

Key to Navjeevan Term Book - I

Standard
7

Teacher's Copy

**NAVJEEVAN PUBLICATIONS PVT. LTD.
EDUCATIONAL PUBLISHERS**



MUMBAI

4940/1B, Dhobiwadi, Dr. Jaykar Marg, Opp. Datta Mandir, Thakurdwar,
Mumbai - 400 002.

Only Calling: 8291852601

Calling & Whatsapp: 9322531798 / 8291852631 / 8291972352

Website: www.navjeevanpublications.com

Enquiries: info@navjeevanpublications.com

Sales: acc.nppl@gmail.com

PUNE

470 /471, Raviwar Peth, Nandan Residency, 1st Floor,
Phadke Haud, Pune - 411 002.

Tel.: (020) 24432951 / 7066835645

1

CONTENT

Sr. No.	Subject Name	Pg. No.
1.	English Balbharati	3 to 20
2.	मराठी सुलभभारती	21 to 34
3.	General Science	35 to 80
4.	History & Civics	81 to 98
5.	Geography	99 to 110
6.	हिंदी सुलभभारती	111 to 134

2

English Balbharati

Unit - I

Topic 1.1 : Past, Present, Future

English Workshop

Q.1.

Ans.	A	B	C
1.	The past autumn evening	A soft and mild which has ended	A pleasant time
2.	The present hour	A green and flowery spray where a young bird sits	A time, full of life in which you gather strength
3.	The future	A sea beneath a cloudless sun	An exciting, thrilling time which has no end

Q.2. (1) old English word for the pronoun 'you', (2) sadly, (3) cluster of branches and leaves, (4) powerful

Q.3. (1) autumn-soft, mild, (2) green, flowery, (3) mighty, glorious, dazzling

Q.4. (1) The wind in the autumn evening is soft and mild and it sighs mournfully.
 (2) The young bird mounts the green, flowery spray, gets a lot of strength from that and then flies away.
 (3) The sea is mighty, glorious and dazzling, it stretches on and on forever.

Q.5. (a) The past is an autumn evening.
 (b) The present is a green and flowery spray.
 (c) The future is a sea beneath a cloudless sun.

Q.6. (1) On a green and flowery spray. (2) into infinity.

Comprehension : Extract - 1

Q.1. (1) The past is compared to an Autumn evening.
 (2) The future is compared to a sea.
 (3) The young bird sits on a green and flowery spray.
 (4) The words mighty, glorious and dazzling are used to describe the sea.

Q.2. According to Emily Bronte, the past is like a soft and mild autumn evening that keeps on mourning softly. Emily Bronte says that the present time is like a green and flowery spray. According to her, the future is like a mighty, glorious and dazzling sea beneath a cloudless sun.

Q.3. (1) The rhyme scheme of the first stanza is a, b, a, b.
 (2) (a) Personification - Wind is given human qualities.
 (b) Metaphor - hidden comparison.
 (c) Hyperbole - the statement is exaggerated.

Topic 1.2 : Odd One In

English Workshop

Q.1.

Malti	Rima
Oily hair and very long skirt	Smart and neat
Good in studies	Good in studies
Very melodious voice and well-trained voice Sang Hindi songs	Good voice Sang English songs
Always ready to help others	Thought she was the best and looked down on others
Poor pronunciation in English	Too much of an attitude and ego

Q.2. The girls in the school made fun of me because of my bad pronunciation. My English was very weak and hence I asked Rima to help me in improving my English language, since she spoke the language very well. Rima and her friends, never lost the chance to poke fun at me. Rima mocked me mercilessly for saying 'aks' instead of 'ask', Rima told me that speaking English would not be an easy thing for a countrified person like me.

Q.3. quietly, specially, uncharitably, sharply, snidely, abundantly, slowly, readily, stubbornly, particularly, roundly.

Q.4. (1) **settling in** - getting comfortable in a new situation.
sniffed - making fun of some body while uttering words that show contempt or dislike.
insufferable - could not be tolerated or bad behaviour.

(2) (a) **smart** - very clever, bright, intelligent.
(b) **confident** - having firm trust in oneself.
(c) **snob** - a person who looks down on those who do not have wealth, power, education etc. or a person who believes that he is superior to others.

(3) (a) **forte** - something you are particularly good at.
(b) **belied** - gave false idea of something.
(c) **befriended** - made friends with someone who had no friends.

Q.5. (1) Rima decided whether Malti was smart or not by her oily hair, long skirt and poor pronunciation in English. I

feel that the outward appearance does not tell you whether the person is smart or not. One must see the academic performance of the person and also see how the person reacts in different circumstances.

(2) No, Rima and her parents do not share the same attitude. Rima was informed by her father, that the people from the state from where Malti came were very smart people specially in Maths. Her parents sometimes found Rima unbearable. They actually hoped that she and her friends would not make things difficult for Malti.

(3) Malti must have wanted to say "please mind your own business" or "please do not make fun of me."

(4) Rima came first in her category, but Malti had won the singing competition in the Hindi section. She had a melodious and well-trained voice and there was absolute silence when Malti was on stage. When Malti finished singing, the Principal was the first to start clapping followed by the teachers and other students. Rima could not bear this. She felt this was an insult to her, hence she felt no joy even though she won the prize.

(5) The girls in Rima's clique are Neha, Clara, Shahnaz.

Comprehension : Extract - 1

Q.1. (a) beamed back (b) too difficult for Malti
(c) correctly (d) atrocious

Q.2. (1) - c, (2) - d, (3) - a, (4) - b

- Q.3.** (1) (a) Mr. Sen. (b) "Gud marning"
 (c) A little snob. (d) Malti.
- (2) (a) afraid/unconfident (b) foes/enemies
 (c) easy (d) dully
- Q.4.** (1) cleverly (2) uncharitably
 (3) rudely (4) atrociously
- Q.5.** Rima and her friends jeered at Malti and made fun of her because she had oily plaits and her English pronunciation was bad. They chorused together 'Gud marning' when they saw her. They giggled when they saw her and asked about her oily hair.

Extract - 2

- Q.1.** (1) - c, (2) - a, (3) - d, (4) - b
- Q.2.** (1) melodious (2) participants
 (3) absolute silence (4) Mathematics.
- Q.3.** (1) (a) **False** - The following Saturday was the Inter House Singing Competition.
 (b) True (c) True
 (d) **False** - Malti was supposed to say something, when the teacher entered.
- (2) (a) abundant, chance, particular, progress.
 (b) category, clap, clear, gang.
- Q.4.** (a) melodious, well-trained (b) Rima, gang
 (c) sang - verb; beautifully - adverb
- Q.5.** Malti was a participant for the Hindi song category. Malti sang beautifully. She had a melodious and well-trained

voice. When Malti began singing, there was such absolute silence, that Rima and her friends could not even attempt to jeer at her. When Malti finished the song, the Principal was the first to start clapping followed by the teachers and students. No one was surprised that Malti won the first prize.

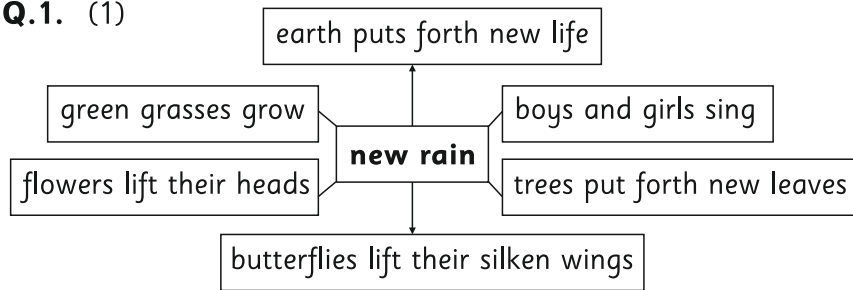
Topic 1.3 : In Time of Silver Rain

English Workshop

- Q.1.** rain - again, plain; heads - spreads; wings - sing;
 cry - sky; too - new.
- Q.2.** 'In time of rain, when spring and life are **renewed** the butterflies lift **their silken** wings to catch a **rainbow** cry and trees put forth **new** leaves to sing in joy beneath the sky as **passing** boys and girls too **go** singing down the roadway.'
- Q.3.** (1) The poet is talking about rain that has come after a long time.
 (2) Yes, they are very happy that it is raining.
- Q.4.** My favourite season is the monsoon season. The rain brings M relief from the heat. Once it rains, everything becomes green. The dried up earth wakes up to moisture, fresh roots and greenery all around. Bare trees sprout new roots and bare branches are seen covered with new leaves. Nature swings to the rhythm of the wind and the rain. Rain is a blessing to the earth and to mankind.
- Q.5.** (a) Green grasses grow (b) To catch a rainbow cry.

Comprehension : Extract - 1

Q.1. (1)



- (2) (a) The flowers lift their heads.
(b) The wonder spread all over the pain.
(c) Passing boys and girls go singing down the road.

Q.2. During the time of silver rain, the face of the earth completely changes. The earth puts forth new life, green grasses are seen on the surface, flowers are happy, hence they lift their heads. New rain brings life to everything on the earth. The butterflies lift their silky wings and trees put forth new leaves. The boys and girls are happy, hence we hear them singing. Everywhere we can see new life.

Q.3. (1) a b a c d a d

- (2) (a) Alliteration - the sound of 'g' is repeated.
(b) Repetition - 'of life' is repeated for stress.
(c) Personification - trees are given human quality of singing.
(d) Antithesis - 'boys' and 'girls' of opposite gender.

Topic 1.4 : The King's Choice

English Workshop

Q.1. **The lion** - The lion was the king of the forest. He was

called the king. The other animals gifted him with many things, but the more he had, the more he wanted. He wanted a court, hence he made the fox his adviser, the leopard his body guard and the vulture his messenger. The lion king always took the advice of his courtiers. The lion king was kind to those who were true to him.

The fox - The fox is a wise and clever animal, hence the king made him his adviser. The fox was very loyal to the lion king for sometime. He was very clever and decided to get the camel to the lion king. He managed to do so by lying to the camel who believed him. The lion king was very pleased with the fox. Finally the fox betrayed the lion king by running away.

The leopard - The leopard is very watchful and swift footed, hence he is the best animal to be the body guard of the lion king, since he can be alert and always be there to look after the king. However the leopard too has his own ideas, and is not honest and faithful to his lion king.

The vulture - This is a bird that can fly high and be used as a messenger. This is true, but the vulture inspite of being one of the courtiers in lion's king court, always puts himself first and keeps thinking of his own benefits and not about his king.

Q.2. (1)

Countable nouns	Singular	Plural
leopards	leopard	leopards
animals	animal	animals
courtiers	courtier	courtiers
Camel	Camel	Camel
Vulture	Vulture	Vulture

- (2) water - litre; milk - litre
distance - kilometres / miles; weight - kilogram/pound
- (3) fierce - violent or very aggressive.

- Q.3.** (1) The king is the ruler of such a vast domain. There are thousands / millions of subjects he has to look after. He cannot solve every problem on his own. He needs an adviser, people to look after him i.e. body guards, to guard him, people to take his messages to and fro, members of the council etc. One man cannot make so many important decisions on his own, hence he needs a court.
- (2) (a) **King** : The king must be wise to make out exactly what is going on in his kingdom. He must be impartial and see no difference in his subjects when giving his judgement. He must be brave to lead the way in battles so that his soldiers look up to him and fight bravely.
- (b) **Adviser** : He must be loyal to his king and give correct advice without thinking of his friends. He must be wise to understand the problem the monarch is facing. He must be unbiased and think of everyone as equal.
- (c) **Bodyguard** : Must be alert at all times, since there can be an attack on the monarch at any time. Must be brave and fearless to look after the king.
- (d) **Messenger** : Must be ready at all times to deliver messages from the king and get messages to the king. Must be brave and fearless.
- (3) An oath of loyalty is a solemn promise made by the person to be by your side and guard and guide you

whatever the circumstances are. The fox must have said, "Your Majesty, I shall always be by your side and offer my advice when you ask for it. I shall never leave you."

The leopard must have said "Your Majesty, I am thankful that you have chosen me as your body guard, I shall always be with you and see that no harm comes to you."

The vulture must have said, "Your Majesty, I am very thankful that you have chosen me as your messenger, I shall go to and fro delivering your messages and keeping you informed of everything.

- (4) When the vulture told the king and his courtiers about the camel in the desert, the fox and the leopard did not know the desert. But they did not want the vulture to seem wiser than them, hence they said that since it was the vulture's idea, he should lead the way.
- (5) The habitat of the lion and camel are absolutely different. The lion lives in a forest while the camel lives in a desert. The lion never goes to the desert because of the extreme heat and open terrain, hence he had never seen a camel.
- (6) The fox and the leopard said that since it was the vulture's idea, he should lead the way. This was not based on good and sound thinking, but on the fact that they did not want the king and the vulture to know that they had no idea of the desert at all.
- (7) Yes the vulture was enjoying the search. Firstly he was leading the way, flying in the sky. His legs were not getting burnt. He felt he was the leader. He wanted to see what would occur. The vulture wanted to wait and watch and eat the lion later on.

- (8) Yes the king's decision to go back was right. The Lion was getting uneasy and sick. He was tired and could not hurry anymore. The hot sand had burnt his paws.
- (9) The fox wanted to be the only one in the king's favour. He was selfish but very smart. He did not want the leopard and the vulture to be in the king's court, hence he thought of a plan to get the camel to the king so that the lion king would be highly pleased with him and would favour him more.
- (10) Animals like the camel who are docile and meek will surely get frightened of the jungle animal like the fox. In order to win the trust of the camel and follow him without getting scared, the fox addressed the camel as 'friend camel'.
- (11) The leopard wanted to run away, the desert sun was too strong and the sand was too hot. The king's advisers were all frightened. They did not know how to get the king back home. The vulture was at an the advantage, he wanted to watch and wait and eat the lion later on.
- The clever fox had an idea of how to get the camel to the king and he set about it quickly. All these courtiers were shrewd and cunning.
- (12) The fox, the leopard and the vulture were all very hungry and tired, when they reached the forest. They looked at each other and smiled hungry smiles. They had brought the camel for the king's dinner and according to them it was time for the feast.
- (13) Yes, I expected the king to be kind to the camel. Yes, his decision was right. He was the king of the animals in the forest, he would be kind to an animal from the desert.

- (14) The courtiers had to obey the king, because they had taken an oath, when they were appointed as members of the king's court that they would listen to him and obey him. They could not afford to make their king angry.
- (15) Actually, the courtiers were not being loyal to the king. They showed the king that they were going out to get food for him but they sat down in a safe place and discussed what they could do.
- (16) The camel, basically a mild animal, decided to offer himself to the king. He is being thankful to the king for offering him a home. He tried to say that since the leopard, fox and vulture were the king's advisers and friends of the king, they were more important to him than he was.
- The camel is shown as thankful, kind and loving.
- (17) The king had his doubts about the fox, the leopard and the vulture. He knew that they were planning something. He understood that they cared only for themselves and not for him. When they ran away, the king knew that he had been right in doubting his courtiers.
- (18) No, the 'friend' is not a position in the court. Those in the court are advisers, guards, messengers etc. but they have to keep their distance and show the king that he is way above them. A friend is intimate and close to the king here. This friend is the camel who was loyal and good.

Comprehension : Extract - 1

- Q.1.** (a) they followed him (b) my messenger
(c) wise and clever creature (d) watchful and swift of foot

- Q.2.** (1) The fox, the vulture and the leopard took an oath of loyalty to the king.
 (2) The leopard was chosen as the king's bodyguard.
 (3) When the king roared, they stood in awe.
 (4) When the king went hunting they found the animals for him to kill.

- Q.3.** (1) fox - wise and clever
 (2) leopard - watchful and swift-footed
 (3) vulture - ability to fly high

Q.4.

	Noun	Verb	Adjective
(a)	watchfulness	watch	watchful
(b)	loyalty	X	loyal
(c)	protection	protect	protected
(d)	height	heighten	high

- Q.5.** The king decided to have courtiers because the more he had the more he wanted. He called the fox and told him that he was wise and clever, hence he wanted him to be his adviser. The king next called the leopard and said that since he was watchful and swift-footed, he wanted the leopard to be his bodyguard. Finally the king told the vulture that since he could fly very high he could become the king's messenger. He asked for their loyalty and promised to give them food and protection. The three agreed and became the king's courtiers.

Extract - 2

- Q.1.** (1) fire-hot (2) big and fat
 (3) wise and experienced (4) clever
- Q.2.** (1) False - The lion had never seen a camel. (2) True
 (3) True (4) False - The lone camel was big and fat.
- Q.3.** (1) (1) - b, (2) - c, (3) - d, (4) - a
 (2) (a) camel (b) desert (c) wanted
- Q.4.** (1) easily - Adverb of manner (2) vulture, flight
 (3) wise, experienced (4) away
- Q.5.** After they left the forest, the day became very hot. The sun shone down with fire-hot rays. The lion and his courtiers could not hurry. The hot sand had burnt the lion's paws. He could go no further. He wanted all his courtiers to stop and return home since he was just not interested in the camel's meat.

Extract - 3

- Q.1.** (1) His plan (2) The king (3) The vulture (4) On the camel
- Q.2.** (1) (a) **False** - First the vulture stepped forward (b) True
 (c) **False** - The lion laughed to see them go (d) True
 (2) (a) good, grateful, happy, loyal
 (b) camel, lion, offer, others
 (c) seen, shocked, stepped, suffer
 (d) king, life, sat, subject
- Q.3.** (1) jump at the camel (2) the vulture aside
 (3) in the forest again (4) but to be kind is better

Q.4.	Subject	/	Predicate
(a)	The courtiers	/	I had to obey the king,
(b)	The vulture	/	stepped forward
(c)	The lion	/	laughed to see them go
(d)	The camel	/	was happy and grateful

Q.5. Personally, I feel that the courtiers were not at all loyal to the lion king. They took an oath to be loyal to him, but whenever there was a problem, they thought about their own benefits. They got together and planned how to save themselves and cheat their king. They were not honest at all. They were very deceitful and tried to find out ways and means of gaining from their post. They cared for nobody except themselves.

Topic 1.5 : Seeing Eyes Helping Hands

English Workshop

- Q.1.** (A) (1) A formal invitation (2) A notice
 (3) An oral invitation (4) Another oral invitation
- (1) The students of New Vision High School.
 (2) The programme is the inauguration of the project 'Seeing Eyes, Helping Hands'.
 (3) "Seeing Eyes, Helping Hands" is the name of the project.
 (4) Smt. Vimala Naik, the former Principal of New Vision High School will inaugurate the programme.
 (5) Dr. A.M.Chaudhary, the Dean of the New Life Medical College and Hospital will preside over the function.
 (6) The function will start at 10.00 a.m. in the morning.

