

Summer Vacations Homework 2020

Class : 10th

Cantt Public Education System

A NEW FRONTIER IN LEARNING

Dear Students,

We hope that you and your families are keeping well during ongoing health crises. It is more and more likely that schools may not open till July 2020. Therefore, we are pleased to share our plans for online instructions and home work activities.

As of 1st June 20, we will be starting a robust, interactive teaching programme. The curriculum will be taught through various online platforms, video lectures and live interaction with teachers as well as carefully designed home work, which all students will complete at their own time. We shall pursue following time table:-

Group	DAYs	Timings	Subjects	Remarks
I	Monday – Day 1	0900 - 0940	Physics	Principals shall ensure availability of subject teachers to students for coaching/clarification of doubts etc
	Tuesday – Day 2	1000 - 1040	English	
		1100 - 1140	Urdu	
	Wednesday – Day 3	1200 -1240	Chemistry	
II	Thursday - Day 4	0900 - 0940	Computer/ Biology	
	Friday – Day 5	1000 - 1040	Maths	
		1100 - 1140	Islamiat/Naazra	
	Saturday – Day 6	1200 -1240	S Studies/GK	

Beloved scholars, home work for following subjects has been included in this booklet:-

Ser	Subject	Pages	
		From	To
1	English	3	13
2	Maths	14	20
3	Chemistry	21	37
4	Biology	38	59
5	Computer	60	73
6	Physics	74	80
7	Pakistan Studies/G.K	81	87
8	Urdu	88	91
9	Islamiyat	92	97

Our main objective is to keep you in touch with your studies rather than to put you under unjustified burden. Therefore, a pragmatic program has been planned for your educational progression. Stay home, stay safe and stay connected with your studies.

Regards

English

Week-1 - Day-1

1. Creative Writing

Write down a letter to your friend about the situation of COVID-19, Coronavirus in your locality. The letter should include details about everything like Lockdown, economy, condition of poor people, and unemployment caused by Coronavirus.

2. Choose the correct answer

1. There is a **distinct** difference between them.

(a) much (b) clear (c) certainly (d) separate

2. We may get **hurt**.

(a) injure (b) slip (c) fall (d) skip

3. That is just my **creative** view of things.

(a) theoretical (b) imaginative (c) practical (d) innovative

4. These expressions were **tough**.

(a) hard (b) stern (c) troublesome (d) dangerous

5. While on his death bed, he صلى الله عليه وسلم **proclaimed**.

(a) gave a message (b) decided (c) announced (d) declared

6. It **broadcasts** the news as it is happening.

(a) propagates (b) gives (c) transmits (d) begins

7. They may **omit** certain aspects of the news.

(a) forget (b) leave out (c) disconnect (d) delete

8. He صلى الله عليه وسلم earned a **good reputation** of being an honest man.

(a) distinction (b) efficiency (c) fame (d) popularity

9. He advised the most **equitable** plan for it.

(a) suitable (b) fair (c) just (d) equal

10. First aid knowledge ranges from taking care of cuts to dealing with an unconscious **victim**.

(a) helper (b) suppressor (c) sufferer (d) injured

Day-2

Phrasal Verbs

Click the link for better understanding of the Phrasal Verbs:

https://youtu.be/85TO_dPMBCk

<https://youtu.be/YCXDqIFig8o>

Exercise

Choose the correct phrasal verb from the parenthesis at the end of the sentence.

1. Someone **broke into** my car last night and stole the stereo. (broke down/broke into)

2. Will you be able to **get by** this month with the little you have?(get off / get by)

3. His father always taught him not to _____ those people with less. (look up to / look down on)

4. Stop complaining and _____ your work! (get on with / get over)
5. The boss wants you to _____ your figures for this month to him. (hand out / hand in)
6. We're going to have to _____ our trip to Spain until September. (put up/ put off)
7. I _____ Amir today at the supermarket. It was great to see him. (ran out of / ran into)
8. I thought I would _____ for a cup of coffee. Is that okay? (drop off/ drop in)
9. Have you ever _____ such an unusual piece of art? (come forward/come across)
10. It's important to _____ on time. (show up / show off)

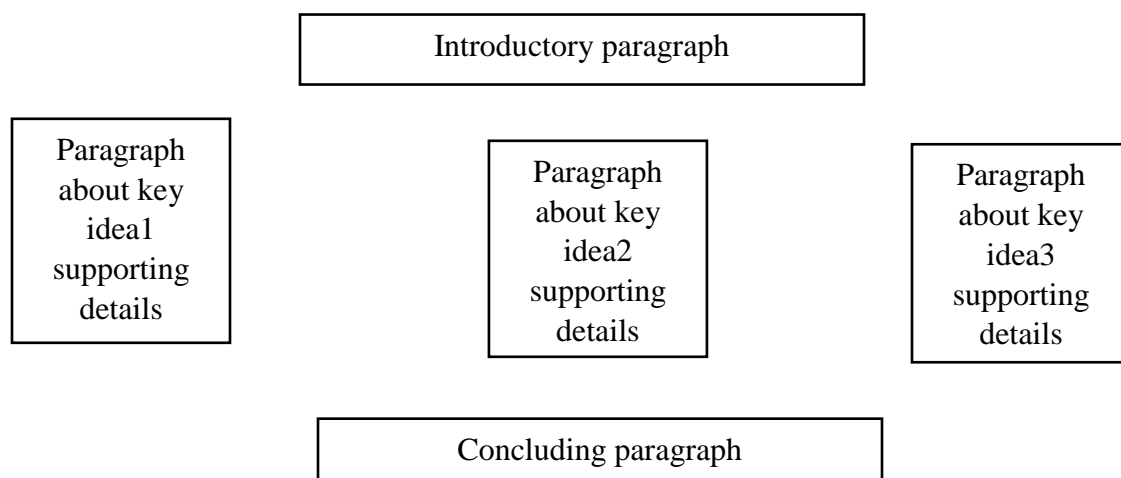
Day-3

Antonyms/Synonyms

1. The antonym of bright is
(a) brilliant (b) clear (c) dark (d) dull
2. The antonym of perfect is
(a) complete (b) deficient (c) imperfect (d) incomplete
3. The antonym of mighty is
(a) weak (b) grand (c) strong (d) happy
4. The antonym of rich is
(a) wealthy (b) healthy (c) weak (d) poor
5. The antonym of fail is
(a) unsuccessful (b) flourish (c) succeed (d) slow
6. The antonym of win is
(a) lose (b) get (c) give (d) victory
7. The antonym of abandon is
(a) support (b) discard (c) desert (d) honest
8. The antonym of suffering is
(a) distress (b) pleasure (c) anguish (d) comfort
9. The antonym of consume is
(a) utilize (b) save (c) use (d) thrift
10. The synonym of solace is
(a) aggravation (b) frustration (c) comfort (d) ease
11. The synonym of innovative is
(a) new (b) old (c) outdated (d) obsolete
12. The synonym of firm is
(a) expensive (b) powerful (c) persistent (d) base

Essay Writing

Write an essay on "Hazrat Muhammad (PBUH) as an Exemplary Judge". (200-250 words)



Week-2 - Day-1

Unit 1 – Hazrat Muhammad (SAW) An Embodiment of Justice
(Text Book Exercise)

- ❖ After reading the text answer the following questions.
1. How can people achieve perfection in the moral, spiritual and social areas of life?
 2. How did the Holy Prophet (PBUH) set high and noble ideals for all mankind?
 3. How were people of Makkah convinced of the Holy Prophet's (PBUH) justice even before his Prophethood?
 4. What standards of justice did the Holy Prophet (PBUH) practice as head of the state of Madinah?
 5. What made non-Muslims bring their suits to the Holy Prophet (PBUH)?
 6. How does the Quran describe the personality of the Holy Prophet (PBUH)?

Additional Short Questions

7. How did the Holy Prophet resolve the issue regarding the Black Stone?
8. Why did Quraish think that the Holy Prophet would favour them?
9. Why did non-Muslims trust the Holy Prophet (PBUH) ?
10. What advice did the Holy Prophet give to Hazrat Ali(R.A)?
11. What does the word "proclaimed" mean?

Day-2

Comprehension

Read the following passage and answer the questions given at the end:

The sultan sent agents to all parts of the East to buy rare manuscripts, and bring them back to Cordova. His men were constantly searching the booksellers' shops at Cairo, Damascus and Baghdad for rare volumes for his library. When the book was not to be bought at any price, he would have it copied; and some times even hear of a book which was only in the author's brain, and send him a handsome present, and beg him to send the first copy to Cordova. By such means he gathered no fewer than four hundred thousand books and this at a time when printing was unknown, and every copy had to be painfully copied, in the fine clear hand of the professional copyist.

Questions:

- i. **What would Sultan do when any book was not to be bought at any price?**
- ii. **Why was it difficult to collect so many books in those days?**
- iii. **Write the meanings of the underlined words from the passage.**

Summarize the passage in your own words and suggest a suitable title.

Blessings of God

(Cecil Alexander)

All things bright and beautiful,
All creatures great and small,
All things wise and wonderful,
The Great God made them all,

Each little flower that opens,
Each little bird that sings,
He made their glowing colours,
He mad ether tiny wings,

The purpose headed mountain,
The river running by,
The sunset and the morning,
That brightens up the sky,

The cold wind in the winter,
The pleasant summer sun,
The ripe fruit in the garden,
He made them every one,

The tall trees in the greenwood,
The meadows where we play,
The rushes by the water,
We gather every day,

He gave us eyes to see them,
And lips that we might tell,
How great is God Almighty,
Who has made all things well.

Write down the theme of the poem in your own words.

Day-3

Essay. Write an essay on the topic "My last day at school"

Change the narration

Watch the video and change the narration of the following

<https://www.youtube.com/watch?v=2oZCT5cf4WQ>

- I. The robberer said, "Empty your pockets and stand on the side."
- II. The girl said, "Wow! This is a marvelous bracelet"
- III. He said to me, "I am not feeling well today"
- IV. Alina said, "I do not like going there"
- V. Hisam said, "I will die for my country."

Week-3 Day-1

Topic: Punctuation

Follow the links:

<https://youtu.be/1aa--jf4CjY>

<https://youtu.be/GHnl1O3NGJk>

Punctuate the following paragraph.

During the sermon an Ansari seeing some men from the tribe of Banu Tha'lbh sitting there stood up and pointed towards them and said oh messenger (pbuh) of Allah their ancestors killed a member of our family we appeal to you (pbuh) to get one of them hanged in exchange for that the holy prophet (pbuh) replied the revenge of the father cannot be taken on his son

Application

Write an application to the principal of your school asking him/her to arrange a trip to a historical place.

Day-2

Comprehension

Musa was in chief command, and the gates were in his charge. They had been barred when the Christians came in view; but Musa threw them open. "Our bodies", he said, "will bar the gates". The young men were kindled by such words, and when he told them, "We have nothing to fight for but the ground we stand on; and without that we are without a home or a country", they were ready to die with him. With such a leader, the Moorish cavaliers performed feats of bravery in the plain which divided the camp from the city.

QUESTIONS

1. Who was the chief commander and what was in his charge?
2. When were the gates barred?
3. Who threw them open?
4. What did Musa say?
5. What effect had his words on the young men?
6. What divided the city from the camp?

Day-3

Choose the correct answer which is closest in meaning to the underlined word.

1. Toibin once **recounted** as story about a man.
narrated (b) told (c) counted (d) listened
2. They help us comprehend our faults and **aspirations.**
a. wantings (b) suggestions (c) thoughts (d) desires
3. Their **fragrance** is immeasurable.
a. smell (b) odour (c) sweet smell (d) stinking
4. This **highlights** the importance of a full time career counseling department.
a. marks (b) reminds (c) pleads (d) draws attention
5. His face was **beaming.**
a. shining (b) smiling (c) laughing (d) flashing
6. The comforts of books **defy** time and break borders.
a. resist (b) oppose (c) disobey (d) disregard
7. The per capita availability of food grains is **declining.**
a. rejecting (b) opposing (c) refusing (d) going down
8. Needs for food and services **escalate.**
a. to increase rapidly (b) to minimize (c) to accelerate (d) to add
9. Always choose a career according to your **aptitude.**
a. skill (b) experience (c) capacity (d) natural ability
10. He was in professional of something **deliciously** private.
a. delightfully (b) joyfully (c) pleasing (d) gladly
11. Books are the **evidence** of grandeur of a civilization.
a. indication (b) clue (c) proof (d) claim
12. Fertilizers increase the fertility of **eroded** soils.
a. wasted (b) barren (c) spoiled (d) destroyed

Change the narration

1. She said to me , " I like you very much."
2. I said to her," Why do you like me ?"
3. Faisal said to Kiran," Are you stupid ?"
4. Komal said to her father," Bring me a car."
5. Mustafa said to me , " Do you know where he is ?"
6. She said," What a tall boy you are !"

7. The students said, " Alas ! We are fail again."
8. Komal said , " Hurrah ! I have won the scholarship "
9. The teacher says, " Rose smells sweet . "
10. I said to him, " When I went there, he was sleeping."
11. She said to me, " I had been waiting for you for two hours."
12. I said, " Well, you have completed this task."
13. Jessy said to Harley, " May I borrow your book?"
14. I said to my teacher, " Good morning, sir."
15. Mona said to me, " You know me, don't you?"

Creative Writing

<https://www.youtube.com/watch?v=hOQFFOGWDU4>

Go through the link above and write down the summary of the story.

Week-4 Day-1

Letter Writing

1. Write a letter to your friend about interesting places in your home town.

Phrasal Verbs

Use the prepositional/phrasal verbs in sentences.

- | | | |
|---------------|--------------|----------------|
| i. Feel for | ii. Send for | iii. Assure of |
| iv. Part with | v. Die of | vi. Abide by |

Read the following passage carefully and answer the questions given at the end.

Some ants are social insects. It means that they live in societies., cooperate with one another and do only the work assigned to them. They go out in search of food in an orderly fashion, marching in lines and columns like soldiers. Different groups of social ants have different jobs to do. They manage their affairs through division of labor. Some ants guard and protect their community. They fight the other insects who attack them or raid their colony. They are called soldier ants. Another group gathers food for the whole community. The social ants have not learnt this division of labor. They have inherited it.

QUESTIONS

1. What do you mean by social insects?
2. Why are some ants called social insects?
3. How do the ants cooperate with one another?
4. What principle do they follow while doing their work?
5. Why are the members of a certain group called soldier ants?
6. How have the ants learnt the principle of division of labor?

Day-2

Change the narration

<https://www.youtube.com/watch?v=R6aOuObLKUs>

1. The teacher said to the boys, 'Have you done your homework?'
2. The little girl asked the man, 'Will you help me?'
3. Javed said, 'I have been reading this book.'
4. Mother said to the daughter, 'Go and change your dress.'
5. Salma said, 'I had read this book before I gave it to you.'
6. Misha said, 'I will bring my piano.'
7. The officer told the clerk, 'Bring me that file.'
8. Jane asked, 'Have you read that book?'
9. Maria asked, 'Where is your watch?'
10. Sophia said, 'I watched this movie last week.'

11. Mother asked, 'What is the matter?'
12. Shaan said, 'I can solve this problem.'

Letter

Write a letter to newspaper editor about corruption by WAPDA meter readers

Day-3

Poem

“Awake! arise! the hour is late!
Angels are knocking at thy door!
They are in haste and cannot wait,
And once departed come no more.
Awake! arise! the athlete's arm
Loses its strength by too much rest;
The fallow land, the untilled farm
Produces only weeds at best.”

Summarize the above in your own words

Phrasal Verbs

Make up, pass by, carry out, take place, run over, deal with, hope for, aim at, married to, incapable of.

Week-5 Day-1

Comprehension Passage

The Indian National Congress was founded in 1885 by a liberal English man Mr. A.O. Hume. He had joined the Indian Civil Service in 1849 and retired from service after shouldering different responsibilities. He had been watching the ugly law and order situation, in the country quite frequently. He was of the opinion that the highhanded rule of the Britishers was paving way for any unexpected outburst of violence. His plan was to put a safety valve to minimize the mounting sentiments against the British rule. It was meant to provide an outlet which could ventilate the revolutionary spirit. Mr. Hume put his plan before Lord Duffrin.

QUESTIONS

1. Who founded the Indian National Congress?
2. Who was Mr. A.O. Hume?
3. When was the Indian National Congress founded?
4. Why did Hume think of founding this political organization?
5. With whom did he discuss his plan?

Creative Writing

<https://youtu.be/o909brBJvCo>

Go through the link above and write down the summary of the story.

Day-2

Poem

It's a lesson you should heed,
Try, try again.

If at first you don't succeed,
Try, try again.

Then your courage should appear,
For if you will persevere,
You will conquer, never fear,
Try, try again.

Once or twice, though you should fail,
Try, try again.

If you would at last prevail,
Try, try again.

If we strive, 'tis no disgrace,
Though we do not win the race;
What should you do in that case?
Try, try again.

If you find your task is hard,
Try, try again.

Time will bring you your reward,
Try, try again.

All that other folk can do,
Why, with patience, should not you?
Only keep this rule in view,
Try, try again.

Answer the following questions

1. What does the word persevere mean?
2. What can we learn from failure?
3. How is failure not a disgrace?
4. What should we do if we find our task hard?
5. Give an example from your life where you have tried hard to achieve something?

Phrasal Verbs

Use the following phrasal verbs in your own sentences

Look at, beg for, agree with, pride in, opposed to, died of, stand by, get on, take off, wipe out

Application

Write an application to your school principal for awarding a stipend.

Day-3

Essay Writing

Write an essay on the topic "How you spend your vacation?"

Week 6 Day 1

Topic: Grammar: Abstract/Concrete Nouns

Click the below mentioned links for conceptual clarity of Abstract and Concrete Nouns:

https://youtu.be/3AF_rN-yN-Y

<https://youtu.be/mOQAOVqJBZQ>

https://youtu.be/79_Zn75CLIU

Concrete noun are the nouns that are observed by our senses. For example, we can see, touch, hear, smell or taste.

Abstract noun refers to the things we cannot touch, hear, see, smell or taste. It is something we experience like an idea or an emotion.

Examples:

The dog jumped over fence. Dog and fence are concrete nouns.

My mom's Birthday is in Summer. Birthday and Summer are abstract nouns

Exercise

Read the sentences below and underline the Concrete Nouns and circle the Abstract Nouns. List them separately on loose sheet.

1. I felt pain when dentist took my tooth out.
2. I fell in love with that little child.
3. After dinner, Holly went out for walk.
4. My mom will pick me time from school every Monday.
5. Puppy jumped on the table and ate cake.
6. Sarah's childhood was traumatic.
7. I have full trust on my child's nanny.
8. She is potting plants in the garden.
9. That child is very intelligent.
10. He is loyal friend

Activity:

- ❖ Surf internet to find names of the animals “Chinese years are named after”

Day 2

Unit 2: Chinese New Year

(Text Book Exercise)

- ❖ After reading the text from the textbook answer the following questions.
1. When does Chinese New Year start?
 2. Why do Chinese families do thorough cleaning of their houses before New Year's Day?
 3. Which colour is not allowed and which colour is encouraged on Chinese New Year? Why?
 4. What do decorations on doors and windows symbolize?
 5. What is the significance of New Year's Eve Dinner?
 6. What do the little red envelopes filled with money symbolize?
 7. What is the importance of Chinese New Year for Chinese families?

Day 3

Unit 2: Chinese New Year
(Additional Short Questions)

1. Why is Chinese New Year never on the same day each year?
2. What is Chinese belief about cleaning houses before new year day?
3. Why does New Year's Eve dinner consist of eight or nine dishes?
4. Is Chinese belief about people having character traits of animals a fact or an opinion?

Translate the given paragraph into Urdu.

It is a traditional practice for adults to give children little red envelope's filled with money in order to symbolize wealth and prosperity for the coming year. It is also common for elders to present red packets to unmarried members of the family. Envelopes are not to be opened until the recipient has left the home of the giver.

Week 7 Day 1

Topic: Reading Comprehension

Analysis of patterns of text organization

A. Choose the correct option (after reading and understanding the text)

1. Chinese New Year falls somewhere _____.
 - a. On January 21st
 - b. On February 20th
 - c. Between January 21st and February 20th
2. Paragraph 1 gives _____.
 - a. General details of festivals
 - b. Specific details of the Chinese New Year
 - c. General details of new year celebrations
3. It is customary for families to thoroughly clean their houses _____.
 - a. Before the first day of the New Year
 - b. On the first day of the New Year
 - c. On the second day of the New Year
4. Hanging up signs and posters on doors and windows means _____.
 - a. Love and sincerity
 - b. Care and affection
 - c. Luck and happiness
5. Envelopes are not to be opened until _____.
 - a. The giver has left the home of the recipient
 - b. The recipient has left the home of the giver
 - c. The giver has gone to sleep

Day 2

Topic: Collective Nouns

Explore the given links to know about the Collective Nouns:

<https://youtu.be/zijGflzT5Ss>

<https://youtu.be/Wla6O2qcifA>

<https://youtu.be/YhuyLwoJLHs>

Choose the appropriate collective noun given below to fill each blank.

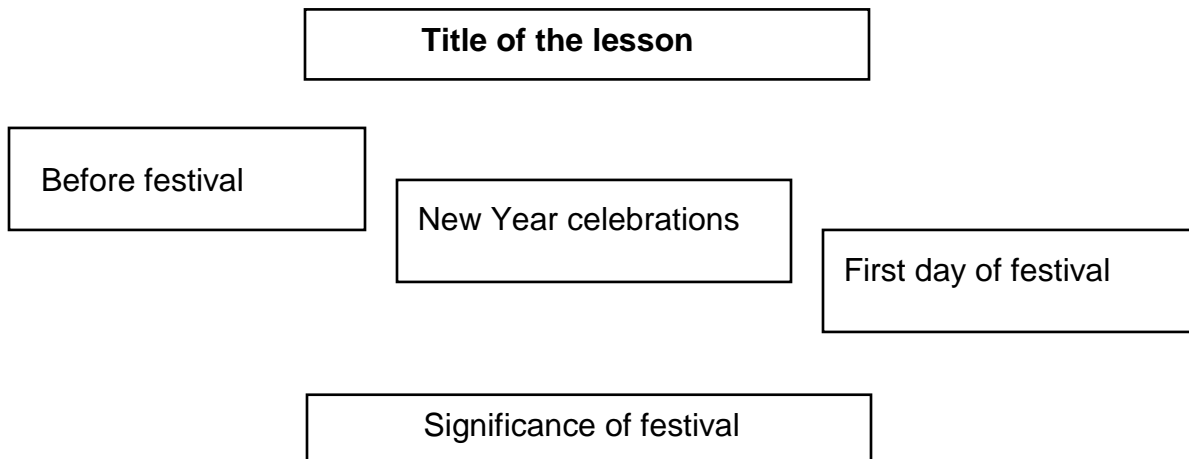
gang	crowd	committee	class	crew	audience	family
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1. It is typical for a Chinese _____ to make eight to nine dishes for the New Year's Eve dinner.
2. The _____ applauded heartily at the end of the concert.
3. The _____ has just had a Physics lesson.
4. The _____ of robbers was arrested by the police.
5. The _____ of people gathered at the accident sight.
6. The _____ took many important decisions at its monthly meeting.
7. The _____ of Pakistan Air Force looked smart in their uniform.

Day 3

Topic: Writing Skills

Summarise the lesson by arranging the celebrations of "Chinese New Year" chronologically.



Mathematics

Week-1 Day-1

Quadratic Equation

An equation which contains the square of unknown Variable quantity but no higher power is called quadratic equation or an equation of the second degree.

Q. Write quadratic equation in the standard form $(x + 7)(x - 3) = -7$

Q. Solve the factorization $x^2 - x - 20 = 0$

Q. Solve by completing Square method $7x^2 + 2x - 1$

Video Lecture Links

https://www.youtube.com/watch?v=H-I_BkDbilM

<https://www.youtube.com/watch?v=bSY0JcFGKqM>

<https://www.youtube.com/watch?v=-1WD4fr0ljI>

Day-2

Quadratic Formula : $\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Q. Solve the quadratic formula $2 - x^2 = 7$?

