

SECTION-1

Q: NO: 02 (A)

INTRODUCTION:

On the opening day of the COP28 climate conference in Dubai, a loss and damaged fund has officially been announced. It is an attempt to help vulnerable countries to cope with the impact of climate change. Previously, it was announced in COP27, but no significant progress was made. Developed countries including UAE, USA, Japan, and European Union promised to fund the developing countries.

Observations from COP28 on the Loss and Damaged Fund:

In COP28, countries agreed that the fund would be housed in the World Bank for at least four years. They also agreed that it

would have its own 26-person board with the majority of members from developing countries.

2. Unlike other forms of climate finance, there is no formal obligation for developed countries to pay into the fund.
- 3- After launching the fund, the UAE firstly announced \$100m contribution. Germany followed this with another \$100m.
- 4- Several other parties followed their lead with their own funding announcements, including the UK, UAE and Japan.
- 5- More developed countries also pledged money for the fund in the following days, bringing the total to \$770.6m by the end of COP28.

CONCLUSION:

COP28 proved to be a landmark to provide loss and damage fund to developing countries in order to compensate the harm posed by climate change. In this regard, major developed countries raised their funds to help developing countries. However, there are some challenges appearing all the way to fulfill these challenges.

Q: NO: 02 (b)

SOLID WASTE MANAGEMENT

Definition:

It is a supervised handling of waste from its generation point, through the recovery process upto the disposal. It is being supervised through institutions and authority.

METHODS OF SOLID WASTE

MANAGEMENT:

(1) Collection of Solid Waste:

It is the most expensive part in the overall solid waste management system. It is the backbone of solid waste management and has the potential to reduce the health implications.

(2) Recovery Process:

After the collection of wastes, there must be a transfer station for recovering the process. These transfer stations must be on empty space. At these stations, segregation of solid waste takes to removal of waste and recycling waste.

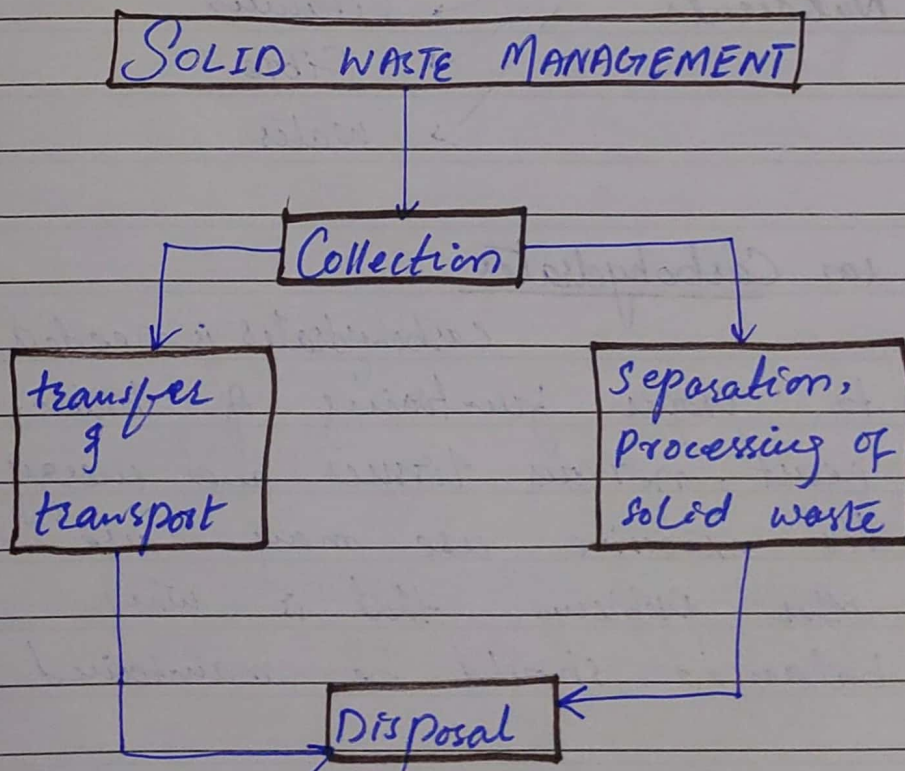
(3) Recycle:

The reproducing material

is being recycled in this method.
This recycle material then use in
energy producing waste.

(4) Disposal:

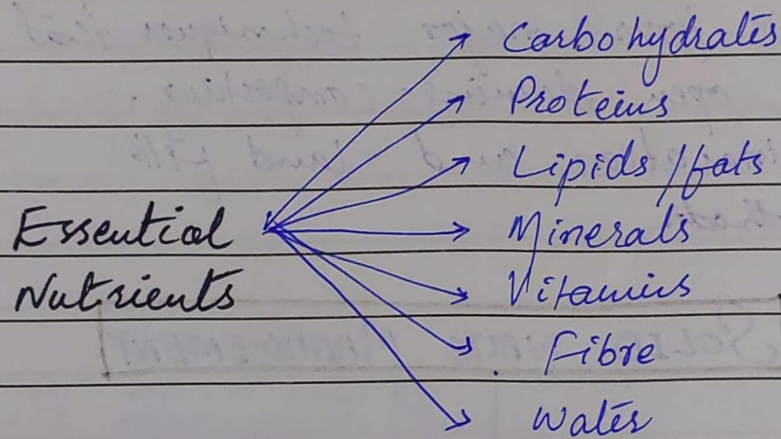
It is a final stage
of solid waste management. In
this method, the waste is disposal
by four major techniques that
are open dumping, composting,
Incineration and land fills
method.



