**MARKING SCHEME**

**COMPUTER STUDIES PAPER ONE**

1. a) It is a type of input where a microphone connected to a computer system is used to enter data in form of spoken words into the computer

b) i) Advantages

* Voice input is fast
* Its suitable for people with special needs especially those with impaired hands
* Can be used in emergency situations

ii) Disadvantages

Voice inputis complex to develop

- Voice input does not take care speech related problems such as accents, tone etc

- The response rates of speech input devices are relatively slow

- Most speech input devices can recognize a limited, standard vocabulary of spoken words, and the voice of only one speaker

- Cannot differentiate words that have same sounds (homophones)

1. Logic operation is the ability to compare two quantities or numbers to determine which is greater than, less than, equal to, or not equal to the other.

It also involves the testing for existing of a condition encountered during the processing of an application & altering the sequence of instructions accordingly.

1. a) i) Diskette ii) Zip Disk ii) Magnetic tape iv) Compact Disk

b) Diskette has less storage capacity (1.44MB) while Magnetic tape has more storage capacity in GB

1. A firewall is part of a computer system or network that is designed to block unauthorized access while permitting authorized traffic.
2. a) i) Sequence ii) Selection iii) Looping/Iteration/Repetition

b) i) Case….End case ii) If…Then…Else iii) If…..Then iv) Nested…..If

c) Encapsulation is hiding the way the program works from the end user or combining data and the programs that work on that data into a single object.

1. Hyper Text Mark Up Language is a language consisting tags that are interpreted by the web browser and they are used to create hypertext documents

* There may arise a need to revise or modify the program
* Other programmers may think of ways of improving your program

1. It is the pathway used for carrying data and information from one point to another
2. I)Share Level security- Used in peer to peer networks where the user decides which resources to give for sharing

* User Level Security- used on server based networks where the network administrator assigns accounts to users. That is each user is provided with a unique name and password which he/she can use to access network resources.

ii) Ethernet topology all computers listens to the network media and can only send data when none of the others is sending. While in token ring a special package for data called a token goes around the network and only the computer whose address is on the data held in the token will take up the token and releases it after reading the data.

1. It is the study, measurement and analysis of human biological characteristics

* Tallying population size
* Establishing demographic trends
* Drawing pie charts to show population share for men and women
* Doing census budgets
* Hardware conflict
* Missing some system files caused by problem in installation
* Insufficient system memory
* Corrupted system windows registry
* Due to interrupt request conflict

1. A) Deadlock is where a particular task holds a resource and refuses to release it for the other tasks to use

B) It is a situation where the operating system automatically accepts a new hardware once it is connected to the computer.

c) A program file contains instructions of a given program while a data file contain data or information to be processed by the program

1. i) – The key field or key attribute

- The type of data

- The length of each field

- Back up and strategies

ii)

* Whether the new system requires a new operating system and hardware whether you need to create new database files for the new system
* whether you need to install new application software

1. Hormophones- some words sound the same

* Speaker variability
* Recognition is slow
* Limited vocabularies
* Word separation