

98A

PRACTICAL

Serial No. 363967

BOARD OF INTERMEDIATE & SECONDARY EDUCATION,
SUKKUR, SINDH.



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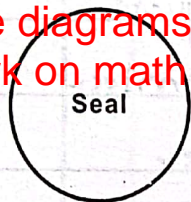
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Good
Enough length
Enough headings
Fine diagrams
Work on math portion

START FROM HERE

Part-II

(Section-I)



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Q.2
Answer 9) - COP-28

Group _____

COP-28 held in UAE in Nov-

Subject _____

December, 2023. It was a global climate conference to address environmental exploitation, particularly in developing countries. This indicates environmental agenda.

Paper _____

Date _____

DETAILS OF PRACTICAL	MARKS OBTAINED
PRACTICAL & SPOTTING	
JOURNAL	2-
VIVA VOCE	
TOTAL	

Key features of COP-28

Following are key features:

1)

Funds for loss and damage

Funds for loss and damage was allocated, especially to deal climate related loss in develop.

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ing countries.

(The IPCC, 2023)

ii) Allocation of carbon quota

Further, carbon quota was allocated to reduce carbon emission by using technological benefits.

~~Reduction in carbon emission will promote sustainable environment.~~

(COP-28, 2023)

iii) Agenda of 2050

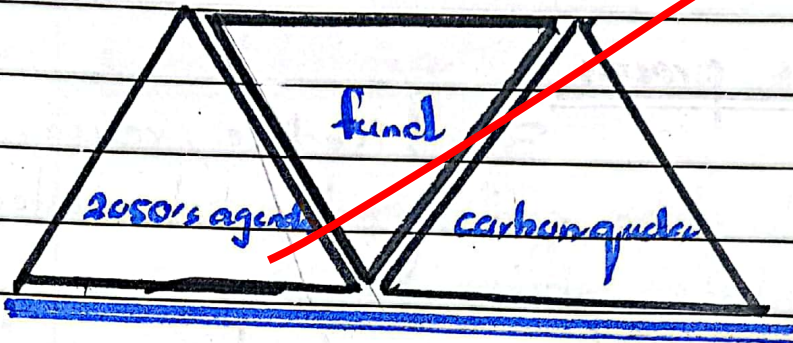
Moreover, agenda of 2050 was a main concern of COP-28.

~~There must be carbon reduction to decrease temperature by 1.5 degree centigrade.~~

(The IPCC, 2023)

Hence, COP-28 was a keystone to climate resilient, especially for developing countries.

COP-28



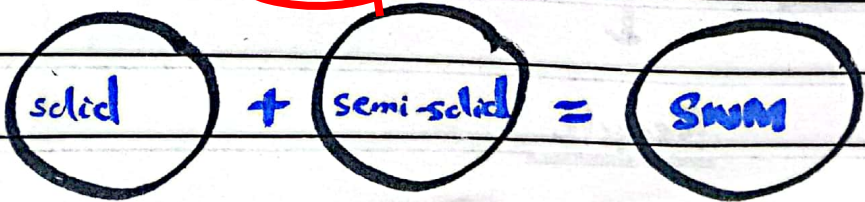
Q:2

Answer (b) 1-

Solid Waste Management

"Solid waste management is a process of managing solid wastes."

Solid Waste Management (SWM) is a process of collection of different solid wastes, including solid and semi-solid objects. Simply, solid management aim to promote hygiene on the earth by managing wastes through effective methods.



2-

Methods of SWM

Following are

methods:

a) 3Rs process

3Rs, Reduce, reuse, and recycle to manage solid wastes, particularly plastics.

Reduce aims to decrease use of plastic substances.

while,

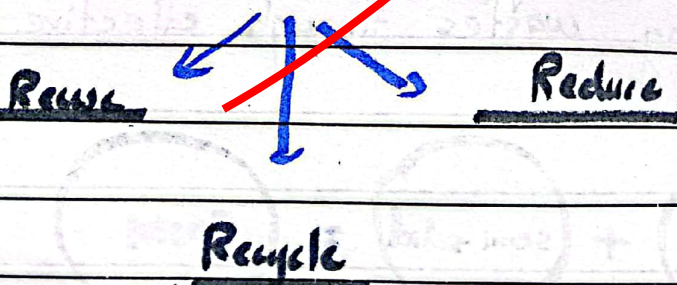
Reuse means to refine and make capable of use again.

e.g., thermoplastic

and

Recycle means process of recycling of plastics to make new ones.

