

Date: \_\_\_\_\_

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Subject:- Intro to ICT

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## Question N.O (1) :-

Answer:-

The characteristics of the computer are as follows:-

### Speed:-

A computer works much higher speed and accuracy compared to humans while performing mathematical calculations.

### Accuracy →

Computers perform calculations with 100% accuracy. Errors may occur due to data inconsistency or inaccuracy.

### Diligence →

A computer can perform millions of tasks or calculations with the same consistency and accuracy. It doesn't feel any fatigue or lack of concentration. Its memory also makes it superior to that of human beings.

### Versatility →

Versatility refers to the capability of a computer to perform different kinds of

works with same accuracy and efficiency.

### Reliability →

A computer is reliable as it gives consistent result for similar set of data i.e, if we give same set of input any number of times, we will get the same result. And computer performs all the task automatically without manual intervention.

### Memory

A computer has built in memory called primary memory where it stores data. Secondary storage are removable devices such as CDs, pen drive etc, which are also used to store data.

## Question N.o (2):-

Answer:-

### Machine learning:-

Machine learning is an application of artificial intelligence (AI) that provides system the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access and use it learn for themselves.

### 5G Technology's

Fifth generation wireless (5G) is the latest iteration of cellular technology, engineered to greatly increase the speed and responsiveness of wireless networks. With 5G, data transmitted over wireless broadband connections can travel at multigiga bit speeds, with potential peak speed as high as 20 gigabits per seconds (Gbps) by some estimates.

These speeds exceed wireless networks speed and offer latency of 1 millisecond (ms) or lower which is useful for application that require real time feedback. 5G will

enable a sharp increase in the amount of data transmitted over wireless system due to more available bandwidth and advance antenna technology.

### Central Processing Unit (CPU) :-

The central processing unit (CPU) of a computer system is a piece of hardware that carries out the instruction of a computer program. It performs the basic arithmetical, logical and input/output operations of a computer-system. The CPU is sometimes also referred as central processing unit or processor for short.

### Non Positional Number System :-

A non-positional number system uses a limited number of symbols in which each symbol has a value. However the position a symbol occupies in the number normally bears no relation to its value - the value of each symbol is fixed. The roman number is the good example of non-positional number system.

Question N.O(3)a:-

Sol:-

110101010

convert into  $( )_{10}$

$$1 \times 2^8 + 1 \times 2^7 + 0 \times 2^6 + 1 \times 2^5 + 0 \times 2^4 + 1 \times 2^3 \\ + 0 \times 2^2 + 1 \times 2^1 + 0 \times 2^0$$

$$\Rightarrow (1 \times 256) + (1 \times 128) + 0 + 32 + 0 + 8 \\ + 0 + 2 + 0$$

$$= 256 + 128 + 32 + 8 + 2$$

$$= (426)_{10}$$

Question N.o (3) - b:-

$$\begin{array}{r}
 10001010 \\
 \times 10101101 \\
 \hline
 100001010 \\
 000000000 \\
 100001010 \\
 000000000 \\
 000000000 \\
 100001010 \\
 000000000 \\
 \hline
 100001010 \\
 000000000 \\
 \hline
 10110101000010
 \end{array}$$

10110101000010 = Ans.