Q. Prove that quadratic formula?

Q. Solve the quadratic formula $\sqrt{3}x^2 + x = 4\sqrt{x}$

Video Lecture Links

<https://www.youtube.com/watch?v=6HgpsRf-4AM>

https://www.youtube.com/watch?v=Er8_2psG1KY

Day-3

Equation reducible to quadratic form

Type (i): The equation of the type $ax^2 + bx^2 + c = 0$ replacing $x^2 = y$

Q. Solve the following $2x^4 - 11x^2 + 5 = 0$

Q. Solve the Following $x^4 - 13x^2 + 36 = 0$

Q. solve the following $2x^4 = 9x^2 - 4$

Video Lecture Links

https://www.youtube.com/watch?v=LGJdfs4_yuA

<https://www.youtube.com/watch?v=ujCdo87NPoo>

<https://www.youtube.com/watch?v=wZGIFLhA0iU>

Week-2 Day-1

Equation reducible to quadratic form

Type (ii): The equation of the type $ap(x) + \frac{b}{p(x)} = c$

Q. Solve the following $(2x^2 + 1) + \frac{3}{2x^2+1} = 4$

Q. solve the following $\frac{x}{x-3} + 4\left(\frac{x-3}{x}\right) = 4$

Q. solve the following $\frac{x-a}{x+a} - \frac{x+a}{x-a} = \frac{7}{12}$

Video Lecture Links

https://www.youtube.com/watch?v=LGJdfs4_yuA

<https://www.youtube.com/watch?v=ujCdo87NPoo>

<https://www.youtube.com/watch?v=wZGIFLhA0iU>

Day-2

Equation reducible to quadratic form

Type (iii): Reciprocal equation of the type

Q. Solve the following $x^4 - 2x^3 - 2x^2 + 2x + 1 = 0$

Q. Solve the following $2x^4 + x^3 - 6x^2 + x + 2 = 0$

Q. Solve the following $2x^4 - 5x^3 - 14x^2 - 5x + 2 = 0$

Video Lecture Links

https://www.youtube.com/watch?v=LGJdfs4_yuA

<https://www.youtube.com/watch?v=ujCdo87NPoo>

<https://www.youtube.com/watch?v=wZGIFLhA0iU>

Day-3

Equation reducible to quadratic form

Type (IV): In exponential equation, variable occurs in exponent.

Q. Solve the following $4 \cdot 2^{2x+1} - 9 \cdot 2^x + 1 = 0$

Q. Solve the following $3^{2x+2} = 12 \cdot 3^x - 3$

Q. Solve the following $2^x + 642^{-x} + 1 = 0$

Video Lecture Links

https://www.youtube.com/watch?v=LGJdfs4_yuA

<https://www.youtube.com/watch?v=ujCdo87NPoo>

<https://www.youtube.com/watch?v=wZGIFLhA0iU>

Week-3 Day-1

Equation reducible to quadratic form:

Type (v): The equation of the type $(x + a)(x + b)(x + c)(x + d) = k$

Q. Solve the following $(x + 1)(x + 3)(x - 5)(x - 7) = 192$

Q. Solve the following $(x - 1)(x - 2)(x - 8)(x + 5) + 360 = 0$

Q. Solve the following $(x - 1)(x + 2)(x + 8)(x + 5) = 19$

Video Lecture Links

https://www.youtube.com/watch?v=LGJdfs4_yuA

<https://www.youtube.com/watch?v=ujCdo87NPoo>

<https://www.youtube.com/watch?v=wZGIFLhA0iU>

Day-2

Radical Equations:

An equation involving expression under the radical sign is called a radical equation.

e.g., $\sqrt{x + 3} = x + 1$

Type (i) : Equation of the type $\sqrt{ax + b} = cx + d$

Q. Solve the following $2x + 5 = \sqrt{7x + 16}$

Q. Solve the following $\sqrt{x + 3} = 3x - 1$

Q. Solve the following $\sqrt{3x + 100} - x = 4$

Video Lecture Links

<https://www.youtube.com/watch?v=8yf0Qu9ceRs>

Day-3

Type (ii) : Equation of the type $\sqrt{x + a} + \sqrt{x + b} = \sqrt{x + c}$

Q. Solve the following $\sqrt{x + 5} + \sqrt{x + 21} = \sqrt{x + 60}$

Q. Solve the following $\sqrt{x + 1} + \sqrt{x - 2} = \sqrt{x + 6}$

Q. Solve the following $\sqrt{11 - x} - \sqrt{6 - x} = \sqrt{27 - x}$

Video Lecture Links

<https://www.youtube.com/watch?v=FZ5KWUEzqGU>

Week-4 Day-1

Type (iii): Equation of the type $\sqrt{x^2 + px + m} + \sqrt{x^2 + px + n} = q$

Q. Solve the following $\sqrt{x^2 + x + 1} - \sqrt{x^2 + x - 1} = 1$

Q. Solve the following $\sqrt{x^2 + 3x + 8} + \sqrt{x^2 + 3x + 2} = 3$

Q. Solve the following $\sqrt{x^2 + 3x + 9} + \sqrt{x^2 + 3x + 4} = 5$

Video Lecture Links

<https://www.youtube.com/watch?v=3l-AUnDBqVQ>

Day-2

Theory of Quadratic equation

Nature of roots: Discriminant $\sqrt{b^2 - 4ac}$

Q. Find the discriminant of the following $2x^2 + 3x - 1 = 0$

Q. Find the nature of the roots of the following given quadratic equation and verify the Result $x^2 - 23x + 120$.

Q. For what value of k, the expression $k^2x^2 + 2(k + 1)x + 4$ is a perfect square

Video Lecture Links

<https://www.youtube.com/watch?v=UIAnaHKrz5k>

Day-3

Learn these

To determine the value of an unknown involved in a given quadratic equation when nature of its roots is given.

Q. Find the value of k $(2k - 1)x^2 + 3kx + 3 = 0$

Q. Show that the equation $x^2 + (mx + c)^2 = a^2$ has equal roots, if $c^2 = a^2(1 + m^2)$

Q. Find k , if the roots of the equation $(k + 3)x^2 - 2(k + 1)x - (k + 1) = 0$

Video Lecture Links

https://www.youtube.com/watch?v=3J_S1eb6MUI

Week-5 Day-1

Cube roots of unity and their properties

$$w^3 = 1$$

$$1 + w + w^2 = 0$$

$$1 + w = -w^2$$

Q. Find the cube roots of 8?

Q. Evaluate $(1 - w - w^2)^7$

Q. Prove that $x^3 + y^3 = (x + y)(x + wy)(x + w^2y)$

Video Lecture Links

<https://www.youtube.com/watch?v=UTV6qbf7hpM>

https://www.youtube.com/watch?v=IK_Xt9-ey5c

Day-2

Properties.

$$w^3 = 1$$

$$1 + w + w^2 = 0$$

$$1 + w = -w^2$$

Q. Prove that $(1 + w)(1 + w^2)(1 + w^4)(1 + w^8) \dots 2n \text{ factors} = 1$

Q. prove that $x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x + wy + w^2z)(x + w^2y + wz)$

Q. Evaluate $w^{37} + w^{38} - 5$

Video Lecture Links

<https://www.youtube.com/watch?v=0G9F5ZrKqbU>

Day-3

Roots and co-efficient of a quadratic equation

$$\text{Sum of roots } S = -\frac{b}{a}$$

$$\text{Product of roots } p = \frac{c}{a}$$

Q. Find the sum and product of the roots $x^2 - 5x + 3 = 0$

Q. Find the value of k Sum of the roots of equation $2kx^2 - 3x + 4k = 0$ is twice the product of the roots

Q. Find the value of k Sum of the roots of equation $x^2 + (3k - 7)x + 5k = 0$ is $\frac{3}{2}$ times the product of the roots.

Video Lecture Links

<https://www.youtube.com/watch?v=A2fWGF4zcKE>

<https://www.youtube.com/watch?v=2TBDiCC0GyM>

Week-6 Day-1

To find unknown value involved in a given quadratic equation

- (a). Sum of the roots is equal to a multiple of the product of the roots
- (b) . Sum of the square of the roots is equal to a given number.
- (c) . Two roots differ by a given number.
- (d) Roots satisfy a given number

Q. Find p, the roots of the equation $x^2 - x + p^2 = 0$ differ by unity.

Q. Find m, if the roots of the equation $x^2 - 7x + 3m - 5 = 0$ satisfy the relation $3\alpha + 2\beta = 4$

Q. Find k, if Sum of the square of the roots of the equation $4kx^2 + 3kx - 8 = 0$ is 2

Video Lecture Links

https://www.youtube.com/watch?v=3dYqJ_fsZ7c

<https://www.youtube.com/watch?v=abcBPNtwks8>

Day-2

Learn these

Symmetric function: Are those function in which the roots involved are such that the value of the expression involving them remain unaltered, when roots are interchanged.

Q. if α, β are the roots of the equation $x^2 + px + q = 0$ then evaluate $\alpha^2 + \beta^2$

Q. if α, β are the roots of the equation $4x^2 - 5x + 6 = 0$, then $\frac{1}{\alpha} + \frac{1}{\beta}$

Q. if α, β are the roots of the equation $lx^2 + mx + n = 0$ then $\alpha^3\beta^2 + \alpha^2\beta^3$

Video Lecture Links

<https://www.youtube.com/watch?v=QLhtxBAuTIE>

Day-3

Symmetric function: Are those function in which the roots involved are such that the value of the expression involving them remain unaltered, when roots are interchanged.

Formation of a quadratic equation $x^2 - (\alpha + \beta)x + \alpha\beta$

Q. if α, β are the roots of the equation $x^2 - 3x + 6 = 0$ form $2\alpha + 1, 2\beta + 1$

Q. if α, β are the roots of the equation $x^2 + px + q = 0$ form equation α^2, β^2

Video Lecture Links

<https://www.youtube.com/watch?v=NHOnUDGXmpA>

<https://www.youtube.com/watch?v=RtgX2mhiqk>

Week-7 Day-1

Synthetic Division: Synthetic division is the process of finding the quotient and remainder, when a polynomial is divided by a linear polynomial. In fact synthetic division is simply a shortcut of long division method.

Q. Use synthetic division find the quotient and the remainder, when $(x^2 + 7x - 1) \div (x + 1)$

Q. Find the value of h using synthetic division, if 3 is the Zero of the polynomial $2x^2 - 3hx^2 + 9$

Q. Find the value of h using synthetic division, if 1 is the zero of the polynomial $2x^3 + 5hx^2 + 11$

Video Lecture Links

<https://www.youtube.com/watch?v=NHOnUDGXmpA>

<https://www.youtube.com/watch?v=RtgX2mhiqk>

Day- 2

Learn thes

Simultaneous equations: A system of equation having a common solution is called a simultaneous equations. The set of all ordered (x,y) which satisfies the system of equations is called the solution set of the system

Q. Solve the following Simultaneous equation

$$x + y = 5$$

$$x^2 - 2y - 14 = 0$$

Q. Solve the following Simultaneous equation

$$x - y = 7$$

$$\frac{2}{x} - \frac{5}{y} = 2$$

Video Lecture Links

<https://www.youtube.com/watch?v=eToZC1ekiZw>

Day-3

Learn these

Problem Leading to Quadratic equation: There are many problem which lead to quadratic equation. To form an equation, we use symbols for unknown quantities in the problems.

Q. The product of the two positive consecutive number is 182. Find the number.

Q. The sum of the squares of three positive consecutive number is 77. Find them.

Q. The sum of five times a number and the square of the is 204.

Q. The product of five time less than three times a certain number and one less than four times the number is 7. Find the number

Video Lecture Links

<https://www.youtube.com/watch?v=3l-AUnDBqVQ>

<https://www.youtube.com/watch?v=bqCUIRJoH>

Chemistry

Week-1 Day-1

Chemical Equilibrium

Video Lecture Links

- <https://www.youtube.com/watch?v=zhEcCBVaUVE>
- <https://www.youtube.com/watch?v=jCouwQcwTg0>

Tasks

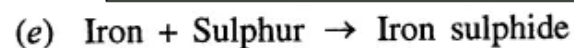
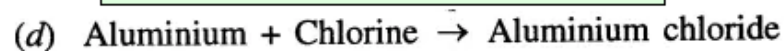
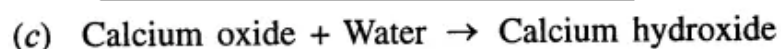
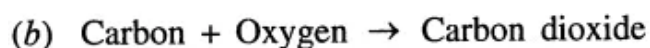
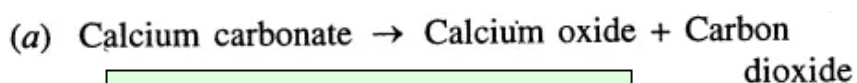
Q. Answer the following questions.

1. What are the conditions necessary for equilibrium?
2. What is a forward reaction versus a reverse reaction?
3. What are the characteristics of equilibrium?
4. What is constant at equilibrium?
5. What are the necessary conditions to establish equilibrium?

Q. Solve the following:

- a) The concentration of OH⁻ ions in a sample of seawater is 5.0×10^{-6} M. Calculate the concentration of H₃O⁺ ions and classifies the solution as neutral, acidic, or basic.
- b) The concentrations of H₃O⁺ ions in a sample of lemon juice is 2.5×10^{-3} M. Calculate the concentration of OH⁻ ions, and classify the solution as neutral, acidic or basic.

Q. Write equation for the following:



Day-2

Acids and bases

Video Lecture Links

- <https://www.youtube.com/watch?v=sGhVhk8DHOg>

Tasks

Q1. For the following descriptions, identify each as a property of an acid only(A), base only (B), or either (C).

_____ a. Bitter taste (we never taste chemicals in the lab)

Cantt Public Education System

- _____ b. Reacts with active metals to generate hydrogen gas.
- _____ c. Sour taste (we never taste chemicals in the lab)
- _____ d. Is slippery when placed on the skin
- _____ e. Undergoes neutralization.
- _____ f. Turns blue with litmus

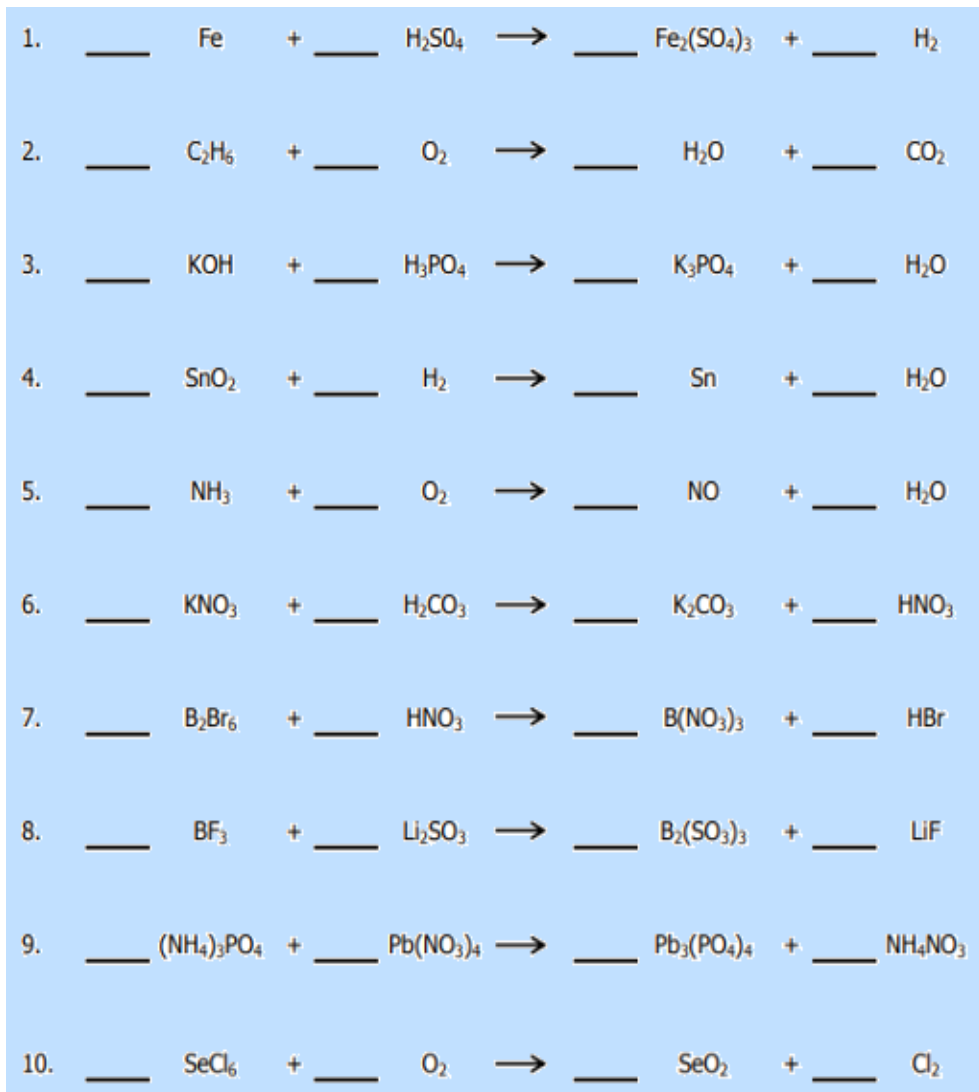
Q2. Define the terms acid and base using both the Arrhenius and Bronsted/Lowry definitions.

	Arrhenius	Bronsted/Lowry
Acid		
Base		

Q3. Identify each of the following as an Arrhenius acid (a), Arrhenius base (B), or salt (s).

- _____ a. NaCl
- _____ b. KOH
- _____ c. HCl
- _____ d. Mg(OH)₂
- _____ e. MgCl₂
- _____ f. H₂SO₄

Q4. Balance the following chemical Equations.



Day-3

Arrhenius, Lowry-Bronsted Acids Bases

Video Lecture Links

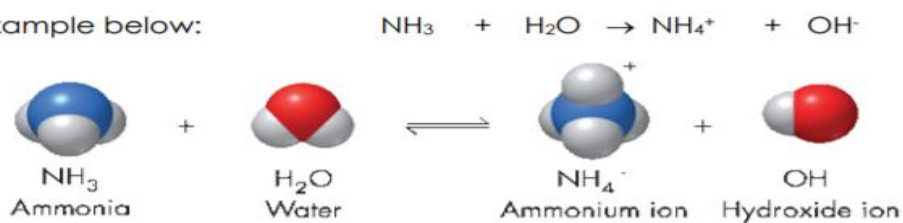
- <https://www.youtube.com/watch?v=qNwhUR36l7g>
- <https://www.youtube.com/watch?v=9xhqfeAFG0o>

Tasks

Bronsted-Lowry Worksheet

A Brønsted -Lowry acid is defined as anything that donates H⁺ ions, a Brønsted -Lowry base is defined as anything that accepts H⁺ ions.

Look at the example below:



NH₃ accepts a proton or H⁺ so it is classified as a base.
H₂O donates a proton or H⁺ so it is classified as an acid.

Label the Bronsted-Lowry acids and bases in the following reactions and show the direction of proton transfer.

- $\text{H}_2\text{O} + \text{H}_2\text{O} \leftrightarrow \text{H}_3\text{O}^+ + \text{OH}^-$
- $\text{H}_2\text{SO}_4 + \text{OH}^- \leftrightarrow \text{HSO}_4^- + \text{H}_2\text{O}$
- $\text{HSO}_4 + \text{H}_2\text{O} \leftrightarrow \text{SO}_4^{2-} + \text{H}_3\text{O}^+$
- $\text{OH}^- + \text{H}_3\text{O}^+ \leftrightarrow \text{H}_2\text{O} + \text{H}_2\text{O}$
- $\text{NH}_3 + \text{H}_2\text{O} \leftrightarrow \text{NH}_4^+ + \text{OH}^-$

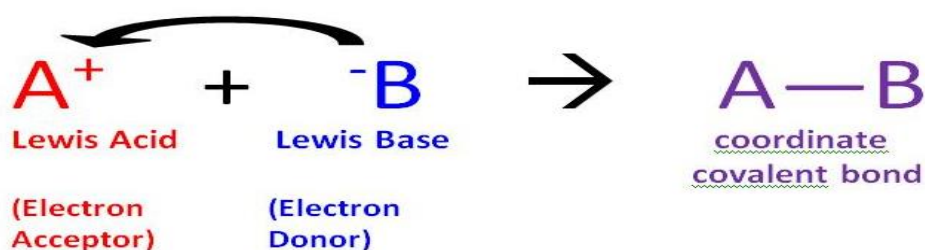
Week-2 Day-1

Lewis acid and base

Video Lecture Links

- <https://www.youtube.com/watch?v=2cTZZV4AKMI>

Tasks



Q.Fill in the missing words.

A Lewis acid is a substance that can _____ a pair of _____ to form a covalent bond.
 While a Lewis base is a substance that can _____ a pair of _____ to form a covalent bond.

Q.Identify the Lewis acid and Lewis Base in the following reaction: Draw a Lewis dot structure for each to decide which is donating electrons and which one is receiving electrons.



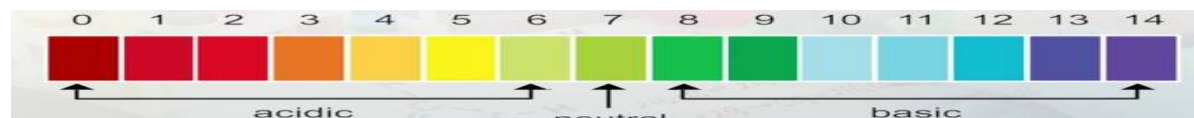
Day-2
pH and indicators

Video Lecture Links

- <https://www.youtube.com/watch?v=reSwre3Hj6o>
- <https://www.youtube.com/watch?v=oVIBoFalyd0>

Tasks

pH Worksheet



1. What colour will litmus paper turn when it is dipped in each of the substances in the table below?

Substance	Litmus paper
Table salt dissolved in water	
Apple juice	
Vinegar	
Liquid soap	
Lemon juice	

2. Answer the questions, using the information in the table below.

Fruit	pH	Fruit	pH
Lime	2.5	Tomato (juice)	4.4
Grapefruit	3.5	Banana	4.5

- a) Which is the most acidic fruit? _____
- b) Which is the least acidic fruit? _____
- c) How many times less acidic is the banana than the lime? _____
- d) How many times more acidic is the lime than the grapefruit? _____

3. An apple has a pH of 3, while a carrot has a pH of 5.

- a) Which of these two foods is more acidic? _____
- b) How many times more acidic is it? _____

Day-3

Arrhenius, Lowry-Bronsted Acids Bases

Video Lecture Links

- <https://www.youtube.com/watch?v=qNwhUR36l7g>
- <https://www.youtube.com/watch?v=9xhqfeAFG0o>

Tasks

Revision

Week-3 Day-1

Salts & its Uses

Video Lecture Links

- <https://www.youtube.com/watch?v=ho-UH2vDaxQ>
- https://www.youtube.com/watch?v=tnAfCiq-_k

Tasks

Q.Name the Salts:

ACID + ALKALI → SALT + WATER

Salts made using HYDROCHLORIC ACID are called _____

Salts made using SULPHURIC ACID are called _____

Salts made using NITRIC ACID are called _____

Salts made using CITRIC ACID are called _____

Hydrochloric Acid + Sodium Hydroxide → Sodium Chloride + Water

Remember – The FIRST word of the SALT is the same as the FIRST word of the ALKALI!

Try these...

Hydrochloric acid + Potassium Hydroxide → Potassium _____ + Water

Nitric acid + Magnesium Hydroxide → _____ Nitrate + Water

Easy? Now try these...

Sulphuric acid + Sodium Hydroxide → _____ + _____

Citric acid + Potassium Hydroxide → _____ + _____

How about these...

Potassium Hydroxide + _____ → Potassium Sulphate + _____

Nitric acid + _____ → Magnesium Nitrate + _____

Feeling confident? Try these...