3Rs



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START FROM HERE

Land filling

"Land filling avoids spreading
of wastes into air."

Further, land filling is also
an effective strategy. In fact, solid wastes
are filled down the land to avoid
pollution.

Collection and separation

Proper collection and separation
keep environment
safe.

Collection of different
wastes and separation of particular main-
tain SWM strategy. Thus, identifying
sources to keep natural environment
safe.

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Name of Centre _____



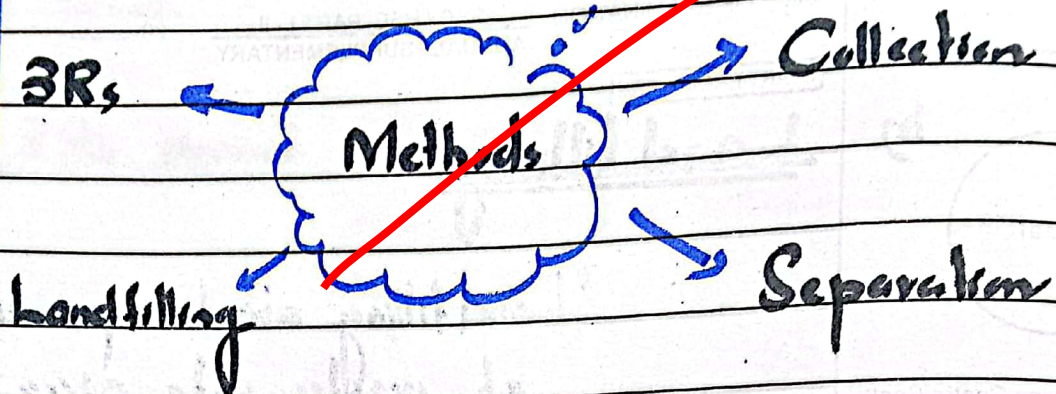
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PRACTICAL POTTING	
INTERNAL	
MARKS BY VOICE	
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Q 2

Answer (5) 1-

Balanced diet

"Diet that contains all nutrients to produce energy to body, called balanced diet."

Balanced diet is a complete set of diets, which has a healthy influence on body.

For example: Carbohydrates, proteins, etc

2-

Components of balanced diet

Following are components:

a)

Carbohydrate

"Carbohydrate is a chief source of energy."

Carbohydrate is energy producing bio-molecule. It is available in,

cereals, ~~vegetables~~, maize, rice, glucose, etc.

Hence, it nourishes the body.

b)

Protein

"Protein is a building block of body."

Protein helps to make body organs.

"It is good for skin, hair, and nails."

Protein rich substances are:

egg, fish, meat, and milk etc.

c)

Fats

"Fats produce energy and warm the body."

Fats are sources of energy. They keep body warm. Substances contain fats include, milk, oil, etc.

d)

Vitamins

"Vitamins are necessary for proper functioning of body."

Vitamins keep body active. They help body to perform different functions.

"Vitamins are present in fruits, vegetables, and milk etc."

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START FROM HERE

e)

Fibre

"Fibre is a chief
part of balanced diet."

Fibres are necessary
to keep body balance between active
and inactive substances.

"There are present in
carbohydrate containing
substances."

Balanced Diet

Carbohydrate

Protein

Vitamins

Fats

Fibre

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Q

Answer:-

Renewable energy.

"Renewable energy is a natural source of clean energy."

Natural sources of energy, which produces clean energy known as renewable energy.

For example: Solar, wind, hydro etc

2-

Renewable energy resources under CPEC

Following are three renewable energy resources:

a)

Wind energy

"Pakistan can generate about 1200 MW of energy."

Wind energy is a renewable source. In Sindh and Balochistan, maximum energy can be produced under CPEC-energy projects.

b)

Solar energy

Quaid-e-Azam solar plant in Sialkot is an evidence of renewable energy.

Another source of renewable energy is solar energy.

"About 900 MW of energy is generated under CPEC."

