ST MARY'S SCHOOL-RUNDA

FORM TWO

COMPUTER STUDIES

OCT/NOV/DEC ASSIGNMENT

NAME…………………………………………………..…….CLASS……………ADMN…………………………………

WEEK ONE ASSIGNMENT

INTSTRUCTIONS:

1. copy the link bellow to your browser as it is and watch the Following Video on Internet and Email
2. Write Notes on It from the Internet
3. Answer the questions below

https://www.youtube.com/watch?v=HdApmvpytTo&ab_channel=DONGICHAI-TheComputerguy

INTERNET & E-MAIL

1. Explain the following: (3 marks)

    (a)   Internet.
    (b)   Intranet.
    (c)   File Server.

2. List any three major services provided on the Internet.   (3 marks)

3. Name four facilities that are needed to connect to the Internet.   (4 marks)

4. Your manager wishes to be connected to the Internet. He already has a powerful Personal Computer (PC), a Printer, and access to a Telephone line. However, he understands that he will need a Modem.

    Required:

    (a)   State why a modem is required to connect him to the Internet.   (2 marks)
    (b)   Suggest any four application areas in which you would expect a supermarket retail manager to use the Internet.   (4 marks)

5. (a) What is a Website?   (2 marks)
   (b) Give the advantages and disadvantages of a Website.   (4 marks)

6. (a) What is meant by the term E-learning?   (1 mark)

(b) A school intends to set-up an e-learning system. List three problems that are likely to be encountered.
                                                     (3 marks)

7. (a) What are network Protocols?
    (b) Write the following in full:

        i)   TCP/IP
        ii)   HTML
        iii)   HTTP
        iv)   FTP

8. (a)   Explain the meaning of the following concepts as used in Internet: (6 marks)

        i)   Internet service provider (ISP)
        ii)   Web pages
        iii)   Internet telephony
        iv)   Browser software
        v)   Hyperlink

    (b) Name *three* examples of Internet Service Providers (ISP) in Kenya.   (3 marks)

9. Give two common examples of web browsing software.   (1 mark)

10. Briefly describe four advantages of using Internet to disseminate information compared to other conventional methods.   (8 marks)

11. (a)   Identify the parts of the following e-mail address labelled A, B, C, and D.   (4 marks)

        Iat@africaonline.co.ke

        A   B   C D

    (b) Mention two examples of e-mail software.   (2 marks)

12. A school has its e-mail address as *mwangaza@school.co.ke*. Briefly explain this address code.
                                                     (3 marks)
13. State two benefits of saving information from the Internet to your hard disk. (2 marks)

14. Explain the following internet address *http://www.google.com* in reference to the structure of a URL.
                                                     marks)

15. Identify institutions whose e-mail addresses end with the following extensions: (6 marks)
    i)   .org
    ii)   .edu
    iii)   .com
    iv)   .net
    v)   .mil
    vi)   .gov
16. (a) Discuss four advantages and two disadvantages that electronic mails have over regular mails.
                                                     (6 marks)

(b) Give three differences between Post-office mail and Electronic mail (E-mail).

(3 marks)

17. (a)   What is a Search engine?   (2 marks)

    (b) Give four examples of search engines you know.   (2 marks)

    (c) State two ways that search engines use to locate Web pages.   (2 marks)

18. List *two* advantages of using Hyperlinks when browsing the Internet.   (2 marks)

19. Differentiate between a www server and a Host computer.   (2 marks)

20. The Internet can be used to source information about emerging issues that may not be available in print form. Give two advantages and two disadvantages of information obtained from the Internet.

(4 marks)

WEEK TWO ASSIGNMENT

Instructions

Watch the following video by copying the link to a browser and answer the questions below on data security

https://www.youtube.com/watch?v=zShsFSORER8&t=131s&ab_channel=EMELISWAPICT

DATA SECURITY & CONTROL

1. (a) Differentiate between Data Security and Data Integrity.   (2 marks)

   (b) Give the three types of data that should be protected in a computer.   (3 marks)

2. State any three threats to data and information.   (3 marks)

3. State five possible ways of preventing data loss from a computer.   (5 marks)

4. (a) Define the term Computer crime.   (2 marks)

   (b) Explain the meaning of each of the following with reference to computer crimes.

   i)   Tapping
   ii)   Piracy.
   iii)   Trespass.
   iv)   Industrial espionage

   v)   Data alteration
   vi)   Fraud
   vii)   Firewalls

5. Give two reasons that may lead to computer fraud.   (2 marks)

6. Outline four ways of preventing piracy with regard to data and information. (4 marks)

7. (a) Differentiate between Hacking and Cracking with reference to computer crimes.

