

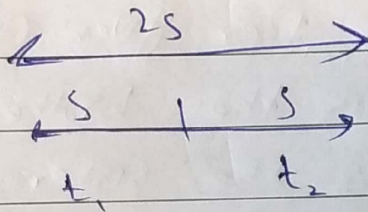
PART - II

(Section - B)

Q No. 08

(a). We know that

$$\text{Average Speed} = \frac{\text{Total distance}}{\text{Total time}}$$



Let total distance = $2S$

Now

$$\frac{2S}{t_1 + t_2}$$

$$\text{For first half} \text{ time} = \frac{\text{distance}}{\text{speed}} = \frac{S}{40}$$

$$\text{For second} = \frac{S}{60}$$

$$\frac{2S}{\frac{S}{40} + \frac{S}{60}}$$

$$\frac{2}{\frac{60+40}{60 \times 10}} = \boxed{48 \text{ km/hr}}$$

(b) As per code given

ROSE = 682

CHAIR = 73456

DREACH = 961473

Code for SEARCH will be

214673

(c) As per given data

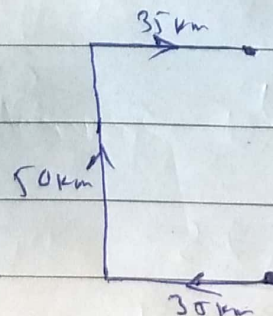
A is the brother of B

B is the sister of C

C is the father of D

Therefore, D is the **nephew**
of A

(d)



Towards the west = 35 km

Towards North = 50 km

Towards East = 35 km

So, she is $\boxed{50 \text{ km}}$ away from her destination.

Question 07

(c)

$$\text{Mean} = \frac{(12 + 18 + 19 + 19 + 19 + 21)}{7}$$

$$= \boxed{19 \text{ Years}}$$

$$\text{Mode} = \boxed{19}$$

$$\text{Median} = \boxed{19}$$

$$\text{Range} = 21 - 18$$
$$\boxed{3 \text{ Years}}$$

Mode: The sum of values divided by number of values

Median: the middle value when the values are arranged in order

mode: The value that appear most frequently

Range: The difference between highest and lowest value.

(Section A)

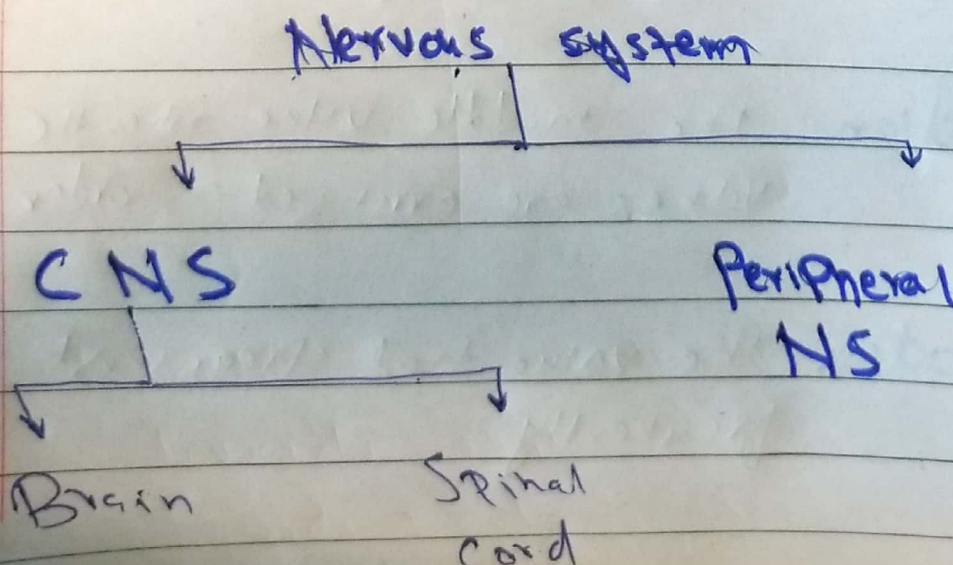
(b). Nervous system is our body coordination and communication center. It is made up of two parts.

