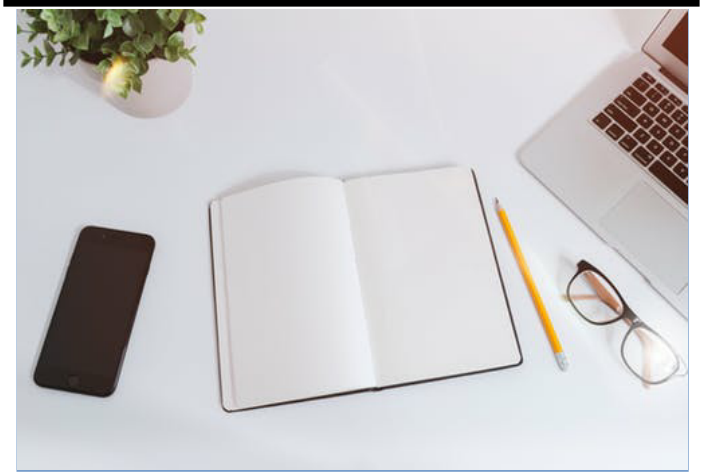
ST.MARY'S PUBLIC SCHOOL

Study Material



Note:-

1. Check the website regularly.
2. Visit relevant subject links.
3. Utilize your time well to explore, learn and share.

ENGLISH LANGUAGE & LITERATURE

Class X

LITERATURE READER (FIRST FLIGHT)

Prose- L-3 Two Stories about Flying by Liam O' Flaherty

- Refer ''The English Academy'' on you tube for explanation of the chapter.
- Do NCERT Textbook question answers (Oral Comprehension check and Thinking about the Text) of the above-mentioned lessons in a notebook

Poem-4-How to Tell Wild Animals by Carolyn Wells

- Refer to the given pdf and ''The English Academy'' on you tube for the explanation of the poem
- Do NCERT Textbook question answers

SUPPLYMENTARY READER (FOOTPRINTS WITHOUT FEET)

L- 3 The Midnight Visitor by Robert Arthur

- Refer ''The English Academy'' on you tube for explanation of the chapter.
- Do NCERT Textbook question answers (Oral Comprehension check and Thinking about the Text) of the above-mentioned lessons in a notebook.
- Refer Goyal's Assignments in English.

GRAMMAR SECTION

TENSES

KEY INSTRUCTIONS

- Refer to the given pdf about tenses thoroughly.
- Proceed to the given worksheet and answer all the questions in your notebook.

Fill in the correct form verb – All Tenses

1. I_____a great film yesterday. (***see***)
2. _____ a new car? (***you ever buy***)
3. I_____him last Monday. (***meet***)
4. The band_____while I_____. (***play, write***)
5. She_____the new car in 2005. (***buy***)
6. Her mother_____in Victoria for the past five years. (***live***)
7. They_____in Germany when we arrived a few days ago. (***already be***)
8. _____ to get married? (***you plan***)
9. I_____so much fun since I was a kid. (***have***)
10. When I got up I_____out of the window and_____that it _____ . (***look, see, rain***)
11. Janet_____for Smith and Brothers before she came to work for us. (***work***)
12. I_____three movies so far this week. (s***e***e)
13. How long_____for me? (***you wait***)
14. I_____over Loch Ness last week. -_____the Loch Ness monster? (***fly, you see***)
15. I'm afraid I'm not hungry. I_____. (***already eat***)
16. Peter_____football in the afternoon when he got the call. (***play***)
17. "What_____between 9 and 12 yesterday morning", the detective said. (***you do***)
18. He kept looking at her, wondering where he_____her before. (***see***)
19. The doctor's waiting room was full of people. Some_____a magazine, a woman _____ and a child_____with a doll. Suddenly the door _____ and a nurse_____out. (***read, knit, play, open, come***)
20. Travelling_____much easier and more comfortable in the past hundred years. (***become***)
21. I_____cake. That's why my hands are full of flour. (***bake***)
22. When I first came to this house it_____quite a noisy area. (***be***)
23. He twisted his ankle while he_____. (***ski***)
24. _____ the doors before you leave the house? (***you ever lock***)
25. My best friend and I_____each other for 15 years. (***know***)
26. Jack usually_____but he_____when his father comes. (***smoke, not smoke***)
27. _____ breakfast yet? – Yes I had it together with Sue at 7. (***you have***)
28. I_____this kind of work when I was a small boy. (***do***)
29. He _____ the paper when his wife came home. (***read***)
30. He _____ for an hour now. I'll be finished soon. (***speak***)

31. How long_____John and Maria?- We met the couple over thirteen years ago. (***you know***)
32. He_____in Oxford for two years and when his mother died he moved to London. (***live***)
33. After Harry_____his work he_____Jude from the office. (***finish, call***)
34. You_____your homework for two hours. Haven't you finished yet? (***do***)
35. He always_____to the supermarket alone, but today he _____ his son with him. (***go, take***)
36. He never_____in the evening, only on Sundays. (***work***)
37. I _____ to South America but I have been to New York several times. (***never, be***)
38. _____ Jean? – No, she probably went to her friend's place. (***anyone, see***)
39. I _____ to the bank yesterday but when I got there it was closed. (***go***)

40. She _____ in school all day. (***be***)
41. Lee _____ late every day since Tuesday. (***be***)

42. Herbert's father _____ his son's birthday (***never forget***)

43. I_____my report because I had a problem with my computer. (***not finish).***

POEM 4: How to Tell Wild Animals

Central Idea of the Poem

The poem 'How to Tell Wild Animals' by Carolyn Wells revolves around the dangerous ways to identify the wild animals. The poet tries to distinguish one animal from the other in a humorous way. The poet suggests that its very risky to be in such a close proximity to these wild beasts. The poem is, thus, very educative as it tells us about various features of wild animals.

EXPLANATION OF THE POEM

Stanza 1

If ever you should go by chance
To jungles in the east;
And if there should to you advance
A large and tawny beast,
If he roars at you as you're dyin'
You'll know it is the Asian Lion ….

Explanation – The poet here cautions the readers against the wild beasts found in the jungle. He says that if by chance you happen to go to any forest in the east, you are likely to encounter a huge and terrible animal moving forward towards you. You will notice that it is brownish-yellow in colour. And if that beast roars loudly at you and you feel that you are going to die due to fear then you will come to know that it is the Asian lion.

Stanza 2

Or if some time when roaming round,
A noble wild beast greets you,
With black stripes on a yellow ground,
Just notice if he eats you.
This simple rule may help you learn
The Bengal Tiger to discern.

Explanation – The poet says that it is very likely that while roaming in the forest, you are greeted by a wild beast. This wild animal is very impressive in size and his majestic body is covered with black stripes on a yellow hide. The poet cautions that if the readers notice this beast and that if he eats them, then this simple rule will teach them that its is a 'Bengal Tiger'.

Stanza 3

If strolling forth, a beast you view,
Whose hide with spots is peppered,
As soon as he has lept on you,
You'll know it is the Leopard.

‘Twill do no good to roar with pain,
He’ll only lep and lep again.

Explanation – The poet here helps the readers to identify a Leopard. He says that if you happen to walk in the forest, you might encounter a beast with spots on his skin. When this wild beast will jump at you, you will understand that it is a Leopard as he will keep jumping on you and will tear you apart. Moreover, it will be of no use then to shout or cry with pain because he will continue pouncing on you. So, be careful and don’t allow it to leap on you.

Stanza 4

If when you’re walking round your yard
You meet a creature there,
Who hugs you very, very hard,
Be sure it is a Bear.
If you have any doubts, I guess
He’ll give you just one more caress.

Explanation – The poet says that while you are walking in your yard, you may encounter a creature there. When this creature hugs you very very tightly, then believe that it is a Bear. Bears are thought to be good wrestlers and can give a really tight hug. Although a friendly hug is referred to as Bear hug, if a real Bear hugs you, then it may not feel friendly at all. The Bear hugs a man to kill him. The poet further says that in case of any doubt you will find that the Bear will embrace you once again till death.

Stanza 5

Though to distinguish beasts of prey
A novice might nonplus,
The Crocodile you always may
Tell from the Hyena thus:
Hyenas come with merry smiles;
But if they weep they’re Crocodiles.

Exp – The poet here says that a rtpvice may be puzzled and confused and thus might not be able to distinguish between the different wild animals. Hence, the poet helps to differentiate the Crocodile from the Hyena. He says that a Hyena always laughs as it swallows its victim. A laughing Hyena’s voice resembles human’s laughing sound. A Crocodile on the other hand, is said to shed tears while eating its prey. The poet, thus, warns the readers to not wait for a Hyena to laugh or for a Crocodile to weep.

Stanza 6

The true Chameleon is small,
A lizard sort of things;
He hasn’t any ears at all,

And not a single wing.
If there is nothing on the tree,
‘Tis the Chameleon you see.

Exp – The poet describes a Chameleon in this stanza. He says a Chameleon is a small garden lazard. It doesn’t have ears or wings. The poet, further, says that if you are unable to see a thing on the tree, then chances are that a Chameleon is sitting there. A Chameleon is an expert at camouflage. It changes colour as per its surroundings and is therefore difficult to see. This capacity of camouflage helps the lizard in saving it from hunters.

Poetic Devices used in the Poem

- **Poetic License**
  - As soon as it has lept on you . He will only lep and lep again
  - T is the chameleon you see
    In the first instance it should have been “leapt” instead of “lept”. In the second stanza, the term ‘lep’ should have been spelt as “leap”. In the third instance, the line should have begun with “it” instead of‘ T’
- **Alliteration**
  - roaming round
  - lep and lep again
  - Who hugs you very very hard
  - A novice might nonplus

TENSES

Tenses denote the time of action. They show when the work is done. They are:

(1) Present Tense
(2) Past Tense
(3) Future Tense

They are further divided into:

(1) ***Simple Present-*** It is used to denote scientific facts, universal truths and work done on daily basis.

ASSERTIVE RULE --- sub + V1 + s/es + object

Example – She writes a letter.

NEGATIVE RULE --- sub + does not + v1 + s/es + object

Example – She does not write a letter.

INTERROGATIVE RULE --- Does + sub + v1 + s/es + object

Example – Does she write a letter?

INTERROGATIVE NEGATIVE ASSERTIVE --- Does + sub + not + v1 + s/es + object

Example – Does she not write a letter?

(2) ***Present Continuous***– It is used to express an action taking place at the time of speaking.

ASSERTIVE RULE --- sub + is/am/are + v1 + ing + object

Example – she is writing a letter.

NEGATIVE RULE --- sub + is/am/are + not + v1 + ing + object

Example – She is not writing a letter.

INTERROGATIVE RULE --- is/am/are + sub + v1 + ing + object

Example – Is she writing a letter?

INTERROGATIVE NEGATIVE RULE --- is/am/are + sub + not + v1 + ing + object

Example – Is she not writing a letter?

(3) ***Present Perfect***– It is used to show an action that started in the past and has just finished.

ASSERTIVE RULE --- sub + has/have + v3 + object

Example- She has written a letter.

NEGATIVE RULE --- sub + has/have + not + v3 + object

Example – She has not written a letter.

INTERROGATIVE RULE --- has/have + sub + v3 + object

Example- Has she written a letter?

INTERROGATIVE NEGATIVE RULE ---has/have + sub + not + v3 + object

Example– Has she not written a letter?

(4) ***Present Perfect Continuous***– This tense shows the action which started in the past and is still continuing.

