# FORM ONE

# MARKING SCHEME

# TERM 3, 2023

1.

(a) Name three causes of syntax errors
- Misspelling of user defined words and reserved words
- Improper punctuation
- Grammatical mistakes
- Improper naming of variables

<div align="right">Award 1 mark each max 3</div>

(b) Define the following terms as used in Computer Programming
   i.   Machine dependent
- Means that a program cannot be moved or transferred and used in another machine except the one it was designed for
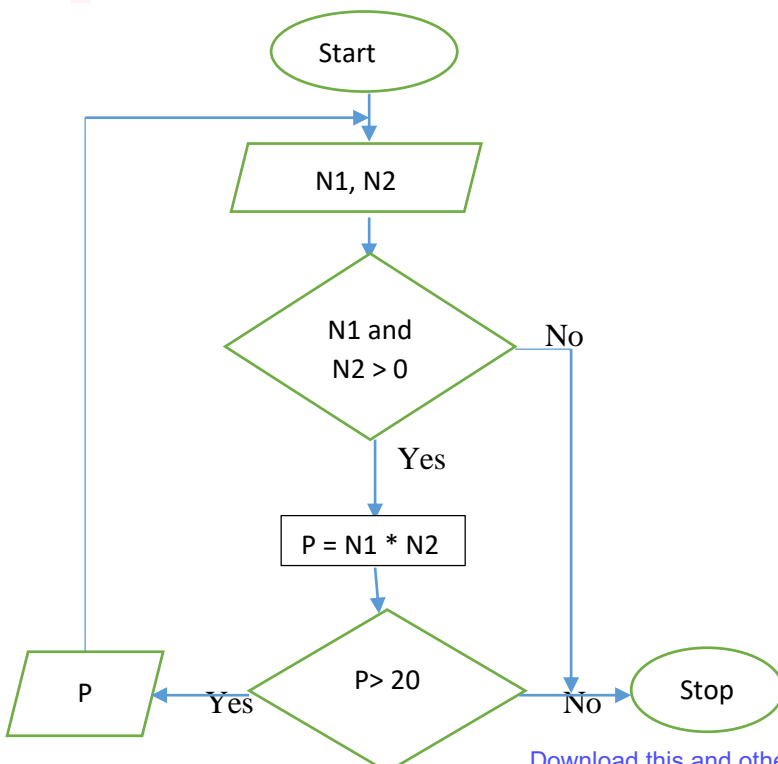   ii.   Bug
- It simply refers to a computer error

<div align="right">Award 2marks each max 4</div>

(c) Study the Pseudo code below and answer the questions that follows.

```
Begin
Input Y, X
 Check if Y and X > 0 Then else go to step 9
Multiply Y and X
Is product > 20 then?
Display Product
Repeat step 2, 3,4,5,6
Else go step 9
Stop
```

   i.   Draw a flowchart for the pseudo code above



Start 1mark
Stop  1mark
Input N1,N2  1mark
N1and N2 >0 1mark
P=N1*N2 1mark
P>20 1mark
Display P 1mark
Logic 1mark

17.

(a) Study the table below and answer the questions that follow

|   | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | Product ID | Product Name | Received Quantity | Sold Quantity | Balance Stock | Unit Price | Total |
| 2 | PW00012 | Ball | 1000 | 300 | 700 | 60 | |
| 3 | PW00023 | Ruler | 200 | 150 | 50 | 50 | |
| 4 | PW00045 | Pen | 130 | 130 | 0 | 10 | |
| 5 | PW00029 | Bread | 400 | 200 | 200 | 50 | |
|   | GRAND TOTAL | | | | | | |

(i) Write down the formula that
Calculate the balance stock

- =C2-D2

Award 2 marks  max 2

Calculate the Total cost

- =D2*F2 / Product (D2 , F2)

Award 2 marks max 2

(ii) Given that customers who purchased Rulers were allowed 10% trade discount write a formula that would be used to get the Total cost   (2mark)
- =0.9(F3*D3)

Award 2marks max 2

(iii) Use named reference to calculate the Grand Total
  - Rename cells (G2:G5)  as total
  - =SUM (total)

Award 1 mark each max 2

(b) State two differences between DOS and Windows based Operating system

| DOS | Window-based operating system |
|---|---|
| ▪ Requires less memory | ▪ Requires high memory |
| ▪ Command is typed at the command prompt | ▪ Command is selected on an icon on the screen |
| ▪ Requires a screen of low resolution | ▪ Requires screen of high resolution |
| ▪ Execute faster | ▪ Execute slowly |

max 4

(c ) State three reasons why computer technicians prefer using the command line operating system when troubleshooting a computer
- Work well with screens of low resolution
- Executed very fast
- Requires low memory

Award 1 mark each max 3

18.
(a) List two types of domain  names given to institutions of learning

- .ac
- .sc
- .edu

<div align="right">Award 1 mark each max 2</div>

(b) Explain the function of each button on the navigation toolbar of a web browser

**(i) History**
- Provides a list of sites visited by the user

**(ii) Home**
- Takes the user to the homepage of the web browser

**(iii) Download**
- Provides a list of files downloaded from the internet

<div align="right">Award 1 mark each max 3</div>

(c) Peter Kenneth bought a PC for his personal use at home. He wanted to do online writing at home to earn a living but there was no internet connectivity at home. Mention three internet connectivity requirement Peter Kenneth need to consider to get full internet connectivity

- Internet service provider
- Transmission media
- MODEM
- Internet software

<div align="right">Award 1 mark each max 3</div>

(d) Give three reasons to justify why companies like Alibaba, Kilimall, Jumia, Copia and Masoko prefer selling their products on e-commerce platforms.

- Provides a wide range of products to the user
- Cost effective since the overhead cost is low
- Affordable advertisement
- Flexible in terms of sales

<div align="right">Award 1 mark each max 3</div>

(e) Describe three factors to consider when choosing a file organization method

- Frequency of update: A file that needs to be updated every now and then needs an organization method that will allow easy retrieval of information and ease of updating, example of such a file is the transaction file
- File access method: Definitely different files have different methods of being accessed, example a reference file is accessed using random method for easy retrieval of data.
- Cost it is essential that a cost benefit analysis be conducted because different files will require different cost
- Storage media –Different file design use different media

<div align="right">Award 1 mark each max 2</div>

(f) State two challenges facing electronic data processing modes in the current society

- Security threats
- It is power dependent
- Lack of legal frameworks
- Lack of ICT knowhow

<div align="right">Award 1 mark each max 2</div>

19.
(a) Convert the following numbers

   i. $7.5625_{10}$ to Binary

     Whole number part

     $7 = 111_2$ ................................. 1mark

     Fraction part

     $0.5625 * 2 = 1.125$

     $0.125 * 2 = 0.25$ ..........................1mark

     $0.25 * 2 = 0.5$

0.5*2=    1.0

=$0.1001_2$ .......................................1mark

Ans=$111.1001_2$ 1mark .........................................1mark

ii.    $DDFF34_{16}$ to Binary (3marks)

| D | D | F | F | 3 | 4 |
|---|---|---|---|---|---|
| 13 | 13 | 15 | 15 | 3 | 4 |