_____ + _____ → Sodium Nitrate + _____

_____ + _____ → Magnesium Chloride + _____

Q. Match the column

Column A	Column B
Common Salt	NaOH
Baking soda	Na ₂ CO ₃
Caustic soda	NaCl
Washing Soda	NaHCO ₃

Day-2

Basics of organic Chemistry



Video Lecture Links

- <https://www.youtube.com/watch?v=HIYzVXV6Me8>

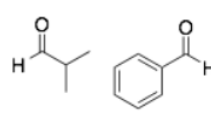
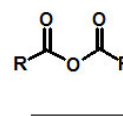
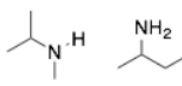
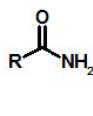
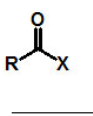
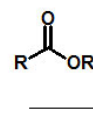
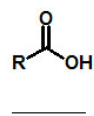
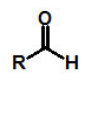
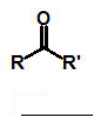
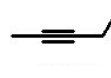
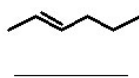
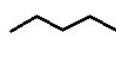
Tasks

Naming Organic Compounds

Q. Provide the names for the organic compounds shown below.

 <p>1.</p> $\begin{array}{c} \text{H} \\ \\ \text{H}-\text{C}-\text{H} \\ \\ \text{H} \end{array}$	 <p>5.</p> $\begin{array}{c} \text{H} & \text{H} & \text{H} \\ & & \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{H} \\ & & \\ \text{H} & \text{H} & \text{H} \end{array}$
<p>2.</p> $\begin{array}{c} \text{H} & \text{H} \\ & \\ \text{H}-\text{C}-\text{C}-\text{H} \\ & \\ \text{H} & \text{H} \end{array}$	<p>6.</p> $\begin{array}{c} \text{H} & \text{H} & \text{H} & \text{H} \\ & & & \\ \text{H}-\text{C}=\text{C}-\text{C}-\text{C}-\text{H} \\ & & & \\ & & \text{H} & \text{H} \end{array}$
<p>3.</p> $\text{H}-\text{C}\equiv\text{C}-\text{H}$	<p>7.</p> $\begin{array}{c} \text{H} & \text{H} \\ & \\ \text{H}-\text{C}=\text{C}-\text{H} \end{array}$
<p>4.</p> $\begin{array}{c} \text{H} & \text{H} & \text{H} \\ & & \\ \text{H}-\text{C}=\text{C}-\text{C}-\text{H} \\ & & \\ & & \text{H} \end{array}$	<p>8.</p> $\begin{array}{c} \text{H} \\ \\ \text{H}-\text{C}\equiv\text{C}-\text{C}-\text{H} \\ \\ \text{H} \end{array}$

Write the names of the functional Groups given below



Day-3

Hydrocarbons

Video Lecture Links

- <https://www.youtube.com/watch?v=aReG9oTjycQ>

Tasks

Hydrocarbons Worksheet

Q. Answer the questions.

- 1) What is organic chemistry?
_____.
- 2) Organic compounds that contain only carbon and hydrogen are called _____.
- 3) Is the following sentence true or false? Alkanes contain only single covalent bonds. _____.
- 4) What is the simplest alkane? _____.
- 5) The names of all alkanes end with the suffix _____.
- 6) Match the name of the straight-chain alkane with the number of carbon atoms it contains.

Hydrocarbon	Number of carbon atoms
Hexane	7
Propane	4
Heptane	3
Butane	6

- 7) Which family of hydrocarbons are always saturated compounds? _____.
- 8) Hydrocarbons that contain one or more _____ covalent bonds between carbons are called alkynes.
- 9) _____ is the simplest alkyne, and is also known by the common name _____.
- 10) What is an alkene?

_____.

11) Complete the table below:

Number of carbon atoms (n)	Alkane [C _n H _{2n+2}]	Alkene [C _n H _{2n}]	Alkyne [C _n H _{2n-2}]
2	C ₂ H _{2x2+2} = C ₂ H ₆	C ₂ H _{2x2} = C ₂ H ₄	C ₂ H _{2x2-2} = C ₂ H ₂
3			
4			
5			
6			

Week-4 Day-1

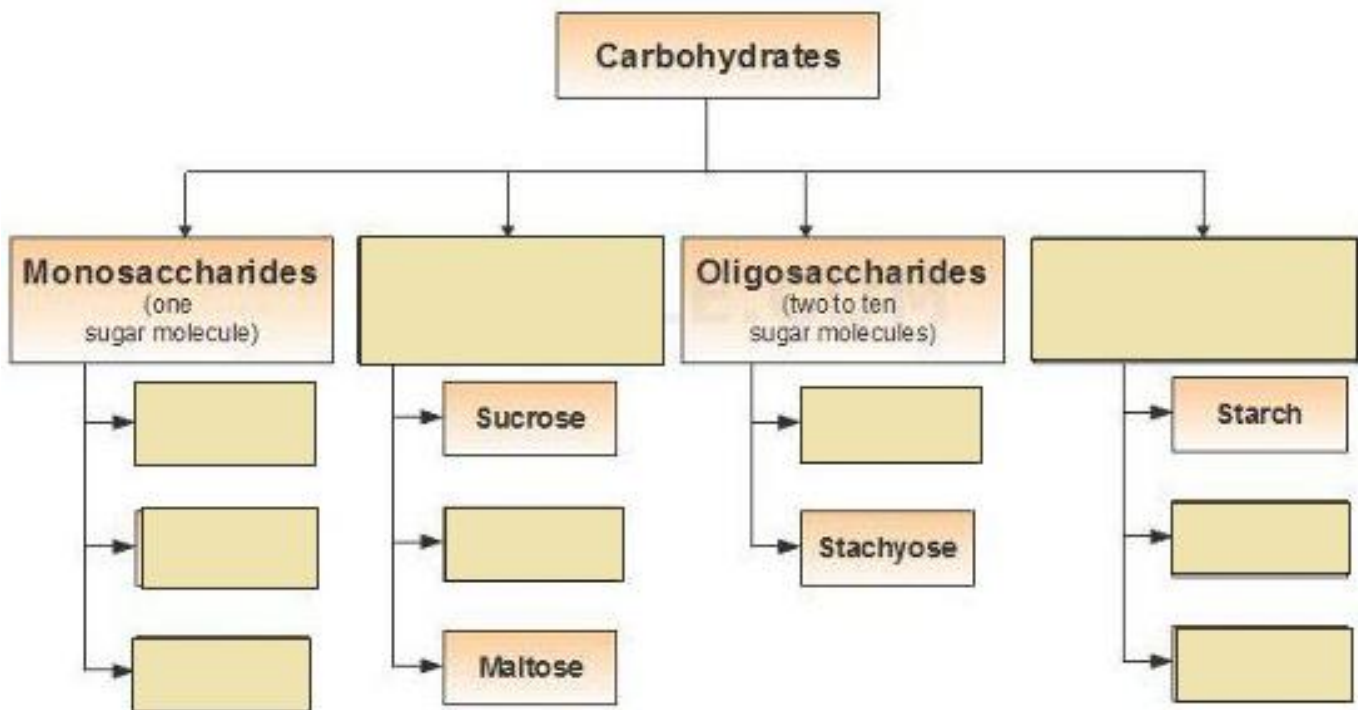
Carbohydrates

Video Lecture Links

- <https://www.youtube.com/watch?v=jSL2LLysrH8>
- <https://www.youtube.com/watch?v=F652ORw5Xws>

Tasks

Q. Complete the following Chart.



Q. Fill in the blanks from the given word bank

Word Bank:

grains, digestion, cereals, metabolism, pasta , oxidation, energy, fruit , vegetables, tubers , legumes , sugar , sucrose, glucose, fat, simple, lactose, plant, fat, fructose, maltose,

1. . Carbohydrates make up the largest volume of our daily food. _____% of our food should be from carbohydrates.
2. Carbohydrates are taken in the form of _____, _____, _____, _____ and _____.
3. Carbohydrate is the element of our food that supplies _____. Carbohydrates also play a vital part of the _____process, and of the _____ and _____ of protein and fat.
4. If we take in more carbohydrate than is needed for energy, the unused portion is stored in the liver or the tissues as _____.
5. Carbohydrates come mainly from _____ sources, although milk and milk products contain some carbohydrates in the form of_____ .
6. _____ Carbohydrates are quick energy sources, but they usually do not supply any other nutrients or fiber.
7. _____ is the major kind of simple sugar. It is the basic source of energy for all living things.

8. _____: commonly known as table sugar, beet or cane. It occurs in many fruits and vegetables.
9. _____: known as fruit sugar. Most plants contain this sugar, especially fruits and saps.
10. _____: sometimes known as blood sugar, and sometimes as grape sugar.
11. _____: known as malt sugar, is found in grains.
12. _____: known as milk sugar, is found as the principal carbohydrate in milk.
13. _____ carbohydrates often supply energy and other nutrients and fiber that the body needs.
14. _____ in the body breaks down simple sugars.
15. The body has to break down all sugar and _____ into glucose to use it.

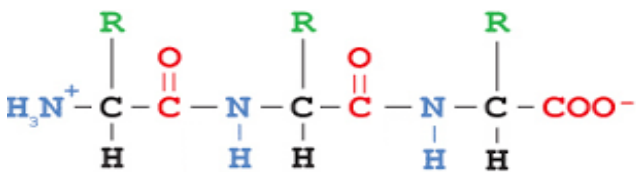
Day-2

Proteins

Video Lecture Links

- <https://www.youtube.com/watch?v=RexFPJulmQ8>

Tasks



Q. The dipeptide bond is depicted above. Answer the following questions.

1. Circle the amino groups.
2. Draw a triangle around the carboxylic group.
3. How amino acids are are similar to one another?
4. How amino acids are involved in making dipeptide?
5. What would be the R group in the amino acids?

Draw a single monomer of protein.

Day-3

Vitamins and Lipids

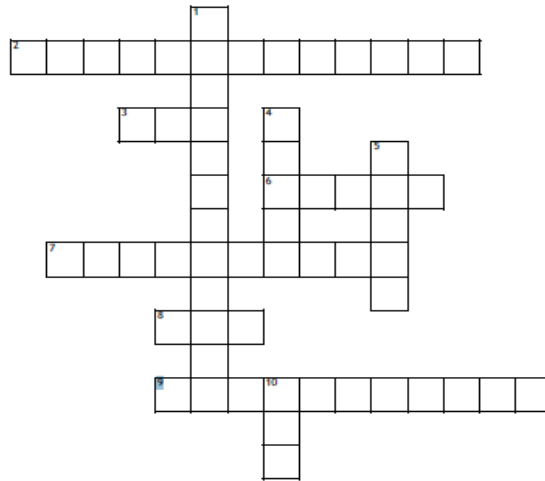
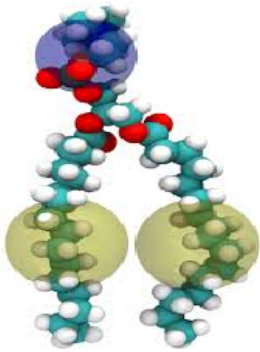
Video Lecture Links

- <https://www.youtube.com/watch?v=hz5DzulxDOo>
- <https://www.youtube.com/watch?v=pc4iWxi6p0E>

Tasks

Q. Crossword:

Lipids



orbed.

Across

- 2. Blood fats that are absorbed by the body.
- 3. "Good" cholesterol.
- 6. Synonymous for fat.
- 7. The liver uses fats to _____ proteins.
- 8. One of the 3 macronutrients; along with carbs and proteins.
- 9. A fatty, wax-like substance that circulates throughout the blood.

Down

- 1. Fat helps to build the _____.
- 4. Fat is the primary fuel in _____.
- 5. Where most fat metabolism (break down) takes place.
- 10. "Bad" cholesterol.

Q. Match the correct vitamin to the appropriate deficiency disease. Write a vitamin to the correct deficiency disease.

Vitamin:	Disease
Vitamin A	Ricketts – bones become soft and deformed because minerals are not absorbed
Vitamin B	Night blindness and infections of the respiratory system
Vitamin C	Beri-Beri – a disease leading to weak muscles and finally paralysis
Vitamin D	Scurvy – the repair system of the body breaks down leading to pains in the joints and bleeding, especially of the gums

Week-5 Day-1

Composition and Layers of Atmosphere

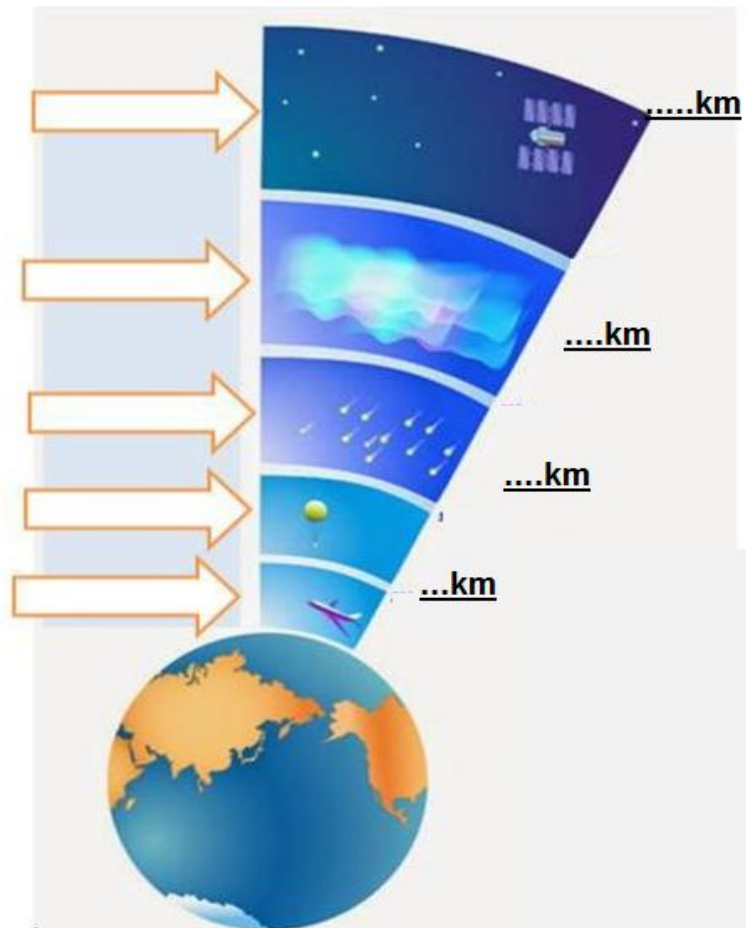
Video Lecture Links

- <https://www.youtube.com/watch?v=qlwt4uiAFbE>
- <https://www.youtube.com/watch?v=cflmbcvDE4w>

Tasks

Q. Label the layers of atmosphere. Word bank is given below.

Exosphere, mesosphere, troposphere, thermosphere, ionosphere, 10000, 20, 85, 690, 50



Q. Answer the following questions?

1. Describe the Earth's atmosphere in your own words.
2. What is the composition of the air that we breathe?
3. The earth's atmosphere is mainly composed of which three gases?
4. Which compound or compounds contribute/s to acid rain in the atmosphere?
5. What makes the ozone layer an important component of the stratosphere?
6. What makes up 99% of our air?
7. Write composition of air with its volume in tabular form.

Day-2

Hydrocarbons

Video Lecture Links

- <https://www.youtube.com/watch?v=aReG9oTjycQ>

Tasks

Revision

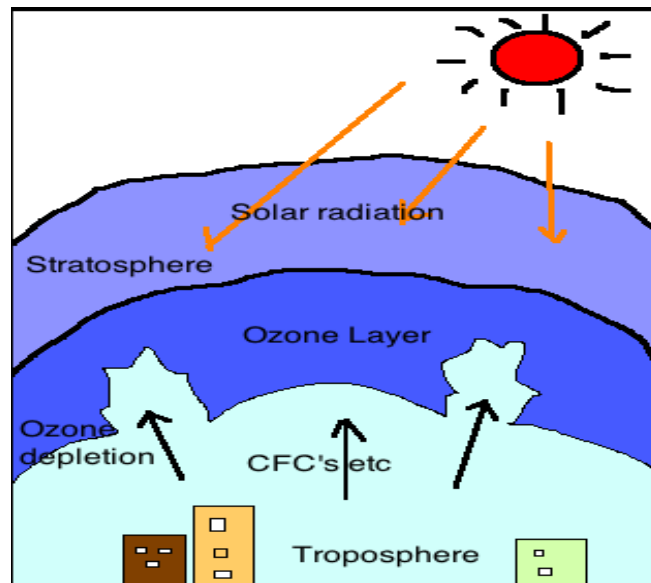
Day-3

Ozone Depletion and its effects

Video Lecture Links

- <https://www.youtube.com/watch?v=pbuTzoq7FBo>
- https://www.youtube.com/watch?v=YHVVY9o_28M

Tasks



- Write a description of the diagram
- What is the ozone layer?
- What are the causes and effects of ozone depletion?
- What is ozone hole?
- What are the solution to prevent from ozone depletion

Week-6 Day-1

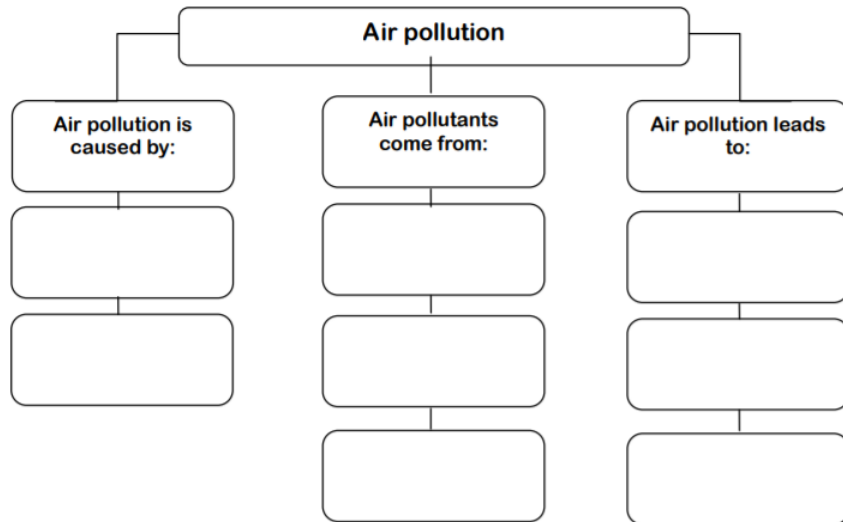
Air Pollution

Video Lecture Links

- <https://www.youtube.com/watch?v=1V07dvZLMks>
- <https://www.youtube.com/watch?v=dLd7M2Pduds>

Tasks

Q. Complete the diagram given below:



1. Describe how human activities cause air pollution.
2. Name the global environmental issues caused by air pollution.
3. Explain how air pollution problems affect our health and living.
4. Suggest ways to improve air quality

Day-2

Properties of water and Water pollution

Video Lecture Links

- <https://www.youtube.com/watch?v=CHqCZoT7ILk>
- <https://www.youtube.com/watch?v=HNNHyW5V6fmU>

Tasks

Q. Complete the chart with appropriate answers

Property of Water	Explanation of Property	Importance for Life
Cohesion		
Adhesion		
Universal Solvent		
Less dense as solid		
High specific heat		

Day-3

Types of water

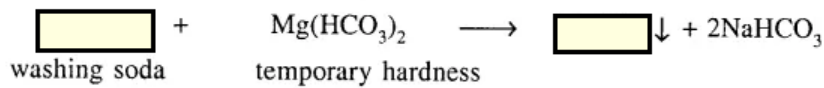
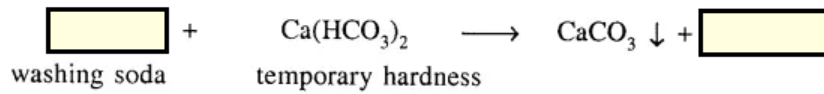
Video Lecture Links

- <https://www.youtube.com/watch?v=gFjMlpkSJP4>
- <https://www.youtube.com/watch?v=ALtQNASmfms>

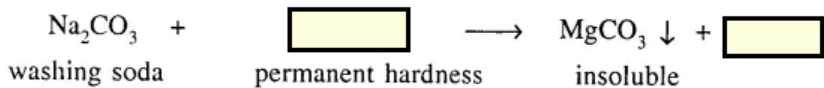
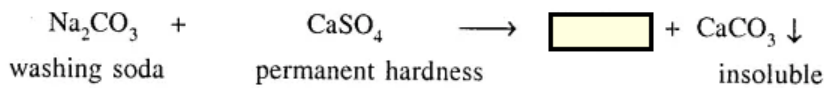
Tasks

Complete and balance the chemical equation

(i) Temporary hardness :



(ii) Permanent hardness :



Q. Differentiate between temporary & permanent hardness in water?

Q. Differentiate between soft & hard water

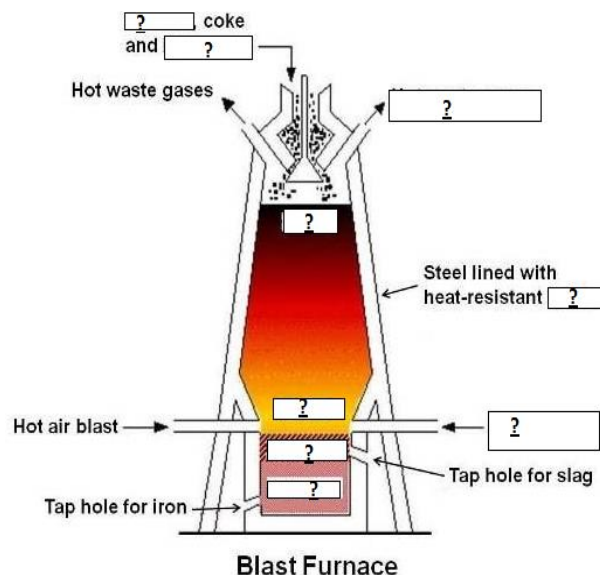
Week-7 Day-1

Metallurgy

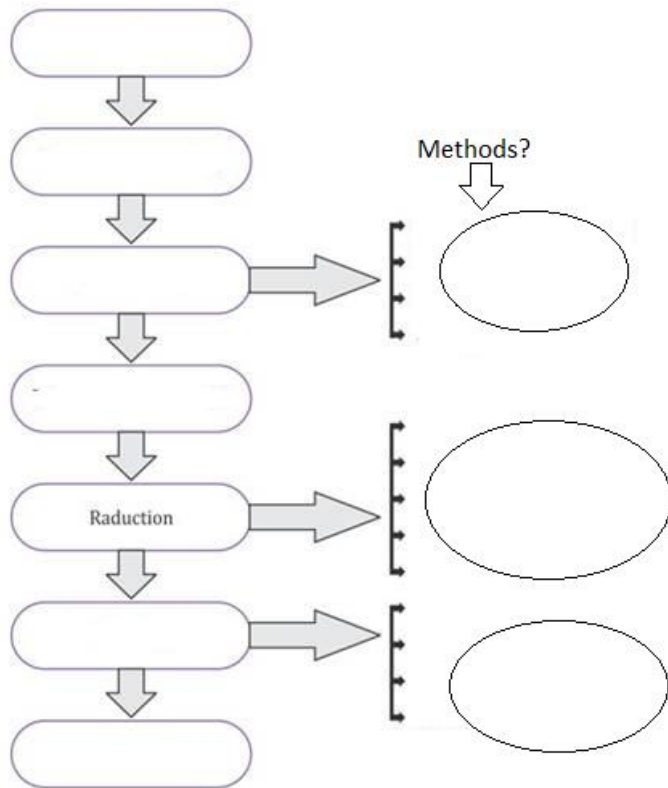
Video Lecture Links

- <https://www.youtube.com/watch?v=hQUecFfaj0U>
- <https://www.youtube.com/watch?v=c6KD-MPlEdu>
- https://www.youtube.com/watch?v=qdkbm_8hxlw

Tasks. Q. Label the diagram given below.