- (7) It will take place at the Assembly Hall. New Vision High School, Off Main Street, Girgaon.
 (8) Six names get mentioned in the invitation.

(B)

Points covered	A	B	C	D
(1)	✓	✓		
(2)	✓	✓	✓	✓
(3)	✓	✓	✓	✓
(4)	✓	✓		
(5)	✓	✓	✓	✓
(6)	✓	✓	✓	✓
(7)	✓	✓	✓	✓
(8)	6	3	1	2

Q.2. We the son and daughter of the Athaide family solicit your presence at the Silver Jubilee Anniversary of Mr. and Mrs. Athaide at the hands of Rev. Fr. Percinal Fernandes the Bishop of the Catholic Congregation and Fr. Joaquim D'Silva The Incharge of the Congregation has kindly agreed to preside over the function.

Time : 7 pm - 10 pm

Date : Sunday 10th Oct. 2017

Venue:

St. Ignatius Church,
Jacob Circle,
Mumbai - 400 011

* Mr. Amit Athaide (Son)

* Mrs. Rance Rodrique (Daughter)

Q.3. Ranee : Hello Prudence! How are you?

Prudence : I am fine. How are you? I know Uncle and Aunt are very soon going to celebrate their silver wedding anniversary.

Ranee : Yes, that is the reason I am calling you. I am calling to invite you and your family to this auspicious occasion.

Prudence : Of course. We all remember this auspicious date.

Ranee : The ceremony will be at the St. Ignatius Church, Jacob Circle at 7.00 p.m. on the 10th of October, 2017 and it will be followed by dinner at our residence at Jacob Circle.

Prudence : I shall remember this, and I will convey this message to my parents. All of us will be there.

Ranee : I am very happy to hear this. I hope to see all of you on the 10th of October at 7.00 p.m. at St. Ignatius Church. Bye for now.

Prudence : Bye. We will all be there.

Q.4. Shakila called up at 4 p.m. when I was all alone. She has invited all of us to the inauguration of the Drama and Speech show to be held at the St. Ignatius School Hall on the 20th of December, 2017 at 5.00 p.m. in the evening. All our family members are invited.

Topic 1.6 : A Collage

Activity

Q.1. (To be done by students)

मराठी सुलभभारती

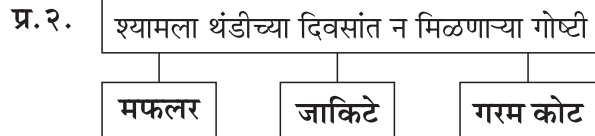
१. प्रार्थना

विद्यार्थ्यांनी स्वतः कृती करा.

२. श्यामचे बंधुप्रेम

स्वाध्याय

- प्र.१. (अ) नवीन पाऊस सुरू झाल्यावर मातीचा एक रम्य सुंदर वास सुटतो.
(आ) खाऊच्या पैशांतून लहान भावास नवीन कोट किंवा सदरा शिवायचा असा निश्चय श्यामने केला होता.
(इ) श्यामच्या आईने लहान भावास सांगितले, तुझे अण्णा, दादा मोठे होतील, कामधंद्याला लागतील. मग तुला सहा महिन्यांनी नवीन सदरा शिवतील. अशा प्रकारे आईने लहान भावास समजावले.
(ई) श्यामचे वडील कोर्ट-कचेरीच्या कामासाठी वरचेवर दापोलीला जात.
(उ) खाऊच्या पैशांतून लहान भावासाठी शिवलेला कोट घेऊन कधी एकदा त्याला नेऊन देतो असे श्यामला झाले होते. म्हणून त्याला चालण्याचे श्रम वाटत नव्हते.



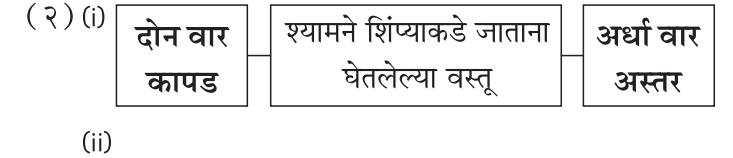
- प्र.३. (अ) स्वतःसाठी खाऊचा एकही पैसा न खर्च करता त्या पैशांतून श्यामने लहान भावासाठी नवीन कोट शिवला. नवीन कोट मिळाल्यावर भावाला होणाऱ्या आनंदाचा विचार मनात आला. त्याचा हट्ट आपण पूर्ण करू शकलो म्हणून श्यामचे डोळे अश्रूंनी न्हाले होते.
(आ) श्याम ज्यांच्या घरी राहायचा त्यांना श्यामची काळजी वाटत होती. पावसाळ्याचे दिवस होते. नदीनाल्यांना पूर आले असतील. अशा परिस्थितीत श्यामने जाणे त्याच्या जीवाला धोकादायक होते. म्हणून श्याम ज्यांच्या घरी राहायचा त्यांनी 'जाऊ नको' असे म्हटले.

- (इ) पावसाळ्याचे दिवस असल्यामुळे नदीनाल्यांना पूर आले होते. पिसईच्या पन्हाला ओढ फार असल्यामुळे तो दुथडी भरून वाहत होता.
(ई) वडिलांनी दिलेले खाऊचे पैसे स्वतःसाठी खर्च न करता श्यामने लहान भावासाठी नवीन कोट शिवला. तो कोट घरी घेऊन येण्यासाठी श्यामला अनेक अडचणींना तोंड द्यावे लागले. श्यामचे आपल्या लहान भावावरील निःस्वार्थी प्रेम पाहून आईला गहिवर आला.

कृतिपत्रिका - १

उतारा क्र. १

- प्र.१. (अ) (१) (i) दापोली
(ii) गंधवती पृथ्वी



सूचना : Term Book मध्ये ३ Box दिलेले आहेत जे ४ आहेत.

- (३) (i) (१) पैसे (२) जाकिटे
(ii) (१) मेघ (२) स्वाद

- (४) मी माझ्या भावासाठी नेहमी बुद्धीला चालना आणि हातांना काम देणारे खेळ घेतो. असे खेळ दिल्यामुळे त्यालाही गुंतवून ठेवता येते. आता तो बऱ्यापैकी मोठा झाला आहे. त्यामुळे त्याच्यासाठी मी आता चित्रे असलेली गोष्टींची पुस्तके घेतो. छोटे छोटे प्रयोग असणारी विज्ञानाची पुस्तके घेतो. या भेटवस्तू मी त्याला त्याच्या वाढदिवसाला देतो. मे महिन्याच्या सुट्टीत आणि दिवाळीच्या सणाला देतो.

अतिरिक्त कृती

प्र.१. (१) नवीन सदरा (२) गणेश चतुर्थी

व्याकरण

प्र.१. (अ) (१) कोट (२) जमीन, मेघ (३) पैसे
(ब) (१) आमची (२) माझ्या (३) मी

कृतिपत्रिका - २

उतारा क्र. २

प्र.१. (अ) (१) (i) खळखळ (ii) नानेटी
(२) (i) चूक (ii) बरोबर
(३) (i) नवीन (ii) धाकट्या, लहानसे (iii) कोरडे

(४) श्यामच्या धाकट्या भावाचा सदरा फाटला होता. श्याम दापोलीस शिकण्यासाठी होता. तेथे त्याने स्वतःच्या खाऊच्या पैशातून भावासाठी नवीन कोट शिवून घेतला. गणेश चतुर्थीला घरी जाण्यासाठी तो कोट घेऊन निघाला तेव्हा पावसापाण्याचे दिवस होते. तेव्हा त्याच्या मनात आले पंख असते तर एकदम उडून गेलो असतो. कारण श्यामला स्वतःच्या पैशातून शिवलेला कोट कधी एकदा भावाला नेऊन देतो असे झाले होते आणि श्याम ज्या रस्त्याने घरी येणार होता त्या मार्गात असलेले पिसईचा पन्ह्या, सोंडघरचा पन्ह्या दुथडी भरून वाहत होते. त्यांना उतारही नव्हता. त्यामुळे त्याला जाण्यासाठी वेळही लागणार होता आणि अनेक अडचणींचा सामना करावा लागणार होता. पक्षी केव्हाही आणि कोठेही पंखांच्या मदतीने जाऊ शकतात. त्यांना जमिनीवरून, पाण्यातून चालत जावे लागत नाही. ते आकाशात भरारी मारून पाहिजे त्या ठिकाणी पोहोचू शकतात. श्याम सुखस्वप्नात दंग होता. त्याच्या हृदयात प्रेमाचा

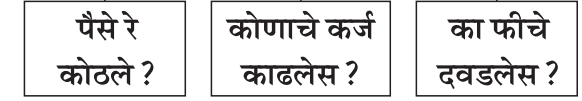
पूर आला होता म्हणून त्याला वाटले पंख असते तर एकदम उडून गेलो असतो.

कृतिपत्रिका - ३

उतारा क्र. ३

प्र.१. (अ) (१) (i)

श्यामने आणलेला नवीन कोट बघून त्याच्या आईवडिलांच्या मनात निर्माण झालेले प्रश्न



(ii) (अ) नवीन कोट (ब) पुरुषोत्तम (क) अण्णा
(२) (i) शिकवण (ii) दृष्टी
(३) (i) फिरवला (ii) असते (iii) भेटले
(४) श्यामने सांगितलेली हकीकत ऐकून आई शेवटी श्यामबद्दल म्हणाली, 'श्याम, तू वयाने मोठा नाही, पैशाने मोठा नाहीस, शिकून मोठा नाहीस; परंतु मनाने मोठा आजच झालास हो! हेच प्रेम बाळांनो, पुढेही ठेवा. या प्रेमावर कोणाची दृष्टी नको पडायला.

खेळूया शब्दांशी

प्र.१. थंड × गरम सापडणे × हरवणे सुगंध × दुर्गंध थोरला × धाकटा
जुना × नवीन लक्ष × दुर्लक्ष स्मृती × विस्मृती
प्र.२. (१) रजा (२) पर्जन्य, वर्षा (३) धरणी
(४) बाबा, तात (५) सरिता (६) मार्ग, वाट
प्र.३. (अ) (१) सदरे (२) महिने (३) रुपये (४) काठ्या
(५) विजा (६) कोट (७) दगड (८) पंख

(आ) (१) शब्द - त्यांनी. कारण, इतर सर्व नामे आहेत व 'त्यांनी' हे सर्वनाम आहे.

(२) शब्द : सातपुते. कारण, इतर सर्वनामे आहेत व 'सातपुते' हे नाम (आडनाव) आहे.

(३) शब्द : हिमालय. कारण, इतर विशेषणे आहेत. 'हिमालय' हे विशेषनाम आहे.

(४) शब्द : आम्ही. कारण, इतर सर्व क्रियापदे आहेत. 'आम्ही' हे सर्वनाम आहे.

प्र.४. (१) रोजगारी होणे - कामधंद्याला लागणे

वाक्य : वडील गेल्यानंतर आपल्या कुटुंबासाठी महेश रोजगारी झाला.

(२) दुथडी भरून वाहणे - पूर्ण भरून वाहणे

वाक्य : पूर्णा नदीला पूर आल्यामुळे ती दुथडी भरून वाहत होती.

(३) निश्चय करणे - निर्धार करणे

वाक्य : सहामाही परीक्षेत चांगले टक्के मिळवण्याचा सुहासने निर्धार केला.

क्रियाविशेषण अव्यय

- प्र.१. (१) पूर्वी (२) नेहमी (३) हल्ली
प्र.२. (१) सभोवार (२) पलीकडे (३) तिथेच
प्र.३. (१) पटापट (२) हळू (३) चटकन
प्र.४. (१) भरपूर (२) अतिशय (३) थोडा
प्र.५. (१) काल शाळेला सुट्टी होती. (२) विशाखा सावकाश जेवते.
(३) आजोबा नेहमी पेपर वाचतात. (४) परमेश्वर सर्वत्र असतो.

प्र.६.

कालवाचक क्रियाविशेषण अव्यये	स्थलवाचक क्रियाविशेषण अव्यये	रीतिवाचक क्रियाविशेषण अव्यये	परिमाणवाचक/ संख्यावाचक क्रियाविशेषण अव्यये
परवा, दररोज, क्षणोक्षणी	समोरून, वर तिथे, पलीकडे	कसे, सतत, झटकन, टपटप, सावकाश	जरा, थोडा, अतिशय, पूर्ण, मुळीच

३. माझ्या अंगणात

स्वाध्याय

प्र.१. (अ) कवीच्या अंगणात गव्हाची आणि ज्वारीची रास पडते.

(आ) रानमेवा कवीच्या अंगणात उगवला आहे.

(इ) एकमेकांना देत-घेत, एकत्र बसून आपण रानमेवा खाल्ला तर आपल्यातील प्रेम, वात्सल्य, बंधुभावाची भावना वाढीस लागते. आपसातील मतभेद विसरून सर्वजण आनंदाने राहतात, म्हणून कवी रानमेवा गुण्यागोविंदाने खायला सांगत आहे.

(ई) कवीच्या अंगणात दाणे टिपण्यासाठी पाखरे येतात.

प्र.२. (अ) गहू शाळवाचं मोती
काळ्या रानात सांडलं.

(आ) काळ्याशार मातीतुनी
मोती-पवळ्याची रास.

(इ) जीव दमतो, शिणतो
घास भरवते माय.

(ई) दिला-घेतला वाढतो रानातला रानमेवा,
तुम्ही आम्ही सारेजण गुण्यागोविंदानं खावा.

कृतिपत्रिका

प्र.१. (अ) (१)

गहू

 अंगणात पडणाऱ्या राशी

ज्वारी

- (२) (i) दिल्या घेतल्याने
(ii) काळ्याशा रानमातीतून

(३) रानमेवा म्हणजे दऱ्या-डोंगराच्या रानातली आंबट, तुरट, गोड अशा प्रकारची फळे. ती खाल्ल्यानंतर जिभेवर रेंगाळणाऱ्या चवीमुळे कुठेतरी अनोखी तृप्ती मनाला लाभते.

सर्वसाधारणपणे रानमेव्यात करवंदे, जांभळे, चिंचा, बोरे, आळू, तोरणं, मलबेरी / तुती इ. स्थानपरत्वे यात एखाद दुसऱ्या फळांची भर पडते. आडरानात असलेली, ठराविक मोसमातली फळे रानमेव्यात येतात.

डोंगरची काळी मैना उर्फ करवंदे, गावठी बोरे, जांभळे-यातही रानजांभळे वेगळी. कमी गर असलेली तसेच आळू हे चिक्कूसारखे दिसणारे व आंबट गोड चवीचे फळ, जाम म्हणजे पांढरट व काहीसं पिस्ता रंगाचं फळ, ताडगोळे एक रसदार, उन्हाच्या काहिलीत थंडावा देणारं फळ, रायआवळा हे एकदम छोट्या आकाराचे आवळे, रानातला हा रानमेवा गुणांच्या बाबतीतही श्रेष्ठ. चवही एकदा खाल्ल्यावर जीभेवर रेंगाळणारी. आंबट-तुरट गोड चव असणारा रानमेवा आरोग्यासाठी खूपच उत्तम असतो. रानावनातल्या निसर्गातलं हे फळाचं वैभव लक्षणीय असे आहे.

(४) दिवाळीच्या सुट्टीत गावाला, मी बाबांबरोबर शेतावर गेलो होतो. हिरवेगार शेत पाहून मला खूप आनंद झाला. मोत्यासारख्या टपोच्या दाण्यांनी भरलेली ज्वारीची कणसं वाऱ्यावर डुलत होती. वाऱ्याची झुळूक येताच, समुद्राच्या पाण्याप्रमाणे पिकांवर सुंदर लहरी उमटत होत्या. ताठ मानेने वाऱ्यावर डोलणारी ज्वारीची कणसं खूप गोंडस दिसत होती. निसर्गाचा हा हिरवागार ठेवा पाहून मला खूप आनंद झाला.

(आ) प्र.१. ज्ञानेश्वर कोळी

प्र.२. जीव दमतो, शिणतो घास भरवते माय,
घरामंदी घरट्यात जशी दुधातली साय

प्र.३. शेतकरी रात्रंदिवस शेतात कष्ट करतो तेव्हा आपल्याला धान्य मिळते. काहीही खाताना एकमेकांना वाटून खावे. वाटून खाल्ल्यामुळे त्या पदार्थाची गोडी वाढते. मनातील सारे रुसवेफुगवे विसरून आनंदाने रहा. हा संदेश या कवितेतून मिळतो.

अतिरिक्त कृती

प्र.१. (अ) (१) माय (२) मिजास

(ब) जीव दमतो, शिणतो
घास भरवते माय.

प्र.२. (१) शेतात आलेल्या दोन धान्यांची नावे -

गहू

 →

शाळव (ज्वारी)

(२) कवीला घास भरवणारी →

माय

(३) दाणे टिपणारी →

पाखरं

सूचना : Term Book Page No. 36 वर 'टिपणारा' शब्द type झाला आहे तो 'टिपणारी' आहे.

(४) कवीच्या गालावर या कारणामुळे अश्रू येतात →

पक्षी / पाखरं दूर उडून जातात तेव्हा

खेळूया शब्दांशी

(अ) (१) रास (२) साय (३) गालावर

(आ) (१) मोळी (२) थवा (३) घड

(४) तांडा (५) घोळका (६) घड

(इ) (१) पडलं (२) मिजास (३) साय

(ई) (१) खाऊया (२) आई (३) घरामध्ये (४) अश्रू

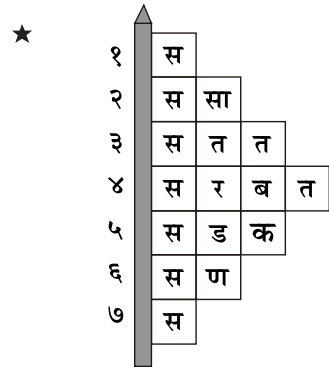
- (उ) (१) जंगल, वन (२) ढीग (३) प्राण (४) पक्षी
 (ऊ) (१) दाणे (२) पाखरे (३) घरे
 (४) अंगण (५) मोती (६) घरटी

उपक्रम

प्रश्नावली :

- (१) तुमचे नाव काय ?
 (२) तुम्ही किती वर्षांपासून शेती करत आहात ?
 (३) तुमची किती एकर शेती आहे ?
 (४) तुमच्या शेतात तुम्ही कोणकोणती पिके घेता ?
 (५) शेतीचे तुम्ही कोणते प्रशिक्षण घेतले आहे ?
 (६) शेतात तुम्ही कोणत्या खतांचा वापर करता ?
 (७) तुम्हांला सरकारच्या योजना उपयोगी वाटतात का ?
 (८) या व्यवसायात तुम्ही आनंदी आहात का ?
 (९) वर्षभर शेतातून पिके घेण्यासाठी पाण्याची व्यवस्था केली आहे का ?

