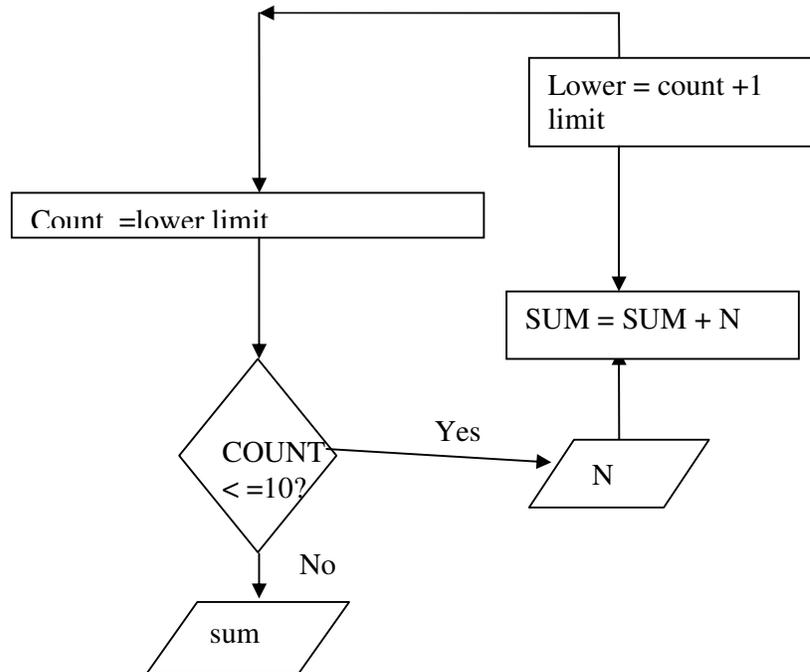


**SECTION A (40 MARKS)**

Answer all the questions in this section.



1. Write a pseudo code for the above flow chart. (2 mks)\*UG\*
2. Differentiate between optical and magnetic scanning techniques used for input and give two examples in each case. (2 mks) \*UG\*
3. Name the three main types of human computer interface. (1 ½ mks) \*UG\*
4. Distinguish between a folder and a subfolder. (1 mk) \*UG\*
5. Draw an illustration of a USB port and explain its function. (2 mks) \*UG\*
6. Differentiate between parallel and serial port interface cables. (1 mk) \*UG\*
7. a) Explain the following storage disks  
i) Zip disks  
ii) Jaz disks  
b) Give four examples of optical disks. (1 mk)\*UG\* (2 mks) \*UG\*
8. What do you understand by the following terms:  
i) Industrial espionage  
ii) Eaves dropping  
iii) Surveillance (1 ½ mks)\*UG\*
9. a) Differentiate between the following:  
i) surf/browse  
ii) Hyperlink  
b) Explain two functions performed by the UPS (1 mk)\*UG\*
10. a) List three data processing methods. (1 ½ mks) \*UG\*  
b) Define the term internet. (1 mk) \*UG\*  
c) List four services offered by internet. (2 mks) \*UG\*
11. a) State three communication methods without cables. (1 ½ mk) \*UG\*  
b) Differentiate between fourth generation languages and third generation languages. (1 mk) \*UG\*
12. a) Using twos compliments work out  $15_{10} - 8_{10}$  (2 mks) \*UG\*  
b) Differentiate the following terms:  
i) Source program.  
ii) Object code  
iii) Translator

1 ½ mks\*UG\*

13. Windows operating system provides the use of tool to help in managing storage devices and media. Distinguish between the following terms: 1 ½ mks\*UG\*
- i) Disk defragmenter.
  - ii) Partitioning a disk
  - iii) Compressing.
14. a) Give two reasons for partitioning a disk. 1 mk\*UG\*
- b) List two main types of desktop publishing software. 1 mk\*UG\*
- c) Name any four database models. 2mks \*UG\*
15. a) Differentiate between functions and formulae. 1mk\*UG\*
- b) Name four basic types of data used in a spreadsheet 2 mks\*UG\*
- c) Differentiate between: 1 ½ mks\*UG\*
- i) Cell referencing
  - ii) Relative references
  - iii) Absolute referencing
- d) What is data integrity? ½ mk\*UG\*
- e) Differentiate between the following errors: 1mk\*UG\*
- i) Transcription errors
  - ii) Transposition errors
- f) The following methods are used in data protection. Explain. 2 mks\*UG\*
- i) Audit trail
  - ii) Data encryption
  - iii) Log files
  - iv) Fire walls

**SECTION B (60 MARKS)**

**Answer question 16 and any other three questions from this section**

16. a) Baraka wholesalers has two categories customers for order processing. Category ‘A’ obtains 10% discount on all orders up to ksh 10,000 otherwise the discount is 20% on the entire order. Category ‘B’ obtains 30% discount on all orders if the debt repayment is ‘good’ otherwise the discount is 15%. Draw a flow chart for the order processing. 8 mks\*UG\*
- b) A form four class sat for an exam in eight subjects. A student must get an average of 50% in all subjects in order to pass. A report is required that will show the name, marks obtained by each student per subject, the average mark and whether the student has passed or failed. Draw a flow chart for this report. 7 mks \*UG\*
17. a) Define the term network topology. 1mk
- b) Name three different types of computer network topologies. 3 mks\*UG\*
- c) Outline any four functions of network operating systems. 4 mks\*UG\*
- d) Explain the following as used in internet services 3 mks\*UG\*
- i) E- mail
  - ii) E- commerce
  - iii) E- learning
- e) Piracy means making illegal copies of copyrighted software, information or data. Outline any four ways in which the copyright law can help to reduce piracy 4 mks\*UG\*
18. a) Define the term data communication. 1 mk \*UG\*
- b) Explain the following terms as used in data communication. 2 mks\*UG\*
- i) Bandwidth
  - ii) Attenuation
- c) Explain the following three types of computer networks 3mks\*UG\*
- i) LAN
  - ii) MAN
  - iii) WAN
- d) i) What are robots. 1 mk\*UG\*

- ii) Outline any four advantages of using robots in industries over human beings. 2 mks\*UG\*
- e) Describe the following communication modes giving an example in each case. 6 mks\*UG\*
- i) Simplex  
ii) Full duplex  
iii) Duplex
19. a) Describe the following careers in the computing field. 3 mks \*UG\*
- i. Computer Engineers  
ii. Software engineers  
iii. Computer technician
- b) Identify any three duties of an information system manager. 3mks\*UG\*
- c) Giving an example, mention three categories of places where you can advance your computer skills after sitting for your K.C.S.E. 3 mks\*UG\*
- d) Mention any four formatting features used in Ms Word application. 2 mks\*UG\*
- e) Define the term electronic spreadsheet. 1 mk\*UG\*
- f) Explain the following terms as used in Ms Excel spread sheet package. 3 mks\*UG\*
- i) Range  
ii) What if analysis  
iii) Automatic recalculation
20. a) Define the term information system. 1 mk\*UG\*
- b) Outline three circumstances under which an organization may want may want to develop a new information system. 3mks\*UG\*
- c) List down any six characteristics of a system. 3 mks\*UG\*
- d) Describe the term data processing. 1 mk\*UG\*
- e) Outline five qualities of good information. 2 ½ mks\*UG\*
- f) List three file organization methods in a computer. ½ mk\*UG\*
- g) Briefly describe the following type of computer files. 3 mks\*UG\*
- i) Master file  
ii) Transaction file  
iii) Back up file