Hence, under CPEC solar energy can be produced at maximum output.

c)

Hydel energy

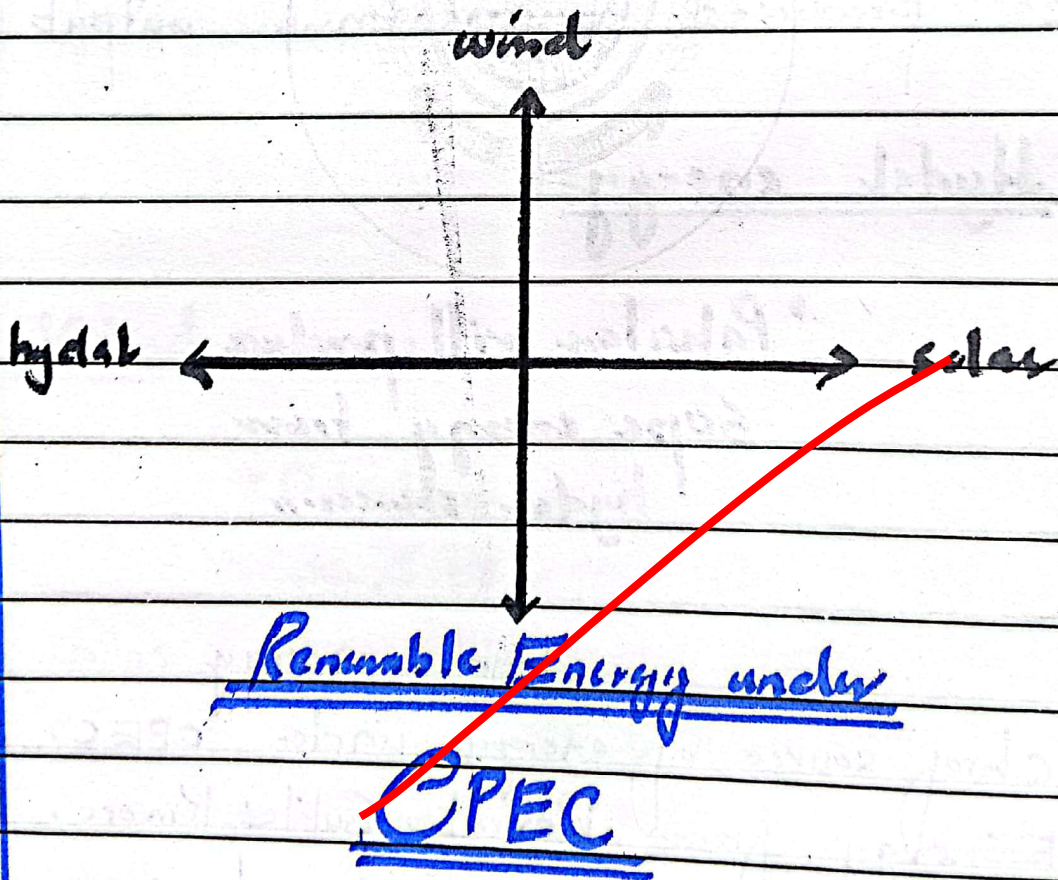
"Pakistan will produce 60pc energy from hydel sources."

Hydel energy is a chief source of energy under CPEC. Energy from Karot, Sukki Kinere, and Dasu Hydro power projects can be generated massively.

Hydal Energy

Source	Energy
Karrot	730 MW
Sulke Kinnra	883 MW
Daru	4300 MW
Dance Basha	4500 MW

Hence, CPEC is a source of generation of renewable energy.



