

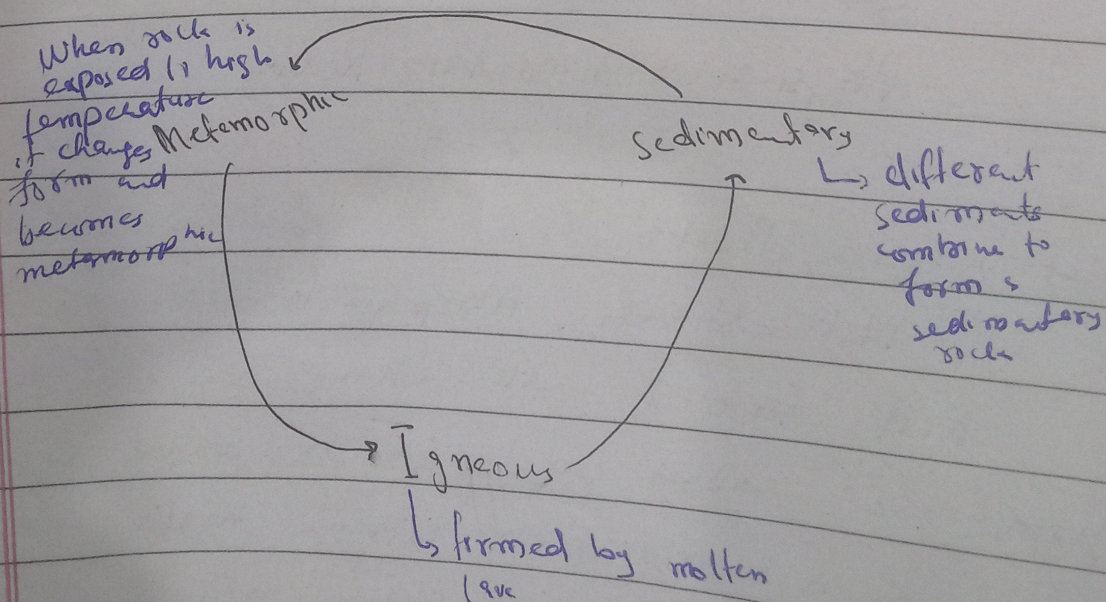
Q No # 03

ANSWER

(a) Rock cycle:

Rock: It is a naturally occurring solid materials with one or more than one minerals in it.

Rock cycle: It refers to the cycle of rocks which causes change in their shapes. It starts from Igneous and ends to Metamorphic.



Igneous Rocks:

Rocks formed by molten magma erupting from earth's crust are known as Igneous Rocks.

Types:

Intensive → formed below earth's surface

Extensive → formed above earth's surface

Examples:

Marbles - Carbon rocks.

Sedimentary Rocks:

Rocks formed by small sediments of different rocks are known as sedimentary Rocks.

Types:

Biological sedimentary Rocks

Chemical sedimentary Rocks

Physical sedimentary Rocks.

Metamorphic Rocks:

Meta = Change, Morph = form.

Rocks formed with change of forms are called metamorphic. When any rock is exposed to extreme heat and temperature then it changes form.

Types,

Heterogeneous

Homogeneous

Examples;

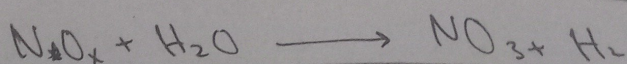
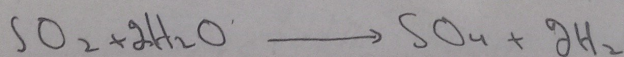
Marbles - Silicon - Aluminium.

(b) Acid Rain:

Acid Rain is a harmful type of rain phenomenon in which harmful chemicals and substances fall on earth which are dangerous for all living beings.

Formation:

Sulphur dioxide and Nitrogen emits from factories, vehicles, waste products. These gases react with oxygen and water vapours in the atmosphere making sulphuric Acid and Nitric Acid.



Harmful effects:

- ① Acid Rain contaminates water bodies by increasing their pH level and acidity. This is hazardous for aquatic life.
- ② Acid Rain contains harmful gases and elements which spoil purity of vegetables.

(C) Remote Sensing and GIS:

Remote Sensing and Geographic Information System plays a crucial role in environmental monitoring and disaster management.

- ① Both technologies help to ~~to~~ inform about floods
- ② They track agricultural productivity and point out low infiltration areas.

Day: _____

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- ③ They estimate rain scale and capacity.
- ④ They monitor wild disaster such as wild fire and volcanoes.
- ⑤ They help to monitor forests health through forest destruction can be reduced.
- ⑥ They predict the scale of flood and direction of it.
- ⑦ Both technologies provide information prior to any calamity to take measures such as preparedness, mitigation response and recovery.

(d) Solid Waste Management:

Solid waste management is a mechanism of collecting, transferring, and disposing waste products to minimize their harmful effects on environment.

Steps of Solid Waste Management.

- ① To point out the areas where solid waste products are.
- ② Arranging suitable vehicles to collect and transfer it to designated areas.
- ③ Burying or recycling those products to reduce their effects.

Hazards:

- ① It spoils the fertility.
- ② It is equally dangerous for aquatic life.
- ③ It decreases productivity of land.
- ④ It produces a lot of harmful gases which cause many diseases in human beings.
- ⑤ It also destroys plant health.
- ⑥ Harmful for ozone layer.

Q No: 5

ANSWER.

(A) Balance Diet.

Balanced diet is a diet which constitutes right amount of nutrients which are essential for growth and development of our bodies. It constitutes, proteins, carbohydrates, lipids, vitamins etc.

Carbohydrates is a chief-energy source in our body. It produces 4.1 ~~4~~ calories per gram in our body. Glucose is the simplest form of carbohydrates.