Q. Complete the steps involved in extraction of metal. Also mention the various methods.



Day-2

Solvay Process

Video Lecture Links

- <https://www.youtube.com/watch?v=ZoBiymAaaOM>
- <https://www.youtube.com/watch?v=50tQ20ptsyk>
- Tasks

Q. Choose the correct option.

1. Solvay process is used to make
 - a) potassium carbonate
 - b) sodium carbonate
 - c) NaCl
 - d) NaOH
2. The raw materials for the Solvay process include
 - a) ammonia
 - b) brine
 - c) lime stone
 - d) all of above
3. The last step of the Solvay process is
 - a) preparation of ammonical brine

- b) carbonation
- c) preparation of carbon dioxide and slaked lime
- d) recovery of ammonia

4. The third step of the Solvay process is

- a) preparation of ammonical brine
- b) carbonation
- c) filtration
- d) calcination

5. Process in which sodium carbonate is manufactured is called

- a) calcination
- b) metallurgy
- c) Solvay process
- d) carbonation

Q. Draw the flow sheet diagram of Solvay Process.

Q. Why this process is suitable for the manufacturing?

Q. What are the advantages of Solvay process?

Day-3

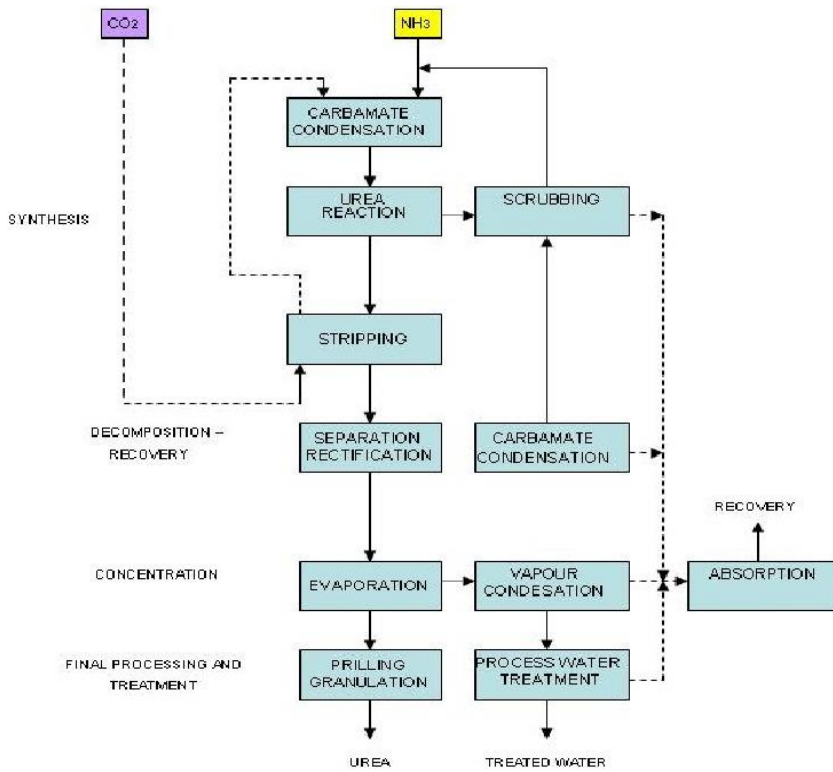
Petroleum Industry and Urea

Video Lecture Links

- <https://www.youtube.com/watch?v=p8g-zKZZeVg>
- <https://www.youtube.com/watch?v=G53H5tsdRQ0>
- Tasks
- **Q. Write the uses of following:**

Name	Uses
Petroleum Gas	
Gasoline	
Kerosene	
Fuel oil	
Lubricating oil	
Paraffin wax	
Asphalt	

Q. The flow sheet diagram of manufacturing of urea is given below:



Now answer the following questions

- Write balanced chemical equations for urea production.
- What is the formula of urea?
- What is the purity level of urea manufactured by this process?
- What are the uses of Urea in daily basis life?
- What are the advantages and disadvantages of this process?

Biology

Week: -1

10.1 Gaseous Exchange in Plants

10.2 Human Respiratory System

Textbook Reading: • Read Introduction given on pg 2. It gives an insight on the phenomena of gas exchange in living organisms and its importance.

This link can help in better understanding of this concept: -

https://en.wikipedia.org/wiki/Respiratory_system

• Read Gaseous Exchange in Plants on pg 2- 3. It outlines different type of structures present in various categories of plants for gas exchange.

This link can help in better understanding of this concept: -

<https://youtu.be/NJYkMHTjRil>

• Read Human Respiratory System on pg 4-7. It explains in detail the anatomy and physiology of Human respiratory system along with the mechanism of breathing.

This link can help in better understanding of this concept: -

<https://youtu.be/QUjrob5GrUo>

Written Work:

• Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 2-7.

Task:

• Day: 1 • Introduction and Gas exchange in plants: -

ADDITIONAL SHORT- QUESTIONS:

- What is difference between breathing and gas exchange?
- How woody plants exchange gas with the external environment?
- Analyze the importance of stomata on basis of its role in gas exchange.

Web Organizer/ flowsheets:-

Stomata

(Young leaves and stems)

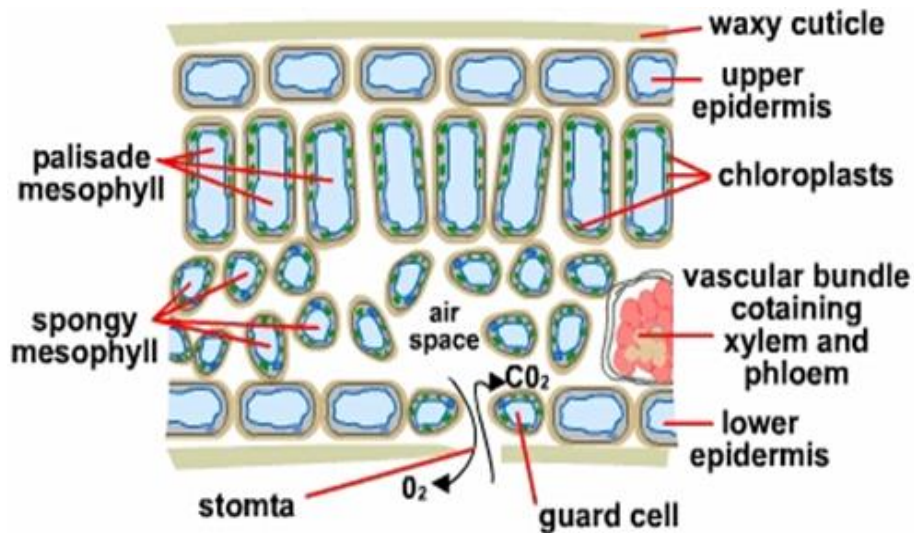
↑

Aquatic Environment GAS EXCHANGE IN PLANTS ➔ Lenticels

(Hydrophytes)

(Woody stems)

Diagram/s:



Notes/ Self-assessment/ Daily link: - Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-gaseous-exchange-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-1.1&v=b-bio-energ-54>

Written Work:

- Practice diagrams with labelling on pg 2-7.

Day: 2 ▪ Human Respiratory System (10.2.1-Air passageway)

ADDITIONAL SHORT- QUESTIONS:

- What is voice box? How is it involved in speech?
- What is trachea?
- Compare bronchi and bronchioles.
- What is structural and functional unit of lungs?
- What is function of epiglottis?

Web Organizer/ flow sheet:-

Diagram/s:



Notes/ Self-assessment/ Daily link: -

Follow these links for better conceptualization of this topic: -

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-1.3&v=b-gas-exch-40>

<https://classnotes.xyz/class-10-biology-notes-fbise/>

Written Work:

Practice the diagram of human respiratory passageway and Alveoli on pg 5-6. Also solve questions given in exercise in textbook.

▪Day:-3▪ Human Respiratory System (10.2.2 Lungs)

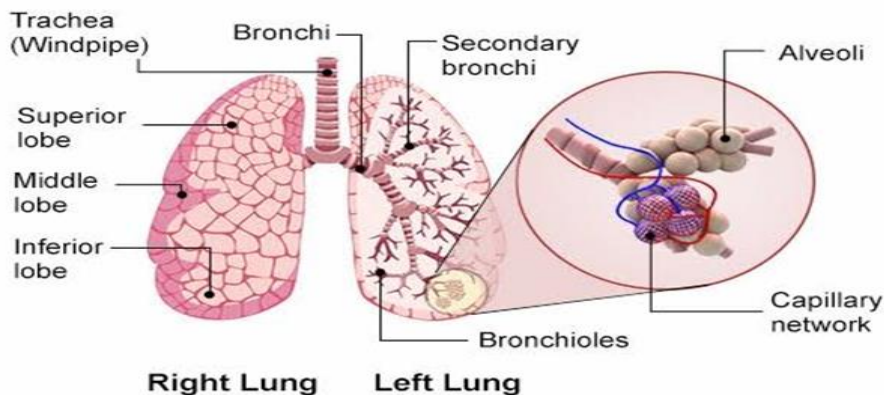
ADDITIONAL SHORT- QUESTIONS:

- Compare pleural membrane and diaphragm.
- Why are lungs spongy in nature?

Key points: -

- Lungs are respiratory organs of Humans which lie in thoracic cavity.
- Lungs are covered with double membrane called pleural membrane
- Functional & structural unit of lung is Alveoli.

Diagram/s:



Notes/ Self-assessment/ Daily link: -

Follow these links for better conceptualization of this topic: -

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-1.3&v=b-gas-exch-46>

<https://classnotes.xyz/class-10-biology-notes-fbise/>

Written Work:

- practice diagrams with labelling on pg 6-7.

Week 2

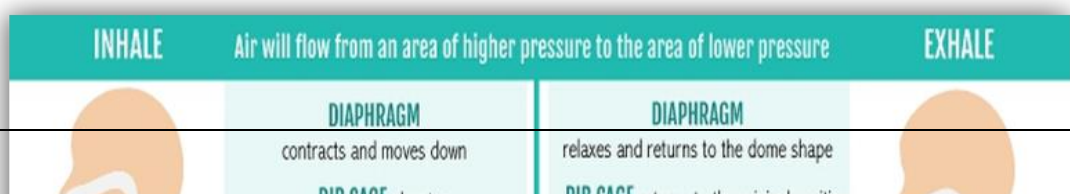
▪Day: -1▪ (10.2.3- Mechanism and control of Breathing): -

ADDITIONAL SHORT- QUESTIONS:

- Compare inhalation and exhalation.
- What happens to your breathing rate when you exercise and why?

Web Organizer/ flowsheets/ Key points: -

Diagram/s:



MECHANISM OF BREATHING

Notes/ Self-assessment/ Daily link: -

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-gaseous-exchange-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-1.3&v=b-gas-exch-47>

Written Work/Activity:

- Practice diagrams with labelling on pg 7-8. Also solve short questions from exercise.
- Note your breathing rate before and after running or brisk walking.

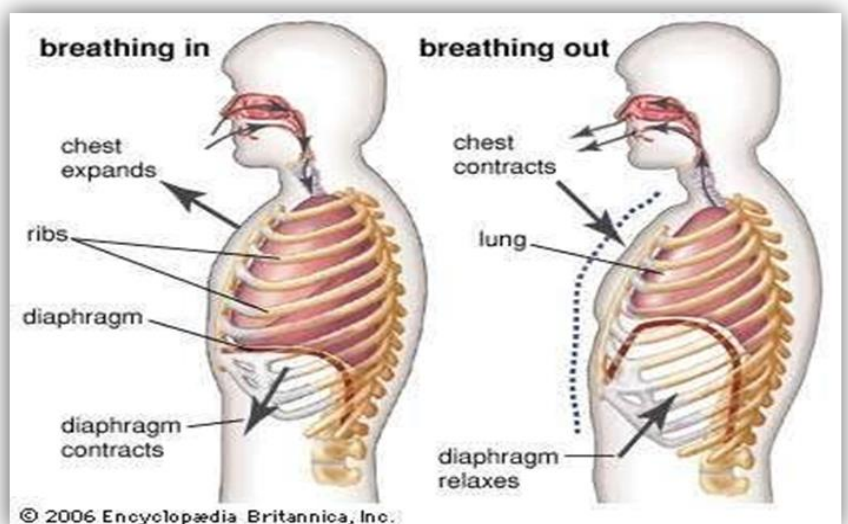
Day 2

Unit 10: Gaseous Exchange

Topic/s: 10.3 Respiratory Disorders and effects of smoking

Textbook Reading:

- Read Respiratory disorders given on pg 11-15. It gives a detailed account of diseases related to Respiratory tract in Humans. Adverse effects of smoking are also highlighted in this portion of the chapter.



These links can help in better understanding of this concept: -

https://en.wikipedia.org/wiki/Respiratory_system

<https://www.biotopics.co.uk/humans/resyst.html>

Written Work:

- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 11-16.

Task- Emphysema & Bronchitis

ADDITIONAL SHORT- QUESTIONS:

- Compare chronic and acute Bronchitis.
- What is Emphysema?

	Causes	Risk factors	Symptoms
Acute	Inflammation due to a viral or bacterial infection	<ul style="list-style-type: none"> • Children under five years old • People with a weakened immune system 	<ul style="list-style-type: none"> • Cough lasting three weeks or less • Cold or flu symptoms • Sore throat • Headache • Nasal congestion • Fever
Chronic	Inflammation due to environmental contaminants such as chemicals or tobacco smoke	<ul style="list-style-type: none"> • Adults over 40 years old • People with an occupation exposing them to airborne contaminants • Smokers 	<ul style="list-style-type: none"> • Daily cough lasting three months of the year, two years in a row • Shortness of breath • Wheezing

Types of Bronchitis in Humans

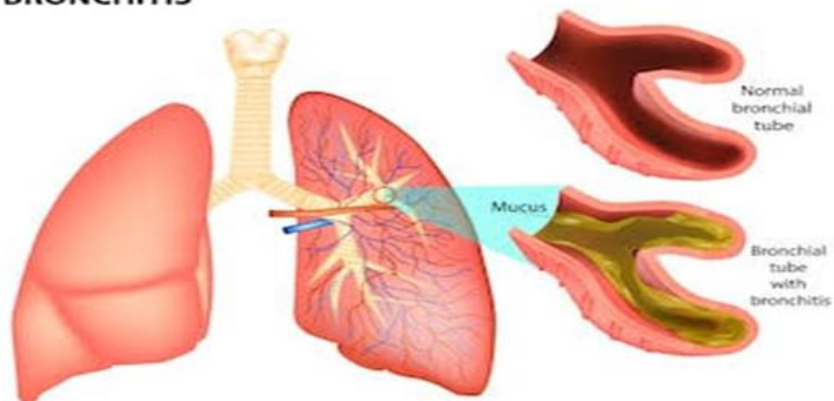
Web Organizer/ flowsheets/ Key points: -

Diagram/s:

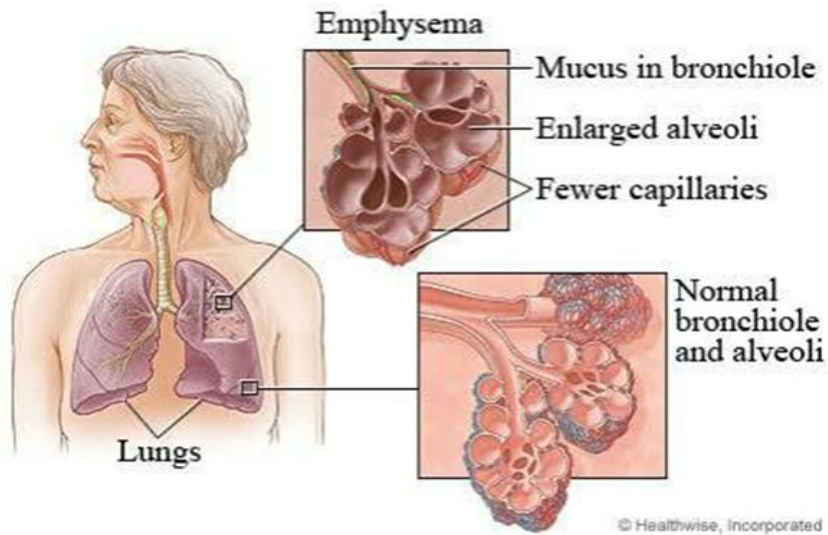
EMPHYSEMA

- Emphysema is a type of **chronic obstructive pulmonary disease** (COPD) involving damage to the air sacs (alveoli) in the lungs. As a result, your body does not get the oxygen it needs.
- Emphysema makes it hard to catch your breath. You may also have a chronic cough and have trouble breathing during exercise.
- The most common cause is cigarette smoking

BRONCHITIS



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Notes/ Self-assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-gaseous-exchange-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-1.4&v=b-gas-exch-64>

Written Work:

- Practice diagrams with labelling on pg 11-12. Compare respiratory disorders in tabular form.

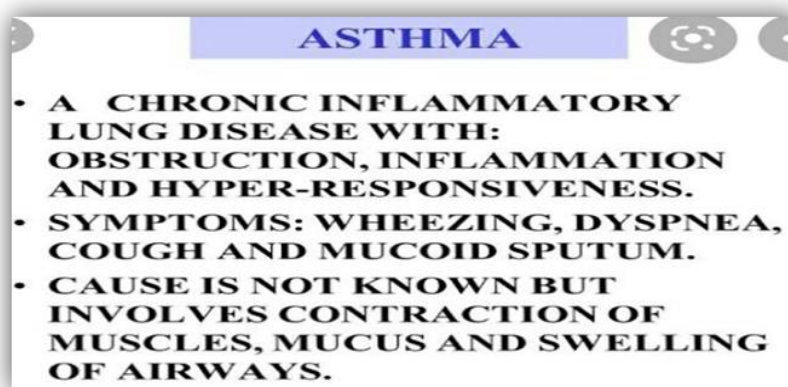
Day: - 3 Pneumonia & Asthma: -

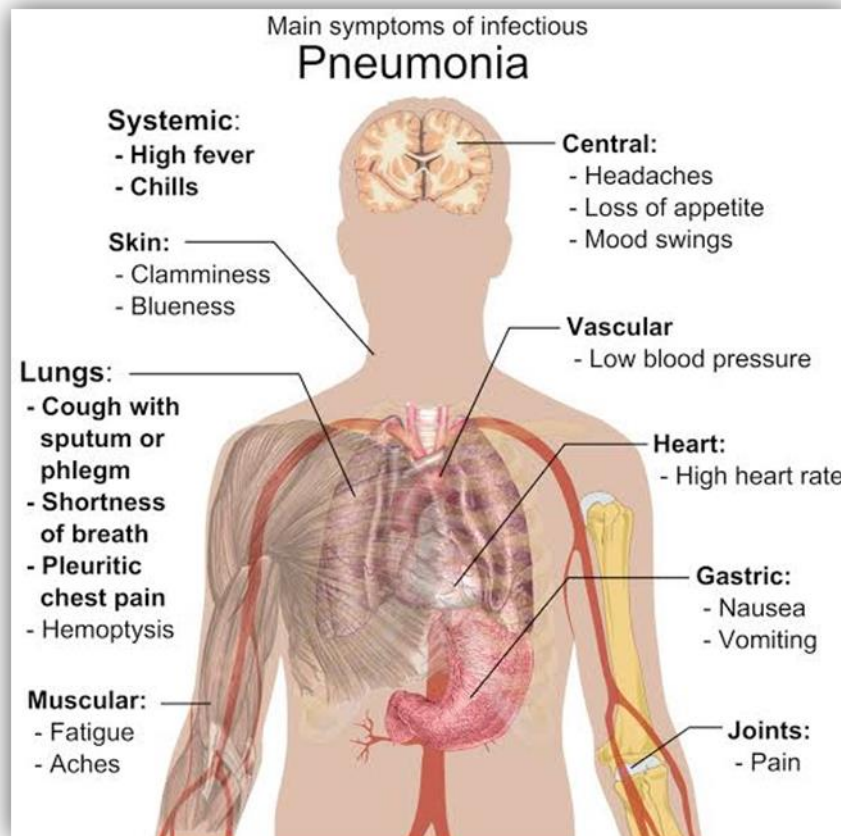
ADDITIONAL SHORT- QUESTIONS:

- Which respiratory disorder is caused by bacterial invasion? Give its symptoms, causes and treatment.
- What is Asthma?

Web Organizer/ flow sheets/ key points:-

Diagram/s:





Notes/ Self-assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-gaseous-exchange-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-1.4&v=b-gas-exch-67>

Written Work:

- Practice diagrams with labelling on pg 12- 13. Also solve questions from exercise.

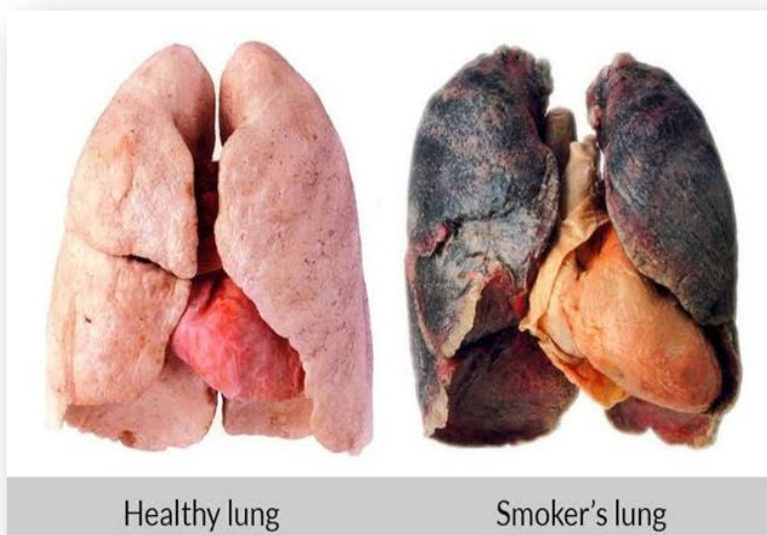
▪ Lung Cancer & Bad effects of smoking: -

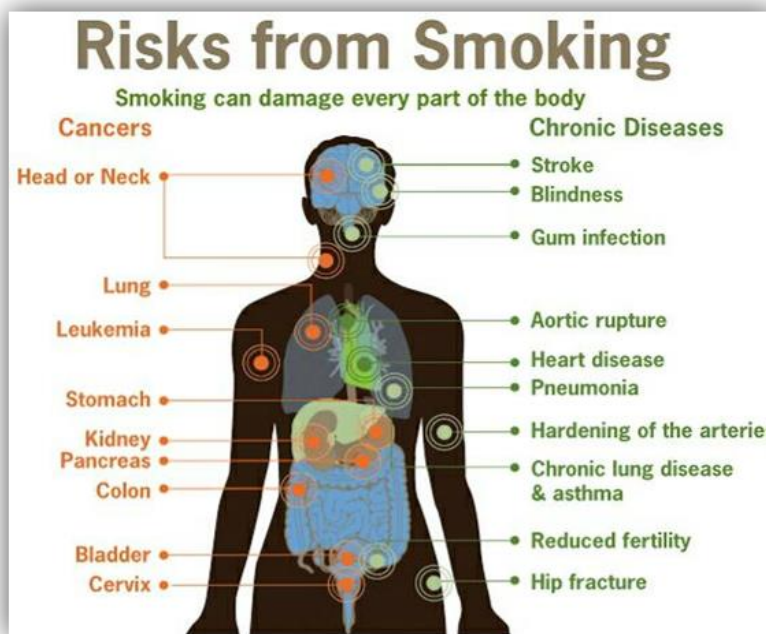
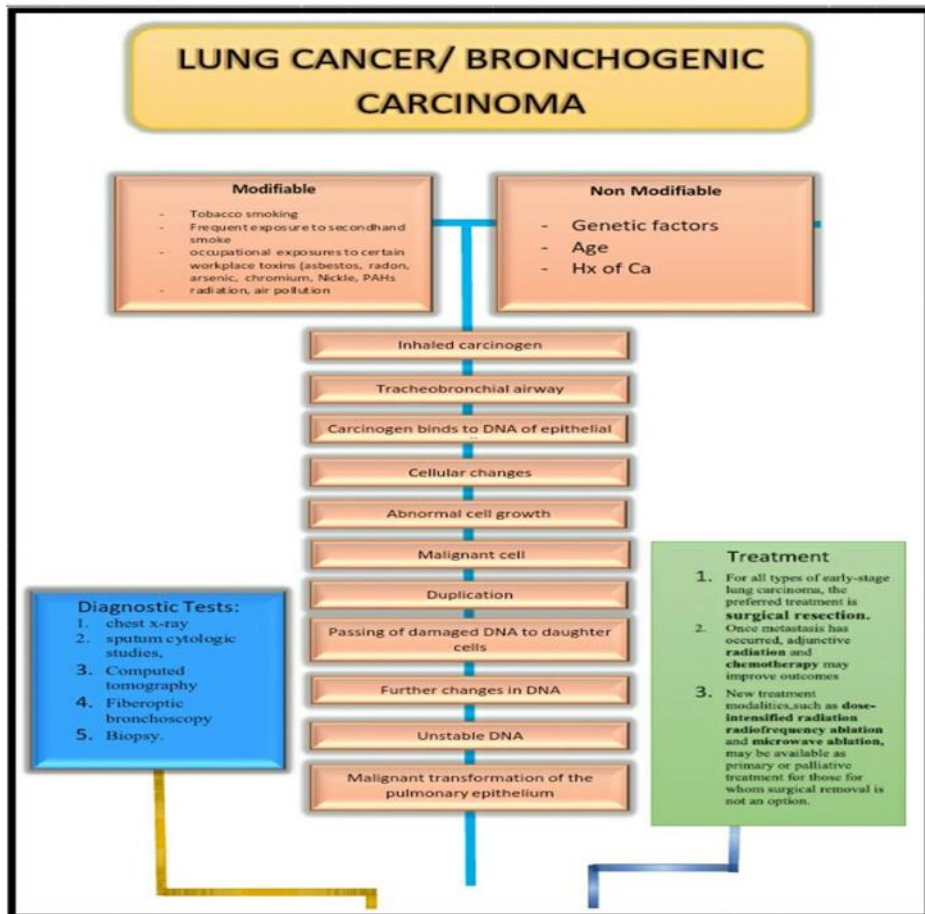
ADDITIONAL SHORT- QUESTIONS:

- What is passive smoking?
- Give an account of adverse health and socio-economic effects of smoking in Humans.