खेळ खेळूया



कविता करूया

- (1) आला आला गुढीपाडवा (2) माझ्या घराभोवती
 स्वागतयात्रेची तयारी करा ।।।।। झाडे झुडुपे किती ।।।।।

- दारी रेखिली रांगोळी रंगीबेरंगी पाने फुले
 दिव्यांचा सण दिवाळी ।।2।। दारी सुंदर तोरण झुले ।।2।।
 करा दुर्गुणांची होळी
 आनंदाने खा पुरणपोळी ।।3।।

४. गोपाळचे शौर्य

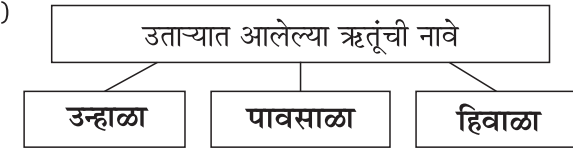
स्वाध्याय

- प्र.१. (अ) नागपूर जिल्ह्यातील नरखेड तालुक्यातील मोहदी या खेडेगावापासून आठ ते दहा किलोमीटर अंतरावर कर्णागड वसलेला आहे.
 (आ) गडावर लागलेली आग विझविण्यासाठी 'गाडी थांबवा' असे गोपाळ ओरडला.
 (इ) वाटेच्या बाजूला असलेल्या शेतातील नदीवरून सुरू असलेला पाण्याचा पाईप गोपाळने ओढून आगीवर पाणी मारण्यास सुरुवात केली.
 (ई) आग वेळेवर विझली नसती तर गडावर गेलेले गुराखी व गुरे वाचली नसती. गडावरील आणखी झाडे-झुडुपे आगीत जळून खाक झाली असती म्हणजेच गडाचे आणि निसर्गाचेही नुकसान झाले असते.
 प्र.२. (अ) असे शिक्षक गोपाळला दरडावून म्हणाले.
 (आ) असे गोपाळ गुराख्याला म्हणाला.
 (इ) असे शिक्षक दुसऱ्या गाडीतील गृहस्थांना म्हणाले.

कृतिपत्रिका - १

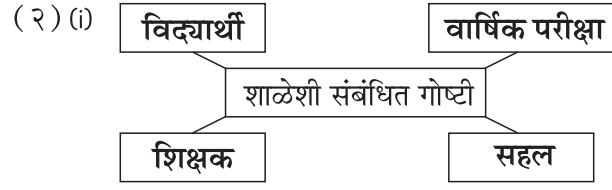
उतारा क्र. १

- प्र.१. (अ) (१) (i)



(ii) (अ) मंदाकिनी

(ब) कर्णागड



(ii) (१) तालुका (२) खेडेगाव (३) जिल्हा

- (३) (i) (अ) केरकचरा (ब) भाजीपाला
(ii) दररोजच
- (४) निसर्गरम्य ठिकाणे थकल्या भागल्या मनात एक नवी ऊर्जा निर्माण करतात. आमच्या घराच्याबरोबर नुकताच मी महाबळेश्वरला जाऊन आलो.

महाराष्ट्राच्या पश्चिम घाटाच्या रांगेतील महाबळेश्वर हे थंड हवेचे निसर्गरम्य असे ठिकाण आहे. निसर्गाची नानाविध रूपे महाबळेश्वरच्या परिसरात प्रत्यक्ष जाऊन अनुभवण्यासारखी आहेत.

महाबळेश्वरमधील पंचगंगा मंदिर कृष्णा, वेण्णा, कोयना, सावित्री व गायत्री या पाच नद्यांचे उगमस्थान. वेण्णा तलावातल्या नौकाविहाराची मज्जा काही औरच आहे. महाबळेश्वरमधील विविध देखाव्यांची ठिकाणे-पॉईंट खिळवून ठेवणारे आहेत. ऑर्थर पॉईंटवरून आजुबाजूच्या परिसराचे विहंगम दर्शन व सूर्योदयाचा अनुभव मनात घर करणारा आहे. अस्ताला जाणाऱ्या सूर्याचे विविध रंग 'बॉम्बे पाईट' वर घेता येतात. जवळच असणारी ऐतिहासिक ठिकाणे-प्रतापगड, मकरंदगडालाही जाता येते. महाबळेश्वरच्या परिसरातील स्ट्रॉबेरी, जांभळाचा मध, लाल मुळा तोंडाला एक वेगळीच चव आणतात. निसर्गाच्या नानाविध रंग रूपाला न्याहाळण्याचे सुख महाबळेश्वरच्या परिसरात प्रत्येकालाच लाभते.

अतिरिक्त कृती

- प्र.१. (१) कर्णागडावर जाणारे
- सहल काढणारे
 - ट्रेकिंगप्रेमी
 - गुरे चारणारे गुराखी

(२) आठ-दहा किलोमीटर

कृतिपत्रिका - २

उतारा क्र. २

- प्र.१. (अ) (१) (i) विद्यार्थी गोपाळच्या मदतीला धावणारे शिक्षक

(ii) घाटाच्या खालच्या बाजूने आग लागली होती. नाहक आपण आगीत सापडू नये या उद्देशाने

(२) (i) चौदा वर्षे (ii) अडीच-तीन इंच परिघ असलेला

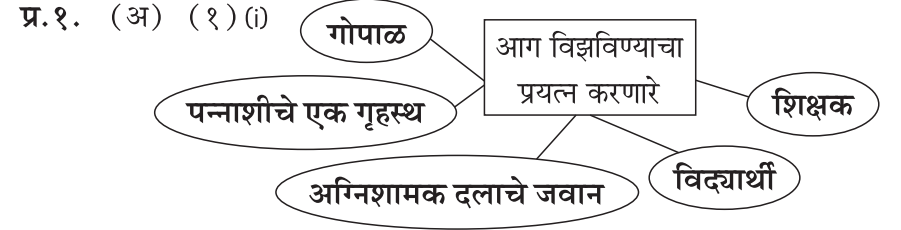
(३) (i) (अ) सूर्योदय (ब) शिखर

(ii) (अ) सरिता (ब) ग्राम

(४) दुसऱ्याला मदत करणे हा गोपाळचा गुण मला आवडला. कारण गडावरील आग विझविण्यासाठी गोपाळने स्वतःचा जीव धोक्यात घालून आग विझविण्याचा यशस्वी प्रयत्न केला.

कृतिपत्रिका - ३

उतारा क्र. ३



(ii) (अ) नरखेडहून (ब) गुराखी

(२) (i) गोपाळने

(ii) (अ) असत्य (ब) सत्य

(३) (i) (अ) उदास, हताश (ब) बातमी

(ii) (अ) शिक्षिका

(ब) विद्यार्थिनी

सूचना : Term Book मध्ये गुराखी शब्द type झाला आहे तो शब्द विद्यार्थी आहे.

(४) रविवारचा दिवस होता. बाबा भाजी मार्केटमध्ये गेले होते. सकाळी साधारण ११.३० वाजले होते. घरात मी, आई, माझी धाकटी बहीण आम्ही तिघेच होते. आईने स्वयंपाकघरात गॅसवर कुकर ठेवला होता. मी टी.व्ही पहात होते. आई स्वयंपाकघरात जेवणाची तयारी करत होती. बहीण तेथेच होती. बराच वेळ कुकरची शिटी होत नव्हती. आई आपल्या कामात मग्न होती. अचानक जोराचा आवाज झाला. म्हणून मी धावत स्वयंपाकघरात गेलो तर कुकरचे झाकण खाली पडले होते. कुकर वरती उडाला होता. कुकरमधील अन्न इकडे तिकडे सांडले होते. मी धावत जाऊन गॅस बंद केला. बहिणीला तेथून दूर केले. आई तर थरथरत होती. आईच्या अंगावर थोडे गरम पाणी पडल्यामुळे भाजले होते. बहीण रडत होती. मी आईला आणि बहिणीला बाहेर घेतले. अशा रीतीने थोडक्यात मोठा अपघात होताना वाचला.

व्याकरण

प्र.१. (१) किल्ला (२) काठ (३) जीव (४) धाडस

प्र.२. (१) रात्र (२) चढणे (३) अशक्य

(४) गैरहजर (५) वेडेपणा (६) शांत

प्र.३. (१) विद्यार्थिनी (२) वेडी

प्र.४. (१) शेते (२) नद्या (३) गाड्या

(४) बातम्या (५) तालुके (६) चेहरे

प्र.५. नामे : (१) विद्यार्थी (२) गृहस्थ

सर्वनामे : (१) त्यांनी (२) मला

खेळूया शब्दांशी

(अ)

क्र.	नाम	सर्वनाम	विशेषण	क्रियापद
(१)	कर्णागड			आहे
(२)	ड्रायव्हर, गाडी			वाढवला
(३)	पाइप, गोपाळ	तो	लांब	आणला
(४)	चेहरे			होते.

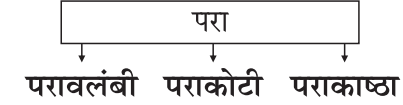
(आ) (१) प्रत्यक्षदर्शी

(२) अकल्पित

(३) पोशिंदा

(४) कौतुकास्पद

(इ)



(ई) (१) माझे हसणे क्षणोक्षणी वाढतच गेले.

(२) मंदा लिहिताना नेहमी चुका करते.

(३) आईने आशाला शंभरदा बजावले.

(४) सभोवार दाट झाडी होती.

(उ) (१) पूर्वी (२) घटाघटा (३) समोरून (४) सगळीकडे

प्र.१. (१) पायांना दगड खुपत होते; परंतु माझे तिकडे लक्ष नव्हते.

(२) मी वाहून जाण्याच्या बेतात होतो; परंतु कसाबसा बाहेर पडलो.

चर्चा करा.

विद्यार्थ्यांनी स्वतः कृती करा.

General Science : Part 1

Unit - I

Topic 1 : The Living World : Adaptations and Classification

- Q.1.** (1) Coniferous (2) adaptation (3) stems, petioles
 (4) thorns (5) tendrils (6) Fibrous
 (7) haustorial (sucking) (8) conducting vessels
 (9) air bladders (10) predatory carnivores (11) hooves
 (12) patagium (13) Charles Darwin (14) Carl Linnaeus
 (15) Plantae (16) 29th April.
- (B) (1) Plants like acacia are found in deserts.
 (2) Grasses in the equatorial regions grow very tall.
 (3) Drosera grows in soil which is deficient in nitrogen.
 (4) Frogs breathe through the skin in water.
- (C) (1) Cuscuta (2) Blackbuck (3) Camel (4) Potato (5) Yam
- (D) (1) Cockroach (2) Hen (3) Cactus (4) Mango
- (E) (1) Bos taurus (2) Binomial nomenclature
 (3) vast meadows (4) Homo sapiens (5) modified root
- (F) (1) (1) - d, (2) - c, (3) - b, (4) - a
 (2) (1) - d, (2) - c, (3) - e, (4) - a, (5) - b
- (G) (1)

Plant	Habitat	Type of root	Characteristics of leaves	Characteristics of stem
Lotus	Aquatic	Fibrous	Large and round with waxy layer	Hollow and flexible
Cactus	Desert	Tap	Leaves are reduced to thorns	Green and fleshy
Banyan	Terrestrial	Tap	Large, glossy green and elliptical	Thick and woody

(2)

Adaptation	Animal	Use of adaptation
* Sharp teeth	Lion, tiger	To tear the flesh
* Long and pointed beak	Woodpecker	To feed on ants, termites and other insects
* Short beak	Coppersmith	To feed on fruits
* Long and sticky tongue	Frog	To catch the prey
* Long neck	Giraffe	To reach for food (leaves) on top of trees

- (H) (1) Pine and deodar. (2) Acacia and cactus.
 (3) Bittergourd and grapevine.
 (4) Cuscuta (dodder) and gall.
 (5) Sundew, venus flytrap, pitcher plant.
 (6) Yak, polar bear, white fox, silver fox.
 (7) Snake. (8) Human being, cat (9) Cockroach, snail.

(I)

	Mango	Human	Rose
Kingdom	Plantae	Animalia	Plantae
Phylum	Anthophyla	Chordata	Spermatophyta
Class	Dicotyledonae	Mammalia	Dicotyledonae
Order	Sapindales	Primates	Rosales
Family	Anacardiaceae	Hominidae	Rosaceae
Genus	Mangifera	Homo	Rosa
Species	Indica	Sapiens	Gallica

(J)

	Living things	Scientific name
(1)	Dog	Canis lupus familiaris
(2)	Cow	Bos taurus
(3)	Hilbiscus	Hibiscus rosa-sinensis
(4)	Jowar	Sorghum bicolor
(5)	Tulsi	Ocimum sanctum
(6)	Wheat	Triticum aestivum
(7)	Cat	Felius domesticus
(8)	Lion	Panthera leo

Q.2. (A) (1) Gradual changes that occur in the body parts and also in the behaviour of organisms, which help them to adjust to their surroundings is called adaptation.

OR

Changes that take place in the various organs and life-processes of organisms, that enable them to live, feed, reproduce to perpetuate and protect themselves from their enemies in specific surroundings, depending upon the habitat and its geographical conditions are called adaptations.

- (2) Organisms that depend on other host organisms for nutrients (food) and in turn harm their host are called parasites.
- (3) Animals that have vertebral column or backbone are called vertebrates.
- (4) Animals that do not possess vertebral column or backbone are called invertebrates.

- (B) (1) (a) All living organisms have certain basic needs like food, protection and perpetuation of their own kind.
- (b) These needs can only be fulfilled if the organism is able to adapt itself to the surroundings in which it lives.
- (c) To adjust themselves to the surroundings, living organisms bring about changes in their own structure and behaviour.
- (d) Hence, a great variety is seen in living things.
- (2) (a) The lotus leaves have waxy coating on their upper surface.
- (b) So the water trickles off the leaves and keeps the leaves water proof.
- (c) Hence, leaves of lotus plant do not rot in water.
- (3) (a) The leaf of lotus plant is large, flat and undivided.
- (b) It has a long and flexible stem and petioles with air space.
- (c) Due to the air spaces in the stem and petioles of lotus plant, lotus leaf floats on water.
- (4) (a) Bitter-gourd and grape vine have weak stems.
- (b) To grow well, they cling to other things for support.
- (c) In order to cling to the support, they develop thin spring-like structures called tendrils.
- (d) These tendrils are modified stems.

(C) **(1) Terrestrial plants and Aquatic plants.**

	Terrestrial plants		Aquatic plants
(1)	These plants grow in places where water is neither too much nor too little	(1)	These plants grow in water.

(2)	Root system of these plants is well developed.	(2)	Due to availability of plenty of water, such plants are either rootless or with poorly developed roots.
(3)	Stem is solid and branched.	(3)	The stems may be reduced or long. Slender or spongy nature of stems is due to large air spaces in them which help them to float in water.

(2) Terrestrial animals and Aquatic animals.

	Terrestrial animals		Aquatic animals
(1)	Terrestrial animals are found on land like deserts, wetland, forest, grasslands etc.	(1)	Aquatic animals are found in water bodies.
(2)	The body of terrestrial animals is generally covered with hair, fur.	(2)	Their body is generally covered with scales.
(3)	They breathe through nose.	(3)	They have gills for breathing.
(4)	Their toes are generally not webbed, they have legs or limbs to move from one place to the other.	(4)	They have fins or webbed toes to swim in water.

- Q.3.** (A) (1) Diversity in living things is seen with respect to their shape, size, body parts, life cycle, mode of obtaining food and habitat.
- (2) The leaves of lotus have a waxy coating on their upper surface. This keeps the leaf waterproof and hence water trickles off the lotus leaves.
- (3) Lotus is an aquatic plant which floats on water. It has short and fibrous roots so that it remains firmly rooted in the soil at the bottom of the water bodies.

- (4) Lotus, hydrilla, water lily and duckweed are four aquatic plants.
- (5) Sloping branches give a conical shape to the plants found in the snowy region. This conical shape prevents the snow from accumulating on the tree during heavy snowfall and helps the plant to withstand extreme cold.
- (6) In the forest regions, a variety of plants like trees, shrubs and herbs are found. These plants compete amongst themselves for sunlight. Hence, trees grow very tall in order to get sunlight.
- (7) Garden lizard can change its colour according to the surface it sits on, this is called camouflage. Camouflage is a kind of adaptation seen in garden lizard to avoid being noticed by its prey as well as by its predators.

- (B) (1) (i) Camels are adapted to survive in the desert.
- (ii) Their thick skin prevents loss of water from their body.
- (iii) They have folds of skin on their nostrils and long eyelashes to protect their eyes from sand.
- (iv) They also have long legs with flat and cushioned soles to walk easily on sand without sinking into it.
- (v) These characteristics help camels to move across the desert sand easily, providing a mode of transportation for people living in the desert. Hence, camel is called the ship of the desert.
- (2) (i) Plants like cactus and acacia have special characteristic features which help them to live in deserts with scarcity of water.
- (ii) In cactus, the leaves are modified into thorns to prevent loss of water by evaporation.

- (iii) Since the leaves of cactus are modified into thorns, their stems are green in colour and perform photosynthesis. They also store water and food, so they are fleshy too.
 - (iv) Whereas in acacia, the leaves are small with waxy coating to prevent loss of water.
 - (v) Both the plants have long tap roots that penetrate deep into the soil in search of water.
- (3) (i) Organisms are adapted to survive in the conditions in which they live.
- (ii) In order to live in a particular type of habitat and geographical conditions, a gradual and continuous change takes place in the various organs and life processes of the organisms, which enables them to live, feed, reproduce and protect themselves from their surroundings.
- (iii) So, to survive in a particular type of environment, the organisms must have certain adapted features and this is the reason we find certain kinds of organisms living in a particular climate.
- (iv) For example, animals in polar region are adapted to the extremely cold climate and they have special features, such as white fur, strong sense of smell, a layer of fat under the skin, wide and large paws for swimming and walking on snow.
- (4) (i) There are innumerable organisms found on earth.
- (ii) Similarities, differences and the variety among living things are used as criteria for their classification.
- (iii) Different scientists have used different criteria and independently classified plants and animals.

