

Name _____

WORKSHEET 6 – CPU AND COMPUTER PERFORMANCE

Make sure that you are familiar with all of the information detailed in this booklet. There are a number of tasks for you to carry out, be sure to read the information fully whilst completing the tasks. You could be asked about any of this in the test!

Use the theory notes in the worksheet 6 section of the teach-ict.com site to help you complete this booklet.

TASK 1: CPU

- a) What do the initials 'CPU' stand for? **CENTRAL PROCESSING UNIT**
- b) What is the CPU commonly known as? **THE BRAIN OF THE COMPUTER**
- c) What is the job of the CPU?
TO SORT, SEARCH AND PERFORM CALCULATIONS ON DATA.
- d) What unit is the speed of a CPU measured in? **MEGAHERTZ (MHz) OR GIGAHERTZ (GHz)**
- e) What is the typical size of a CPU in most desktop computers today? **3 GHz**
- f) What is the extra fact which you found out about a CPU?

TASK 2: COMPUTER PERFORMANCE

There are three main factors which affect the computer's performance. List them below:

- 1 **THE SPEED OF THE CPU**
- 2 **THE AMOUNT OF RAM IN THE COMPUTER**
- 3 **THE NUMBER OF APPLICATIONS WHICH ARE RUNNING**

TASK 3: CPU AND COMPUTER PERFORMANCE

Use the words below to fill in the gaps in the text.

INSTRUCTION	BILLIONS	CPU	SPEED
SECOND	PERFORMANCE	FASTER	QUARTZ

Every **CPU** contains a tiny **QUARTZ** clock which can 'tick' **BILLIONS** of times each **SECOND**.

Every time there is a 'tick' the **CPU** can carry out an **INSTRUCTION**. The more instructions that can be performed each second, the **FASTER** the computer will complete its tasks.

By increasing the **SPEED** of the **CPU** by replacing the current one with a much faster one or by a technique called 'overclocking', you can improve the computer's **PERFORMANCE**.

4: RAM AND COMPUTER PERFORMANCE

a) What does the term 'RAM' stand for? **RANDOM ACCESS MEMORY**

b) Is RAM 'Computer Memory' or 'Backing Storage'? **COMPUTER MEMORY**

c) In your own words, explain below why increasing the amount of RAM would improve the performance of a computer.

5: NUMBER OF APPLICATIONS RUNNING AND COMPUTER PERFORMANCE

a) In your own words, explain why having a lot of applications and documents open would eventually slow down the performance of a computer.

b) What advice would you give to someone who was experiencing slow computer performance due to having too many applications and windows open?

6: TRUE OR FALSE

Which of the following statements are true or false?

Statement	True or False?
The CPU can store data for a long period of time	FALSE
The CPU is known as the 'brain' of the computer	TRUE
The speed of a CPU is measured in Megabytes or Gigabytes	FALSE
A typical CPU speed would be around 3 GHz	TRUE
Increasing the speed of the CPU will improve the performance of a computer	TRUE
RAM is known as 'Volatile' memory	TRUE
RAM stores data and application modules whilst you are working on them	TRUE
Increasing the amount of RAM will increase the performance of a computer	TRUE
Closing down documents and applications when you have finished with them will improve the speed of a computer	TRUE

END OF WORKSHEET