# HOLIDAY HOMEWORK

CLASS-X

SESSION:2024-25

New session, new books and new friends have kept the kids buzzing for a while and now the much awaited vacation is here! Summer break is the best time of the year for parents and children alike. While parents get to spend the maximum time with their young ones during this period; for kids, it's time for family bonding, lots of ice cream, time to visit grandparents and getting pampered to no end.

Keeping this in mind, the subject wise assignments given as holidays homework have been planned with the view to make the optimum use of youngsters' energy and give a vent to their creativity so that the process of learning continues during the vacation as well. Parents' support and encouragement is sought to ascertain that the budding minds take out some time from long summer days and switch on the search energy of their minds in exploring and learning.

We hope that the students enjoy these holidays thoroughly in a way that they inculcate some values, virtues, and knowledge in the bargain!!!!

# **GENERAL INSTRUCTIONS**

- Assignments should be done neatly by taking printouts on A4 sheets.
- ➤ After completion of assignments, paste it in respective subject notebooks.
- > The work should be original and not copied from Internet.
- ➤ The assignments should be submitted to respective subject teacher.
- The holiday homework would be marked out of 10 marks for each subject.
- Projects files to be compiled in the ring file and it should be properly covered.
- Models should be strictly made on the guidelines prescribed.
- ➤ Holiday homework should be submitted on 8<sup>th</sup>july i.e. Monday.

# **NOTICE:-**

The school will be closed for summer vacation from May 30, 2024, to July 3, 2024. It will reopen on July 4, 2024, with the same school timings.



# **SUMMER HOLIDAY HOMEWORK(2024-25)**

# CLASS: X

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Subject	Holiday Homework		
	Project Instructions: Class X English Individual Projects		
English	A. Introduction: Dear Class X Students,  Welcome to your individual project assignments in English class. As you continue your journey in Class X engaging in magningful projects is envised for		
	continue your journey in Class X, engaging in meaningful projects is crucial for enhancing your understanding and skills. Each of you will be working on an individual project based on a specific topic related to English literature or language. These projects will culminate in a presentation to the class.		
	<ul> <li>B. Project Topics:</li> <li>Roll Numbers 1-5: Topic 1 – Importance of Pets in Life</li> <li>Roll Numbers 6-10: Topic 2 – Apartheid</li> </ul>		
	- Roll Numbers 11-15: Topic 3 – Kind Words Can Change Anyone - Roll Numbers 16-20: Topic 4 – Family Gives Us Strength		
	- Roll Numbers 21-25: Topic 5 – Theory of Determinism		
	C. Project Details:  - Topic 1 – Importance of Pets in Life:  - Investigate the role of pets in literature or explore themes related to pets in		
	English literary works.  - Analyze how pets are portrayed in novels, poems, or short stories.  - Reflect on the symbolism of pets and their significance in human lives.		
	<ul> <li>Topic 2 – Apartheid:</li> <li>Study literary works or historical documents related to apartheid in South Africa.</li> </ul>		
	<ul> <li>Analyze how apartheid is represented in literature or examine the impact of apartheid on society.</li> <li>Reflect on the lessons learned from apartheid and its relevance to contemporary social issues.</li> </ul>		
	- Topic 3 – Kind Words Can Change Anyone:		
	<ul> <li>Explore the theme of kindness in literature or language-related texts.</li> <li>Analyze how characters or authors promote kindness through words and actions.</li> </ul>		
	- Reflect on the power of language to inspire positive change in individuals and communities.		
	<ul> <li>Topic 4 – Family Gives Us Strength:</li> <li>Examine the theme of family in literary works or language-related materials.</li> <li>Analyze the portrayal of family relationships and dynamics in novels, poems, or essays.</li> <li>Reflect on the values and support systems provided by families and their</li> </ul>		
	impact on characters or individuals.		

- Topic 5 Theory of Determinism:
- Study literary works or philosophical texts that explore the concept of determinism.
- Analyze how determinism is depicted or discussed in literature, poetry, or philosophical writings.
- Reflect on the implications of determinism for characters' actions and choices in literary works.

### D. Rubrics for Assessment:

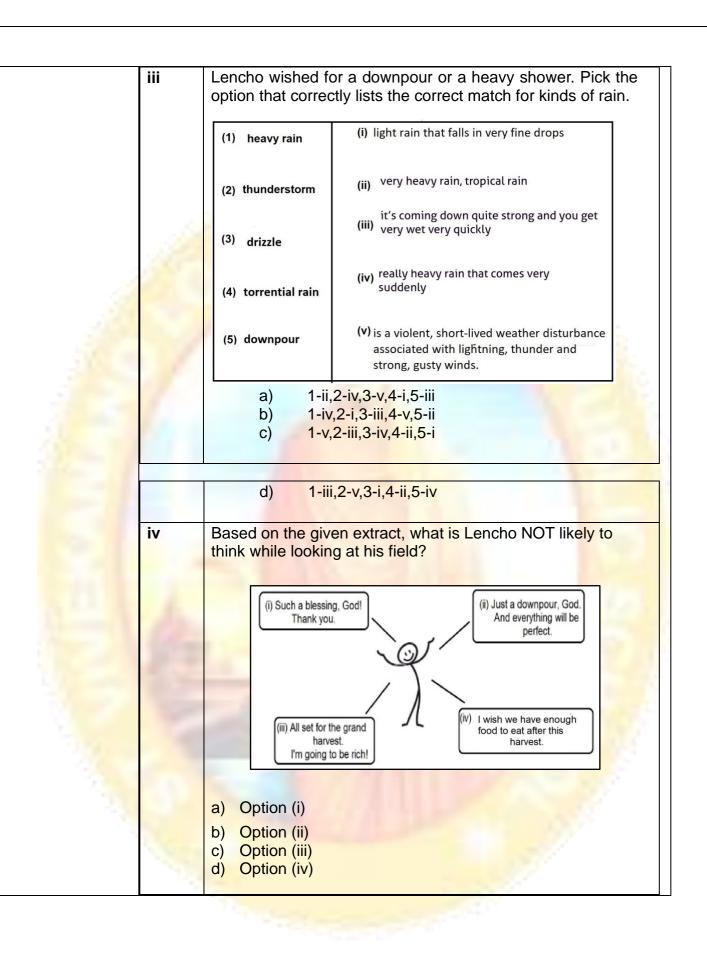
- a. Research and Analysis: 10 points
- b. Interpretation and Understanding: 10 points
- c. Presentation of Findings: 5 points
- d. Reflection and Critical Thinking: 5 points

### E. Submission Details:

- Submit project proposals for approval by [Insert Deadline].
- Final projects are due on [Insert Deadline].
- Presentations will take place on [Insert Dates].

# CH-1(Letter to God)

	CH-1(Letter to God)
Q1	Multiple Choice Questions based on an extract
(A)	The house- the only one in the entire valley -sat on the crest of a low hill. From this height one could see the river and the field of ripe corn dotted with the flowers that always promised a good harvest. The only thing the earth needed was a good downpour or at least a shower. Throughout the morning Lencho -who knew his fields intimately- had done nothing but see the sky towards the north-east.
	Based on the detail of the house's location, how can it best be described?  a) majestic b) imposing c) solitary d) unique
-	a) not a single flower was bigger than a dot b) the flowers were scattered across. c) the flowers were in shaped like dots. d) the flowers had shrunk in size.



v	Which quote supports the idea in the given extract?		
	<ul><li>a) "Farming is a profession of hope."</li><li>b) "I would rather be on my farm than be emperor of the world."</li></ul>		
- 4	<ul> <li>c) "Farming looks mighty easy when your plough is a pencil, and you're a thousand miles from the corn field."</li> <li>d) "Those too lazy to plough in the right season will have no food at the harvest."</li> </ul>		
(B)	When he finished, he went to the window to buy a stamp which he licked and then affixed to the envelope with a blow of his fist. The moment the letter fell into the mailbox the postmaster went to open it. It said: "God: Of the money that I asked for, only seventy pesos reached me. Send me the rest, since I need it very much. But don't send it to me through the mail because the post office employees are a bunch of crooks. Lencho."		
i	'bunch of crooks.' Pick the option that DOES NOT collate with 'bunch of', correctly.		
	(i) keys (iv) islands bunch of (ii) grapes		
	(iii) flowers		
6	a) option (i) b) option (ii) c) option (iii) d) option (iv)		
ii	What was the most likely response that the postmaster expected in		
	Lencho's second letter?		
	i) sorrowful		
	ii) gratitude iii) disappointment		
	iv) elation		
	v) shock		
7.7			
10	a) ii and v		
7	a) ii and v b) i and iii c) ii and iv		

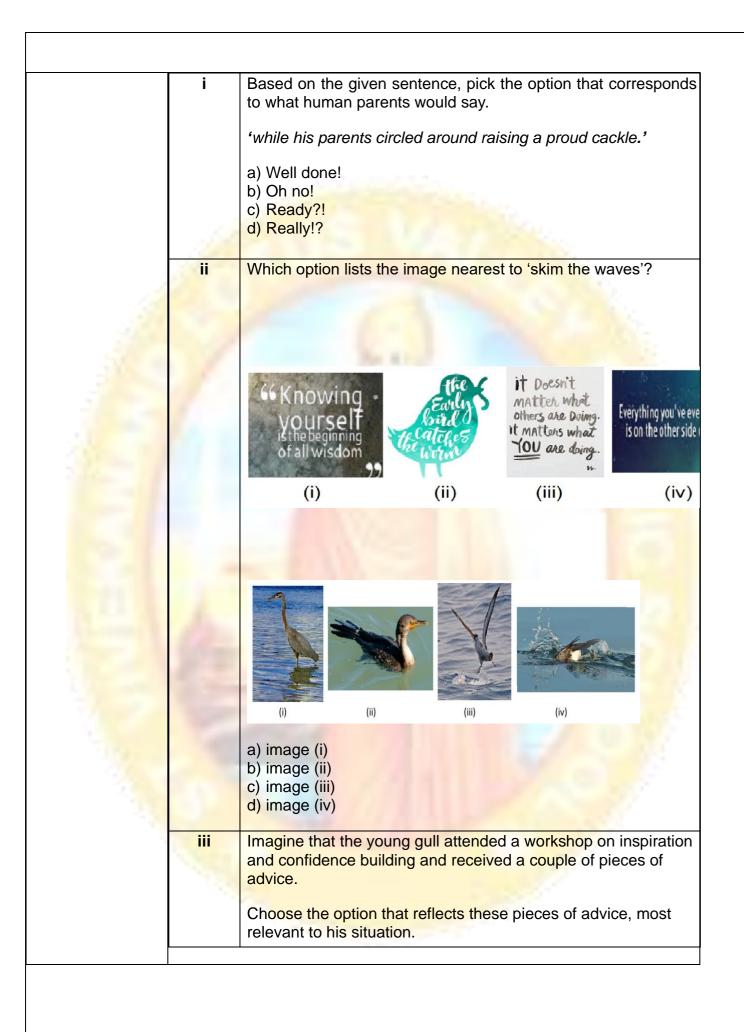
iii	Lencho's letter included
	<ul><li>a) details of his problems.</li><li>b) description of the post office.</li><li>c) belief of being looted.</li><li>d) List of further demands.</li></ul>
Q2	Answer in 20-30 words
	People get support from family and friends during bad times. How does Lencho's family behave after the harvest is ruined?
ii	'Lencho was an ox of a man, working like an animal in the fields, but still he knew how to write.' What does this line tell us about the norm amongst such farmers, then?
iii	What, according to you would have been the likely reaction of Lencho's wife upon knowing about him writing an actual letter to God?
i V	Lencho waited eagerly for a reply to his letter to God. Do you think the postmaster was also very keen to know Lencho's reaction upon receiving the 'reply'?
Q 3	Answer in 40-50 words
i	'The field was white, as if covered with salt.' This is how the field is described after the hailstorm. The pelting hailstones could have been easily seen as sugar cubes. Do you think comparing it with sugar would have been more appropriate? Why/ Why not?
ii	Lencho and his family knew the implications the hailstorm would have on their lives. Write a conversation between Lencho and his wife as they watched the downpour turn to a hailstorm.
ii i	Lencho did not bother exploring any other means to resolve his situation but just turned to God. Do you feel that his approach was justified? Why/Why not?
11	Answer in 100-120 words (beyond text and across texts)
i	The people at the post-office contribute to put together whatever they can manage, for Lencho.  (a) What do you think was the main reason behind their help? Would you have done the same if you were one of the employees?  (b) As an employee, write about your perspective and
	reason(s) for contributing to the fund. The fact that you don't want to say 'no' to a cause initiated by your boss, can also be

	an equally compelling reason!
ii	Read the given anecdote and analyse the similarities and differences with reference to 'A Letter to God'.
4	A very poor woman called-in a radio station asking for help from God. A non-believer, also listening to this radio program, decided to make fun of the woman. He got her address, called his secretary and ordered her to buy food and take it to the woman.
)	However, the instruction was: "When the woman asks who sent the food, tell her that it's from the devil."  When the secretary arrived at the woman's house, the woman was very happy and grateful for the help. The
	Secretary then asked her, "Don't you want to know who sent the food?"  The woman replied, "No, I don't even care because when God orders, even the devil obeys!
	ed cracie, even inclusive
ii i	The postmaster was a representative of God. Evaluate this statement in the context of your understanding of 'A Letter to God".
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# Why does the speaker say that it is a 'rare privilege'? iii He says this as they have a) been deprived of this honour. b) seldom been given this honour. c) experienced it for the first time. d) been chosen over other countries, for this honour. How do you think the speaker feels? Choose the option that best iv fits his state of mind. a) i) emotional ii) elated iii) unmindful iii) overwhelmed b) i) elated ii) unmindful c) i) overwhelmed ii) elated iii) honoured d) i) elated ii) honoured iii) unmindful Pick the option that showcases the usage of 'host' as in the extract. a) He was praised for his hospitality as the host of the party. b) She was able to host the event without any hindrance. c) She met the host and apologised for her friend's misbehaviour. d) He is the best host that one can ever come across. (B) "It was only when I began to learn that my boyhood freedom was an illusion, when I discovered as a young man that my freedom had already been taken from me, that I began to hunger for it. At first as a student I wanted freedom only for myself, the transitory freedoms of being able to stay out at night, read what I pleased and go where I chose. Later, as a young man in Johannesburg, yearned for the basic and honourable freedoms..." The title that best suits this extract is a) Freedom for everything b) Knowledge about Freedom c) Significance of Freedom d) Realisation of Freedom Why do you think the speaker mentions some freedoms as 'transitory'? a) The freedoms are momentary and keep changing with time. b) The definition of freedom is constant but perspectives differ. c) Freedom means different things to different people. d) Freedom is not that important after a certain age.