- (iv) Under hierarchy of classification, a hierarchy is formed that starts with Kingdom Animalia or Kingdom Plantae and further groups and subgroups are added to the main group depending upon the similarities and differences among the organisms.
- (1) (i) Frogs are amphibians i.e. they can live on land as well as in water.
- (ii) They have webbed toes, so they use their legs like oars when in water.
- (iii) They also have slippery, smooth skin and triangular head to swim easily through water.
- (iv) When they are in water, they have the ability to breathe through their skin and on land they use their nose and lungs.
- (v) The typical colour of a frog's back helps it to hide among grasses and get protection from its predators or go unnoticed by its prey.

- Q.4. (A) (1) (a) Penguins have white skin so that it can merge with the white background of the polar region. Also, it has thick skin with a layer of fat underneath to protect itself from extreme cold in the polar region.
- (b) Penguins live in flocks sticking close to each other to keep themselves warm.
- (c) Penguins live in polar regions. Penguins are adapted to survive in extreme cold climate and hence they are found in polar regions.
- (d) (1) In order to live permanently in polar region, an organism must have certain special characteristics such as white skin, furry body,

thick skin with fat underneath, strong sense of smell, webbed toes for swimming. These characteristics are necessary to withstand and survive in the extreme cold climate of the polar region.

(2) Due to the extreme cold climate of the polar region, it is impossible for humans to live permanently in the polar region.

(B) (1) Animals and plants that are found in the desert have to face extreme heat and scarcity of water, so they have special characteristics to adapt themselves to the surroundings.

Most of the desert plants are either leafless or their leaves are modified into thorns to prevent loss of water from their surface by evaporation. They have an extensive root system that goes deep into the soil in search of water. Their stems are green in colour to perform photosynthesis and fleshy as they store water and food.

Similarly, the desert animals like camels have thick skin to prevent loss of water from their body, long legs with flat and cushioned soles to walk on the sand, folds of skin on the nostrils to protect them. Certain desert animals like rats, snakes, spiders are active at night, when it is comparatively cool and during the daytime they remain in their deep burrows.

(2) Different types of bushes and grasses grow in grasslands. Bushes generally have deep spreading roots whereas grasses have fibrous roots, which help them to

prevent soil erosion and grow well in grasslands. So grasslands are lush green. In equatorial regions, grasses grow tall which enables animals like tiger, elephant and deer to remain hidden in the grasses and also from their prey or predator. Whereas in cold regions, animals like rabbit are found as the grasses in these regions are very short.

(3) Insects are adapted to different kinds of climatic conditions. They mature fast and lay eggs in large numbers. So, they reproduce very fast and hence are found in large numbers.

(4) Animals like frogs, butterflies, lizards, grasshoppers have typical colours which blend with those of their surroundings. This helps the animals to get camouflaged amidst grasses, parts of plants like stems, leaves, flowers etc. Animals found in snowy region have white or silver body colour, which merges well with the white background. Such kind of adaptation either protects the animals from their predators or their prey.

(5) Herbivores like deer, blackbucks which are found in forests are under constant threat from their predators like tiger, lion etc. In order to protect themselves from their predators, the herbivores have long and freely moving ears which can amplify the sounds and receive them from long distances and different directions.

(C) (1) Animals like garden lizard, crocodile, house lizard, snakes are reptiles. They have very short limbs or are limbless. For example, snake is a limbless reptile. They creep or crawl on the ground since they have short limbs. Animals like house lizard, garden lizard, crocodile

use their muscles for creeping. They also show adaptation in skin, soles of feet, body colour etc. Lizards have clawed toes and thin soles, whereas snakes have a scaly skin.

- (D) (1) The given plant is a cactus. It belongs to the desert region.
(2) Part A is thorns, part B is stem.
(3) Thorns are modified leaves, so they reduce loss of water by evaporation whereas stem performs photosynthesis and stores food and water.
(4) The plant has tap roots that penetrate deep into the soil in search of water.

Topic 2 : Plants : Structure and Function

- Q.1.** (A) (1) Root (2) plumule (3) Calyx
(4) Leaf-blade or lamina (5) parallel (6) Dicotyledonous
(7) Monocotyledonous (8) adventitious
(9) Pneumatophores (10) Androecium
- (B) (1) Maize is a monocotyledonous plant.
(2) Mustard plant has tap root.
(3) The leaf margin of a peepal leaf is entire.
(4) The stalk of flower is called pedicel.
(5) Corolla is made up of petals.
(6) Stamen is not a part of gynoecium.
(7) Fertilized ovule forms the seeds.
(8) Ovary develops into a fruit.
(9) Gynoecium is made up of carpel.
- (C) (1) Sorghum (2) Pea (3) Onion
(4) root (5) Receptacle (6) Carpel

- (D) (1) leaf margin (2) Corolla (3) compound leaves
(4) pollen grains (5) dicotyledonous.

- (E) (1) - c, (2) - e, (3) - a, (4) - b

- Q.2.** (A) (1) The part of the plant growing below the soil for support is called root.
(2) Roots of plants that produce secondary roots which grow obliquely and spread far and wide in the soil are called tap roots.
(3) Arrangement of veins in a leaf to form a network of veins is called reticulate venation.

OR

Secondary veins arise from the mid-vein in a leaf. They are branched and form a network. Such an arrangement of veins is called reticulate venation.

- (4) When veins are parallel, running from the leaf-base to the leaf apex, such type of arrangement of veins is called parallel venation.
(5) Transfer of pollen grains from the anther to the stigma is called pollination.
(6) Thread-like or fibre-like roots arising from the stem that do not grow deep into the soil are called fibrous roots.
- (B) **Monocotyledonous seeds** : maize (corn), sorghum (jowar)
Dicotyledonous seeds : pea, coriander, mustard
- (C) (a) Pineapple, jackfruit, spiny gourd
(b) Rose, cactus, bougainvillea
(c) Rose, bougainvillea, hibiscus
(d) Sunflower, marigold, tulip
(e) Mimosa plant, Prayer plant, Tamarind tree
(f) Cashew nut, peach, mango

- (g) Jackfruit, pomegranate, custard apple
- (h) Morning glory, lotus, poppy
- (i) Pineapple, aloe, holy tree.

- Q.3.** (A) (1) The parts of a seed are cotyledons, plumule and radicle.
- (2) A cap-like structure that covers the tip of a root is called the root cap. The root-cap protects the root-tip from injuries.
- (3) Fibrous roots are short, thread like roots that grow under the soil very close to its surface and also they do not have branches. If plants like tamarind, banyan and mango had fibrous roots, the plants would not have got enough support, they would have fallen and would not have grown well. These plants have hard, strong and thick stems with many branches which spread out in many directions.
- (4) The roots grow from the root tip. If the root tip is injured, the roots will not grow and plants may not grow well or may die.
- (5) Fenugreek and spinach have tap roots whereas onion plants has fibrous root.
- (6) Underground parts of plants like radish, carrot, beet and sweet potato are thick, fleshy and swollen as they store food in them. They are the roots of the plants, modified to perform the function of storing food.
- (7) Insects flitting about around the flowers of plants help in pollination which further leads to fertilization and formation of fruits. Fruits contain seeds and seeds grow into new plants.

- (B) (1) (a) Banyan tree has a wide, dome shaped crown and its branches spread on all sides.
- (b) From the trunk and branches of a banyan tree, aerial roots emerge and they grow towards the ground. These roots are called prop-roots.
- (c) When these roots enter the soil, they become like columns and start supporting the spread out branches.
- (d) So a banyan tree is supported by many of prop-roots.
- (2) (a) Plants like maize, sugarcane, sorghum have fibrous roots which are short, thread like and which do not grow deep into the soil.
- (b) Along with fibrous roots, these plants have roots which grow above the ground from the stem. They are called stilt roots.
- (c) These stilt roots give additional support to the stems of the plants and help them to stand erect.
- (d) Hence plants like maize, sugarcane, sorghum have two types of roots.

(3) (1) Tap root and Fibrous root.

	Tap root		Fibrous root
(1)	Roots of plants that produce secondary roots which grow obliquely and spread far and wide in the soil are called tap roots.	(1)	Thread-like or fibre-like roots arising from the stem are called fibrous roots.
(2)	They grow deep into the soil.	(2)	They grow under the earth close to its surface and not deep into the soil.
(3)	Dicotyledonous plants have tap roots.	(3)	Monocotyledonous plants have fibrous roots.

(2) **Simple leaves and Compound leaves.**

	Simple leaves		Compound leaves
(1)	Leaves of plants which have single undivided leaf-blade with a single mid-rib are called simple leaves.	(1)	Leaf-blades of leaves of certain plants are divided into many small parts. Such leaves are called compound leaves.
(2)	Plants such as mango, guava have simple leaves.	(2)	Plants such as neem, rose have compound leaves.

Q.4. (A) (1) The flower is the reproductive part of a plant and it is the most colourful part of the plant.

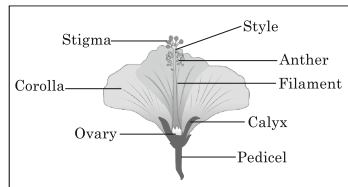
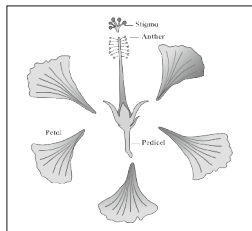
The flower is attached to the stem with the help of stalk called pedicel. There are four main parts of the flower. They are calyx, corolla, androecium and gynoecium which are supported on the expanded and swollen end of the stalk called the receptacle.

Calyx is the outermost part of the flower, which is made up of sepals. It is green in colour and protects the flower when it is in bud state.

Corolla is made up of petals. They are colourful and have fragrance.

Androecium is the male reproductive part of the flower. It consists of stamen and each stamen is made up of anther and filament.

Gynoecium is the female reproductive part of the flower. It is made up of carpel and carpel consists of stigma, style and ovary.



(2) (i) **Root :** The main functions of roots are anchoring the plant to the ground and supporting it, absorption of water and minerals from the ground.

Some roots are modified to perform additional functions like storage of food as in case of radish and beetroot.

(ii) **Stem :** The main function of stem is to provide support to the plant by holding leaves, flowers and buds. It also transports water and minerals absorbed by the roots and supplies food from the leaves to other parts of the plant. Stems of certain plants are modified to perform additional functions like storage of food as in the case of potatoes and photosynthesis as in case of cactus. Plants with weak stems have tendrils to help them to climb upon a support and grow well.

(iii) **Leaves :** Leaves help the plant to prepare their own food with the help of the chlorophyll in them. Some leaves are modified to perform the function of storage of food as in case of Aloe leaf. Tendrils of pea plant help the plant to get additional support.

(iv) **Flower :** Flower is the reproductive part of the plant. The main function of flower is to attract insects for pollination, which leads to fertilization and formation of seeds.

(v) **Fruit :** Fruit bears seeds and seeds grow into a new plant.

(3) (i) The stem grows above the soil from the plumule of the sprouting seeds.

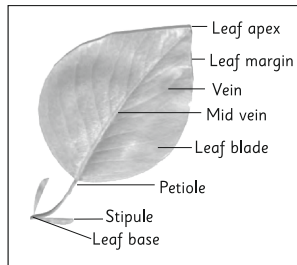
(ii) The part of the stem from where the leaves grow is called the node.

- (iii) The part of the stem between two nodes is called an internode.
- (iv) The tip of the apical end of the stem is called a bud.
- (4) (a) **Similarities** : (i) Both the plants bear flowers and their seeds are edible.
(ii) They do not grow very tall.
Differences : Jowar has monocotyledonous seeds and fibrous roots whereas moong contains dicotyledonous seeds and tap roots.
- (b) **Similarities** : Both onion and coriander are flowering plants.
Differences : (i) Onion is a monocot whereas coriander is a dicot.
(ii) The roots of onion are fibrous and those of coriander are tap roots.
- (c) **Similarities** : Leaves of both the plants have single undivided leaf blade and a single mid-rib, so they are simple leaves. Their leaf margin is entire.
Differences : Leaves of banana are very big with very thick mid-rib and show parallel venation. Whereas leaves of mango are comparatively very small with thin mid-rib and their leaf-blade has reticulate venation.
- (d) **Similarities** : Both plants are monocots, they have fibrous roots and the leaves have parallel venation.
Differences : Coconut trees grow very tall and have thick and woody stems whereas jowar stalk plants are short plants with thin and soft stems.

- (5) (i) **Leaves with smooth surface** : Mango is a plant which has leaves with smooth surface. The stem of mango is thick and woody, it has tap roots. It bears flowers and its fruits contain only one seed. The seeds of mango have two cotyledons, so it has dicotyledonous seeds. Leaf margin of mango is entire and the leaves are simple leaves.
- (ii) **Leaves with rough surface** : Coconut tree has leaves with rough surface. It has long compound leaves with parallel venation. The coconut tree has thick and woody stem. It has fibrous roots, it also has adventitious roots to give additional support to the plant.
- (iii) **Fleshy leaf** : Aloe is a plant with fleshy leaf. These leaves are thick, fleshy and juicy as they can store water. There are spines on the margin of these leaves. Aloe grows in desert regions where there is scarcity of water and it has fibrous root system.
- (iv) **Spines on stem** : Cactus is a plant which has spines on its stem. It is a desert plant, which is found in places where there is scarcity of water. Leaves of cactus plant are reduced to thorns to prevent loss of water by evaporation. Its stem is green and fleshy to perform photosynthesis and store food and water. They have tap root system which can penetrate deep into the soil in search of water.
- (v) **Spines on leaf** : Pineapple plant has spines on its leaves. It is a fruit-bearing plant that grows in tropical regions. The leaves of pineapple plant are

succulent, that is they can store water. The leaves are closely spaced in rosette on a thick fleshy stem. It is a monocot having fibrous root system.

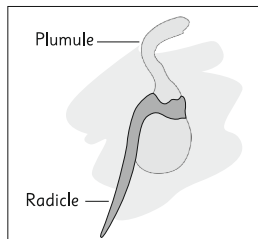
(B) (1)



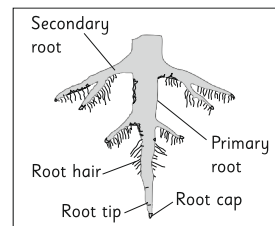
Leaves grow from the nodes on a stem and they are generally thin, flat and green in colour.

- (2) The broad, spread-out part of the leaf is called the leaf-blade or lamina.
- (3) The edge of the leaf is called the leaf-margin. Leaf margins are of different types, like entire, dentate or lobe. The tip of the leaf is called the leaf apex which may be tapering, pointed or rounded.
- (4) The stalk by which the leaf is attached to the stem is called petiole. Some leaves may or may not have a stalk.

(C) (1)



(2)



Q.5. (1)

Sr. No.	Name of plant	Type of leaf	Shape of leaf-blade	Venation	Shape of leaf margin	Shape of leaf apex	Petiole Yes/No	Stipule Yes/No	Arrangement on stem
(1)	Maize	Simple	Linear	Parallel	Entire	Tapering	No	No	Alternate
(2)	Canna	Simple	Oblong	Parallel	Entire	Rounded	No	No	Alternate
(3)	Peepal	Simple	Cordate	Reticulate	Entire	Long and tapering	Yes	No	Alternate
(4)	Neem	Compound	Falcate	Reticulate	Dentate/Serrate	Short and tapering	Yes	No	Opposite

(2)

Name of flower	No of sepals	Sepals free/united	No of petals	Petals free/united	Form of Androecium and Gynoecium
Hibiscus (China rose)	5	united	5	free but slightly united at the base.	Androecium and gynoecium appear to be fused stamen-numerous, united into bundle. Carpel-5, fused and passes through staminal tube. Stigma is free and ovaries and style are united.
Periwinkle	5	free	5	free	Androecium and gynoecium are separate. Stamen-5 present within the corolla and are fused. Carpel-2, with two free ovaries but one style and one stigma.

(3)

r	b	u	d	x	s	r	f
o	w	p	y	e	t	a	l
o	l	l	d	n	e	d	o
t	a	o	l	l	m	i	w
c	n	e	t	a	l	c	e
a	v	o	v	u	m	l	r
p	e	t	a	l	s	e	o
r	o	o	t	h	a	i	r

Topic 3 : Properties of Natural Resources

- Q.1. (A) (1) temperature (2) shape; volume; mass
(3) density (4) neutral

- (B) (1) Density of water is greater than ice.
 (2) Silts soil contains large proportion of organic material.
 (3) The proportion of small particles is maximum in clay soil.
 (4) To determine the pH of soil, a mixture of water and soil is taken in 1:2 proportion.
 (5) Peanut crop is cultivated to restore the fertility of the soil.

- (C) (1) 1,01,400 (2) barometer (3) difference
 (4) high (5) density (6) increases
 (7) 1 (8) density (9) maximum
 (10) 4 °C (11) solvent (12) classification
 (13) texture (14) sandy (15) sedimentary
 (16) fertility (17) plasticity (18) 5th December
 (19) solute (20) Multani

- (D) (1) (i) - b, (ii) - a, (iii) - c
 (2) (i) - c, (ii) - d, (iii) - b, (iv) - a

- (E) (1) True (2) False (3) True (4) True
 (5) False (6) False (7) True

- (F) (1) fluidity (2) Terracotta soil
 (3) China clay (4) silt soil

Q.2. (1) Air contains oxygen, carbon dioxide, nitrogen, water vapour and some inert gases. Air is a homogeneous mixture because the gases present in it are in a definite proportion by volume.

- (2) The inert gases present in air are argon, helium and neon.

- (3) The properties of air are :
 (i) Air has mass and weight.
 (ii) Air occupies space.
 (iii) Air has volume.
- (4) No, there is no atmospheric pressure on the moon as there is no air on the moon.
- (5) If the temperature over an area increases, the air over that region will expand, become lighter and rise up. So the pressure of air at that region will decrease.
- (6) When an uncorked empty bottle is dipped into the water in slanting position, the air is seen escaping from the bottle in the form of air bubbles and also there is increase in the level of water in the bottle as the air escapes from the bottle.
- (7) When air is filled into a balloon, its shape changes and its size increases. It shows that air occupies space, has certain volume and also has mass and weight.
- (8) The density of ice is less than water, so ice floats on water.
- (9) The formula for density is $\text{Density} = \frac{\text{Mass}}{\text{Volume}}$ Its unit is gm/cc or kg/lit.
- (10) Sea water contains a large amount of salts dissolved in it. Due to the dissolved salts in sea water, its density is more than that of rain water.
- (11) Clay soil has the greatest proportion of small particles. This soil is sticky when wet, as it has high water holding capacity but very hard and cloddy when dry. Therefore it is difficult to plough clay soil.
- (12) Sandy soil has a greater proportion of large particles, that is sand and gravel. Sandy soil has the least

capacity to hold water, so its particles do not stick together. Hence it is easy to plough sandy soil. Silt soil has a medium capacity of holding water compared to sandy and clay soils.

