	City population (m)	Urban population (m)	Capital
1	Tokyo	Japan	Asia	33.2	34.1	Yes
2	New York	USA	America	17.8	21.9	No
3	Sao Paulo	Brazil	America	17.7	20.2	No
4	Seoul	S. Korea	Asia	17.5	22.3	Yes
5	Mexico City	Mexico	America	17.4	22.7	Yes
6	Osaka	Japan	Asia	16.4	16.8	No
7	Manila	Philippines	Asia	14.8	14.9	Yes
8	Mumbai	India	Asia	14.4	19.7	No
9	Jakarta	Indonesia	Asia	14.3	17.2	Yes
10	Calcutta	India	Asia	12.7	15.6	No

a) How many records are shown above? (1 mark)

b) Using Ref No only, which records would be found if the following search condition was typed in
(County = "India" or Area = "America") AND (Capital = "No") (2 marks)

c) Write a search condition to find the cities in Asia with a city population greater than 17 million
OR an urban population greater than 20 million. (2 marks)

d) Give one advantage of using Y or N rather than Yes or NO in the capital column. (1 marks)

e) Using two's complements compute the following :
i) $25_{10} - 14_{10}$ (3 marks)

ii) $17_{10} - 7_{10}$ (3 marks)

iii) Convert the hexadecimal number $2AFC17_{16}$ to its octal equivalent. (3 marks)