

Part - II

Section I

Q no 2 (a)

Ans Malnutrition.

Malnutrition refers to deficiencies or excesses in nutrient intake, imbalance of essential nutrients or impaired nutrient utilization.

Causes of malnutrition

1- Reduced dietary intake

It occurs due to reduction in appetite sensation as a result of changes in cytokines, glucocorticoids, insulin and insulin like growth factors.

2- Malabsorption.

For patients with intestinal failure and those undergoing abnormal surgical procedure, it represents an independent risk factor for malnutrition.

3- Energy expenditure.

It was thought for many years that increased energy expenditure was predominantly responsible for malnutrition.

Consequences of malnutrition.

Malnutrition affects the function and recovery of every organ system.

1- Cardiac - respiratory function.

Reduction in cardiac muscle mass is recognized in malnourished individuals. The resulting decrease in cardiac output has a corresponding impact on renal function and respiratory functions, as well.

2- Wound healing and ~~Immunity~~

Delayed wound healing is also well described in ~~malnutri~~ malnourished patients.

3- Immunity: Immune function is also affected, increasing the risk of infection due to impaired cell mediated immunity.

(b)

Food Contamination

Adulteration

c. ↓

↓

1. Contamination is the presence of impurities and unwanted elements founds in air water or environment which is harmful

It is process of adding some unwanted harmful substance to the food products, keeping in mind for making Profits.

e.g

- 1- Pesticides, Residue and dropping of rodents are the examples of Incidental contamination.

e.g.

- 1- sugar → chalk powder
- 2- Grain → weed seed, pebbles → stones
- 3- Honey → sugar solution
- 4- Black pepper → papaya seeds

- 2- Addition of mud, talc, water and mineral oils are examples of intentional contaminants.



TE:

1) Computer buses:-

A bus in computing and digital technology is an electric pathway

through which data can be transferred.

This pathway uses signals that move at a different speed and are sent

through different channels to communicate information between components within

a computer or network.

RAM

ROM

RAM stand for

ROM stand for

Random access memory

read only memory

RAM data is volatile

ROM data is

Permanent

Data can be modified

Data cannot be

modified.

CPU can access data

CPU cannot access

stored in RAM

data stored in ROM

directly.

5. RAM is expensive ROM is cheaper than RAM

6. Types of RAM Types of ROM.

- Dynamic RAM PROM
- Static RAM EPROM.

(d) Geo-stationary Satellites.

A geostationary satellite is in orbit that can only be achieved at an altitude very close to 35 thousand km and which keep the satellite fixed over on altitude at the equator.

Natural
Satellite

Artificial
Satellite.

Natural satellite
are formed by
nature and not
controlled by humans

Artificial satellites
are man made and
controlled by humans

Luna and Triton
are examples of
natural satellite

International space
station is an
example of artificial
satellite



Q No 4-

(2) Main Causes of floods-

The main causes of floods are
as follows.

1- Heavy rainfall.

It is the most common cause of
floods.

Heavy
Rainfall

- River flow over in plane areas
- Flash flood in hilly areas
- Urban flooding.

flash
flood

- caused by volcanism in glacier
- melting of glacier by global warming.

Urban flooding also caused by
sewerage failure due to the absence

of solid waste management system.

- 2 - Coastal invasion
- due to tsunami
 - due to cyclone
 - sea level rise due to global warming.

3 - Dam failure.

* Floods of 2010 were considered the most brutal calamities till now but the 2022 floods proved otherwise.

2010

2022.

1 - 20 million people affected 33 million people affected

2 - 6 million people displaced 3.1 million people displaced

3 - Death count = 1985 Death count 1300
(nearly 500 children)

1/3 of total land area was affected in 2010 flood targeted KPK more than rest of country
 1/3 of Pakistan is submerged in 2022 flood targeted Balochistan and Sindh along with KPK

NDMA is responsible for the resource mobilization for relief. operation of control room and situation reports.



h) Polio :-

Polio is a highly infectious viral disease, which mainly affects young children.

Cause :-

It is caused by virus, it invade nervous system and can cause total paralysis in matter of hours.

Symptoms

- 1 - fever
- 2 - fatigue
- 3 - headache
- 4 - vomiting
- 5 - stiffness in the neck
- 6 - pain in the limbs

Prevention.