(14) Silt soil is suitable for cultivation. The particles of silt soil are of medium size. This soil contains a large proportion of organic materials and also its capacity to supply nutrients is much greater, so the plants grow well in this soil. Hence silt soil is suitable for cultivation.

(15) The advantages of good soil structure are that the roots get sufficient supply of oxygen. Water drainage becomes good and the roots of plants grow well.

(16) Air contains very fine particles of some gases, dust, smoke and moisture. When a ray of light falls on these minute particles, the particles deflect the light in different directions and thus scatter the light.

- Q.3.** (1) (i) Air is a mixture of various gases like oxygen, carbon dioxide, nitrogen and inert gases.
(ii) These gases are uniformly mixed throughout the air.
(iii) Also the properties and the composition of air is the same throughout, so air is said to be a homogeneous mixture of various gases.
- (2) (i) Many substances dissolve in water without chemically reacting.
(ii) Since water dissolves many substances it is called universal solvent.
- (3) (i) Water is colourless, odourless, tasteless, and liquid at normal temperature.
(ii) Many substances dissolve in water.

(iii) For example, soap dissolve easily in water, so it helps to remove dirt from the surface. Hence it is said that there is no alternative to water for cleaning purposes.

Q.4. (1) Given

Mass (m) = 1 kg, volume (v) = 1 lit Density D = ?

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$

$$\begin{aligned}\text{Density (D)} &= \frac{1\text{kg}}{1\text{lit}} \\ &= 1 \text{ kg/lit}\end{aligned}$$

The density of water will be 1kg/lit or 1 kg/m³.

(2) Given

Mass (m) = 6 gm, volume (v) = 3 cc, Density D = ?

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$

$$\begin{aligned}\text{Density (D)} &= \frac{6\text{gm}}{3\text{cc}} \\ &= 2 \text{ gm/cc.}\end{aligned}$$

The density of the object is 2 gm/cc.

The object will sink in water as its density is more than that of water.

Q.5. (A) (1) **Atmospheric pressure** : When the molecules of the gases in the air, which are in constant motion, strike a body, they exert pressure on that body.

(2) **Scattering of light** : When rays of light fall on the very fine particles of the air, the particles spread the light in all directions. This natural phenomenon is called scattering of light.

- (3) **Density** : Density is the ratio of mass to the volume of a substance.
- (4) **Solute** : A substance that dissolves in the solvent is called a solute.
- (5) **Solvent** : A substance in which the solute dissolves is called the solvent.
- (6) **Volume** : The space occupied by a substance is called its volume.
- (7) **Mass** : The amount of matter contained in a substance is called its mass.
- (8) **Anomalous behaviour of water** : When water is cooled below 4°C, it expands instead of contracting. So its volume increases and density decreases. This exceptional behaviour of water is called the anomalous behaviour of water.

Q.5. (B)

Sr. No.	Types of soil	Colour	Uses
(1)	China clay (Kaolin)	White	To make crockery, bathroom tiles, tanks, laboratory apparatus.
(2)	Shadu soil	Whitish	To make statues and idols.
(3)	Terracotta soil	Red	Decorative articles and pots for growing plants.
(4)	Multani soil	Brownish	Cosmetics

Q.6. (A) (1)

	Sandy soil		Clayey soil
(i)	The proportion of sand i.e. large particles is high in sandy soil.	(i)	The proportion of small particles is maximum in clayey soil.

(ii)	It has very less capacity to hold water, as water drains rapidly through it.	(ii)	It has very high capacity to hold water, as water does not drain easily through it.
(iii)	It is easy to plough sandy soil.	(iii)	It is difficult to plough clayey soil.

(2)

	Silt soil		Clayey soil
(i)	The particles of silt soil are of medium size.	(i)	Clayey soil has a great proportion of small particles.
(ii)	It has medium capacity to hold water.	(ii)	It has the greatest capacity to hold water.
(iii)	It is much more ploughable than clayey soil.	(iii)	It is difficult to plough clayey soil

- (B) (1) (i) Air has certain capacity to hold water vapour.
- (ii) This capacity of air to hold water vapour depends upon the temperature.
- (iii) During the night when the temperature of air is low, its capacity to hold water vapour becomes less.
- (iv) At such time, the excess vapour condenses to form water droplets on the surfaces of leaves and dew is formed.
- (v) Hence, we find dew drops in the early morning.
- (2) (i) In cold countries as the temperature of the surroundings goes down, the temperature of water in the rivers or lakes also decreases.
- (ii) When the temperature of water decreases below 4°C, water expands instead of contracting and its

density decreases. This is due to anomalous behaviour of water.

- (iii) At 0°C water freezes to form a layer of ice at the surface of water, since the density of ice is less than that of water.
- (iv) The water below this layer of ice remains at 4°C and hence in cold countries aquatic animals continue to survive even after the rivers or lakes freeze in winter.

- (C) (1) (i) Air contains water vapour and the level of humidity of the air is determined by its capacity to hold water vapour.
- (ii) If the amount of water vapour in the air increases, the humidity of the atmosphere will increase and we will feel dampness.
- (2) (i) Soil contains organic and inorganic ingredients in certain amounts, which help plants to grow well in the soil.
- (ii) If only one crop is grown repeatedly, it will utilize all the ingredients of the soil for its growth and the fertility of the soil will decrease.
- (3) (i) Due to anomalous behaviour of water, as water freezes to form ice, it expands and its volume increases.
- (ii) As water expands while freezing, it will exert pressure on the walls of the completely filled glass bottle and the bottle will break.

Q.7. (A) (1) (i) Plant conservation : Soil contains various organic and inorganic ingredients, which supply nutrients to the plants and help plants to grow.

- (ii) Water conservation : Soil has capacity to hold water. As a result, water becomes available to us throughout the year from deep ponds, lakes, bunds.

- (iii) Plasticity : Soil has the property of plasticity i.e. it can be given any desired shape. Due to this property, soil is used to make articles of different shapes. These articles can be baked to make them hard. For example, articles like water storage earthen pots, earthen lamps, idols, bricks etc. are made from soil.

- (2) (i) Sound needs material medium for its transmission.
- (ii) Air is a medium through which sound can travel.
 - (iii) All the sound that we hear, reaches us through the surrounding air.
 - (iv) Since there is no air in space, sound cannot be heard in space.
 - (v) Air is a medium that is necessary for the transmission of sound, so that it can be heard.
- (3) (i) The proportion of the various ingredients of soil can be determined by soil testing.
- (ii) The colour, texture, and the organic matter of the soil are determined during soil testing.
 - (iii) Soil testing can help a farmer to find out if there is any deficiency of any ingredients in the soil and take necessary steps to remove the deficiency, so that he gets a good harvest.
 - (iv) Soil testing can also help a farmer to find which type of crop will grow well in a particular kind of soil.

(B) (1) Generally when the temperature of substances is lowered, their density increases, as their volume decreases. But water shows an exceptional behaviour. When the water at normal temperature is cooled, its volume decreases and its density increases like most of the other liquids, but as the temperature falls below 4°C the volume of water increases and its density decreases. The density of water is maximum at 4°C. So water expands when the temperature falls below 4°C. This exceptional behaviour of water is called anomalous behaviour of water. Due to anomalous behaviour of water, aquatic animals in cold countries are able to survive even after the rivers or lakes freeze in winter.

Q.8. Water is a fluid substance, so it can seep through the cracks in rocks and get collected there, as shown in picture a. According to picture b, when the temperature of the surroundings goes down, water freezes and turns into ice at 0°C. When the temperature goes below 4°C, water starts expanding and as it freezes it exerts tremendous pressure on the walls of rocks due to anomalous behaviour of water and the rocks crack.

Topic 4 : Nutrition in Living Organisms

- Q.1.** (A) (1) chemical (2) stomata (3) chlorophyll (4) Oxygen
 (5) Carbohydrate (6) Protein (7) rhizobium
 (8) Azotobacter (9) Lichen (10) ectoparasites
- (B) (1) Vitaminis a micro-nutrient.
 (2) Oxygen is not necessary for photosynthesis.
 (3) Loranthus is a partially parasitic plant.
 (4) Mushroom and yeast are saprophytic plants.

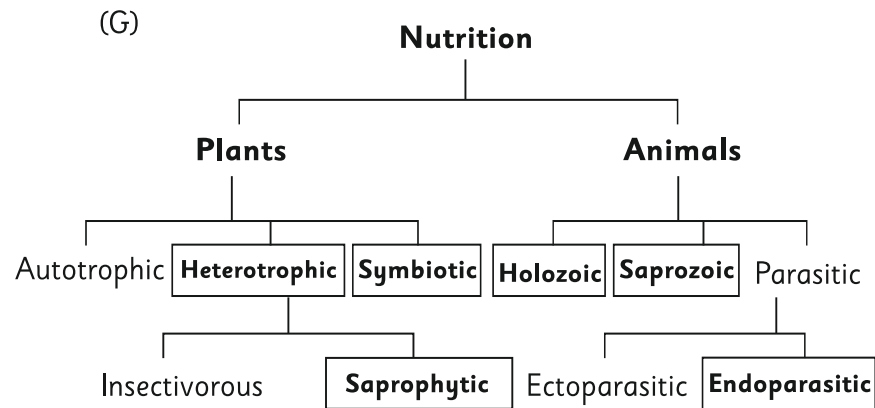
- (5) Mushrooms are rich in iron and vitamins.
 (6) The function of the zinc in plants is production of hormones and their intermediates.
- (C) (1) Micronutrients (2) Phloem
 (3) Biological fixation of nitrogen
 (4) Cuscuta (5) Saprophytic plant
- (D) (1) oxygen (2) vitamins (3) proteins
 (4) nutrition (5) lion (6) deer
- (E) (1)

Herbivores	Carnivores	Omnivores	Scavengers	Decomposers	Parasites
cow	tiger	human	vulture	bacteria	tick
deer	lion	sparrow	cockroach	fungus	
goat	frog				

(2) **Endoparasites** : tapeworm, hookeworm, roundworm

Ectoparasites : louse, bed bug, leech, tick

- (F) (1) Johannes Burman (2) Glucose (carbohydrate)
 (3) Chloroplast (4) Cuscuta or Dodder
 (5) Magnesium and iron (6) Snail
 (7) Pseudopodia (8) Bobcat or udmanjar



(H) (i) - d, (ii) - c, (iii) - a, (iv) - b

- Q.2.** (1) **Autotrophic nutrition** : Mode of nutrition in which organisms produce their own food and nourish themselves, is called autotrophic nutrition.
- (2) **Heterotrophic nutrition** : Mode of nutrition in which organisms depend on other organisms like plants or animals for their food is called heterotrophic nutrition.
- (3) **Photosynthesis** : The process in which green plants, with the help of sunlight and chlorophyll make their own food in their leaves, using water and nutrients from the soil and carbon dioxide from air is called photosynthesis.
- (4) **Symbiotic nutrition** : The type of nutrition in which two or more than two different types of plants live together to fulfil their needs of nutrition, protection, support etc., with each other's help is called symbiotic nutrition.

- (5) **Saprophytic plants** : Plants which obtain their food from dead and decaying bodies of other organisms are called saprophytic plants
- (6) **Nutrition** : The process of taking in and using food, which takes place in living organisms is called nutrition.
- (7) **Foodstuffs** : Substances which are digested and assimilated for obtaining energy and for the growth and health of our body are called foodstuffs.
- (8) **Herbivores** : Animals that depend on plants directly for their food are called herbivores.
- (9) **Carnivores** : Animals that depend on other animals for food are called carnivores.
- (10) **Omnivores** : Animals that obtain their food from both plants and animals are called omnivores.
- (11) **Scavengers** : Animals that obtain their food from dead bodies of animals are called scavengers.

- Q.3.** (1) Living organisms need nutrition for the following:
- To supply the energy required for doing work.
 - Growth and development of the body.
 - To replace the damaged cells and repair tissues.
 - To fight diseases.
- (2) (i) Plants absorb water, minerals and salts from soil through their roots.
- (ii) The stem transports the absorbed materials to the leaves.

- (iii) The leaves take in carbon dioxide from the air through stomata, which are microscopic openings on their surface.
 - (iv) The chloroplast present in the leaves contains chlorophyll, absorbs sunlight and helps in converting carbon dioxide and water into food. Oxygen is given out during this process.
 - (v) So, green plants convert light energy into chemical energy and store it in the form of food (glucose). The process by which plants prepare their own food is called photosynthesis.
- (3)
- (i) Gaseous excretory materials, which are removed from plants by the process of diffusion.
 - (ii) In the vacuoles of the leaves, flowers, fruits and barks, some excretory material is stored.
 - (iii) Some waste products are stored as resins and gums in old xylem.
 - (iv) Some plants secrete waste in the form of raphides, which are calcium oxalate. Rubber latex, essential oil are also waste materials in plants.
 - (v) Plants get rid of these waste materials by shedding of leaves, flowers, fruits and barks in specific season as they do not have a separate excretory system.

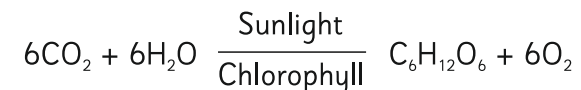
- Q.4.** (1)
- (i) Insectivorous plants generally grow in soil or water deficient in nitrogen compounds.
 - (ii) They do not get enough nitrogen, so they fulfil their nitrogen requirement by capturing and digesting the insects, that is, they feed on insects.

- (iii) In order to attract the insects, insectivorous plants are attractively coloured.
- (2)
- (i) Different organisms feed on different types of food.
 - (ii) Depending upon what they eat, organisms have specific types of mouth parts to ingest their food.
 - (iii) Butterflies suck nectar from flowers for their nutrition, so they have long tube-like proboscis.

- Q.5.** (1) When all the nutrients that the body needs are not obtained in the proper proportions in the diet, it is called malnutrition.

- (2) Malnutrition can be prevented by eating a healthy, balanced diet. A diet which will include plenty of fruits, vegetables, cereals, pulses etc.

- (3) Chemical reaction of photosynthesis :



carbon dioxide + water → glucose + oxygen

- (4) The leaves of the Ioranthus plant carry out photosynthesis.
- (5) Amoeba, euglena, paramoecium.
- (6) The plants that grow on the body of other plants to obtain food are called parasitic plants. Parasitic plants are of two types : Completely parasitic plants e.g., Ioranthus and Partially parasitic plants e.g., cuscuta.

- Q.6.** (1) (i) Even though we prepare a variety of foodstuffs and dishes at home, we are not autotrophic organisms.
- (ii) Autotrophic organisms directly convert light energy into chemical energy and store it in the form of food by a process called photosynthesis. As we cannot prepare food as plants do, we are not autotrophic organisms.
- (2) (i) Autotrophs are greater in number than heterotrophs.
- (ii) All autotrophs can prepare their own food and can grow well under favourable conditions.
- (iii) Whereas all the heterotrophs depend directly or indirectly on autotrophs for their food and if number of autotrophs goes down, it will definitely affect the heterotrophs.
- (iv) Hence, autotrophs are greater in number.
- (3) (i) Ectoparasites live on the body surface of other animals whereas endoparasites live inside the body of other animals, obtain nutrients and deprive the host of those nutrients.
- (ii) So the parasites cause diseases, loss of blood, itching on skin, wounds in the animals on which they live.
- (4) (i) Heterotrophs are organisms which depend on other organisms for their food.
- (ii) They depend directly or indirectly on plants (autotrophs).

- (iii) Due to extreme temperature and scarcity of water, very few plants grow in desert regions.
- (iv) Whereas sea has large vegetation i.e. a variety of aquatic plants which are a source of food for many heterotrophs.
- (v) So the number of heterotrophs found in desert region is smaller than those found in the sea.
- (5) (i) Plants can prepare their own food only in the presence of chlorophyll, a green coloured pigment.
- (ii) Since parts of the plant which are not green in colour generally do not contain chlorophyll, plant food is not produced in any other part of the plant except the green ones.

Topic 5 : Food Safety

- Q.1.** (A) (1) quantitative (2) qualitative (3) World Food Day
 (4) food protection
 (5) Food Safety and Standardization Authority of India
 (6) aluminium phosphide (13) brick dust
 (14) calcium carbide (15) urea
- (B) (1) dehydration (2) pasteurization (3) natural
 (4) chemical (5) nitrogen gas
- (C) (1) salt (2) turmeric powder (3) almond (4) storing
 (5) beans (6) nutrient (7) vinegar (8) rava

(D) (1)

Sr. No.	Food/ Source	Nutrients obtained	Functions in body
(1)	Jowar, wheat, millet (bajra), rice	carbohydrates	provide energy to the body
(2)	Beans and pulses	proteins	help in growth, repairing wear and tear of the body
(3)	Fruits and vegetables	minerals, vitamins, fibres	minerals and vitamins improve the body's resistance to diseases and fibres are effective in regulating the process of digestion and prevent constipation.

(2)

Sr. No.	Foodstuff	Adulterant
(1)	Turmeric powder	Metanyl yellow
(2)	Black pepper	Papaya seeds
(3)	Rava	Iron filings
(4)	Honey	Sugar syrup

- Q.2.** (A) (1) **Food protection** : Prevention of food spoilage by microbial growth and infestation by pests is called food protection.
- (2) **Food preservation** : Use of various preservatives to prevent, for a long period of time, food spoilage due to internal factors is called food preservation,
- (3) **Pasteurization** : The method of food preservation in which foodstuffs like milk are heated up to a certain temperature and then

cooled instantly, to destroy the microbes present in them and keep them safe for a longer time is called pasteurization.