Proteins are chief-body building blocks of our body. They help our body to grow. They help ~~to~~ enzymes to perform catalyst activities. They also transfer molecules and ions in our body. Moreover, they protect and

strengthen our body structure.

(b) Food Preservation:

It is a mechanism to save food from spoilage after its harvest or cook.

Pasteurization is also mechanism of food preservation in which food is exposed to extreme heat to kill microbials. This way food is saved from oxidation.

Canning is another type food preservation mechanism in which food is tightly packed ~~to~~ after it is heated. This method helps to prevent microbials entry after their removal after heating. This way food is saved from contamination.

(d) RAM and ROM.

RAM

- * Read Access Memory
- * It is a memory which is used by computer to access it files and destination

* It is kind of speed of a computer.

* It is volatile

* Once computer shuts off, the memory will be erased

ROM

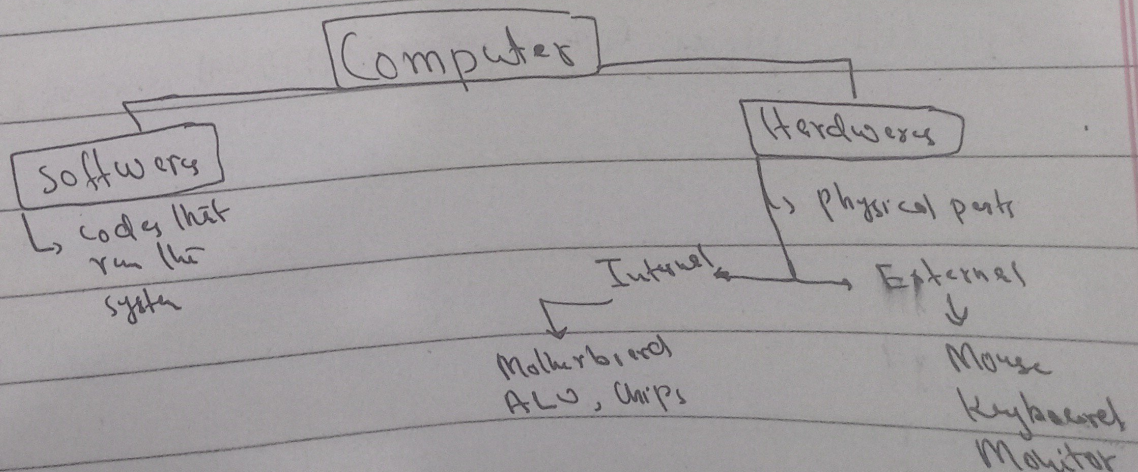
Read Only Memory.

It is a memory which is used by computer to save things.

It is kind of memory capacity of computer

It is non-volatile.

* It will always remain there unless deleted manually.



Q NO: 6

(a) Data:

Pipe A = 10 hours

Pipe B = 15 hours

Pipe C = 30 hours.

Sol:

$$\frac{1}{x} = \frac{1}{A} + \frac{1}{B} - \frac{1}{C}$$

$$\frac{1}{x} = \frac{1}{10} + \frac{1}{15} - \frac{1}{30}$$

$$\frac{1}{x} = \frac{3+2-1}{30}$$

2	10, 15, 30
3	5, 15, 15
5	5, 5, 5
3.	1

$$\frac{1}{x} = \frac{5-1}{30} \Rightarrow \frac{4}{30} \Rightarrow \frac{2}{15}$$

$$\frac{1}{x} = \frac{2}{15} \quad ; \quad x = \frac{15}{2} \Rightarrow \boxed{x = 7.5}$$

So, the tank will be filled in 7.5 hours
if all pipes are opened simultaneously.

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(b) Original ratio = 4:5:7

Sol.Increase in 1st salary = 10%.Decrease in 2nd salary = 25%.

New total combined salary = 169500.

Sol.

$$\uparrow 10\% \text{ in } 1^{\text{st}} = 5 \times \frac{10}{100} = \frac{1}{2} = 0.5$$

$$Y = 5 + 0.5 = \boxed{5.5}$$

$$\downarrow 25\% \text{ in } 2 = 7 \times \frac{25}{100} = \frac{7}{4} = \frac{3.5}{2} = 1.75$$

$$= 7 - 1.75 \Rightarrow \cancel{8.75} \quad 6.25$$

Now: 6.25

$$\cancel{8.75} + 5.5 + 4 = 15.75 \approx \boxed{16}$$

Now for X:

$$\frac{169500}{16} \times 16 = \boxed{22375} \text{ Ans.}$$

Day: _____

Date: _____

(c)

Sol

Workers

Days

 x

60

 $x+10$

20

Now

$$\frac{x}{x+10} = \frac{20}{60} \Rightarrow 60x = 20x + 200$$

$$\Rightarrow 40x = 200$$

$$\Rightarrow \boxed{x = 5}$$

Originally, Contractor have 5 workers.

(d)

Q NO: (8)

Date

(a) ROAD $\rightarrow$ UQDE

LAKE $\rightarrow$?

solⁿ

After R, two letters skip U

After O, One letter skip Q

After A, two letters skip D

After D, two letters skip E.

so, ..

L $\rightarrow$ O

A $\rightarrow$ C

K $\rightarrow$ N

E $\rightarrow$ H

$\rightarrow$

OCNH

Ans

(b) The woman is wife of nephew of the man.

(c) ① 4, 12, 6, 18, 9, 27, 13

Pattern:

$$4 \times 3 = 12$$

$$4 + 2 = 6$$

$$6 \times 3 = 18$$

$$6 + 3 = 9$$

$$9 \times 3 = 27$$

$$9 + 4 = 13$$

After each multiplication,
one number is increased
in addition.