iii	Choose the option that best fits the usage of the word 'illusion' as used in the extract.
	a) He was never able to get past the illusion.
	b) The illusion I experienced was quite intriguing.
	c) A large mirror in the room creates an illusion.
	d) I was living under the illusion that this is possible.
iv	The speaker says, 'at first as a student I wanted freedom only for myself.'
	Why do you think he only thought about himself?
	a) He didn't want to think about the freedom denied to others.
	b) He was being selfish and was only bothered about himself.
	c) He didn't think that freedom denied to him was important for
	others. d) He was too young to realise that freedom was denied to others as
	well.
V	A part of the extract has been paraphrased. Choose the option that includes the most appropriate solution to the blanks in the given paraphrase of the extract.
	The speaker's belief about freedom, since childhood proved false. It
	was not until the speaker grew up to be a young man when it i) on him that he was ii)
	of freedom. Then he began iii) it.
	i) desired ii) dawned iii) depriving
	i) dawned ii) deprived iii) desiring i) dawned ii) arrived iii) desiring
	i) arrived ii) desiring iii) desiring iii) dawned
	, , , , , , , , , , , , , , , , , , , ,
Q2	Answer in 20-30 words
i	Based on your reading of the lesson, what can you infer about Mandela as a father and as a leader?
ii	Mandela feels that courage is triumph over fear. How would you
	define courage in this context?
iii	If you were in Mandela's position, would you have given preference
	to your family or your country? Why?
iv	Mandela says that his country's greatest wealth is its people and no
	the purest diamonds. Justify his statement.
Q3	Answer in 40-50 words
i	Create a questionnaire of two most important questions that you
	would have liked to ask Nelson Mandela during an interview. Give
	your reasons for choosing those questions.

i	Freedom is inconsequential if it is behind bars of prejudice and narrow mindedness. How would you explain this statement? Support your answer with suitable examples from the real world.  Prejudice based on race and colour or any other reason causes profound hurt.  Write about any one character from the chapters in <i>First Flight</i> who was subjected to such prejudice?  Discuss the consequence of this prejudice for the character.
iv Q4	Friend: I think the freedom to watch T.V. for extended hours or choose the kind of programmes I'd like to view is important. You:  Friend: Hmmm. I still feel that the restrictions are not required. I wan my freedom. I'm human too, am I not? You:  Struggles teach us many lessons. With reference to the times you struggled with mastering a skill or learning a concept, write about the lessons you learnt.  Answer in 100-120 words (beyond text and across texts)
III	You recently read a blog by your teen friend, on 'Freedom-My Perception'. You feel that your perception of freedom has seen a transformation after having read The Long walk to Freedom. Complete the dialogue in 120 words, with your friend, explaining your new understanding of freedom. You may begin like this:
ii	Your teacher organised a mini-debate competition in class on the topic: Courage, Wisdom and Generosity are the ONLY attributes of a remarkable leader.  Write the debate script with two points to supplement your stand, either as a proposition speaker or as an opposition one.



a) (i) and (ii) b) (ii) and (iii) c) (iii) and (iv) d) (i) and (iv)			
iv	Which of the following feelings did the young gull, NOT feel according to the given context?		
	"all day long, he had watched his parents flying about with his brothers and sister"		
	(i) sad (ii) incompetent (iii) excluded (iv) ungrateful (v) inspired (vi) jealous (vii) anxious		
1	a) i, iii, vi b) ii, v, vii c) ii, iii, vii d) iv, v, vi		
V	Select the most appropriate option for the following:  devour : guzzle: : nibble :  a) chew		
, 1	b) savour c) peck d) gulp		
(B)	He just felt a bit dizzy. Then he flapped his wings once and he soared upwards. "Ga, ga, ga, Ga, ga, ga, Gaw-colah," his mother swooped past him, her wings making a loud noise. He answered her with another scream. Then his father flew over him screaming. He saw his two brothers and his sister flying around him curveting and banking and soaring and diving. Then he completely forgot that he had not always been able to fly, and commended himself to dive and soar and curve, shrieking shrilly.		
i I	Pick the most appropriate reason why the young gull felt dizzy.		
38	<ul> <li>a) He hadn't eaten anything for a day.</li> <li>b) He was dizzy with excitement.</li> <li>c) He was wary of heights.</li> <li>d) He was flying for the first time.</li> </ul>		
I.			

ii	How would you describe the screams of the gulls in the given extract?
	a) elation
	b) bewilderment
	c) shock d) protection
	d) protection
iii	The line "he completely forgot that he had not always been
	able to fly" implies the
	a) great confidence the young gull had in his skills.
	b) naturalness of the act of flying for the young gull.
	c) satisfaction and joy of flying together as a family.
	d) desire of the young gull to leave his fears behind.
iv	The extract refers to the many movements of the young gull's brothers and sister. Choose the option that correctly sequences these movements.
	a) The young gull's brothers and sister flew by tilting their
	wings, rose high, made darting movements and plunged headfirst.
	b) The young gull's brothers and sister flew by plunging
	headfirst, making darting movements, titled their wings
	and rose high.
	c) The young gull's brothers and sister flew with darting
	movements, titled their wings, rose high and plunged
	headfirst. d) The young gull's brothers and sister flew by rising high,
	plunging headfirst, making darting movements and tilting
	their wings.
V	Which of the following mirrors the use of the literary device in
	"shrieking shrilly"?
	a) sparkling saga
	b) singing soft
	c) slippery sloppily
	d) sneeze silently
Q2	Answer in 20-30 words
i	Describe the young seagull's emotions when he flew over the
	sea.
ii	The Oxford Dictionary defines 'hangry' as 'bad-tempered or
	irritable as a result of hunger'.
	To what extent can the young seagull's motivation to fly be
	attributed to being hungry? Support your stance with evidence
	from the text.

iii	"The young seagull was alone on his ledge." How far do you think this condition was by his choice?
Q3	Answer in 40-50 words
i	If you were the family member of the young seagull, would you also decide not go near him? Elaborate with reason.
II	The young seagull "failed to muster up courage to take that plunge". In what way can the reference to the 'plunge' here be both literal and metaphorical? Explain.
iii	The 'fight or flight response', that is, to stay and face a situation or run from it- is an automatic reaction to an event perceived as stressful or
7	harmful. How would you evaluate the young gull's response on finding himself off the ledge?
Q4	Answer in 100-120 words (beyond text and across texts)
i	The young seagull's parents wanted him to fly, like his brothers and sister. How could the young seagull's newly flying siblings (Brother 1, Brother 2 and Sister) have motivated him? Write a brief conversation among them.
ii	A noted author, Richard Bach wrote – "For most gulls it was not flying that mattered, but eating. For this gull, though, it was not eating that mattered, but flight."
	Evaluate this statement with respect to the young seagull.

Look at the image of Maslow's hierarchy of needs. ii Abraham Maslow devised a theory of motivation that shows the basic needs at the bottom, and more advanced needs as you move up. It includes the theory that fundamental needs must be met before an individual can be motivated to achieve higher order needs. Self-fulfillment Selfactualization: achieving one's full potential, including creative activities Esteem needs: prestige and feeling of accomplishment Psychological Belongingness and love needs: ntimate relationships, friends Safety needs: security, safety Basic Physiological needs: food, water, warmth, rest Where in this hierarchy of needs, would you locate the young seagull's first flight? Justify your response. iii Look at the given image of different parenting styles and what they signify. THE FOUR PARENTING STYLES SENSITIVE & STERN & RESPONSIVE AUTHORITARIAN DEMANDING AUTHORITATIVE DOESN'T UNINVOLVED ENFORCE LIMITS PERMISSIVE Which of the given parenting styles would you attribute to the young seagull's parents? Do you think there was a difference between the mother's and father's attitude? Support your answer with reference to the text. CH-3(Two Stories about Flying-- II. Black Aeroplane) **Multiple Choice Questions based on an extract** Q1

Everything was going well — it was an easy flight. Paris was about 150 kilometres behind me when I saw the clouds. Storm clouds. They were huge. They looked like black mountains standing in front of me across the sky. I knew I could not fly up and over them, and I did not have enough fuel to fly around them to the north or south. "I ought to go back to Paris," I thought, but I wanted to get home. I wanted that breakfast, 'I'll take the risk,' I thought, and flew that old Dakota straight into the storm. Based on the given extract,, choose the option that lists the meme which would be the most appropriate response to "...it was an easy flight"? a) Option (i) b) Option (ii) c) Option (iii) d) Option (iv) YOU SPOKE TOO SOON (ii)(i) (III)(IV) How would you describe the "risk" the narrator took? a) calculated b) impetuous c) unavoidable d) navigable iii In what way might the reference to the Dakota as "old" be relevant? Its antique value made it expensive and precious to a) the narrator. It is employed by the narrator as a term of b) endearment. It did not have enough fuel to fly around the storm clouds. Its ability to negotiate the storm clouds might have been suspect. Read the statements given below, and then select the option that iν best describes the given statements. Statement I - The narrator's desire to reach home and see his

family made him complacent.

Statement II - The narrator was unaware of the threat that the adversarial storm clouds presented. Statement III - The narrator's decision making was quick but irresponsible as well as dangerous. Statement I is False, Statement II is True, Statement III cannot be inferred Statement I and III are True, Statement II cannot be inferred. Statement I cannot be inferred, Statement II is False, C) Statement III is True. Statement I and II are False, Statement III is True. Select the correct option to fill in the blanks below: risk: risky :: a) danger: dangerously b) hazard: hazardous c) peril: imperilled d) caution : precaution I was safe! I turned to look for my friend in the black (B) aeroplane, but the sky was empty. There was nothing there. The black aeroplane was gone. I could not see it anywhere. I landed and was not sorry to walk away from the old Dakota near the control tower. I went and asked a woman in the control centre where I was and who the other pilot was. I wanted to say 'Thank you'. She looked at me very strangely, and then laughed. "Another aeroplane? Up there in this storm? No other aeroplanes were flying tonight. Yours was the only one I could see on the radar." So, who helped me... Select the option that correctly tracks the progression of emotions experienced by the narrator in the given extract. a) excited – surprised – relieved – grateful – perplexed b) relieved – confused – curious – dejected – panic-stricken c) optimistic – lonely – calm – elated – appreciative d) triumphant - reassured- inquisitive - thankful - uncertain Why do you think the woman in the control centre laughed? ii a) She found the narrator funny. b) She thought his question preposterous. c) She thought he was teasing her. d) She was relieved the narrator was safe.

