

SECTION - II

Q. NO. 6

a).

Three candidates contested elections

A = 15000

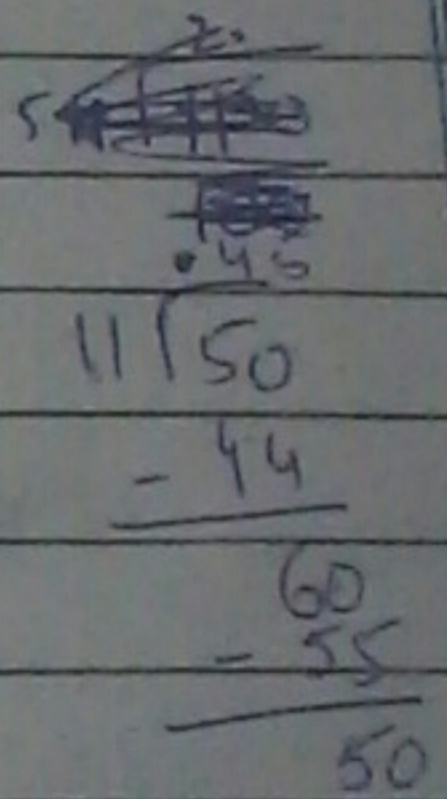
B = 10000

C = 8000

= Total no. of votes = 15000 + 10000 + 8000
= 33000

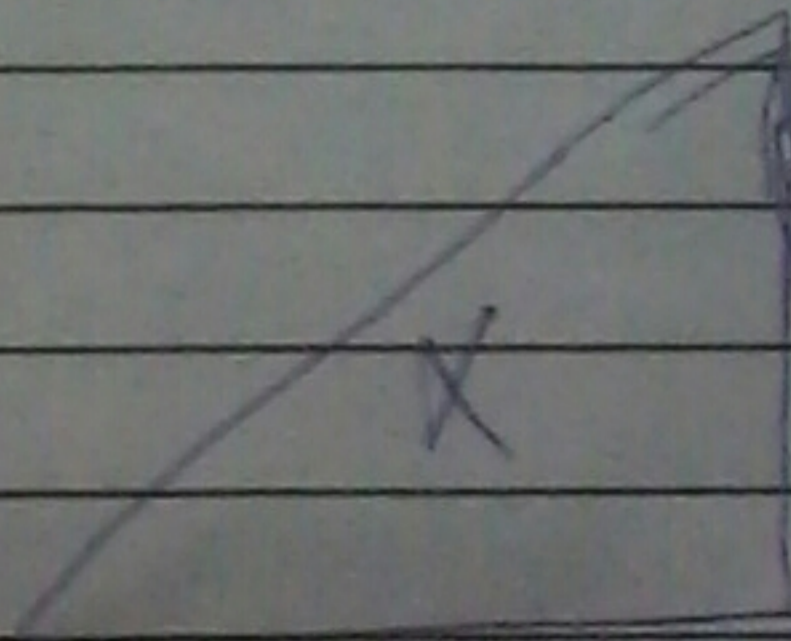
NO. of votes of winner = 15000

Percentage = $\frac{15000}{33000} \times 100$
= 0.45×100
= 45%



The Answer is: 45%

b)



A triangle ratio = 3:4:5

Angle of triangle = 180

$$3 + 4 + 5 = 12n = 180^\circ$$

$$12n = 180$$

$$n = \frac{180}{12} = 15$$

$$3(15) : 4(15) : 5(15) = 180^\circ$$

$$45^\circ : 60^\circ : 75^\circ = 180^\circ$$

Answer:

The each angle is 45° , 60° and 75° .

c)

Each group consist of 4 boys and 6 girls.

1 Group = 4 boys and 6 girls.
 102 girls = n boys required.

$$\text{No. of Group} = \frac{102}{6} \Rightarrow 17 = \text{Groups}$$

102 girls = 4(17) boys
 = 68 boys required.

