

Part-II

Section - I

Q No 02

(c) Balanced Diet :-

It is a part of diet which contains the right proportion of essential nutrients. It can be macro and micro.

Macro nutrients

Carbs Proteins Fats/Lipids

Micro nutrients

Minerals water vitamins

Vitamins A, D and E, Deficiencies

Deficiency of vitamin A can cause,

- (a) Night Blindness
- (b) Weak immunity

Deficiency of vitamin E can cause,

- (a) Numbness, weakness
- (b) Muscle weakness

Deficiency of vitamin D can cause,

- (a) Rickets

(b) Osteomalacia

(b) Expansion of Universe:

Ballon Blowing:

Ballon Blowing is an analogy of Universe expansion. Dots on ballon represent galaxies and the ballon surface represents space. As air is blown into ballon, it stretches and inflates representing the expansion of space. There is no single central dot just as there is no single center of the Universe.

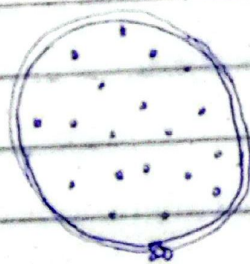


fig: Ballon

Qno#03

(d) Dengue:

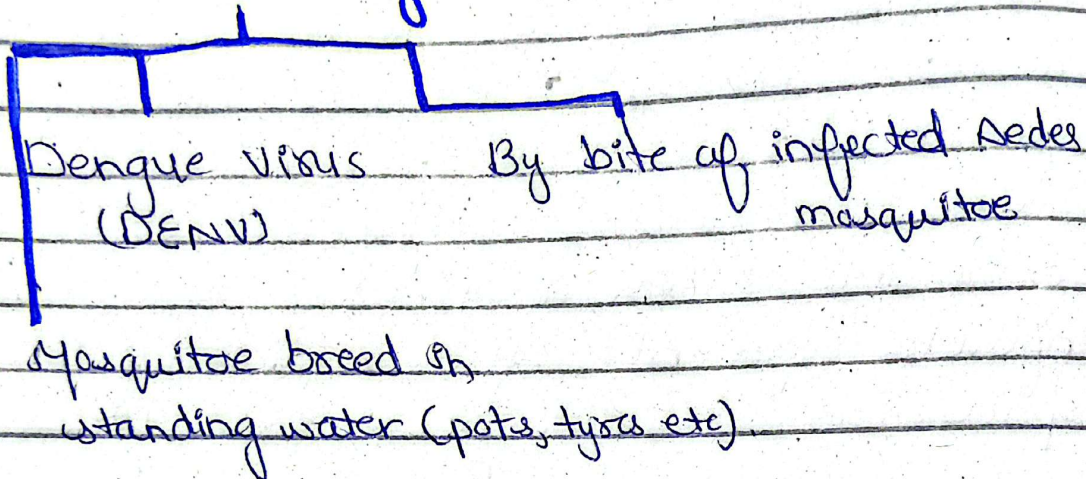
Dengue is a viral infection caused by dengue virus and spread by the infected *Aedes* mosquitoes.

(i) Symptoms:

(a) High fever

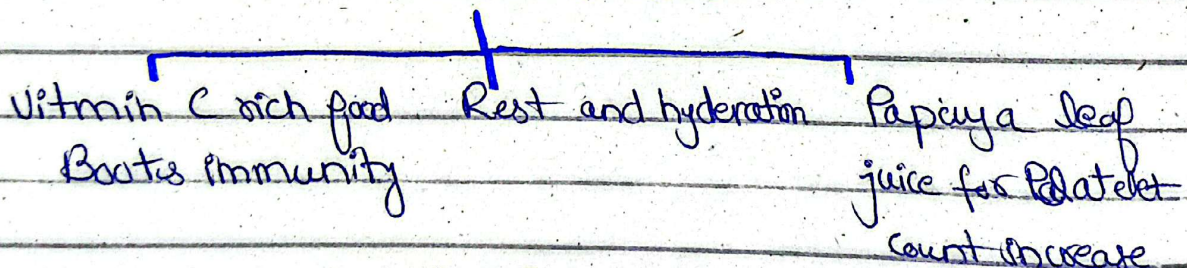
- (b) Pain behind eye
- (c) Nausea and vomiting
- (d) Severe headache