	III	Filled with questions, the narrator decadvertisement in the local newspaper. Read the advertisement given below includes the most appropriate solution. Looking for a pilot of a black aeroplar Dakota out of storm clouds late last in the Dakota pilot could express his gracontrol centre and radar did not (iii) _ Dakota pilot would really appreciate in Please contact the Dakota pilot at 52 and eager (iv), XXX	r to look for his "friend". and select the option that his for the blanks:  ne who (i) an old hight, but (ii) before atitude after landing. Though its presence, the if his friend reached out.		
	ý	a) (i) guided;(ii) disappeared;(iii) regis b) (i) took;(ii) landed;(iii) acknowledge c) (i) brought;(ii) went away;(iii) confii d) (i) helped;(ii) vanish;(iii) make note	e;(iv) appreciation rm;(iv) expectation		
	iv	The narrator exclaimed that he was "safe". Which of the following represented the most immediate threat to the narrator's safety?  a) The black mountain-like storm cloud b) The depletion of fuel in the last fuel tank c) Being lost due to non-functioning equipment d) The old rattling Dakota aeroplane			
	V	Choose the option that correctly matches the idioms in Column to the story's events in column B:			
		Column A – Idioms  1. Every cloud has a silver lining.	Column B – Story events  (i) The narrator really wanted to have a hearty English breakfast, even though he really ought to have turned back.		
		2. To be on cloud nine.	(ii) The man in the other plane waved at the narrator and asked him to follow, closely drawing him out.		
	1	3. To have your head in the clouds.	(iii) The compass and other instruments stopped working. The radio was dead too.		
		4. gathering clouds.	(iv) And there it was – the well-lit runway. An airport. The narrator could safely land.		
		a) 1-(iv); 2-(iii); 3-(ii); 4-(i) b) 1-(iii); 2-(i); 3-(iv); 4-(ii) c) 1-(i); 2-(ii); 3-(iii); 4-(iv)			

	d) 1-(ii); 2-(iv); 3-(i); 4-(iii)
Q2	Answer in 20-30 words
	The All of
ii	Look at the given image. Briefly evaluate the narrator's decision to not go back to Paris with reference to the image.
	Threat Opportunity
	Opportunity
iii	Do you think that after his experience, the narrator would be able
	to truly enjoy the English breakfast he had yearned for? Why/
	Why not?
iv	What do you think prompted the narrator to act like "an obedient
	child"?
Q3	Answer in 40-50 words
i	As a reader, do you feel betrayed or let down in the way the story
	ends?
	Validate your opinion.
ii	Based on your reading, would you call the narrator a family man?
	Justify your stance.
iii	James Lane Allen says, "Adversity reveals character".
	What do you learn about the narrator from the experience?
	Mention any two traits supported by the textual evidence.
~4	Answer in 100-120 words
Q4	(beyond text and across texts)

Imagine that the narrator shared his story with friends and family once he got home. One of them, a spiritual leader, decided to incorporate the story as part of his weekly sermon to the congregation. Another friend, a psychologist, worked the story into his next lecture on survival instinct and crisis management. Do you think the two interpretations of the story would be different? If so, how?

What insights might the narrator get about his mysterious experience, if he were to attend both the sessions?

In a parallel world, the pilot of the black aeroplane narrates his adventure in a story titled 'The Old Dakota'. You come across an excerpt from the story, which responds to the ending questions of 'Black Aeroplane' and describes the black aeroplane pilot's decision to fly away after watching the Dakota land.

Compose the said excerpt of the story employing relevant details

Compose the said excerpt of the story employing relevant details from 'Black Aeroplane'.

A few days after the experience, the narrator sat with his wife and recalled a long conversation he'd had with his young son the day before. The narrator's son had spoken to him about his close friend, Freddie, and the many ways Freddie helped him. When the narrator suggested inviting Freddie home for lunch, his wife casually said, "Freddie is like your friend in the black aeroplane!"

That night the narrator decided to record his thoughts in his diary to clear his head. As the narrator, write the diary entry.

# CH-4(How To Tell Wild Animals)

Q1	Multiple Choice Questions based on an extract
(A)	If strolling forth, a beast you view,
	Whose hide with spots
	is peppered, As soon as
	he has lept o <mark>n you,</mark>
	You'll know it is the
	Leopard. 'Twill do no
	good to roar with pain,
	He'll only lep and lep
	again.
i	Choose the option listing the stanza that would follow the given
74	extract.
	a) Option 1
	b) Option 2
	c) Option 3
	d) Option 4

The leopad stalks on silent paws. A spotted leopard in a banyan tree, With deadly armor of fangs and Kept his yellow carnivore-ic eyes on me. I knew better than to move fast or try to flee. He lies in his tree perch through His eyes narrowed, but I refused to see. out the day. How fast that cat was chasing after me. Sleeping and resting the hours If I can just get to that tall tall .... away. (3)The leopard and the lion chose to become friends, His claws and paws will make you forget, For they were all proud of claws on their paws If you're in a dream or reality, They each glorified one another for their mighty, And you'll feel clawed and pawed, I bet, Ability to live on meat of other fauna throughout a year. The peppered pounce a certainty. They each admired one another for running speed, Tis a beast that runs and strikes fast, They each remained firm and loyal to one rule; If you're caught you sure won't last. Lions don't eat leopards neither leopards eat lions. Given below are four examples of activities that Jasmeet does. Choose the option that correctly demonstrates 'strolling'. a) Jasmeet runs with a great speed after being chased by a dog. b) Jasmeet walks in the garden, relaxing while listening to his favourite song. c) Jasmeet skids sharply on the icy skate rink. d) Jasmeet rushes to switch off the water pump in the backyard. iii Which option lists the statement that is NOT TRUE according to the extract? a) The poet asks the reader to hide on seeing the leopard. b) The poet cautions the reader about a leopard when walking through its territory. c) The poet informs the reader that a leopard can launch repeated attacks. d) The poet tells the reader that a leopard attack can result in The repetition used in "he'll only lep and lep again" is an example iv a) poetic justice. b) satire. c) allusion. d) poetic licence.

v	Choose the option that matches with the rhyme scheme of the extract.				
	(1) (2) (3) (4) proud wild wild loud loud jungle proud jungle child child child wild wild mingle loud child jungle loud jungle mingle mingle proud mingle proud				
	a) option 1 b) option 2 c) option 3 d) option 4				
(B)	Though to distinguish beasts of prey A novice might nonplus, The Crocodile you always may Tell from the Hyena thus: Hyenas come with merry smiles; But if they weep they're Crocodiles.				
i	Choose the option that DOES NOT describe a 'novice'.  a) Lakshman has played cricket for the first time today. b) Samiksha has been teaching for last ten years. c) Srishti went for her first French class yesterday. d) Gautam baked a second cake to improve his skills.				
iii	What, according to the extract, would cause bewilderment?  a) Discovering the similarity between different preys of beasts. b) Analysing habits of beasts that prey on hyenas. c) Knowing the difference between several beasts of prey. d) Drawing the similarities between crocodiles and hyenas.				
iv	Choose the line from the given stanza that the poet takes liberty with, to fit to the rhyme scheme.  a) Though to distinguish beasts of prey b) A novice might nonplus c) The Crocodile you always may d) Hyenas come with merry smiles				

Q2 i	image to make it comical.  State two instances from the poem "How to Tell Wild Animals"				
i	"If he roars at you as you're dyin'/ You'll know it is the Asian Lion" Comment on the irony of the quote from the poem "How to Tell Wild Animals".  Hyperbole is a literary device used when the poet exaggerates ar image to make it comical.  State two instances from the poem "How to Tell Wild Animals"				
ii	Lion" Comment on the irony of the quote from the poem "How to Tell Wild Animals".  Hyperbole is a literary device used when the poet exaggerates an image to make it comical.  State two instances from the poem "How to Tell Wild Animals"				
1	image to make it comical.  State two instances from the poem "How to Tell Wild Animals"				
iii					
	"If there is nothing on the tree, / 'Tis the chameleon you see." Briefly explain the paradox of the quote.				
Q3	Answer in 40-50 words				
	Which genre is most appropriate for the poem? Substantiate your choice with reference to the poem "How to Tell Wild Animals".				
ii	"All knowledge is useful. But not all knowledge is worth the cost." Elaborate on the quote in the context of the poem "How to Tell Wild Animals".				
iii	Would you agree that the poet has an in-depth knowledge of the wild? Support the statement in context of the poem "How to Tell Wild Animals".				
-					

### **Mathematics**

Practice ch- 1( Real numbers),ch-2(Polynomials),Ch- 3( linear equation in two variables),ch-4 ( quadratic equations)

- 2. Write 5 activities in Maths lab manual book.(Bharat Pub.)
  - To obtain the condition for consistency of system of linear equations given below (in two variables) by graphical method.
  - To discuss nature of quadratric polynomial by using graph paper

$$x^2 - 4x + 4 = 0$$
 ,  $2x^2 - 7x + 5 = 0$  ,  $x^2 - 2x + 8 = 0$ 

- To verify that the given sequence is an arithmetic progression by paper cutting and pasting method.
- To find formula for sum of first n terms of an arithmetic progression.
- To get familiar with idea of prob. of an event after a toss of 3 coins.
- 3. Project: Two cricket teams A and B are made for a test match team A involves 5 players of from Haryana State and 7 players from Manipur State scored 500 runs in total whereas team B involves 7 players from Haryana State and 5 players from Manipur State scored 460 runs in total. Form the linear equation in two variables using given information and represent graphically. Hence find the solution of these equations and verify your Answer by solving the equation using substitution as well as elimination method.

### Models

- 1. Mathematics toy (Roll no. 1-7)
- 2. Calculator (Roll no. 8 -14)
- 3. Model on LCM and HCF (Roll no. 15-21)
- 4. Drawing circle using machine (Roll no. 22-27)

Prepare the models neatly and for reference check these links:

https://youtu.be/oZGmeU-9tuA?si=NdLOREIjzAK0vqxC https://youtu.be/5T\_eSzKen9A?si=wUvMxWphtGcL5Orw https://youtu.be/KukuZOQvmr0?si=YHHwcp8wHQWw3mfx https://youtu.be/NwYvbZYMy7k?si=MFUwjNADGm5VovX8

### ASSIGNMENT

1. The value of k for which the system of equations x + y - 4 = 0 and 2x + ky = 3 has no solutions

(d) 2

(a) 
$$-2$$
 (b)  $\neq 2$ 

- 2.The pair of linear equations y = 0 and y = 6 has
  - (a) Unique solution (b) No solution (c) infinitely many solution (d) only solution (0,0)
- 3. If the lines given by 2x + ky = 1 and 3x 5y = 7 are parallel, then the value of k is

(a) 
$$-\frac{10}{3}$$
 (b)  $\frac{10}{3}$  (c) -13

4. If x = a, y = b is the solution of the equations x + y = 5 and 2x - 3y = 4, then the values of a and b are respectively

(a) 6, -1	(b) 2, 3	(c) 1, 4	(d) 19/5, 6/5		
5. The graph of x = (a) x-axis (d) none of the	(b) y-axis hese		y-axis		
6. The graph of y = (a) parallel to x-axis		rallel to y-axis			
(c) perpendicular to	y-axis	(d) passing through th	ne origin		
7. The graph of y = (a) x-axis these	5 is a line par (b) y-axis	allel to the (c) both axis	(d) none of		
8. Two equations in (a) linear equations (c) simultaneous ed		taken together are ca (b) quadratic equation (d) none of these			
9. The sum of two are:	numbers is 2	27 and product is 182	. The numbers		
(a) 12 and 13	(b) 13 and 14	(c) 12 and 15	(d) 13 and 24		
10. If $\frac{1}{2}$ is a root of the quadratic equation $x^2$ -mx-5/4=0, then value of m is:					
(a) 2	(b) -2	(c) -3	(d) 3		
11. The altitude of a right triangle is 7 cm less than its base. If the hypotenuse is 13 cm, the other two sides of the triangle are equal to:					
(a) Base=10cm and Altitude=5cm	d Altitude=5cm	) (b) Base	e=12cm and		
(c) Base=14cm and Altitude=10cm	d Altitude=10c	m (d) Base	e=12cm and		
12. The value of $\sqrt{6}$	$6 + \sqrt{6 + \sqrt{6 + 6}}$	··· is:			
(a) 4 (b) 3		(c) 3.5	(d) -3		
<b>13. Assertion:</b> The graph of the linear equations 3x+2y=12 and 5x-2y=4 gives a pair of intersecting lines.					
Reason: The graph	of linear equa	tions a1x+b1y+c1=0 an	d a2x+b2y+c2=0		

gives a pair of intersecting lines if  $a_1/a_2 \neq b_1/b_2$ 

**14. Assertion:** If the pair of lines are coincident, then we say that pair of lines is consistent and it has a unique solution.

Reason: If the pair of lines are parallel, then the pairs has no solution and is called inconsistent pair of equations.

**15. Assertion:** The linear equations x-2y-3=0 and 3x+4y-20=0 have exactly one solution

**Reason:** The linear equation 2x+3y-9=0 and 4x+6y-18=0 have a unique solution.

**16. Assertion:** The roots of the quadratic equation  $x^2 + 2x + 2 = 0$  are imaginary

**Reason:** If discriminant  $D = b^2 - 4ac < 0$  then the roots of quadratic equation  $ax^2 + bx + c = 0$  are imaginary.

**17. Assertion:**  $3x^2 - 6x + 3 = 0$  has repeated roots.

**Reason:** The quadratic equation  $ax^2 + bx + c = 0$  have repeated roots if discriminant D > 0.

18. Raj and Ajay are very close friends. Both the families decide to go to Ranikhet by their own cars. Raj's car travels at a speed of x km/h while Ajay's car travels 5 km/h faster than Raj's car. Raj took 4 hours more than Ajay to complete the journey of 400 km.