(2 marks)

   (b) Describe the following terms with respect to computer security: (6 marks)

      (i)   Audit trail.
      (ii)   Data Encryption.
      (iii) Log files.
      (iv) Firewalls.
      (v)   Physical security
      (vi) Logic bombs.

8. (a) What is a Computer virus? (2 marks)
   (b) Outline four symptoms of a virus infection in a computer system. (4 marks)

   (b) State two damages which a computer virus may cause to a computer. (2 marks)

   (c) Explain three control measures you would take to protect your computers from virus attacks.
   (3 marks)

9. List three functions of an antivirus software. (3 marks)

10. Computer systems need maximum security to prevent an unauthorized access. State six precautions that you would expect an organization to take to prevent illegal access to its computer-based systems.
    (6 marks)

11. (i) Explain what is meant by the term "computer security" (2 marks)
    (ii) State two environmental factors that can affect operations of a computer. (2 marks)

    (iii) State two control techniques or measures that can be implemented to prevent the effect in (i) above.
    (2 marks)

12. Explain why the following controls should be implemented for computer based systems.

    i)   Backups (2 marks)
    ii)   Air conditioning (2 marks)
    iii)   Uninterruptible power supply (UPS) (2 marks)
    iv)   Segregation of duties (2 marks)
    v)   Passwords (2 marks)

13. Give four rules that must be observed in order to keep within the law when working with data and information.
    (4 marks)

14. (a) Define the term Computer ethics. (1 marks)
    (b) Give two examples to show how a person who has committed a computer crime can help to improve a computer system. (2 marks)

WEEK THREE ASSIGNMENT

DATABASES – MS ACCESS

1. (a) Define a Database, and give two examples of database programs in use today. (2 marks)
   (b) List any two database objects. (2 marks)

2. List five features found in an electronic database management system. (5 marks)

3. State three advantages of an electronic database over the traditional file management system.

(3 marks)

4. (a) Distinguish between the following terms in relation to a database: (6 marks)

     i)   Field type and field properties.
     ii)   Records and Fields.
     iii)   AND and OR operators.

   (b). Explain three types of database models. (3 marks)

   (c) Explain three major concerns in database systems. (3 marks)

5. (a) Distinguish between Flat file and Relational databases. (2 marks)
   (b) State three operations that can be performed on a relational database files. (3 marks)

6. Identify five functions of a Database management system. (5 marks)

7. Explain the importance of using Database management system in organizations. (2 marks)
8. State the components of a Database hierarchy in ascending order. (2 marks)

9. State the use of the following objects in Databases.

     i)   Tables (1 mark)
     ii)   Forms (1 mark)
     iii)   Query (1 mark)
     iv)   Macros (1 mark)
     v)   Reports (1 mark)

10. Name *two* different types of tools one can use to search for data in a database. (1 mark)

11. (a) Differentiate between: (14 marks)

     i)   Primary key and Relationship.
     ii)   Tabular and Columnar form layout.
     iii)   Database file and Database table.
     iv)   Primary key and Index.
     v)   Field name and Caption.
     vi)   Table and Query.
     vii)   Bound and unbound control.

   (b) What is the importance of the Primary key? (1 mark)

   (c) State three types of relationships that can be used to link tables in Databases.

(3 marks)

12. (a). Describe four major shortcomings of the conventional (paper) file structures that are being addressed by the database approach. (4 marks)
   (b). List any two methods used to secure data in a database. (2 marks)

13. A student's database comprises of students' details table and fees received table as shown below:

     Students' details table   Fees Received table

Surname

	Middle Name
	First Name
	Admission Number
	Course

	Date
	Amount
	Receipt Number

    (i)   State the primary key field for each table.   (2 marks)

    (ii)   State the field which should serve as the linking field for the two tables.

                                                                             (2 marks)

WEEK FOUR ASSIGNMENT

1. (a) Distinguish between the following sets of terms as used in spreadsheets.

     (i)   Worksheet and workbook.   (2 marks)

     (ii)   Filtering and sorting.   (2 marks)

  (b) State one way in which a user may reverse the last action taken in a spreadsheet package.

                                                            (1 mark)

  (c) The following is a sample of a payroll. The worksheet row and column headings are marked 1, 2, 3 … and A, B, C … respectively.

