

2209/102  
COMPUTER APPLICATIONS  
July 2011  
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL  
DIPLOMA IN INFORMATION TECHNOLOGY

MODULE 1

COMPUTER APPLICATIONS

3 hours

**INSTRUCTIONS TO CANDIDATES**

*You should have the following for this examination:*

*Answer booklet.*

*Answer any FIVE of the following EIGHT questions.*

*All questions carry equal marks.*

**This paper consists of 7 printed pages.**

**Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing**

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**Turn over**

1. (a) (i) State **four** *system utilities* used in computer applications. (2 marks)
- (ii) Write a DOS command that can be used to carry out each of the following:
- I. change the name of a text file named myfile.txt stored in drive C to myfirst.txt in drive A;
  - II. display the contents of the root directory of drive B in wide view one page at a time;
  - III. create a directory named KNECJ in the root directory of drive A.
- (6 marks)

(b) The following text is an extract from a document created in a word processing program. Use it to answer the question that follows.

- **Companies** in the third (3<sup>rd</sup>) world countries are facing *enormous* challenges in the provision of information communication technology. These companies are looking up to efficient and cost effective facilities to improve on their ICT capacity.
- The solution to this may be **virtualization** which allows the configuration of a single *physical server* into multiple virtual machines or guest virtual servers which act as an independent physical entity.

Identify **eight** formatting features applied in the extract. (4 marks)

- (c) Describe the term *format painter* as used in a word processing program. (2 marks)
- (d) (i) Distinguish between *alignment* and *orientation* as applied in a word processing program. (4 marks)
- (ii) Explain the term *thesaurus* as used in a word processing program. (2 marks)
2. (a) (i) Outline **two** advantages of a spreadsheet programs. (2 marks)
- (ii) With the aid of an example in each case, explain **two** types of *cell referencing* used in a spreadsheet program. (4 marks)

- (b) Figure 1 is an extract of data in a spreadsheet program. Use it to answer the questions that follow.

✂ E ✂ 2

	A	B	C	D	E	F
1	AdmNo	Student Name	Term Fees	1 <sup>st</sup> Instal	2 <sup>nd</sup> Instal	Balance
2	E20-127	Mwako	25,050	10,000	5,000	
3	B17-108	Joshua	20,050	20,000	0	
4	C02-147	Peter	18,950	15,950	2,000	
5	E20-180	Zainabu	15,950	15,950	0	
6		Lowest				

Figure 1

Using cell addresses only, write a formula that could be used to determine the:

- balance for Mwako;
- average fee paid in the first installment;
- lowest amount of fee paid in the first installment.

(6 marks)

- (c) With the aid of a diagram in each case, describe **two** database models.

(4 marks)

- (d) Distinguish between data *security* and data *integrity* as used in database systems.

(4 marks)

3. (a) Describe **two** financial reports that may be generated by a company at the end of an accounting period.

(4 marks)

- (b) (i) Distinguish between *job description* and *job specification* as applied in payroll systems.

(4 marks)

- (ii) Explain each of the following terms as used in stock control:

I. stock level;

II. reorder level.

(2 marks)

- (c) (i) ABC Company Ltd. deals in steel manufacturing. The company has employed ten people to manage the boilers. Explain the most appropriate insurance policy the company may use to cover the employees.

(2 marks)

- (ii) Outline **two** insurance principles.

(2 marks)

- (d) Figure 2 shows a 3<sup>rd</sup> angle orthographic projection of an object drawn using a CAD program . Use it to answer the question that follows.