ASSERTIVE RULE --- sub + has/have + been + v1 + ing + object

Example – She has been writing a letter.

NEGATIVE RULE --- sub + has/have + not been + v1 + ing + object

Example– She has not been writing a letter.

INTERROGATIVE RULE ---has/have + sub + been + v1 + ing + object

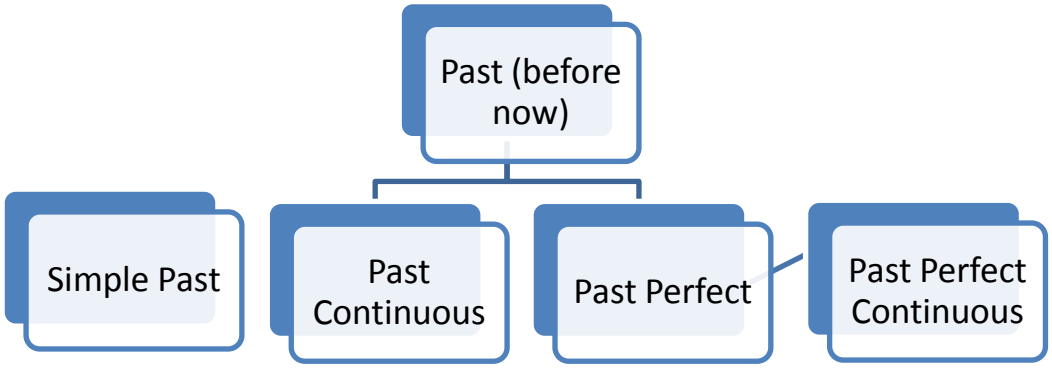
Example – Has she been writing a letter?

INTERROGATIVE NEGATIVE RULE --- has/have + she + not + been + v1 + ing + object

Example – Has she not been writing a letter?

Past Tense

Tense symbolizes the ever moving, non-stop wheel of time which is forever busy gathering moments of future and throwing them into the dustbin of past



Simple Past

Used to indicate an action completed in the past. It often occurs with adverb of time. Sometimes it is used without an adverb of time.

Used for past habits.

Eg. I played football when I was a child.

Rule: **Subject + V2**

Eg She wrote a letter

1. Assertive Sentences –
   Subject + V2 + Object + (.)
   She wrote a letter.
2. Negative Sentences-
   Subject + didn't + V1 + Object + (.)
   She didn't.write a letter.
3. Interrogative Sentences-
   Did + Subject + V1 + Object + (?)
   Did she write a letter?

4. Interrogative Negative Sentences-
   Did + Subject + not + V1 + Object + (?)
   Did she not write a letter?

Past Continuous Tense

Used to denote an action going on at some time in the past.

e.g. I was driving a car.

Rule: was/were + ing

1. Assertive Sentences –
   Subject + was/were +V1+ ing + Object + (.)
   She was writing a letter.
2. Negative Sentences-
   Subject + was/were + not + ing + Object + (.)
   She was not writing a letter.
3. Interrogative Sentences-
   Was/were + Subject + ing+ Object + (?)
   Was she writing a letter?
4. Interrogative Negative Sentences-
   Was/were + Subject + not + ing+ Object + (?)
   Was she not writing a letter?

Past Perfect Tense

Used to describe an action completed before a certain moment in the past, usually a long time ago. If two actions happened in the past, past perfect is used to show the action that took place earlier.

e.g. The patient had died before the doctor came.

1. Assertive Sentences –
   Subject + had + V3 + Object + (.)
   She had written a letter.
2. Negative Sentences-
   Subject + had + not + Object + (.)
   She had not written a letter.

3. Interrogative Sentences-
   Had + Subject + V3 + Object + (?)
   Had she written a letter?
4. Interrogative Negative Sentences-
   Had + Subject + not + V3 + Object + (?)
   Had she not written a letter?

Past Perfect Continuous Tense

Used to denote an action that began before a certain point in the past and continued up to some time in past.

e.g. I had been learning English in this school for 20 days.

1. Assertive Sentences –
   Subject + had been +V1 + ing + Object + (.)
   She had been writing a letter.
2. Negative Sentences-
   Subject + had + not been + V1+ ing + Object + (.)
   She had not been writing a letter.
3. Interrogative Sentences-
   Had + Subject+ been+ V1 + ing + Object + (?)

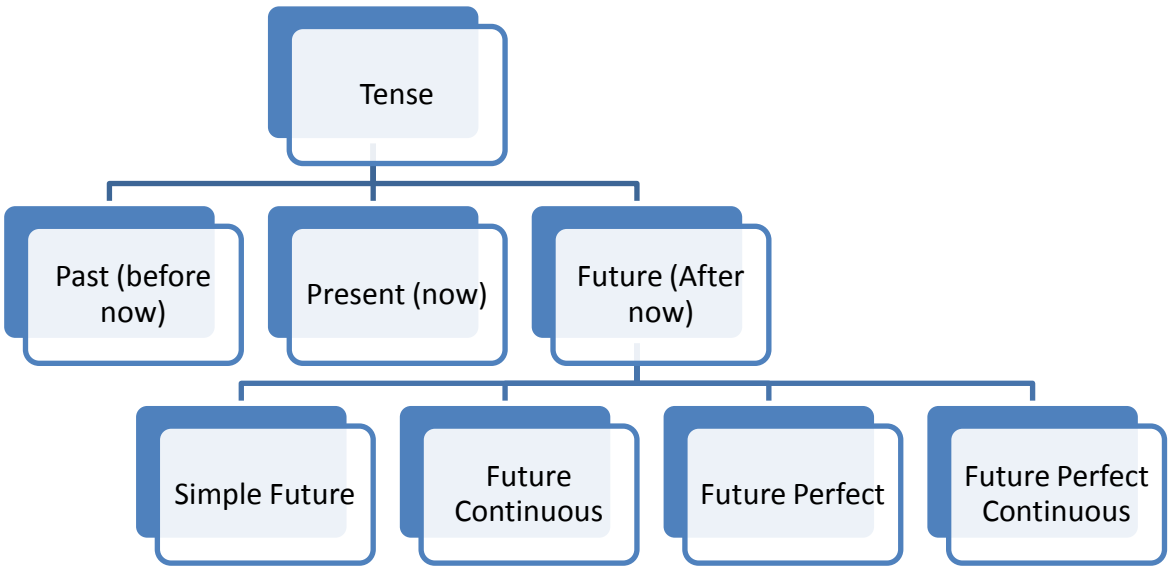
   Had she been writing a letter?

4. Interrogative Negative Sentences-
   Had + Subject +not + been + V1 + ing + Object + (?)
   Had she not been writing a letter?

FUTURE TENSE

Time and tide wait for no man. So, a period of time following the moment of speaking or writing is called as future tense.

For e.g- She will write a letter.



Simple Future

This tense tells us about an action which has not occurred yet and will occur after saying or in future

Rule – **Will/Shall + Verb (Ist form)**

In Future Tense helping verb ‘Shall’ is used with ‘I’ and ‘We’. Helping verb ‘Will’ is used with all others. When you are to make a commitment or warn someone or emphasize something, use of 'will/shall' is reversed. ‘Will’ is used with ‘I’ & ‘We’ and 'shall' is used with others.

In general speaking there is hardly any difference between 'shall & will' and normally ‘Will’ is used with all.

Now, let us use this rule in various forms of sentences;

1. Positive / Affirmative Sentences –
   Subject + Will/Shall + Verb (Ist form) + Object + (.)
   She will write a letter.
2. Negative Sentences-
   Subject + Will/Shall + Not + Verb (Ist form) + Object + (.)
   She will not write a letter.
3. Interrogative Sentences-
   Will/Shall + Subject + Verb (Ist form) + Object + (?)
   Will she write a letter?
4. Interrogative Negative Sentences-
   Will/Shall + Subject + Not + Verb (Ist form) + Object + (?)
   Will she not write a letter?

Future Continuous Tense

It is used to express an ongoing or continued action in future.
e.g. He will be distributing sweets in temple tomorrow at 12 o'clock.
In the example, the action will start in future (tomorrow) and action is thought to be continued till sometime in future.

We use the future continuous to talk about something that will be in progress at or around a time in the future.

Rule: **Will/Shall + Be + Verb (Ist form) + Ing**

Now, let us use this rule in various forms of sentences;

1. Positive / Affirmative Sentences –
   Subject + Will/Shall + Be + Verb (Ist form) + Ing + Object + (.)
   She will be writing a letter.
2. Negative Sentences-
   Subject + Will/Shall + Not + Be + Verb (Ist form) + Ing + Object + (.)
   She will not be writing a letter.
3. Interrogative Sentences-
   Will/Shall + Subject + Be + Verb (Ist form) + Ing + Object + (?)

Will she be writing a letter?

4. Interrogative Negative Sentences-
   Will/Shall + Subject + Not + Be + Verb (Ist form) + Ing + Object + (?)
   Will she not be writing a letter?

Future Perfect Tense

It is used to express an action which will happen/occur in future and will be completed by a certain time in future.

We use the future perfect to say that something will be finished by a particular time in the future.

e.g. They will have shifted the house by Sunday morning.

Rule: **Will/Shall + Have + Verb (3rd form)**

Now, let us use this rule in various forms of sentences;

1. Positive / Affirmative Sentences –
   Subject + Will/Shall + Have + Verb (3rd form) + Object + (.)
   She will have written a letter.
2. Negative Sentences-
   Subject + Will/Shall + Not + Have + Verb (3rd form) + Object + (.)
   She will not have written a letter.
3. Interrogative Sentences-
   Will/Shall + Subject + Have + Verb (3rd form) + Object + (?)
   Will she have written a letter?
4. Interrogative Negative Sentences-
   Will/Shall + Subject + Not + Have + Verb (3rd form) + Object + (?)
   Will she not have written a letter?

Future Perfect Continuous Tense

It is used to talk about actions that will commence at a fix time in future and will continue for some time in future.

If there is no time reference, then it is not a Future perfect continuous tense. Without continued time reference, such sentences are Future Continuous Tense. Continued time reference only differentiates between Future Continuous Tense and Future Perfect Continuous Tense.

The future perfect progressive emphasize the duration of an activity that will be in progress before another time or event in the future.

e.g. This time tomorrow, I will be enjoying the cricket match in the stadium.

It is also used to talk about planned actions or actions expected to happen.

e.g. They will be staying for a week's

The future perfect progressive emphasize the duration of an activity that will be in progress before another time or event in the future.

Rule: **Will/Shall + Have been + Verb (Ist form) + Ing**

Now, let us use this rule in various forms of sentences;

1. Positive / Affirmative Sentences –
   Subject + Will/Shall + Have been + Verb (Ist form) + Ing + Object + (.)
   She will have been writing a letter.
2. Negative Sentences-
   Subject + Will/Shall + Not + Have been + Verb (Ist form) + Ing + Object+ (.)
   She will not have been writing a letter.
3. Interrogative Sentences-
   Will/Shall + Subject + Have been + Verb (Ist form) + Ing + Object +(?)
   Will she have been writing a letter?
4. Interrogative Negative Sentences-
   Will/Shall + Subject + Not + Have been + Verb (Ist form) + Ing + Object +(?)
   Will she not have been writing a letter?