1. What will be the distance covered by Ajay's car in two hours?

(a) 
$$2(x + 5)km$$
  
(d)  $(2x + 5)km$ 

(b) 
$$(x - 5)km$$

$$(c) 2(x + 10)km$$

2. Which of the following quadratic equation describe the speed of Raj's car?

(a) 
$$x^2 - 5x - 500 = 0$$

(a) 
$$x^2 - 5x - 500 = 0$$
 (b)  $x^2 + 4x - 400 = 0$ 

(c) 
$$x^2 + 5x - 500 = 0$$
 (d)  $x^2 - 4x + 400 = 0$ 

(d) 
$$x^2 - 4x + 400 = 0$$

# 3. What is the speed of Raj's car?

- (a) 20 km/hour(b) 15 km/hour
- (c) 25 km/hour
- (d) 10 km/hour

# 4. How much time took Ajay to travel 400 km?

- (a) 20 hour (b) 40 hour
- (c) 25 hour
- (d) 16 hour
- 19. A quadratic equation can be defined as an equation of degree 2. This means that the highest exponent of the polynomial in it is 2. The standard form of a quadratic equation is  $ax^2 + bx + c = 0$ , where a, b, and c are real numbers and a ≠ 0. Every quadratic equation has two roots depending on the nature of its discriminant,  $D = b^2 - 4ac$

# 1. Which of the following quadratic equation have no real roots?

(a) 
$$-4x^2 + 7x - 4 = 0$$
  
(d)  $3x^2 + 6x + 2 = 0$ 

(b) 
$$-4x^2 + 7x - 2 = 0$$

(c) 
$$-2x^2+5x-2=0$$

2. Which of the following quadratic equation have rational roots?

(a) 
$$x^2 + x - 1 = 0$$
  
(d)  $6x^2 - x + 11 = 0$ 

(b) 
$$x^2 - 5x + 6 = 0$$

(b) 
$$x^2 - 5x + 6 = 0$$
 (c)  $4x^2 - 3x - 2 = 0$ 

3. Which of the following quadratic equation have irrational roots?

(a) 
$$3x^2 + 2x + 2 = 0$$
  
(d)  $2x^2 + 3x - 2 = 0$ 

(b) 
$$4x^2 - 7x + 3 = 0$$
 (c)  $6x^2 - 3x - 5 = 0$ 

(c) 
$$6x^2 - 3x - 5 = 0$$

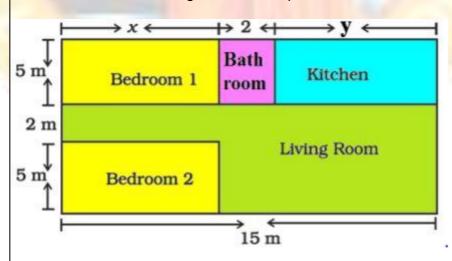
4. Which of the following quadratic equations have equal roots?

(a) 
$$x^2 - 3x + 4 = 0$$

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

(c) 
$$5x^2 - 10x + 1 = 0$$

- (d)  $9x^2 + 6x + 1 = 0$
- 20. Amit is planning to buy a house and the layout is given below. The design and the measurement has been made such that areas of two bedrooms and kitchen together is 95 sq.m.



Based on the above information, answer the following questions:

2. Find the length of the outer boundary of the layout.
3. Find the area of each bedroom and kitchen in the layout.
4. Find the area of living room in the layout.
5. Find the cost of laying tiles in kitchen at the rate of Rs. 50 per sq.m.

### Science

Dear Class X Students.

Welcome to your individual presentation assignments! As you progress through Class X, interactive projects play a vital role in enhancing your learning experience. Each of you will be tasked with creating a model and delivering a presentation on a specific aspect of the "Life Processes" chapter.

# List of Models BIOLOGY

- Roll Numbers 3,5, 27: Working model of the Alimentary Canal
- Roll Numbers 13,6,17,8: Model of the Liver
- Roll Numbers 10,25,6: Static model of the Small Intestine
- Roll Numbers 20,21,22: Working model of the Heart
- Roll Numbers 19,24,25: Model of Photosynthesis
- Roll Numbers 11,26,18: Working model of Respiration

### Prepare the models neatly and for reference check these links:

- Working model of the Alimentary Canal:
- Construct a working model demonstrating the structure and function of the alimentary
- Model of the Liver:
- Create a detailed model of the liver.
- Highlight the liver's role in metabolism, detoxification, and bile production.
- Discuss the importance of liver health and common liver diseases.
- https://youtu.be/p56HTTDWNAs?si=5RpTsbdF7RG05rOo
- Static model of the Small Intestine:
- Develop a static model showcasing the structure of the small intestine.
- Explain the process of nutrient absorption and the role of villi.
- Discuss the significance of the small intestine in the overall digestive process.
- https://youtu.be/vcBepsOc01g?si=Lp9NTM9qfqRyxTVa
- Working model of the Heart:
- Design a working model to demonstrate the anatomy and function of the heart.
- Show the flow of blood through the heart, including oxygenation and circulation.
- Explain the importance of maintaining heart health and common heart diseases.
- https://youtube.com/shorts/75QsEtoXLrE?si=gyVG7C64yWW\_2Qbe
- Model of Photosynthesis:
- Create a model depicting the process of photosynthesis in plants.
- Explain the stages of photosynthesis, including light-dependent and light-independent reactions.
- Discuss the importance of photosynthesis in the ecosystem.
- https://youtu.be/WpMWyDWfq98?si=b3fhFf9KFCmQ0X5h
- Working model of Respiration:
- Construct a working model illustrating the respiratory system.
- Demonstrate the process of inhalation and exhalation, and gas exchange in the lungs.
- Explain the importance of respiration for energy production in the body.
- Working model of Kidney
- Construct a working model illustrating the Urinary system.
- Demonstrate the process of Filtration in Kidneys.
- https://youtu.be/WvonXIhogCs?si=299wrVrfo636wBZ\_

### **Physics**

- 1) Revise and practice Question & Answers of Ch- Light Reflection and Refraction.
- 2) Assignment on Ch- Light Reflection and Refraction

### **Working Models:**

- electromagnetic Crane (Roll No. 1,2,27)
- Small scale wind turbine (Roll no. 6,9,8)
- Train without wheels(Maglev) (Roll no. 19,26,12)
- Earthquake table (19,26)
- floating house (5,15,21)
- Bubble machine (14,16,7)

### **Model Details:**

Electromagnetic crane Cranes with electromagnetic lift are also known as electromagnetic cranes. Such cranes are used widely in lifting and moving scrap metals. Even in production line of many products, electromagnetic lifts are used to lift and move metal objects. Electromagnets have special simplicity and many advantages to other lifting tools. They are faster and easier to work with.



In this project we will make a working model of an electromagnetic lift and electromagnetic crane.

Some of the benefits of this project are:

ves us an understanding of electromagnetism and its application.

elp us learn mechanics and the application of levers, pivots, structures, etc.
e experiment designing and constructing
e learn manipulating materials and equipment effectively.

Link: https://youtu.be/5la1l0DUj9w?si=qR1ReQvDAdszIVyF

2. Small scale wind turbine: Wind turbines work on a simple principle: instead of using electricity to make wind—like a fan—wind turbines use wind to make electricity. Wind turns the propeller-like blades of a turbine around a rotor, which spins a generator, which creates electricity

Wind is a form of solar energy caused by a combination of three concurrent events:

1. The sun unevenly heating the atmosphere

- 2. Irregularities of the earth's surface
- 3. The rotation of the earth.

Link: https://youtu.be/W4oTiBnJ\_CY?si=IGAmj365W\_5vkx04

3 Train without wheels(Maglev):

oes a train without wheels sound crazy? How could a train possibly move along the tracks without wheels? Trains that hover just above the tracks are actually possible due to **magnetic levitation**, or **maglev** for short. These trains use powerful **magnets** to stay in the air. Magnets generate a **magnetic field**. This magnetic field can push or pull on other nearby magnets, or generate a **force**. Whether the magnets push or pull depends on the direction in which the **magnetic poles** are facing

In the case of a maglev train, this magnetic force is used to push against the train's **weight**. Weight is the force that pulls an object down toward the earth because of **gravity**. If the magnetic force is strong enough, it can overcome the train's weight and push it up into the air! Figure 1 shows a diagram of the forces acting on the maglev train that you will build in this project.

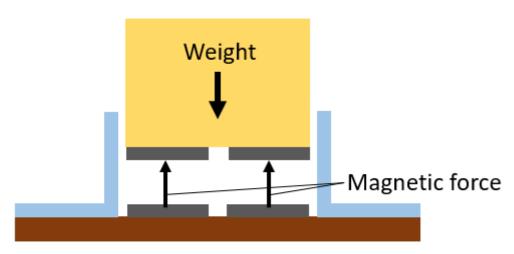


Image Credit: Ben Finio, Science Buddies / Science Buddies

Figure 1. A cross-sectional diagram of the maglev train. The train has two magnets on the bottom of it. These magnets push against two magnets that form the tracks. If the force from the magnets is strong enough, the train will float in the air above the tracks.

In this project you will add weights to your train and measure the distance between the bottom of the train and the tracks. What happens when you add weight to the train? Will it still levitate? Try this project to find out!

Link: <a href="https://youtu.be/KFRP83sZ718?si=w6NcT29TCF">https://youtu.be/KFRP83sZ718?si=w6NcT29TCF</a>T3IMJe

### 4. Earthquake table:

An earthquake refers to the shaking of the earth's surface caused by a sudden release of energy within the earth's crust. This release of energy generates seismic waves, commonly known as S waves. The intensity and characteristics of an earthquake are determined by the seismic activities occurring in a specific region.

### Questions

- What causes an earthquake?
- What kinds of motion are created by each of the seismic waves?
- What are the differences between bedrock, gravel, alluvium, and sand?
- If you are building a new home in an earthquake-prone area, why is it important to know the type of soil on which you are building?
- How do we measure scale of earthquake?

Link: https://youtu.be/F8Hl8alLHjU?si=8XPPnTdlrjVUev6O

5. Floating house for flood areas: Floating houses are similar in concept and can be defined those houses which are constructed on water in a way that the load of the structure is equal or less than the uplift force of the water which helps in floating the house on water.

Flood Proof House Model is a easy science project for school students who needs of cool science fair ideas. You can make this cool science fair project and learn about working model of flood proof house. This project is helps you how to make a flood proof house? This Flood Proof House is made with the materials like 1. Cardboard 2. Bamboo Sticks 3. Color Paper 4. Straw 5. Plastic Bag Some other common materials are paper glue, scissor, diy mat, double tape, scale which are easily available at you house and nearby electronic store

Link: https://youtu.be/HPr5mKEv0pY?si=mnjeSN7kamZ-phOv

### 6. Bubble machine

A bubble machine includes fan means and the rotatable radially extending walls to move through the bubble solution held in the reservoir. The fan causes bubbles to be formed within the machine, with the bubbles being forced outwardly through a door that determines the direction of the travel of the bubbles

Link: https://youtu.be/gQ9OK6Fr5qo?si=GvAobaob2jZ1J6ao

### Chemistry

### WORKING/STATIC MODELS

# Topics:

- 1.Acid base test by using different indicators (Roll no-5,7)
- 2.Electrolysis of water (Roll no-15,18)
- 3.Distillation of water (Roll no-8,12)
- 4.Cleansing action of detergents by using micelles formation with the help of static model

(Roll no-4)

5. Density of different Liquids (Roll no. 20)

**Learning objectives:** Students will be able to design and carry out scientific experiments as well as accurately record and analyse the results of such experiments.

### Prepare the models neatly and for reference check these links:

https://youtu.be/Gr1 Hzl1F-w?si=d1Ro4Rwrcl87knP1

https://youtu.be/GoPTjlfgCss?si=mtn-oT3-rFOiuNN5

https://youtu.be/fH895xcx1O8?si=2jKl8UsK-pXougoz

https://youtu.be/kZDFb89Ep s?si=Fvjck6EiCNuBpKTj

https://youtube.com/shorts/d\_TBBKJU8Fc?si=d4Ms8u3BpCQpH8xQ

https://youtu.be/gxYrlhrwDL0?si=9qV22doFH2kxBLTY

https://youtube.com/shorts/IRC\_k4ldQHI?si=E81L9Ncc8oPjLmHn

### Physics Assignment

Following questions consist of two statements – Assertion (A) and Reason ®. Answer these questions selecting the appropriate option given below:

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.
- 1. Assertion (A): Light does not travel in the same direction in all the media.

Reason ®: The speed of light does not change as it enters from one transparent medium to another

2. Assertion(A): The mirrors used in search lights are concave spherical.

Reason ®: In concave spherical mirror the image formed is always virtual.

3. Assertion(A): Mirror formula can be applied to a plane mirror.

Reason ®: A plane mirror is a spherical mirror of infinite focal length.

4. Assertion(A): The height of an object is always considered positive.

Reason ®: An object is always placed above the principal axis in this upward direction.

5. Assertion(A): The formula connecting u, v and f for a spherical mirror is valid in all situations for all spherical mirrors for all positions of the object.

Reason ®: Laws of reflection are strictly valid for plane surfaces.

6.Assertion(A): A ray of light travelling from a rarer medium to a denser medium slows down and bends away from the normal. When it travels from a denser medium to a rarer medium, it speeds up and bends towards the normal.