	A	B	C	D	E	F	G	H
1	NAME	HOURS WORKED	PAY PER HOUR	BASIC PAY	ALLOWANCES	GROSS PAY	TAX DEDUCTIONS	NET PAY
2	KORIR	12	1500					
3	ATIENO	28	650					
4	MUTISO	26	450					
5	ASHA	30	900					
6	MAINA	18	350					
7	WANJIKU	22.5	500					
8	WANYAMA	24.5	250					
9	OLESANE	17	180					
10	MOSETI	33	700					
	TOTALS							

Use the following expressions to answer the questions that follow:

- Basic pay = Hours worked x pay per hour
- Allowances are allocated at 10% of basic pay
- Gross pay = Basic pay + allowances
- Tax deductions are calculated at 20% of gross pay
- Net pay = Gross pay – tax deductions

Write formulae using cell references for the following cells:

(i)	D2	(1 mark)
(ii)	E4	(1 mark)
(iii)	F10	(1 mark)
(iv)	G7	(1 mark)
(v)	H5	(1 mark)

2. (a) The following is a simple payroll:

	A	B	C	D	E	F	G	H	I
1	Name	Hours Worked	Hourly Rate	Basic Pay	Gross Pay	Tax Deductions	NSSF Contributions	Allowance	Net Pay
2	John	8	200						
3	Peter	12	450						
4	Sam	22	300						
5	Njogu	30	286						
6	Mary	16	220						
7	Sally	45	468						
8	Jane	15	150						
9	Tina	3	280						

Write formulae using cell names for the following expressions. State where the formula is placed:
(10 marks)

(i) Basic pay = Hours worked x Hourly rate.
(ii) Allowances are allocated at 10% of the Basic pay.
(iii) Gross pay = Basic pay + Allowances.
(iv) Tax deduction is calculated at 20% of the Gross pay.
(v) Net pay = Gross pay – Tax deductions.

(b). List four types of information that can be entered into a spreadsheet cell. (4 marks)

(a) What is a cell reference?   (1 mark

WEEK FIVE AND SIX ASSIGNMENT

1. State three functions of a computer.   [3]

2. Explain the difference between digital and analogue computers using a diagram. [4]

3.   a) What is a computer laboratory?   [2]

        b) State four methods of minimizing dust in a computer laboratory.   [4]

4. Why is it necessary to have a UPS in a computer laboratory.   [3]
5.   a) What is a computer keyboard.   [2]
        b) List four types of keys found on a computer keyboard.   [4]

        c) What is a toggle key.   [2]

        d) Name four toggle keys on a standard computer keyboard.   [4]

6.   a) List four differences between a microcomputer and a supercomputer.   [4]

Micro computer	Super computer

        b) State four advantages of using portable computers e.g. laptop.   [4]

7. State four ways in which a computer may be used in efficient running of a hospital. [4]

8. State four types of computer output devices.   [4]

9. Give four reasons why primary storage devices are not used for secondary storage. [4]

10. State **one function** of the following elements of a computer:
a) Hardware [2]

b) Software [2]

c) Liveware [2]

11. List four devices that use scanning technology that would be used to capture data directly from the source.

12. State four factors to consider when selecting an input device for use in an organization. [4]

13. a) What is meant by the term user-friendly as used in software development. [2]

b) List and explain three types of user interfaces. [6]

14. a) State four advantages of word processors over manual typewriters. [4]

b) A student typed a letter in a word processor and the last line of the letter flowed to the second page. State **four** ways in which the student could have adjusted the letter to fit on one page without changing the paper size. [4]

c) List four arithmetic operations that can be performed on a row of numeric data in a word processing table. [4]

d) List three editing features of word processor. [3]

15. a) Briefly explain the following terms: [7]
Cell

Range

Label

Value

Worksheet

Workbook

Function

16. Mr. Kamau is a teacher at Kianda High School used Ms-Excel to process the marks obtained by his student during the term. The table below shows the details entered in the Ms-Excel worksheet

	A	B	C	D	E	F	G	H	I
1	Name	CAT1	CAT2	CAT TOTAL	EXAM	TOTAL MARKS	POSITION	GRADE	REMARK
2	Mark Jama	14	06	20	56	76	1		
3	Caleb Wekeza	13	08	21	34	55	6		
4	Kanini Mulue	10	04	14	59	73	3		
5	Justine Melanie	11	07	18	57	75	2		
6	Julia Wahome	06	09	15	48	63	5		
7	Austin Kilome	08	07	15	50	65	4		

Hints

CAT1 is out 15, CAT2 is out 15 and Exam is out 70

a) Give the formula used to calculate the Total Marks for Julia Wahome. [2]

b) Write a function that give each student his position in class based on the performance. [3]

c) Write a logical function that will display the following remarks in **column I**. [3]

Total Marks	Remark
0 - 49	Fail
50 - 59	Above Average
60 - 69	Fair
70 - 79	Good
80 - 100	Excellent