Q: No: 02 (c)

Balanced Diet:

Balanced diet is a diet which contains the right and equal amounts of essential nutrients to the body.



(a) Carbohydrates

Carbohydrates is needed to proper functioning of brain, heart, nervous tissues and energy. Its excessive use may cause other problems that is why balanced should be maintained.

(b) Proteins:

It facilitates energy. It helps in muscle building, tissue building and balance of food.

(c) Lipids / Fats:

It provides insulation to major organs of body. It is used in proper transformation of vitamin in our body.

(d) Minerals:

There are different type of minerals that may help in healthy diet. Calcium, phosphorus, potassium, sodium, iron, zinc are some of them.

(e) Vitamins:

They are organic substances which are essentials of proper growth, maintenance and functioning of body. There are two broad types of vitamins that are fat soluble vitamins and water soluble vitamins.

(f) Fibres:

They are mainly a carbohydrate. The main role of fibre is to keep the digestive system healthy.

(g) Water: water is essential element for life and diet.

—————x

Q: No: 02 (d)

Renewable Energy:

The sources of energy which can be replenished or refilled, this kind of sources are called renewable energy resources.

Resources of Renewable Energy

under CPEC:

(1) Solar Energy

Conversion of sun's energy into electrical

energy is called solar energy. This energy is mainly produced by solar cells.

(2) Hydal Energy:

It is a renewable energy source of energy that generates power by using a dam or diversion structure to alter the natural flow of a river or other body of water.

(3) Wind energy:

It is a form of renewable energy that use the power of wind to generate electricity. It involves using wind turbines to convert the turning motion of blades, pushed by moving air into electrical energy.



SECTION - BQ: NO: 6 (a)

Given that son's age is 30 yrs

Let father's age be x

Then

Five years ago father's age = $x - 5$

Son's age = $30 - 5 = 25$

As

Father's age was thrice of
son's age = ~~$x - 5 =$~~

$$x - 5 = 3(25)$$

$$x - 5 = 75$$

$$x = 75 + 5$$

$$x = 80$$

Now father's age would be 80.

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Q: No: 06 (b)

Mean = $\frac{\text{Sum of all observations}}{\text{total number of all observation}}$

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

By cross multiplication

$$\Rightarrow 50 \times 4 = 90 + Y$$

$$\Rightarrow 200 = 90 + Y$$

$$\Rightarrow Y = 200 - 90$$

$$\Rightarrow \boxed{Y = 110}$$

—————x

Q: No: 06 (c)

(i) 2, 6, 18, 54, 162

$$2 \times 3 = 6$$

$$6 \times 3 = 18$$

$$18 \times 3 = 54$$

$$54 \times 3 = 162$$

(ii) 3125, 256, 27, 4, 1

$$(1)^5 = 1$$

$$(2)^4 = 16$$

$$(3)^3 = 27$$

$$(4)^4 = 256$$

$$(5)^5 = 3125$$



Q: No: 06 (d)

Let the numbers be x and $5x$ respectively.

According to the question

$$x \times 5x = 320$$

$$\Rightarrow 5x^2 = 320$$

$$\Rightarrow x^2 = \frac{320}{5} = 64$$

$$\Rightarrow x^2 = 64$$

By taking square root of both sides

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

$$\Rightarrow x = 8$$

Hence difference between the squares
of these two numbers

$$(5x)^2 - (x)^2$$

$$\Rightarrow (5 \times 8)^2 - (8)^2$$

$$\Rightarrow (40)^2 - \{64\}$$

$$\Rightarrow 1600 - 64$$

$$\Rightarrow \boxed{1536}$$

$$\underline{\underline{x = 8}}$$

Q: No: 07 (a)

$$\text{Selling Price (SP)} = 96000$$

$$\text{Profit} = 20\%$$

$$\text{Hence Cost Price (CP)} = \frac{100}{120} \times \overset{800}{96000}$$

$$\text{CP} = 80000$$

$$\text{Loss} = 20\% \quad 1200$$

$$\text{Hence CP} = \frac{100}{80} \times 96000$$

$$\text{CP} = 120000$$

$$\begin{aligned} \text{Total CP} &= 80000 + 120000 \\ &= 200000 \end{aligned}$$

$$\begin{aligned} \text{Total SP} &= 96000 \times 2 \\ &= 192000 \end{aligned}$$

$$\begin{aligned} \text{Hence Loss} &= \text{CP} - \text{SP} \\ &= 200000 - 192000 \\ &= 8000 \end{aligned}$$

Loss percentage

$$\frac{x}{100} (96000) = 8000$$

$$(9) \quad 960x = 8000$$

$$\Rightarrow 960x = 8000$$

$$\Rightarrow x = \frac{8000}{960}$$

$$\Rightarrow \boxed{x = 8\%}$$

$$x = x$$

Q: No: 07. (b)

Men	Days	Hours
195	20	10
?	15	13

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

$$\Rightarrow \frac{x}{195} = \frac{260}{150}$$

$$\Rightarrow x = \frac{260 \times 195}{150}$$

$$\Rightarrow x = 338 \text{ ru}$$

Q: No: 07 (c)

$$A = \{a, e, i, o, u\}$$

$$U = \{a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z\}$$

$$A' = ?$$

$$A' = U - A = \{a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z\} - \{a, e, i, o, u\}$$

$$A' = \{b, c, d, f, g, h, j, k, l, m, n, p, q, r, s, t, v, w, x, y, z\}$$