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Section (B)

Subject: ICT

Assignment (mid term)

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Q No 1. Write a characteristics of computer. explain each in detail.

Ans 1 is

Characteristic of computer

(1) Automatic

Automatic given a job, computer can work on it automatically without human intervention.

(2) Speed

Speed computer can perform data processing task very fast usually measured in microseconds (10^{-6}), nanoseconds (10^{-9}) and picoseconds (10^{-12}).

(3) Accuracy

Accuracy of computer is consistently high and the degree of its accuracy depends upon its design. Computer errors caused due to incorrect input data or in garbage out.

(4) Diligence

Computer is free from monkey business and lack of concentration it can continuously work for hours without making any error without getting

(5) Versatility

Computer is capable of performing almost any task if the task can be reduced to a finite series of logical steps.

(6) power of remembering

Computer can store and recall any amount of information because of its secondary storage capability it forgets or loses location information only when it is asked to do so.

② NO I.Q.

A Computer does only what it is program to do it can't take its own decision in this regard.

③ NO FEELING

Computer are devoid of emotions their judgment is based on the instruction given to them in the form of programs that are written by us human beings.

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Ques: Central processing unit (CPU)

Arithmetic + Control unit + Input/output

- * It is the brain of computer system
- * It is responsible for controlling the operations of the other units of a computer system

Q: Number Systems

Two types of number systems

- 1. Positional number system
- 2. Non-positional number system

Q: Non-positional Number System

Characteristics

- * use symbols such as 1, 2, 3, 4, 5, etc.
- * Each symbol represents the same value regardless of its position in the number.
- * The symbol or simply added is fixed but the value of particular number

p. T. 2

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5G Technology

In telecommunications, 5G is the fifth generation technology standard for cellular networks which allow phone companies begin deploying ~~worldwide~~ worldwide 5G in planned Successory to the 4G networks which provide connectivity to ~~smart~~ most current cellphones, wikipedia.

Machine Learning is an application of artificial intelligence (AI) that gives system the ability to ~~automat~~ learn and improve from experience without being explicitly programmed. ~~being~~ capacity

Q no 8. solve the following question

Q) Convert $(110101010)_2$ into $()_{10}$

Sol

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

$$= 256 + 128 + 0 + 64 + 0 + 32 + 0 + 16 + 0 + 8$$

$$= 256 + 128 + 64 + 32 + 8 + 0 + 0 + 0 + 0 + 0$$

$$= 488$$

$$\Rightarrow \boxed{488} \text{ (Ans)} \quad (488)_{10}$$

$$(110101010)_2 \text{ is } (488)_{10}$$

2	488	
2	244	0
2	122	1
2	61	0
2	30	1
2	15	0
2	7	1
2	3	1
2	1	0
2	0	1

110101010

(b) Multiply binary number
1001010 and 1010101

Sol

$$\begin{array}{r} 1001010 \\ \times 1010101 \\ \hline 1001010 \\ 0000000 \\ 1001010 \\ 0000000 \\ 1001010 \\ 0000000 \\ 1001010 \\ \hline 10110100010 \end{array}$$

$$\begin{array}{r} 1001010 \\ + 1010101 \\ \hline 10110100010 \end{array}$$