Reason ®: The speed of light is higher in a rarer medium than a denser medium 7. An object is placed at a distance of 0.25 m in front of a plane mirror. The distance

between the object and image will be

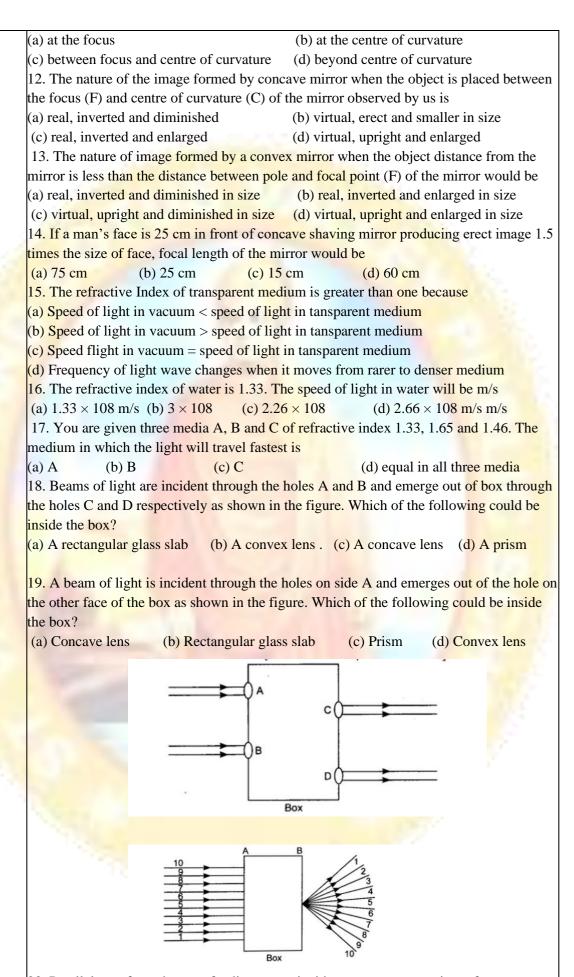
- (a) 0.25 m
- (b) 1.0 m
- (c) 0.5 m
- (d) 0.125 m

8. The angle of Incidence for a ray of light having zero reflection angle is

- (a) 0
- (b)  $30^{\circ}$
- (c)  $45^{\circ}$
- (d) 90° 3.

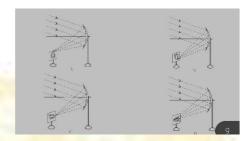
9. For a real object, which of the following can produce a real image?

- (a) Plane mirror
- (b) Concave mirror
- (c) Concave lens
- (d) Convex mirror
- 10. Which of the following mirror is used by a dentist to examine a small cavity?
- (a) Convex mirror
- (b) Plane mirror
- (c) Concave mirror
- (d) Combination of convex and concave mirror
- 11. The Image formed by concave mirror is real, inverted and of the same size as that of the object. The position of object should be



20. Parallel rays from the top of a distant tree incident on a concave mirror, form an image on the screen. Which of the given diagrams correctly shows the formation of image

of the tree?



#### **CHEMISTRY ASSIGNMENT**

- 1. Magnesium ribbon is rubbed before burning because it has a coating of
- (a) basic magnesium carbonate
- (b) basic magnesium oxide
- (c) basic magnesium sulphide
- (d) basic magnesium chloride
- 3. Which of the following statements about the given reaction are correct?  $3Fe(s) + 4H_2O(g) \rightarrow Fe_3O_4(s) + 4H_2(g)$
- (i) Iron metal is getting oxidised
- (ii) Water is getting reduced
- (iii) Water is acting as reducing agent
- (iv) Water is acting as oxidising agent
- (a) (i), (zi) and (iii)
- (b) (in) and (iv)
- (c) (i), (ii) and (iv)
- (d) (ii) and (iv)
- 4. Which of the following are exothermic processes?
- (i) Reaction of water with quick lime
- (ii) Dilution of an acid
- (iii) Evaporation of water
- (iv) Sublimation of camphor (crystals)
- (a) (i) and (ii)
- (b) (ii) and (iii)
- (c) (i) and (iv)
- (d) (ii) and (iv)
- 5. Oxidation is a process which involves
- (a) addition of oxygen
- (b) addition of hydrogen
- (c) removal of oxygen
- (d) removal of hydrogen
- 6. The process of reduction involves
- (a) addition of oxygen
- (b) addition of hydrogen

- (c) removal of oxygen
- (d) removal of hydrogen
- 7. Three beakers labelled as A, B and C each containing 25 ml of water were taken. A small amount of NaOH, anhydrous CuSO<sub>4</sub> and NaCl were added to the beakers A, B and C respectively. It was observed that there was an increase in the temperature of the solution contained in beakers A and B, whereas in case of beaker C, the temperature of the solution falls. Which one of the following statement(s) is (are) correct?
- (i) In beakers A and B, exothermic process has occurred.
- (ii) In beakers A and B, endothermic process has occurred
- (iii) In beaker C exothermic process has occurred.
- (iv) In beaker C endothermic process has occurred.
- (a) (i) only
- (b) (ii) only
- (c) (i) and (iv)
- (d) (iv), (ii) and (iii)
- 8. Give the ratio in which hydrogen and oxygen are present in water by volume.
- (a) 1:2
- (b) 1:1
- (c) 2:1
- (d) 1:8
- 9. Which among the following statement(s) is (are) true?
  Exposure of silver chloride to sunlight for a long duration turns grey due to
- (i) the formation of silver by decomposition of silver chloride
- (ii) sublimation of silver chloride
- (iii decomposition of chlorine gas from silver chloride
- (iv) oxidation of silver chloride
- (a) (i) only
- (b) (i) and (iii)
- (c) (ii) and (iii)
- (d) (iv) only
- 10. MnO<sub>2</sub> + 4HCl  $\rightarrow$  2 + 2H<sub>2</sub>O + Cl<sub>2</sub>

Identify the substance oxidized in the above .equation.

- (a) MnCl<sub>2</sub>
- (b) HCI
- (c) H<sub>2</sub>O
- (d) MnO<sub>2</sub>
- 11. A substance 'X' is used in white-washing and is obtained by heating limestone in the absence of air. Identify 'X'.
- (a) CaOCl<sub>2</sub>
- (b) Ca (OH)₂

(c) CaO (d) CaCO₃
12. When Ag is exposed to air it gets a black coating of (a) AgNO <sub>3</sub> (b) Ag <sub>2</sub> S (c) Ag <sub>2</sub> O (d) Ag <sub>2</sub> CO <sub>3</sub>
13. Which of the following is an endothermic process?  (a) Dilution of sulphuric acid  (b) Sublimation of dry ice  (c) Condensation of water vapours  (d) Respiration in human beings
14. In the double displacement reaction between aqueous potassium iodide and aqueous lead nitrate, a yellow precipitate of lead iodide is formed. While performing the activity if lead nitrate is not available, which of the following can be used in place of lead nitrate?  (a) Lead sulphate (insoluble)  (&) Lead acetate  (c) Ammonium nitrate  (d) Potassium sulphate
15. What type of chemical reactions take place when electricity is passed through water? (a) Displacement (b) Combination (c) Decomposition (d) Double displacemen
16. Select the oxidising agent for the following reaction:  H <sub>2</sub> S + I <sub>2</sub> > 2HI + S  (a) I <sub>2</sub> (b) H <sub>2</sub> S  (C) HI  (d) S
17. A substance added to food containing fats and oils is called: (a) Oxidant (b) Rancid (c) Coolant (d) Antioxidant
18. The condition produced by aerial oxidation of fats and oils in foods marked by unpleasant smell and taste is called: (a) antioxidation (b) reduction (c) rancidity (d) corrosion

- 19. Electrolysis of water is a decomposition reaction. The mole ratio of hydrogen and oxygen gases liberated during electrolysis of water is:
- (a) 1 : 1
- (b) 2:1
- (c) 4:1
- (d) 1:
- 20. When S02 gas is passed through saturated solution of H2S, which of the following reaction occurs?
- (a)  $SO_2 + 2H_2S \rightarrow 2H_2O + 3S$
- (b)  $SO_2 + 2H_2S \rightarrow H20 + 3S$
- $(c)SO_2 + H_2S \rightarrow H_2O + S$
- (d)  $SO_2 + H_2O \rightarrow SO_3 + H_2O$
- 21. Name the products formed when iron filings are heated with dilute hydrochloric acid
- (a) Fe (III) chloride and water
- (b) Fe (II) chloride and water
- (c) Fe (II) chloride and hydrogen gas
- (d) Fe (III) chloride and hydrogen gas
- 22. Pb + CuCl<sub>2</sub>  $\rightarrow$  PbCl<sub>2</sub> + Cu

The above reaction is an example of:

- (a) combination
- (b) double displacement
- (c) decomposition
- (d) displacement
- 23. Which of the following gases can be used for storage (a) Carbon dioxide or Oxygen
- (b) Nitrogen or Oxygen
- (c) Carbon dioxide or Helium
- (d) Helium or Nitrogen
- 24. A dilute ferrous sulphate solution was gradu-ally added to the beaker containing acidified permanganate solution. The light purple colour of the solution fades and finally disap-pears. Which of the following is the correct explanation for the observation?
- (a) KMnO₄ is an oxidising agent, it oxidises FeSO₄.
- (b) FeSO<sub>4</sub> acts as an oxidising agent and oxidises KMNO<sub>4</sub>.
- (c) The colour disappears due to dilution; no reaction is involved.
- (d) KMnO<sub>4</sub> is an unstable compound and de-composes in presence of FeSO<sub>4</sub>. to a colourless compound.
- 25. In which of the following chemical equations, the abbreviations represent the correct states of the reactants and products involved at reaction temperature?
- (a)  $2H_2(I) + O_2(I) > 2H_2O(g)$
- (b)  $2H_2(g) + O_2(l) > 2H_2O(l)$
- (c)  $2H_2(g) + O_2(g) > 2H_2O(l)$
- (d)  $2H_2(g) + O_2(g) > 2H_2O(g)$

#### Fill in the Blanks

- 1. The addition of oxygen to a substance is called ...... whereas removal of oxygen is called ......
  - 2. The addition of hydrogen to a substance is called ...... whereas removal of hydrogen is called ......
  - 3. Precipitation reactions produce insoluble ......
  - 4. Reactions in which energy is given out are known as ......
  - 5. Reaction in which an element displaces another element from its compound is called ......

  - 7 ...... is the process in which metals are eaten up gradually by the action of air, moisture or a chemical on their surface.
  - 8. 2 FeSO<sub>4</sub>  $\rightarrow$  Fe<sub>2</sub>O<sub>3</sub> + SO<sub>2</sub> + .....
  - 9.  $Na_2SO_4 + BaCl_2 \rightarrow \dots + 2NaCl$
  - 10. Complete the missing components/variables given as x and y in the following reactions:
  - (a) Pb  $(NO_3)_2$  (aq) + 2KI (aq)  $\rightarrow$  Pbl<sub>2</sub> (x) + 2KNO<sub>3</sub> (y)
  - (b) Cu (s) +  $2AgNO_3$  (aq)  $\rightarrow$  Cu ( $NO_3$ )<sub>2</sub> (aq) + x (s)

# Assertion and Reason Questions for Class 10 Science Chapter 1 Chemical Reactions and Equations

Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

**Q.1. Assertion** (**A**): Decomposition of vegetable matter into compost is an example of exothermic reactions.

**Reason** (**R**): Exothermic reaction are those reactions in which heat is evolved.

Answer

	Q.2. Assertion (A): When HCl is added to zinc granules, a chemical reaction occurs.  Reason (R): Evolution of a gas and change in colour indicate that the chemical reaction is taking place.
	Answer
_	
	Q.3. Assertion (A): Calcium carbonate when heated gives calcium oxide and water.  Reason (R): On heating calcium carbonate, decomposition reaction takes place.
	Answer
	Q.4. Assertion (A): Brown fumes are produced when lead nitrate is heated.  Reason (R): Nitrogen dioxide gas is produced as a by product due to the decomposition of lead nitrate.  Answer
	Q.5. Assertion (A): White silver chloride turns grey in sunlight. Reason (R): Decomposition of silver chloride in presence of sunlight takes place to form silver metal and chlorine gas.
	Q.6. Assertion (A): Pungent smelling gas is produced when sulphur burns in air.  Reason (R): Sulphur trioxide is formed on reaction of sulphur with oxygen.
	Answer

<ul> <li>Q.7. Assertion (A): In a reaction of copper with oxygen, copper serves as a reducing agent.</li> <li>Reason (R): The substance which gains oxygen in a chemical reaction acts as a reducing agent.</li> </ul>
Answer
Q.8. Assertion (A): In electrolysis of water, the volume of hydrogen liberated is twice the volume of oxygen formed.  Reason (R): Water (H,0) has hydrogen and oxygen in the ratio of 1:2 by volume.
Answer
Q.9. Assertion (A): Corrosion of iron is commonly known as rusting.  Reason (R): Corrosion of iron occurs in presence of water and air.
Answer
Q.10. Assertion (A): The balancing of chemical equations is based on law of conservation of mass.  Reason (R): Total mass of reactants is equal to total mass of products.
NCERT Text book and Exercise Questions
CH-2(Acids bases and salts)
NCERT Solutions for Class 10 Science Chapter 2 Intext Questions

#### Page Number: 18

#### Question 1

You have been provided with three test tubes. One of them contains distilled water and the other two contain an acidic solution and a basic solution, respectively. If you are given only red litmus paper, how will you identify the contents of each test tube?