Immunization with polio vaccine is the best way to prevent polio.

Vaccine

oral polio vaccine

Inactive polio vaccine

(C) steps involve in solid waste management

- 1 - waste generation
- 2 - waste handling, and sorting, storage, and processing at the source
- 3 - collection

Sorting • processing and transformation
transfer and transport
disposal.

Issues of solid waste management.

- Increase in household size in major cities
- No proper mechanism for the collection and disposal of waste.
- 3- Open dumping, open burning, unengineered sanitary land filling
- 4- out dated rules and regulations.

population planning

It is a practice of managing the growth rate of human population

(b)

Star

- 1- Star is a shining sphere of hot gas

Planet is a round body in space that orbits.

- 2- Star shine by releasing light through nuclear fusion

Planets do not produce light

- 3- stars revolve around the centre of galaxy

Planets revolve around stars

- 4- Stars have high temperature like sun has surface Temp of 5500 to 6000°C

Planets derive and energy from sun.

5- Examples.

Sun, Pistol Star and Proxima Centauri

Example

Earth, Venus, Mars and Jupiter.

Atoms form chemical bonds in order to make their outer electron shells more stable. The type of chemical bond can maximize the stability of atom that form it.

Types of chemical bond

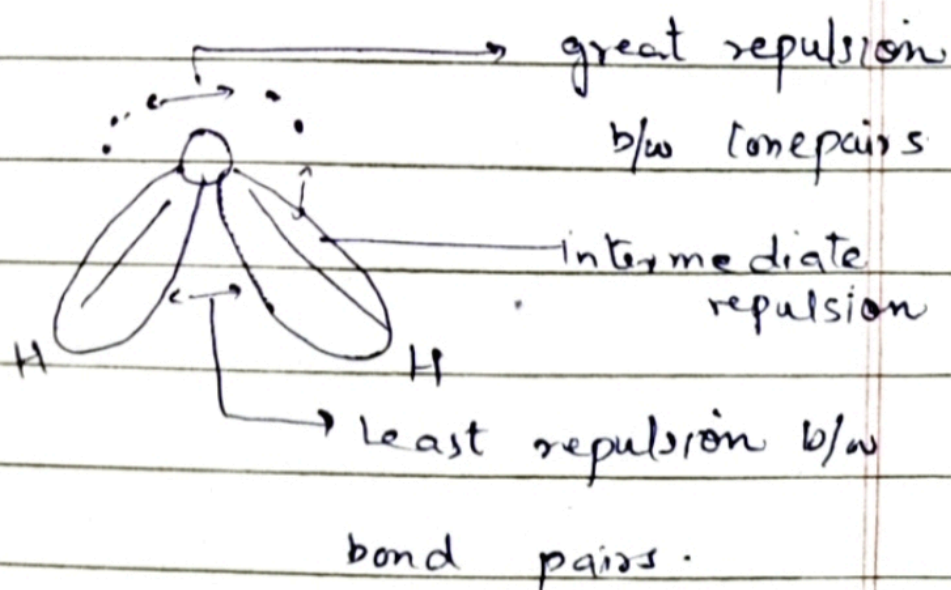
Ionic bond

covalent bond

Coordinate covalent bond

Metallic bond.

Structure of water.



HOH angle is 104.5°

DATE _____

and two lone pair
DAY: _____

water has two bond pairs of electrons
The greatest electron pair repulsion
is between two lone pairs, This
results in the bonds being pushed
even close together. The shape
of water molecule is non linear
V shaped. The H-O-H bond
angle is 104.5° .

d) - Conductors

A type of material
that allow the flow of charge
in one or more directions.

e.g.

Metals

2- Semi conductors.

a material that conduct
electricity more than an insulator
but less than pure conductors.

e.g. Ceramics

Metals -

A substance characterized by high electrical and thermal conductivity as well as by malleability, ductility and high reflectivity of light.

e.g

Copper

4- Plastic.

A synthetic or semi-synthetic material typically derived from petrochemical or petrochemicals or substance such as cellulose or starch.

e.g

PVC and nylon

5- Ceramics

A ceramic is an inorganic non-metallic solid made up of clay and that have been shaped and then hardened by heating to high temperature

e.g

Plates, glass and toilets.