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**KENYA NATIONAL EXAMINATION COUNCIL  
REVISION MOCK EXAMS 2016  
TOP NATIONAL SCHOOLS**

**SACHO HIGH SCHOOL  
COMPUTER STUDIES  
PAPER 2**

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# SACHO HIGH SCHOOL KCSE TRIAL AND PRACTICE EXAM 2016

## Paper 2

1. a) Create a database called EDU (2 Mks)  
 b) Create three tables Exam, Student and Boarding with the fields as shown below. (10 Mks)  
 c) Create a relationship between the three tables. (3 Mks)  
 d) Enter the data items in the given tables. (15 Mks)

Student				
AdmNo	FName	LName	KCPE Mark	Year of KCPE
1	Peter	Barasa	327	2007
10	Johnson	Suk	250	2001
2	Alex	Ojwang'	340	1998
3	Chepkuto	Esther	250	2008
4	Wekesa	Raymond	450	2007
5	Alex	Wamwana	410	2003
6	Jane	Kilonzo	400	2000
7	Mathew	Kariuki	450	1999
8	Nasimiyu	Catheen	290	2003
9	Kimathi	John	300	2001

1	45	67	90	23
10	45	89	90	20
2	56	70	80	45
3	89	90	90	20
4	78	30	90	50
5	67	89	60	90
6	67	90	40	80
7	34	78	70	90
8	23	50	38	90
9	23	15	67	20

Boarding			
AdmNo	Uniform	Tool No	Tool Name
1	No	12	Jembe
10	Yes	20	Jembe
2	No	11	Panga
3	Yes	1	Slasher
4	Yes	111	Jembe
5	No	15	Rake
6	Yes	22	Basin
7	Yes	11	Brooms
8	Yes	90	Rake
9	Yes	23	Bucket

- e) Design a query that would display the following fields as shown below: Save it as Total. (10mks)

AdmNo	Yes/No	FName	KCPE Mark	Maths	Eng	Kisw	Total
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- f) Design a report that would sort the following in ascending order in the order of the following fields: Total, KCPE Mark, FName and Adm No and the report title is ADMINISTRATION. Save the report as Admin (5 Mks)
- g) Print, **Exam, Student, Boarding, Total** and **Admin** (5 Mks)
2. a) Using a word processing package, type the passage below as it appears, proofread and save It as Compnetwork 1 in a removable storage media. (24mks)

## INTRODUCTION TO COMPUTERS & OPERATING SYSTEMS

A computer is an electronic device that can solve problems by accepting data, performing certain operations on that data (processing) and presenting the results of those operations (Information)

Basic characteristics that distinguish a computer from other information processing devices:

- i) A computer is electronic - That is, all its processing operations are carried out with electrical signals.
- ii) A computer can store information for future reference - This is done on temporary basis with memory circuits and permanently with storage devices such as magnetic disks and tape.
- iii) A computer is programmable - Unlike other devices built to perform a single function, a computer can be instructed to perform a variety of tasks.

## NETWORKING BASICS

### The Hardware

#### Network Interface Cards (NIC)

Firstly, each computer must have a network card Computers that run Windows generally use PCI

NICs (Network Interface Cards), although there are other types available, including USB NICs. The PCI NICs tend to retail very cheaply and many newer PCs and laptops come with 10/100 NICs inbuilt.

#### Switches and Hubs

Secondly, you need a piece of hardware to connect your computers together. There are various options:

- A hub. In a hub, any information arriving in the hub from any computer is sent to every computer connected to the hub. this is the most basic form of network connection device and has largely been superseded by
- A switch. The switch learns which computer is connected to each port, so when it receives a data packet destined for a specific computer the switch will only send that data packet to that specific computer.

**T**

he alternative to buying a switch is to use a special cable called a cross-over cable. This is a specially wired cable which will allow you to connect two computers directly, however in my experience all but one situation where a cross-over cable has been initially bought it was eventually been replaced with a switch.

Some switches have printer ports on them, which is useful for windows but less so for RISCOS, unless you have a printer that you have a RISC OS printer driver for more of this later.

## Routers

**R**outers are special types of switches which make a direct connection to the internet and allow all computers to access the internet via the router. They usually include firewalls, HCP servers and can have additional functionality such as web page filtering and VPN termination. If you wish to just connect RISC OS computers to the internet, this is perhaps the best way to go. Routers can be purchased which will access ADSL or Cable broad band or even 56k dial-up lines.

## Cables

Thirdly, you will need network cables. The maximum length between any two pieces of hardware (computer-switch or computer — computer) is 100 m. They can come in all sorts of colours and can be hidden in walls, behind skirting boards and through ceilings. Note that unless you are connecting two computers together directly, you will need normal cables and not cross-over cables.

## Network speeds

With cabled networks there are three main speeds

10 megabit or 10-base-T

> 100 megabit or 100 base — T

1 gigabit or 1000 base — T

- b) Save the changes of this document. Copy the document and paste it in a new document. Set the whole document to have a justified text alignment. Save it as **Compnetwork 2** (4mks)
- c) Centre the heading and apply border, font size 14 and 30% gray shading (6mks)
- d) Double indent the router paragraph by 1.5" (6mks)
- e) Set margins as follows; (4mks)
- (i) Left margin 1.5"
  - (ii) Right margin .5"
  - (iii) Top margin .7"
  - (iv) Bottom margin .5"
- f) Insert document header as Networking & Hardware Requirements and footer as Introduction to Computer (4mks)
- h) Print **Compnetwork 1** and **Compnetwork 2** (2mks)