Answer:

68 boys required for 102 girls in 17 groups of sport meet.

d) Present age ratio = 6 : 7
 After 5 year age ratio = 7 : 8

~~Let~~ Present ages = A and B
 $A = B$

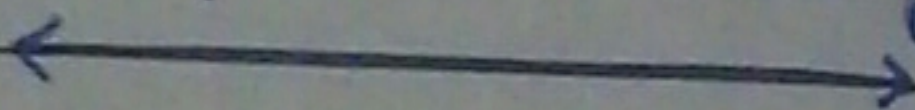
$$6n = 7n$$

$$6(5) = 7(5)$$

$$30 = 35$$

Answer:

So, The age of A is 30 year
 while age of B is 35 year.



Q NO 8

a)

The sum of Three consecutive
 odd no = 273.

$$n + (n+2) + (n+4) = 273$$

$$3n + 6 = 273$$

$$3n = 273 - 6$$

$$3n = 267$$

$$n = \frac{267}{3} = 89$$

$$n = 89$$

$$n+2 \Rightarrow 89+2 \Rightarrow 91$$

$$n+4 \Rightarrow 89+4 \Rightarrow 93$$

$$89 + 91 + 93 = 273$$

Answer:

89, 91, 93

b)

i) 4, 16, 36, 64, 100, 144.

In this numeric series, each number has a square or multiply by itself ~~number~~ and the answer in the blank space is 100.

ii) 30, 29, 27, 24, 20, 15.

In this numeric series, each number is subtracted by natural numbers from 1 to 5 and the answer is 24.

iii) 1, 7, 15, 25, 37, 51.

In this numeric series, each number is added by even numbers ~~starting~~ starting from 6, 8, 10, ... and the answer is 37.

iv) 0, 2, 6, 12, 20, 30, 42.

In this numeric series, each number is added by even numbers and the answer is 42.

v) 48, 24, 72, 35, 108, 54.

In this numeric series, each number is added ~~by~~ multiply by 3 and the other is divided by 2. So,

The answer is 54.

c)

Tumbled Spelling	correct word
THRSI	SHIRT
GNDREA	GARDEN
SCHAMOT	STOMACH
ONLNAD	LONDON
HIODALY	HOLIDAY

d)

$$\text{SARA} = u$$

$$\text{SARA'S MOTHER} = 6u$$

$$\text{SARA'S BROTHER} = 2u$$

Three years ago,

$$\text{Sum of Their ages} = 72$$

$$(u+3) + (6u+3) + (2u+3) = 72$$

$$\cancel{u+3} + \cancel{6u+3} + \cancel{2u+3}$$

$$9u + 9 = 72$$

$$9u = 72 - 9 = 63$$

$$u = \frac{63}{9}$$

$$\text{Age of Sara} \Rightarrow u = 7 \text{ year}$$

$$\text{Age of Sara's mother} = 6(7) = 42 \text{ year}$$

$$\text{Age of Sara's Brother} = 2(7) = 14 \text{ year}$$

After 3 year's,

$$\text{Sara age} = (u+3)$$

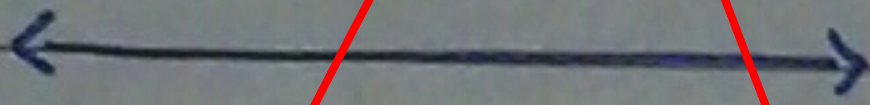
$$= 7+3 = 10 \text{ year}$$

$$\text{Sara's mother age} = 6(u+3)$$

$$= 42+3 = 45 \text{ year}$$

Sara's Brother age = $(2u + 3)$
 $= (14) + 3$
 $= 17 \text{ year}$

Answer: So, In three year's time =
- ages are
 $17 + 45 + 10 = 72$



SECTION-T

Q NO 4

a)

what are the methods employed in solid waste management?

SOLID WASTE MANAGEMENT

Solid waste management defines the complete process of collecting, Recycling and disposing of waste products.

METHODS In Solid Waste Management:

1. Composting:

Organic waste is decomposed into nutrient rich compost, which can be used as soil conditioner.

2. Sanitary Landfills:

These are engineered sites where waste is ~~deposited~~ deposited in layers, compacted, and covered with soil to minimize environmental impact.

3. Incineration:

A method suited for combustible refuse. and all unburnt and semi-burnt material are completely burnt here. at high temperature.