- (B) (1) (i) Low temperature retards the growth of food spoiling micro-organisms like bacteria and fungi present in the food materials.
- (ii) Low temperature also prevents the action of food-spoiling enzymes present in the food material.
- (iii) Since the biological and chemical reactions in food materials are slowed down at low temperature, food remains in good condition for a longer duration.
- (iv) Hence food remains safe at 5° Celsius.
- (2) (i) As a result of the custom of offering and serving too much food to guests at functions, a large amount of food gets wasted.
- (ii) In a buffet style, people generally tend to serve themselves only as much as they can eat, and this prevents wastage of food.
- (iii) Thus in order to avoid wastage of food, nowadays food is served buffet style during large gatherings.
- (3) (i) When potatoes and onions are treated with gamma rays, it prevents sprouting or sprouting is slowed down.
- (ii) This increases the shelf life of potatoes and onions and prevents wastage.
- (iii) Hence, potatoes and onions are treated with gamma rays.

- (4) (i) Salt, sugar, oil are natural preservatives.
- (ii) As jams and pickles are used over a long period of time, addition of salt, sugar and oil in large proportions prevents the growth of micro organisms in them and prevents their spoilage.
- (iii) This in turn prevents wastage of food.
- (5) (i) Food can be adulterated very easily, by removing important components or mixing food with cheaper low quality material.
- (ii) Adulteration affects the health of all people, young or old, rich or poor.
- (iii) Some adulterants cause abdominal discomfort or poisoning, while some may affect the functioning of some organs or even cause cancer if such food is consumed over a long period of time.
- (iv) Hence, each one of us must be alert when we buy food.

- Q.3.** (A) (1) We should avoid buying sweetmeats from such places, as uncovered food gets contaminated with disease-causing germs due to flies sitting on them. We can also bring it to the notice of the concerned authorities, so that such practices can be stopped and help in preventing spread of diseases.
- (2) We should insist the 'pani puriwalla' to serve hygienically. Better avoid eating from such places. We can also bring it to the notice of the concerned authorities, so that necessary action can be taken against such people. As, when food is served in an unhygienic manner, it causes various diseases.

- (3) Fruits and vegetables are perishable items as their shelf life is very short. If you have purchased them in large quantities, then they should be properly stored, by keeping them in refrigerator or certain food items like pickles, sauces etc., can be made from them. You can also give them to some needy people instead of spoiling and throwing them away.
 - (4) In order to protect foodstuffs from pests like rats, cockroaches, wall lizards, neem leaves or pesticides can be used, which will keep them away.
- (B) (1) There are various reasons for the qualitative wastage of food. Wrong methods of farming like hand-sowing of seeds, inadequate threshing, improper storage and wrong methods of distribution of foodstuffs. Food also gets wasted when too much is served to the guests at traditional feasts. Wastage of food can be prevented by adopting modern farming techniques like using machines to sow seeds, for threshing, better storage facilities and proper methods of distribution of foodstuffs. Wastage of food at large gatherings can be avoided if buffet style is used, as people will tend to serve themselves as much as they can eat.
- (2) The cooked rice remains underdone when rice is not cooked in the right way, like when rice is cooked with less quantity of water or time than required. Instead of throwing the rice, add hot water to it and cook the rice for some more time till it is done.

- (3) This happens if the wheat was not dried properly after harvest to remove the moisture content or was not stored properly. We should first sun-dry the wheat properly to remove the moisture content in it, then it should be stored properly or grinded to make flour, otherwise it will get infested by insects and will get spoiled.
- (4) Yoghurt tastes too sour or slightly bitter when it is kept for a longer time than its shelf life or if it is made from milk that had not been boiled and cooled. The micro-organisms present in the yoghurt bring about an undesirable change like the decomposition of fat present in the milk into butyric acid, which turns the yoghurt too sour or bitter. We should not consume such yoghurt.
- (5) Cut fruits turn black due to oxidation reaction. We should not cut fruits and keep them for a long time, they should be consumed as soon as they are cut. This will prevent fruits from turning black and will help to retain their nutritive value.
- (C) In 1954, Parliament passed the 'Prevention of Food Adulteration Act'. It has been amended from time to time and the amendment of 1976 provides for 'life imprisonment' for the person involved in adulterating food with a harmful substance. There are clear directions that food should be properly stored, packing material should not endanger the food or medicines and there should be clear and legible information on it about the manufacturing date, expiry date and instructions for storage.

- Q.4.** (A) (1) (i) Milk is pasteurized by heating it to a temperature of 80°C for 15 minutes and then cooling it quickly.
- (ii) This destroys the microbes present in the milk and keeps it safe for a longer duration of time.
- (2) (i) Food is adulterated by either removing some important component of food or by mixing low quality, inedible or cheaper materials to it.
- (ii) By consuming adulterated food materials, the health of all people, young and old, poor or rich is endangered.
- (iii) Different types of adulterates affect our health in different ways.
- (iv) Certain adulterants cause abdominal discomfort or poisoning, while some may affect the functioning of some of our organs or may even cause cancer if consumed for a long period of time.
- (3) (i) Foodstuffs like milk are boiled at regular intervals, as boiling kills micro-organisms and milk does not get spoiled.
- (ii) Cooked food, if it has to be kept safe for a long time, is kept in the refrigerator as a low temperature prevents the growth of micro organisms in the foodstuffs.
- (iii) Foodgrains like rice, wheat, pulses are dried well and then stored in air tight containers. Drying reduces the water content in the grains and they do not get infested easily by insects. Sometimes neem leaves are also used.

- (iv) While preparing jams, murabbas or sauces, right proportion of sugar, salt or even vinegar is added, as these substances are preservatives and keep the food safe for a very long duration.
- (4) (i) Food spoilage occurs when various kinds of changes occur in food materials like change in its colour, odour, texture, quality, taste or when there is a loss of its nutrient content.
- (ii) For example, fruits turn black or change taste, meat becomes sour or peanuts become rancid.
- (iii) Various factors that causes spoilage of food stuffs are as follows:
- Improper handling, as when they are overcooked or washed after cutting.
 - Improperly stored, that is when they are stored in a damp place, they get contaminated by micro-organisms or insects. Some foodstuffs like meat and milk get spoiled either by turning acidic or alkaline due to chemical reactions on contact with metals.
 - Improper transportation, that is, when the foodstuffs are not packed properly, mishandled, or there is miscalculation of time to transport foodstuffs from production place to the consumer causes spoilage of food.
- (5) (To be done by students). Refer textbook page 37.

- (6) (i) Serving food quantity as much as we can eat and also eat **all** that is served or take as much as you can eat and not more.
- (ii) Avoid overcooking food.
- (iii) Avoid throwing away leftover food. Reuse it in a proper way.
- (iv) Buy only as much grains, vegetables, fruits, milk, etc. as we need. Avoid the temptation to make excessive purchases.
- (v) Storing grains and other perishable foodstuffs like vegetables, fruits, milk etc. using proper methods.
- (vi) Checking the expiry date of bottled, canned, packed food and using it within that time.
- (7) (i) **Freezing** : When the temperature of food is lowered, it slows down the biological and chemical reactions in food materials, as a result food remains in good condition for a longer duration. For example, keeping cooked food, leafy vegetables in refrigerator as the temperature inside is low i.e. at 5°C keeps food safe for longer duration.
- (ii) **Smoking** : Smoking is a process of preserving food by exposing it to smoke. Aluminium phosphide is used in this method.
- (iii) **Use of Insecticides** : Melathion is sprayed on gunny bags containing foodgrains to keep the insects away.

- (iv) **Irradiation** : In this method, food is exposed to ionizing radiations such as high energy electrons emitted by accelerators, X-rays, gamma rays emitted by radioactive isotopes. This process destroys the microbes, insects in the foodstuffs. It also increases the shelf-life of fruits by increasing the ripening period in fruits. In potatoes and onions, sprouting is slowed down which increases their shelf-life.
- (v) **Use of Inert Gas** : Nitrogen gas is filled in airtight packets of potato wafers and other food products thus preventing the growth of fungus and insects in them.
- (vi) **Use of Preservatives** : Use of natural preservatives like salt, sugar, oil and chemical preservatives like acetic acid, citric acid, sodium benzoate and some nitrate and nitrite salts in pickles, jams, murabba, sauces, jellies etc. keeps the food safe for a very long duration.
- (vii) **Pasteurization** : In this method, foodstuffs like milk are heated upto a certain temperature and cooled quickly, e.g. milk is heated to a temperature of 80°C for 15 minutes and cooled quickly. This destroys the microbes present in the milk and keeps the milk safe for a longer duration.

(B)

Food material	Adulterant	Test	Conclusion
Milk	Water	Take a glass slide. Put a drop of milk on it and slightly incline it to spread the drop.	If the spread mark of milk does not appear milky-white, water must have been added to it.
	Starch	Take some milk in a test-tube, add few drops of iodine to it.	If milk turns dark blue in colour, milk is adulterated with starch.
Red chilly powder	Brick dust	Take a spoonful of chilly powder in a beaker, add water upto half of the beaker, stir it and leave it undisturbed for a few minutes.	If a red layer is seen settled at the bottom of the beaker it must have been adulterated with brick dust.
Turmeric powder	Metanyl yellow	Take a pinch of turmeric powder in a test-tube, add a small quantity of water to it, shake the mixture and add a few drops of conc. HCl.	The mixture becomes red on addition of conc. HCl and the red colour does not disappear if metanyl yellow is present.
Rava	Fine iron filings	Pass a magnet through the rava.	Iron filings adhere to the magnet if rava is adulterated with iron filings.

History : Part 1

Unit - I

Topic 1 : Sources of History

- Q.1.** (A) (1) Sea fort (2) Arabic-Persian (3) Emperor Akbar
(4) Marathi (5) travelogues (6) Proofs
(7) copper plate (8) Paramanand
(9) Forts (10) Maharashtra
- (B) (1) True (2) False (3) True (4) False
(5) True (6) True (7) False (8) True
(9) False (10) True
- (C) (1) - e, (2) - d, (3) - a, (4) - b, (5) - c
- (D) (1) Unwritten sources (2) Stories
(3) Temples (4) Tarikh
- (E) (1) legend (2) tarikh (3) bakhar
(4) powada (5) inscription (6) monument
- (F) (1) (1) Palaces (2) Queen quarters
(2) (1) Devanagari (2) Modi
(3) (1) Al Biruni (2) Ibn Batuta
(4) (1) Ziauddin Barni (2) Maulana Ahmed
(5) (1) Mahikavatichi Bakhar (2) Sabhasad Bakhar
(6) (1) Robert Arm (2) Grant Duff
(7) (1) Folk songs (2) Powada
(8) (1) Forts (2) Buildings
(9) (1) Biographies (2) Paintings
- Q.2.** (1) **Material Sources** : Material sources means the real or physical things available to us in the study of history. e.g., forts, buildings, monuments, etc.

- (2) **Written Sources** : Written sources means the feelings, emotions or informations are expressed or written on the paper. They are scripts, languages, biographies, etc. We can also gather information about people's life, their food items, festivals, etc.
- (3) **Oral Sources** : Oral resources means spoken resources. Oral sources are passed on from generation to generation e.g. owis, folk songs, legends, etc.

- Q.3.** (1) Monuments include samadhis, graves and veergalas.
(2) Tarikh means sequence of events.
(3) Impartiality and neutrality are the important qualities of the author in the writing of history.
(4) History gives us a chronological and systematic account of past events.
(5) Individuals, society, place and time are the four factors important from the viewpoint of history.
(6) The period from ninth century C.E. till the end of the eighteenth century C.E. is considered to the Medieval period.
(7) The types of forts are hill forts, forest forts, sea forts and forts on the plains.
(8) To make coins, the rulers used gold, silver and copper metals.
(9) A carving on a stone or wall is called "an inscription".
- Q.4.** (1) Sources of history can be classified into material sources, written sources and the oral sources.
(2) Material sources provide insights about that particular period. They give us information about the development of architecture, the economic condition, the quality of art, style of building construction and people's standard of living in that particular period.

- (3) The coins give us information about the rulers, their period, governance, religious ideas, personal details, financial transaction and economic conditions prevailing at that time. It also comes to know how far metallurgy had advanced during that period.
- (4) We understand the correspondence, their policies, administrative systems and the diplomatic relations with others.

- Q.5.** (1) Though history is written once, research on it goes on continuously. New sources and informations came to light through these research. Accordingly history has to be rewritten.
- (2) It is necessary to evaluate sources of history because history is based on authentic evidences and proofs. They must be verified and used judiciously only after critical analysis.

- Q.6.** (1) Stone inscriptions help us to understand features like the languages, script and social life of a period. Stone inscriptions are important and a reliable source of history.
- (2) Oral sources are the folk literature like owis, powadas, folk tales, legends, etc. They are passed on from generation to generation. They are based on the lives of the people of that particular period. So they reveal the various aspects of the people's lives.

Topic 2 : India Before the Times of Shivaji Maharaj

- Q.1.** (A) (1) Bhillam Yadava (2) Pal (3) Prithviraj Chauhan
 (4) Anandpur (5) Gadadharsinha (6) Dahir
 (7) Khanua (8) Aurangzeb
 (9) Durgadas Rathod (10) Guru Gobindsingh's

- (B) (1) Yadavas-Udaysingh (2) Durgavati (3) Sikhs.
 (4) Mewad (5) Arabs (6) Tanjavur
- (C) (1) - d, (2) - a, (3) - b, (4) - c
- (D) (1) Ghur in Afghanistan (2) The Yadava period
 (3) Govind III and Krishna III (4) Durgadas Rathod
 (5) Ahom (6) Akbar (7) Khalsa Dal
 (8) Queen Durgavati (9) Maharana Pratap
 (10) Babur (11) Hasan Gangu (12) Khalsa Dal
- (E) (1) Ghaznis (2) Akbar (3) Sikhs (4) Varidshahi
 (5) Muhammad-bin-Qasim (6) Babur (7) Sultanate
 (8) Shershah
- (F) (1) (b) Harihar and Bukka founded the Vijaynagar Kingdom.
 (c) Krishnadevraya died.
 (a) Disintegration in the Bahamani Kingdom
- (2) (d) Death of Muhammad Ghuri.
 (a) Establishment of the Vijaynagar Kingdom.
 (c) Establishment of the Bahamani Kingdom.
 (b) The Sultanate came to an end.

- (G)
- | | | | |
|-------------------------------------|-----------------------------------|---|-----------------------------------|
| 1336 C.E. | 1347 C.E. | 1509 C.E. | 1526 C.E. |
| Establishment of Vijaynagar Kingdom | Establishment of Bahamani Kingdom | Krishnadevraya ascended the throne | Establishment of the Mughal Power |
- (H) (1) False (2) True (3) False (4) True
 (5) True (6) False (7) False (8) True (9) False

- (I) (1) Qutubuddin Aibak (2) Guerilla technique
 (3) Daulatkhan Lodi (4) at Bidar (5) Vijayanagar
 (6) Hampi (7) Maharana Pratap
 (8) Hazar Ram Mandir and Vitthal Mandir (9) Bukka
- Q.2.** (1) The battle of Talikota was fought between Adilshahi, Nisamshahi, Qutubshahi, Baridshahi on one sides and Vijaynagar on the other side.
 (2) Prithviraj Chauhan was the valiant king of Chauhan dynasty.
 (3) The Rashtrakuta dynasty came to power in Maharashtra.
 (4) Bukka brought the region upto Rameshwar under his control.
 (5) Mahmud Ghazni plundered the rich temples at Mathura, Vrindavan, Kanauj and Somnath.
 (6) Guru Gobindsingh became the tenth Guru of the Sikhs.
 (7) Ahoms established their rule in the valley of the river Brahmaputra.
 (8) Rajaraj I and Rajendra I were the two capable Chola kings.
 (9) Babur was the ruler of Farghana.
 (10) The army of the Delhi Sultan was defeated by Hasan Gangu.
 (11) The capital of the Bahamani Kingdom was Gulburga in Karnataka.
 (12) Maharana Pratap fought for the independence of Mewad.
- Q.3.** (1) During Krishnadevraya's reign, Vijaynagar kingdom extended from Cuttak in the east to Goa in the west

- and from the Raichur Doab in the north to the Indian Ocean in the south.
- (2) The five powers which came into existence with the collapse of the Bahamani kingdom are Imadshahi of Varhad, Baridshahi of Bidar, Adilshahi of Bijapur, Nizamshahi of Ahmadnagar and Qutubshahi of Golconda.
- Q.4.** (1) After the death of Mahmud Gawan factionism increased among the Bahamani Sardars. The provincial governors began to act more independently. Vijaynagar kingdom had an adverse effect on the Bahamani kingdom. This led to the disintegration of the Bahamani kingdom into five fragments (small powers).
 (2) After the battle of Panipat, there was a battle between Babur and Rana Sanga of Mewad at Khanua. Rana Sanga and his army did their best in the battle, but Babur's artillery and reserved force played a key role in the defeat of Rana Sanga's army in the battle.
 (3) Guru Teghbahadur protested against Aurangzeb's policy of religious intolerance, hence he was imprisoned by Aurangzeb.
 (4) Maharana Pratap ascended the throne after the death of king Uday Singh. He continued the struggle for Mewad's existence. He struggled with Akbar till the end to maintain his independence. Due to his qualities of valour, courage, self-respect, sacrifice, etc. Maharana Pratap became immortal in history.
 (5) Akbar was the most powerful king of the Mughal dynasty. When he tried to bring India under his central authority, he had to face opposition from the Rajputs. For example: Maharana Pratap and Rani Durgavati

showed their courage till the end of their lives. They did not surrender. Even while fighting with Babur, Rana Sanga of Mewad brought all the Rajputs together. But he was defeated in the battle of Khanua.

- (6) Guru Gobindsingh was the next Guru after Guru Teghbahadur. He wanted to protect the Sikhs and give a stiff resistance to Aurangzeb's attacks. Therefore he organised the Khalsa Dal.

- Q.5. (1) The Ahoms in Assam fought against the imperialist policy of Aurangzeb. United under the leadership of Gadadharsinha and with Lachit Borphukan as their commander, the Ahoms by using the guerilla tactics fought an intense battle against the Mughals. This made it impossible for the Mughals to strengthen their power in Assam.
- (2) Revolts arose among the formidable Vijaynagar and Bahamani kingdoms. The brothers Harihar and Bukha, from South India were Sardars in the service of the Delhi Sultanate. Taking advantage of the instability in the South during the reign of Muhammad-bin-Tughluque, they founded the kingdom of Vijaynagar in the South. Harihar was the first king of Vijaynagar.
- (3) Mahmud Gawan was a good administrator. He strengthened the Bahamani Kingdom. He started paying soldiers their salaries in cash instead of through land grants. He brought discipline in the army. He also introduced reforms in the land revenue system. He opened a madarasa at Bidar for Arabic and Persian studies.
- (4) There was internal strife among the factions of the Sardars in the Nizamshah's kingdom. This resulted in the murder of Chandbibi.

