

NAME.....INDEX NO.....

SCHOOL.....CANDIDATE'S SIGN.....

DATE.....

451/1

COMPUTER

(THEORY)

PAPER 1

MARCH/APRIL 2015

Time: 2 ½ Hours

KABONDO DIVISION JOINT EVALUATION TEST

Kenya Certificate of Secondary Education (K.C.S.E)

INSTRUCTIONS TO CANDIDATES

- Write your name, school and Index number in the spaces provided above.
- Answer ALL the questions in the spaces provide

Question	Maximum	Score
A	1 - 15	
B	16	
	17	
	18	
	19	
	20	
	21	

For Examiners Use Only

This paper consists of 14 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing.

1. Give importance of having the following in computer laboratory (3mks)

i). Standard furniture in the laboratory

ii). Antiglare screen /monitor

iii). UPS

2. Distinguish between ROM and RAM (2mks)

3. Explain the following computer crimes (2mks)

i). Fraud

ii). Alteration

4. a). Define

i) Firewalls

ii) Data encryption

5. Differentiate between the following terms as used in word processing (3mks)

a). Drop Cap and Case

b).Superscript and Subscripts

c). Indent and tab

6. a).State and explain any one type of computer processing file (1mk)

b). List any two file organization methods (2mks)

7. Describe the following terms as used in internet

a). Webpage (1mk)

b).Blog (1mk)

c). Hyperlinks (1mk)

d). Web portal (1mk)

8. a).Give four advantages of DTP over a word processor (2mks)

b).Differentiate between the following

i). Kerning and tracking (2mks)

ii).Margins and column guides (2mks)

9. Define the term simulation (1mk)

10. Differentiate between baseband and broadband signal as used in networking (2mks)

a). Baseband signal

b).Broadband signal

11. Explain how the operating system controls the following resources (3mks)

i). Processor

ii). Main memory

iii). Input and Out put devices

12. What is deadlock in reference to operating systems (1mk)

13. a). The most popular type of electronic data storage currently use magnetic disk storage such as hard disk or Winchester disk. Give reasons as to why they are popular (2mks)

- b). Outline two advantages of hard disk over floppy disk (2mks)

14. Define the following computer crimes

- a. Piracy (1mk)

- b. Industrial espionage (1mk)

15. Explain two ways of protecting data and information against unauthorized access (2mks)

SECTION B 60 MARKS

Answer question 16 and any three questions

16. A.)List two examples of

- i). Third generation languages (2mks)

- ii). Object oriented languages (2mks)

b). Define

i). Object code

ii). Source code

c). Differentiate between a compiler and an interpreter (2mks)

e). A car rental firm leases its cars for Kshs.2500.00 per day. The manager gives a discount based on the number of days that the car is rented .If the rental period is greater than or equals to 7 days then a 25% discount is given. Write a pseudocode to accept a car number and the rental period, and calculate the total amount earned by the company when a car is leased. (7mks)

17. a). Subtract 0111_2 from 1001_2 (2mks)

b). Using two's compliment ,subtract 7 from 4 and give the answer in binary notation. (4mks)

c).Convert

i). 91_{16} to octal (3mks)

ii). 337_8 to hexadecimal (3mks)

iii). 9.625_{10} to binary (3mks)

18. A school computer laboratory is scheduled to undergo major renovations. The lab is schedule to receive new computer whose specification are given below.

Pentium IV 2.GHz processor

40 GB HDD

3 ½ FDD

256MB RAM

56 X CD ROM

17’’SVGA TFT MONITOR

The computers are going to be networked and will be able to browse the internet

a). Explain what is meant by the terms

i). FDD (2mks)

ii). HDD

iii). SCGA

iv) TFT

The computer is to be networked, name one extra device that should be fitted on every computer to enable this to happen (1mks)

c) The computer is to receive internet facilities through the server on a dial;up system. Name and describe the function of a special device that needs to be connected to the server to complete the connection. (1mk)

d). i) the school has to apply star topology to link up the computer. List two advantages of this type of topology (1mk)

ii). Name the central device used to connect the computers in this topology(1mk)

e).List two types of topologies that the school could have opted for (1mk)

f). List four advantages of using a network (2mks)

g). i). Data transmission via the internet is done using a mode known as switching .Describe this data transmission mode (1mk)