भावार्थ:

(1)
उधौ, तुम हौ अति बड़भागी।
अपरस रहत सनेह तगा तैं, नाहिन मन अनुरागी।
पुरइनि पात रहत जल भीतर, ता रस देह न दागी।
ज्यों जल माहँ तेल की गागरि, बूँद न ताकौं लागी।
प्रीति-नदी में पाँव न बोरयौ, दृष्टि न रूप परागी।
'सूरदास' अबला हम भोरी, गुर चाँटी ज्यों पागी।

अर्थ – इन पंक्तियों में गोपियाँ उद्धव से व्यंग्य करती हैं, कहती हैं कि तुम बहुत ही भाग्यशाली हो जो कृष्ण के पास रहकर भी उनके प्रेम और स्नेह से वंचित हो। तुम कमल के उस पत्ते के समान हो जो रहता तो जल में है परन्तु जल में डूबने से बचा रहता है। जिस प्रकार तेल की गगरी को जल में भिगोने पर भी उसपर पानी की एक भी बूँद नहीं ठहर पाती,ठीक उसी प्रकार तुम श्री कृष्ण रूपी प्रेम की नदी के साथ रहते हुए भी उसमें स्नान करने की बात तो दूर तुम पर तो श्रीकृष्ण प्रेम की एक छींट भी नहीं पड़ी। तुमने कभी प्रीति रूपी नदी में पैर नही डुबोए। तुम बहुत विद्यवान हो इसलिए कृष्ण के प्रेम में नही रंगे परन्तु हम भोली-भाली गोपिकाएँ हैं इसलिए हम उनके प्रति ठीक उस तरह आकर्षित हैं जैसे चीटियाँ गुड़ के प्रति आकर्षित होती हैं। हमें उनके प्रेम में लीन हैं।

(2)
मन की मन ही माँझ रही।
कहिए जाइ कौन पै ऊधौ, नाहीं परत कही।
अवधि असार आस आवन की,तन मन विथा सही।
अब इन जोग सँदेसनि सुनि-सुनि,विरहिनि विरह दही।
चाहति हुती गुहारि जितहिं तैं, उर तैं धार बही ।
'सूरदास'अब धीर धरहिं क्यौं,मरजादा न लही।।

अर्थ – इन पंक्तियों में गोपियाँ उद्धव से कहती हैं कि उनकी मन की बात मन में ही रह गयी। वे कृष्ण से बहुत कुछ कहना चाहती थीं परन्तु अब वे नही कह पाएंगी। वे उद्धव को अपने सन्देश देने का उचित पात्र नही समझती हैं और कहती हैं कि उन्हें बातें सिर्फ कृष्ण से कहनी हैं, किसी और को कहकर संदेश नहीं भेज सकती। वे कहतीं हैं कि इतने समय से कृष्ण के लौट कर आने की आशा को हम आधार मान कर तन मन, हर प्रकार से विरह की ये व्यथा सह रहीं थीं ये सोचकर कि वे आएँगे तो हमारे सारे दुख दूर हो जाएँगे। परन्तु श्री कृष्ण ने हमारे लिए ज्ञान-योग का संदेश भेजकर हमें और भी दुखी कर दिया। हम विरह की आग मे और भी जलने लगीं हैं। ऐसे समय में कोई अपने रक्षक को पुकारता है परन्तु हमारे जो रक्षक हैं वहीं आज हमारे दुःख का कारण हैं। हे उद्धव, अब हम धीरज क्यूँ धरें, कैसे धरें. जब हमारी आशा का एकमात्र तिनका भी डूब गया। प्रेम की मर्यादा है कि प्रेम के बदले प्रेम ही दिया जाए पर श्री कृष्ण ने हमारे साथ छल किया है उन्होने मर्यादा का उल्लंघन किया है।

(3)
हमारैं हरि हारिल की लकरी।
मन क्रम बचन नंद -नंदन उर, यह दृढ़ करि पकरी।
जागत सोवत स्वप्न दिवस – निसि, कान्ह- कान्ह जक री।
सुनत जोग लागत है ऐसौ, ज्यौं करुई ककरी।
सु तौ ब्याधि हमकौं लै आए, देखी सुनी न करी।
यह तौ 'सूर' तिनहिं लै सौपौं, जिनके मन चकरी ।।

अर्थ – इन पंक्तियों में गोपियाँ कहती हैं कि कृष्ण उनके लिए हारिल की लकड़ी हैं। जिस तरह हारिल पक्षी लकड़ी के टुकड़े को अपने जीवन का सहारा मानता है उसी प्रकार श्री कृष्ण भी गोपियों के जीने का आधार हैं। उन्होंने मन कर्म और वचन से नन्द बाबा के पुत्र कृष्ण को अपना माना है। गोपियाँ कहती हैं कि जागते हुए, सोते हुए दिन में, रात में, स्वप्न में हमारा रोम-रोम कृष्ण नाम जपता रहा है। उन्हें उद्धव का सन्देश कड़वी ककड़ी के समान लगता है। हमें कृष्ण के प्रेम का रोग लग चुका है अब हम आपके कहने पर योग का रोग नहीं लगा सकतीं क्योंकि हमने तो इसके बारे में न कभी सुना, न देखा और न कभी इसको भोगा ही है। आप जो यह योग सन्देश लायें हैं वो उन्हें जाकर सौपें जिनका मन चंचल हो चूँकि हमारा मन पहले ही कहीं और लग चुका है।

(4)
हरि हैं राजनीति पढ़ि आए।
समुझी बात कहत मधुकर के, समाचार सब पाए।
इक अति चतुर हुते पहिलैं हीं , अब गुरु ग्रंथ पढाए।
बढ़ी बुद्धि जानी जो उनकी , जोग-सँदेस पठाए।
ऊधौ भले लोग आगे के , पर हित डोलत धाए।
अब अपने मन फेर पाइहैं, चलत जु हुते चुराए।
तें क्यौं अनीति करैं आपुन ,जे और अनीति छुड़ाए।
राज धरम तौ यहै ' सूर', जो प्रजा न जाहिं सताए।।

अर्थ – गोपियाँ कहतीं हैं कि श्री कृष्ण ने राजनीति पढ़ ली है। गोपियाँ बात करती हुई व्यंग्यपूर्वक कहती हैं कि वे तो पहले से ही बहुत चालाक थे पर अब उन्होंने बड़े-बड़े ग्रन्थ पढ़ लिए हैं जिससे उनकी बुद्धि बढ़ गई है तभी तो हमारे बारे में सब कुछ जानते हुए भी उन्होंने हमारे पास उद्धव से योग का सन्देश भेजा है। उद्धव जी का इसमे कोई दोष नहीं है, ये भले लोग हैं जो दूसरों के कल्याण करने में आनन्द का अनुभव करते हैं। गोपियाँ उद्धव से कहती हैं की आप जाकर कहिएगा कि यहाँ से मथुरा जाते वक्त श्रीकृष्ण हमारा मन भी अपने साथ ले गए थे, उसे वे वापस कर दें। वे अत्याचारियों को दंड देने का काम करने मथुरा गए हैं परन्तु वे स्वयं अत्याचार करते हैं। आप उनसे कहिएगा कि एक राजा को हमेशा चाहिए की वो प्रजा की हित का ख्याल रखे। उन्हें किसी प्रकार का कष्ट नहीं पहुँचने दे, यही राजधर्म है।

कवि परिचय

सूरदास

इनका जन्म सन 1478 में माना जाता है। एक मान्यता के अनुसार इनका जन्म मथुरा के निकट रुनकता या रेणुका क्षेत्र में हुआ था जबकि दूसरी मान्यता के अनुसार इनका जन्म स्थान दिल्ली के पास सीही माना जाता है। महाप्रभु वल्लभाचार्य के शिष्य सूरदास अष्टछाप के कवियों में सर्वाधिक प्रसिद्ध हैं। सुर 'वात्सल्य' और 'श्रृंगार' के श्रेष्ठ कवि माने जाते हैं। इनकी मृत्यु 1583 में पारसौली में हुई।

प्रमुख कार्य

ग्रन्थ – सूरसागर, साहित्य लहरी और सूर सारावली।

कठिन शब्दों के अर्थ

- बड़भागी – भाग्यवान
- अपरस – अछूता
- तगा – धागा
- पुरइन पात – कमल का पत्ता
- माहँ – में
- पाऊँ – पैर
- बोरयौ – डुबोया
- परागी – मुग्ध होना
- अधार – आधार
- आवन – आगमन
- बिरहिनि – वियोग में जीने वाली।
- हुतीं – थीं
- जीतहिं तैं – जहाँ से
- उत – उधर
- मरजादा – मर्यादा
- न लही – नहीं रही
- जक री – रटती रहती हैं
- सु – वह
- ब्याधि – रोग
- करी – भोगा
- तिनहिं – उनको
- मन चकरी – जिनका मन स्थिर नही रहता।
- मधुकर – भौंरा
- हुते – थे
- पठाए – भेजा

• आगे के – पहले के
• पर हित – दूसरों के कल्याण के लिए
• डोलत धाए – घूमते-फिरते थे
• पाइहैं – पा लेंगी।

प्रश्नोत्तरी :
पृष्ठ संख्या: 7
प्रश्न अभ्यास
1. गोपियों द्वारा उद्धव को भाग्यवान कहने में क्या व्यंग्य निहित है?

उत्तर

गोपियों द्वारा उद्धव को भाग्यवान कहने में यह व्यंग्य निहित है कि उद्धव वास्तव में भाग्यवान न होकर अति भाग्यहीन हैं। वे कृष्णरूपी सौन्दर्य तथा प्रेम-रस के सागर के सानिध्य में रहते हुए भी उस असीम आनंद से वंचित हैं। वे प्रेम बंधन में बँधने एवं मन के प्रेम में अनुरक्त होने की सुखद अनुभूति से पूर्णतया अपरिचित हैं।

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

उत्तर

गोपियों ने उद्धव के व्यवहार की तुलना निम्नलिखित उदाहरणों से की है –

(1)गोपियों ने उद्धव के व्यवहार की तुलना कमल के पत्ते से की है जो नदी के जल में रहते हुए भी जल की ऊपरी सतह पर ही रहता है। अर्थात् जल का प्रभाव उस पर नहीं पड़ता। श्री कृष्ण का सानिध्य पाकर भी वह श्री कृष्ण के प्रभाव से मुक्त हैं।
(2)वह जल के मध्य रखे तेल के गागर (मटके) की भाँति हैं, जिस पर जल की एक बूँद भी टिक नहीं पाती। उद्धव पर श्री कृष्ण का प्रेम अपना प्रभाव नहीं छोड़ पाया है, जो ज्ञानियों की तरह व्यवहार कर रहे हैं।

3. गोपियों ने किन-किन उदाहरणों के माध्यम से उद्धव को उलाहने दिए हैं?

उत्तर

गोपियों ने कमल के पत्ते, तेल की मटकी और प्रेम की नदी के उदाहरणों के माध्यम से उद्धव को उलाहने दिए हैं। उनका कहना है की वे कृष्ण के साथ रहते हुए भी प्रेमरूपी नदी में उतरे ही नहीं, अर्थात साक्षात प्रेमस्वरूप श्रीकृष्ण के पास रहकर भी वे उनके प्रेम से वंचित हैं ।

4. उद्धव द्वारा दिए गए योग के संदेश ने गोपियों की विरहाग्नि में घी का काम कैसे किया?