- (5) During the reign of Aurangzeb, the Mughal empire extended from Kashmir in the North to Ahmadnagar in the South and from Kabul in the West to Bengal in the East. To this Aurangzeb added Assam in the east, the kingdoms of Bijapur and Golconda. Thus, the Mughal empire almost covered the whole of India.

- Q.6. (1) Krishnadevraya :** In 1509 C.E. Krishnadevraya became the ruler of Vijaynagar. He was a scholar and a good administrator. He wrote 'Amuktamalyada', a Telugu compendium on polity. He built the Hazar Ram and Vitthal temples.

He was a brave and valorous king. He conquered Vijaywada and Rajmahendri and annexed the regions to his kingdom. He defeated the combined forces of the Sultans, under the leadership of the Bahamani Sultan, Mahmud Shah. During his reign, the kingdom was at its zenith. He died in 1530 C.E.

- (2) **Chandbibi :** Chandbibi was the daughter of Husain Nizamshah of Ahmadnagar. She acted as the regent of Ahmadnagar. She bravely defended the Ahmadnagar fort from Mughal army. She was murdered due to the internal strife amongst the factions of the Sardars in the Nizamshahi's kingdom.
- (3) **Rani Durgavati :** Rani Durgavati was born in the Rajput Chandel dynasty. She became the queen of Gondvana after her marriage. She was an excellent administrator. Her struggle against the Mughals is important in medieval history. After the death of her husband, she laid down her life while fighting against Akbar. But till the very end of her life she did not surrender.

Topic 3 : Religious Synthesis

- Q.1.** (A) (1) Sanskrit (2) Secularism (3) Ras Khan
(4) Mahanubhav (5) Shiva (6) Ramanuja (7) equally
(8) Basaveshwar (9) Granth Sahib (10) Riddhipur
- (B) (1) Sikhs (2) Guru Nanak
(3) (i) Khwaja Moinuddin Chisti
(ii) Shaikh Nijamuddin Avaliya
(4) Alawars (5) Sant Namdeo and Sant Kabir
(6) Harihar (7) Narsi Mehta
(8) Sant Kabir, Guru Nanak (9) Pamp and Purandardas
- (C) (1) - c, (2) - d. (3) - a, (4) - b
- (D) (1) Rajasthan (2) Bengal
(3) Maharashtra, Assam (4) Karnataka, Gujarat
- (E) (1) True (2) True (3) False (4) True (5) False
(6) True (7) False (8) True (9) True (10) False
- (F) (1) G u r u G r a n t h S a h i b (2) S u r d a s a
(3) G u r u N a n a k (4) M a n m a t h s w a m I
(5) M e e r a b a i (6) R a m a n a n d
(7) K a b i r (8) P a m p

- Q.2.** (1) An important characteristic of the Indian Society is the diversity in its languages and religions.
(2) Naynars and Alawars were the two Bhakti Movements that emerged in South India.
(3) Guru Nanak emphasized chaste behaviour.
(4) Shri Basaveshwar opposed the caste system.
(5) Sant Meerabai's verses give the message of devotion, tolerance and humanity.

- (6) Bhakti Movement preached the values like love of God, humanity, compassion and mercy.
(7) Shankaradeva spread Bhakti Movement in Assam under the influence of Chaitanya Mahaprabhu.
(8) According to Sant Kabir, God is the 'Truth'.

- Q.3.** (1) God was the 'truth' according to Sant Kabir. He opposed the differences based on caste, creed, sect and religion. He did not believe in the places of pilgrimage, vratas or idol worship. He criticized the orthodox Hindus and Muslims. He wanted to bring about Hindu Muslim unity. Hence, Sant Kabir became a renowned sant in the Bhakti movement.
- (2) Sant Basaveshwar spread the Lingayat stream in Karnataka. He opposed the caste system. He stressed on the dignity of labour. 'Kayakave Kailas' is his well-known saying which means 'Work is worship'. He encouraged women to participate in religious discussions. He did not make the difference among the people on the basis of caste, class, creed, men or women. Because of this equality the people participated in religious discussions. This was the impact of Basaveshwar's work on society.

Q.4.

	Movement	Names of the Sants	Work
(1)	Bhakti Movement	Sant Meerabai Sant Narsi Mehta (1st poet in Gujarati) Surdas Ras Khan Sant Tulshidas	Composed verses on Krishnabhakti in Gujarati language. Poetical work -Sursagar. Composed verses on Krishnabhakti Ramcharita Manas Devotion to Rama.

(2)	Mahanubhav Panth	Chakradhar Swami Founder of this sect.	Development of the Marathi language. Many works were composed in Marathi.
(3)	Sikhism	Guru Nanak founder of Sikhism	Adigranth, known as Granth Sahib is a holy book of the Sikhs. Compositions by Sant Namdeo and Kabir are included in Aadigranth.

Q.5. (1) Sant Meerabai stressed the importance of devotion to Krishna. She belonged to the royal family of Mewad. She immersed herself in devotion of Krishna. She composed devotional verses in Rajasthani and Gujarati. Her devotional verses gave the message of devotion, tolerance and humanity. Her compositions are popular even today.

Q.6. (1) The path of Bhakti movement was easy to follow for the common people. It was open to all men and women. Sants expressed their thoughts in the language of the people. The common people found them close to their heart. Thus, the Bhakti movement has contributed greatly to the Indian culture.

Topic 4 : Maharashtra Before the Times of Shivaji Maharaj

Q.1. (A) (1) Africa (2) Pargana (3) Topikar (4) Kasba (5) Watandar (6) famine (7) Peth (8) Mauja (9) Agriculture (10) Varkari (11) Chokhamela (12) Gatha (13) Bhavartha-deepika (14) Marathi (15) Ramdas Swami (16) Granth Sahib

(B) (1) Patil (2) Bhavartha Ramayana
(3) Sant Ramdas Swami (4) Sant Tukaram
(5) Sant Eknath (6) Deshpande (7) Vitthal
(8) Pandharpur (9) Chaphal (10) The Mahajan
(11) Siddis (12) Sant Dnyaneshwar
(13) Dehu near Pune (14) Sant Eknath
(15) Sant Ramdas Swami
(16) Sant Janabai, Sant Kanhopatra, Sant Muktabai
(17) Sants of Warkari Sect

(C) (1) True (2) False (3) False (4) True
(5) True (6) True (7) False

(D) (1) Powada (2) Sant Kabir (3) Granth Sahib
(4) Nagar (5) Siddis (6) Sant Ramabai
(7) Diversity (8) Highest-truth

(E) (1) - c, (2) - d, (3) - a, (4) - b

Q.2. (1) Maharashtra was under the possession of the Nizamshah of Ahmadnagar and the Adilshah of Bijapur.

(2) The Mughals entered the Khandesh region to expand their power in the South.

(3) The Portuguese and the Siddis were the two sea powers on the Konkan coast.

(4) The Portuguese established their rule in Goa and Vasai on the Western coastline.

(5) The Patil used to settle the disputes in the village amicably.

- (6) One's occupation was based on one's hereditary rights.
- (7) The Kulkarni helped the Patil in his work and kept the record of the revenue that was collected.
- (8) Due to blind beliefs and rituals people had become fatalistic and inert.
- (9) Sant Eknath's compositions include abhanga, gavalana, bharud, etc.
- (10) Sant Eknath Stated Bhagwat Dharma in detail and in a simple manner.
- (11) Ramdas Swami propagated the worship of Ram and Hanuman.
- (12) The Sants taught the people to live together in harmony, unity and love.

Q.3.

		A Village Mauja	Kasba	Pargana
(1)	What is means	A village is smaller than Kasba. It was called Mauja.	Kasba was a big village	Many villages together were called Pargana.
(2)	Officers	Chief of the Village (1) Patil (2) Kulkarni-helped Patil in his work	Watandars Officers (1) The Shetes (2) The Mahajans	Watandar Officers (1) The Deshmukh (The chief of Patils in a Pargana) (2) The Deshpande (chief of all Kulkarnis)
(3)	Example	(1) Budruk : Original Village (2) Khurd-New Village	(1) Indapur Kasba (2) Wai Kasba	(1) Pune Pargana 290 villages (2) Chakan Pargana 64 villages (3) Shirwal Pargana 40 villages.

- Q.4.**
- (1) **Budruk** : Budruk means original independent village.
 - (2) **Balut** : Balut means a share of agricultural produce given by the peasants to the artisans for the services they gave to the village community.
 - (3) **Vatan** : Vatan means the officer (of Kasba) receives some land from the Government and some rights from the villagers for their service.
- Q.5.**
- (1) Drought means no rain. If there would be no rain, there would be scarcity of water and foodgrain for the human being as well as for the animals. People would have to leave their villages. The prices of foodgrains would be high. There would be poverty, sickness and even death could occur. So it is said that droughts were a great calamity for the people.
 - (2) The Deshmukh and the Deshpande were the Chief Watandar Officers of the Pargana. Deshmukh was the chief of all Patils in a Pargana. He did the work at the Pargana level. Deshpande was the chief of all Kulkarnis in the Pargana. He did the work at the Pargana level. These Watandar officers were the link between the people and the Government.
- Q.6.** A village was called Mauja. The chief of the village was a Patil. He used to try to bring maximum land under cultivation. Patil used to resolve the disputes in the village and maintained peace. The Kulkarni kept the record of the revenue and helped Patil in his work. People in Mauja had their hereditary rights regarding their occupations. The artisans used to get their shares in the form of agricultural produce for their services.
- Q.7.**
- (1) The work of the Sants brought social awakening. The Sants gave the message of equality and humanity. They preached to the people to live in harmony, unity

and love. Their work created self-confidence among the people of Maharashtra. This work resulted in social awakening.

- (2) Society was greatly influenced by blind beliefs and rituals. People had become fatalistic and inert. They had lost their initiative. The condition of the common people was miserable. In such circumstances, the Sants in Maharashtra endeavoured to inspire the masses.

Q.8. (1) **Sant Namdeo** : Sant Namdeo was a great Sant of the warkari sect. He awakened the sense of equality in men and women, belonging to all castes. His abhanga compositions are well – known. His verses are included in the Granth Sahib of the Sikhs.

- (2) **Sant Dnyaneshwar** : Sant Dnyaneshwar was a great Sant of the Varkari sect. He wrote Dnyaneshwari in Marathi. He also composed Amrutanubhav. He showed a simple way of worship and conduct to the people to follow in everyday life.

- (3) **Sant Eknath** : Sant Eknath was a great sant of Bhakti movement in Maharashtra. He demonstrated through his own conduct that there is no need to renounce worldly matters for attaining the highest truth that is 'Parmarth'. He believed that Marathi language was inferior to no other language. His compositions include abhanga, gavalana and bharud, etc.

- (4) **Sant Tukaram** : Sant Tukaram was a great sant of the Varkari sect. He belonged to Dehu near Pune. He criticized the hypocrisy and superstition in the society. He asked the people, to find God, by showing love to the unhappy and the tormented. His abhangas are pleasing and lucid. He had to suffer the opposition of some dogmatic people in the society. But he faced this opposition with noble courage.

Civics

Topic 1: Introduction to Our Constitution

- Q.1.** (A) (1) written (2) Government (3) Family-norms
(4) Constitution (5) Democracy (6) Princes (7) 299
(B) (1) - d, (2) - e, (3) - c, (4) - b.
(C) (1) Kolkata
(D) (1) Dr. Babasaheb Ambedkar (2) 26th January 1950
(3) The Government (4) Dr. Babasaheb Ambedkar
(E) (1) False (2) True (3) False (4) True (5) True
(F) (1) Mahatma Gandhi (2) Dr. Babasaheb Ambedkar
(3) England (4) Dr. Rajendra Prasad
- Q.2.** (1) The rules to be followed in a school are regarding the admission procedure, the school uniform and the curriculum followed.
(2) The book in which all the provisions regarding the administration of a country are mentioned together in a systematic way is called a Constitution.
(3) The rules and provisions in the Constitution are the basic or fundamental laws of the land.
(4) Indian Government is established by the representatives elected by the people.
(5) The Constitution includes a list of duties for the citizens and fixes the responsibility of the citizens along with the rights.
(6) The British divided India into provinces for the convenience of administration.
(7) The Constitution includes and safeguards the rights and freedoms of the citizens.
(8) The representatives of the provinces and the Princely States were included in the Constituent Assembly.

Q.3. (1) The provisions in the Constitution are about different things. E.g. citizenship, the rights of the citizens, the relationship between citizens and the State, subjects of the laws to be made by the Governments, restrictions on Government, jurisdiction of the State, etc.

(2) The Constituent Assembly enacted the Constitution and adopted it on 26th November 1949. Therefore, 26th November is observed as Constitution Day.

Q.4. (1) The country began to be governed according to the provisions of the Constitution from 26th January 1950. The Indian Republic came into existence from this day. Therefore, 26th January is celebrated as Republic Day.

(2) The advantages of running a country as per the provisions of the Constitution are as follows:

(i) The Government has to function within a set of rules, and as per the provisions of the Constitution so that no one can misuse the power and authority given to them.

(ii) The Constitution states rights and freedoms of the citizens and safeguards them. The Government cannot take away these rights and freedoms from the citizens. Hence, citizens can participate in the activities of the Government and the democracy becomes strong.

(iii) The Constitution has given the duties along with the rights to the citizens. This makes the citizens aware of their responsibilities.

(iv) The Constitution presents some political ideals before the country. These political ideals create an atmosphere conducive to attain world peace and security and preservation of human rights.

(3) The Government has to make laws relating to several subjects, such as defending the boundaries, protecting the people from external aggression, eradication of poverty, creating employment, education and health services, encouragement to commerce and industries, protection of the weaker sections, making policies for the progress of women, children and the tribal people, etc. The Government has to bring about desirable changes in the society by implementing laws. In short, the Government in the modern times has to take decisions related to different issues right from space research to public cleanliness.

Q.5. (1) The process of making of the Indian Constitution started in 1946. The leaders of the freedom movement insisted that Independent India will be governed not by the laws made by the British, but by laws made by Indians themselves. So, a committee was established to prepare the Constitution of Independent India. It came to be known as the Constituent Assembly.

(2) Dr. Babasaheb Ambedkar was the Chairman of the Drafting Committee. He studied the Constitutions of different countries of the world in depth. He worked day and night to draft our Constitution. The draft presented by him was discussed Article by Article in the Constituent Assembly. He answered the questions raised on it and made changes in it after taking the suggestions given to him by the Constituent Assembly, hence making every provision of the Constitution flawless. Due to his contribution towards the making of the Constitution, Dr. Babasaheb Ambedkar is called the 'Architect of the Indian Constitution.'

Geography

Unit - I

Topic 1 : How Seasons Occur - Part I

- Q.1.** (A) (1) 24 (2) day (3) west, east (4) time, days
(B) (1) – c, (2) – a, (3) – b, (4) – e, (5) – d
(C) (1) Rotation is the movement of the earth around itself.
(2) The earth's rotation enables us to measure time in terms of days.
(3) It takes 24 hours for the earth to rotate around itself.
(4) The earth rotates from west to east.
(5) During a single day, we experience the different stages such as sunrise, midday, sunset, daytime and nighttime.
(6) Revolution is the movement of the earth around the sun.
(7) Seasons are caused due to revolution of the earth.
(8) The earth takes 1 year to complete one revolution around the sun.

Intext Question

Activity:

- (1) (To be done by students.)

Topic 2 : The Sun, the Moon and the Earth

- Q.1.** (A) (1) Perigee (2) annular (3) axial, orbital
(4) lunar (5) apogee

- (B) (1) - c, (2) - e, (3) - d, (4) - a, (5) - b
(C) (1) 90° (2) Apogee (3) Solar eclipse
(4) Earth, moon (5) Annular solar eclipse
(D) (1) This is because the moon's orbit of revolution is as elliptical as that of the earth.
(2) The reason is that the time the moon takes to make one revolution around the earth and one rotation around itself is the same.
(3) The moon intersects the plane of the earth's orbit twice during one revolution.
(4) From a very small region of the earth only an illuminated part of the sun disc is seen in the form of a ring. This is called annular solar eclipse.
(5) A lunar eclipse occurs when the moon enters the shadow of the earth, while revolving around it and when the earth is in between the sun and the moon and all three of them are in the same plane at the same time.
(E) (1) False (2) True (3) False (4) False (5) True
(F) (1) Perigee (2) Semicircular (3) 0°
(4) Solar (5) Solar
(G) (1) The solar and lunar eclipses are astronomical events.
(2) A lunar eclipse occurs on a full moon day, but not on every full moon day.
(3) The maximum duration of a total lunar eclipse is 107 minutes.

- (4) On each full moon day, the angle of the lines joining the planes of the earth, the sun and the moon is 180°.
- (5) The annular solar eclipse is a rare event. (total solar, total lunar, annular solar)

- Q.2.** (1) The moon revolves around the earth.
 (2) On a full moon day, while revolving around the earth, the moon is on the opposite side of the sun.
 (3) The moon's revolutionary orbit makes an angle of 5° with that of the earth.
 (4) In one revolution of the moon, its orbit intersects the earth's orbit twice.
 (5) The intense light of the sun can be harmful to the naked eye. One must wear special goggles made for this purpose.
 (6) An annular solar eclipse occurs when the moon is in the apogee position.

Q.3. (1) - b, (2) - b, (3) - a, (4) - c

Q.4.

	Details	Lunar Eclipse	Solar Eclipse
(1)	Phase of the moon	Full moon day	New moon day
(2)	Sequence	Moon-Earth-Sun	Sun - Moon - Earth
(3)	Type of eclipse	Partial Lunar Eclipse Total Lunar Eclipse	Partial Solar Eclipse Total Solar Eclipse Annular Solar Eclipse
(4)	Maximum duration of Total Eclipse	107 minutes	7 minutes 20 secs. 440 seconds.