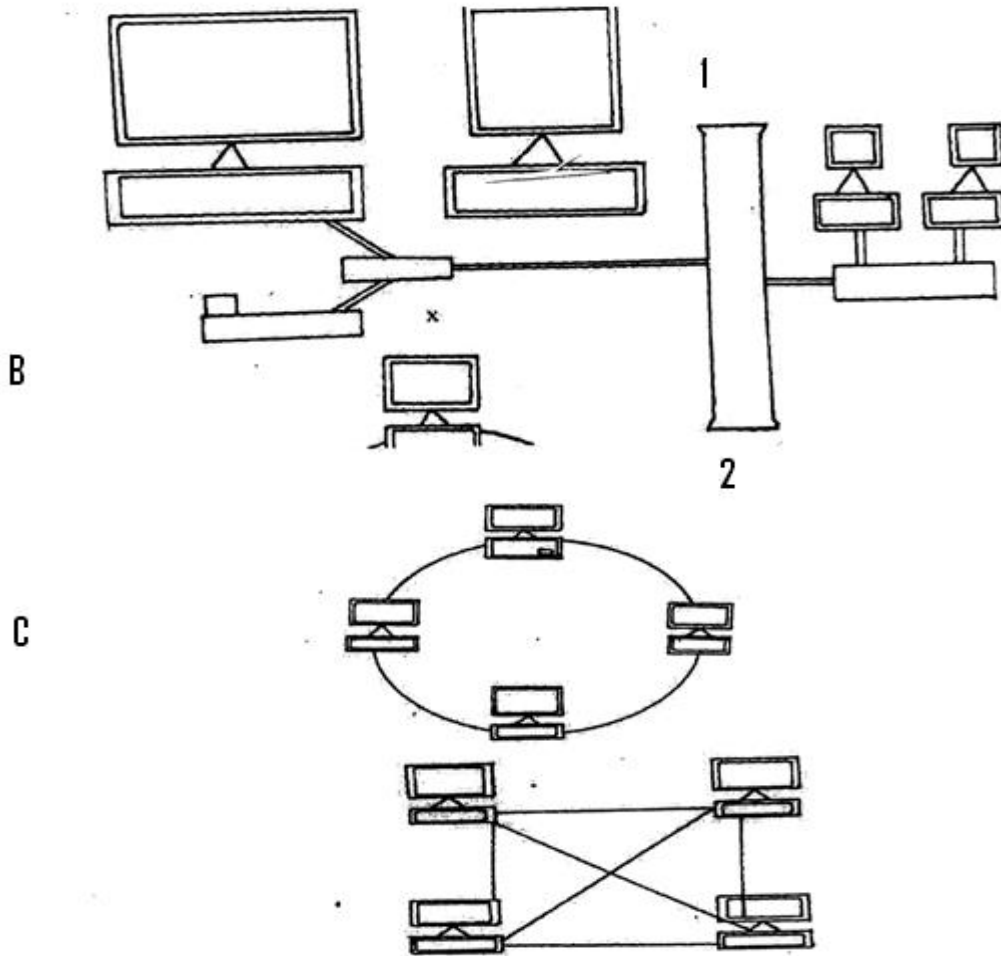
ii).Name two other modes of transmission (1mk)

h). i)The school's LAN is done using UTR cable. List two advantages of using this type of cable (1mk)

ii). List two advantages of using fibers cable in networking (1mk)

i). Data flows in the school's LAN in a duplex manner. Discuss two other types of data transmission in network giving examples (2mks)

19. a). Consider the topologies demonstrated in the diagram below.



i).Identify the network topologies

(3mks)

A.

B.