(2) Causative agents:

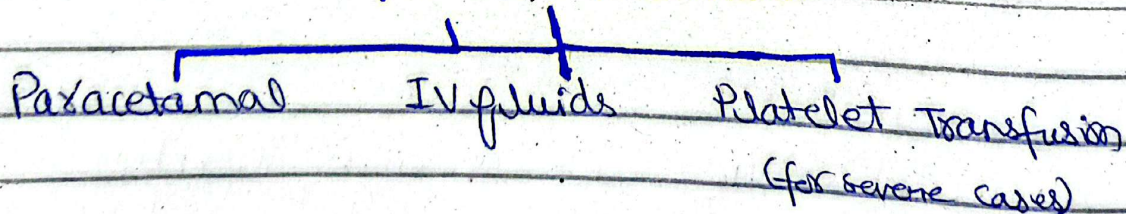


(3) Remedies:

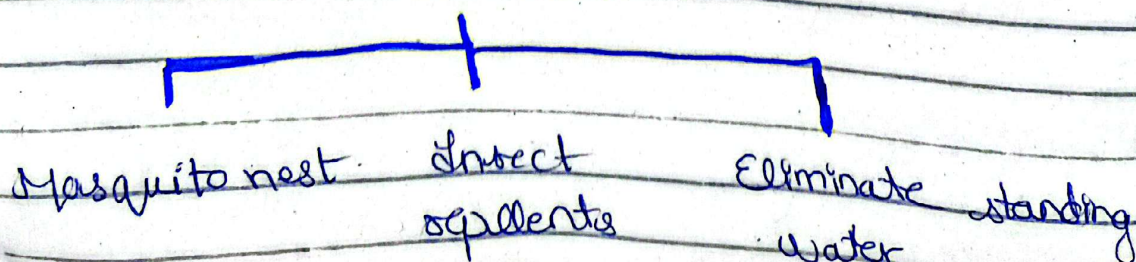
Home remedies



Medical Treatment



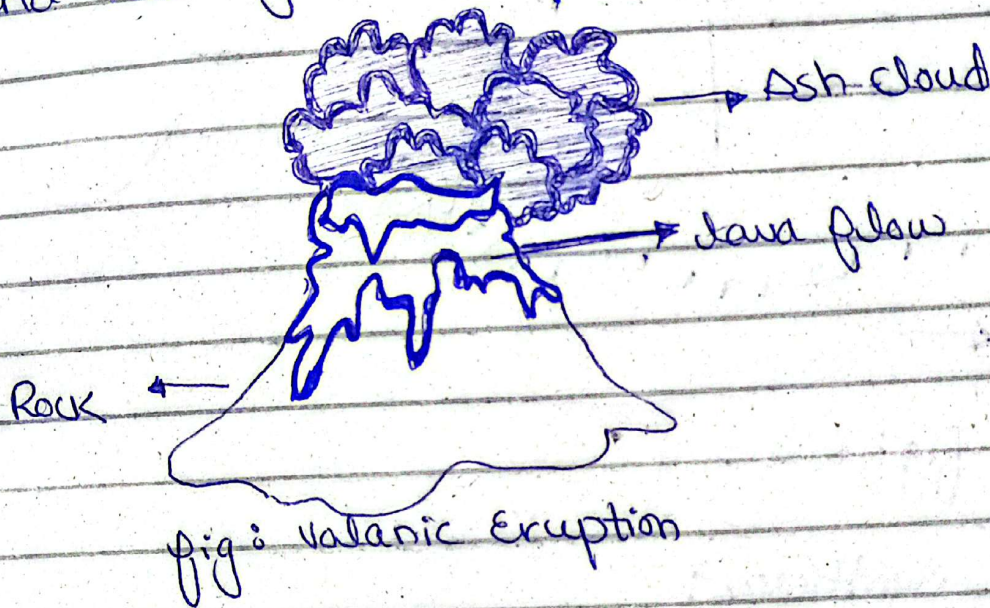
Prevention



(c) State some merits and demerits of volcanic eruption.

