XI CHEM 12.06.2020

Structure of atom

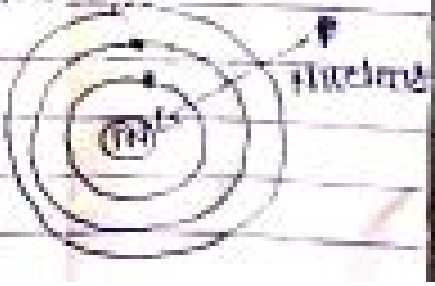
Atom: An atom is the smallest particle of a substance that can take part in chemical reaction. Atoms are made up Electron, proton and neutron.

Electron
Discoverer : J. J. Thomson
Mass : 9.1×10^{-31} kg
charge : 1.6×10^{-19} coulomb

Proton
Discoverer : Goldstein
Mass : 1.6×10^{-27} kg.
charge : 1.6×10^{-19} coulomb

Neutron
Discoverer : James chadwick
mass : 1.6×10^{-27} kg.
charge : ~~1.6×10^{-19}~~ Nil.

Location
Protons are positively charged particles.
Electrons are negatively charged particles
Neutrons are neutral particles.
Protons and Neutrons are present at the centre of an atom known as nucleus.
Electrons are revolving outside the nucleus in different orbits.



XII CHEM 12.06.2020

Colloidal State

A mixture can be divided into three kinds

1. True solution
   (i) Homogeneous mixture
   (ii) The diameter of particles is less than 10^{-9}m (1nm)
   (iii) The particles are invisible even under microscope
   (iv) The particles can not be filtered through ordinary filter paper as well as animal membrane.
   (v) Particles do not settle under gravity.
   (vi) It is transparent.
2. Suspension
   (i) Heterogeneous mixture
   (ii) Diameter of particles is more than 10^{-6}m (10^{3}nm)
   (iii) Particles can be seen by naked eye.
   (iv) Particles can neither pass through an ordinary filter paper nor through animal membrane.
   (v) Particles settle under gravity.
   (vi) It is opaque.
3. Colloidal solution
   (i) Heterogeneous mixture.
   (ii) Diameter of particles is in between 10^{-9} to 10^{-6}m
   (iii) Particles cannot be seen by naked eye but they can reasonably ultra-microscope.
   (iv) The particles can pass through ordinary filter paper but not pass through animal membrane.
   (v) It is generally transparent

X CHEM 12-06-2020

c) Reaction with base -

Acid reacts with base to form salt and water.

$HCl + NaOH \longrightarrow NaCl + H_2O$

- The reaction is called neutralization reaction.

d) Reaction with metallic oxide

- Metal oxides are basic in nature. They react with acid to form salt and water.

$CaO + 2HCl \longrightarrow CaCl_2 + H_2O$

This reaction is similar to neutralization reaction.

Organic acid

Acid present in plants and animals are called organic acid.

Ex:

Oranges, Lemons - citric acid

Apples - Malic acid

Tomatoes - oxalic acid

Sour milk and curd - Lactic acid

Vinegar - Acetic acid

Proteins - Amino acid

Mineral acid

The acids obtained from the minerals of the earth are called mineral acid.

HCl, HNO_3, H_2SO_4 etc.

The curd is acidic which attacks on copper and brass vessels to form toxic compounds. Hence the curd and other acid food

