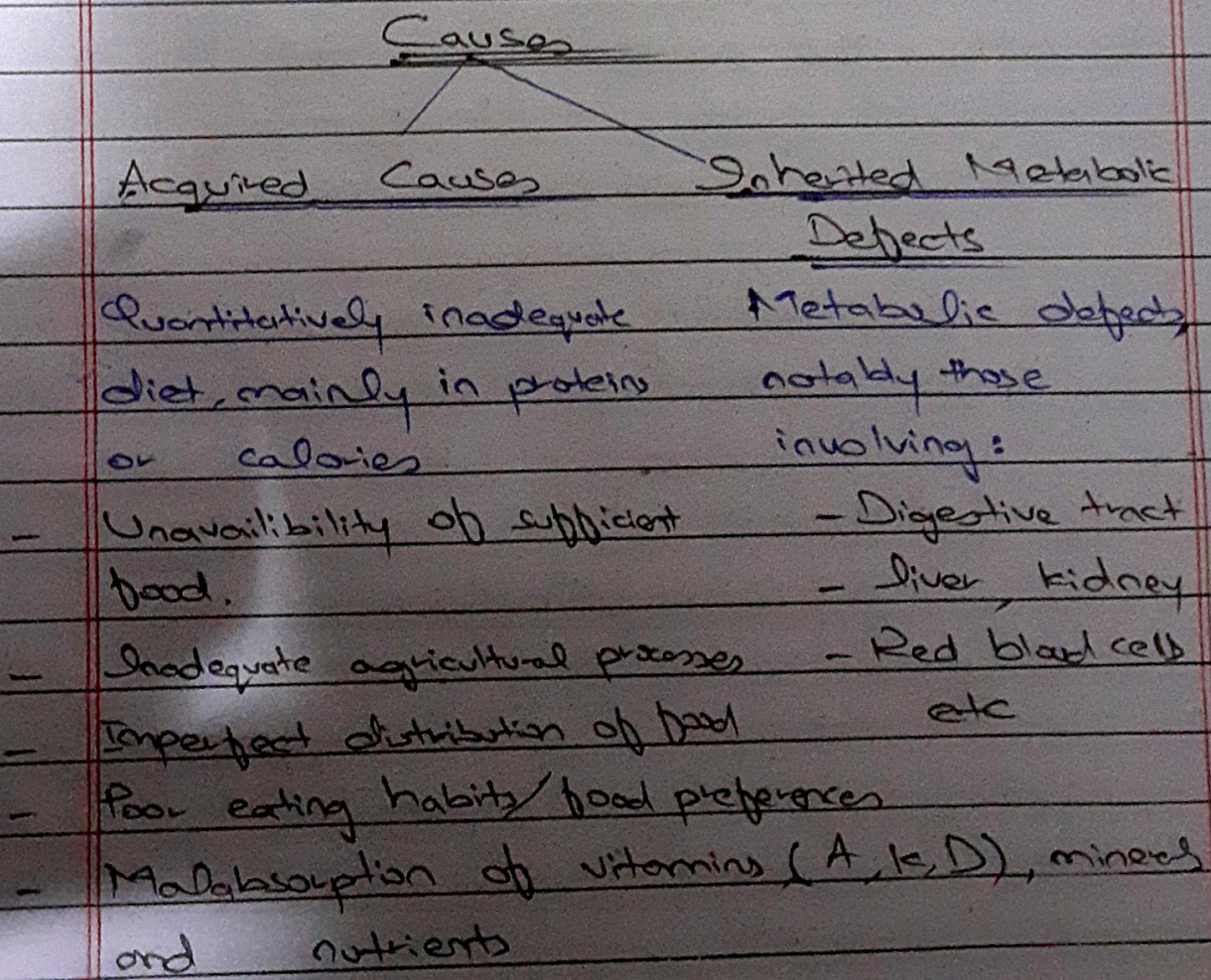


Q. a. Define the term malnutrition, elaborate its major causes and consequences.

Definition: Malnutrition, in all its forms, refers to the deficiency, excess or imbalance of the nutrients in a person's diet. The term is used to refer poor nutrition and over nutrition. However, it commonly refers to under nutrition, a condition when a person doesn't not intake right number of dietary intakes, or when the body is deprived of vitamins, minerals, and other nutrients that are significant to maintain tissues cells, and bones healthy.

Major Causes of Malnutrition:

There are various factors that can lead to malnutrition:



Consequences of Malnutrition

Social Economic

Social Consequences:

o Child Malnutrition

Undernourished children have weak immune systems; therefore, they are prone to many diseases like diarrhea, anemia, stunting, rickets etc.

o Adult Malnutrition:

Improper intake of nutrients badly affects an adult's weight, height, eyesight, health, and other mental capabilities.

Economic Consequences

o Malnutrition slows economic growth and perpetuates poverty.

o Morbidity and mortality due to malnutrition cause loss in human capital and productivity.

(b) Differentiate between food contamination and food adulteration.

Food Contaminants	Food Adulterants
<p>Definition: Food contaminants are unwanted and impure elements in food, mainly introduced by environment through</p>	<p>Definition: Food adulterants are inferior, substandard, or unnecessary substances deliberately</p>

Date: _____

Day: _____

humidity, heat, water contents, or soil etc.

Moreover, they ~~are~~ also include any harmful substances that are unintentionally added to food which may be chemicals from natural resources or formed during food processing.

added to food to improve its appearance and to gain greater profit.

Examples

- Heavy metals in soil, which plants take up, are present in vegetables and fruits as food contaminants

- Exposing food to high temperature provides a favourable environment for pathogens and bacteria to grow.

