

## PART 2

### SECTION-1.

Q.4

a. What is Solid waste management?  
What is national Solid waste management Strategy in Pakistan? Suggest methods to improve the abysmal situation of SWM in PAKISTAN:

Ans. Solid waste management is the management of wastes produce by humans. In this process the first step is collecting, second is transporting, third is processing and the last step is disposing of Solid waste in different ways.

a. SWM Strategy in Pakistan:

The national solid waste management is a plan developed by government of Pakistan to improve the waste management practices. The national solid waste management strategy focuses on the alarming situation of wastes in urban areas that are resulting in different diseases and environmental degradation.

**SWM measures:**

1. A system of proper waste collection and transportation.
2. Improving the land-fill sites
3. Public - private partnership to improve solid waste management.
4. Introducing modern waste management technology.

P.T.O.



## 5. Awareness workshops to allure public participation.

### Steps to improve SWM:

As we discussed the SWM and its plans we see that to achieve prosperity in a society we have to work and remain persistence in our efforts. But some viable steps are:

1. Encourage public to segregate different types of waste in different dust bins.
2. Private sectors are needed to avoid the SWM crises in Pakistan; because private sectors have expertise and they can utilize it.
3. Improving the transportation system and the dumping systems; it is only possible through better equipment.
4. The last step to improve SWM in Pakistan is to create awareness among general public about the importance of SWM and its negative implications on our environment.

So, SWM in Pakistan is in crises. The aforementioned strategy and viable steps are more than enough to cover this menace.

## 8. What is GIS and its components?

### GIS:

GIS is the acronym of "Geographic Information System". It is a computer based tool for many uses. For example, analysis, visualization storage and manipulation



of geographic or spatial data.  
GIS is used in industries and fields,  
Public Health, transportation and in some  
urban planning.

### GIS components:

- GIS has many components which  
is necessary for GIS to work properly.
1. Hardware: in this we have computer, server,  
printers and plotters.
  2. Software: Software is used to display the  
geographic information.
  3. Data: The data is in digital form and  
consist of maps, aerial photos, satellite images  
etc.
  4. Methods: GIS relies on data collection,  
data management and visualization.

Thus, all of the above components make  
GIS a powerful tool to provide accurate  
information for the betterment of humankind.

### ~~Pakistan Population~~

Pakistan fifth most populous country.  
causes of population explosion and control  
measures.

Ans. Pakistan, a country which is  
a country of approximately 225 million  
people as of 2021. The last census was  
done in 2017 which showed that  
since 1998, Pakistan population increased to  
a high number which is 132 million in  
1998 to 207 million in 2017.



In Pakistan, largest province by population is Punjab, followed by Sindh, Khyber Pakhtunkhwa and with less population Balochistan is the least populated province. The increase in Pakistan's population is not a new phenomenon, it took decades to formulate and now we are seeing the real onset of population explosion.

### Causes of Population bloom:

There are a lot of factors:

1. The fertility rate in Pakistan is 3.6 children per woman.
  2. Lack of education leads to limited knowledge about family planning.
  3. Limited access to healthcare is a huge problem. Because many women living in rural areas ~~are~~ have no or little access to healthcare.
  4. Poverty is one of the problems. The reason is that poverty encourages the poor to give birth to more children and then use them ~~for~~ as a source of income.
  5. Culture is also the main culprit; because in Pakistan many believe that large family is good to carry on the family name.
  6. Last but not the least is lack of government policies; although, government of Pak has initiated family planning campaigns but the result is not fruitful.
- So, the population growth causes in Pakistan is multifaceted and requires more stringent policies from government of Pakistan.



## Control measures regarding population growth:

To control the population explosion in Pakistan certain measures are necessary:

1. Family planning is the most pertinent step to be taken and the sphere of family planning should be widened.
2. Educating the women regarding the population growth and her reproductive health.
3. Economic development would certainly reduce the poverty and people would become aware of it.

4. Policy and programmes by government of Pakistan can be the game changer. Because stringent policies and family planning policy implementation are pertinent to control the population bloom.

In conclusion, controlling population growth require more severe policies to implement family planning, Educating women, Economic development by government and awareness among people.

## D. Montreal protocols and Kyoto protocol:

Ans Both of the protocols were international environmental agreements to address global environmental concerns.

### Montreal protocol:

This specific protocol is an



international agreement signed in 1987 with the goal of phasing out the production and consumption of substances that are damaging and depleting ozone layer. For example, Chloro-fluoro carbons (CFC). More <sup>over</sup>, this treaty has been a success in reducing the production and consumption of ozone-depleting substances.