Volcanic Eruption:

A volcanic eruption is an eruption of molten rocks, hot rocks and hot gases through a volcanic.



Merits

- Volcanic ash create fertile land for farming
- Volcano can create lakes and provide fresh water sources
- It create new landmass and islands
- It brings copper, gold, silver to surface of earth
- Unique landscape attract tourists

Demerits

- Loss of life and property and destruction
- It causes air, water pollution, soil degradation
- It destroys ecosystem
- It can cause respiratory issue from ash inhalation
- Economy can be affected by destruction

Qno # 04

(b) Ribosomes:-

Ribosomes are smaller organelles found throughout cytoplasm. It is composed of Ribosomal RNA and proteins.

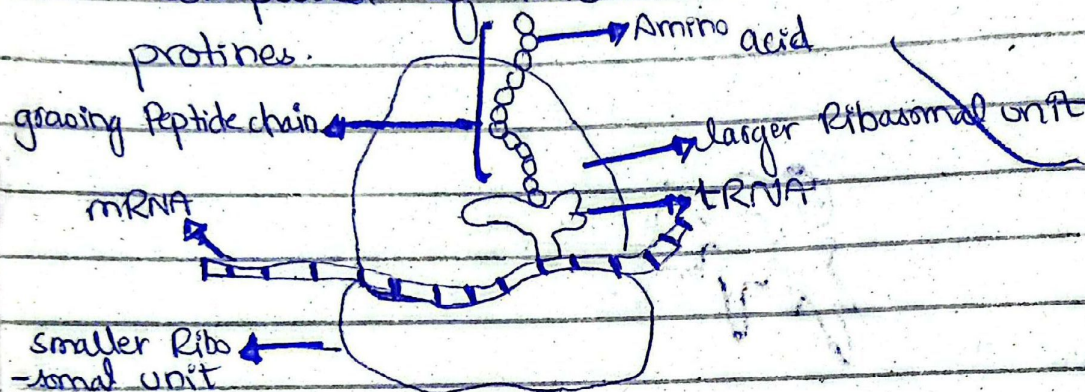


fig: Ribosome

Protein Synthesis:

Translation: Decode RNA into specific amino acid sequences

Amino acid link together via peptide bond

Build long chain of amino acids into protein

Read mRNA sequence and match with tRNA

Initiate folding of Peptide chains into protein structures.

(c) Methods of Solid Waste Management:
Solid waste management is collection
→ treatment and disposal of solid waste.

Methods:

Waste Hierarchy Method

Reduce
minimize waste

Reuse
items like
bags, containers

Recycle
waste into new
products.

Recover
Energy recover
from waste

Dispose like
land fills

Q No # 05

(a) Population Explosion in Pakistan:
Cause and Control

Causes:

- (i) Cultural preference for large families
- (ii) Lack of family planning services
- (iii) Poverty, children sees as economic asset.
- (iv) Early marriages

Control measures:

- (i) Implementation of population policy.

- (ii) Enhance healthcare facilities
- (iii) Introduce economic incentive for small families
- (iv) Enhance awareness through media.

(b) Remote Sensing:

It is a scientific method to gather information related to any geographic area and location by using sensors.

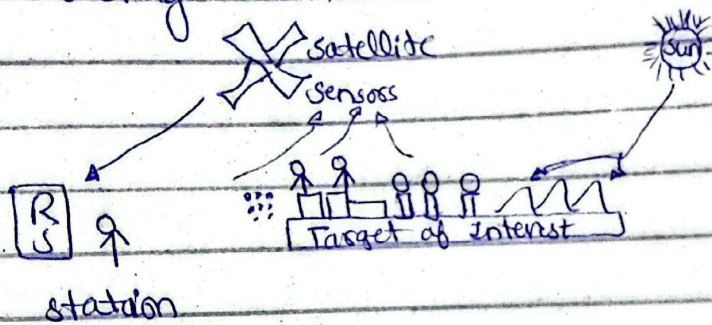
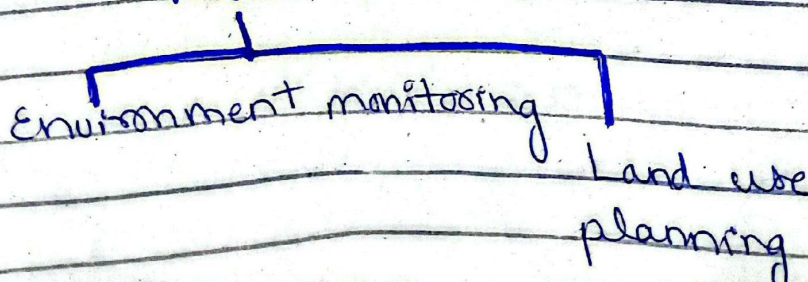


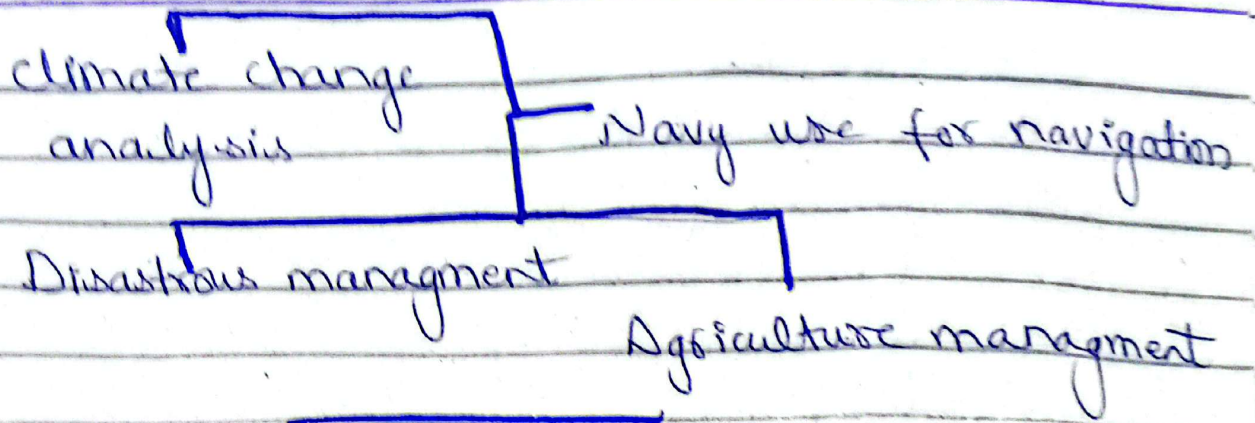
Fig:- Remote Sensing

GIS:

Geographic information system is a computer system which is responsible for sharing and presenting the information in the form of map.

~~Role in E.S~~ Role in E.S





Section II

Q No # 06:

Bicycle Time to reach

(c)

Given value Distance = 36

Speed = 18 km/hr

Time = Distance / speed

$$= \frac{36}{18} = 02$$

Starting at 1 pm $\therefore 1+2 = 3$
Time = 3pm | Ans

(d)

Math Terms

(i) Statistics

(ii) Algebra

Q No # 07

(c) Spot the error

(i) 2, 6, 18, 54, 162, 486 (which no does not fit)

= 2, 6, 18, 54, 162, 486
All the numbers divided by 3, all the numbers fit the pattern.

$$2 \times 3 = 6$$

$$6 \times 3 = 18$$

$$18 \times 3 = 54$$

$$54 \times 3 = 162$$

$$162 \times 3 = 486$$

(ii) 3, 5, 7, 11, 13, —

Complete the series

This is the series of Prime numbers
So the next number is 17.

(b) Friend's saving

Total saving = 25000

Ratio = 1:2:3:4:5

Solution:

$$1+2+3+4+5 = 15$$

$$\text{Smallest share} = \frac{1}{15} \times 25000$$

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