Web Organizer/ flowsheets/ key points: -

Diagram/s





Notes/ Self-assessment/ Daily link:-

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-gaseous-exchange-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-1.4&v=b-gas-exch-66>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-1.4&v=b-gas-exch-82>

Written Work:

- Practice diagrams with labelling on pg 14-15. Solve complete exercise of unit 10

Week: - 3

Unit 11: Homeostasis

Topic/s: 11. Introduction, 11.1 Homeostasis in Plants

Textbook Reading:

• Read Introduction to homeostasis from pg 18. It describes the vital processes through which living organisms adapt to their environment in an apprehensive manner while maintaining a constant internal environment.

This link can help in further to clear the concepts: -

<https://youtu.be/nzgjRZFt9pM>

• Read homeostasis in plants from pg 18-21. The following topic elaborates the processes or phenomena occurring in plants which help them in adapting to changing environment.

This link can further help to clear all the concepts regarding this topic: -

<https://youtu.be/jVcZMtelk78>

Written Work:• Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 18-21

Task:

•Day: - 1• Introduction to Homeostasis: -

ADDITIONAL SHORT- QUESTIONS:

- How do organisms cope up with fluctuations in external Environment?
- Compare Process through which homeostasis is maintained in living organisms?

Web Organizer/ flowsheets/ key points:-

Osmoregulation

Maintenance of ionic and water balance

↑

Thermoregulation HOMEOSTASIS → Excretion

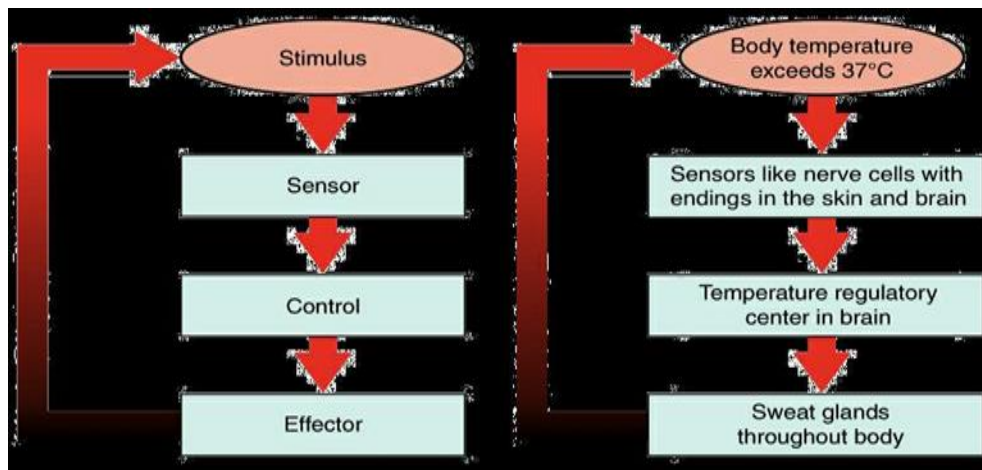
Maintenance

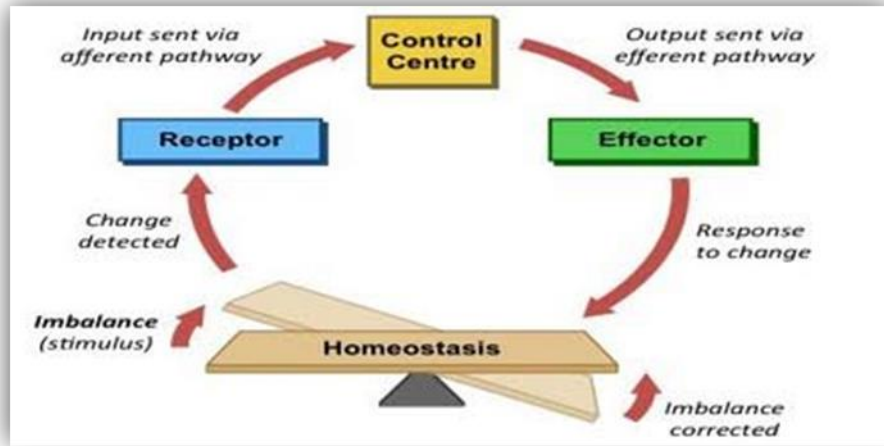
Removal

of body temperature

of nitrogenous wastes

Example of Homeostasis





Notes/ Self assessment/ Daily link :-

Follow these links to develop better concept through video tutorials, precise notes and practice tests:-

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.1&v=b-homeo-2>

Written Work:

- Write down important definitions on pg 18.

Day: -2

- Homeostasis in Plants (11.1.1-1.4 Removal of extra gases, water and other metabolic wastes): -



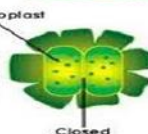

ADDITIONAL SHORT- QUESTIONS:

- How excess gases are removed from plants?
- Enlist names of various metabolic wastes in different plants.
- Give differences between Dew and Guttation.

Web Organizer/ flowsheets/ Key points: -

Gas Exchange

- Light, H₂O and CO₂ all affect the opening and closing of stomata
- Stomata are usually open during the day and close at night
 - When stomata closes, less CO₂ can enter and less H₂O can escape
- When plants lose water vapor through stomata, this is called **transpiration**



Gas Exchange in Plants



Water removal in plants

:



Removal of waste materials from Plants

Notes/ Self assessment/ Daily link :- Follow these links to develop better concept through precise notes and practice tests:-

<https://classnotes.xyz/class-10-notes-biology-gaseous-exchange-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.2&v=b-homeo-55>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.2&v=b-homeo-8>

Written Work:

• Practice diagrams with labelling on pg 19-20. Also write down important definitions and short question from exercise.

Day:- 3 Osmotic adjustment in Plants:-

ADDITIONAL SHORT- QUESTIONS:

- How halophytes adjust to extreme environment?
- What are succulent organs?
- How water-lilies adapt to their environment?

Web Organizer/ flowsheets/ key points:-

Types of Plants on basis of Water Availability
and their osmotic adaptations

↙↓↘

Hydrophytes (Aquatic plants)	Xerophytes (Dryland Plants)	Halophytes (Saline Plants)
---------------------------------	--------------------------------	-------------------------------

Osmoregulation in Hydrophytes (Aquatic plants)

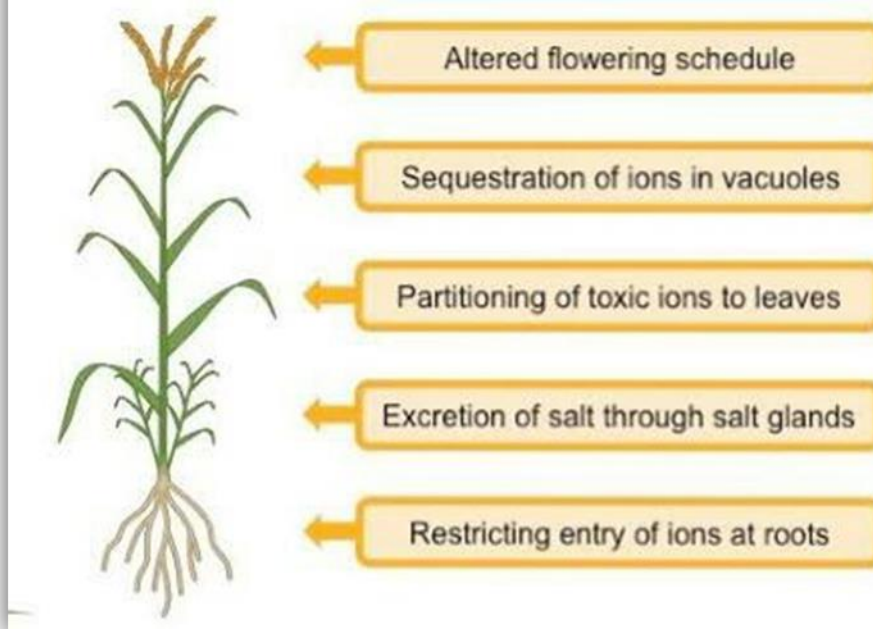
- poorly developed root systems and supportive xylem tissues
- no stomata (for submerged leaves)
- thin & finely divided leaves
- no cuticle



Xerophytes



HALOPHYTE ADAPTATIONS



Notes/ Self-assessment/ Daily link: -

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.2&v=b-homeo-56>

Written Work

- Practice diagrams with labelling on pg 19-21. Solve questions related to mentioned topic in exercise.

■ Week: - 4

Unit 11: Homeostasis

Topic/s: 11.2 Homeostasis in Human, 11.3 Urinary system in Human

Textbook Reading:

- Read Homeostasis in Human given on page 21-22. It describes the organ system and mechanism present in human to regulate their internal environment against external fluctuations.

This link explains the concept in an enlightening manner: -

<https://youtu.be/Wbg6T3YgR1E>

- Read Urinary system of Human from pg 22-26. It provides a deep insight on one of the vital homeostatic system in human which is involved in osmoregulation and excretion as well.

This link explains it very well:-

https://youtu.be/IQ9oXn0q_8A

<https://youtu.be/J0Sblx57iEA>.

Written Work:

- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 21-26

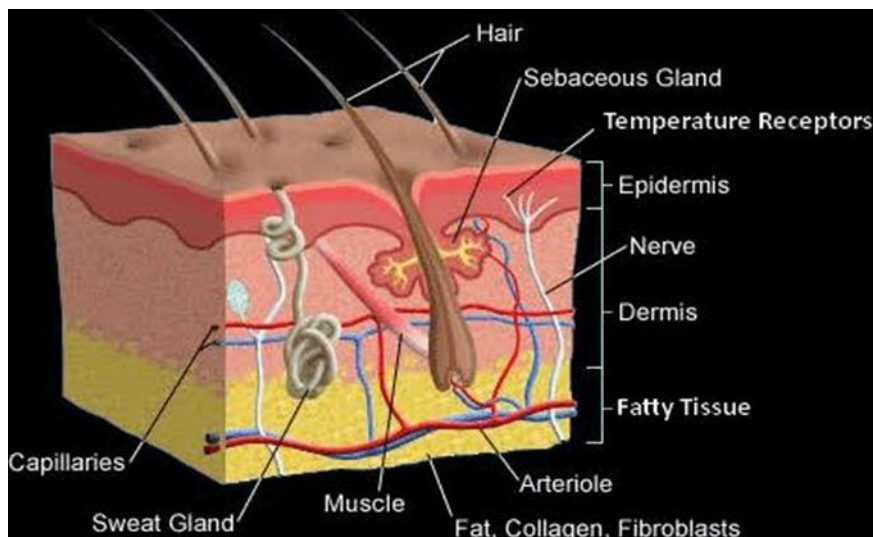
Task

Day: - 1 • Homeostasis in Humans(Skin and Lungs):-

ADDITIONAL SHORT- QUESTIONS:

- How does skin act in maintaining homeostasis?
- Give role of lungs in homeostasis.

Web Organizer/ flowsheets/ key points with Diagrams: -



□ *Skin helps in both the thermoregulation and osmoregulation due to presence of Temperature receptors and Sweat glands.*

□ *Lungs act by maintaining the level of Carbon dioxide and oxygen in our blood by exchanging it with the air across the capillary bed which surrounds the alveoli.*

Notes/ Self assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.3&v=b-homeo-54>

Written Work:

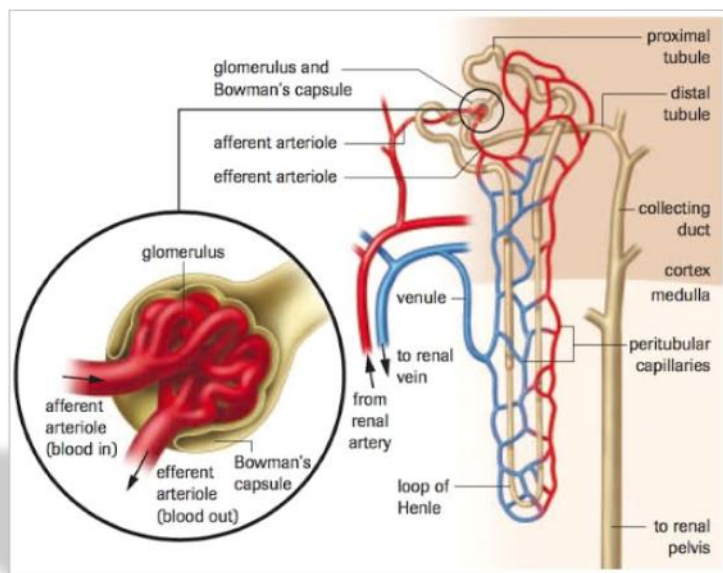
- Solve Short question provided in the Exercise of the text book. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 21-22.

•Day:- 2•Urinary system in human (Structure) :-

ADDITIONAL SHORT- QUESTIONS:

- Draw a neat labelled diagram of kidney.
- What are the components of human Urinary system?
- What is structure of nephron?

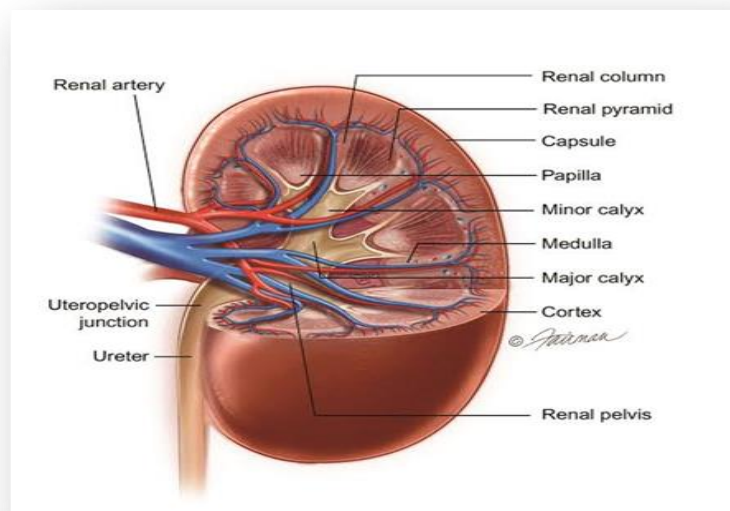
Web Organizer/ flowsheets/ key points with Diagrams :-

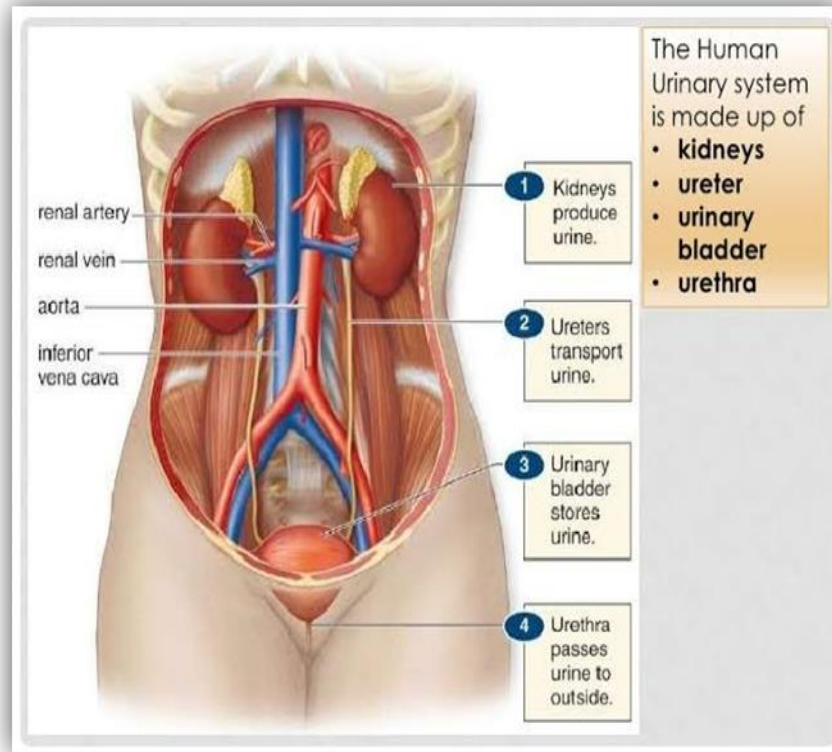


COMPONENTS OF HUMAN URINARY SYSTEM

- Nephron is the functional unit of kidneys. Its involved with urine formation.
- Components of human urinary system are as follows:-

Kidneys ➔ Renal Pelvis ➔ Ureter ➔ Urinary bladder Urinary Bladder ➔ Urethra





Notes/ Self assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests:-

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.4&v=b-homeo-32>

Written Work:

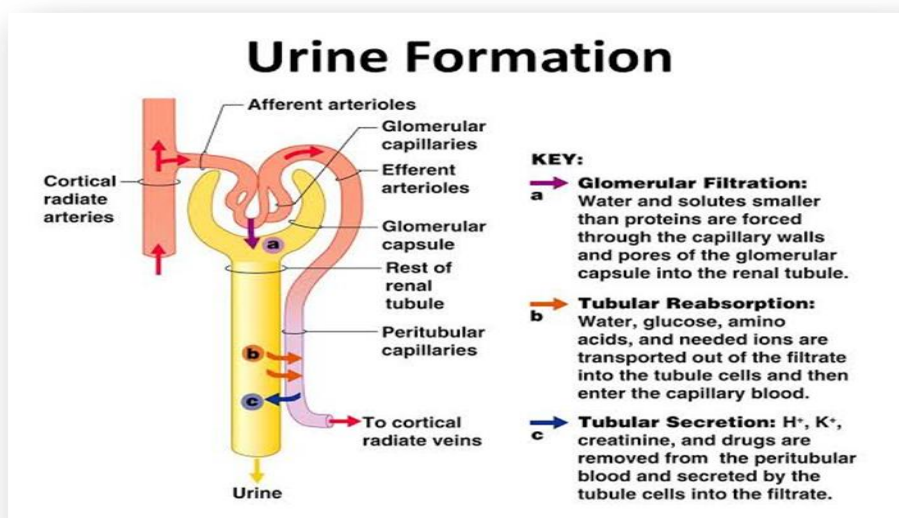
• Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 22-24.

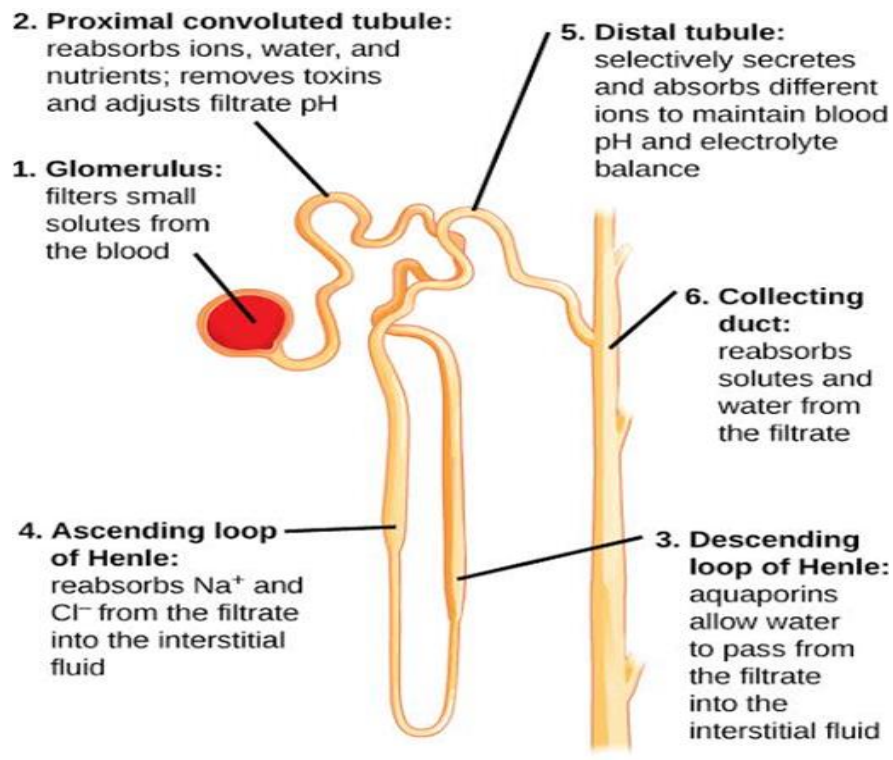
•Day:-3• Urinary system in human (function):-

ADDITIONAL SHORT- QUESTIONS:

- How urine is formed?
- What is glomerular filtrate?
- Where does secretion occur in nephron?
- Describe structure of bowman's capsule.
- how kidney act as Osmoregulatory organ?

Web Organizer/ flowsheets/ key points with Diagrams:-





Notes/ Self-assessment/ Daily link:-

Follow these links to develop better concept through precise notes, video tutorials and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.4&v=b-homeo-35>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.4&v=b-homeo-38>

Written Work:

- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 24-26

■ Week:- 5

Unit 11:Homeostasis

Topic/s: 11.4.1 Disorders of kidneys, 11.4.2 Dialysis & kidney transplant

Textbook Reading:

- Read disorders of kidneys given on page 26-27. It describes various conditions and diseases resulting in the lower efficacy of kidney functions and its causes, symptoms & treatment as well.

This link explains the concept in an enlightening manner: -

<https://youtu.be/z8G67vAdpjw>

- Read dialysis and transplant from pg 26- 29. It describes the medical procedures used for the treatment of kidney ailment and/or in kidney failures.

This link explains it well: -

<https://youtu.be/-Vo8bTv0jJ8>

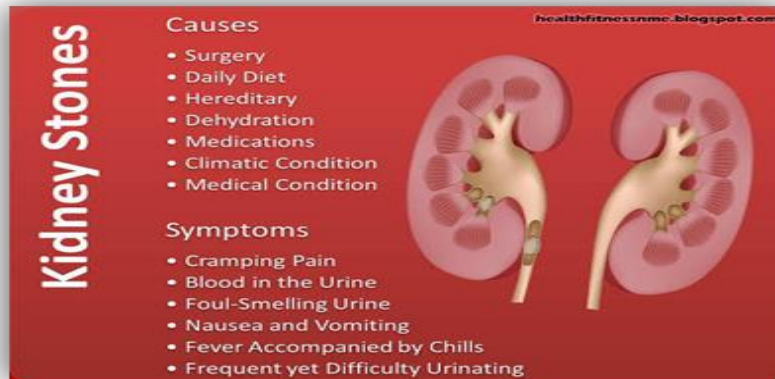
- Written Work:** • Solve Short question provided in the Exercise of the text book. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 26-29.

Day: - 1 Disorders of kidneys:-

ADDITIONAL SHORT- QUESTIONS:

- What is lithotripsy?
- Why kidney stones are formed?
- What is uremia and its consequences?

Web Organizer/ flowsheets/ key points with Diagrams:-



Kidney Stones

- Kidney stones are mostly formed by deposits of calcium which combine with oxalates to form stones, apart from calcium uric acid stones are another type of stone formed in patients.
- Lithotripsy is used in treatment of kidney stones.

Uremia/ Kidney Failure

- Uremia or Renal Failure is the end stage condition in which one or both kidneys get damaged so as they are unable to function normally anymore.
- Causes for Uremia predominantly includes diabetes & hypertension.
- Dialysis or kidney transplant are options for treatment.