उत्र

गोपियाँ कृष्ण के आगमन की आशा में दिन गिनती जा रही थीं। वे अपने तन-मन की व्यथा को चुपचाप सहती हुई कृष्ण के प्रेम रस में डूबी हुई थीं। कृष्ण को आना था परन्तु उन्हों ने योग का संदेश देने के लिए उद्धव को भेज दिया। विरह की अग्नि में जलती हुई गोपियों को जब उद्धव ने कृष्ण को भूल जाने और योग-साधना करने का उपदेश देना प्रारम्भ किया, तब गोपियों की विरह वेदना और भी बढ़ गयी । इस प्रकार उद्धव द्वारा दिए गए योग के संदेश ने गोपियों की विरह अग्नि में घी का काम किया।

5. 'मरजादा न लही' के माध्यम से कौन-सी मर्यादा न रहने की बात की जा रही है?

उत्तर

'मरजादा न लही' के माध्यम से प्रेम की मर्यादा न रहने की बात की जा रही है। कृष्ण के मथुरा चले जाने पर गोपियाँ उनके वियोग में जल रही थीं। कृष्ण के आने पर ही उनकी विरह-वेदना मिट सकती थी, परन्तु कृष्ण ने स्वयं न आकर उद्धव को यह संदेश देकर भेज दिया की गोपियाँ कृष्ण का प्रेम भूलकर योग-साधना में लग जाएँ । प्रेम के बदले प्रेम का प्रतिदान ही प्रेम की मर्यादा है, लेकिन कृष्ण ने गोपियों की प्रेम रस के उत्तर मैं योग की शुष्क धारा भेज दी । इस प्रकार कृष्ण ने प्रेम की मर्यादा नहीं रखी । वापस लौटने का वचन देकर भी वे गोपियों से मिलने नहीं आए ।

6. कृष्ण के प्रति अपने अनन्य प्रेम को गोपियों ने किस प्रकार अभिव्यक्त किया है ?

उत्तर

गोपियों ने कृष्ण के प्रति अपने अनन्य प्रेम को हारिल पक्षी के उदाहरण के माध्यम से अभिव्यक्त किया है। वे अपनों को हारिल पक्षी व श्रीकृष्ण को लकड़ी की भाँति बताया है। जिस प्रकार हारिल पक्षी सदैव अपने पंजे में कोई लकड़ी अथवा तिनका पकड़े रहता है, उसे किसी भी दशा में नहीं छोड़ता। उसी प्रकार गोपियों ने भी मन, कर्म और वचन से कृष्ण को अपने हृदय में दृढ़तापूर्वक बसा लिया है। वे जागते, सोते स्वप्नावस्था में, दिन-रात कृष्ण-कृष्ण की ही रट लगाती रहती हैं। साथ ही गोपियों ने अपनी तुलना उन चीटियों के साथ की है जो गुड़ (श्रीकृष्ण भक्ति) पर आसक्त होकर उससे चिपट जाती है और फिर स्वयं को छुड़ा न पाने के कारण वहीं प्राण त्याग देती है।

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

उत्तर

गोपियों ने उद्धव से योग की शिक्षा ऐसे लोगों को देने की बात कही है जिनका मन चंचल है और इधर-उधर भटकता है। उद्धव अपने योग के संदेश में मन की एकाग्रता का उपदेश देतें हैं, परन्तु गोपियों का मन तो कृष्ण के अनन्य प्रेम में पहले से ही एकाग्र है। इस प्रकार योग-साधना का उपदेश उनके लिए निरर्थक है। योग की आवश्यकता तो उन्हें है जिनका मन स्थिर नहीं हो पाता, इसीलिये गोपियाँ चंचल मन वाले लोगों को योग का उपदेश देने की बात कहती हैं।

8. प्रस्तुत पदों के आधार पर गोपियों का योग-साधना के प्रति दृष्टिकोण स्पष्ट करें।

उत्तर

प्रस्तुत पदों में योग साधना के ज्ञान को निरर्थक बताया गया है। यह ज्ञान गोपियों के अनुसार अव्यवाहरिक और अनुपयुक्त है। उनके अनुसार यह ज्ञान उनके लिए कड़वी ककड़ी के समान है जिसे निगलना बड़ा ही मुश्किल है। सूरदास जी गोपियों के माध्यम से आगे कहते हैं कि ये एक बीमारी है। वो भी ऐसा रोग जिसके बारे में तो उन्होंने पहले कभी न सुना है और न देखा है। इसलिए उन्हें इस ज्ञान की आवश्यकता नहीं है। उन्हें योग का आश्रय तभी लेना पड़ेगा जब उनका चित्त एकाग्र नहीं होगा। परन्तु कृष्णमय होकर यह योग शिक्षा तो उनके लिए अनुपयोगी है। उनके अनुसार कृष्ण के प्रति एकाग्र भाव से भक्ति करने वाले को योग की ज़रूरत नहीं होती।

9. गोपियों के अनुसार राजा का धर्म क्या होना चाहिए ?

उत्तर

गोपियों के अनुसार राजा का धर्म उनकी प्रजा की हर तरह से रक्षा करना तथा नीति से राजधर्म का पालन करना होता है। एक राजा तभी अच्छा कहलाता है जब वह अनीती का साथ न देकर नीती का साथ दे।

10. गोपियों को कृष्ण में ऐसे कौन सा परिवर्तन दिखाई दिए जिनके कारण वे अपना मन वापस पा लेने की बात कहती हैं ?

उत्तर

गोपियों को लगता है कि कृष्ण ने अब राजनीति सिख ली है। उनकी बुद्धि पहले से भी अधिक चतुर हो गयी है। पहले वे प्रेम का बदला प्रेम से चुकाते थे, परंतु अब प्रेम की मर्यादा भूलकर योग का संदेश देने लगे हैं। कृष्ण पहले दूसरों के कल्याण के लिए समर्पित रहते थे, परंतु अब अपना भला ही देख रहे हैं। उन्होंने पहले दूसरों के अन्याय से लोगों को मुक्ति दिलाई है, परंतु अब नहीं। श्रीकृष्ण गोपियों से मिलने के बजाय योग के शिक्षा देने के लिए उद्धव को भेज दिए

हैं। श्रीकृष्ण के इस कदम से गोपियों के मन और भी आहत हुआ है। कृष्ण में आये इन्ही परिवर्तनों को देखकर गोपियाँ अपनों को श्रीकृष्ण के अनुराग से वापस लेना चाहती है।

11. गोपियों ने अपने वाक्चातुर्य के आधार पर ज्ञानी उद्धव को परास्त कर दिया, उनके वाक्चातुर्य की विशेषताएँ लिखिए?

उत्तर

गोपियों के वाक्चातुर्य की विशेषताएँ इस प्रकार है –
(1) तानों द्वारा (उपालंभ द्वारा) – गोपियाँ उद्धव को अपने तानों के द्वारा चुप करा देती हैं। उद्धव के पास उनका कोई जवाब नहीं होता। वे कृष्ण तक को उपालंभ दे डालती हैं। उदाहरण के लिए –
इक अति चतुर हुते पहिलैं ही, अब गुरु ग्रंथ पढ़ाए।
बढ़ी बुद्धि जानी जो उनकी, जोग-सँदेस पठाए।
(2) तर्क क्षमता – गोपियों ने अपनी बात तर्क पूर्ण ढंग से कही है। वह स्थान-स्थान पर तर्क देकर उद्धव को निरुत्तर कर देती हैं। उदाहरण के लिए –
"सुनत जोग लागत है ऐसौ, ज्यौं करुई ककरी।"
सु तौ ब्याधि हमकौं लै आए, देखी सुनी न करी।
यह तौ 'सूर' तिनहि लै सौंपौ, जिनके मन चकरी।।
(3) व्यंग्यात्मकता – गोपियों में व्यंग्य करने की अद्‌भुत क्षमता है। वह अपने व्यंग्य बाणों द्वारा उद्धव को घायल कर देती हैं। उनके द्वारा उद्धव को भाग्यवान बताना उसका उपहास उड़ाना था।
(4) तीखे प्रहारों द्वारा – गोपियों ने तीखे प्रहारों द्वारा उद्धव को प्रताड़ना दी है।

12. संकलित पदों को ध्यान में रखते हुए सूर के भ्रमरगीत की मुख्य विशेषताएँ बताइये।

उत्तर

सूरदास मधुर तथा कोमल भावनाओं का मार्मिक चित्रण करने वाले महाकवि हैं। सूर के 'भ्रमरगीत' में अनुभूति और शिल्प दोनों का ही मणि-कांचन संयोग हुआ है। इसकी मुख्य विशेषताएँ इसप्रकार हैं –

भाव-पक्ष – 'भ्रमरगीत' एक भाव-प्रधान गीतिकाव्य है। इसमें उदात्त भावनाओं का मनोवैज्ञानिक चित्रण हुआ है। भ्रमरगीत में गोपियों ने भौंरें को माध्यम बनाकर ज्ञान पर भक्ति की श्रेष्ठता का प्रतिपादन किया है। अपनी वचन-वक्रता, सरलता, मार्मिकता, उपालंभ, व्यगात्मकथा, तर्कशक्ति आदि के द्वारा उन्होंने उद्धव के ज्ञान योग को तुच्छ सिद्ध कर दिया है। 'भ्रमरगीत' में सूरदास ने विरह के समस्त भावों की स्वाभाविक एवं मार्मिक व्यंजना की हैं।

कला-पक्ष – 'भ्रमरगीत' की कला-पक्ष अत्यंत सशक्त, प्रभावशाली और रमणीय है।

भाषा-शैली – 'भ्रमरगीत' में शुद्ध साहित्यिक ब्रजभाषा का प्रयोग हुआ है।

अलंकार – सूरदास ने 'भ्रमरगीत' में अनुप्रास, उपमा, दृष्टांत, रूपक, व्यतिरेक, विभावना, अतिशयोक्ति आदि अनेक अलंकारों का सुन्दर प्रयोग किया है।

छंद-विधान – 'भ्रमरगीत' की रचना 'पद' छंद में हुई है। इसके पद स्वयं में स्वतंत्र भी हैं और परस्पर सम्बंधित भी हैं।

संगीतात्मकथा – सूरदास कवि होने के साथ-साथ सुप्रसिद्ध गायक भी थे। यही कारण है कि 'भ्रमरगीत' में भी संगीतात्मकथा का गुण सहज ही दृष्टिगत होता है।

रचना और अभिव्यक्ति

14. उद्धव ज्ञानी थे, नीति की बातें जानते थे; गोपियों के पास ऐसी कौन-सी शक्ति थी जो उनके वाक्चातुर्य में मुखिरत हो उठी?

उत्तर

गोपियों के पास श्री कृष्ण के प्रति सच्चे प्रेम तथा भक्ति की शक्ति थी जिस कारण उन्होंने उद्धव जैसे ज्ञानी तथा नीतिज्ञ को भी अपने वाक्चातुर्य से परास्त कर दिया।

15. गोपियों ने यह क्यों कहा कि हरि अब राजनीति पढ़ आए हैं? क्या आपको गोपियों के इस कथन का विस्तार समकालीन राजनीति में नज़र आता है, स्पष्ट कीजिए।

उत्तर

गोपियों ने ऐसा इसलिए कहा है क्योंकि श्री कृष्ण ने सीधी सरल बातें ना करके रहस्यातमक ढंग से उद्धव के माध्यम से अपनी बात गोपियों तक पहुचाई है। गोपियों का कथन कि हरि अब राजनीति पढ़ आए हैं आजकल की राजनीति में नजर आ रहा है। आज के नेता भी अपने बातों को घुमा फिरा कर कहते हैं जिस तरह कृष्ण ने उद्धव द्वारा कहना चाहा। वे सीधे-सीधे मुद्दे और काम को स्पष्ट नही करते बल्कि इतना घुमा देते हैं कि जनता समझ नही पाता। दूसरी तरफ यहाँ गोपियों ने राजनीति शब्द को व्यंग के रूप में कहा है। आज के समय में भी राजनीति शब्द का अर्थ व्यंग के रूप में लिया जाता है।

CHAPTER 1 – CIVICS

POWER SHARING

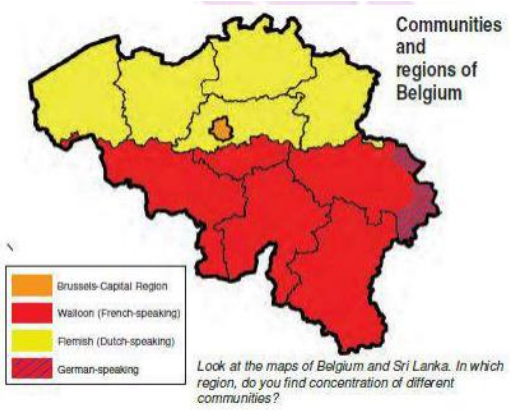
Topics in the chapter:

- Story of Belgium
- Story of Sri Lanka
- Majoritarianism in Sri Lanka
- Accommodation in Belgium
- Why power sharing is desirable?
- Forms of power sharing

Terms you need to know:

- **Ethnic:** A social division based on shared culture. People belonging to the same ethnic group need not always have same religion or nationality.
- **Civil War:** A violent conflict between opposing groups within our country that becomes so intense that it appears like a war.
- **Majoritarianism:** It is a belief that the majority community should be able to rule a country in whichever way it wants.
- **Community Government:** A type of Government which is elected by people belonging to one language community is called community government.
- **Prudential:** It involves decision making based on prudence, or on a careful calculation of gains and losses.
- **Checks and Balances:** In this system, each organ of the government checks the others which results in a balance of power among various institutions
- **Reserved Constituencies:** In this, the constituencies are reserved in the Assemblies and the Parliament for minorities in order to give them a fair share in power.
- **Coalition government:** When the alliance of two or more parties gets elected and forms a government it is known as the Coalition Government.

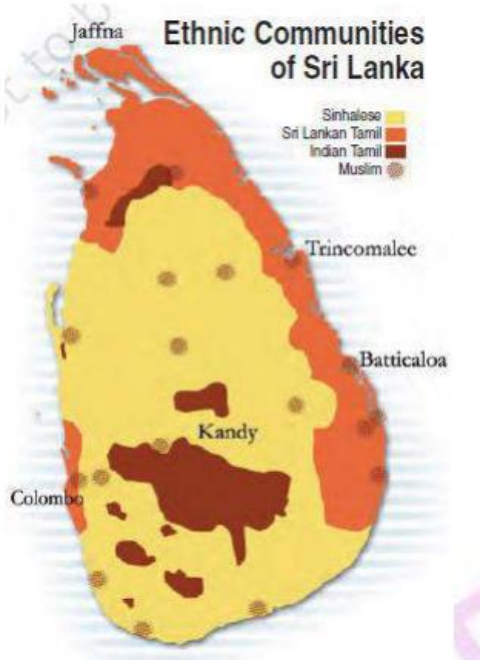
STORY OF BELGIUM



Look at the maps of Belgium and Sri Lanka. In which region, do you find concentration of different communities?

- Belgium is a small country in Europe, smaller in area than the state of Haryana.
- It has borders with France, the Netherlands, Germany and Luxembourg.
- It has a population of a little over one crore , about half the population of Haryana.
- The ETHNIC composition of this small country is very complex.
    - 59 per cent lives in the Flemish region and speaks Dutch language.
    - 40 per cent people live in the Wallonia region and speak French.
    - Remaining one per cent of the Belgians speak German.
    - In the capital city Brussels, 80 per cent people speak French while 20 per cent are Dutch-speaking.
- The minority French-speaking community was relatively rich and powerful. This was resented by the Dutch-speaking community who got the benefit of economic development and education much later.
- This led to tensions between the Dutch-speaking and French-speaking communities during the 1950s and 1960s.

STORY OF SRILANKA



- Sri Lanka is an island nation, just a few kilometres off the southern coast of Tamil Nadu. It has about two crore people, about the same as in Haryana.
- Like other nations in the South Asia region, Sri Lanka has a diverse population.
    - The major social groups are the Sinhala-speakers (74 per cent) and the Tamil-speakers (18 per cent).
- Among Tamils there are two sub-groups.
    - Tamil natives of the country are called 'Sri Lankan Tamils' (13 per cent).
    - The rest, whose forefathers came from India as plantation workers during colonial period, are called 'Indian Tamils'.
- Sri Lankan Tamils are concentrated in the north and east of the country.
    - Most of the Sinhala-speaking people are Buddhists, while most of the Tamils are Hindus or Muslims.
    - There are about 7 per cent Christians, who are both Tamil and Sinhala.

MAJORITARIANISM IN SRI LANKA

- Sri Lanka emerged as an independent country in 1948.
- The Sinhala community was in the majority so they had formed the government.
    - They followed preferential policies that favored Sinhala applicants for university positions and government jobs.
    - These decisions gradually increased the feeling of alienation among the Sri Lankan Tamils.
    - Sri Lankan Tamils launched parties and struggles for the recognition of Tamil as an official language, for regional autonomy and equality of opportunity in securing education and jobs.

- But their demand was repeatedly denied by the government. The distrust between the two communities turned into widespread conflict and turned into a **CIVIL WAR**.
- As a result, thousands of people of both the communities have been killed. Many families were forced to leave the country as refugees and many more lost their livelihoods.
- The civil war ended in 2009 and caused a terrible setback to the social, cultural and economic life of the country.

ACCOMMODATION IN BELGIUM

- Between 1970 and 1993, Belgian leaders amended their constitution four times so as to work out an arrangement that would enable everyone to live together.

❖ Elements of the Belgian model:

- Constitution prescribes that the number of Dutch and French-speaking ministers shall be equal in the central government. No single community can make decisions unilaterally.
- Many powers of the central government have been given to state governments of the two regions of the country. The state governments are not subordinate to the Central Government.
- Brussels has a separate government in which both the communities have equal representation. The French-speaking people accepted equal representation in Brussels because the Dutch-speaking community has accepted equal representation in the Central Government.
- There is also provision of 'community government' is elected by people belonging to one language community – Dutch, French and German-speaking – no matter where they live. This government has the power regarding cultural, educational and language-related issues.

WHAT HAVE YOU LEARNT FROM THE STORIES OF BELGIUM AND SRI LANKA?

- Both countries are democracies but they dealt differently with the concept of power sharing.
- In Belgium, the leaders have realized that the unity of the country is possible only by respecting the feelings and interests of different communities and regions. This resulted in mutually acceptable arrangements for sharing power.
- Sri Lanka shows that, if a majority community wants to force its dominance over others and refuses to share power, it can undermine the unity of the country.

WHY POWER SHARING IS DESIRABLE?

- Two different sets of reasons can be given in favour of power sharing.
    - Firstly, power sharing is good because it helps to reduce the possibility of conflict between social groups. Since social conflict often leads to violence and political instability, power sharing is a good way to ensure the stability of political order. **This is also known as PRUDENTIAL reason for power sharing.**
    - Power sharing is the very spirit of democracy. A democratic rule involves sharing power with those affected by its exercise, and who have to live with its effects. **This is also known as moral reason for power sharing.**

FORMS OF POWER-SHARING

One basic principle of democracy is that people are the source of all political power. In a democracy, people rule themselves through institutions of self-government.

In democracy everyone has a voice in the shaping of public policies.

- **Some of the most common arrangements of power sharing in democracy are :-**
    1. **Power is shared among different organs of government, such as the legislature, executive and judiciary.**
        a. This is called horizontal distribution of power because it allows different organs of government placed at the same level to exercise different powers.
        b. Such separation ensures that none of the organs can exercise unlimited power. Each organ checks the others. This arrangement is called a system of checks and balances. Ex- India
    2. **Power can be shared among governments at different levels** –
        a. A general government for the entire country and governments at the provincial or regional level which is called federal government.
        b. In India, we refer to it as the Central or Union Government. The governments at the provincial or regional level are called by different names in different countries. In India, we call them State Governments.

    3. Power may also be shared among different social groups

        a. Such as the religious and linguistic groups. 'Community government' in Belgium is a good example of this arrangement. This method is used to give minority communities a fair share in power.

4. **Power sharing arrangements can also be seen in the way political parties, pressure groups and movements control or influence those in power**.
    a. When two or more parties form an alliance to contest elections and if they get elected, they form a coalition government and thus share power.
    b. In a democracy, we find interest groups such as those of traders, businessmen, industrialists, farmers and industrial workers.
    c. They also will have a share in governmental power, either through participation in governmental committees or bringing influence on the decision-making process.

**********ASSIGNMENT**********

Answer the following questions

Multiple Choice Questions of POWER SHARING

1. Which of the following is an example of horizontal sharing of power?
(a) Power sharing between different states.
(b) Power sharing between different organs of the government.
(c) Power sharing between different levels of the government.

(d) Power sharing between different political parties.

2. Who elects the community government in Belgium?
(a) People belonging to one language community only.
(b) By the leader of Belgium.
(c) The citizens of the whole country.
(d) The community leaders of Belgium.

3. The Community Government signifies:
(a) The powers of government regarding community development.
(b) The powers ofthegovemmentregarding law making for the community.

(c) The powers of the government regarding cultural, educational and language related issues.
(d) The government enjoys privileges to safeguard the interest of a particular community.

4. The word 'ethnic' signifies:
(a) different religions.
(b) social division on shared culture.
(c) a violent conflict between opposite groups.
(d) a careful calculation of gains and losses.

5. Power sharing is:
(a) the very spirit of democracy
(b) separation of powers at different levels.
(c) system of checks and balances.
(d) a type of balancing powers.

6. Choose the correct option:
Power sharing is desirable because it helps:
(a) To increase pressure on government.
(b) To reduce possibilities of conflicts.
(c) To generate awareness among people.
(d) To increase percentage of voters.

7. System of 'checks and balances' means:
(a) Horizontal distribution of powers.
(b) Separation of powers.
(c) Put a check on the exercise of unlimited powers of the organs of government by maintaining a balance of power among various institutions.
(d) Federal division of powers

8. Which of the following features are common to Indian and Belgian form of power-sharing arrangements?
A. Power is shared among governments at different levels.

B. Power is shared among different organs of government.
C. Power is shared among different social groups.
D. Power is shared among different parties and takes the form of competition.
(a) A, B, C, D
(b) B, C and D
(c) A and C
(d) A, C and D

9. In dealing with power sharing, which one of the following statements is NOT correct about democracy?
(a) People are the source of all political power. !
(b) In a democracy, people rule themselves j through institutions of self-governance.
(c) In a democracy, due respect is given to diverse groups and views that exist in a society.

(d) In a democracy, if the power to decide is dispersed, it is not possible to take quick decisions and enforce them.

10. A belief that the majority community should be able to rule a country in whichever way it wants, by disregarding the wishes and needs of the minority is:
(a) Power Sharing
(b) Central Government
(c) Majoritarianism
(d) Community Government

11. A system of 'checks and balances' is another name for which one of the following power-sharing arrangements:
(a) Power sharing among different social groups.
(b) Vertical division of power or power shared among different levels of government.
(c) Horizontal division of power or power shared among different organs of the government.
(d) Power sharing in the form of political parties, pressure groups and governments.