नवम वर्ग हिन्दी
दो बैलों की कथा
12.6.20

1. लेखक ने गद्य में ऋषियों-मुनियों के किन गुणों की ओर संकेत किया है?
2. बैलों को घर तक ले जाने में गया की क्या स्थिति हुई?
3. झूरी की पत्नी ने नौकरों को क्या ताकीद दी?
4. गया के घर हीरा और मोती ने स्वयं को अपमानित महसूस किया, क्यों?
5. गया के घर कदम-कदम पर अपमानित होने के बाद भी हीरा-मोती को ऐसा क्यों लगा कि यहाँ भी किसी सज्जन का वास है?
6. किस घटना से पता चलता है कि हीरा-मोती के मन में औरत जाति के प्रति सम्मान था?
7. भागते हीरा-मोती को गया क्यों न पकड़ सका?
8. शत्रुओं के बारे में हीरा-मोती के विचार किस तरह भिन्न थे?
9. हीरा-मोती ने कांजी हौस में बंद जानवरों का जीवन किस प्रकार बचाया?
10. मनुष्यों में ही नहीं जानवरों में भी मानवीय भावनाएँ होती हैं। दो बैलों की कथा के आधार पर स्पष्ट कीजिए।
11. दो बैलों की कथा पाठ में आए किन्हीं दो जीवन मूल्यों को प्रसंग सहित लिखिए।
12. कांजी हौस में किन्हें बंद किया जाता है? और वहाँ उनके साथ कैसा व्यवहार किया जाता है?
13. गया के साथ जाते हीरा-मोती की मनोभावना का वर्णन कीजिए।
14. एक पृष्ठ हिन्दी लिखना रोज लिखते रहें।

Subject - physics

Class - IX (A, B, C, D)

Date 12.06.20

Page No. 01

Ch-10 Gravitation

Topic - Universal law of Gravitation

Statement :- Every object in the universe attracts every other object with a force which is proportional to the product of their masses and inversely proportional to the square of the distance between them. The force is along the line joining the centres of two objects.

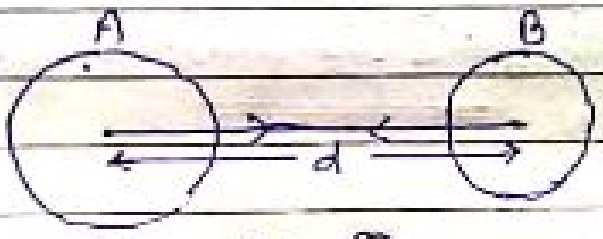


Fig-①

Let us consider two objects A and B of masses M and m lying at a distance d from each other as shown in fig ①. Let F be the force of attraction between two objects.

According to universal law of gravitation,

$$F \propto M \times m \quad \text{——— (1)}$$

and $$F \propto \frac{1}{d^2} \quad \text{——— (2)}$$

Combining equn (1) and (2) we get

$$F \propto \frac{M \times m}{d^2}$$

or $$F = G \frac{M \times m}{d^2} \quad \text{——— (3)}$$

where G is the constant of proportionality and is called the universal gravitation constant.

Now from equ (3) we have

$$Fd^2 = GMm$$

or $$G = \frac{Fd^2}{Mm} \quad \text{---(4)}$$

SI unit of G is Nm^2/kg^2

The accepted value of G calculated by Henry Cavendish (1731-1810) is $6.673 \times 10^{-11}\ Nm^2/kg^2$

Importance of universal law of Gravitation:-

The universal law of gravitation successfully explained several phenomena which were believed to be unconnected:

(i) the force that binds us to the earth.
(ii) the motion of the moon around the earth.
(iii) the motion of planets around the Sun.
(iv) the tides due to the moon and the Sun.
(v) the atmosphere around the earth.

HOME WORK

(1) State the universal law of Gravitation.
(2) Write the formula to find the magnitude of gravitational force between the earth and an object on the surface of the earth.
(3) Calculate the force of gravitation between two objects of masses 80 kg and 1200 kg kept at a distance of 10 m from each other. Given $G = 6.67 \times 10^{-11}\ Nm^2/kg^2$

12.06.20

Prepare a poster advising people not to take alcoholic drinks illustrating the danger of consuming alcohol. Your illustration should be in conformity with the theme provided to you.

Answer:

SAY NO TO ALCOHOL

SAY IT NOW !

Addiction leads to:

- **Ruined Health**
- **Ruined Family Life**
- **Ruined Self**
- **Finally....painful death**

Join De-addiction Camp Today.....!

Regain health Control and happiness

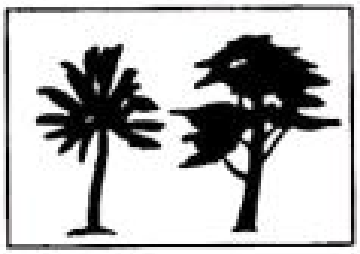
Call at helpline **'Saathi'**

Phone No. 25432152, 25654377

Design a poster to launch 'Tree Plantation Campaign' in the area surrounding your school. Trees live for us. Let us protect our friends.

Answer:

PLANT TREES
&
LIVE LONGER



Join

TREE PLANTATION CAMPAIGN

ON

SUNDAY, THE 5TH OCTOBER, 20XX

at 9 a.m.

ADARSH SR. SEC. SCHOOL, JODHPUR

Remember the Benefits of Trees

- Release oxygen
- Bring rain
- Provide fruit, shade & greenery
- Suck carbon
- Check soil erosion

Trees live for us. Let us protect our friends.

English A Question of Trust

12/6/2020

Footprint Without Prints MD FARRUKH ALAM.

and that she is not the actual owners of the house. He leaves happily thinking that he is safe but doesn't realise the fact that he had opened the safe for someone else that too without wearing his gloves. Three days ~~later~~ later a police officer comes and arrests him saying that his fingerprints had been found at the safe. He then realizes that he had been fooled by a lady who was herself a thief and from the same background as his. He is sent to the jail and becomes an assistant librarian. He feels angry whenever someone talks about honour among ~~thief~~ thieves as he had been cheated by one from his own community.

Home Work

1) Understand the above summary.

MD FARUKH ALAM

ENGLISH CLASS X ABCD

Footprints Without Feet

A Question of Trust

by Victor Canning

The story is about a 50 year old man who makes locks and lives with his housekeeper. He is a good citizen but not an honest one as he commits a robbery every year. He plans his robberies in such a way that the money he gets from there lasts him for at least an year and he is able to buy rare and expensive books. He plans to commit a robbery at a grange named Whitmore Grange. He takes all the information about the house like where the family had gone, how many servants were there in the house, what was the name of dog, the wiring in the house, the safe in the house and even information like how much worth of jewels were there in the safe. The real twist in the story comes when he reaches the grange to commit a robbery and a woman claiming to be the owner's wife enters. She gives him an option that she will forget that she has seen him if he opens the safe for her as she has forgotten the code of the safe and has to go to a party. He does not realize that he is opening the safe for another thief and

NOTES

DATE

JUNE 12, 2020.

CLASS - XI.

SUBJECT - ENGLISH CORE.

SECTION B - WRITING.

POSTERS

SOLVED EXAMPLES:

✓ Your school is organising a science and Technology exhibition. In connection with it, prepare a poster to bring home to the people the importance of Conservation of electricity. Your school is Shaheed Public School, Gaya, Bihar.

NOTES Answer:

Date

CONSERVE ELECTRICITY
&
CONSERVE POWER

Shatabdi public School, Gaya, Bihar

is organising a

SCIENCE & TECHNOLOGY
EXHIBITION

from 20th June to 30th June, 2020
10 a.m. to 6 p.m.

VISIT & BUY

- NEW POWER SAVING ELECTRIC APPLIANCES
- LOW ELECTRICITY CONSUMING BULBS & TUBES
- ELECTRICAL APPLIANCES
- NEW ACs & REFRIGERATORS

Remember: POWER SAVED
IS
POWER GENERATED

Scanned with CamScanner

MD AAAQUIM ALAM

ENGLISH

CLASS IX A,B,C,D

12/6/2020

Poem.

WIND

by C.S. Bhartiya

Central Idea of the Poem.

The poet has advised us to strong in mind & body. The wind will be our friend when we are strong. Actually the wind represents the difficulties and challenges. We should face them boldly.

Theme of the Poem

The poem inspires us to face the challenges and hardships with courage, firm & (determination). The wind is a symbol of problems & (obstacles) which are to be dealt without fear. We must be friends with the winds & obstacles to cope with hard situations.

Stanza I – The poet is addressing wind. He is asking wind not to do destruction to his things. The poet asks wind to come softly and tells the wind to not to break the shutters of windows. He also said the wind to not throw the books around as wind usually do.

Stanza II – Wind did the destruction. It tore

the pages of books. It brought the rain. It destroyed the weak houses doors & hearts. The wind of good has crushed them all. The poet curses the wind. The poet told the wind that it felt good by making fun of weak.

Stanza III — The poet now realizes that it is nature of wind to flow. No one can tell wind to do what to do & what not to do. The poet realizes we need to be strong to face the wind, what we can do is to build strong homes. Join doors and windows firmly. Make ourselves strong. Make our heart strong.

H.W - Q 1) Understand the above summary.

Q 2) Learn the new words in the poem.

11-10-02

Date

NOTES

→ SIGNATORY / COMPLEMENTARY CLOSE / SUBSCRIPTION

NOTE:
After the letter is complete, write the leave-taking phrase at the end and put your signature below it thus:-

Yours sincerely
A.K. Srivastava
(A.K. Srivastava)

Notes: 1. No apostrophe is used in 'Yours', either before or after the 's'.

2. Do not use an adverb before a noun. e.g., 'Yours obedient son' is wrong, write either 'Yours obediently' or 'Your obedient son'.

3. The address should be written very clearly in this manner:

NOTES DATE

Shri Vijay Paul
58, Mount Road
Chennai

4. When you write a letter in an examination paper, don't write your real name or address. You may use a fictitious name.

★ THE FORM OF STRUCTURE :

Sample / Example (Formal letter)

Rohan
43, Vijyan Vihar → Sender's Address
New Delhi

June 12, 2020

The Editor
The Indian Express → Receiver's Address
Ludhiana

Sir — → Salutation

P.T.O.

NOTES

- - - - - - - - - -

- - - - - - - - - -

BODY / MATTER / CONTENT

- - - - - - - - - -

- - - - - - - - - -

Yours Truly → Complimentary Close / Signatory / Subscription

Continue :-

Ismita Sinha
12/06/20

Page-01

DATE

JUNE 12, 2020

NOTES

GRADE - IX & X

SUBJECT - ENGLISH

SECTION B - WRITING

LETTER WRITING

FORMAL LETTER

FORMAT :

→ SENDER'S ADDRESS
→ THE DATE
→ RECEIVER'S ADDRESS (The name and address of the addressee)
→ SALUTATION / GREETING
→ BODY / MATTER / CONTENTS
→ SIGNATORY / COMPLEMENTARY CLOSE / SUBSCRIPTION

INFORMAL LETTER

FORMAT :

→ SENDER'S ADDRESS
→ THE DATE
→ SALUTATION
→ BODY / MATTER / CONTENT

P.T.O.

B's adjusted capital should be

$300000 \times \frac{1}{3} = 100,000$

On 1st August A will withdraw Rs 10000 whereas B will bring in cash amounting to Rs 10,000

Interest on capital

From 1st April 2016 to 31st July, 2016

$A = 210000 \times \frac{4}{12} \times \frac{12}{100}$ = Rs 8400

$B = 90000 \times \frac{4}{12} \times \frac{12}{100}$ = Rs 3600

From 1st August 2016 to 31st March, 2017

$A = 200000 \times \frac{8}{12} \times \frac{12}{100}$ = Rs 16000

$B = 100000 \times \frac{8}{12} \times \frac{12}{100}$ = Rs 8000

A = 8400 + 16000 = Rs 24,400

B = 3600 + 8000 = Rs 11,600

CLASS XII

12/06/20

ACCOUNTANCY

Practical Question

Q10. A and B are partner in a firm. Their capitals as on 1st April, 2016 were Rs 210,000 and Rs 90,000 respectively. They share profits in the ratio of 2:1. On 1st August, 2016 they decided that their capitals should be readjusted according to their profit sharing ratio. The necessary adjustments in the capitals were made by withdrawing or introducing cash. Interest on capital is allowed @ 12% p.a. Compute interest on capitals for the year ending on 31st March, 2017

Solution

Total capital of A and B

210000 + 90,000 = Rs 3,00,000

Therefore A's adjusted capital should be

$300000 \times \frac{2}{3} = 200,000$

tt, rr, yy - recessive homozygous.

→ Homozygous individuals are always true breeder i.e pure line.

Heterozygous :-

→ Both alleles of a gene are differ to each other i.e Tt, Rr, Yy etc.

→ Heterozygous individuals are always hybrid means it is impure line.

Genotype :- (Hypothetical)

→ Genetic make up of an individual is called genotype. (composition)

→ It is not visible

→ It is represented by alphabates i.e TT, Tt, tt etc.

Phenotype :- (observable)

→ Morphological / observable characters are called phenotype i.e tallness, dwarfness, skin colour etc.

Punnet square :-

→ The representation of gamates & formation of the zygotes with genotype of progeny represented by diagram called Punnet square

	T	T
t	Tt	Tt

Monohybrid cross :-

→ A cross b/w two individuals considering one pair alternative form of a trait is called monohybrid cross.

Hybrid ⇒ tall & short
contrasting traits

Tall × Dwarf
TT   tt
↓   ↓
T   t
Tt

Maths

Ex. 15.3

1) $d = 10.5$ cm

$r = \frac{10.5}{2}$ cm

$l = 10$ cm

CSA = P

CSA of a cone $= \pi r l$

$= \frac{22}{7} \times \frac{10.5}{2} \times \frac{10}{10}$ cm^2

$= 165$ cm^2

(2)

Maths

Ex 13.3

(2) TSA = ?

$l = 21m$

$d = 24m$

$r = \frac{24}{2} m = 12m$

HW
Ex-13.3
Qno. 3

Now, TSA of cone = CSA + Area of Base

$= \pi r l + \pi r^2$

$= \pi r(l + r)$

$= \frac{22}{7} \times 12 (21 + 12)$

$= \frac{22}{7} \times 12 \times 33$

$= 124457 \, cm^2$

8th June. 2020
Class - VI (A, B, C)
Sub - Maths

Chapter - 4

Basic Geometrical Lines

Intersecting Lines → when two or more lines cross each other in a plane. they are called **intersecting lines.**

The point at which two or more lines intersect each other is known as **Point of intersection**

Properties of intersecting lines

1) The intersecting lines (two or more) meet only at one point always

2) The intersecting lines can cross each other at any angles. This angle formed is always greater than 0° less than 180°

3) Two intersecting lines form a pair of vertical angles. The vertical angles are opposite angles with a common vertex (which is the point of intersection)

H.W Exercise no 4.1
Question → 2 and 3

Notes

Q) What should be added to $x^2 - yz + y^2$ to obtain $2x^2 + 3xy + y^2$?

Q) What should be subtract from $2a + 6b + 10$ to get $-3a + 7b + 16$?

Q) From the sum of $4 + 3x$ and $5 - 4x + 2x^2$, subtract the sum of $3x^2 - 5x$ and $-x^2 + x + 5$.

Notes 12 06 2020

Q. What should be added to x^2+xy+y^2 to obtain $2x^2+3xy$?

Sol^n: $(2x^2+3xy)-(x^2+xy+y^2)$

$= 2x^2+3xy-x^2-xy-y^2$

$= x^2+2xy-y^2$ Ans

Q. From the sum of $3x-y+11$ and $-y-11$, subtract $3x-y-11$.

Sol^n: Sum of $3x-y+11$ and $-y-11$

$= (3x-y+11)+(-y-11)$

$= 3x-y+11-y-11$

$= 3x-2y$.