### Kyoto protocol:

This treaty was signed in 1997 in a city (Kyoto) in Japan. The aim was to reduce greenhouse gas emissions that contribute to climate change. This treaty was a binding international agreement and requires industrialized countries to reduce their green-house gas emissions to that of 1990. Furthermore, this agreement paved way for future climate agreements. However Kyoto protocol was criticized for not including ~~industrial~~ developing countries in emissions reduction targets.

Thus, both the agreements are turning point in environmental agreements that helped to address global environmental concerns.

### Carbon Markets:

This is a system which regulate and trade greenhouse gas emissions and provide financial assistance to those who are willing to reduce GHG emissions and invest their resources in clean energy. In this market, there is a certain cap



on GHG emissions. If a company, org or a country emits less, they can sell the unused to other companies. Carbon market idea is to give financial aid to those who ~~use~~ emit less GHGs.

In conclusion, carbon market is used for carbon trading. Carbon can be ~~used~~ transferred to those who want to pay for it.

Q3

b

Essential fats and different types:

Ans

Essential fats:

Essential fats are very important and human body requires for various physiological functions; however, it cannot be produced by the body, so, we must take it through the diet. Essential fats play important role; for example, supporting healthy brain function, hormone production and immune system function.

Types:

There are two types:

1. omega-3 fatty acids: These are polyunsaturated fats found in fatty fish, walnuts, flaxseed and fruits. It is important for brain function and has anti-inflammatory properties.

2. omega-6 fatty acids: This one is also polyunsaturated fats and are ~~also~~ found in vegetable oils, nuts, seeds and meat. omega-6 fatty acids are important for skin health and growth.



## c Mitochondrion the power house of cell.

Ans:

Mitochondrion is often referred as the power house of cell. The reason is that mitochondrion is responsible to produce the majority of energy that cells require. Mitochondrion also convert glucose and oxygen into adenosine triphosphate through a series of biochemical reactions that take place within their inner membranes. This process breakdown glucose to produce energy in the form of adenosine triphosphate, which is used to power various cellular functions. Overall, mitochondrion produce the energy that is necessary for the cells to work properly. That is why the powerhouse of cell is mitochondrion.

d. Food deterioration can be a result of food adulteration. Some remedial measure to curb it.

Ans Food deterioration can pose a serious risk and widespread public health concerns.

### Remedial measures:

To curb on this menace some stringent action is required:

1. Food laws: The government can implement food laws to curb those adulterated food and their makers.

2. Awareness: Awareness in public, on TV and especially in schools for children is important.



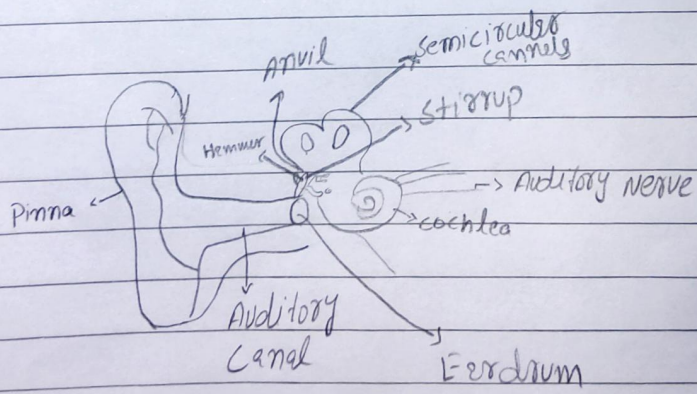
3. Food safety checks and certificate: A certificate should be given to authentic food makers after a thorough checking.

4. Ban on adulterated items: Government with the help of public should pinpoint those who are dealing and selling hazardous items to food maker.

5. Last one is severe punishments: Punish those who found guilty of food adulteration and also fine them.

In summation, by implementing the above remedial measures, Pakistan can curb the menace of food adulteration and ensure the safe food for citizens.

### a. Human ear and its parts.



#### Explanation:

The human ear is divided into three main parts.



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

1. The outer Ear: The outer ear is made up of pinna and ear canal. Pinna collect the sound waves and funnel them into ear canal.
  
2. The Middle Ear: The middle ear is separated from the outer ear through eardrum. The middle ear has three small bones called ossicles. These bones work together to amplify sound waves and transmit them to the inner ear.
  
3. The inner ear: The inner ear is located deep in skull. The inner ear has cochlea, semicircular canals and vestibule. The cochlea is a snail shaped structure that is responsible for converting sound waves into electrical signals that can be interpreted by the brain.