12. Which one of the following statements about power-sharing arrangements is correct?
(a) Power sharing is necessary only in societies which have religious, linguistic or ethnic divisions.
(b) Power sharing is suitable only for big countries that have regional divisions.
(c) Every society needs some form of power sharing even if it is small or does not have social divisions.
(d) Power-sharing is not necessary at all.

13. Consider the following statements about the
ethnic composition of Sri Lanka:
A. Major social groups are the Sinhala- speaking (74%) and Tamil-speaking (18%)?
B. Among the Tamils, there are two sub-groups, Sri Lankan Tamils and Indian Tamils.
C. There are about 7% Christians, who are both Tamil and Sinhala.
D. Most of the Sinhala-speaking are Hindus or Muslims and most of the Tamil-speaking are Buddhists.
Which of the above statements are correct?
(a) A, B, C
(b) A, B, D
(c) B, C, D
(d) A, B, C, D

14. Prudential reasons of power sharing stress on the facts that:
A. It ensures the stability of political order.
B. It reduces the possibility of conflict between social groups.
C. It gives a fair share to minority.
D. It is the very spirit of democracy.
Which of the above statements are correct?
(a) A, B
(b) A, C and D
(c) All are correct
(d) A, B & C

15. Sinhala was recognised as the only official language by the _____ .

16. A government for the entire country is usually called _____ .

17. A belief that the maj ority community should be able to rule country in whichever way they want, by disregarding the wishes and needs of minority is known as _____ .

18. _____ is referred to as social division based on culture and language.

19. Community government is a very specific type of government in _____ .

20. _____ was amended four times between 1970 and 1993.

21. Power sharing is the distribution of powers at only one level of government. (True/False)

22. Power sharing arrangement among the different organs of the government is known as horizontal sharing. (True/False)

23. Belgium successfully solved its problem by Community Government. (True/False)

24. Two languages spoken in Sri Lanka are English and Sinhalese. (True/False)

25. Match the columns

Column A	Column B
(a) Coalition Government	(i) Each organ of the government checks the other
(b) Civil War	(ii) Government of more than two political parties
(c) Check and Balance	(iii) Power may also be shared among different social groups
(d) Community Government	(iv) A violent conflict between opposing groups

26. In which continent is Belgium?

27. Name the countries with which Belgium shares its boundaries.

28. Where does the majority of population of Belgium live?

29. Which two languages are generally spoken in Belgium?

30. Which language is spoken by the majority of population in Brussels, the capital city of Belgium?

31. Mention the minority community that was relatively rich and powerful in Belgium.

32. Which social group constituted the largest share in population of Sri Lanka?

Fill in the Blanks

1. When European countries came together to form the European Union (EU), ... was chosen as the headquarters.
2. The ..... distribution of power is also called a system of checks and balances.
3. The religion followed by Sinhala-speaking people in Sri Lanka is .....
4. ..... division of power means power to be shared among the government at different levels.
5. In ..... leaders realised that unity of the country is possible by respecting the interests of different communities.
6. In the year ..... an Act was passed to recognise Sinhala as the official language.

Long Answers Type Questions:

1. What are the different forms of power sharing in modern democracies? Give an example of each of these.
2. State one prudential reason and one moral reason for power sharing with an example from the Indian context.

   OR

   Why power Sharing is desirable?

   OR

   Power Sharing is the very spirit of democracy. Justify this statement with three examples.
3. What is majoritarianism? How has it increased the feelings of alienation among Sri Lankan Tamils? Explain with examples.

   OR

   What were the reasons for the alienation of Sri Lankan Tamils? What was the effect of this on the country?
4. What are some of the basic elements of the Belgium model of power sharing?
5. Describe the way in which power can be shared among governments at different levels.
6. What type of arrangement of power sharing is known as system of checks and balances? Explain with examples.

GIST OF THE LESSON

1. **Positive and negative charges:** The charge acquired by a glass rod when rubbed with silk is called positive charge and the charge acquired by an ebonite rod when rubbed with wool is called negative charge.

2. **Coulomb:** It is the S.I. unit of charge. One coulomb is defined as that amount of charge which repels an equal and similar charge with a force of 9×10^9 N when placed in vacuum at a distance of 1 meter from it. Charge on an electron = -1.6×10^{-19} coulomb.

3. **Static and current electricities:** Static electricity deals with the electric charges at rest while the current electricity deals with the electric charges in motion.

4. **Conductor:** A substance which allows passage of electric charges through it easily is called a 'conductor'. A conductor offers very low resistance to the flow of current. For example copper, silver, aluminium etc.

5. **Insulator:** A substance that has infinitely high resistance does not allow electric current to flow through it. It is called an 'insulator'. For example rubber, glass, plastic, ebonite etc.

6. **Electric current:** The flow of electric charges across a cross-section of a conductor constitutes an electric current. It is defined as the rate of flow of the electric charge through any section of a conductor. Electric current = Charge/Time or
   $I = Q/t$
   Electric current is a scalar quantity.

7. **Ampere:** It is the S.I. unit of current. If one coulomb of charge flows through any section of a conductor in one second, then current through it is said to be one ampere.
   1 ampere = 1 coulomb/1 second or $1\ A = 1C/1s = 1Cs^{-1}$
   1 milliampere = $1\ mA = 10^{-3}\ A$
   1 microampere = $1\mu A = 10^{-6}\ A$

8. **Electric circuit:** The closed path along which electric current flows is called an 'electric circuit'.

9. **Conventional current:** Conventionally, the direction of motion of positive charges is taken as the direction of current. The direction of conventional current is opposite to that of the negatively charged electrons.

10. **Electric field:** It is the region around a charged body within which its influence can be experienced.

11. **Electrostatic potential:** Electrostatic potential at any point in an electric field is defined as the amount of work done in bringing a unit positive charge from infinity to that point. Its unit is volt. Positive charges move from higher to lower potential regions. Electrons, being negatively charged, move from lower to higher potential regions.

12. **Potential difference between two points:** The Potential difference between two points in an electric field is the amount of work done in bringing a unit positive charge from one to another.
Potential difference = Work done/Charge or V = W/Q

13. **One volt potential difference:** The Potential difference between two points in an electric field is said to one volt if one joule of work has to be done in bringing a positive charge of one coulomb from one point to another. 1 volt = 1 joule/1 coulomb or 1 V = 1J/1C

14. **Galvanometer:** It is device to detect current in an electric circuit.

15. **Ammeter:** It is device to measure current in a circuit. It is always connected in series in a circuit.

16. **Voltmeter:** It is a device to measure potential difference. It is always connected in parallel to the component across which the potential difference is to be measured.

17. **Ohm's law:** This law states that the current passing through a conductor is directly proportional to the potential difference cross its ends, provided the physical conditions like temperature, density etc. remains unchanged.

$$V \alpha I \quad \text{or} \quad V = RI$$

The proportionality constant R is called resistance of conductor.

18. **Resistance:** It is a property of a conductor by virtue of which it opposes the flow of current through it. It is equal to the ratio of the potential difference applied across its ends and the current flowing through it.

Resistance = Potential difference/Current or R = V/I

19. **Ohm:** It is the S.I. unit of resistance. A conductor has a resistance of one ohm if a current of one ampere flows through it on applying a potential difference of one volt across its ends.
1 ohm = 1 volt/1 ampere or $1\Omega = 1V/1A$

20. **Factors on which resistance of a conductor depends:** The resistance R of a conductor depends

    i) Directly on its length L i.e. $R \alpha L$.
    ii) inversely on its area of cross-section A i.e. $R \alpha 1/A$
    iii) on the nature of material of the conductor on.
    On combining the above factors, we get
    $R \alpha L/A$
    $R = \rho * L/A$ The proportionality constant ρ is called resistivity of conductor.

21. **Resistivity:** It is defined as the resistance offered by a cube of a material of side 1 m when current flows perpendicular to its opposite faces. Its S.I. unit is ohm-meter (Ωm).
Resistivity, $\rho = RA/L$

22. Equivalent resistance: If a single resistance can replace the combination of resistances in such a manner that the current in the circuit remains unchanged, then that single resistance is called the equivalent resistance.

23. Laws of resistances in series:

i) Current through each resistance is same.

ii) Total voltage across the combination = Sum of the voltage drops.

$V = V_1 + V_2 + V_3$

iii) Voltage drops across any resistor is proportional to its resistance.

$V_1 = IR_1$, $V_2 = IR_2$, $V_3 = IR_3$

iv) Equivalent resistance = Sum of the individual resistances.

$R_s = R_1 + R_2 + R_3$

v) Equivalent resistance is larger than the largest individual resistance.

24. Laws of resistances in parallel:

i) Voltage across each resistance is same and is equal to the applied voltage.

ii) Total current = Sum of the currents through the individual resistances.

$I = I_1 + I_2 + I_3$

iii) Currents through various resistances are inversely proportional to the individual resistances.

$I_1 = V/R_1$, $I_2 = V/R_2$, $I_3 = V/R_3$

iv) Reciprocal of equivalent resistance = Sum of reciprocals of individual resistances.

$1/R_p = 1/R_1 + 1/R_2 + 1/R_3$

v) Equivalent resistance is less than the smallest individual resistance.

25. Joule's law of heating: It states that the heat produced in a conductor is directly proportional to (i) the square of the current I through it (ii) proportional to its resistances R and (iii) the time t for which current is passed. Mathematically, it can be expressed as

$H = I^2Rt$ joule $= I^2Rt/4.18$ cal

or

$H = VIt$ joule $= VIt/4.18$cal

26. Electric energy: It is the total work done in maintaining an electric current in an electric circuit for given time.

$$\text{Electric energy, } W = VIt = I^2Rt \text{ joule}$$

27. Electrical power: Electrical power is the rate at which electric energy is consumed by an appliance.

$$P = W/t = VI = I^2R = V^2/R$$

28. Watt: It is the S.I. unit of power. The power of an appliance is 1 watt if one ampere of current flows through it on applying a potential differences of 1 volt across its ends.