(a) Central Nervous system

(b) Peripheral Nervous system

(a) Central Nervous system.

CNS is the processing center of the nervous system. It receives information from and sends information to the peripheral nervous system.



Alzheimer's disease: It is a progressive neurological disorder that primarily affects memory, thinking, and behaviour.

(d) . Food preservatives:

Food preservation is a process of treating and handling of food to stop or greatly slow down spoilage caused or accelerated by micro-organisms.

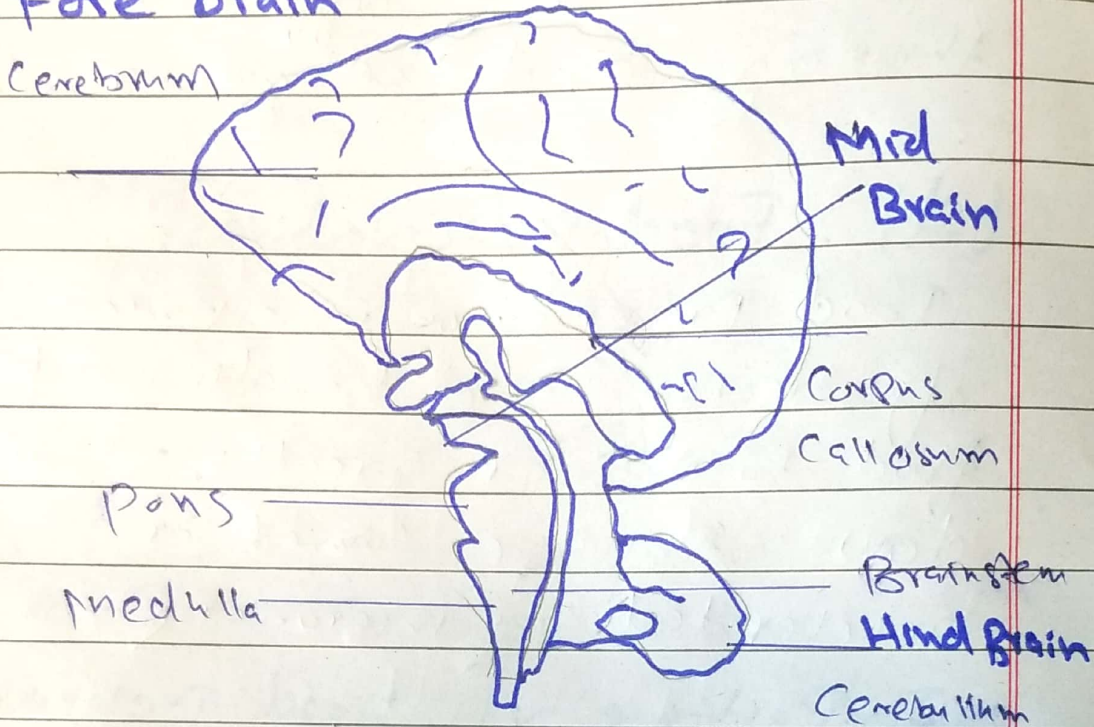
Importance of food preservatives:

- I. The varieties of food can be enjoyed in any different area and any season.
- II. The waste of food is reduced. People can eat food from any location.
- III. Can store the food from any location.
- IV. Can store the food more easily.
- V. There is no change in taste and color.

Question. 02

(C). Structure of Brain

Fore brain



Brain has three part

- (i) Fore brain (Thalamus, Limbic, Cerebrum)
- (ii) Mid brain ()
- (iii) Hind brain (Cerebellum, Pons, Medulla)

Function

The brain controls and coordinates various bodily functions, processes sensory information, enables thinking, learning, and memory, and facilitates emotions and behaviour.