#### Answer:

- (i) Put the red litmus paper in all the test tubes, turn by turn. The solution which turns red litmus to blue will be a basic solution. The blue litmus paper formed here can now be used to test the acidic solution.
- (ii) Put the blue litmus paper obtained above in the remaining two test-tubes, turn-by-turn. The solution which turns the blue litmus paper to red will be the acidic solution.
- (iii) The solution which has no effect on any litmus paper will be neutral and hence it will be distilled water.

Page Number: 22

#### Question 1

Why should curd and sour substances not be kept in brass and copper vessels?

#### Answer:

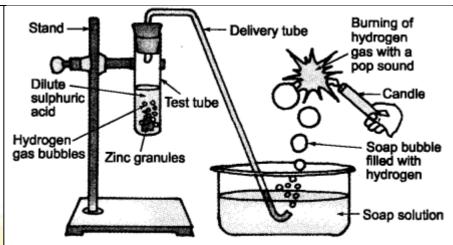
Curd and sour substances should not be kept in brass and copper vessels because these and other sour food-stuffs contain acids which can react with the metal of the vessel to form poisonous metal compounds which can cause food poisoning and affect our health adversely.

#### Question 2

Which gas is usually liberated when an acid reacts with a metal? Illustrate with an example. How will you test for the presence of this gas?

Answer:

- (i) Hydrogen (H<sub>2</sub>) gas is liberated when an acid reacts with a metal.
- (ii) Illustration: Set up the apparatus as shown in the given figure. Take some zinc granules in the test tube. Add about 5 mL dilute hydrochloric acid slowly. Soon the reaction between zinc and hydrochloric acid starts and hydrogen gas is evolved.



Reaction of zinc granules with dil. H<sub>2</sub>SO<sub>4</sub> and testing for hydrogen gas by burning candle.

#### (iii) Test for H2 gas:

 $H_2$  gas is not soluble in water. When passed through soap solution, it gets trapped into bubbles.

Bring a burning candle near the soap bubble filled with gas. The soap bubble bursts and hydrogen gas burns with a pop sound.

#### Question 3

Metal compound A reacts with dilute hydrochloric acid to produce effervescence. The gas evolved extinguishes a burning candle. Write a balanced chemical equation for the reaction if one of the compounds formed is calcium chloride.

#### Answer:

As the end product is calcium chloride and the gas formed is carbon dioxide, the metal compound A must be calcium carbonate. Therefore, the reaction between calcium carbonate and hydrochloric acid is

$$CaCO_3(s) + 2HCl(aq) \longrightarrow CaCl_2(aq) + CO_2(g) +$$
Calcium carbonate Calcium chloride

#### Page Number: 25

#### Question 1

Why do HCI, HNO<sub>3</sub>, etc show acidic characters in aqueous solutions while solutions of compounds like alcohol and glucose do not show acidic character?

#### Answer:

H<sup>+</sup> ions in aqueous solution are responsible for acidic character. HCl, HNO<sub>3</sub>, etc. give H<sup>+</sup> ions in water while alcohol and glucose do not give H<sup>+</sup> ion in water. Therefore, alcohol and glucose do not show acidic character.

#### Question 2

Why does an aqueous solution of an acid conduct electricity?

Answer:

The aqueous solution of an acid conducts electricity due to the presence of charged particles called ions in it.

#### Question 3

Why does dry HCl gas not change the colour of the dry litmus paper?

Answer:

Dry HCl gas does not give H<sup>+</sup> ions and therefore does not change the colour of dry litmus paper.

#### Question 4

While diluting an acid, why is it recommended that the acid should be added to water and not water to the acid?

#### Answer:

While diluting an acid it is recommended that the acid should be added to water and not water to the acid because if water is added to concentrated acid to dilute it, then a large amount of heat is evolved at once. This heat changes some of the water to steam explosively which can splash the acid on one's face or clothes and cause acid burns.

#### Question 5

How is the concentration of hydronium ions (H<sub>3</sub>O+) affected when a solution of an acid is diluted?

#### Answer:

When a given amount of an acid is added to water, there is a fixed number of hydronium ions per volume of the solution. On dilution, the number of hydronium ions per volume decreases and concentration decreases.

#### Question 6

How is the concentration of hydroxide ions (OH-) affected when excess base is dissolved in a solution of sodium hydroxide?

#### Answer:

The concentration of hydroxide ions will increase when excess base is dissolved in a solution of sodium hydroxide, but it happens to a limited extent only after which the concentration becomes almost constant.

#### Page Number: 28

#### Question 1

You have two solutions A and B. The pH of solution A is 6 and pH of solution B is 8. Which solution has more hydrogen ion concentration? Which of this is acidic and which one is basic?

#### Answer:

A pH value of less than 7 indicates an acidic solution, while greater than 7 indicates a basic solution. Since solution A has more hydrogen ion concentration, solution A is acidic and solution B is basic.

#### Question 2

What effect does the concentration of H<sup>+</sup> (aq) ions have on the nature of the solution?

#### Answer:

More the concentration of H+ ions, higher the acidic nature of the solution.

#### Question 3

Do basic solutions also have H+ (aq) ions ? If yes, then why are these basic ?

Answer:

Basic solutions have H<sup>+</sup> (aq) ions. But these are far less in number than OH<sup>-</sup> ions that is responsible for their basic nature.

#### Question 4

Under what soil condition do you think a farmer would treat the soil of his fields with quick lime (calcium oxide) or slaked lime (calcium hydroxide) or chalk (calcium carbonate)?

Answer:

If the soil is too acidic (having low pH) then it is treated with materials like quick lime (calcium oxide) or slaked lime (calcium hydroxide) or chalk (calcium carbonate).

#### Page Number: 33

#### Question 1

What is the common name of the compound CaOCl<sub>2</sub>?

Answer:

Bleaching powder.

#### Question 2

Name the substance which on treatment with chlorine yields bleaching powder.

Answer:

Slaked lime Ca (OH)2.

#### Question 3

Name the sodium compound which is used for softening hard water.

Answer:

Sodium carbonate.

#### Question 4

What will happen if a solution of sodium hydrogen carbonate is heated.

Give the equation of the reaction involved?

Answer:

Solution of sodium hydrogen carbonate on heating gives sodium carbonate and carbon dioxide gas is evolved.

$$2 \text{ NaHCO}_3 \xrightarrow{\text{Heat}} \text{Na}_2\text{CO}_3 + \text{H}_2\text{O} + \text{CO}_2$$
  
Sodium hydrogen carbonate Sodium carbonate

#### Question 5

Write an equation to show the reaction between plaster of Paris and water. Answer:

$$CaSO_4 \cdot \frac{1}{2}H_2O + 1\frac{1}{2}H_2O \longrightarrow CaSO_4 \cdot 2H_2O$$

Gypsum

Gypsum

Plaster of Paris

# NCERT Solutions for Class 10 Science Chapter 2 Textbook Chapter End Questions

#### Question 1

A solution turns red litmus blue, its pH is likely to be

- (a) 1
- (b) 4
- (c) 5
- (d) 10

Answer:

(d) 10

#### Question 2

A solution reacts with crushed-egg shells to give a gas that turns lime water milky. The solution contains

- (a) NaCl
- (b) HCI
- (c) LiCl
- (d) KCI

Answer:

(b) HCI

#### Question 3

10 mL of a solution of NaOH is found to be completely neutralised by 8 mL of a given solution of HC1. If we take 20 mL of the same solution of NaOH, the amount of HC1 solution (the same solution as before) required to neutralise it will be

- (a) 4 mL
- (b) 8 mL
- (c) 12 mL
- (d) 16 mL

Answer:

(d) 16 mL

#### Question 4

Which one of the following types of medicines is used for treating indigestion?

- (a) Antibiotic
- (b) Analgesic
- (c) Antacid
- (d) Antiseptic

Answer:

(c) Antacid

#### Question 5

Write word equations and then balanced equations for the reaction taking place when

- (a) dilute sulphuric acid reacts with zinc granules
- (b) dilute hydrochloric acid reacts with magnesium ribbon
- (c) dilute sulphuric acid reacts with aluminium powder

(d) dilute hydrochloric acid reacts with iron filing

Answer:

(a) Zinc + dilute sulphuric acid  $\rightarrow$  Zinc sulphate + Hydrogen

 $Zn (s) + H<sub>2</sub>SO<sub>4</sub> (aq) \rightarrow ZnSO<sub>4</sub> (aq) + H<sub>2</sub> (g)$ 

(b) Magnesium ribbon + dil. Hydrochloric acid → Magnesium chloride + Hydrogen

 $Mg(s) + 2 HCl(aq) \rightarrow MgCl_2(aq) + H_2(g)$ 

(c) Aluminium powder + dil. Sulphuric acid > Aluminium sulphate + Hydrogen

 $2AI(s) + 3H_2SO_4(aq) \rightarrow AI_2(SO_4)_3(aq) + 3H_2(g)$ 

(d) Iron filings + Dilute hydrochloric acid > Ferric chloride + Hydrogen 2Fe (s) + 6HCl (aq) → 2FeCl₃ (aq) + 3H₂ (g)

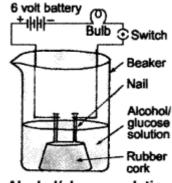
#### Question 6

Compounds such as alcohol and glucose also contain hydrogen but are not categorised as acids. Describe an activity to prove it.

Answer:

Though compounds like alcohol and glucose contain hydrogen but they do not ionise in the solution to produce H<sup>+</sup> ions on passing current through them.

- (i) Take solutions of alcohols and glucose.
- (ii) Fix two nails on a cork, and place the cork in 100 mL beaker.
- (iii) Connect the nails to the two terminals of a 6 volt battery through a bulb and a switch, as shown in the given Figure.



Alcohol/glucose solution does not conduct electricity

- (iv) Now pour alcohol in the beaker and switch on the current.
- (v) The bulb does not glow.
- (vi) Repeat the experiment with glucose. The bulb does not glow in this case also.
- (vii) This means no ions or H+ ions are present in the solution.

This shows that alcohols and glucose are not acids.

Question 7

Why does distilled water not conduct electricity, whereas rainwater does?

Answer:

Distilled water does not conduct electricity because it does not contain any

ionic compound (like acids, bases or salts) dissolved in it.
Rainwater, while falling to the earth through the atmosphere, dissolves an acidic gas carbon dioxide from the air and forms carbonic acid (H<sub>2</sub>CO<sub>3</sub>).
Carbonic acid provides hydrogen ions, H<sup>+</sup> (aq) and carbonate ions, CO(aq)<sub>3</sub><sup>2</sup>to rainwater. Hence, due to the presence of carbonic acid which provides ions to rainwater, the rainwater conducts electricity.

#### Question 8

Why do acids not show acidic behaviour in the absence of water?

Answer:

The acidic behaviour of acids is due to the presence of hydrogen ions, [H<sup>+</sup> (aq) ions], in them. The acid produces hydrogen ions only in the presence of water. So in the absence of water, an acid will not form hydrogen ions and hence will not show its acidic behaviour.

#### Question 9

Five solutions A, B, C, D and E when tested with universal indicator showed pH as 4, 1, 11, 7 and 9 respectively. Which solution is

- (a) Neutral
- (b) Strongly alkaline
- (c) Strongly acidic
- (d) Weakly acidic
- (e) Weakly alkaline

Arrange the pH in increasing order of hydrogen ion concentration.

Answer:

- (a) D
- (b) C
- (c) B
- (d) A
- (e) E

Increasing order of hydrogen ion concentration

11 < 9 < 7 < 4 < 1

i. e.. C < E < D < A < B

#### Question 10

Equal lengths of magnesium ribbons are taken in test tubes A and B. Hydrochloric acid (HCl) is added to test tube A, while acetic acid (CH<sub>3</sub>COOH) is added to test tube B. In which test tube will the fizzing occur more vigorously and why?

#### Answer:

Fizzing will occur more vigorously in test tube A. Hydrochloric acid (HCI) is a strong acid whereas acetic acid (CH<sub>3</sub>COOH) is a weak acid. Being strong acid, the hydrochloric acid solution contains a much greater amount of hydrogen ions in it due to which the fizzing will occur more vigorously in test tube A (containing hydrochloric acid). The fizzing is due to the evolution of hydrogen gas which is formed by the action of acid on the magnesium metal of magnesium ribbon.

#### Question 11

fresh milk has a pH of 6. How do you think the pH will change as it turns into curd? Explain your answer.

#### Answer:

pH of milk falls below 6 as it turns into curd due to the formation of lactic acid during this process. Lactic acid present in it reduces its pH value.

#### Question 12

A milkman adds a very small amount of baking soda to fresh milk.

- (a) Why does he shift the pH of the fresh milk from 6 to slightly alkaline?
- (b) Why does this milk take a long time to set as curd?

#### Answer:

- (a) Milk is made slightly alkaline so that it may not get sour easily due to the formation of lactic acid in it.
- (b) The alkaline milk takes a longer time to set into curd because the lactic acid being formed has to first neutralise the alkali present in it.

#### Question 13

Plaster of Paris should be stored in a moisture proof container. Explain why?

