

The examples of micro operations

[Technology](#), [Computer](#)



Content of Homework should start from this page only:

Ans 1. The examples of micro operations are basic logic circuit gates (AND-GATE, OR-GATE), ALU (Arithmetic and Logical Unit) part of Processor that deals with arithmetic operations in a computer. A micro-instruction is a simple command that makes the hardware operate properly. The format is unique to each computer; its example is a 24 bit micro-instruction that deals with all micro operations in a CPU such as ALU, GATES (AND, OR).. Coffee makers and toasters of today have chips with micro programs on them. Micro programming is the lowest-level instructions that directly control a microprocessor Microprogramming: The examples of micro program is using of diode matrices for the memory element. The basic example of micro codes is firmware ware as some hardware vendors, especially IBM, use the term as a synonym for firmware, so that all code in a device, whether microcode or machine code, is termed microcode (such as in a hard drive for instance.) another is ROM or Read Only Memory.

Ans 2 Look at the effect that will have on the chemical and biological companies. Business as we know it today would, in many cases, be impossible to transact without IT (information technology). IT has revolutionized the phase of Business around the world. Local Businesses have become international due to a simple website. I. T. has helped businesses in Advertising. People who check their email may suddenly have a pop up at their page ends with sales up to 60%. I. T. has helped in Customer Service, huge cooperation like Microsoft attend to customer needs through email and chat services. Networking internal and external in organizations has improved the working of businesses. Staffs and Clients like <https://assignbuster.com/the-examples-of-micro-operations/>

wise can get in touch with the MANAGERS for feedback, progress reports and extensions. Communication has bloomed; two business organizations if they need to work together can easily do so. Hotmail when merged with MSN was easy since the service was online. Business these days require a lot of planning, due to high tech organization systems on computers, planning can be done on an organized pattern, with schedule formats, Gantt charts etc. Huge databases can now be controlled and stored on network and backup drives. Accessibility of files also has become an easy task with series of password keys and shared folders. Cash transaction are easily made, delay in reduced hence giving liquidity to business. :- If we look at a broad spectrum of information technology, then the impact on business is vast. I. T. is affecting nearly every face of human endeavor, and that effect is to speed up, to simplify the process of work, of innovation, of scientific exploration. Everything is speeding up, the productivity of companies, By way of an example of hardware, There is now a chip, that is effectively a laboratory on a chip. We can feed in a small sample of chemical and the chip will do thousands of tests on it, feeding back the results electronically to a program on a computer automatically recording and analyzing the results..

Ans 3:- It is extremely malleable; it means that we can modify the software products too easily.

Software construction is human intensive, there are no real cost for materials.

Software is intangible; no laws of physic are applied on it.

It is a component of larger system that fits with hardware, people and mechanical devices.

It has a very complex structure than other engineering products.

Software is not detectable by any of the five human senses.

Ans 4:-

Immediate addressing mode

Direct addressing mode

Indirect addressing mode

Register addressing mode

Register indirect addressing mode

Displacement addressing mode

Stack addressing mode

PART-B

Ans 5:- The basic differences between an array and a stack are:

Array is a linear Data Structure in which insertion and deletion can take place in any position. The elements can be retrieved randomly in Arrays. Whereas stack is also a linear data structure in which insertion and deletion will take place at the top position alone. It follows LIFO order i. e. last in first out. The element in the top most position alone can be retrieved.

Secondly, an array allows direct access to any of its elements, whereas with a stack, only the ' top' element is directly accessible; to access other elements of a stack, you must go through them in order, until you get to the

one you want.

The size of array is fixed, while stack size can grow and shrink. We can say Stack is a dynamic concept of array.

Ans6:- The differences between a translator and a compiler:

A compiler usually has to do optimization. A translator can rely on the compiler for the target language to do optimization: in fact, it should **not** do optimizations which affect readability of the code.

A compiler is translating from a higher level language to a lower level language (or to a low level subset of the target language) and vice versa. A translator is usually translating from a high level language to another high level language or from a low level language to a high level language. For example, translating from assembler language to C or COBOL.

A translator usually has to generate nice, structured, maintainable code in the target language which makes use of idioms in the target language where possible. A compiler can generate any code it likes, however ugly, which is syntactically valid for the target language.

A compiler has to cope with any valid syntax in the source language, and generate semantically equivalent code in the target language. A translator usually has a fixed body of code that it is required to translate, and may have some leeway over rarely used idioms which are hard to translate automatically.

Ans 7:- In unsorted array, linear search is mostly preferred rather than binary search as, each element of array with the given item to be searched one by one in linear search, whereas in binary it will take time to convert it into

sorted array and then searching takes place. Thus linear search is applicable for unsorted array. If the case comes to sorted array, then binary search is preferred as linear searching will prove the worst, if the element to be searched is one of the last elements of a long array as so many comparisons would take place and entire process would be time consuming.