Notes/ Self assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.5&v=b-homeo-40>

Written Work:

- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 26-27

Day:-2Dialysis and its types:-

ADDITIONAL SHORT- QUESTIONS:

- How does skin act in maintaining homeostasis?
- Give role of lungs in homeostasis.

Web Organizer/ flowsheets/ key points with Diagrams:-

DIALYSIS AND ITS TYPES:-

Dialysis is cleaning of blood by artificial means & it has two types :-

i-Hemodialysis

ii-Peritoneal dialysis

Occur through

Peritoneal cavity of

a dialysis machine patient is used as dialysis machine

Notes/ Self-assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests:-

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.5&v=b-homeo-43>

Written Work:

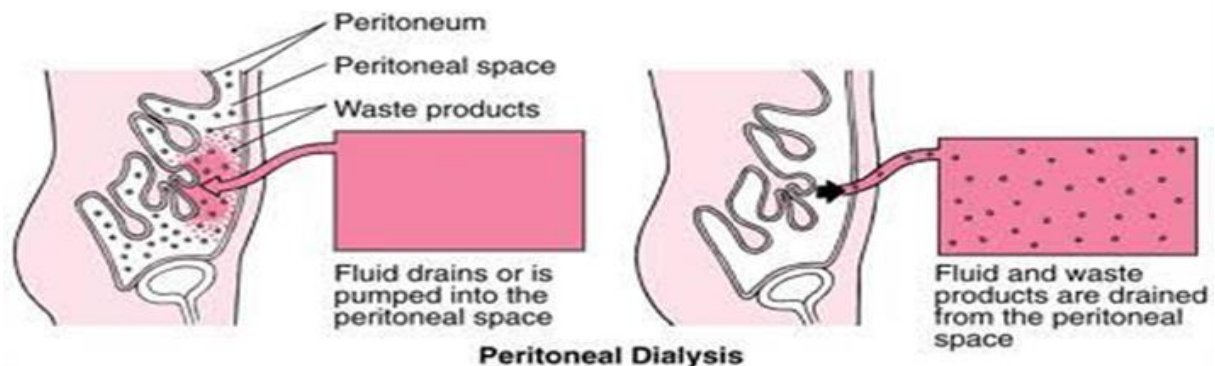
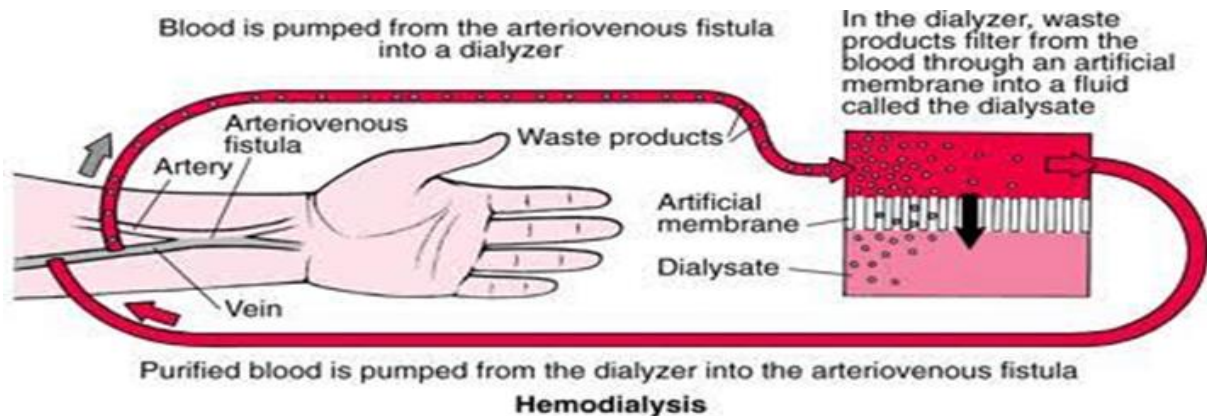
- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 27- 28

Day:-3 kidney Transplant:-

ADDITIONAL SHORT- QUESTIONS:

- What is kidney transplant?
- Give implications of kidney transplant.
- Describe the procedure of kidney transplant.

Web Organizer/flowsheets/ key points with Diagrams:-



The Technique

Renal transplantation surgery includes :

- Retrieval** of kidney from live/deceased donor-Donor nephrectomy → Live/Cadaveric
- Placement** of donor kidney into the recipient's body → renal transplantation

The kidney removal from a prospective live kidney donor is either by an open approach or by a laparoscopic approach.

DONOR functioning kidneys

KIDNEY TRANSPLANT

Notes/ Self assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.5&v=b-homeo-44>

Written Work

- Solve full Exercise of unit 11 provided in the textbook.

■ Week: -6

Unit 12: Co-ordination & Control

Topic/s: 12.0 Introduction, 12.1 Types and Coordinated Action

Textbook Reading:

- Read Introduction given on page 32. It describes and highlights the processes involved in human coordination and control system and its importance.
- Read types of coordination and coordinated Action. It describes various types of coordination found in humans and the components involved in the mechanism.

This link explains the concept in a well-informed manner: -

<https://youtu.be/7t0ePjIHAGo>

Written Work:

- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 32- 34

▪Day: -1▪ Introduction: -

ADDITIONAL SHORT- QUESTIONS:

- Give an example to explain the phenomena of coordination in man.
- Why is their need of coordination in organisms?

Web Organizer/ flowsheets/ key points with Diagrams :-

INTRODUCTION

- Coordination is the synchronization of different organ systems of multicellular organisms to perform life activities.
- Coordination enables an organism to respond to its surroundings.
- All the life activities are performed when the whole body works as one unit and acts simultaneously.

Notes/ Self assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-coordination-control-notes/>

Written Work

- Solve Short question provided in the Exercise of the textbook.

▪Day:- 2 & 3▪ Types of Coordination and Coordinated Action :-

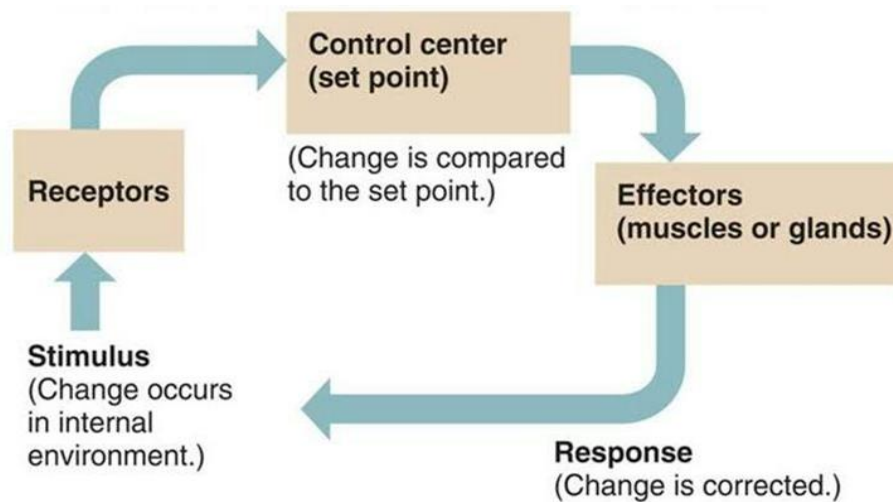
ADDITIONAL SHORT- QUESTIONS:

- Compare nervous and chemical coordination.

- What are components of coordinated action?

Web Organizer/ flowsheets/ key points with Diagrams :-

Comparison of nervous and hormonal control systems		
Feature	Nervous	Hormonal (endocrine)
Made up of	Neurones	Secretory cells
Form of transmission	Electrical impulses	Chemical (hormones)
Transmission pathway	Nerves fibres (axons and dendrons)	Blood plasma
Speed of transmission	Fast	Slow
Duration of effect	Short term	Long term
Response	Localised	Widespread (although there may be a specific target organ)



Notes/ Self assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests:-

<https://classnotes.xyz/class-10-notes-biology-coordination-control-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-3.2&v=b-coord-cont-2>

Written Work:

- Solve Short question provided in the Exercise of the textbook.

■ **Week:- 7**

Unit 12:Coordination and control

Topic/s: 12.2 Human Nervous System

Textbook Reading:

- Read Human Nervous System given on page 34-36. It describes in detail the major components which comprise the human nervous system and the basic unit of nervous system.

This link explains the concept in an enlightening manner: -

<https://youtu.be/kKtwlM6FKzA>

Written Work:

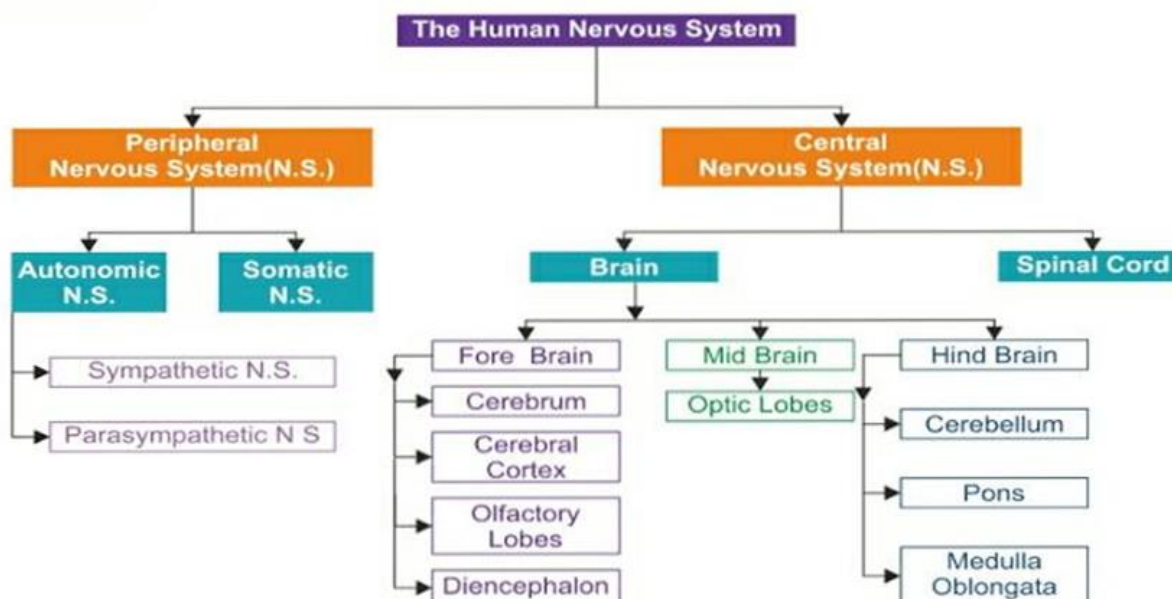
- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 34-36

•Day:- 1•Components of human nervous system:-

ADDITIONAL SHORT- QUESTIONS:

- Give basic components of human nervous system.

Web Organizer/ flowsheets/ key points with Diagrams:-



Notes/ Self-assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests: -

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-2.3&v=b-homeo-54>

Written Work:

- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 34-35

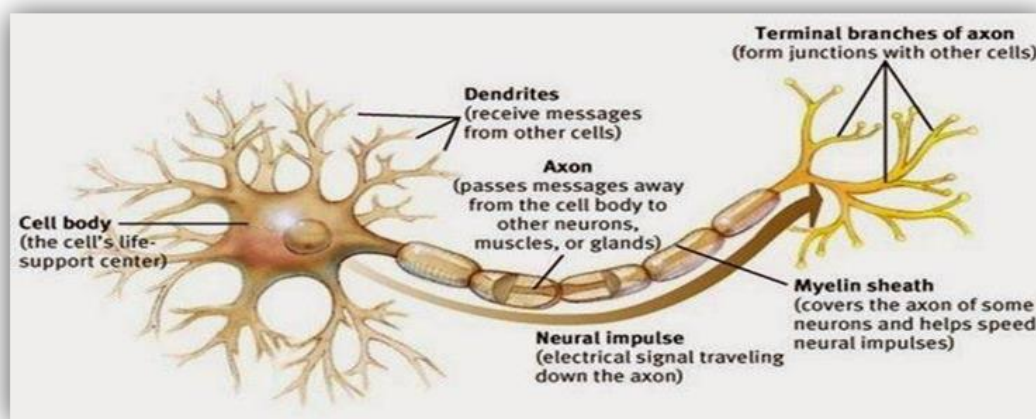
•Day :- 2 & 3• Basic unit of Nervous system:-

ADDITIONAL SHORT- QUESTIONS:

- Give neat labelled diagram of neuron.

Web Organizer/ flowsheets/ key points with Diagrams :-

STRUCTURE AND FUNCTION OF A NEURON



Notes/ Self assessment/ Daily link :-

Follow these links to develop better concept through precise notes and practice tests:-

<https://classnotes.xyz/class-10-notes-biology-homeostasis-notes/>

<https://sabaq.pk/video-page.php?sid=punjab-biology-10th-3.3&v=b-coord-cont-39>

Written Work:

- Solve Short question provided in the Exercise of the textbook. Also practice sketching neat labelled diagrams included in above mentioned topics on pg 35-36

Computer Science

Week-1 Day-1

Chapter: 1 Programming Techniques

Q.1 Define Computer



Answer:

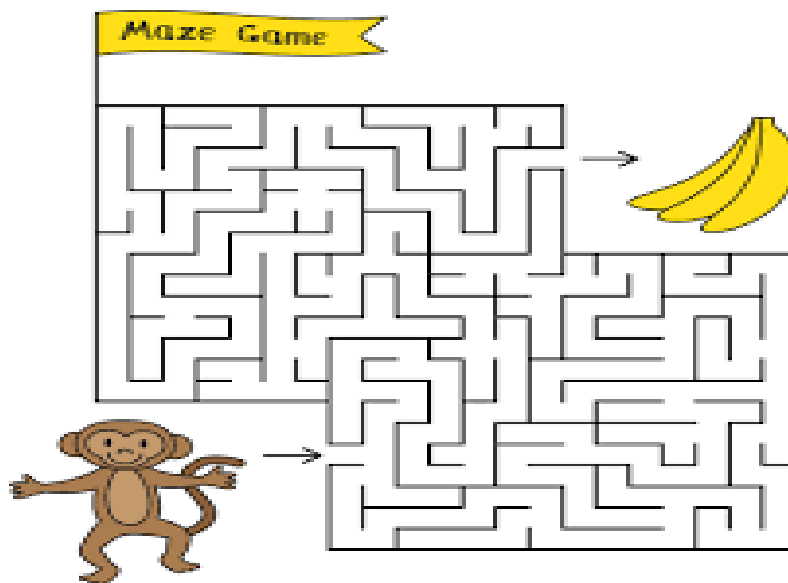
Video Lecture Links

[Introduction to problem solving](#)

Day-2

Chapter: 1 Programming Techniques

Q:4 Help Money to get bananas. Find the path and then Define what is problem solving?



Define problem solving:

Video Lecture Links

[Introduction to problem solving](#)

Day-3

Chapter: 1 Programming Techniques

Q1.Describe the steps to solve a problem

Step#	Steps	Definition
1		
2		
3		
4		
5		

Video Lecture Links

[Problem solving method](#)

Week-2

Day-1

Chapter: 1 Programming Techniques

Q1.Write the sub steps of every step to solve the problem

Step#	Steps	Sub-steps
1	Define a problem:	i- ii- iii iv-

2	Analyzing the Problem:	i- ii- iii- iv-
3	Planning the solution of problem:	i- ii- iii- iv-
4	Candid Solution of a problem:	i- ii- iii- iv-
5	Select the Best Solution	i- ii- iii- iv-

Video Lecture Links

[Problem solving method](#)

Day-2

Chapter: 1 Programming Techniques

Q1.Solve the following problem with the steps involve in problem solving

Problem 1: Find the Average Marks of a student

Step#	Steps	Solution
1	Define a problem:	
2	Analyzing the Problem:	
3	Planning the solution of problem:	

4	Candid Solution of a problem:	
5	Select the Best Solution	

Video Lecture Links

[Problem solving method](#)

Day-3

Chapter: 1 Programming Techniques

Q2 Solve the following problem with the steps involve in problem solving

Problem 1: you are unhappy with a product that you purchased from a company

Step#	Steps	Solution
1	Define a problem:	
2	Analyzing the Problem:	
3	Planning the solution of problem:	
4	Candid Solution of a problem:	
5	Select the Best Solution	

Video Lecture Links

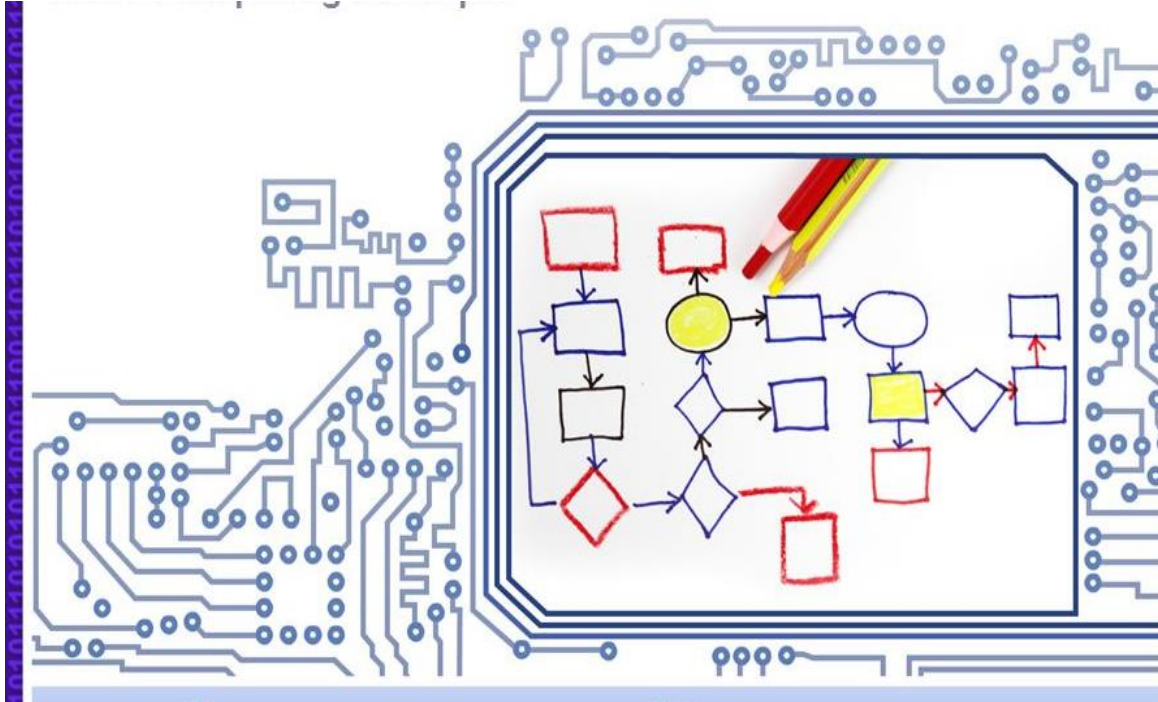
[Problem solving method](#)

Week-3

Day-1

Chapter: 1 Programming Techniques

Q1- Identity Algorithm and flowchart from given diagram



Video Lecture Links

[What is an Algorithm?](#)

Day-2

Chapter: 1 Programming Techniques

Q2. Explain about Flowchart and algorithm

Algorithm	Flowchart
Definition:	Definition:
Role in problem solving:	Role in problem solving:
Example:	Example:

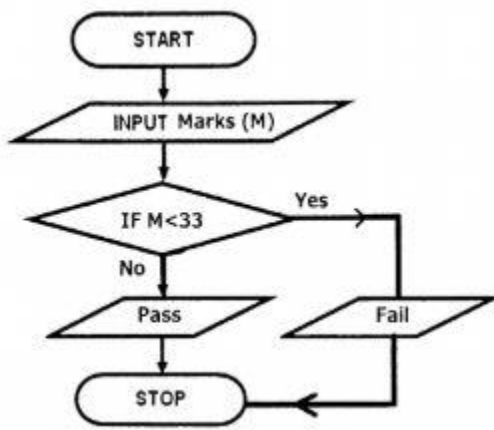
Video Lecture Links

- Video Link: [What is an Algorithm](#)
- Video links: [What is a Flow chart?](#)

Day-3

Chapter: 1 Programming Techniques

Q.1 Draw the Algorithm of given Flowchart



Algorithm:

Step 1:

Step 2:

Step 3:

Step 4:

Step 5:

Step 6:

Step 7:

Video Lecture Links


[How to write an Algorithm](#)

Week-4

Day-1

Chapter: 1 Programming Techniques

Q.2 Draw the flow chart's Symbols

Symbols Description	Symbols Shape	Symbols Description	Symbols Shape
i- Flow line		iv-	
ii-		v-	
iii-		vi-	


Video Lecture Links

- [What is a Flow chart](#)

Day-2

Chapter: 1 Programming Techniques

Q.2 write the purpose of flow chart's Symbol.