#### Answer:

Plaster of Paris should be stored in a moisture proof container because the presence of moisture can cause slow setting of plaster of Paris by bringing about its hydration. This will make the plaster of Paris useless after sometime.

#### Question 14

What is a neutralisation reaction? Give two examples.

#### Answer

The reaction between an acid and a base to form salt and water is called a neutralisation reaction.

#### Examples:

(i) NaOH (aq) + HCl (aq) 
$$\longrightarrow$$
 NaCl (aq) + H<sub>2</sub>O (l) Sodium hydroxide (Base) (Acid) (Salt) (Salt)

(ii) CH<sub>3</sub> COOH (aq) + NaOH (aq)  $\longrightarrow$  CH<sub>3</sub> COONa + Acetic acid (Acid) (Base) (Salt)

#### Question 15

Give two important uses of washing soda and baking soda.

#### Answer:

Uses of washing soda:

- (i) Washing soda is used in glass, soap and paper industries.
- (ii) It is used for removing permanent hardness of water.

#### Uses of baking soda:

- (i) Baking soda is used as an antacid in medicines to remove acidity of the stomach.
- (ii) Baking soda is used for making baking powder (used in making cakes, bread, etc

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Q: 1 (R). Read the statements carefully and choose the option that correctly describes statements A and R.

Assertion (A): Warm-blooded animals have their left and right side of the heart separated for more efficient supply of oxygen to the body.

Reason (R): Warm-blooded animals need high energy to maintain their body temperatures.

- 1 Both A and R are true and R is the correct explanation for A.
- 2 Both A and R are true but R is not the correct explanation for A.
- 3 A is true but R is false.
- 4 A is false but R is true.

Q: 2 Haemoglobin and Chlorophyll have similar structures.

- A molecule of haemoglobin is composed of the atoms of four elements- carbon, hydrogen, oxygen and nitrogen, all four organised around iron.
- A chlorophyll is composed of the same elements, which are organised around magnesium.

Considering the above information, which element of haemoglobin is MOST LIKELY responsible for the red colour of our blood?

1 hydrogen

2 nitrogen

3 carbon

4 iron

Q: 3 Many processes happen in the bodies of living organisms.

Those processes which involve the building up of complex molecules from simpler ones are called anabolism. Those which involve the breakdown of complex molecules into simpler ones are called catabolism.

Which of the following life processes can be considered as an example of anabolism?

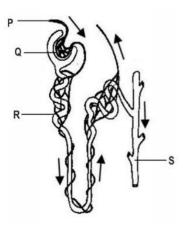
1 digestion

2 respiration

3 transpiration

4 photosynthesis

Q: 4 Given below is a diagram of a nephron.



	Filtration	Selective reabsorption
1	Р	Q
2	Q	S
3	Q	R
4	Р	R

 $\frac{Q:5}{}$  Which row in the table below shows the correct products of anaerobic respiration in humans and in yeast?

		humans	yeast	yeast
	lactic acid	carbon dioxide	lactic acid	carbon dioxide
1	X	V	X	X
2	V	X	X	√
3	X	√	<b>√</b>	X
4	<b>√</b>	V	V	х

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Life Processes

CLASS 10

- $\underline{\text{Q: 6}} \;\; \text{Read the following two statements and answer the question.}$ 
  - 1. Gastroparesis is a disease in which the muscles of the stomach become paralysed and cannot contract or relax.
  - 2. Foods high in fat can delay the process of digestion and the emptying of the stomach.

- 1 soups and juices only
- 3 fried chicken and fried rice
- 2 soups and chicken salads only
- 4 ice cream and milk only

## Q: 7 Which row of the table given below correctly gives the movement of gases across blood and cells?

	Oxygen	Carbon dioxide			i.	
	from	to	process	from	to	process
1	RBC	cells	diffusion	cells	RBC	osmosis
2	RBC	cells	osmosis	cells	plasma	osmosis
3	RBC	cells	osmosis	cells	RBC	diffusion
4	RBC	cells	diffusion	cells	plasma	diffusion

1 P

2 0

3 R

4 S

Q: 8 Read the following statements.

X: amount of carbon dioxide produced per molecule of glucose during aerobic respiration

Y: amount of carbon dioxide produced per molecule of glucose during fermentation by yeast

Which of the following is TRUE about X and Y?

X is more than Y.
 X is equal to Y.

2 X is less than Y.

4 (Cannot be determined.)

Q: 9 Human beings exhibit 'double circulation' during which blood is passed through the lungs and heart.

(a) State the route of the first and the second circulation through the chambers of the heart and explain the usefulness of such circulation in humans.

- (b) Name the blood vessels that:
- (i) carry oxygenated blood from the lungs to the heart
- (ii) carry deoxygenated blood from the heart to the lungs

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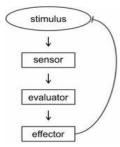


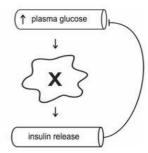
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Life Processes

CLASS 10

- Q: 10 A major portion of the carbohydrates produced by plants is stored in different parts of [2] the plant (storage organs). Explain the mechanism by which this stored food is made available when different organs need it for growth.
- Q: 11 In human beings, hormonal action is largely controlled by a mechanism where the secretion of one hormone is regulated by the action of another. An example of blood glucose levels control is shown in the diagram below.





- (a) What is the mechanism of hormone action known as?
- (b) Which is the sensor X that helps in detecting blood glucose level?
- (c) What would happen if such mechanism is absent in humans?
- Q: 12 Not all plants carry out photosynthesis by the same mechanism. In most plants, photosynthesis depends directly on the gaseous carbon dioxide that diffuses into the leaf through the stomata.

However, some plants - such as pineapple - have the ability to store carbon dioxide in the vacuoles of the leaf cells as part of a complex carbon compound. This complex compound is transported to the chloroplasts and releases carbon dioxide when required, for photosynthesis to occur.

This special photosynthesis mechanism is believed to have evolved as an adaptation to conserve water for survival in dry conditions.

- (a) Which process in the plants does this photosynthesis mechanism minimise to help the plant survive in dry conditions?
- (b) How is the ability to store carbon dioxide as a complex compound likely to help minimise the process referred to in (a)?
- (c) When are such plants likely to take in carbon dioxide from the environment?

#### **Social Science**

#### **Section-A**

- Revise Chapters
- Geography- Ch-1,2,3
- Pol. Sci- Ch-1,2
- Economics- ch-1,2

#### **Section-B(Project/Model)**

#### Project Work

#### Survey Based (Do any one)

- Travel to the nearest horticulture office or agriculture department office. Meet with employees and collect the information (Make videos and Project report)Share your experience in PPT form.
- . Make a report on various irrigation practices in the village and change in the cropping pattern.

#### Working Models -

- 1.Dam
- 2. Rain Water Harvesting

#### Prepare the models neatly and for reference check these links:

https://youtube.com/playlist?list=PLperP\_3l53ooZH514PwnwoQcm1T3Jmtlk&si=9gPl\_vtS8 Yfg17JA

https://youtube.com/playlist?list=PLSupZjzCQq66qubDghIDe4QWwCj22VKXg&si=uMvEL cnq3Q0FSuS4

#### Activity

- 1.Draw a political map of India on A4 Sheet (Fill map with the help of food grains)
  - (I)Rice producing state
  - (II) Sugarcane producing state(Use sugar)
  - (Ill) Wheat producing state
  - (IV) Bajra producing state
- 2. How primary, secondary and tertiary sectors are interrelated. Make a model.

#### Section-C(Assignment)

#### Choose the correct option.

- 1. Who proclaimed the dams as the Temples of Modern India?
- (a) Indira Gandhi
- (b) Mahatma Gandhi -
- (c) Jawaharlal Nehru
- (d) St. Teresa
- 2. The Tehri Dam is being constructed on which river?
- (a) Ganga
- (b) Kosi
- (C) Yamuna
- (d) Bhagirathi
- 3. Which of the following is not a water harvesting system in Rajasthan?
- (a) Tankas

(b) Johads
(c) Guls
(d) Khadins
4. The highest dam in India is
(a) Damodar
(b) Mettur
(c)Tehri
(d) Bhakra
5. In which area, khadins are used for storing water?
(a) Bikaner
(b) Jaipur (c) Jaisalmer
(d) Ajmer
(d) Ajinei
6. Which is the first state to make rainwater harvesting compulsory?
(a) Karnataka
(b) Tamil Nadu
(c) Meghalaya
(d) Rajasthan
(
7. Which of the following is not a major reason for water scarcity in India?
(a) Population growth
(b) Over-exploitation
(c) Excessive use
(d) Rainwater harvesting
8.All the Panchayat Samitis or Mandal Samiti in a district together constitute the
(a) Municipality
(b) Zila Panchayat
(c) Zila Parishad
(d) None of these
9. Who is the political head of the Zila Parishad?
(a) Zila Parishad Chairperson
(b) Chairperson of Municipality
(c) District Magistrate
(d) None of these
10 Posidos Hindi how many languages are recognized as the scheduled languages by the
10.Besides Hindi, how many languages are recognised as the scheduled languages by the constitution?
(a)20
(a)20 (b) 21
(c) 19
(d) 18
11. There are two statements marked as Assertion (A) and Reason (R). Mark your answer
as per the codes given below.
Assertion (A) Pulses are grown in rotation with other crops.
Reason (R) It helps in restoring soil fertility by fixing nitrogen from the air.
Codes
(a) Both A and R are true and R is the correct explanation of A
(b) Both A and Rare true, but R is not the correct explanation of A
(c) A is true, but R is false
(d) A is false, but R is true
12.Identify the correct statements) about
unitary form of government.
Statement I There is either only one level of government or the sub-units are subordinate
The second state of the se

to the Central Government.

Statement II The Central Government can pass an order to the Provincial Government. Statement III Laws made by the centre are equally enforced in the rest of the states without territorial distinction.

Statement IV The powers of State Governments are guaranteed by the Constitution. Codes

- (a) Statement I and II are right
- (b) Statement II and III are right
- (c) Statement I, II and III are right
- (d) Only Statement IV is right
- 13. The Constitution declared India as a Union of States. The Indian Union is based on the principles of federalism. What does the given image reflect?



- (a) It shows the supreme authority of State Governments.
- (b) It shows the Central Government is undermining the spirit of federalism.
- (c) It shows inequality in distribution of powers.
- (d) None of the above
- 14. Identify the correct statements about the Civil War of Sri Lanka.

Statement I Sri Lankan Tamils caused struggles because their demands of an autonomous state were disapproved.

Statement II It caused a lot of bloodshed among the civilians and the military.

Statement III It ended in 2009.

Statement IV It was fought between Sri Lankan Muslim Tamils and Buddhist Sinhalese.

#### Codes

- (a) Statement I and II are right
- (b) Statement II and III are right
- (c) Statement III and IV are right
- (d) Statement I, II and III are right
- 15. Read the given extract and answer the following questions.

However, for comparison between countries, total income is not such a useful measure. Since, countries have different populations, comparing total income will not tell us what an average person is likely to earn. Hence, we compare the average income which is the total income of the country divided by its total population. The average income is also called Per Capita Income.

In World Development Reports, brought out by the World Bank, this criterion is used in classifying countries. Countries with Per Capita Income of US \$ 12,056 per annum and above in 2017, are called rich countries and those with a capital income of US \$ 955 or less are called low-income-countries.

India comes in the category of low middle income countries because its Per Capita Income in 2017 was just US \$ 1820 per annum. The rich countries, excluding countries of the Middle East and certain other small countries, are generally called developed countries.

- (i) Which factors are not considered while calculating total income? What is the significance of classification of countries by the World Bank?
- (ii) The World Development Report has categorized India as a low middle income country. Do you agree.