C.

ii). In topology A ,Identify the network device that should be at the end point 1 and 2 (1mk)\

iii).Which of the above topologies is likely to be used in a wide area network? (1mk)

iv). Highlight three disadvantages of topology B (1mk)

v). Identify the device labeled X topology A (1mk)

b).State two main classes of network software (2mk)

c). briefly describe the following as used in the networking (4mks)

i). Repeaters

ii). Network hub

iii). Fibre optic cables

iv). Network interface Card (NIC)

20. a). Define the following terms

i). Database (1/2mk)

ii). Database management system (1/2 mk)

iii). Hierarchical database (1mk)

iv). Relational database (1mk)

v). Network database (1mk)

b). List the advantages of using an electronic database system for storage of data over the file approach (4mks)

c). Study the spreadsheet below and answer the questions that follow

	A	B	C	D
1	WESTERN COMP BOOK CENTER SALES			
2	BOOK TITTLE	PRICE PER BOOK	BOOKS SOLD	
3	D BASE IV	400.00	145	
4	LOTUS FOR DUMMEIES	460.00	15	
5	OFFICE WORD IN THREE DAYS	300.00	65	
6	LEARNING C++ IN 3 DAYS	700.00	100	
7	TEACH YOURSELF PASCAL	700.00	200	
8	COMPUTER STUDIES	500.00	300	
9	THE CLEVER FOOL COMPUTER	300.00	10	
10				

i). Write down the formula that can be used to find the price of the most costly book(3mks)

ii). Write down the formula that can be used to determine the total sales for the book titled **COMPUTER STUDIES** (1mk)

iii)Write down the formula that can be used to determine the average price of the books (1mk)

iv). Write down the formula in cell D6 that can be used to find the new price per book if they went up by a percentage written in cell B 10 and the formula has to be entered only in cell D3 then be copied to others (1mk)

v).Write down the output in D 7 if in B6 is 10% (1mk)

d). State any four advantage of using an electronic spreadsheet as compared to a traditional worksheet (2mks)

NAME.....INDEX NO.....

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COMPUTER STUDIES

PAPER 2 (PRACTICAL)

MARCH/APRIL 2015

Time: 2 ½ Hours

KABONDO DIVISION JOINT EVALUATION TEST

Kenya Certificate of Secondary Education (K.C.S.E)

INSTRUCTIONS TO CANDIDATES

- Write your name, school and Index number in the spaces provided above.
- Answer **ALL** the questions in the spaces provided
- Answer all questions
- All questions carry equal marks
- Passwords should not be used while saving
- Make a print out of the answer on the answer sheet
- Hand in all the print out and the CD

This paper consists of 3 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and no question.

1. The data in the table was extracted from a survey data on employment

Table 1: EMPLOYEE TABLE

Name	Year of birth	Employee ID No.	Employee ID	Job category
DAISY	1980	13144	01	GK4
DAVID	1970	11100	04	GK3
DOREEN	1984	14010	02	GK1
DAVIN	1976	12110	05	GK1
ALLAN	1973	11410	03	GK2
KATE	1968	10570	04	GK3
ZEDDY	1990	11040	05	GK3
PIUS	1998	15978	03	GK2
ZION	1992	17192	02	GK4
BOB	1993	18965	05	GK4

Table 2: EMPLOYEMENT TYPE

Job category	Job Description
GK1	Casual
GK2	Temporary
GK3	Contract
GK4	Permanent

Table 3: EMPLOYER TABLE

EMPLOYER ID	EMPLOYER NAME
01	ONYANGO
02	WAMBUA
03	OSHIRO
04	KATANA
05	AWINJA

- a. i). Create a database named “STAFF” to store the above (14mks)
- ii). Create relationships between the tables (4¹/₂mks)
- iii). Use forms to enter data into the tables (10¹/₂mks)

- b. i). Generate a report to display the name year of birth, age and employer's name for the employees who will be over 30 years old by the year 2015. (10mks)
ii). Compute the mean age of employees on the report you created in b (i) above (2mks)
 - c. i). Create a query to display the employees and their job description. Save the query as "STAFF TYPE"
ii). Create a pie chart based on the query in c (i) above to display the promotion of the employees in various job description. Save the report as CHART
 - d. Print
 - i). Three tables
 - ii). Two report
 - iii). Out put of query results for STAFF TYPE
2. Design a sample school newsletter. Use the sample attached as your reference and save publication as SCHOOL NEWS (20mks)

Required

- a. Set the publication size to A3 and four newspaper columns of equal width (8mks)
- b. Set the inside margins to 1 " ,the outside to 0.8" and the top and bottom to 0.5 "(4mks)
- c. Insert page numbers at the bottom right of the publication (4mks)
- d. The title should be in reverse text insert relevant clip arts as shown (10mks)
- e. Print the publication (4mks)