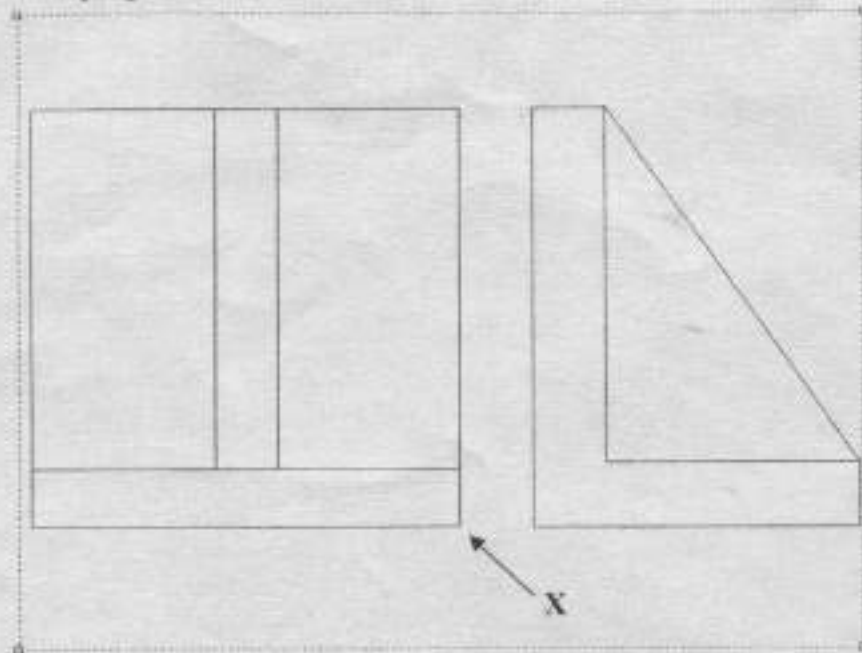


Figure 2

Draw an isometric view of the object using corner X as the lowest point. (6 marks)

- (a) (i) Outline **two** uses of computers in the entertainment industry. (2 marks)
- (ii) Explain **three** advantages of a computerized production line in a manufacturing firm. (6 marks)
- (b) (i) Most companies are embracing the use of mobile phone technology to settle their payments. Outline **two** advantages of this trend. (2 marks)
- (ii) Explain **two** disadvantages of a *paper less* office. (4 marks)
- (c) Outline **two** mitigating factors that a government may put in place to reduce the effect of *e-waste*. (2 marks)
- (d) Explain the snap mode represented by each of the following CAD systems features:



(4 marks)

- (a) (i) State a key combination that may be used to carry out each of the following tasks in a word processing program:
- I. evoke the print dialog box;  $ctrl + P$
  - II. paste the contents of a clipboard;  $ctrl + v$
  - III. save changes to a document.  $ctrl + s$
- (3 marks)

- (ii) Figure 3 shows the formatting toolbar of a word processing program. Use it to answer the question that follows.

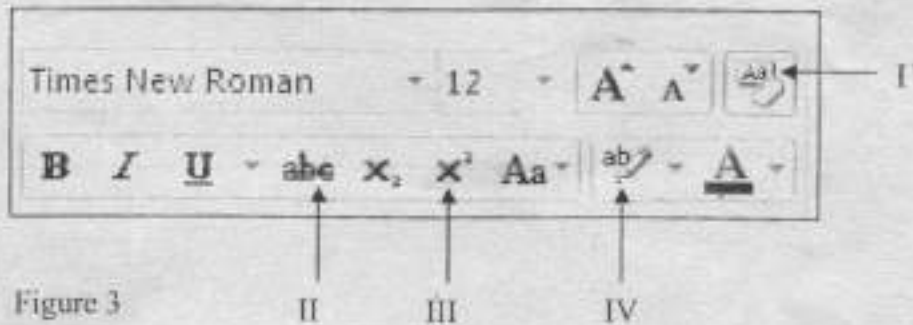


Figure 3  
Outline the function of each of the features labeled I-IV. (4 marks)

- (b) Mambo, a student at a certain college noticed that after sending a publication to a printer the status bar showed that the publication had been send. However after a few seconds he got an error message. Assuming that the printer connected to his computer was on and that it had printing papers:
- (i) state the most probable cause for the error message;
  - (ii) advice Mambo on the steps to follow to overcome the problem.
- (3 marks)
- (c) With the aid of a sketch in each case, distinguish between *column* and *bar* charts as used in a spreadsheet program. (4 marks)
- (d) Figure 4 shows data in a database program. Use it to answer the questions that follow:

Student Numbe	Student Name	Date of Birth	Guardian Name	Department
2001	Monicah	2/3/1992	Margaret	Engineering
2002	Irene	1/2/1991	James	Business
2003	Ben	6/9/1991	Yussuf	Business
2004	Peter	5/6/1990	Carol	Hospitality
2005	John	2/2/1990	Dennis	Engineering

Figure 4

Write an expression to extract each of the following:

- (i) students whose name's second letter is an "e";
- (ii) students whose birth day is between June 1990 and July 1991;
- (iii) students in either Business or Hospitality departments. (6 marks)

6. (a) (i) Outline **two** types of relationships that may be created among tables of the same database. (2 marks)
- (ii) Explain the term *composite key* as used in a database program. (2 marks)
- (b) (i) John, a Module I student at a certain institute wanted to change a word that occurred 1000 times in a publication. State the most appropriate feature he could use. (2 marks)
- (ii) Figure 5 is a typical toolbar in a desktop publishing program. Use it to answer the question that follows.

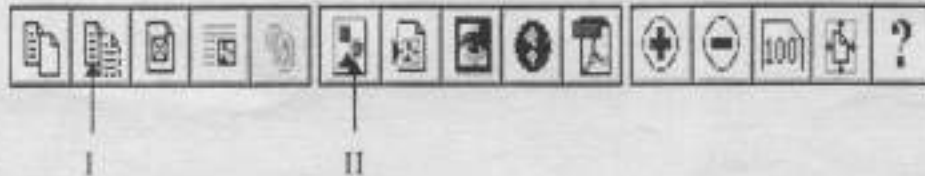


Figure 5

- Outline the function of each of the features labeled I and II. (2 marks)
- (c) (i) Describe **two** advantages of an overdraft to a customer. (4 marks)
- (ii) Outline **two** disadvantages of direct deposits as used in financial systems. (2 marks)
- (d) Explain each of the following object views as applied in CAD programs:
- (i) section;
- (ii) exploded;
- (iii) auxiliary. (6 marks)
7. (a) (i) Outline **two** advantages of *simulation*. (2 marks)
- (ii) Explain each of the following terms as applied in database systems:
- I. data mining;
- II. data warehousing. (4 marks)
- (b) (i) Explain the term *spam* as used in e-mail. (2 marks)
- (ii) Outline **two** disadvantages posed by *spam* to recipients. (2 marks)
- (c) (i) Describe the effect of checking or unchecking the *collate* feature in the print dialog box as used in a spreadsheet program. (2 marks)
- (ii) Explain the function of the *autofill* feature as used in spreadsheet programs. (2 marks)

(d) Prudence, a secretary at a certain company has been experiencing back and wrist pains due to long hours of computer use. Explain **three** measures that Prudence would put in place in order to reduce her problem. (6 marks)

8. (a) (i) Outline **two** negative effects of employees visiting social sites during working hours in an organization. (2 marks)

(i) Video conferencing is gaining popularity as a means of communication in multinational companies in Kenya. Describe **two** benefits of this facility to the companies. (4 marks)

(b) Explain the purpose of each of the following line types as used in CAD systems:

(i) 

(ii) 

(iii) 

(6 marks)

(c) (i) Explain each of the following terms as used in desktop publishing:

I. style sheet;

II. text frame.

(4 marks)

(ii) Figure 6 shows a publication created by a certain Module I student. Use it to answer the question that follows:

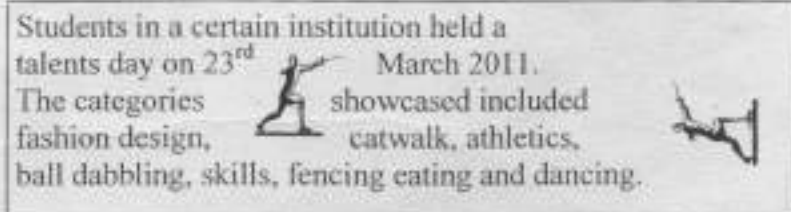


Figure 6

Outline **two** features that were used in the creation of the publication. (4 marks)