#### Hindi

# निर्देश :- सारा कार्य अपने अभ्यास पुस्तिका में करें।

- कार्य करते समय <mark>लिखाई का विशेष</mark> ध्यान रखें।
- चार्ट साफ़ <mark>साफ़ होने चाहिएं।</mark>

#### (खंड - अ)

- व्याकरण के अंतर्गत समास को अपनी व्याकरण की पुस्तिका पर लिखें।
- 2 व्याकरण के अंतर्गत कोई तीस मुहावरे अर्थ सहित पुस्तिका पर लिखें।
- 3 शेष कक्षा में करवाया हुआ संपूर्ण कार्य कंठस्थ करें।

### (खंड - ब)

कक्षा 10वीं के लिए चार्ट्स विषय - हिंदी

- 1 रोल नंबर 1 से 10 तक समास का चार्ट बनाएं
- 2 रोल नंबर 11 से 20 तक कवि 'प्रेमचंद के जीवन' का परिचय देते हुए सचित्र चार्ट बनाएं <mark>का</mark>
- 3 रोल नंबर 21 से 30 तक 'जल है तो कल है' विषय पर एक विज्ञापन लेख<mark>न करें।</mark>

(खंड - ज)

कक्षा 1<mark>0वीं के लिए परियो</mark>जना <mark>कार्य</mark> विषय - हिंदी

(1) निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर दिए गए विकल्पों में से चुनिए। वे दिन में कई कई बार आते जाते हैं और क्यों ना आए जॉइन जाएं आखिर उनका ही घर है, लेकिन उनके आने-जाने से हमें परेशानी भी होती है। वे कभी किसी चीज को गिराकर तोड़ देते हैं। कभी मेरी लाइब्रेरी में घुसकर कबीर या मिर्ज़ा गालिब को सताने लगता हैं। इस रोज़-रोज़ की परेशानी से तंग आकर मेरी पत्नी ने उस जगह जहां उनका आशियाना था, एक जाली लगा दी है, उनके बच्चों को दूसरी जगह कर दिया है। उनके आने की खिड़की को भी बंद किया जाने लगा है। खिड़की के बाहर अब दोनों कबूतर रात-भर खामोश और उदास बैठे रहते हैं।

के बाहर अब दोनों कबूतर रात खामोश और उदास बैठे रहते हैं।

(क) निम्नलिखित कथन (A) तथा कारण (R) को ध्यानपूर्वक पढ़िए। उसके बाद दिए गए विकल्पों में से कोई एक सही विकल्प चुनकर लिखिए।

कथन (A) लेखक की पत्नी ने कबूतरों से परेशान होकर उनका आशियाना दूसरी जगह कर दिया। कारण (R) लेखक की पत्नी को उनका आना-जाना अच्छा नहीं लगता था।

- (i) कथन (A) तथा कारण (R) दोनों गलत हैं।
- (ii) कथन (A) गलत है किंतु कारण (R) सही है।
- (iii) कथन (A) और कारण (R) दोनों सही है, लेकिन कारण (R) कथन (A) की सही व्याख्या करता है।

(iv) कथन (A) और कारण (R) दोनों सही हैं, लेकिन कारण (R) कथन (A) की सही व्याख्या नहीं करता है। (ख) कबूतर लेखक के घर में दिन में कई बार क्यों आते-जाते रहते थे? (i) लेखक से घनिष्ठ प्रेम के कारण (ii) लेखक की माता के स्नेह के कारण (iii) अपने अंडों के कारण (iv) अपने अधिकार के कारण (ग) ले<mark>खक व उनकी पत्नी को कबूतरों का आना-जाना अच्छा</mark> क्यों नहीं लगता था? (i) कबुतर उनका नुकसान करते थे (ii) कब<mark>ूतर</mark> के प्रति उनमें घृणा भाव था (iii) वे कबूतर से डरते थे (iv) इनमें से कोई नहीं (घ) कबूतरों के आने से ले<mark>खक को क्या न</mark>ुकसान झेलना पडा? (i) पुस्तकालय की किताबें गंदी हो गई (ii) चोजें गिरकर टूट गई (iii) (i) और (ii) दोनों (iv) भोजन खा जाते थे व्याकरण (2) गहरी नींद से <mark>जाग जाना/होश आना' के लिए</mark> उपयुक्त मुहावरा है (i) सुध-बुध खो<mark>ना</mark> (ii) अलख जगाना (ііі) दिमाग होना (iv) तंद्रा भंग होना (3) 'आड़े हाथों लेना' मुहावरे का अर्थ है (i) घमंड करना (ii) विरोध करना (iii) खिंचाई करना (iv) बेराह चलना (4) कोष्ठक में दिए अंश के लिए कौन-सा मुहावरा प्रयुक्त करना उचित रहेगा? 'तू मित्र है <mark>या शत्रु</mark>? जहाँ भी जाता हूँ, वहीं मेरे सामने (बाधा उत्पन्न कर देता) है। (i) मजा चखवाना (ii) दीवार खडी करना (iii) हावी होना (iv) राह न सूझना (5) सेठ दीनदयाल <mark>अपने क्षेत्र के जाने-माने व्यापारी हैं। \_</mark> के द्वार<mark>ा ही उनकी गिनती गि</mark>ने-चुने हुए धनवानों में होती है। रिक्त स्थान की पूर्ति के लिए उपयुक्त विकल्प का चयन कीजिए। (i) सातवें आसमान पर होने (ii) हवा में उड़ने (iii) नतमस्तक होने (iv) दो से चार बनाने के गणित (6) 'परेशानी देखकर घबरा जाना' अर्थ के लिए उपयुक्त मुहावरा है (i) हाथ-पाँव फूल जाना (ii) प्राण ले लेना (iii) सिर फिरना (iv) ठंडा पड़ना (7) मुहावरे और अर्थ के उचित मेल वाले विकल्प का चयन कीजिए। (i) तूती बोलना - मुसीबत में फंसना (ii) दूध की मक्खी - अनुपयोगी (iii) लोहा मानना - कठिन काम करना

(iv) टूट पड़ना - काम शुरू करना (8) मार्गव्यय शब्द/समस्तपद कौन-से समास का उदाहरण है? (i) द्विग् समास (ii) कर्मधारय समास (iii) तत्पुरुष समास (iv) अव्ययीभाव समास (9) 'महाजन'- समस्त पद का विग्रह होगा (i) महान है जो जन (ii) महा है जो जन (iii) महा<mark>न का जन</mark> (iv) <mark>जन की महानता</mark> (10) 'यथाशक्ति' शब्द के <mark>लिए सही समास</mark>-विग्रह और समास का चयन कीजिए। (i) यथा और शक्ति - द्वं<mark>द समास</mark> (ii) यथा को शक्ति - तत्पु<mark>रुष समास</mark> (iii) शक्ति के अनुसार - <mark>अव्ययीभाव समा</mark>स (iv) यथार्थ शक्ति का धनी अ<mark>र्थात् व्यक्ति विशेष - बहुब्रीहि समास</mark> पाठ्य पस्तक (11) कक्षा में प्रथम <mark>स्थान प्राप्त करने पर छोटे</mark> भाई का बड़े भाई के प्रति <mark>व्यवहार में क्या परि</mark>वर्तन आया? (i) वह उनका स<mark>म्मान करने लगा</mark> (ii) वह उनसे हमदर्दी रखने लगा (iii) उसमें थो<mark>डा अभिमान आ गया और उसने डरना छो</mark>ड दिया (iv) वह बडे भ<mark>ाई साहब का अप</mark>मान करने (12) कबीर<mark>दास जी के अनुसार निंदक व्यक्तियों को सदै</mark>व अपने पास रखना चाहिए, क्योंकि (i) उनसे हमें प्रसन्नता मिलती है (ii) वे हमारे मित्र होते हैं (iii) वे हमारे स्वभाव को स्वच्छ एवं पवित्र बना देते हैं (iv) इनमें से कोई नहीं (13) लेखक बड़े भाई साहब की किस बात से पूर्णतः सहमत हैं? (i) बड़े भाई साहब को अनुभव अधिक होने से उनमें समझ अधिक है (ii) बडे भाई साहब अध्ययन में होशियार हैं (iii) बड़े भाई साह<mark>ब लेखक से बहुत प्यार करते हैं</mark> (iv) उपरोक्त में से कोई नहीं (14) निम्नलिखित में से कौन-सा/से कथन कलकत्ता के राष्ट्रीय ध्वजारोहण के विषय में सत्य है। हैं? (i) यह 26 जनवरी, 1931 को मनाया जा रहा था। (ii) कलकत्ता में वहाँ <mark>के लोगों द्वारा ही इसका संपूर्ण प्रबंध किया गया था।</mark> (iii) यह छोटे रूप में <mark>मनाया जा रहा था।</mark> (iv) इसके प्रचार में ही <mark>केवल दो हजार रुपये खर्च किए थे।</mark> कूट (i) 1 और 2 (ii) 2 और 4 (iii) 1, 2 और 4 (iv) केवल 2 (15) निम्नलिखित में से कौन-से कथन 'कलकत्ता के राष्ट्रीय ध्वजारोहण' में स्त्रियों की भागीदारी को दर्शात (i) स्त्रियों ने मोनुमेंट की सीढियों पर चढकर झंडा फहरा दिया। (ii) गुजराती सेविका संघ की लड़कियों को पुलिस द्वारा गिरफ्तार किया गया। (iii) स्त्रियों ने भी जुलूस निकाला। (iv) स्त्रियाँ लाल बाजार तक आगे बढ गईं। कूट

(i) 1 और 2 (ii) 2 और 4 (iii) 1,2 और 3 (iv) ये सभी (16) संसार में सुखी व्यक्ति कौन है और दुखी कौन? यहां 'सोना' और 'जागना किसके प्रतीक है? इसका प्रयोग यहां क्यों किया गया है? स्पष्ट कीजिए। (17) 'बड़े भाई साहब' पाठ में लेखक ने समूची शिक्षा के किन तौर तरीकों पर व्यंग्य किया है? क्या आप उनके विचार से सहमत हैं? (18) बड़े भाई साहब के अनुसार जीवन की समझ कैसे आती है? (19) 'बड़े भाई साहब के अनुसार जीवन की समझ कैसे आती है? (19) 'बड़े भाई साहब के अनुसार जीवन के व्यावहारिक ज्ञान से अलग रखते हैं। इस पाठ से प्राप्त प्रेरणा का वर्णन कीजिए। (20) आपके पाठ्यक्रम की कविता 'पद' के पहले पद में मीरा ने हिर से अपनी पीड़ा हरने की विनती किस प्रकार की है? लगभग 60 शब्दों में व्यक्त कीजिए।
IT Revise Ls-1,2,3
Project Work
Roll no. 1-10- Model on Cyber Crime
Roll no. 11-20- Model on Cyber Security Roll no. 21-27s- E-commerce Model
Non no. 21-273- L-commerce woder
Dear Students
Prepare the models neatly and for reference check these links:
https://youtu.be/-wwNdELINeY?si=b-sNpu2fQMsxvACO
https://youtu.be/wChapPXwNXg?si= Syx3FLrK9xRfUci
https://youtu.be/oak2jmzHvdw?si=kJWi7RvOCXgwjijg
the state of the s
Assignments
Assignments
Q1. Which of the following is NOT an element of communication
within the communication process cycle?
A) Channel B) Receiver C) Sender D) Time
Q2. You need to apply for leave at work? Which method of
communication will you use?
A) e-mail B) Poster C) Newsletter D) Blog
Q3. By which action can senders send their messages?
A) Gestures B) Speaking C) Reading D) Writing
Q4. Which of the following is an example of oral communication?
A) Newspapers B) Letters C) Phone call D) e-mail
Q5. What are the types of words we should use for verbal
communication?

A) Acronyms	B) Simple	C) Lech	nical	D) Jargon	S	
Q6. Which of these is a positive (good) facial expression?						
A) Frowning while concentrating  B) Maintaining eye contact					ntact	
C) Smiling continuously		D) Rolling up your eyes				
	D) Rolling up your cycs			•		
Q7. What plays a	reaction to stress					
A) Emotions	B) Personality	C) Con	fidence	D) N	lone of	
these						
Q8. The feeling o	of self-awarene	ss enhan	ces our			
A) Self-confidence		B) Self-m				
C) Self-Regulation	n	D) All of th	ne above			
Q9. What is 'M' in	n the 'SMART'	goal settii	ng metho	d		
A) Must	B) Meaning	C) Meası	urable	D) None	e of these	
Q10. Physical ex	ercise is used	as a stres	s manag	ement tec	hnique	
because						
A) It improves blo	od circulation	B) im	proves se	lf-i <mark>mag</mark> e		
C) make us feel b	etter	D) All	of the ab	ove		
Q11. What is the	term used wh	en you pro	ess and h	old the le	ft mouse	
key and move th	e mouse aroui	nd?				
A) Highlighting	B) Dragging	C) (	Selecting	D)	) Moving	
Q12. What happe	ens if you leave	e a device	plugged	in even a	fter it is	
charged 100%?						
A) It can break.	B)	t can stop	functionin	ng.		
C) It can overheat	t. D)	Data can	get corrup	ot.		
Q13. Which of th	e following tra	p small cl	nildren in	to inappro	priate	
relations?						
A) Online predato	rs B) Wo	rms C)	Trojan Ho	orse	D) Anti-	
Virus						
Q1 <mark>4. What shoul</mark>	d a strong pas	sword co	nsist of?			
A) Only letters	B) N	lumbers ar	nd special	characters	3	
C) Name of a pers	son D) L	etters, nun	nbers and	special ch	aracters	
Q15 is the sl	hortcut key to	cut the im	age from	n a writer o	locument.	
a) Ctrl + X b	) Ctrl + V	c) Ctrl + F	) d	l) Ctrl + C		
Q16. By dragging	g any hand	lle you car	n increase	or decrea	se the	
İ						

of the image diagonally. a) Corner, size b) Top, depth c) Side, quality d) Corner, quality Q17.Mohita is a student of class 10. Her teacher has asked her to create a document on 'Women Empowerment'. She has written the text and also edit relevant images in her document using writer. But she has realised that the paragraph will look better if the images are placed around the text. Name the feature of writer she can use to get the desired result. b) Wrap text c) Positioning image d) Closing text a) Placing image Q18 In a document, refers to the vertical or horizontal placement of a graphic in relation to the chosen anchor point. b) Anchoring c) Alignment d) Text wrapping a) Arrangement Q19. A \_\_\_ a is a model / layout that you use to create other documents. a) Template b) Document c) Design d) Copy paste Q20. To repeat the graphic across the entire background area, we need to select option in word processor. a) Tileb) Position c) Stretch d) Area