1 watt = 1 joule/1 second =1 volt x 1 ampere

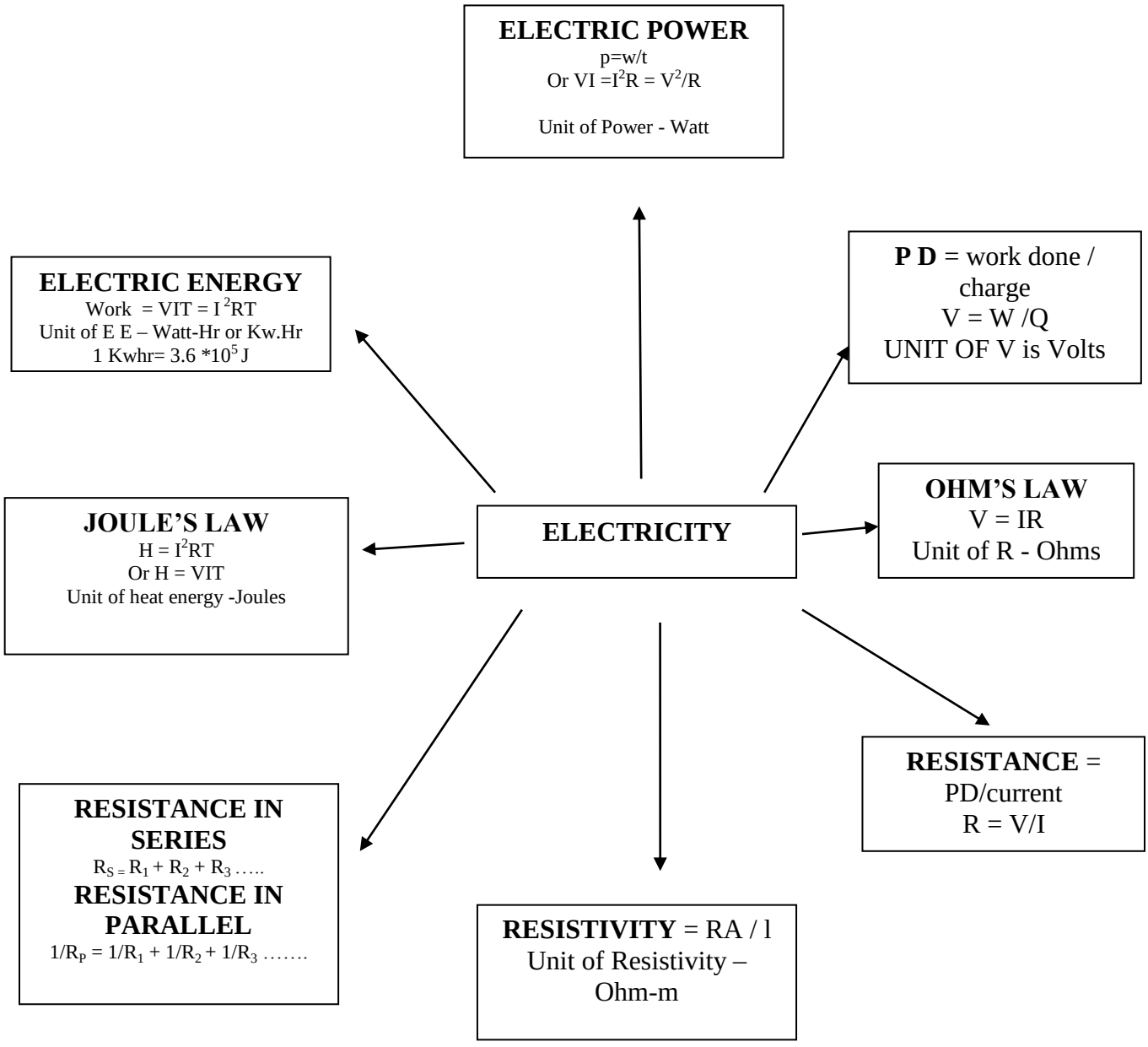
or $1\ W = 1\ Js^{-1} = 1\ VA$

1 kilowatt = 1000 W

29. Kilowatt hour: It is the commercial unit of electrical energy. One kilowatt hour is the electric energy consumed by an appliance of 1000 watts when used for one hour.

1 kilowatt hour (kWh) = 3.6 x 10^6 J

MIND MAP



ELECTRICITY
FORMATIVE ASSESSMENT I
Q. PAPER

MARKS-30 TIME- 70 MINUTES

Instructions:

- Questions : 1 to 5 – 1 Mark each
- Questions : 6 to 9 – 2 Marks each
- Questions : 10 to 13 – 3 Marks each
- Question 14 – 5 Marks

1. Define resistivity of material.

2. What is the power of torch bulb rated at 2.5V and 500mA?

3. Why series arrangement not used for connecting domestic electrical appliances in a circuit?

4. Which has higher resistance – a 50W bulb or a 2.5W bulb and how many times?

5. What is the direction of flow of conventional current?

6. Why is it not advisable to handle electrical appliances with wet hands?

7. Two electric bulbs marked 100W 220V and 200W 200V have tungsten filament of same length. Which of the two bulbs will have thicker filament?

8. How does the resistance of a wire vary with its area of cross section?

9. Draw the following symbols

   i) Battery ii) Switch closed
   iii) Resistor of resistance R iv) Voltmeter

10. A geyser is rated 1500W, 250V. This geyser is connected to 250V mains. Calculate –
    i) The current drawn
    ii) The energy consumed in 50hrs.
    iii) The cost of energy consumed at Rs. 2.20 per kWh.

11. What is the function of an electric fuse? Name the material used for making fuse. In household circuit where is fuse connected?

12. Write one important advantage of using alternative current. How alternating current differ from direct current?

13. What is the difference between short circuiting and overloading?

14. a) Draw diagram showing three resistors R_1, R_2 and R_3 in series.
    b) Two resistors of resistance 4Ω and 12Ω
       i) In parallel
       ii) In series
    Calculate the values of effective resistance in each case.

HOTS QUESTIONS (SOLVED / UNSOLVED)

Q.1. Why is the tungsten metal more coiled in the bulb and not installed in straight parallel wire form?

Ans. The coiled wire of tungsten increases the surface area of the wire in very less space so as to emit more light and helps in glowing with more intensity.

Q.2. Why are fairy decorative lights always connected in parallel?

Ans. When the fairy lights are connected in series the resistance offered will be greater and brightness of the bulbs will be affected. But in parallel connection all the bulbs will glow with same intensity and if any more bulbs gets fused the other bulbs will continue to glow.

Q.3. What will happen when -

a) Voltmeter is connected in series?
b) Ammeter is connected in parallel?

Ans. a) Negligible current will pass through the circuit because the voltmeter has a very high resistance.

b) Ammeter will get damaged due to flow of large amount of current through it, because it has low resistance.

ELECTRICITY
ORAL QUESTIONS (CONVERSATION TYPE)

1. a) Why is electricity more useful than other forms of energy?
   b) How is static electricity different from current electricity?
   c) What are conductors? Give examples.
   d) What are insulators? Give examples.

2. a) What constitutes an electric current?
   b) Name the SI unit of electric charge.
   c) Which is bigger – c coulomb of charge or a charge of an electron?
   d) How much is the charge on an electron? Can a charge less than this value exist?
   e) What is the number of electrons constituting one coulomb of charge?

3. a) Define electric current.
   b) Name the SI unit of current. Define one ampere.
   c) Is electric current a scalar of vector quantity?

4. a) What does an electric circuit mean?
   b) When does the current flow in an electric circuit?
   c) How can the current be kept continuous in a conductor?
   d) Which particles constitute current in a metallic conductor?

5. a) Define potential difference.
   b) Name the SI unit of potential difference.
   c) What is meant by saying that a potential difference between two points in 1volt?
   d) What is the relationship between work done, potential difference and charge moved?

CLASS 10 MATHS
CHAPTER 3 (Part 2)

Equations Reducible to a Pair of Linear Equations in Two Variables

There are some pair of equations which are not linear but can be reduced to the linear form by substitutions.

Given equations:

$$\frac{a}{x}+\frac{b}{y}=c$$

We can convert these type of equations in the form of *ax + by + c = 0*

STEP 1: Let $\frac{1}{x}=p$ and $\frac{1}{y}=q$

STEP 2: Substitute the above variables in the equation $\frac{a}{x}+\frac{b}{y}=c$

STEP 3: Now after substitution the equation will be **:-** *ap + bq = c*

STEP 4: Solve for *p* and *q*

STEP 5: Put the value of *p* and *q* in STEP 1 to get the values of *x* and *y* respectively.

Example :-

Q. $\frac{2}{x}+\frac{3}{y}=5$ and $\frac{4}{x}+\frac{5}{y}=9$

STEP 1: Let $\frac{1}{x}=p\ and \frac{1}{y}=q$

STEP 2: Now, the equations formed are –

(i) $2p+3q=5\ and$ (ii)$4p+5q=9$

STEP 3: Solving these two equations by any one method like Elimination:-

(You can also use Cross Multiplication or Substitution)

STEP 4: Multiplying eq (i) by 2 and subtracting eq (ii) from it :

$$4p+6q=10$$

$$-\quad 4p+5q=9$$

$$q = 1$$

STEP 5: Putting value of q in eq (i) or (ii) we get p=1

STEP 6: $\frac{1}{x} = p \; and \frac{1}{y} = q \Rightarrow \frac{1}{x} = 1 \; and \; \frac{1}{y} = 1 \Rightarrow \boldsymbol{x = 1 \; and \; y = 1}$

Solve the following pairs of equations by reducing them to a pair of linear equations:

(i) $\frac{1}{2x} + \frac{1}{3y} = 2 \quad \frac{1}{3x} + \frac{1}{2y} = \frac{13}{6}$

(ii) $\frac{2}{x} + \frac{3}{y} = 13 \quad \frac{5}{x} - \frac{4}{y} = -2$

Video Link: https://www.youtube.com/watch?v=3xDz7yiDBC4

Conditions For Solvability of Linear Equations:

Pair of Equations	Ratio Comparison	Graphical Representation	Algebraic Interpretation
$a_1x + b_1y + c_1 = 0$ $a_2x + b_2y + c_2 = 0$	$\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$	Intersecting lines	Only one solution
$a_1x + b_1y + c_1 = 0$ $a_2x + b_2y + c_2 = 0$	$\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$	Coincident lines	Infinite solution
$a_1x + b_1y + c_1 = 0$ $a_2x + b_2y + c_2 = 0$	$\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$	Parallel lines	No solution

1. If the two lines **intersect** each other at one point and have only one solution. It is said to be **a consistent** pair of equations.

2. If the two lines **coincide** with each other, and have infinite solutions. It is said to be dependent or **consistent** pair of equations.

3. If the two lines are **parallel** and there is no solution. It is said to be **an inconsistent** pair of equations.

Video Link for more clarity-

https://www.youtube.com/watch?v=aVw3woF62lA

EXAMPLE of all 3 cases:-

1.Unique Solution:

Which of the following pairs of linear equations has unique solution, no solution, or infinitely many solutions. In case there is a unique solution, find it by using cross multiplication method

(iv) $x - 3y - 7 = 0$

$3x - 3y - 15 = 0$

$x - 3y - 7 = 0$ ...(1)

$3x - 3y - 15 = 0$ ...(2)

$x - 3y - 7 = 0$	**$3x - 3y - 15 = 0$**
Comparing with $a_1x + b_1y + c_1 = 0$	Comparing with $a_2x + b_2y + c_2 = 0$
$\therefore a_1 = 1 , b_1 = -3 , c_1 = -7$	$\therefore a_2 = 3 , b_2 = -3 , c_2 = -15$

$a_1 = 1 , b_1 = -3 , c_1 = -7$

& $a_2 = 3 , b_2 = -3 , c_2 = -15$

$\frac{a_1}{a_2}$	$\frac{b_1}{b_2}$	$\frac{c_1}{c_2}$
$\frac{a_1}{a_2} = \frac{1}{3}$	$\frac{b_1}{b_2} = \frac{-3}{-3}$ $\frac{b_1}{b_2} = 1$	$\frac{c_1}{c_2} = \frac{-7}{-15}$ $\frac{c_1}{c_2} = \frac{7}{15}$

Since $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$

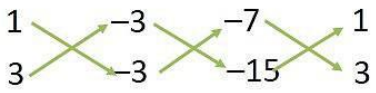
We have a unique solution

Solving

$x - 3y - 7 = 0$ ...(1)

$3x - 3y - 15 = 0$ ...(2)

Using cross-multiplication



$$\frac{x}{-3\times(-15) - (-3)\times(-7)} = \frac{y}{3\times(-7) - 1\times(-15)} = \frac{1}{1\times(-3) - 3\times(-3)}$$

$$\frac{x}{(45) - 21} = \frac{y}{-21 + 15} = \frac{1}{-3 + 9}$$

$$\frac{x}{24} = \frac{y}{-6} = \frac{1}{6}$$

Now,

$$\frac{x}{24} = \frac{1}{6} \qquad \frac{y}{-6} = \frac{1}{6}$$

$$x = \frac{24}{6} \qquad y = \frac{-6}{6}$$

$$\therefore x = 4 \qquad \therefore y = -1$$

Therefore, $x = 4$, $y = -1$ is the solution of our equation

2.Infinite Solution:

Q. For what values of K will the following pair of linear equation have infinitely many solutions:

$kx + 3y - (k-3) = 0$

$12x + ky - k = 0$

Here, $\frac{a_1}{a_2} = \frac{k}{12}, \frac{b_1}{b_2} = \frac{3}{k}, \frac{c_1}{c_2} = \frac{k-3}{k}$

For a pair of linear equations to have infinitely many solutions :

$\frac{a1}{a2} = \frac{b1}{b2} = \frac{c1}{c2}$

So, we need $\frac{k}{12} = \frac{3}{k} = \frac{k-3}{k}$

or, $\frac{k}{12} = \frac{3}{k}$

which gives $k^2 = 36$, i.e., $k = \pm 6$.