Symbols Shape	Symbols purpose	Symbols Shape	Symbols purpose
		iv-	
ii-		v-	
iii-		vi-	

Video Lecture Links

- [What is a Flow chart](#)

Day-3

Chapter: 1 Programming Techniques

Q.2 Draw the flow chart of area of a rectangular for given breath and length using following symbol

Symbol Description	Symbol Shape	Symbol Description	Symbol Shape
Flow Line		Process	
Start/Stop		Decision	
Input/Output		Connector	 On-Page Off-Page

Flowchart:

Video Lecture Links

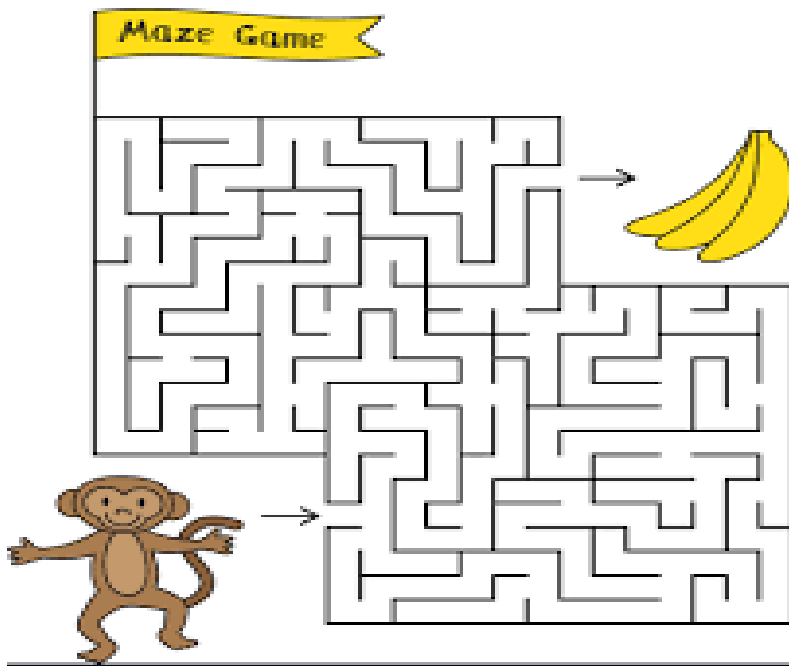
- [What is a Flow chart?](#)

Week-5

Day-1

Chapter: 1 Programming Techniques

Q:1 write down the Steps how you help the monkey to find bananas



Video Lecture Links

- Step 1:
- Step 2:
- Step 3:
- Step 4:
- Step 5:

Step 6:

- Video Link: [How to write an Algorithm](#)

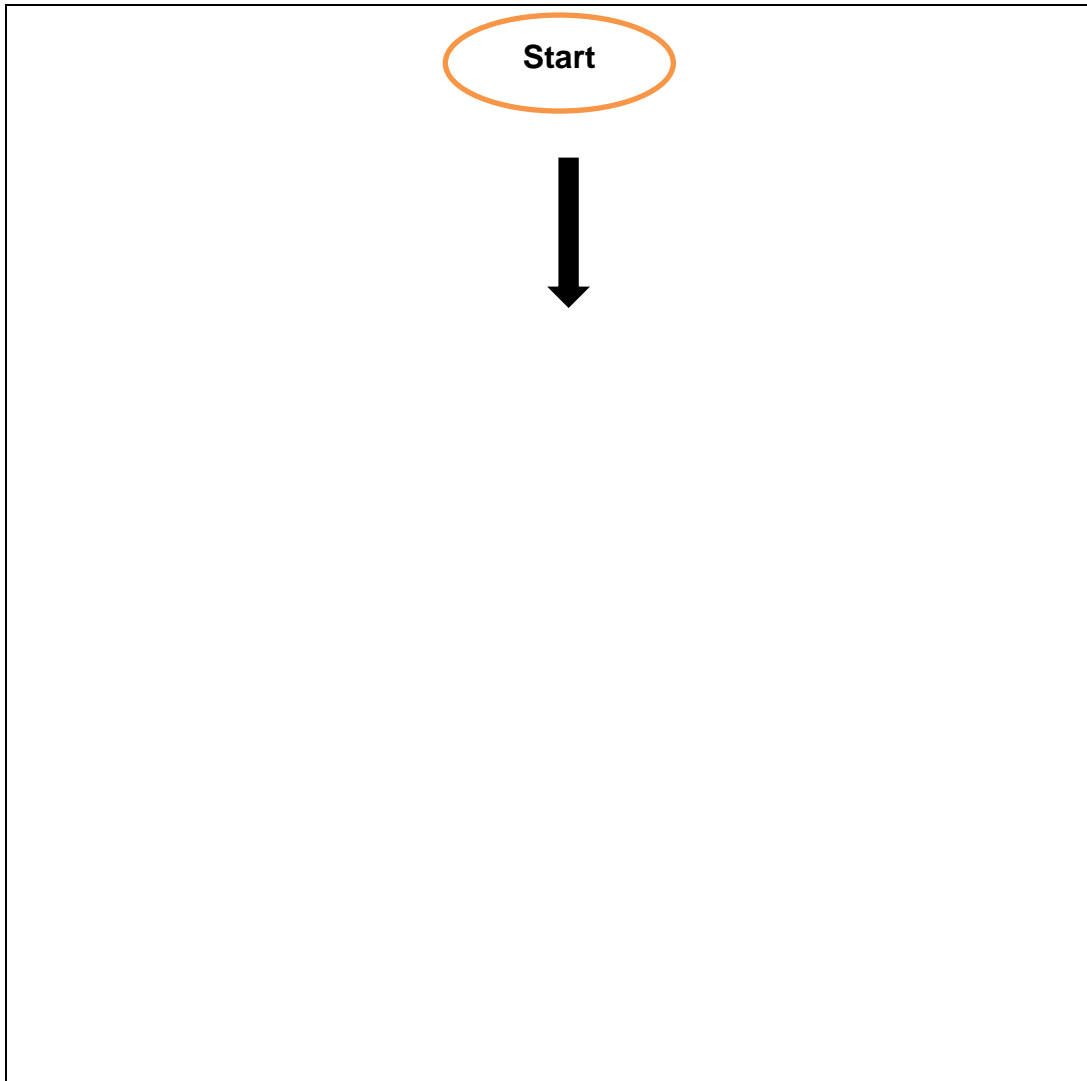
Day-2

Chapter: 1 Programming Techniques

Q1- Create Flow chart of Following Statement

a) To find perimeter of a rectangle

Flowchart:



Video Lecture Links

- [Flow Chart Examples](#)
- [Flow Chart Examples 2](#)

Day-3

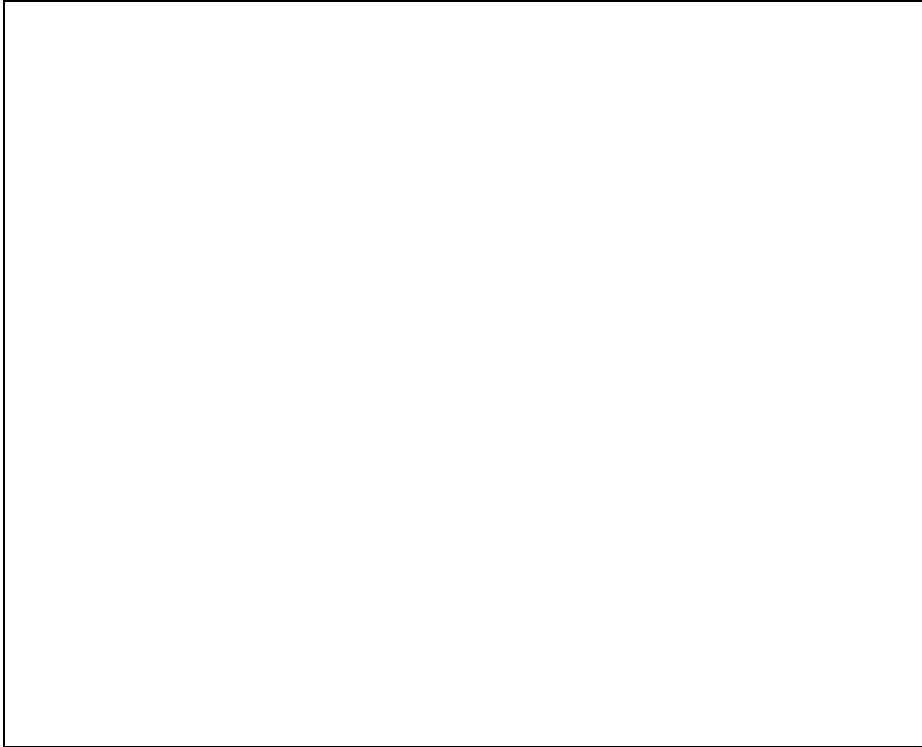
Chapter: 1 Programming Techniques

Q1- Create Flow chart of Following Statement

a) To find area of triangle

Flowchart





Video Lecture Links

- [Flow Chart Examples](#)
- [Flow Chart Examples 2](#)

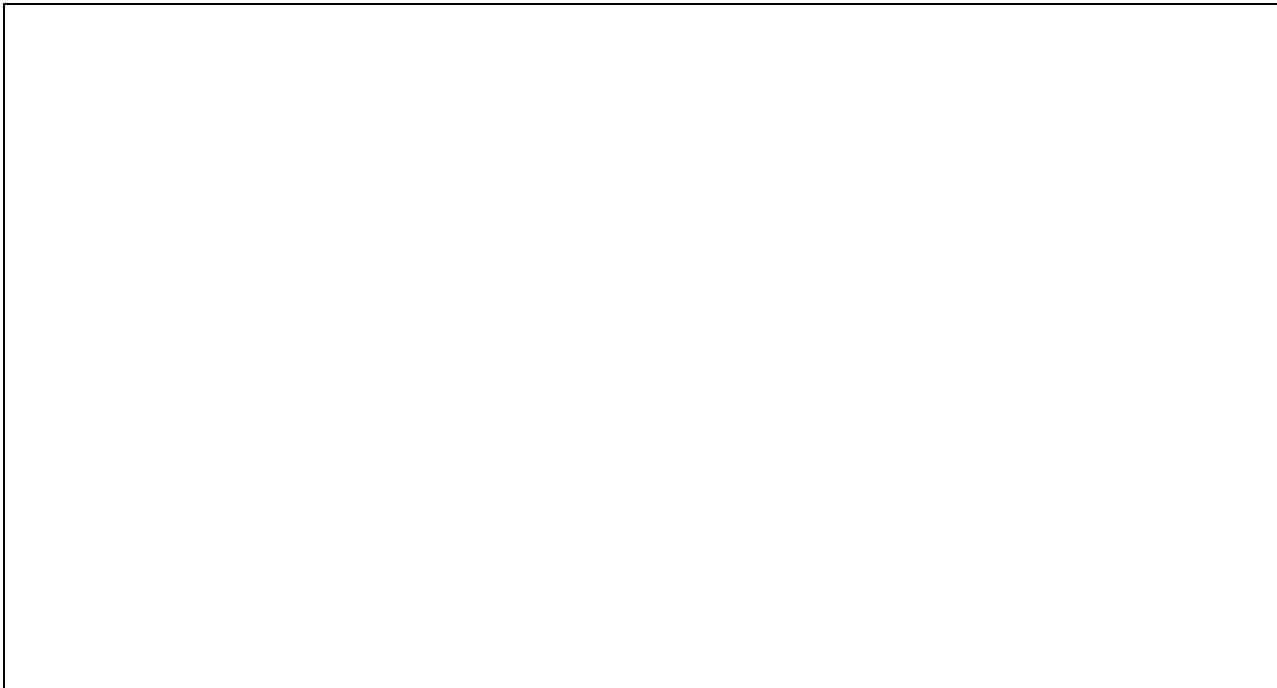
Week-6
Day 1

Chapter: 1 Programming Techniques

Q1- Create Flow chart of Following Statement

- a) To find average of marks of core subjects

Flowchart:



Video Lecture Links

- [Flow Chart Examples](#)
- [Flow Chart Examples 2](#)
-

Day-2

Chapter: 1 Programming Techniques

Q1- Create Flow chart of Following Statement

a) To find product of five numbers

Flowchart:



Video Lecture Links

- [Flow Chart Examples](#)
- [Flow Chart Examples 2](#)

Day-3

Chapter: 1 Programming Techniques

Q1- write Algorithm of Following Statement

a)To find perimeter of a rectangle

Algorithm:

Step 1:

Step 2:

Step 3:

Step 4:

Step 5:

Step 6:

Video Lecture Links

- [How to write an Algorithm](#)
- [Algorithm examples](#)

Week-7

Day-1

Chapter: 1 Programming Techniques

Q1- Write Algorithm of Following Statement

a) To find area of triangle

Algorithm:

Video Lecture Links

- [How to write an Algorithm](#)
- [Algorithm examples](#)

Day-2

Chapter: 1 Programming Techniques

Q1- write Algorithm of Following Statement

a) To find average of marks of core subjects

Algorithm:



Video Lecture Links

- [How to write an Algorithm](#)
- [Algorithm examples](#)

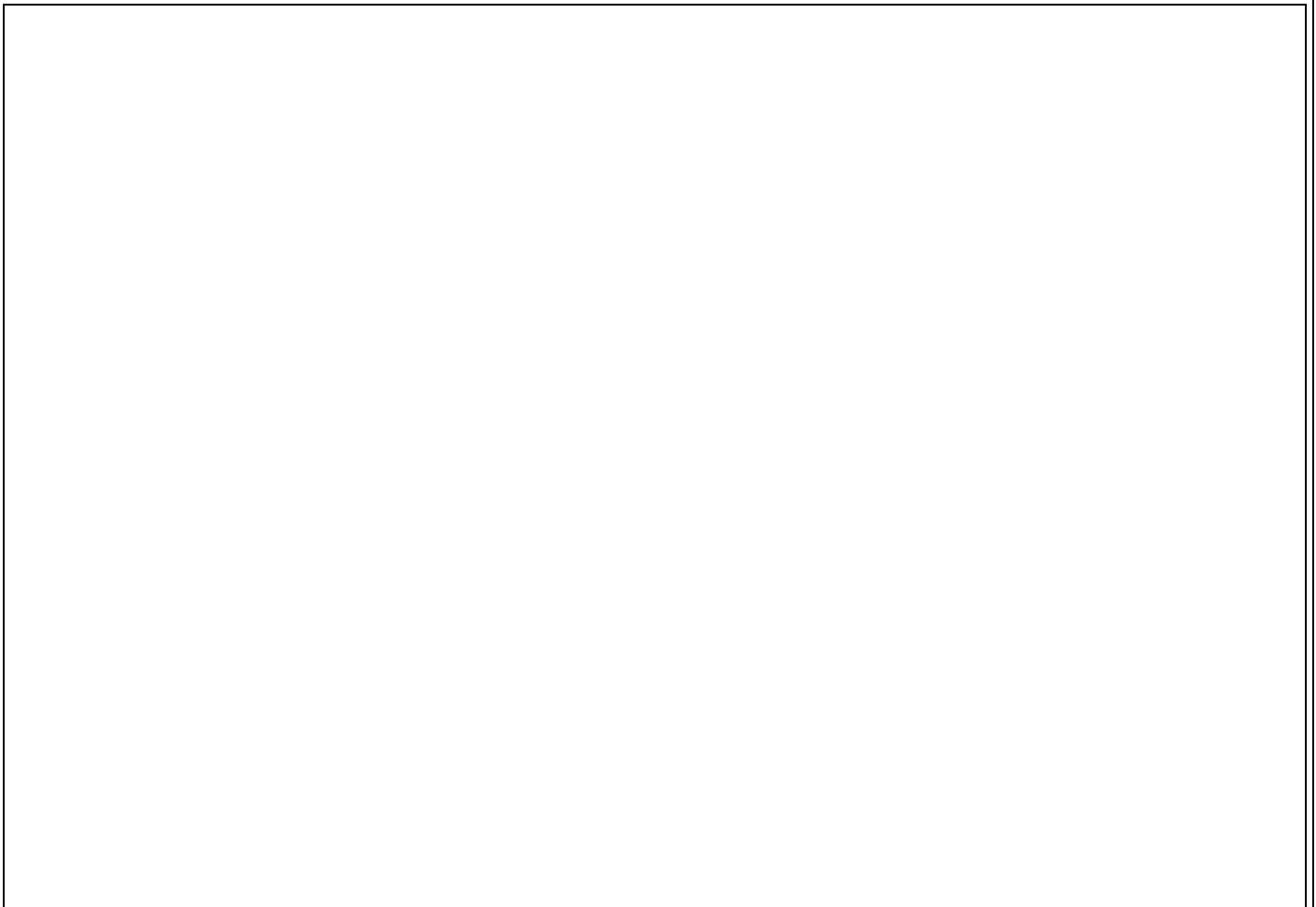
Day-3

Chapter: 1 Programming Techniques

Q1- Write Algorithm of Following Statement

- a) To find product of five numbers

Algorithm:



Video Lecture Links

- [How to write an Algorithm](#)
- [Algorithm examples](#)

PHYSICS

Week #1 Day-1

Chapter#10 Simple harmonic motion and waves

Topic: 1-Simple Harmonic Motion (SHM)

2-Motion of mass attached to the spring.

Video Link: <https://www.youtube.com/watch?v=uM2HpLBVAkA>

<https://www.youtube.com/watch?v=ZbNtBW0oC3I>

Activity:

- i. Think the several examples in everyday life of motion that are simple harmonic.
- ii. State some important features of SHM.
- iii. Solve review question 10.1.

Day-2

Chapter #10 Simple harmonic motion and waves

Topic:1. SHM in Detail

Video Link: Dear students please watch the video till 16:30 min and answer the questions below.

https://youtu.be/K0PLs_MvO9s?t=180

Activity:

- 1- How does a spider catch its prey in web?
- 2- What is the displacement covered by an object in SHM when kinetic and potential energies are equal?
- 3- How time period of a simple pendulum can be reduced?
- 4- What happens to the time period of simple pendulum if it is taken to Jupiter?
- 5- Define Hook's law
- 6- Read and solve carefully tidbits related to the topic.

Day-3

Chapter #10 Simple harmonic motion and waves

Topic:1. Time Period of Simple Pendulum.

Video Link: <https://youtu.be/kwyOBcvBkil?t=95>

Activity:

- 1- How time period for simple pendulum can be calculated?
 - 2- Explain the how Force is related to displacement in SHM.
 - 3- Define vibration, time period, frequency
1. Choose the correct answer
 2. Waves transfer
 - a. Energy
 - b. Wavelength
 - c. frequency
 - d. velocity
 3. Which of the following characteristics of a wave is independent of the others?
 - a. Speed
 - b. Amplitude
 - c. frequency
 - d. wavelength

Week #2 Day-1

Chapter #10 Simple harmonic motion and waves

Topic: 1. Give the definitions of the following terms

- I. Vibration
- II. Time period
- III. Frequency
- IV. Amplitude
- V. SHM

Video Link: <https://www.youtube.com/watch?v=kwyOBcvBkil>

Activity:

- 1- Define following terms with suitable examples and mathematical formulas.
- 2- Solve example numerical 10.1 from text book.

Day-2

Chapter #10 Simple harmonic motion and waves

Topic: Multiple choice questions from text book

Video Link:

https://www.youtube.com/watch?v=92_nev1mrpw

Activity:

Solve the MCQs given at the end of chapter in textbook.

Day-3

Chapter #10 Simple harmonic motion and waves

Topic: Damped oscillations

Video Link: <https://www.youtube.com/watch?v=HRcjtVa1LfM>

https://www.youtube.com/watch?v=fsSLH0OE_tU

Activity:

- 1- What are damped oscillations?
- 2- Why damping progressively reduces the amplitude of oscillation?
- 3- What are few practical uses of damped oscillations?
- 4- How does the shock absorber work?

Week #3 Day-1

Chapter #10 Simple harmonic motion and waves

Topic: Wave Motion-Types of Mechanical waves

Video Link: <https://www.youtube.com/watch?v=vUP1x24lpAY>

https://www.youtube.com/watch?v=AJ9F_iMkQRA

Activity:

1. Write importance of waves in our daily life?
2. On what factors does the transfer of energy on a string depend?
3. State an experiment to prove that waves are carrier of energy.
4. Define crest, trough and wavelength.
5. Explain wave equation.
6. Differentiate mechanical and electromagnetic waves. Also, give two examples of each.

Day -2

Chapter #10 Simple harmonic motion and waves

Topic: Types of Mechanical waves and Text book exercise

Video Link:

<https://www.youtube.com/watch?v=p3ppRwg8tpA>

https://www.youtube.com/watch?v=92_nev1mrpw

Activity:

1. Define longitudinal and transverse waves.
2. Define compression and rarefaction. Also draw diagram
3. What is a slinky spring?
4. Briefly explain how wave travels on a slinky spring.

Day-3

Chapter #10 Simple harmonic motion and waves

Video Link:

<https://www.youtube.com/watch?v=UUpwkF3ZtOI>

<https://www.youtube.com/watch?v=7CdYUivqjLQ>

Activity:

1. Which sounds you find musical?
2. Enlist five sounds from daily life?
3. Do mechanical waves pass through vacuum that is empty space?
4. How ultra sounds can be used for cleaning intricate objects?

Week #4 Day-1

Chapter #10 Simple harmonic motion and waves

Topic: Revision

Video Link: <https://www.youtube.com/watch?v=hfzCLCIVO8g>

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

Activity:

- 1- Draw a wave-labeling crest, trough and wavelength.
- 2- How sound waves are produced?
- 3- Give one example of sound travelling through solids, liquids and gases.
- 4- Why in space no one can hear you scream?

Day-2

Chapter #10 Simple harmonic motion and waves

Topic: Exercise Discussion from Text Book

Video Link: <https://www.youtube.com/watch?v=vUP1x24lpAY>

Activity:

1. Solve example numerical 10.2.
2. Solve numerical problems (10.5, 10.6)

Day-3

Chapter #10 Simple harmonic motion and waves

Topic: Ripple Tank

Video Link: <https://www.youtube.com/watch?v=5ctn7Zz-AdU>

Activity:

1. What is a ripple tank?
2. Explain its working and construction with the help of diagram.

Week #5 Day-1

Chapter #10 Simple harmonic motion and waves

Topic: Basic Terms Defined

Video Link: <https://www.youtube.com/watch?v=8VKsLxw5-4I>

<https://www.youtube.com/watch?v=28X-4YFr-Y0>

<https://www.youtube.com/watch?v=4bCUTLWycM>

Activity:

- 1- Define reflection, refraction and diffraction of waves.
- 2- Give any two differences between reflection and refraction
- 3- Explain the phenomenon of diffraction in waves.
- 4- Answer the review question of 10.9 and 10.10.

Day-2

Chapter # 11 Sound

Topic: Introduction to sound waves.

Video Link: https://youtu.be/5o_-SISaFI0

Activity:

1. Justify that sound waves require any medium for their propagation?
2. Explain why sound waves have longitudinal nature?
3. Why the explosions on sun's surface are not audible on Earth?

Day-3

Chapter#11 Sound

Topic: Characteristics of sound

Video Link: <https://www.youtube.com/watch?v=IGKNMrva9ic>

<https://www.youtube.com/watch?v=ZTsLLBo8INQ>

Activity:

- 1- Define loudness of sound
- 2- What effect does amplitude have on loudness of sound?
- 3- How distance affects loudness.
- 4- Solve quick quiz related to this topic given in your text book.
- 5- Define pitch of sound. On what factors does it depend?
- 6- What is frequency?
- 7- What is Hertz? How is it defined?

Day-1

Chapter # 11 Sound

Topic: Introduction to sound-Revision

Video Link: <https://youtu.be/wEL87lznGrg>

Activity:

1. What is the audible frequency range for humans?
2. What is the difference between infra sound and ultra sound?
3. Answer the review question of 11.7 and 11.8.
4. Solve self-assessment related to this topic.
5. How do you differentiate between shrill and grave sound?

Day-2

Chapter # 11 Sound

Topic: Characteristics of sound

Video Link: <https://www.youtube.com/watch?v=3qVDH4CwOZU>

Activity:

1. Define quality of sound. On what factors does quality of sound depend?
2. Define intensity of sound.
3. Derive the unit for intensity of sound.
4. What is the faintest audible range for humans?
5. Answer the review question of 11.9 and 11.10.
6. Solve quick quiz related to this topic

Day-3

Chapter # 11 Sound

Topic: Numerical Problems from Text book.

Video Link: <https://www.youtube.com/watch?v=a31gKYjJzzQ>

Activity:

1. Solve numerical problem 11.1 and 11.2. (Same as solved example)

Week #7 Day-1

Chapter # 11 Sound

Topic: Reflection of Sound waves

Video Link: <https://www.youtube.com/watch?v=5v6LUz0Gw34>

Activity:

1. Define and explain echo.
2. Answer the review question of 11.15.

Day-2

Chapter # 11 Sound

Topic: Speed of sound

Video Link: <https://www.youtube.com/watch?v=Kk04uOZi5lc>

<https://youtu.be/UgE2GIQwUCw>

Activity:

1. Solve example numerical 11. 2.
2. Why speed of sound is higher in liquid than in gases?
3. How distance can be calculated using echo method?
4. Why sound waves are longitudinal waves?

Day-3

Chapter#11 Sound

Topic: 1- how can measure the speed of sound by echo method?

2. Discuss its factors.

Video Link: <https://www.youtube.com/watch?v=Hb5z2d6G5jU>

Activity:

1. Solve the example numerical 11.3.
2. Enumerate steps to calculate speed of sound using echo method.
3. What factors can affect the accuracy of this method?

Pak Studies

Week 01

Day-1

Chapter 01: Zulfiqar Ali Bhutto Era

- Which industries were nationalized during the rule of Zulfiqar Ali Bhutto
- Briefly explain reforms done by Z.A Bhutto regarding Banks and insurance Companies
- Discuss labor reforms done by Zulfiqar Ali Bhutto

Day-2

Pakistan Affair 01: Privatization

- Differentiate Privatization vs. Nationalization
- Explain advantages of Privatization in current Era
- Identify which organizations are privatized during last two decades

Day-3

Chapter: 01Zulfiqar Ali Bhutto Era

- Narrate negative impacts of Nationalization in Education Sector from 1971-77

Pakistan Values 01: "Optimism"

- Explain with example, how can anyone raise the level of positivity in current situation?