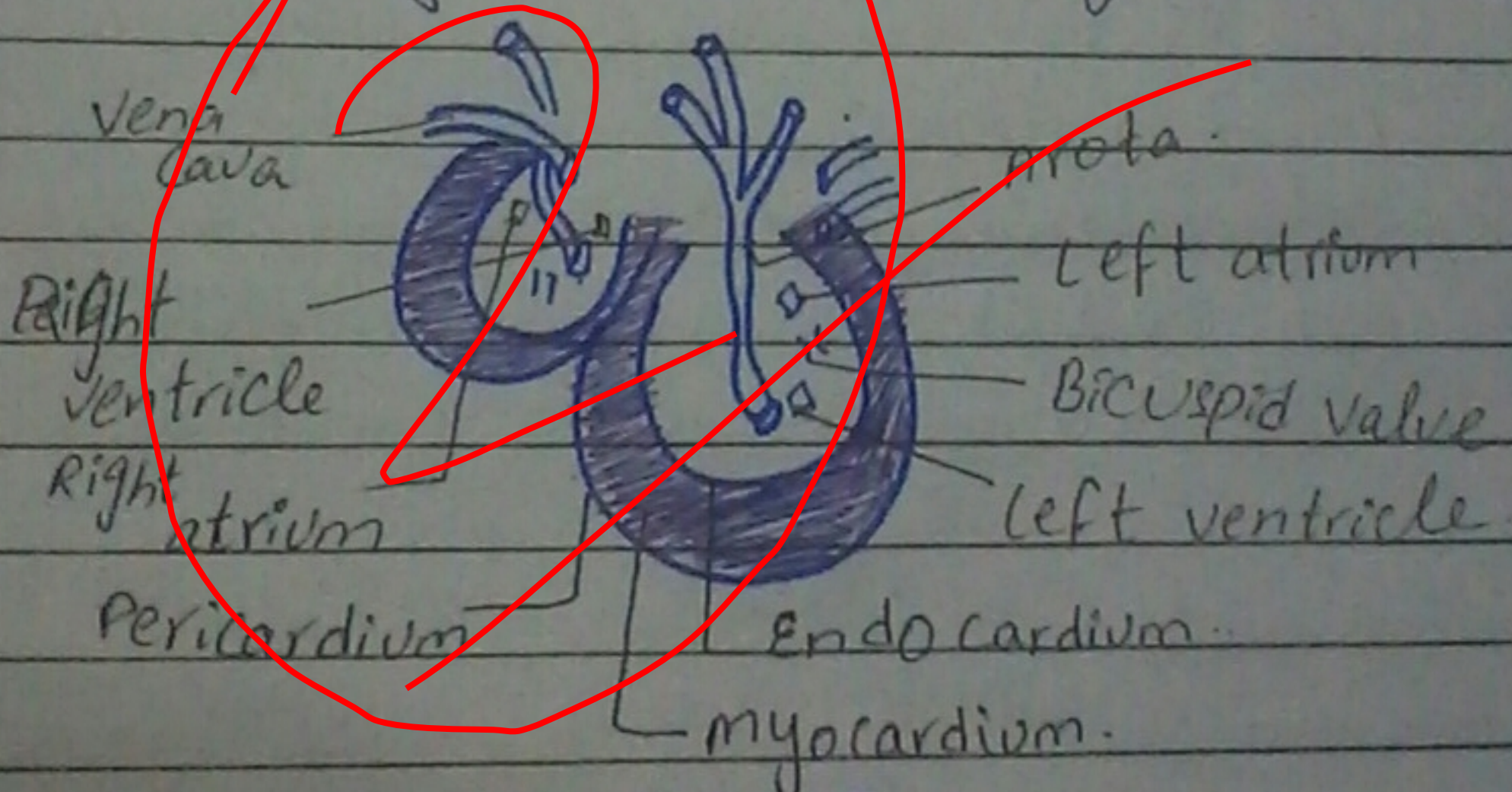
4. Ploughing in the fields
Some agricultural areas use waste as fertilizer by incorporating it into the soil through ploughing.

b) How does a Human Heart work in blood circulation?

HUMAN HEART WORKING IN BLOOD CIRCULATION:

Human Heart plays a very vital role in blood circulation - A strong muscular organ pump the blood across the body. Human heart has been surrounded between Three main layers.

- Outer layer known as Peri-cardium.
- inner layer known as endo-cardium.
- Middle layer known as Myocardium.



