

PART - II

SECTION - I

Q- Discuss key features of cop-28 held in UAE

Answer:-

The recent conference of parties of United Nations climate change conference was the 28th conference. It was held in United Arab Emirates from 30th November to 13th December 2023. And 121 out of 200 countries attended this meeting. As climate change is a global issue, but the greater sufferer of this change is "global south." The main concern of vulnerable and developing countries is to provide financial aid to mitigate the loss by climate change. So, the main features of cop28 centered around "loss and damage funds."

⇒ Features:

The main concern of developing countries was allocation of loss and damage fund.

→ In 2022, overall \$200bn was lost due to storms, floods, heatwaves and wild fires globally. Pakistan alone suffered a loss of \$33bn in 2022 due to heavy floods.

→ And there is also a "financial gap" the difference between allocations by developed countries and the actual requirement of developing countries.

According to United Nations environmental adaptation report there is a gap of "\$194bn" and "\$366bn" per year.

→ But only \$100bn pledged by developed countries which is insufficient to fulfil or mitigate the loss of developing countries.

→ Moreover, several promises have been made to curb climate change by reducing dependence on non-renewable energy resources.

Another important ^{Feature} ~~move~~ of Cop28 is allocation of \$777 million by United Arab emirate and several charities at conference. These funds

will be used to eradicate diseases which have been arises due to climate change.

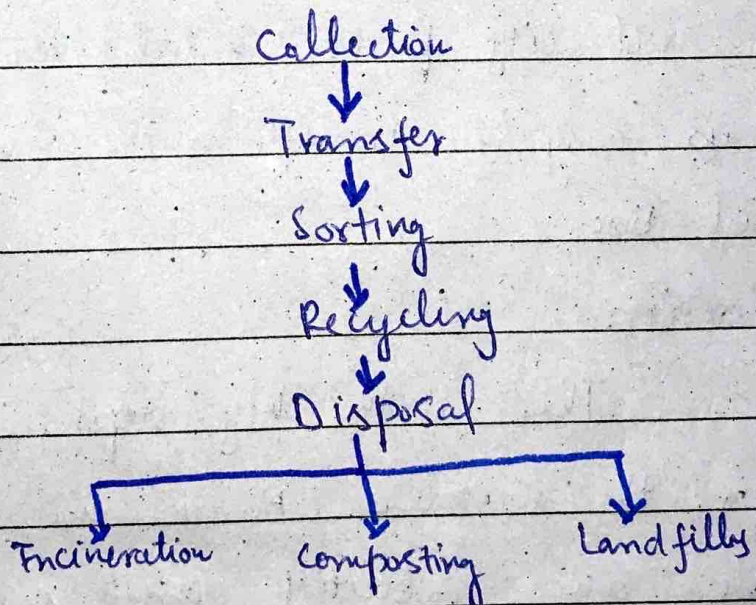
b) Solid waste Management:

Definition:

"Solid waste management is the systemic procedure of collection, transfer, recycling and disposal of waste material of all kinds."

Method:

There are several methods for solid waste management, but initial steps are same for all type of methods which includes



1. Collection:

Collection of solid waste is most important step in solid waste management. It requires planned and efficient working. Training of staff is also crucial. This is the main step which includes collection of solid wastes from all parts of city with-co-ordination and by the use of vehicles.

2. Transfer of solid waste:

After collection the transfer of solid waste to a central area of a city is the second step. Municipal corporations should select an area which is near and should be at equal distance from all city parts. "Central area". Then it is easy to transfer solid waste within equal time.

3. Sorting:

This is the key steps. In this steps the reusable things in the waste are collected and sorted such as things made up of plastic. separation of "non-reusable" and

reusable products.

4. Recycling:

This is also an important step which includes the recycling of useful things that can be reused by proper handling and recycling.

5. Disposal of waste:

The disposal of solid waste should be done carefully. Open dumping of solid waste is a step towards further deterioration and spread of pollution so other methods also considered as well for proper disposal.

a) open dumping:

Open dumping of solid waste often done which is not a prudent way to dispose off waste.

b) Incineration:-

This includes burning of solid waste by incinerators.

c) Composting:

This is an important method can be used for biological materials. This

include various methods but the "use of worms" for decomposition of waste material which in turn produce useful products like fertilizers.

(iv) Land-filling:

This method involves burying of waste material inside earth by digging up a pit. But this is an expensive method.

Part C

"Renewable Energy Sources"

There are several renewable energy resources. The following are given which are under CPEC.

- Solar Energy
 - Wind Energy
 - Hydropower
- 1- Solar Energy:

Solar energy is one of the renewable energy sources. In this the solar energy is converted into electric energy. Various methods are used to avail this energy.

Solar energy is changed into heat and electric energy. This process includes the use of

- Photovoltaic cells
- Solar panels
- Solar thermal collectors
- Solar power used in various sectors, including for household use and in cooking utensils.

→ **Quaid-e-Azam solar power project Bahawalpur**

In Pakistan under CPEC projects Quaid-e-Azam solar power project is working in Bahawalpur which generates around 400-600 MW energy.

2- Wind Energy:

"Wind energy is also a renewable energy source. Wind power is used to move turbines which in turn produces energy."

- It has ability to produce energy upto 5 MW.
- Wind projects are planted ^{in areas} where wind speed is higher, such as "off shore areas" and at "high altitude."

Jhimpir, Thatta wind power project

This wind project is under CPEC projects and generate almost 100MW energy.

3- Hydro power:

In this type of energy the power is generated by moving water such as in dams, hydal Tidal energy etc.

→ It has more energy than wind because water is denser than wind.

- Hydro-power is usually produced by moving water in dams.

- Tidal energy. This includes the use of energy of moving tides which is then used for running generators to produce electricity.

→ Karot Hydro-power project:

In Pakistan in Punjab Karot hydro-power project which is located on river Jhelum working to produce energy upto 720 MW.

d: "Balanced Diet"

Defination:

"Balanced diet is the diet which includes all the components of food in the proportion that is required by body."

Components of Balanced diet:

Components of Balanced diet are as follows

- Macronutrients
- Micronutrients

1. Macronutrients:

Macronutrients are the nutrients that are required in greater amount by body

- Carbohydrates
- proteins
- Fats

→ Carbohydrates:

Carbohydrates are the main part of food and main source of energy.

DATE: _____
These includes are present in foods such as fruits, honey, milk, potato and sugarcane

- According to world health organization less than 10% of carbohydrates should be used daily.

→ Proteins:

Second major source of energy.

Rich in foods, like meat, liver, egg, legumes, beans etc

- Daily intake should be 25%.

→ Fats:

These are the major source of energy in body and energy also stored in the form of fats in body.

- Rich sources includes egg, oils, soya bean milk, butter, nuts etc.

→ According to WHO daily requirement should be less than 40%.

2- Micro-nutrients:

These includes

- Vitamins
- Minerals

→ Vitamins and minerals are

risk is variety of food sources
fruits, vegetables and daily consuming
of fruits should be 40% and
of salt less than 10% according to
guidelines provided by WHO.

Balanced diet

Balanced diet

Macronutrients

- Carbohydrates
- Proteins
- Fats

Micro nutrients

- Vitamins
- Minerals

SECTION-II

a - Mean of 10, 30, y, and 50 is 50. ---

$$\text{Mean} = 50$$

Number of = 4

quantities

quantities given = 10, 30, y, 50

Solution:

As we know Mean is equal

to

$$\text{Mean} = \frac{\text{Sum of quantities}}{\text{Total number of quantities}}$$

By putting values in the formula we get

$$50 = \frac{10 + 30 + y + 50}{4}$$

$$50 = \frac{90 + y}{4}$$

$$50 \times 4 = 90 + y$$

$$200 = 90 + y$$

$$200 - 90 = y$$

$$110 = y$$

So, y is equal to 110

$$\boxed{y = 110} \text{ Answer}$$

b. Find the missing terms:

i. 2, 6, 18, 54, _____

ii. 3125, 256, _____, 41

i. 2, 6, 18, 54, _____

Solution: The missing term in above series

is 162 which is ~~obtained~~ by

multiplying 54 with 3. This is

inferred from series in which each

next number is thrice of the

previous one.

ii. 3125, 256, _____, 41

Solution: The missing number is 27

which is get by following rule.

$\rightarrow 5^5, 4^4, 3^3, 2^2, 1^1$ in which the

power of each next number is

raised to the power of number itself.

Hence, the complete series is

$\Rightarrow 3125, 256, \underline{27}, 4, 1$

C- If the product of two numbers is

320 and their ratio is 1:5.

Product of two numbers = 320

Ratio of two numbers = 1:5

Calculation:

Let number one is 'x'

Then the number second will be

equal to 5x. So,

$$x \times 5x = 320$$

$$5x^2 = 320$$

$$x^2 = \frac{320}{5}$$

$$\sqrt{x^2} = \sqrt{64} = \sqrt{8^2}$$

By taking square root

$$x = 8$$

So by putting the value of x in equation '5x' we will get

$$5(8) = 40$$

→ So, the ^{squares} numbers are 8 and 40

Now take squares of both numbers

$$(8)^2 = 64$$

$$(40)^2 = 1600$$

So, the difference of squares will be

$$1600 - 64 = \boxed{1536} \text{ Answer.}$$

Q No: 7

a. 195 men working 10 hours a day ---

The total quantities given are

Men	Hours	Days
195 ↑	10 ↓	20 ↓
x ↑	13 ↓	15 ↓

So, Now putting values

$$\frac{x}{195} = \frac{10}{13} \times \frac{20}{15}$$

$$\frac{x}{195} = \frac{40}{39}$$

$$x = \frac{40}{39} \times 195$$

$$x = 200$$

⇒ So, 200 Men will complete work
in 15 days