Also, $\frac{3}{k} = \frac{k-3}{k}$

gives $3k = k^2 - 3k$, i.e., $6k = k^2$, which means $k = 0$ or $k = 6$.

Therefore, the value of k, that satisfies both the conditions, is k = 6. For this value, the pair of linear equations has infinitely many solutions.

3.No Solution:

Q. $3k + y - 1 = 0$

$(2k - 1)x + (k-1)y - (2k + 1) = 0$

For no solution,

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$$

$$\Rightarrow \frac{3}{2k - 1} = \frac{1}{k - 1} \neq \frac{-1}{-(2k + 1)}$$

$\Rightarrow k = 2$

LINK: https://www.youtube.com/watch?v=W7L-76FWvtw

NOTE: UNDERSTAND THE METHOD OF CROSS MULTIPLICATION AND DO ALL THE EXAMPLES GIVEN IN PDF ALSO DO EX3.5(Except Q1 (i) part,Q2 (ii) part as they is already done above) AND 3.6 (Except Q1 (i) part as it is already done above) IN YOUR MATHS NOTEBOOK.

CLASS 10 MATHS
CHAPTER 4

Quadratic Polynomial

A polynomial, whose degree is 2, is called a quadratic polynomial. It is in the form of

$p(x) = ax^2 + bx + c$, where $a \neq 0$

Quadratic Equation

When we equate the quadratic polynomial to zero then it is called a Quadratic Equation i.e. if

$p(x) = 0$, then it is known as Quadratic Equation.

Standard form of Quadratic Equation:

$$ax^2 + bx + c = 0$$

where a, b, c are the real numbers and $a \neq 0$

Let $x = \alpha$ where α is a real number. If α satisfies the Quadratic Equation $ax^2 + bx + c = 0$ such that $a\alpha^2 + b\alpha + c = 0$, then **$\alpha$ is the root of the Quadratic Equation**.

As quadratic polynomials have degree 2, therefore Quadratic Equations can have two roots. So the zeros of quadratic polynomial $p(x) = ax^2+bx+c$ is same as the roots of the Quadratic Equation $ax^2 + bx + c = 0$.

CHECKING THE QUADRATIC EQUATION :

Check whether the following are quadratic equations :

(i) $(x+1)^2 = 2(x-3)$

$(x+1)^2 = 2(x-3)$

Using $(a+b)^2 = a^2 + b^2 + 2ab$

$$x^2 + 1^2 + 2 \times x \times 1 = 2(x-3)$$

$$x^2 + 1 + 2x = 2x - 6$$

$$x^2 + 1 + 2x - 2x + 6 = 0$$

$$x^2 + 1 + 6 = 0$$

$$x^2 + 7 = 0$$

$$x^2 + 0x + 7 = 0$$

Since , it is of the form $ax^2 + bx + c = 0$

Where $a = 1,\ b = 0,\ c = 7$

Hence, it is a quadratic equation

Check whether the following are quadratic equations :

(iii) $(x-2)(x+1) = (x-1)(x+3)$

$$(x-2)(x+1) = (x-1)(x+3)$$
$$x(x+1) - 2(x+1) = x(x+3) - 1(x+3)$$
$$x^2 + x - 2x - 2 = x^2 + 3x - x - 3$$
$$x^2 + x - 2x - 2 - x^2 - 3x + x + 3 = 0$$
$$(x^2 - x^2) + (x - 2x - 3x + x) - 2 + 3 = 0$$
$$0 - 3x + 1 = 0$$
$$-3x + 1 = 0$$

Since , highest power is 1 not 2,

It is not in the form of $ax^2 + bx + c = 0$

Hence, it is not a quadratic equation.

Methods to solve the Quadratic Equations

There are three methods to solve the Quadratic Equations-

1. Factorisation Method

In this method, we factorise the equation into two linear factors and equate each factor to zero to find the roots of the given equation.

Step 1: Given Quadratic Equation in the form of $ax^2 + bx + c = 0$.
Step 2: Split the middle term bx as mx + nx so that the sum of m and n is equal to b and the product of m and n is equal to **ac**.

Step 3: By factorization we get the two linear factors (x + p) and (x + q)

$ax^2 + bx + c = 0 = (x + p)(x + q) = 0$

Step 4: Now we have to equate each factor to zero to find the value of x.

$$x^2 - 2x - 15 = 0$$

$$(x + 3)(x - 5) = 0$$

$$x + 3 = 0 \text{ or } x - 5 = 0$$

$$x = -3 \text{ or } x = 5$$

These values of x are the two roots of the given Quadratic Equation.

NOTE: Solution of quadratic equation by completing the square method is deleted as per CBSE Curriculum

2. Quadratic formula method

In this method, we can find the roots by using quadratic formula. The quadratic formula is

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

where a, b and c are the real numbers and $b^2 - 4ac$ is called discriminant.

To find the roots of the equation, put the value of a, b and c in the quadratic formula.

Nature of Roots

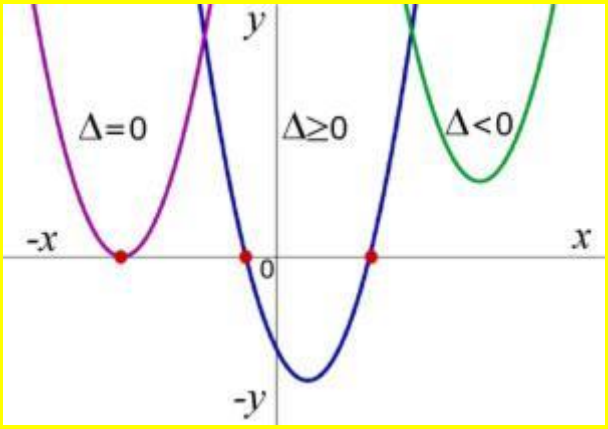
From the quadratic formula, we can see that the two roots of the Quadratic Equation are -

$$x = \frac{-b+\sqrt{b^2-4ac}}{2a} \text{ and } \frac{-b-\sqrt{b^2-4ac}}{2a}$$

$$\text{or } x = \frac{-b \pm \sqrt{D}}{2a}$$

Where **$D = b^2 - 4ac$**

The nature of the roots of the equation depends upon the value of D, so it is called the **discriminant.**



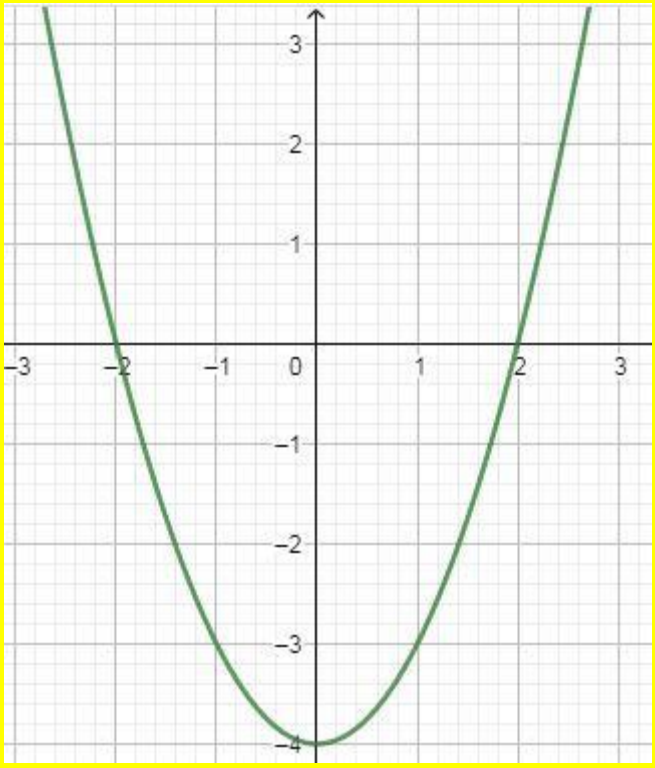
Δ = Discriminant

The values of x for which a quadratic equation is satisfied are called the roots of the quadratic equation.

If α is a root of the quadratic equation $ax^2+bx+c=0$,then, $a\alpha^2+b\alpha+c=0$.

A quadratic equation can have two distinct roots, two equal roots or real roots may not exist.

Graphically, the roots of a quadratic equation are the points where the graph of the quadratic polynomial cuts the x-axis.



Graph of a Quadratic Equation

In the above figure, -2 and 2 are the roots of the quadratic equation $x^2-4=0$

Note:

- If the graph of the quadratic polynomial cuts the x-axis at two distinct points, then it has real and distinct roots.

- If the graph of the quadratic polynomial touches the x-axis, then it has real and equal roots.
- If the graph of the quadratic polynomial does not cut or touch the x-axis then it does not have any real roots.

Value of discriminant	No. of roots	Value of roots
D > 0	Two distinct real roots	$\frac{-b+\sqrt{D}}{2a}, \frac{-b-\sqrt{D}}{2a}$
D = 0	Two equal and real roots	$-\frac{b}{2a}, -\frac{b}{2a}$
D < 0	No real roots	Nil

Solving using Quadratic Formula when D>0

Solve $2x^2-7x+3=0$ using the quadratic formula.
(i) Identify the coefficients of the quadratic polynomial. a = 2,b = -7,c = 3
(ii) Calculate the discriminant, b^2-4ac
$D=(-7)^2-4\times2\times3=25$
D> 0, therefore, the roots are distinct.
(iii) Substitute the coefficients in the quadratic formula to find the roots

$$x = \frac{\left[-(-7)\pm\sqrt{((-7)^2-4(2)(3))}\right]}{2(2)}$$

$$x = \frac{7\pm5}{4}$$

x=3 and x= $\frac{1}{2}$ are the roots.

Youtube link:

https://www.youtube.com/watch?v=g1AfGOCY0eA

HOMEWORK

DO ALL EXERCISES INCLUDING EXAMPLES OF CHAPTER 4 IN YOUR MATHS COPY:-

Don’t do questions involving method of completing the square.i.e Q1 of Ex4.3

EX 4.1 (Except Q1 (i) and (iii) part as it is already done above)

EX 4.2

EX 4.3

EX 4.4

THANKYOU