- If the fields are sprayed with contaminated water for irrigation, fruits and vegetables can be contaminated before harvesting

A chemical named melamine is commercially added to milk to increase its protein level.

Tea leaves are usually adulterated with used tea leaves that are processed and colored.

To enhance the flavour and colour of honey, companies mix molasses sugar with. Injecting water or brine ⁱⁿ to meat to increase its weight.

Food contamination mostly happens naturally. An unintentional process

Adulteration is completely a man-made process. Done intentionally

It does not have any economic gains

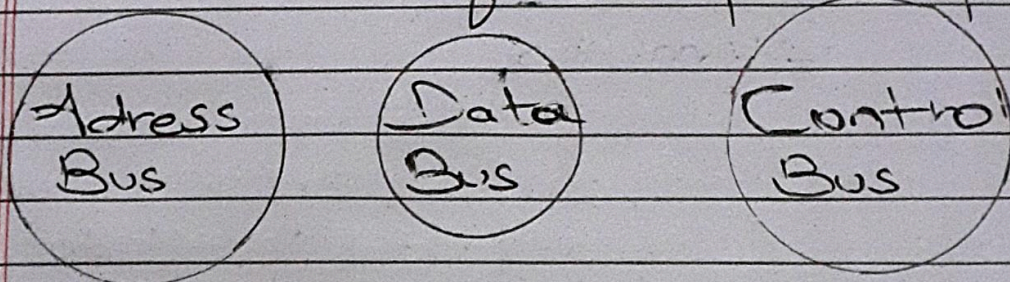
It is motivated by economic gains

Q What are computer buses? Differentiate RAM and ROM?

Definition:

A computer bus consists of a set of parallel conductors that may be conventional wires, copper tracks on a printed circuit board, or microscopic aluminium trails on the surface of a silicon chip.

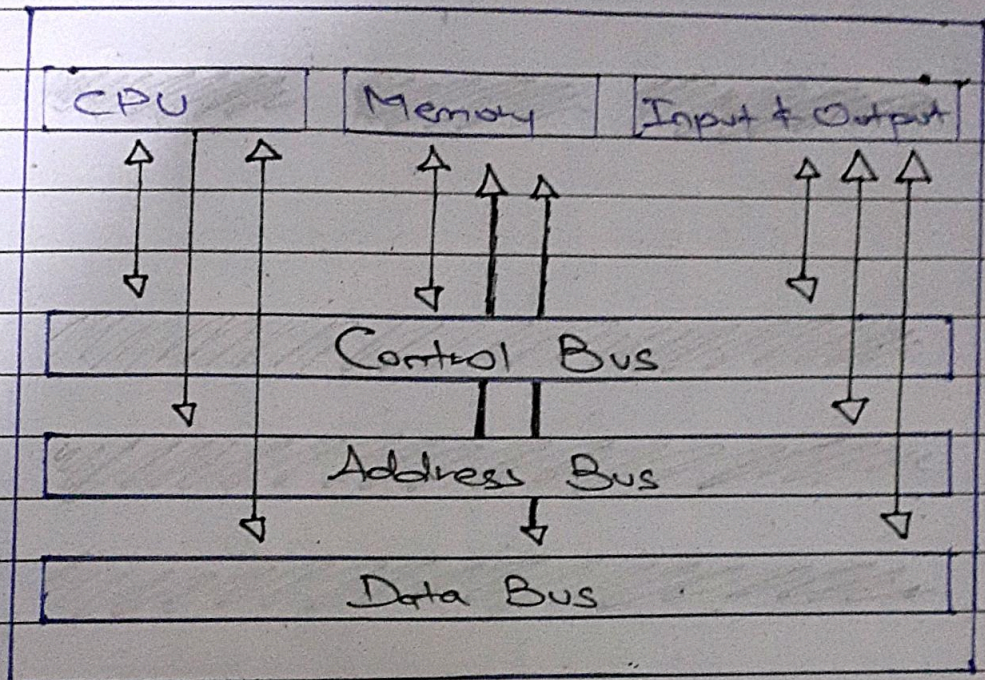
Buses of Computer System



1 **Address Bus:** It carries memory addresses from the processor to other components such as primary storage and input/output devices. The address bus is unidirectional.

2 **Data Bus:-** It is a data-centric framework that distributes and manages real-time data between the processor and other components in intelligent distributed system. It allows applications and devices to work together as one integrated system. The data bus system is bidirectional.

- 3 **Control Bus:** It carries control signals from the processor to other components and ensures everything flows smoothly from place to place. The control bus is uni-directional.



System Bus

Difference between RAM and ROM

RAM	ROM
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Data Retention

<p>Volatile Memory It could store data as long as the power is supplied:</p>	<p>Non-Volatile Memory It could retain the data even when power is turned off</p>
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Working Type

<p>Data stored in RAM can be retrieved and altered</p>	<p>Data stored in ROM can only be read.</p>
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Usage

Used to store data that has to be currently processed by CPU Temporarily

It stores the instructions required during the bootstrap of computer

Speed

It is a high speed memory

It is much slower than RAM

Size and

large size with high capacity

Capacity

Small size with less capacity

Cost

Costly as compared to ROM.

Cheaper than RAM

Q.6^a A primary school had an enrollment of 850 pupils in January 2022. In Jan 2023, the enrollment was 1120, what was the increase percentage?

Sol:

Given: old enrollment = 850

New enrollment = 1120

Required = Percentage increase

Formula Used: $\text{Percentage} = \frac{\text{New Value} - \text{Old Value}}{\text{Old Value}} \times 100$

Putting the values in formula

$$\text{Percentage} = \left(\frac{1120 - 850}{850} \right) \times 100$$

$$\text{Percentage increase} = 31.8\%$$