Video Links

Day 1

<https://www.youtube.com/watch?v=QqiH0zWprDA>

https://www.youtube.com/watch?v=G8OBSSSA_xk

<https://www.youtube.com/watch?v=iaYeeM3NIGU>

Day 2

<https://www.youtube.com/watch?v=ZWYNPIPEAsU>

<https://youtu.be/7iwNndJSww>

Day 3

<https://youtu.be/df7obys3zrE>

https://www.youtube.com/watch?v=y_hi8qX9WuA

<https://youtu.be/TZZdrqb0Eto>

- ❖ For the solution of exercises on the basis of Board Pattern, students can take help from following notes:

<https://classnotes.xyz/class-10-pakistan-studies-notes-fbise>

Week 02

Day 1

Chapter: 01 Key aspects of Constitution of 1973

- Why do we call Constitution of 1973 as Federal Constitution
 - What do you mean by Bicameral Legislature in Constitution of 1973
 - Why this is called a Parliamentary Constitution
- Review: Q.no 07 (long) from textbook

Chapter: 01 Zia ul Haq Era 1977-1988

- Explain major aspects of Islamization introduced by Zia-ul-Haq
 - Discuss Zakat and Ushr Ordinance
 - Which subjects were made compulsory during Islamization period
 - Name the University started in 1981, discuss the purpose also
- Review: Q.no 02 (long) from textbook

Day 2

Pakistan Affair 02: COVID-19 and Pakistan Economy

- **List down major industries affected due to Covid-19**
- **Identify the businesses that are booming due to Coronavirus**
- **Develop a plan through which daily wagers can earn enough money during lockdown**

Day 3

Chapter: 01 The Era of Muhammad Khan Junejo

- **Explain developmental programmes initiated by M.Khan Junejo**
 - **Briefly explain Ojhri Camp Disaster**
Review: Short Q.no 12, 13, 15 & Long Q.no 08 from textbook.
- Pakistan Values 02: "Honesty"
- **Explain the importance for the growth of society?**
 - **How honesty builds character?**
 - **Can honesty lead you towards success?**

- ❖ For the solution of exercises on the basis of Board Pattern, students can take help from following notes:
<https://classnotes.xyz/class-10-pakistan-studies-notes-fbise>

Video Links

Day 1

- <https://www.youtube.com/watch?v=WfYWih1VK64>
- <https://youtu.be/ZrhwmDq4Saw>
- <https://www.youtube.com/watch?v=nDCAPryVgwU>

Day 2

- <https://www.youtube.com/watch?v=xCt9gP2WAol>
- <https://www.youtube.com/watch?v=AaeOIKetPCM>

Day 3

- <https://youtu.be/p-IHUpJsDQg>
- <https://youtu.be/AfgWZ3-lZyU>
- <https://www.youtube.com/watch?v=FV4Kd2KXWkc>
- <https://youtu.be/203LSnDJ0Xc>

Week 03

Day 1

Chapter: 01 Afghan Jihad 1979

- **Explain the problems of refugees**
 - **What is Geneva Accord**
 - **Discuss the impact of Jihad on Pakistani Society**
Review: Q.no.08 (long) of textbook
- Chapter: 01 Benazir Bhutto's Era
- **Explain "no confrontation policy" adopted by Benazir Bhutto (1988-1990)?**
 - **In which cities flyover and bypass were constructed (1993-1996)**
Review: Q.no.06 long of textbook

Day 2

Pakistan Affair 03: Federal Administrative Structure of Pakistan

- **Identify major organs of Government of Pakistan**
- **Explain the role Judiciary plays**

Day 3

Chapter: 01 Mian M. Nawaz Sharif's Government

- **When and why Bait ul Maal was established?**
 - **State some national plans initiated by Nawaz Sharif**
 - **Explain the restriction imposed on floor crossing by government**
Review: Long Q.no 05 from textbook.
- Pakistan Values 01: Forgiveness
- **Explain why self-forgiveness is important to move on after any failure**

❖ For the solution of exercises on the basis of Board Pattern, students can take help from following notes:
<https://classnotes.xyz/class-10-pakistan-studies-notes-fbise>

Video Links

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Day 1

- <https://www.youtube.com/watch?v=rv0CTXHvMoE>
- <https://youtu.be/5hlioPa4tR8>
- <https://www.youtube.com/watch?v=ujWZI2tkIRQ>

Day 2

- <https://www.youtube.com/watch?v=87zHmky-GYk>
- <https://www.youtube.com/watch?v=4oMzqfMEQjw>
- <https://www.youtube.com/watch?v=HSO2LOVUKuA>

Day 3

- <https://www.youtube.com/watch?v=SJD6M00-YG0>
- <https://www.youtube.com/watch?v=xOCm7OIE1GM>
- <https://www.youtube.com/watch?v=-kfUE41-JFw>
- <https://www.youtube.com/watch?v=-aEUjlxOK-Y>

Week 04

Day 1

Chapter: 01 Pakistan as a Nuclear Power

- **When and where Pakistan's first Atomic Plant was set up?**
- **Which country planned to collaborate with Pakistan and then why refused?**
- **Explain efforts of Pakistan to get atomic power under the supervision of Dr Abdul Qadeer Khan**

Review: Q.no 03 long from textbook.

Chapter: 01 Military Take-Over

12 Oct, 1999.

- **Explain the major causes of Military Take-over**
- **Which Military officer took over the Govt.?**
- **Explain the system of Government introduced by Pervez Musharraf**

Day 2

Pakistan Affair 04: Climate Change

- **Explain main reasons of Climate change**
- **Discuss the effects of climate change on Environment**
- **Briefly explain about the industries which are rising/declining due to climate change**

Day 3

Chapter: 01 Local Government Plan 2000

- **Name the head institute of Union Govt**
- **Name the head and other members of Union Government**
- **Identify major duties of Union Government.**
- **Explain the role of District Govt in Local Government System**

Pakistan Values 04: Gratitude

- **Explain how gratitude can be linked with inner satisfaction**

- ❖ **For the solution of exercises on the basis of Board Pattern, students can take help from following notes:
<https://classnotes.xyz/class-10-pakistan-studies-notes-fbise>**

Video Links

Day 1

<https://www.youtube.com/watch?v=T647T-P05Qg>

<https://www.youtube.com/watch?v=phYrqs4KIOq>

<https://www.youtube.com/watch?v=dyNuzY9ea4o>

Day 2

https://www.youtube.com/watch?v=VdVguV_kb_8

<https://www.youtube.com/watch?v=s-a3OPLZC7M>

<https://www.youtube.com/watch?v=3s3D4GWilcE>

<https://www.youtube.com/watch?v=djSsOvwy8>

<https://www.youtube.com/watch?v=ocuJXY-CNRg>

Day 3

https://www.youtube.com/watch?v=U5IZBjWDR_c

<https://www.youtube.com/watch?v=l6zL3CtYG6Q>

Week 05

Day 1

Chapter: 01 Elections 2002

- **Identify condition that is adopted for the First time to be elected**
 - **Explain the Absolute Authority of Pervez Musharraf**
 - **Identify main causes of 2008 elections**
Review: Q.no 10 short of Textbook
- Chapter: 01 Musharraf’s Concepts of Enlightenment
- **Explain Musharraf’s efforts for women**
 - **Discuss Privatization and Industrialization during Musharraf’s Era**
Review: Q.no 09 (short) from textbook

Day 2

Pakistan Affair 05: Water Crisis of Pakistan

- **Elaborate causes of water crisis in Pakistan**
Activity: Develop a plan through which Pakistan can raise its water reserves

Day 3

Chapter: 01 Gen Pervez Musharraf Era

- **Which new industries set up in Gen. Musharraf Era**
 - **Explain Economic Reforms done by Gen. Musharraf and Shaukat Aziz**
 - **Discuss the impact of Privatization done by Musharraf**
- Pakistan Values 05: “Faith”
- **Discuss how faith is an important factor for achievement of any goal. Support your answer with examples**

Video Links

Day 1

- <https://youtu.be/hcY4eOZWzD4>
- <https://www.youtube.com/watch?v=Tw604hcieJ8>
- https://www.youtube.com/watch?v=_pOOPsODUHE

Day 2

- https://www.youtube.com/watch?v=U76Mc_wiWT4
- https://www.youtube.com/watch?v=9K5MZB3w_dc

Day 3

- <https://youtu.be/IU474AW-mdg>
- https://youtu.be/wgP_OSOS3IA

❖ For the solution of exercises on the basis of Board Pattern, students can take help from following notes:
<https://classnotes.xyz/class-10-pakistan-studies-notes-fbise>

Week 06

Day 1
<p>Chapter: 02 Foreign Relations of Pakistan Pakistan's Foreign Policy</p> <ul style="list-style-type: none"> ➤ Name the First current Foreign Minister of Pakistan ➤ Explain why a country need Foreign Policy ➤ Explain objectives of Pakistan's Foreign Policy <p>Review: Q.no.01 (long) from textbook Chapter: 01 Neighboring Countries Pak-China Relations</p> <ul style="list-style-type: none"> ➤ Discuss the support of China towards Pakistan in UNO
Day 2
<p>Pakistan Affair 06: Urbanization</p> <ul style="list-style-type: none"> ➤ Explain reasons of urbanization ➤ Discuss major drawbacks of urbanization
Day 3
<p>Chapter: 02 Indo-Pak Relations</p> <ul style="list-style-type: none"> ➤ Which area of India and Pakistan are associated with the Indo-Pak Border? Use map to answer ➤ Explain Indus Water Treaty ➤ Explain Kashmir issue <p>Pakistan Values 06: Determination</p> <ul style="list-style-type: none"> ➤ Explain how strong determination and passion helps to get success ➤ Write a success story of a determinant leader participated in Pakistan Movement

Video Links
Day 1
<p>https://www.youtube.com/watch?v=K-3Ovk4eKQ0</p> <p>https://www.youtube.com/watch?v=4YPY6DmfrwU</p> <p>https://www.youtube.com/watch?v=elvv8WoZC6Q</p> <p>https://www.youtube.com/watch?v=SQMI9582dR0</p> <p>https://www.youtube.com/watch?v=WFqgbXPCI10</p>
Day 2
<p>https://www.youtube.com/watch?v=DwcW12J1FFA</p> <p>https://www.youtube.com/watch?v=WpJTR-IAG6k</p>
Day 3
<p>https://www.youtube.com/watch?v=tAVPW5PT8U</p> <p>https://www.youtube.com/watch?v=a_MJyNG1wAs</p> <p>https://youtu.be/V1M4Pf_SpzQ</p>

❖ For the solution of exercises on the basis of Board Pattern, students can take help from following notes:
<https://classnotes.xyz/class-10-pakistan-studies-notes-fbise>

Week 07

Day 1
<p>Chapter: 02 O.I.C Countries</p> <ul style="list-style-type: none"> ➤ Define the purpose of O.I.C and when It was established ➤ List down initial/current member countries of OIC ➤ Where is the headquarter of OIC ➤ Which meeting of OIC held in Pakistan
<p>Chapter: 03 Pakistan Relations with Saudi Arabia and Turkey</p> <ul style="list-style-type: none"> ➤ How Saudi Arabia support Pakistan in Middle-east crisis ➤ Pakistan and Turkey organized RCD in 1964, explain the purpose <p>Review: Q.no.06 (long) from textbook</p>
Day 2
<p>Pakistan Affair 07: Global Warming</p> <ul style="list-style-type: none"> ➤ Identify main factors causing Global Warming ➤ Identify important measures taken to control Global Warming
Day 3
<p>Chapter: 02 United Nation</p> <ul style="list-style-type: none"> ➤ Name the organs of United Nation ➤ Explain the members of General Assembly ➤ Define the functions of Security Council ➤ Explain the structure of ICJ ➤ When and why Trusteeship Council was formed <p>Pakistan Values 07: Respect</p> <ul style="list-style-type: none"> ➤ “Do respect have respect” explain

Video	Links
Day 1	<ul style="list-style-type: none"> • https://youtu.be/5FLm8_Th89s • https://youtu.be/ITP2OoiiPe4 • https://www.youtube.com/watch?v=4t3JAKZeYHQ • https://youtu.be/IOE9-eTj1l
Day 2	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=jlBBrt9F3Wc • https://www.youtube.com/watch?v=d7Ci EooW-k • https://www.youtube.com/watch?v=tlmYtJiUK00 • https://www.youtube.com/watch?v=jxr_8hVP8Jw
Day 3	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=fp9dTTIQLPY • https://www.youtube.com/watch?v=GkipANiBspE

❖ For the solution of exercises on the basis of Board Pattern, students can take help from following notes:
<https://classnotes.xyz/class-10-pakistan-studies-notes-fbise>

اردو اینڈ اسلامیات سلیبس برائے جماعت دہم

جون ، جولائی 2020

عمومی ہدایات برائے طلباء و والدین

- 1- اردو کی لکھائی خوشخط کریں۔
- 2- کام نیٹ کاپی پر کریں۔
- 3- حاشیہ ضرور لگائیں۔
- 4- والدین سے درخواست ہیں کہ چھٹیوں کو کارآمد بنانے کے لئے دیا گیا کام اپنی نگرانی میں کروائیں۔ اور جہاں کہیں بھی ضرورت ہو متعلقہ استانی سے رابطہ کریں۔
- 5- ہمارا بنیادی مقصد یہ ہے کہ آپ کا تعلق اپنی تعلیم سے جڑا رہے۔ اسی مقصد کے تحت آپ کے لئے تخلیقی اور تعلیمی سرگرمیوں سے بھرپور تعطیلات کا کام تیار کیا گیا ہے۔

اردو سلیبس برائے دہم

جون - جولائی 2020

پہلا ہفتہ

تاریخ	عنوان	صفحہ نمبر	گھر کا کام	ذرائع	سرگرمی
1 جون 2020	مرزا محمد سعید	13،14، 18،15،	درست جواب کا انتخاب، مشقی سوالات	کتابی مواد	مرزا محمد سعید کے بارے میں معلومات
2 جون 2020	نظریہ پاکستان	22-25	الفاظ / معنی		
3 جون 2020	نظریہ پاکستان	26	درست جواب کا انتخاب		نظریاں پاکستان کے بارے میں جاننا

ورک شیٹ

سوال نمبر 1۔ کالم الف کو کالم ب سے ملائیں۔

کالم ب

شہادت شاہ اسماعیل

اسلامی زندگی

الہ آباد

1885

1906

کالم الف

1930

کانگریس

مسلم لیگ

2831

نظریہ پاکستان

تاریخ	عنوان	صفحہ نمبر	گھر کا کام	ذرائع	سرگرمی
8 جون 2020	پرستان کی شہزادی	30-29	بلند خوانی، سوالات، مشکل الفاظ	کتابی مواد	خلاصہ لکھیں
9 جون 2020	اردو ادب میں عید الفطر	42	مشقی سوالات		اردو ادب کے بارے میں معلومات
10 جون 2020	مجھے میرے دوستوں سے بچاؤ	48	سوال جواب، خلاصہ		جملہ اسمیہ اور فعلیہ کا تعارف

ورک شیٹ

صفحہ نمبر 57-56

سوال 1- دوستی کے موضوع پر دو دوستوں کے درمیان مکالمہ لکھیں۔

سوال 2- دوستی کے حق اور مخالفت پر مباحثہ کریں۔

تیسرا ہفتہ

تاریخ	عنوان	صفحہ نمبر	گھر کا کام	ذرائع	سرگرمی
15 جون 2020	کربلا میں گرمی کی شدت	119	اشعار کی تشریح، سوال و جواب		
16 جون 2020	فاطمہ بنت عبد اللہ	124	سوال جواب، خلاصہ	کتابی مواد	علامہ اقبال کی حالات زندگی
17 جون 2020	کسان	128	سوال جواب، شاعر کی حالات زندگی		کسان کے بارے میں معلومات حاصل کرنا

ورک شیٹ

سوال - نظم اور غزل میں فرق واضح کریں۔

جواب۔

سوال - طنز اور مزاح میں کیا فرق ہے؟

جواب۔

تاریخ	عنوان	صفحہ نمبر	گھر کا کام	ذرائع	سرگرمی
22 جون 2020	جیوے جیوے پاکستان	133	سوال جواب		الفاظ متضاد 135
23 جون 2020	غزل 1	150	سوال جواب	کتابی مواد	حسرت موہانی کی تصویر تلاش کر کے کاپی میں لگانا
24 جون 2020	جگر مراد آبادی	151	سوال جواب، الفاظ جملے		جگر مراد آبادی کی حالات زندگی

ورک شیٹ

سوال - حسرت موہانی کا کوئی اور غزل اپنی کاپی میں لکھیں۔

جواب۔

سوال - جگر مراد آبادی کے غزل میں سے کچھ الفاظ کے جملے بنائیں۔

جواب۔

پانچواں ہفتہ

تاریخ	عنوان	صفحہ نمبر	گھر کا کام
29 جون 2020	مضمون۔ وقت کی پابندی		تحریری کام
30 جون 2020	میرا مقصد زندگی		تحریری کام
یکم جولائی 2020	مکالمہ نگاری		ڈاکٹر اور مریض کے درمیان مکالمہ تخیلی کام

ورک شیٹ

سوال میرا پسندیدہ کتاب پر مضمون لکھیں۔

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Cantt Public Education System

چھٹے ہفتے

ذرائع	گھر کا کام	صفحہ نمبر	عنوان	تاریخ
	اتفاق میں برکت ہے		کہانی نویسی	6 جولائی 2020
کتابی مواد	کوئی سے دس ضرب الامثال کو جملوں میں استعمال کریں		ضرب الامثال	7 جولائی 2020
	درد دل کے واسطے پیدا کیا انسان کو		مضمون	8 جولائی 2020

ساتواں ہفتہ

گھر کا کام	تاریخ
ان سب کام کی دہرائی کرنی ہے	13 جولائی سے 15 جولائی تک

اسلامیات سلیبس برائے جماعت دہم

جون ، جولائی 2020

عمومی ہدایات برائے طلباء و والدین

1. اسلامیات کی لکھائی خوشخط کریں۔
2. کام نیٹ کاپی پر کریں۔
3. حاشیہ ضرور لگائیں۔
4. عربی الفاظ کے معنی کے لئے تفسیر کا استعمال کریں۔
5. والدین سے درخواست ہیں کہ چھٹیوں کو کارآمد بنانے کے لئے دیا گیا کام اپنی نگرانی میں کروائیں۔ اور جہاں کہیں بھی ضرورت ہو متعلقہ استانی سے رابطہ کریں۔
6. ہمارا بنیادی مقصد یہ ہے کہ آپ کا تعلق اپنی تعلیم سے جڑا رہے۔ اسی مقصد کے تحت آپ کے لئے تخلیقی اور تعلیمی سرگرمیوں سے بھرپور تعطیلات کا کام تیار کیا گیا ہے۔

پہلا ہفتہ

جماعت دہم

تاریخ	عنوان	صفحہ نمبر	گھر کا کام	ذرائع	سرگرمی
4جون	سورة الاحزاب - آیت نمبر 1 تا 8	57 تا 59، 58	سوال / جواب مفہوم	کتابی مواد / نوٹس / ورک شیٹ	معارف القرآن کی تفسیر
5 جون	آیت نمبر 9 تا 20	20 تا 21	الفاظ / معنی		
6 جون	//	63	سوال / جواب		

ورک شیٹ نمبر 1۔ جماعت دہم

س1۔ سورة الاحزاب کی ابتداء میں رسول کو کن باتوں کی تلقین کی گئی ہیں؟

س2۔ اس سبق کی آیات میں منہ بولے بیٹے کے بارے میں کیا ہدایات دی گئی ہیں؟

س3۔ سورة الاحزاب کے دوران آزمائش کی گھڑیوں میں اہل ایمان اور منافقین کا طرز عمل کیا تھا؟

Cantt Public Education System

جماعت دہم - دوسرا ہفتہ

تاریخ	عنوان	صفحہ نمبر	گھر کا کام	ذرائع	سرگرمی
11 جون	آیت نمبر 21 تا 27	25-24	الفاظ/معنی، مفہوم		
12 جون	آیت نمبر 28 تا 234	28-25-	سوال و جواب و مشقی سوالات		
13 جون	حدیث نمبر 11	25	ترجمہ و تشریح	کتابی مواد۔ نوٹس۔ ورک شیٹ	معارف القرآن کی تفسیر

ورک شیٹ 2 برائے جماعت دہم

س1- غزوہ احزاب میں اہل ایمان کو اللہ کی تائید و نصرت کیسے حاصل ہوئی؟

س2- لقد کان لکم فی رسول اللہ اسوۃ حسنۃ کا ترجمہ لکھیں۔

یسرا ہفتہ۔ جماعت دہم

تاریخ	عنوان	صفحہ نمبر	گھر کا کام	ذرائع	سرگرمی
18 جون	آیت نمبر 28 تا 34	36 تا 37	الفاظ / معنی		
19 جون	//	36 تا 37	سوال و جواب، مفہوم		
20 جون	طہارت و جسمانی صفائی	79	طہارت کے فوائد	کتابی مواد/ نوٹس/ ورک شیٹ	معارف القرآن کی تفسیر

ورک شیٹ برائے جماعت دہم

س1- وضو میں کتنے فرائض ہیں؟

Cantt Public Education System

س2۔ طہارت کے کیا فوائد ہیں

س3۔ طہارت کے بارے میں ایک آیت کا ترجمہ تحریر کریں۔

س4۔ خالی جگہیں پر کریں۔

- 1۔ جمعہ کے دن غسل ہے۔
- 2۔ عیدین کے دن غسل ہے۔
- 3۔ غسل کرتے وقت پورے جسم پر مرتبہ پانی بہایا جائے۔
- 4۔ پانی کا استعمال کیا جائے۔
- 5۔ طہارت کے بغیر ہوسکتی ہے۔

چوتھا ہفتہ۔ جماعت دہم

تاریخ	عنوان	صفحہ نمبر	گہر کا کام	ذرائع	سرگرمی
25 جون	آیت نمبر 35 تا 40	39.40	الفاظ معنی		
26 جون	آیت نمبر 35 تا 40	41	سوالات، طہارت کا مفہوم واضح کرنا	کتابی مواد۔ نوٹس۔ ورک شیٹ	معارف القرآن کی تفسیر
27 جون	حدیث نمبر، 13، 12	62	ترجمہ و تشریح		

ورک شیٹ نمبر 4۔

الفاظ
القننت
المتصدیقین
الخبيرة
امسک
تخفی
وطرا
مبتدی
خاتم النبیین

س1۔ اللہ اور اس کے رسول کے فیصلوں کے بارے میں اہل ایمان کا کیا طرز عمل ہونا چاہئے؟

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پانچواں ہفتہ۔ جماعت دہم

سُرگرمی	ذرائع	گھر کا کام	صفحہ نمبر	عنوان	تاریخ
		انفرادی زندگی سے کیا مراد ہے	82-83	انفرادی و اجتماعی زندگی صبر و شکر	2 جولائی
معارف القرآن کی تفسیر	کتابی مواد۔ نوٹس۔ ورک شیٹ	زوجین کے حقوق عائلی زندگی سے کیا مراد ہے	84-85	عائلی زندگی زوجین کے حقوق	3 جولائی
		اولاد کے حقوق و فرائض پر نوٹ لکھیں	86	اولاد کے حقوق	4 جولائی

ورک شیٹ نمبر 5

س1۔ اسلامی تعلیمات میں صبر کی ترغیب کیوں دی گئی ہیں؟

س2۔ قرآن و حدیث میں شکر کی کیا اہمیت ہے؟

س3۔ زوجین کے ایک دوسرے پر کیا حقوق ہیں؟

س4۔ اولاد کے حقوق و فرائض کے بارے میں آپ کیا جانتے ہیں؟

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چھٹہ ہفتہ۔ جماعت دہم

سُرگرمی	ذرائع	گہر کا کام	صفحہ نمبر	عنوان	تاریخ
		الفاظ معنی، مشقی سوالات	44-42-43	آیت نمبر 41 تا 52	9 جولائی
معارف القرآن کی تفسیر	کتابی مواد۔ نوٹس۔ ورک شیٹ	ترجمہ و تشریح	62	حدیث نمبر 14	10 جولائی
		ترجمہ و تشریح	61-62-63	11 تا 15 حدیث کی دہرائی	11 جولائی

ورک شیٹ نمبر 6۔

س 1۔ اس سبق میں طلاق کا کیا حکم بیان ہوا ہے؟

س 2۔ سورۃ الاحزاب میں رسول کا کیا مقام و منصب بیان کیا گیا ہے؟

س 3۔ اس حدیث کا ترجمہ و تشریح لکھیں۔

ان اکمل المومنین ایمانا احسنتم خلقا۔

Cantt Public Education System

ساتواں ہفتہ۔ جماعت دہم

سری گرمی	ذرائع	گھر کا کام	صفحہ نمبر	عنوان	تاریخ
		الفاظ معنی مشقی سوالات	45-46	آیت نمبر 53 تا 58	14 جولائی
		الفاظ، معنی	47-48	آیت نمبر 59 تا 68	15 جولائی
		مشقی سوالات	48 تا 45	آیت 53 سے لیکر دہرائی	16 جولائی

ورک شیٹ نمبر 7

الفاظ	معنی
انمہ
طعمتم
انشرو
دعیتم
یوڈی
یسنھی

س1۔ نبی کریم پر درود و سلام کی کیا اہمیت ہے؟ اور اسکے متعلق کیا حکم دیا گیا ہے؟

س2۔ رسول کریم کے ہاں کھانے کی دعوت پر آنے والوں کو کن آداب کی تعلیم دی گئی؟