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Q: 3
Answer (15) 1.
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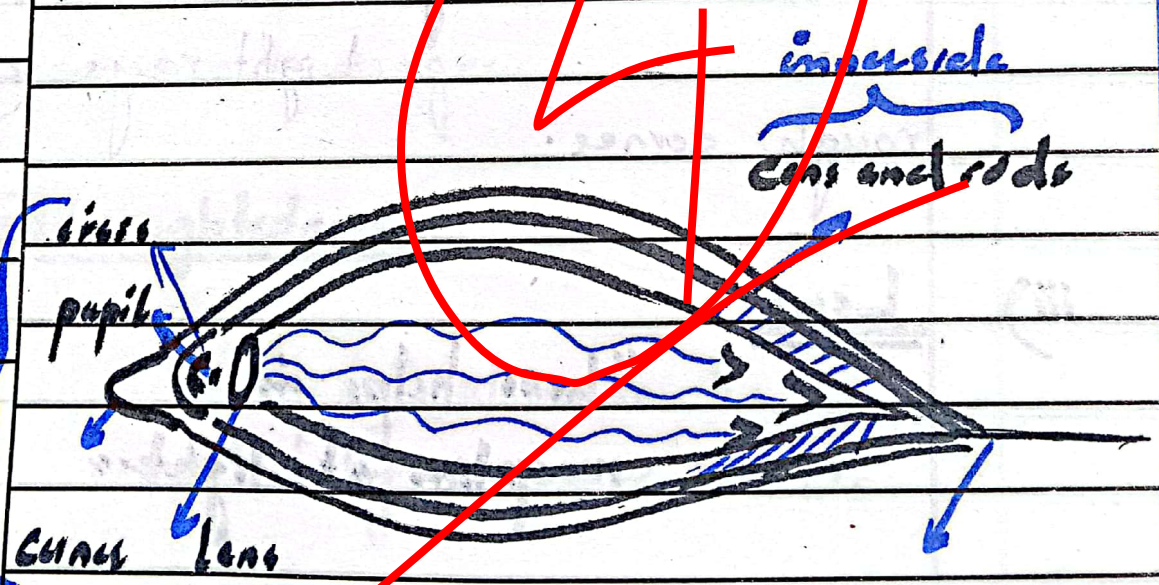
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Eye

"Eye is an important organ helps in vision"

Eye is an important human organ. It is an organ, which helps in vision.

Parts of eye



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Human Eye

external side

a) Front side

Front side is as bel-

ow:

i) Pupil and iris

~~"Iris control pupil,
and
let enters light."~~

Iris control movement
of pupil and keep eye functioning.

ii) Cornea

~~"light rays enters
through cornea."~~

Light rays goes th-
rough cornea.

iii) Lens

~~"lens helps in
reception of light."~~

Lens capture lights
and forms image.

b) Cens and rods

~~Cens and rods are photoreceptors.~~

Cens and rods are photo receptors and continue image formation.

c) Optical nerve

~~"Optical nerve sends signals to brain"~~

Optical nerves are signal transmitting. These activates brain to recognize images.

3- Far-sightedness

~~"Far-sightedness can be corrected by concave lens."~~

Far-sightedness are difficulty in far-watching things. It

can be correct by concave lens.

4-

Short-sightedness

~~'Short-sightedness can be corrected by convex lens.'~~

Short-sightedness is a difficulty in short-distance seeing objects. It can be corrected by convex lens.

Q.13

Answer by

Kidney

"Kidney is an excretory organ."

Kidney is an excretory organ. Kidney purifies blood and remove nitrogenous wastes from body.

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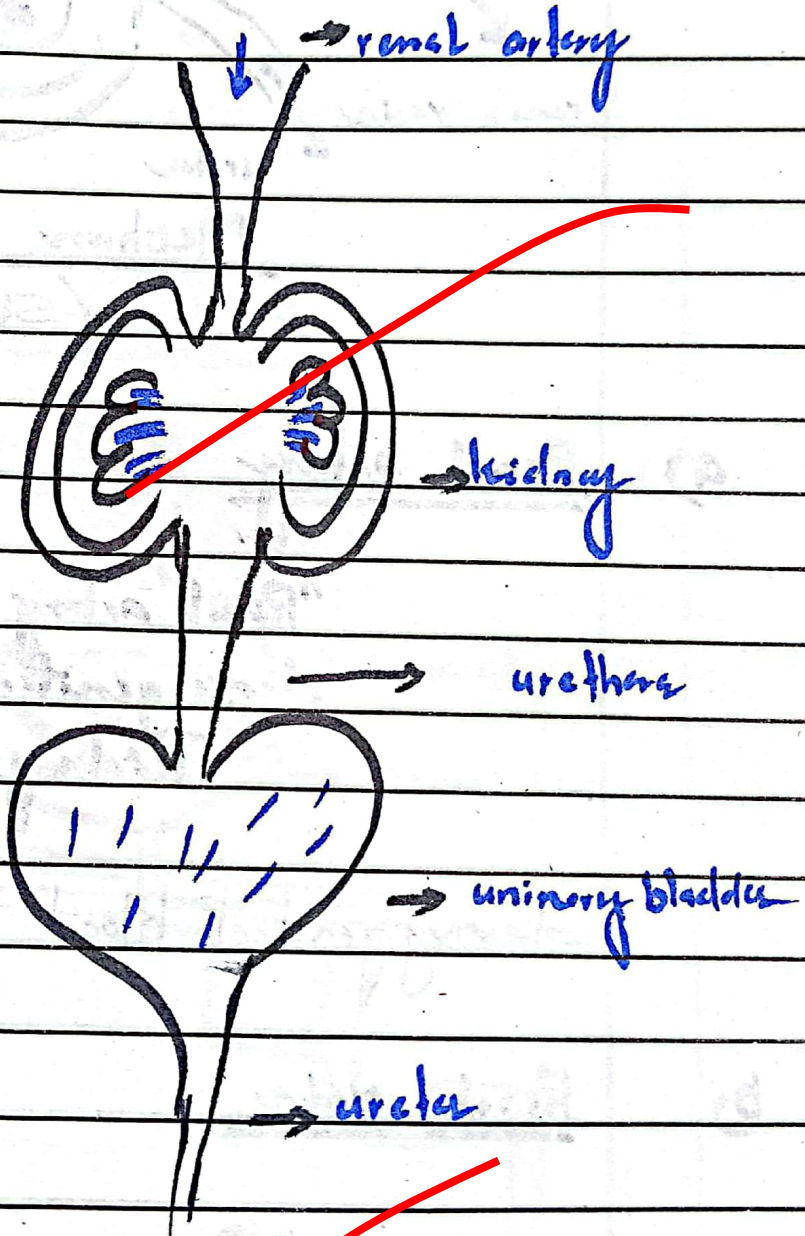
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2-

Working of kidney

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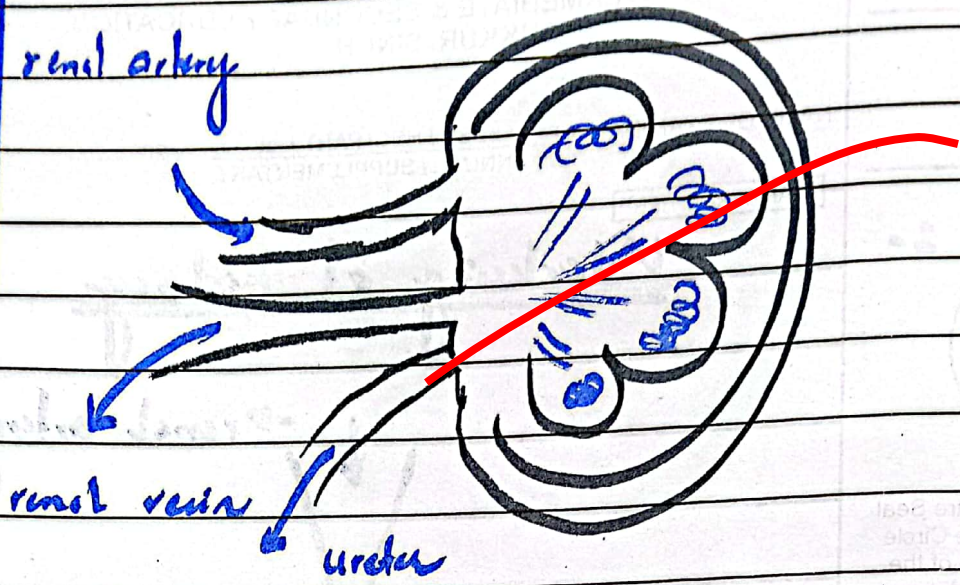


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Structure of Kidney



Nephron

(Structural and functional unit)

a) Renal artery

"Renal artery carries deoxygenated blood to kidney.."

Renal artery carries deoxygenated blood to purify it.

b) Renal vein

"Renal vein carries out oxygenated blood out from kidney.."

Renal vein carries out blood from kidney.