HUMAN HEART

Human heart contains four chambers in it.

- Left atrium
 - Left ventricle
 - Right atrium
 - Right ventricle
- which are responsible to pump the blood. Bicuspid and Tricuspid valve present in between the four chambers which are responsible for back flow of blood.

C) what is myopia and Hyperopia? Enlist the major parts of Human Eye.

→ MYOPIA:

The human eye disease in which the person is not able to see distant object.

Causes: rubbing the eye alot.

use of electronic devices too much

Treatments: It can be treated with contact lense, glasses, and also with laser treatment.

→ Hyper Myopia:

The human eye disease in which the person is not able to see near objects.

Causes: A small eye syndrome.

and due to age or genetics

Treatment: It can be treated by glasses and contact lense.

major parts of eye.

The human eye is an important organ of human body. Here the major parts of eye which is responsible to see image

1. Cornea
2. Iris
3. Pupil
4. Lens
5. Retina
6. optic nerve
7. choroid
8. vitreous humor
9. Aqueous humor.

d) write uses of each of the following:-

MICROWAVE:

1. It is used for satellite communication
2. It is used to detect speeding cars.
3. It is used for cooking.

ULTRAVIOLET:

1. It is used for killing bacteria.
2. It is used for creating fluorescent effect.
3. It is used to preserve the food stuffs.

X-RAYS:

1. It is used to detect bone fracture.
2. It is used to detect signs of

- a. Pneumonia in the lungs.
It is used in the Arrangement of atoms in different materials.



Q NO 5

- a) what are the different methods of food preservation?

FOOD PRESERVATION METHODS:

The methods through which food is protected from bacteria.

1) Salting:

1. It is best method to protect meat from microorganisms - (Fungus)
2. Packing salt around the food for preservation.

2) Canning:

1. The method used to preserve food in a ~~tin~~ sealed container through chemicals around the food - ~~but it is not~~

3) Freezing:

1. Freezing is another method for food preservation.
2. Food is preserved in refrigerator at high temperature.
3. It is the long lasting method of preservation.

4) Drying:-

1. Another method of food preservation is Drying.
2. It's the oldest method.
3. Food can be dried on heat or ~~from~~ from sun radiations and preserved - it.

b)

What is Milkyway? How Dark matter is related to Galaxies? Give different parts of Galaxies?

MILKYWAY:

Milkyway is the name of galaxy that contains our solar system in which huge collection of stars, dust, & gas.

DARK MATTER RELATED TO GALAXIES:

Dark matter is mysterious, invisible substance that makes up most of mass of galaxies and galaxy clusters. It is responsible for the way galaxies are organized.

DIFFERENT PARTS OF GALAXIES:

The structure of Galaxy has different parts like

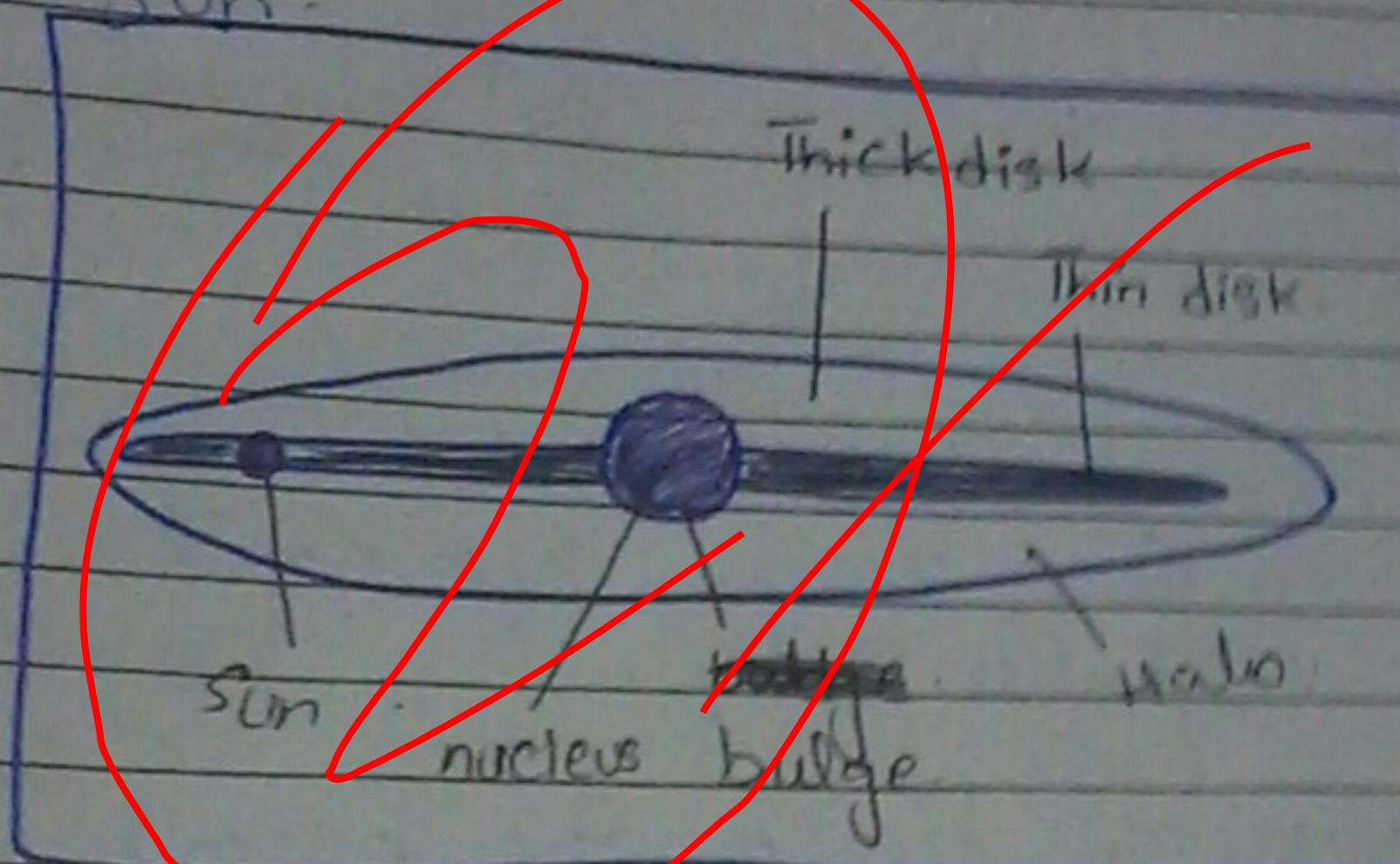
- i) Halo
- ii) Elliptical Galaxy.
- iii) Disks → There a disks ~~are~~ (both

a Thin and a Thick disk)

iv) a bulge.

v) a nucleus.

vi) Sun.



STRUCTURE OF GALAXY

c) Distinguish solar and lunar eclipses.

Solar Eclipses

1- When moon is in between the earth and the sun called solar eclipses.

2- It can be classified into 3 types.

- i) Total solar eclipse
- ii) Partial solar eclipse
- iii) Annular solar eclipse

Lunar Eclipses.

1- When earth is in between the moon and the sun is called lunar eclipses

2- It can be classified into 2 types.

- i) Total lunar eclipse
- ii) Partial lunar eclipse

- 3- It occurs during day time.
- 4- It occurs once in 18 months
- 5- It last for 5-7 mins.

- 3- It occurs during night time.
- 4- It occurs twice a year.
- 5- It lasts for an hour.

d)

What are Nuclear Fission and Fusion? Explain ionic bond in Table Salt.

NUCLEAR FISSION AND FUSSION:

1) Nuclear Fission:-

The type of nuclear reactions that produce energy. A heavy nucleus splits into two lighter nuclei.
e.g:- nuclear power plant

2) Nuclear Fusion:

The nuclear fusion also the type of fusion reaction in which two light nuclei combine to form a heavier nucleus.

e.g: The sun and the stars.

IONIC BOND IN TABLE SALT:-

~~Table~~

The bond in which the attraction between positive and negative

Charged ions are called ionic bonds.

E.g. = Table salt — NaCl;
sodium chloride

Explanation:

The ionic bond in Table salt is also known as (NaCl) sodium chloride.

The chemical reaction in which Positive charge of Na^+ and Negative charge of Cl^- attract with each and form a bond NaCl. As we know opposite charged ions always attracted each other.

Chemical Reaction:

