Class - VIII D Subject - Physics Date - 20/6/2020

Ch - 13 : Sound

How do humans produce sound?

- Human beings have a voice box or larynx which is present in their throat on the upper side of the windpipe.
- The larynx has 2 vocal cords which have a narrow slit between them so that air can pass through it.
- As the lungs through air out of the windpipe, it passes through the slit and hence allows the production of sound as the vocal cords start vibrating.
- The vocal cords of males are larger (20 mm) than females (15 mm). That is why males have louder voice than females.
- children have very small voice box that is why they have most shrill voice.

H.W:- Draw the diagram of larynx here

How do we hear?

We hear with the help of our ears.

Human ear

Human ear has 3 main parts:

1. Outer ear (Pinna) → It catches the sound waves & forward them to the next part of the ear.
2. Middle ear → It converts the sound waves into vibrations that them travel to the inner ear.
   - Middle ear has a thin rubber-like sheet present in the middle ear called ear drum. As the sound waves reach the ear drum, it vibrates & then these vibrations propagate to the inner ear

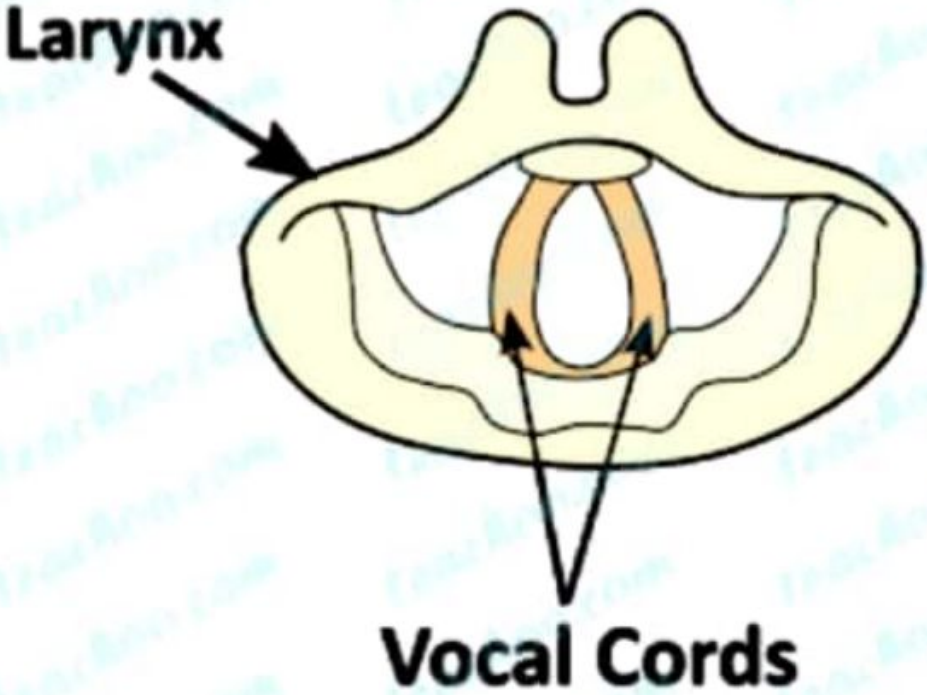
Scanned with CamScanner

3. Inner ear (cochlea) → It receives the vibrations sent by the ~~ear~~ ear drum.

- It contains ~~the~~ a liquid substance & the vibrations that enter the inner ear moves through this liquid.
- There are tiny pairs present inside the inner ear that turn these vibrations into signals for the brain & pass them to the brain through the hearing nerve.
- As the brain receives the signal it interprets the sound & we are able to hear it.

H.W :- Draw the diagram of 'Human Ear'

Voice Box in Humans



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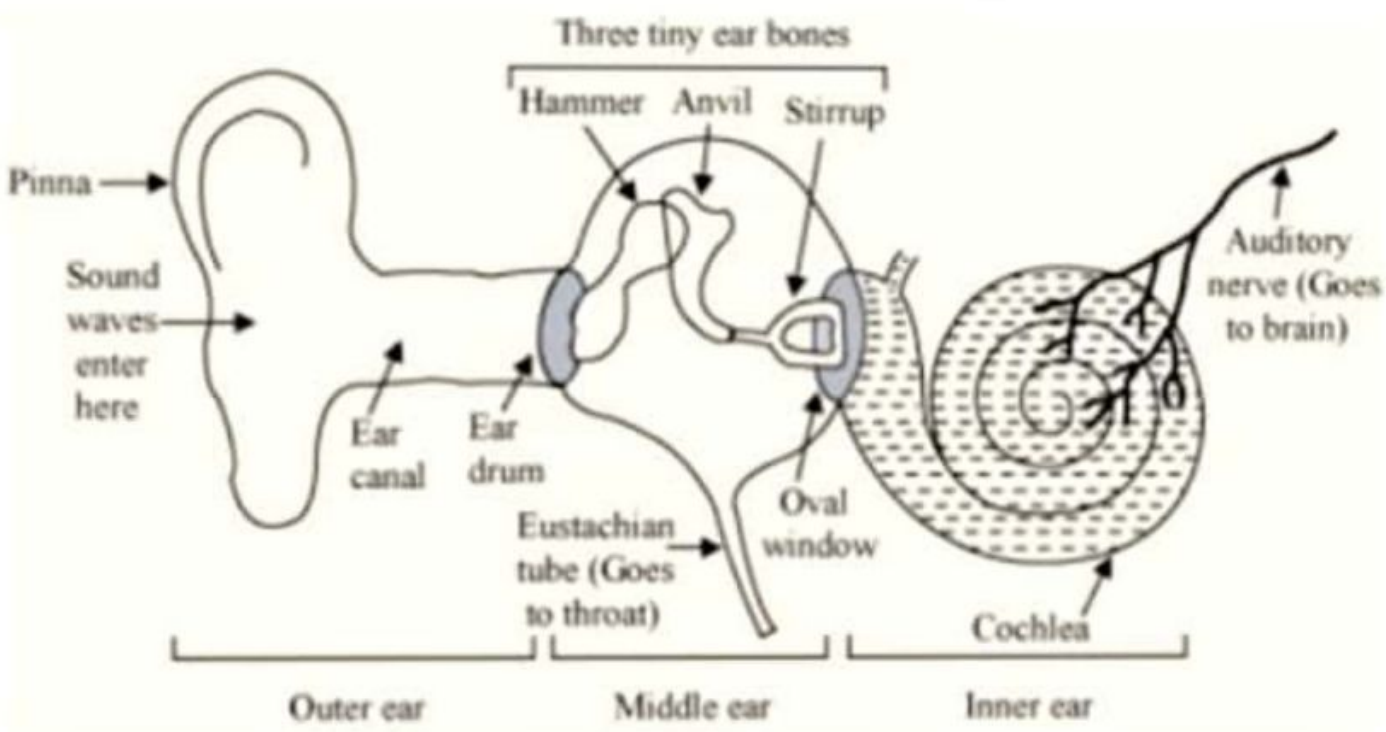
Human Ear



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1S	1	0	1
2S	2	0	2
2P	2	1	3
3S	3	0	3
3P	3	1	4
3d	3	2	5
4S	4	0	4
4P	4	1	5
4d	4	2	6
4f	4	3	7
5S	5	0	5
5P	5	1	6
5d	5	2	7
5f	5	3	8
6S	6	0	6
6P	6	1	7
6d	6	2	8
6f	6	3	9
7S	7	0	7

Electronic Configuration

H (1) — $1s^1$

He (2) — $1s^2$

Li (3) — $1s^2 2s^1$

Be (4) — $1s^2 2s^2$

B (5) — $1s^2 2s^2 2p^1$

C (6) — $1s^2 2s^2 2p^2$

N (7) — $1s^2 2s^2 2p^3$

O (8) — $1s^2 2s^2 2p^4$

F (9) — $1s^2 2s^2 2p^5$

Ne (10) — $1s^2 2s^2 2p^6$

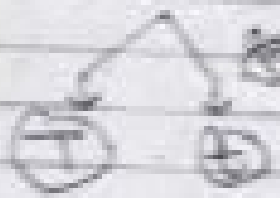
H-U

Write E.C of elements at no 13 to 30

Result

- Phenotypic ratio: Tall : Dwarf
  3 : 1
- Genotypic ratio: TT : Tt : tt
  1 : 2 : 1

- Law of segregation =
- At the time of gamete formation the two contrasting factors of a pair do not mix up together in F1 hybrid.
- At the time of gamete formation they become separate to each other & enters in two different gametes independently.

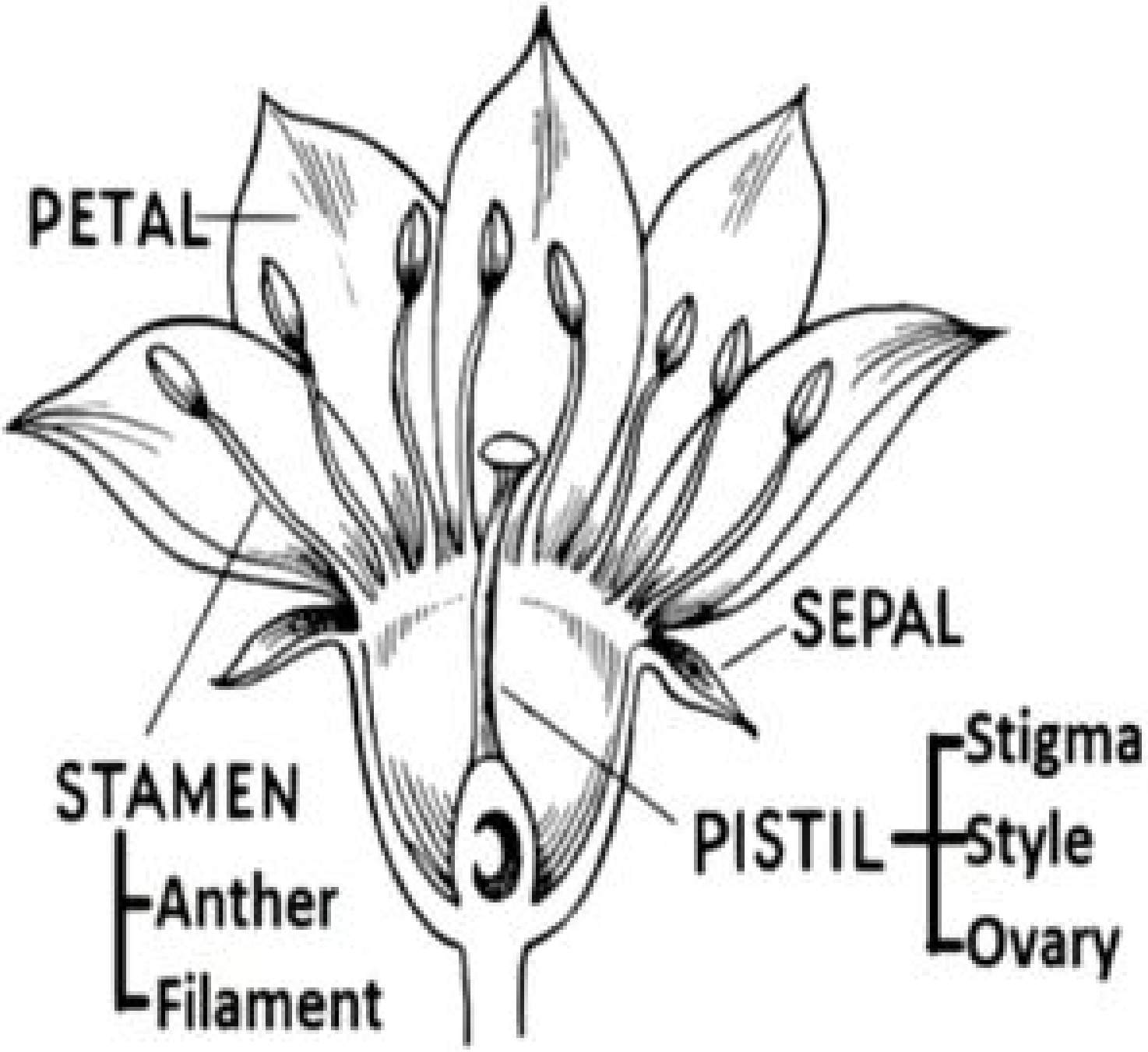


viii. Reasons for dominance =

- Allelic gene responsible to produce functional less function enzymes hence it is dominant
- Allelic gene responsible to produce partially functional or non functional enzyme or all hence dwarf is recessive

Test cross =

- A cross b/w phenotypically dominant but genotypically unknown plant with recessive parent is called test cross.
- Punnett square: [illegible] of phenotypically dominant and hybrid



20th June, 2020
Sub - Maths
Class - VI (A, B, C)

4. Basic Geometrical Ideas

Triangle

Triangle → A Polygon having three line segment is called Triangle.

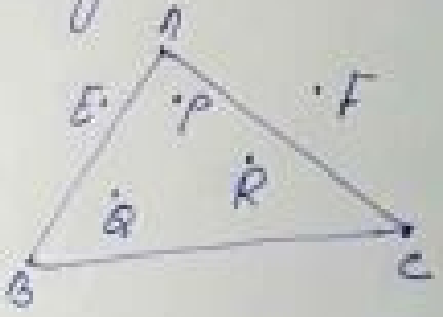
In a triangle

(i) There are three vertex (A, B, C)

(ii) Three Sides namely, AB, BC and CA

(iii) Three angles namely, ∠BAC, ∠ABC and ∠BCA to be denoted by ∠A, ∠B, ∠C respectively

Interior and Exterior of a △



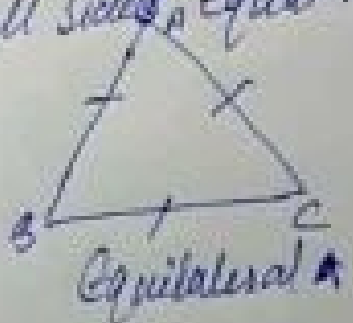
In the given fig. P, Q, R are the interior Points of a △ABC

E, F are the exterior Points of a △ABC

Types of Triangles

According to Side.

(i) **Equilateral Triangle** → A △ having all sides equal is called an equilateral △



Equilateral △

AB = BC = AC

Ex. Exercise → 4.4 question → 1 and 2

MD Fazlul Haq.

English
First Flight

Class - IX A B & D

20/6/2020

From the Diary of Anne Frank
(Part - 2)

Mr. Keesing gives extra work as punishment

Mr Keesing was a dull person who taught them Maths. He was always annoyed with her as she talked much. He gave her extra homework as a punishment. It was in the form of an essay on 'A Chatterbox'. She was unable to understand what she could write about it.

Home Work

Q1) Describe the parents of Anne Frank.

Q2) Understand the summary Part 2 of "From the Diary of Anne Frank.

Md Fourkan Alam

English
Bachelor

CLASS IX A, B & D

20/6/2020

A Truly Beautiful Mind

ZOOM CLOUD — TEACHING.

(1) Fatal disease
(2) Contagious disease.
(3) Stammer

Question & Answers.

Q1) During his childhood, Einstein did not show any sign of becoming a genius one day? (How)

Ans Einstein's childhood was not normal. He had a large head & did not start to speak till he was two & half years old. When he finally started speaking, he used a utter (every-thing twice). He did not mix with other children & played himself.

Q2) What did Einstein's headmaster tell his father? Was he right in saying so? Explain

Ans Einstein's headmaster once told his father that it hardly mattered what profession Einstein chose because he would never make a success at anything. And we know, the headmaster was wrong in saying so.

HW Q1) Why did Einstein try to look

English

CLASS IX A B & D

20/6/2020

Beehive

A Truly Beautiful Mind

for wheels on the body of his new-born sister?

Q.) Learn the above questions & answers.

MD FARRUKH ALAM

English
First Flight

CLASS X B-E D

Lesson - 4

20/6/2020

FROM THE DIARY OF ANNE FRANK

Part - 2

Summary -

Anne's school

There she was sent to a Montessori nursery school. She stayed there until she was six. In the sixth class her teacher was Mrs. Kuperus, the headmistress. Both had tears when they bade farewell.

Reasons for not writing the Diary

In the summer of 1941 her grandma fell ill. She had to be operated upon. She died in January 1942. She thought of her greatly and she loved her. They celebrated Anne's birthday in 1942. The four of them were doing well till 20 June 1942.

About class affairs

It was the day of the declaration of results. Everyone in her class was in tension. The reason was who would go to the next class & who would not. They had bets with other boys on who would pass & who would not. She found the teachers as the most unpredictable creatures on the earth. She was not worried about her girl - friends & herself. She was sure to make that. But she was not sure about Maths. They could wait & told each other not to lose heart.

Chapter 02 Drainage Class IX(A & B)
Geography · Topic - River System - 20/6/20

① A system of flowing water from the higher level to the lower level ~~to the lower~~ is called drainage.

② An area drained by a single main river is called drainage basin or river basin.

③ The Ganga basin is the largest basin in India

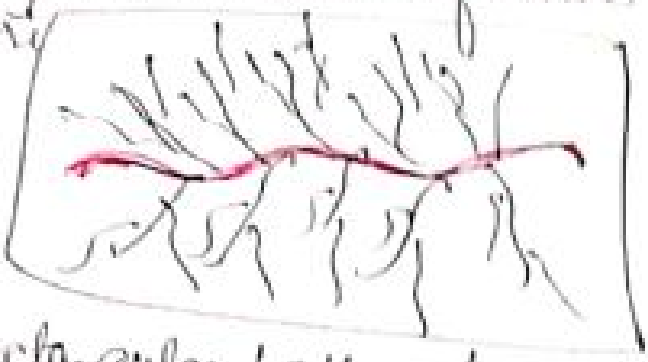
④ Any higher ground such as mountain or hill separates two adjoining drainage basin is called water divide. Eg - Vindhya

⑤ A river along with its tributaries is known as river system.

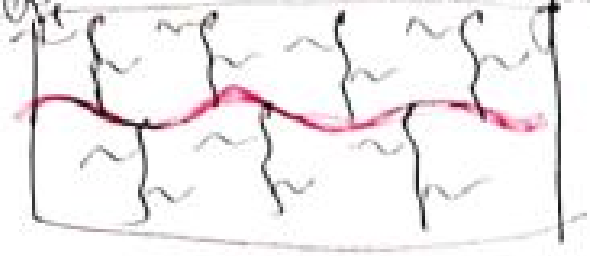
⑥ River Pattern

i) There are four types of river pattern they are.

(i) Dendritic Pattern → This pattern consist of a single main river with its tributaries joining like a branch of a tree. Eg - The Ganga River, the Godavari



(ii) Trellis Pattern → This is a rectangular pattern formed when a long river is joined by short flowing rivers at about right angle (90°). Eg - Krishna and Tapti



Note → Remaining river pattern will be described in next class.

20/6/20

Home work -

① Q → What do you mean by river basin?

② Q - Define water divide.

20/6/20

First, it uses a strategy of distancing itself from religion. The Indian state is not ruled by a religious group and nor does it support any one religion.

The second way in which Indian secularism works to prevent the above domination is through a strategy of non-interference.

The third way in which Indian secularism works to prevent the domination is through a strategy of intervention.

Teacher's Name: Saquib Zarar.

CLASS VIII - B/D

21/8/20

1

CIVICS

CH-2 UNDERSTANDING SECULARISM

Indian Secularism

The Indian constitution mandate that the Indian State be secular. According to the constitution, only a secular state can realise its objectives to ensure the following:

1. That one religious community does not dominate others;

2. That some members do not dominate other members of the same religious community;

3. That the State does not enforce any particular religion nor take away the religious freedom of individuals.

The Indian State works in various ways to present the above domination.

मासिक जाँच परीक्षा

दशम वर्ग - A+B+C+D

विषय- हिंदी, समय - 3० मिनट पूर्णांक - 3०

1. सेनानी न होते हुए भी पानवाले को लोग कैप्टन क्यों कहते थे? 2

2. नेताजी की मूर्ति में कौन-सी कमी खटकती थी और क्यों? 2

3. नेताजी की मूर्ति पर लगा सरकंडे का चश्मा कैसा है? 2

4. नेताजी का चश्मा पाठ द्वारा लेखक क्या संदेश देता है? 2

5. गोपियों द्वारा उद्धव को भाग्यवान कहना कहाँ तक उचित है? 2

6. उद्धव के व्यवहार की तुलना किस-किस से की गई है? 2

7. सूरदास ने राजधर्म के बारे में क्या बताया है? 2

8. गोपियों ने उद्धव से योग की शिक्षा कैसे लोगों को देने की बात कही है? 2

9. रचना के आधार पर वाक्य भेद बताइए :-

(क) बच्चे कहानी लिख रहे हैं। 1

(ख) अंदर आकर बैठिए और बातें कीजिए। 1

10. निर्देशानुसार वाक्य बदलिए :-

(क) जैसे ही शेर हुआ चोर भाग गए - संयुक्त वाक्य में। 1

(ख) दवा खाते ही मरीज ठीक हो गया - मिश्र वाक्य में। 1

subject - physics
class - X (A,B)

10.06.20
07

in the coil, the magnetic flux linked with the coil remains the same. As the magnetic flux doesn't change, no current is induced in the coil and the galvanometer shows no deflection on either side.

note → From this activity it is concluded that the current is induced in the coil only when there is a relative motion between the magnet and the coil if there is no relative motion between the coil and the magnet, no current is induced in the coil.

Ans 14. Yes, If the current in the coil A is changed a current will be induced in the coil B which is placed close to A. This is because the magnetic field lines due to current in coil A also get linked with coil B and when the current in coil A changes the magnetic flux linked with coil A changes and the magnetic flux linked with coil B also changes. In this way, an electric current is induced in the coil B.

NOTE - Students can see the activity which I send on 14.05.20 already in the group.

Subject - physics
Class - X (A, B)
Date: 20.06.20
Page No.: 01

Magnetic effects of electric current.
Solutions of exercise questions:

Ans 11. Function of split rings in an electric motor is to pass the current from the battery to the coil through conducting brushes after reversing its direction after every half revolution.

Ans 12. Devices in which electric motor is used are water pumps, refrigerators, washing machines, electric fans, cooler, mixers etc.

Ans 13. (i) When a bar magnet is pushed into the coil, the magnetic flux linked with the coil changes i.e increases, due to which an electric current is induced in the coil and the galvanometer shows a momentary deflection towards right i.e. needle of galvanometer is deflected towards one direction.
(ii) When the bar magnet is withdrawn from inside the coil, the magnetic flux ~~lin~~ linked with the coil changes i.e decreases and again the current is induced in the coil but in the opposite direction to that in result and the galvanometer's needle shows the deflection in opposite direction i.e towards left.
(iii) When the magnet is held stationary

Text next page.

$\because A+B+C=\pi \Rightarrow \boxed{A+B=(\pi-C)} \Rightarrow \boxed{C=\pi-(A+B)}$

1) L.H.S $= \sin 2A + \sin 2B - \sin 2C$

$= 2\sin\left(\frac{2A+2B}{2}\right)\cdot\cos\left(\frac{2A-2B}{2}\right) - 2\sin C\cdot\cos C$

$= 2\sin(A+B)\cdot\cos(A-B) - 2\sin C\cdot\cos C$

$= 2\sin(\pi-C)\cdot\cos(A-B) - 2\sin C\cdot\cos\{\pi-(A+B)\}$

$= 2\sin C\cdot\cos(A-B) + 2\sin C\cdot\cos(A+B)$

$= 2\sin C\{\cos(A-B)+\cos(A+B)\}$

$= 2\sin C\cdot 2\cos A\cdot\cos B$

$= 4\cos A\cdot\cos B\cdot\sin C$ =

2) L.H.S $= \cos 2A - \cos 2B - \cos 2C$

$= -2\sin\left(\frac{2A+2B}{2}\right)\cdot\sin\left(\frac{2A-2B}{2}\right) - (1-2\sin^2 C)$

$= -2\sin(A+B)\cdot\sin(A-B) - 1 + 2\sin C\cdot\sin C$

$= -2\sin A(\pi-C)\cdot\sin(A-B) - 1 + 2\sin C\cdot\sin\{\pi-(A+B)\}$

$= -1 - 2\sin C\cdot\sin(A-B) + 2\sin C\cdot\sin(A+B)$

$= -1 + 2\sin C\cdot\{\sin(A+B) - \sin(A-B)\}$

$= -1 + 2\sin C\cdot 2\cos A\cdot\sin B$

$= -1 + 4\cos A\cdot\sin B\cdot\sin C$

3) L.H.S $= \sin(B+C-A) + \sin(C+A-B) - \sin(A+B-C)$

$= \sin(\pi-A-A) + \sin(\pi-B-B) - \sin(\pi-C-C)$

$= \sin(\pi-2A) + \sin(\pi-2B) - \sin(\pi-2C)$

$= \sin 2A + \sin 2B - \sin 2C$

Solve as Q No. 1.

H/w. Complete the Ex 16

By Atef Ji

If $A+B+C=\pi$, prove that

1. $\sin 2A + \sin 2B - \sin 2C = 4\cos A \cos B \sin C$
2. $\cos 2A - \cos 2B - \cos 2C = -1 + 4\cos A \sin B \sin C$
3. $\cos 2A - \cos 2B + \cos 2C = 1 - 4\sin A \cos B \sin C$
4. $\sin A + \sin B + \sin C = 4\cos\frac{A}{2}\cos\frac{B}{2}\cos\frac{C}{2}$
5. $\cos A + \cos B + \cos C = 1 + 4\sin\frac{A}{2}\sin\frac{B}{2}\sin\frac{C}{2}$
6. $\frac{\sin 2A + \sin 2B + \sin 2C}{\sin A + \sin B + \sin C} = 8\sin\frac{A}{2}\sin\frac{B}{2}\sin\frac{C}{2}$
7. $\sin(B+C-A) + \sin(C+A-B) - \sin(A+B-C) = 4\cos A \cos B \sin C$
8. $\frac{\cos A}{\sin B \sin C} + \frac{\cos B}{\sin C \sin A} + \frac{\cos C}{\sin A \sin B} = 2$
9. $\cos^2 A + \cos^2 B + \cos^2 C = 1 - 2\cos A \cos B \cos C$
10. $\sin^2 A - \sin^2 B + \sin^2 C = 2\sin A \cos B \sin C$
11. $\sin^2\frac{A}{2} + \sin^2\frac{B}{2} + \sin^2\frac{C}{2} = 1 - 2\sin\frac{A}{2}\sin\frac{B}{2}\sin\frac{C}{2}$
12. $\tan 2A + \tan 2B + \tan 2C = \tan 2A \tan 2B \tan 2C$

Class: XII Mathematics Ex 14A 20th Jan, 2020

36) $I = \int \frac{2\sin 2\phi - \cos\phi}{(6 - \cos^2\phi - 4\sin\phi)}\, d\phi$

$= \int \frac{2 \cdot 2\sin\phi\cdot\cos\phi - \cos\phi}{[6 - (1-\sin^2\phi) - 4\sin\phi]}\, d\phi$

$= \int \frac{(4\sin\phi - 1)\cdot\cos\phi\, d\phi}{6 - 1 + \sin^2\phi - 4\sin\phi}$

$= \int \frac{(4\sin\phi - 1)\cdot\cos\phi\, d\phi}{\sin^2\phi - 4\sin\phi + 5}$

Let $x = \sin\phi$

$\frac{dx}{d\phi} = \cos\phi$

$dx = \cos\phi\, d\phi$

$I = \int \frac{4x-1}{x^2-4x+5}\, dx$

Let $y = x^2 - 4x + 5$

$\frac{dy}{dx} = 2x - 4$

$2\,dy = (4x - 8)\cdot dx$

$I = \int \frac{(4x-8)+7}{x^2-4x+5}\, dx$

$I = \int \frac{4x-8}{x^2-4x+5}\, dx + 7\int \frac{dx}{x^2-4x+5}$

$= 2\int \frac{1}{y}\, dy + 7\int \frac{dx}{x^2 - 2\cdot x\cdot 2 + 2^2 - 2^2 + 5}$

$= 2\log|y| + 7\int \frac{dx}{(x-2)^2 + 1^2}$

$= 2\log|y| + 7\cdot\frac{1}{1}\tan^{-1}\left(\frac{x-2}{1}\right) + c$

$= 2\log|x^2 - 4x + 5| + 7\tan^{-1}(x-2) + c$

$= 2\log|\sin^2\phi - 4\sin\phi + 5| + 7\tan^{-1}(\sin\phi - 2) + c$

37) $I = \int \frac{dx}{(\sin x - 2\cos x)(3\sin x + \cos x)}$

$= \int \frac{dx}{3\sin^2 x + \sin x\cdot\cos x - 6\sin x\cos x - 2\cos^2 x}$

$= \int \frac{dx}{3\sin^2 x - 2(1-\sin^2 x) - 5\sin x\cos x}$

$= \int \frac{dx}{3\sin^2 x - 2 + 2\sin^2 x - 5\sin x\cos x}$

$= \int \frac{dx}{5\sin^2 x - 5\sin x\cos x - 2}$

Dividing both num and den by $\cos^2 x$

$I = \int \frac{\sec^2 x\, dx}{5\tan^2 x - 5\tan x - 2\sec^2 x}$

$= \int \frac{\sec^2 x\cdot dx}{5\tan^2 x - 5\tan x - 2(1+\tan^2 x)}$

$= \int \frac{\sec^2 x\cdot dx}{2\tan^2 x - 5\tan x - 2}$

Let $y = \tan x$

$dy = \sec^2 x\, dx$

Now $I = \int \frac{dy}{2y^2 - 5y - 2}$

$I = \frac{1}{2}\int \frac{dy}{y^2 - \frac{5}{2}y - 1}$

$I = \frac{1}{2}\int \frac{dy}{y^2 - 2\cdot y\cdot\frac{5}{4} + \left(\frac{5}{4}\right)^2 - \left(\frac{5}{4}\right)^2 - 1}$

$= \frac{1}{2}\int \frac{dy}{\left(y - \frac{5}{4}\right)^2 - \left(\frac{5}{4}\right)^2}$

$= \frac{1}{2}\cdot\frac{1}{2\cdot\frac{5}{4}}\log\left|\frac{y - \frac{5}{4} - \frac{5}{4}}{y - \frac{5}{4} + \frac{5}{4}}\right|$ Solve d.

$= \pi\tan^{-1}\left(\frac{\quad}{\quad}\right) + c$

Date - 20 & 21 (Oct)

Class - VIII (c)

Sub - English (Modern world)

Chapter 1 The Tiny Teachers

Synopsis about the Lesson

The ants are tiny creatures but they are very sincere, dedicative and hard working they are also very intelligent creatures. They perform their duties in the form of cleaners, nurses, caretakers, soldiers and builders. They live in anthills having hundreds of little rooms and passages for all ants. The queen ants only lay eggs after its wedding flights with a drone. Egg → Grub → Cocoon → Ant is their life cycle. They also allow other creatures in their anthills to get plenty of food, sweet juice and sugarthings.

The ants are tiny creatures but they are big teachers. We can learn hard work, duty and discipline, Chastity, caring for our young ones and from loyalty to the land. We can learn from them to do our work intelligently and bravery and behaving as a non-interfering way. We can learn from them to live a peaceful life.

HW

Q1 → Mention three things that we can learn from the ants.

Q2 → How do they perform their duties?

Q3 → Why do they allow other creatures to live with them in their anthills.

Q4 → Do one-page English writing.