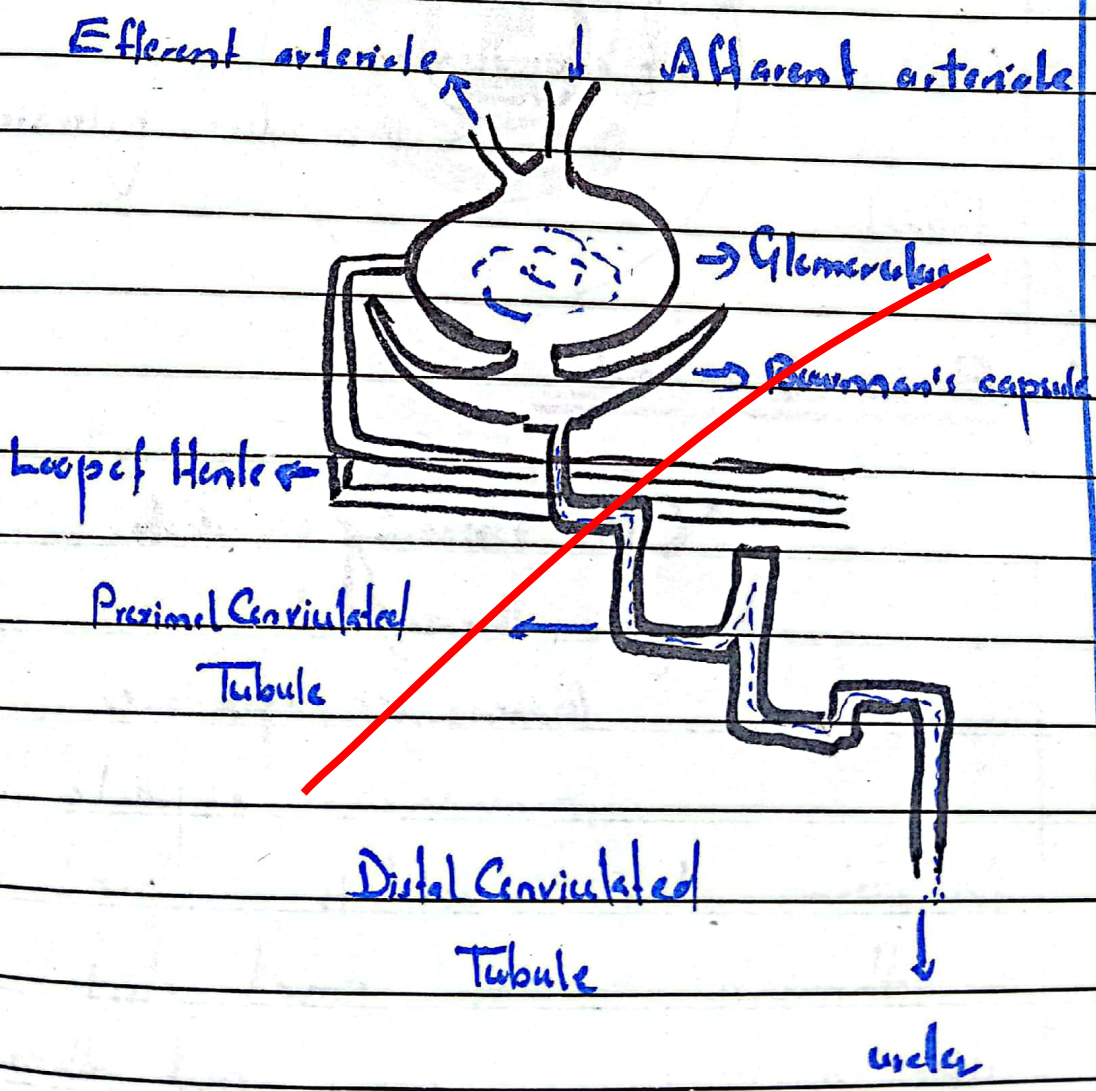
c) Ureter

~~"Ureter excretes out urine."~~

Ureter excretes out urine from kidney.

3-

Filtration of blood



i)

Afferent Arteriole

in blood.

Afferent arteriole carries

ii)

Efferent Arteriole

carries out filtered blood.

Efferent arteriole

iii)

Glomerulus

"Glomerulus is a network of capillaries."

blood.

Glomerulus filters

iv)

Bowman's capsule

"Other remaining products go through"

Bowman's capsule

Bowman's capsule transfers other by-products, which pass through proximal and distal tubules and urine comes out through ureter.

START FROM HERE

Q:5

Answer 1)

Fallacy

An illusion, rather than concrete situation.

ii)

Clean

full-satisfaction

iii)

Plaintiff

A person who brings a legal action

iv)

Cripple

An attempt to decrease value of something

v)

Vicious

Not-clear in meaning or action

Q.13

Answer (ex)-

Black Holes

'Black holes are known as collapsars.'

Black holes are substances with high density and strong gravitational pull. These attract every thing towards itself and capture them inside.

2-

Formation of black holes

'Black holes are dense objects.'