From $3x-2y$, subtract $3x-y-11$

$= (3x-2y)-(3x-y-11)$

$= 3x-2y-3x+y+11$

$= (-y+11)$ Ans

Notes 12 06 2020

$= 1386 \text{ cm}^2$ Ans

Q Find the total surface area of a hemisphere of radius 10 cm. ($\pi = 3.14$)

Sol": $r = 10 \text{ cm}$

T.S.A $= 3\pi r^2$

$= 3 \times 3.14 \times (10)^2$

$= 3 \times 3.14 \times 10 \times 10$

$= 942 \text{ cm}^2$ Ans

HW

Q Find the surface area of a sphere of radius:

i) 5.6 cm ii) 14 cm

Q Find the surface area of a sphere of diameter:

i) 14 cm ii) 21 cm iii) 3.5 m

Notes Surface Area & Volume. 17 06 2020

Sphere based Question

* Total surface Area / Surface Area $= 4\pi r^2$

* Curved Surface Area of Hemisphere $= 2\pi r^2$

* Total Surface Area of Hemisphere $= 3\pi r^2$.

Q. Find the surface area of a sphere of radius 10.5 cm.

Sol: $r = 10.5$ cm

S.A of sphere $= 4\pi r^2$

$= 4 \times \frac{22}{7} \times (10.5)^2$

$= 4 \times \frac{22}{7} \times \frac{105}{10} \times \frac{105}{10}$

$= \frac{1320 \times 105}{100}$

P.T.O

H.W

Q1. Observe the following pattern and find the missing digits.

$11^2 = 121$

$101^2 = 10201$

$1001^2 = 1002001$

$100001^2 = 10000200001$

$10001^2 =$

$1000001^2 =$

$10000001^2 =$

Q2. Without adding, find the sum.

i) $1+3+5+7+9$

ii) $1+3+5+7+9+11+13+15+17+19$

iii) $1+3+5+7+9+11+13+15+17+19+21+23$

Q3. Express 49 as the sum of 7 odd numbers.

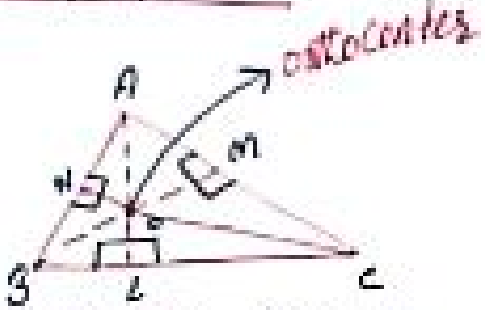
Q4. Express 121 as the sum of 11 odd numbers.

12th June. 2020
Sub - Maths
Class - VII (B.D)

Chapter - 6

The Triangle and its Properties

Altitudes of a triangle

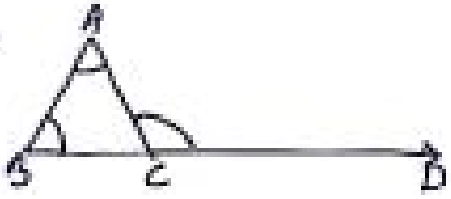


The altitude of a triangle is the perpendicular from the base to the opposite vertex. Since there are three possible bases, there are also three possible altitudes. The three altitudes intersect at a single point, called the orthocenter of the Δ

In the given fig. AL, BM and CN are the altitudes of a Δ and 'O' is a orthocenter of a Δ

Exterior angle of a Δ and its Property

An exterior angle of a Δ is equal to the sum of its interior opposite angles.



$\angle BAC + \angle ABC = \angle ACD$

H.W - Do Exercise - 6.1