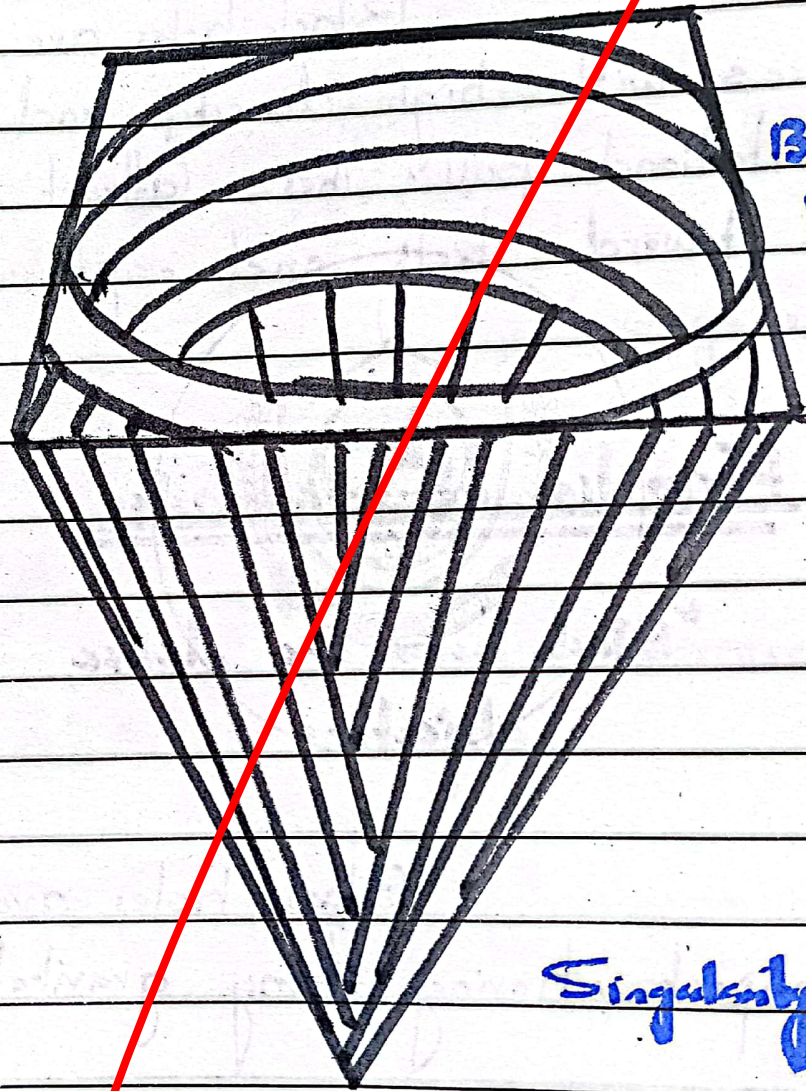
Black holes are dense objects, having strong gravitational pull.

$$\text{density} \propto \text{mass}$$

This equation indicates that an object of the strongest density directly attr-

START FROM HERE

acts everything of universe. Even light can not escape from it. The greater the density, the stronger attraction. This takes everything inside it. Hence, so called black holes.



Black Hole - Collapse

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Isotopes

"Isotopes are substances with same number of protons."

Isotopes are substances with same ^{proton number} but different mass number. These are called isotopes.

Isotopes

Same protons

different neutrons

Isotopes of Hydrogen

Hydrogen has three isotopes:

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Q.3
Answer (obj.)
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a) Protium (${}^1_1\text{H}$)

"Protium contains one electron, one atomic number, and one mass number."

Protium is the simplest isotope of hydrogen.

b) Deuterium (${}^2_1\text{H}$)

"Deuterium contains one atomic number, and two mass number."

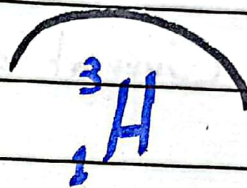
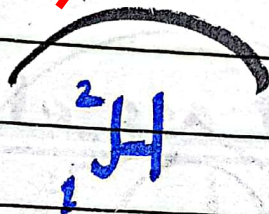
Deuterium is the heaviest isotope.

c) Tritium (${}^3_1\text{H}$)

"Tritium contains one atomic number, and three mass number."

Tritium is the third isotope, which contains maximum mass number.

Hydrogen-Isotopes



(Section - II)

Q: 6

Answer (a)

Data

Five years ago,

age of son: x age of father: $3x$

Current age of son: 30

What is current age of father?Solution

age of son:

$$x + 5 = 30$$

$$x = 25$$

Now, age of father

$$= 3x + 5$$

$$= 3(25) + 5$$

$$= 80$$

Father is 80 years old now.

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START FROM HERE

Data

Numbers = 10, 30, x , and 50

Mean = 50

Value of x ?

Solutions

$$\text{Mean} = \frac{\text{Total numbers sum}}{\text{Total numbers}}$$

$$\text{Mean} = \frac{10 + 30 + 50 + x}{4} = 50$$

$$90 + x = 200$$

$$x = 200 - 90$$

$$x = 110$$

Hence, value of x is 110.

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of Centre _____

Q: 6

Answer Seal

Q: 6

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REMARKS	
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SIGNATURE OF EXTERNAL EXAMINER	

Q: 6

Answer (e)

(i)

Missing numbers

2, 6, 18, 54, _____

$$2 \times 3$$

$$6 \times 3$$

$$18 \times 3$$

$$54 \times 3 = 162$$

Hence, the number is 162.

(ii)

3125, 256, _____, 4, 1.

~~$$1 \times 4 = 4$$~~

~~$$4 \times 4 = 16$$~~

~~$$16 \times 16 = 256$$~~

Missing number is 16

Q.6

Answer

Data

product of two numbers = 320

Ratio of number = 1:5

What is difference between squares of two numbers?Solution

$$\begin{aligned} \text{A number} &= \text{Total ratio} \times \text{A's ratio} \\ &= 6 \times 1 \\ &= 6 \end{aligned}$$

$$\begin{aligned} \text{B number} &= \text{Total ratio} \times \text{B's ratio} \\ &= 6 \times 5 \\ &= 30 \end{aligned}$$

Now, difference b/w squares of numbers.

$$\begin{aligned} \text{Difference} &= (A)^2 - (B)^2 \\ &= (6)^2 - (30)^2 \\ &= 36 - 900 \\ &= -864 \text{ Answer.} \end{aligned}$$

Q: 7

Answer (1)

Data

two scooters sold

each price = 96000

first scooter = profit 20%

second scooter = loss 20%

What is percentage of profit and loss altogether?Solution

$$\text{Profit \%} = \frac{\text{Profit}}{\text{CP}} \times 100$$

$$\begin{aligned} \text{first scooter} &= 20\% \text{ of } 96000 \\ &= \frac{20}{100} \times 96000 \end{aligned}$$

$$= 19200$$

$$\begin{aligned} P &= SP - CP \\ &= 96000 - 19200 \end{aligned}$$

$$CP = 76,800$$

$$\text{now, } P\% = \frac{76,800}{76,800} = \frac{19200}{76,800} \times 100$$

$$P\% = 25\%$$

$$\text{New Loss percentage \%} = \frac{\text{Loss}}{\text{CP}} \times 100$$

second security =

$$= 20\% \text{ of } 9600$$

$$= 19200$$

$$\text{CP} = 96000 + 19200$$
$$= 115,200$$

$$L\% = \frac{19200}{115,200} \times 100$$
$$= 16.7\%$$

$$\text{Sum of} = P\% + L\%$$
$$= 16.7\% + 25\%$$
$$= 41.7\%$$

Answer.

Q: 7

Answer (b)

Data

195 men, 10 hrs, 20 days

proportion:

?, 13 hrs, 15 days

Solution

Men Time

195	↓	10 hrs	↑
?	↓	13 hrs	↑

So multiplying as indirect ratio:

$$= \frac{195 \times 10}{13}$$

$$= 150$$

Hence, 150 men are required.



Q:7

Answer (c)

Data

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

$$U = \{a, b, c, \dots, z\}$$

Find A' ?Solution

$$A' = U - A$$

$$A' = \{a, b, c, d, \dots, z\} - \{a, e, i, o, u\}$$

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

Answer.

Q:7

Answer (d)

Data

$$\text{Pyramid } V = 372 \text{ cm}^3$$

$$\text{height} = 3 \text{ km}$$

What is perimeter of base ?

START FORM HERE



Solution

$$V = \frac{1}{3} B h$$

$$B = \frac{V \times 3}{h}$$

$$B = \frac{372 \times 3}{3}$$

$$B = 372$$

Answer