Q.5. (1)

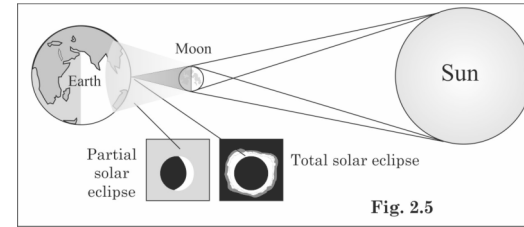


Fig. 2.5

(2)

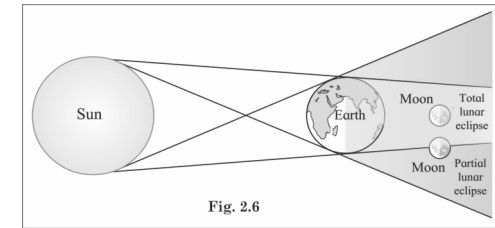


Fig. 2.6

- Q.6.** (1) The moon's orbit of revolution is also elliptical as that of the earth. Hence the distance of the moon from the earth is not the same everywhere along its orbit while revolving. The orbital paths of the earth and the moon are not in the same plane. On each new moon day, the lines joining the earth, the sun and the moon make an angle of 0° whereas on each full moon day, this angle is of 180°. Even so, the sun, the earth and the moon may not be in one straight line in the same plane on every new moon and full moon day.
- (2) When the moon is between the sun and the earth the place on the earth where the moon's shadow falls on earth experiences solar eclipse. The central portion of the shadow is darker and the periphery is lighter. In the area where the shadow is darker on the earth, the sun becomes completely invisible. This is total solar eclipse. However, during the same period, at the places where the shadow is lighter, the sun's disc appears partially covered. This condition is partial solar eclipse.
- (3) We must inform the people who believe in these superstitious beliefs that they are wrong and we must

explain that eclipses are astronomical events. We must tell these people that eclipses are the result of the earth and the moon being in specific positions and it is natural. There is nothing auspicious or inauspicious about these events.

- (4) While observing a solar eclipse, it is necessary to view the sun disc through dark glasses or special goggles made for that purpose, otherwise the intense light of sun can be harmful to the naked eye.
- (5) Total and partial solar eclipses will be seen in the perigee condition.

Q.7.

	Solar Eclipse		Lunar Eclipse
(1)	Occurs on a new moon day but not on every new moon day.	(1)	Occurs on a full moon day but not on every full moon day.
(2)	If and only if the sun, the moon and the earth are in the same plane, and fall in one line, the solar eclipse occurs.	(2)	The lunar eclipse occurs if and only if the sun, the moon and the earth are in the same plane and fall in one line.
(3)	The maximum duration of a total solar eclipse is 7 minutes and 20 seconds. (440 seconds).	(3)	The maximum duration of a total lunar eclipse is 107 minutes.

- Q.8.** (1) The time it takes for the moon to make one revolution around the earth and one rotation around itself is the same, that is why we constantly see one and the same side of the moon.

- (2) On the first and third quarter days, the moon, the earth and the sun make an angle of 90° . At these positions, we see half the portion of the illuminated moon. Hence in the sky it appears semicircular in shape.
- (3) Sometimes the moon is in apogee position. This means it is at its farthest from the earth. As a result the deep shadow of the moon is cast in space and does not reach the earth. From a very small region of the earth, only an illuminated edge of the sun disc is seen in form of a ring. This is very rarely seen. Hence, the annular solar eclipse is a rare phenomenon.

Intext Questions

Think about it!

- (1) Yes, there must be something called earthlight. We will surely find it on the moon.
- (2) The outer ring is seen from space since the moon is shown as half in light and half in shadow through out the entire circle.
The inner circle are the phases of the moon as we see them from the earth as new moon, crescent moon, half moon and full moon.
- (3) On new moon day, the sun, the moon and the earth are in a straight line. The sun and the moon form an angle of 0° with the earth. In the first quarter the three bodies form an angle of 90° . (This is the waxing moon). In the third quarter, the sun, earth and the moon form an angle of 270° (waning moon). On each full moon day, they will form an angle of 180° .
The moon intersects the plane of the earth's orbit twice during one revolution. This angle will be formed twice in a month.

(4) The moon has a shadow, but the shadow cannot be seen since the side that faces us is dark.

Use your brain power!

- (1) It will not be seen in the places that are on the opposite side of the places where we can visualise the solar eclipse.
- (2) No, total and annular solar eclipses do not occur on the same occasion.
- (3) This is because the earth is a bigger body than the moon, hence the earth's shadow too will be bigger than the moon.
- (4) The solar eclipse.
- (5) This is because other planets, when they come in between the line of the earth and the sun, a transit occurs. A small dot appears to move across the sun's disc. This is a type of solar eclipse.

Topic 3 : Tides

- Q.1.** (1) tides (2) gravitational, centrifugal (3) centre (4) rotation (5) tides (6) new moon, full moon (7) tidal range (8) mangroves (9) 12 hours and 25 minutes (10) wind

- Q.2.** (1) Tides are movements of sea water occurring daily and regularly.
- (2) The sun, the moon, the earth and the gravitational and centrifugal forces are the factors responsible for the occurrence of tides.
 - (3) During rotation, the force that works away from the centre of the earth is called centrifugal force.
 - (4) The force that works towards the centre of the earth is called gravitational force.
 - (5) The highest tidal range in the world is observed at Bay of Fundy along the Atlantic coast of North America.

- (6) The sea water moves up and down or slightly forward and backward due to the waves.
- (7) The vertical distance between a crest and the following trough is called the amplitude of the wave.

Q.3.

Group 'A'	Group 'B'	Group 'C'
Waves	Wind	These are also generated due to earthquakes and volcanoes.
Centrifugal force	Rotation of the earth	Objects get thrown towards the outer side.
Gravitational force	The moon, the sun and the earth	Operates in the direction towards the centre of the earth.
Spring Tide	New moon day	Highest high tide occurs on this day.
Neap Tide	8th phase of the moon (Quarter)	The forces of the sun and the moon operate in different directions.

- Q.4.** (1) - b, (2) - c, (3) - d, (4) - a, (5) - f, (6) - e.

- Q.5.** (1) The moon is closer to the earth than the sun, hence its gravitational force becomes more effective than that of the sun. This is why the moon's influence on tides is more than that of the sun.
- (2) Soil erosion is always occurring. In many places the rocks are weak and break up easily. This erosion leads to formation of hollows in the open sea. When the tide is high, the water collects in these big hollows and remains there forming lakes and lagoons. These water bodies remain filled because of high tides.

- (3) Tides occur due to the relative positions of the moon, the sun and the earth. A place on the earth located at the opposite point of the place experiencing high or low tide also experiences high, or low tide respectively at the same time due to the result of the centrifugal force. When there is high tide at 0° meridian, the 180° meridian also experiences high tide.
- (4) The gravitational force is working towards the centre of the earth at the same time as the centrifugal force. The gravitational force is many times greater than the centrifugal force, hence any object on the earth stays where it is and does not get thrown away.
- (5) On new moon and full moon days, the gravitational pull of the sun and the moon act in the same direction. Due to this, the total pull increases, hence the tide is much higher than the average high tide on these days.
- (6) This is because the attraction of the sun and the moon are not complementary, but at right angles to each other. At such times, neap tides are caused.

- Q.6.** (1) Generally high tides and low tides occur twice a day (24 hours). The time difference between two high tides is 12 hours 25 minutes.

If the high tide is at 7 a.m., the next high tide will occur at 7.25 pm. Low tide will occur at 1 p.m. approximately and the next low tide will be at 1.25 a.m.

- (2) Exactly on the opposite side of 73° E meridian, on 107° W meridian there will be high tide. This place will be at an antipodal position to 73° meridian since it is exactly opposite to 73° E meridian.

- (3) Due to the force of the wind, water appears to be moving. The sea water gets pushed by the wind and ripples are generated on the water surface. These are called waves.

If a strong wind is blowing in one direction, large waves are generated. Sometimes due to earthquakes or volcanic eruptions below the floor of the sea, waves get generated, such waves assume a great height in the shallow waters near the coast. These waves are called Tsunamis. They are very destructive. They cause huge loss of life and property.

- Q.7.** (1) **Swimming** : Lack of understanding of the timings of high and low tides can cause accidents to swimmers entering the sea.
- (2) **Steering a ship** : Ships can move up to the port during high tide. Low tide can get the hull of the ship stuck in the wet sand.
- (3) **Fishing** : With the high tide, fish move into the creeks and this helps in fishing activity.
- (4) **Salt pans** : During the high tide, sea water can be stored in salt pans from which salt is obtained.
- (5) **Going to coastal areas for trips** : Ports do not get filled with sediments, hence ships carrying tourists can dock easily and tourists can leave the ship without any problem.

- Q.8.** (1) It shows the first quarter of the month.
- (2) The earth is at the centre. The moon and the sun are at right angles to each other with the earth at the vertex.

- (3) There will be a fall in the water level, it will be less than usual at the time of low tide because the attraction of the sun and the moon are not complementary but at right angles to each other.

Q.9. (1)

	High Tide		Low Tide
(1)	High tides occur on new moon and full moon days.	(1)	Low tides occur on the first and third quarters of each month.
(2)	Highest tides are known as 'Spring Tides'.	(2)	Lowest tides are known as 'Neap Tides'.
(3)	The gravitational pull of the sun and the moon act in the same direction.	(3)	The forces of the sun and the moon operate at right angles on the earth.
(4)	The water level is high.	(4)	The water level is low.

(2)

	Spring Tide		Neap Tide
(1)	High tides are called Spring Tides.		Low tides are given the name 'Neap tides.'
(2)	Occurs on new moon and full moon days.		Occurs on the first and third quarters of each month.
(3)	The gravitational pulls of the sun and the moon act in the same direction.		The moon and the sun are at right angles with respect to the earth, twice a month.
(4)	On these days, the tide is much higher than average high tide.		The rise of the water level is less than usual.

Q.10. The positive effects are -

- (a) With high tide fish move into the creeks and this helps in fishing activities.
- (b) The tides clear the waste and hence the coasts become clean.
- (c) Ports do not get filled with sediments.
- (d) Ships can move up to the ports during high tide.
- (e) During high tide, sea water can be stored in salt pans from which salt can be obtained.
- (f) The tides help in maintaining the mangroves and coastal biodiversity.

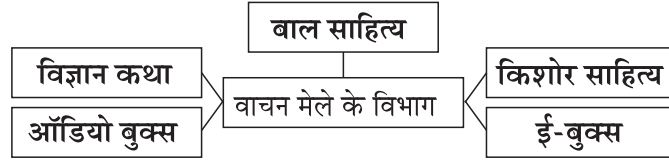
The negative effects are -

- (a) A lack of understanding of the timings of high and low tides may cause accidents to swimmers entering the sea.

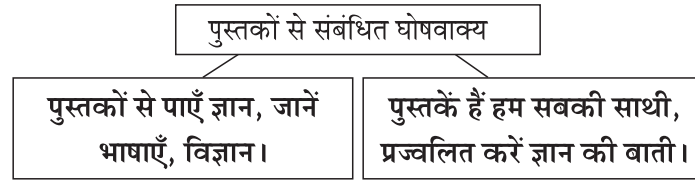
हिंदी सुलभभारती

1. वाचन मेला

प्र.1. (1)



(2)



(3)

- (i) (1) किताब (2) पोथी
(ii) (1) परी कथा (2) रहस्य कथा

(4)

पुस्तकें ज्ञान और मनोरंजन से ओत-प्रोत होती हैं। वे ज्ञान का अक्षय भंडार होती हैं जो हमारा सही मार्गदर्शन करती हैं। वे समाज में नवचेतना का संचार कराती हैं। अपने अंदर समाए विचारों के अस्त्र का अचूक निशान साधकर जनजागृति लाने का कार्य करती हैं। समाज की डगमगाती नौका की सशक्त पतवार हैं ये पुस्तकें। ये हमें साहस और धैर्य प्रदान करती हैं। अच्छी पुस्तकें हमें अमृत की तरह प्राण शक्ति अर्पित करती हैं। वे चरित्र निर्माण का सर्वोत्तम साधन हैं। उन्हें पढ़कर जीवन में कुछ महान कर्म करने की भावना हमारे मन में जगाती है। पुस्तकें प्रकाश-गृह हैं जो समय के विशाल समुंदर में खड़ी हैं और हमारी जीवन नौका का मार्गदर्शन कर रही हैं।

(5)

जब किसी स्थान पर लोग सामाजिक, धार्मिक, व्यापारिक या अन्य कारणों से एकत्रित होते हैं तो उसे मेला कहते हैं। मेले में तरह-तरह के क्रियाकलाप देखने को मिलते हैं। वास्तव में 'वाचन मेला' पुस्तक प्रेमियों के लिए महान उत्सव का अवसर माना जाता है। चित्र में पुस्तकों के अलग-अलग विभाग दिखाई दे रहे हैं। बच्चे अपनी-अपनी रुचि के

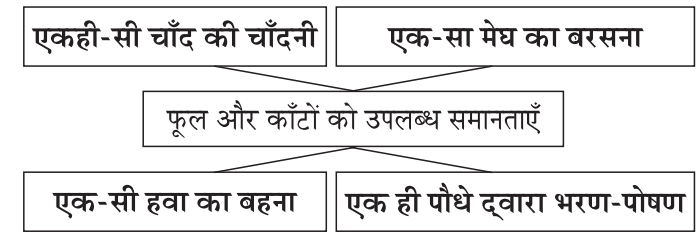
अनुसार पुस्तकों की जानकारी पाने में व्यस्त हैं। बच्चों ने ग्रंथदिंडी निकालकर पुस्तकों का महत्त्व समझाने का प्रयास किया है। उनके हाथों में फलक पट्टियाँ हैं जो कह रही हैं कि पुस्तकें हमें ज्ञान देती हैं, भाषा और विज्ञान की जानकारी देती हैं। चित्र के घोष वाक्य पुस्तकों का महत्त्व समझाते हैं।

उपक्रम (Activity)

- (1) पुस्तक में होती नई खोज, पुस्तक से मिलती नई सोच।
जब ना हो कोई संगी-साथी, पुस्तक ही तब मन बहलाती।
पुस्तक देती हमको ज्ञान जब होता मन परेशान
सोने चाँदी या रत्न से पुस्तक की कीमत अधिक होती है।
- (2) विद्यार्थी स्वयं करें।

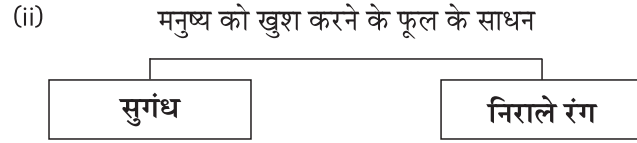
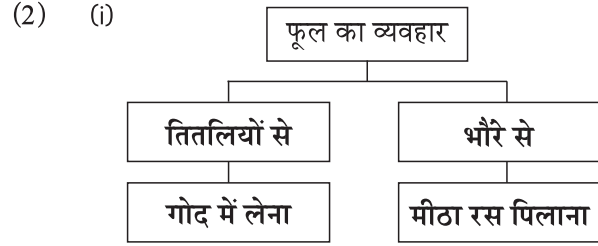
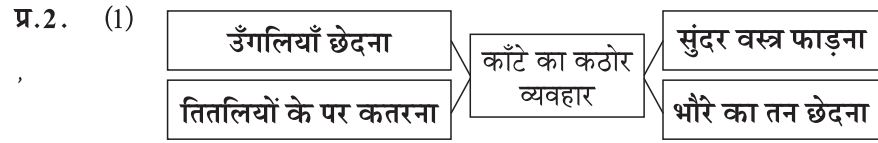
2. फूल और काँटे

प्र.1. (1)



- (2) (i) (1) मेह (2) रात
(ii) रात में उनपर चमकता चाँद भी,
एक ही-सी चाँदनी है डालता।
- (3) फूल और काँटों का जन्म एक ही जगह पर होता है। एक ही पौधा दोनों का भरण-पोषण करता है। रात में उनपर चाँद चमकता है और अपनी चाँदनी समान रूप से उनपर बिखेरता है।

बादल उनपर समान रूप से अपना जल बरसाता है। हवाएँ उन दोनों पर एक जैसी ही बहती हैं। इस तरह एक ही परिवेश में बढ़ने वाले ये दोनों फिर भी एक जैसे नहीं होते। दोनों का व्यवहार बिलकुल अलग होता है।



(3) काँटा किसी की उँगलियाँ छेदकर लहलुहान कर देता है तो किसी के सुंदर वस्त्र फाड़ देता है। प्यारी-प्यारी तितलियों के पंख कतर देता है तो भौरों के श्यामल शरीर को भी छेदकर घायल कर देता है।

काँटे के बिल्कुल विपरीत होता है फूल। वह तितलियों को अपनी गोद में लेता है और भौरों को अपना मधुर रस (शहद) पिलाता है। अपनी सुगंध और सुंदर आकर्षक रंग से सभी को खुशी देता है।

- प्र.3. (1) अयोध्यासिंह उपाध्याय 'हरिऔध'
 (2) है खटकता एक सबकी आँख में, दूसरा है सोहता सुर सीस पर, किस तरह कुल की बड़ाई काम दे, जो किसी में हो बड़प्पन की कसर।
 (3) कवि ने इन पंक्तियों द्वारा मनुष्य महान कुल में जन्म लेने से बड़ा नहीं बनता बल्कि अपने महान, श्रेष्ठ कर्मों से बड़ा बनता है। कर्मों को महत्त्व दिया है। इसलिए यह पंक्तियाँ मुझे पसंद हैं।

(4) फूल और काँटे को प्रकृति की कृपा और पौधे द्वारा भरण-पोषण एक-सा मिलता है फिर भी दोनों के व्यवहार में जमीन-आसमान का अंतर है। काँटे का दुष्ट व्यवहार उसे हम सब की आँखों में खटकाता है और फूल के कोमल व्यवहार के कारण वह देवताओं के शीश पर चढ़ाया जाता है। अर्थात् बड़प्पन भी हमें हमारे कर्मों के कारण ही मिलता है। जन्म किस कुल में हुआ इससे भी महत्त्वपूर्ण है हम किस तरह औरों के साथ बर्ताव करते हैं। कुल की बड़ाई से भी हमारे कर्म श्रेष्ठ होते हैं जो हमें संसार में बड़प्पन दिलाते हैं। इसलिए अच्छे कर्म करने का संदेश कविता द्वारा कवि दे रहे हैं।

स्वाध्याय

- प्र.1 (अ) (1) फूल भौरों को अपना मीठा रस पिलाता है।
 (2) बड़प्पन की कसर रह जाने पर कुल की बड़ाई काम नहीं देती।
 (3) काँटा तितलियों के पर कतरता है।
 (4) फूल तितलियों को गोद में लेता है।
 (5) मेह (मेघ) एक-सा बरसता है।
- (आ) (1) फूल और काँटों का ढंग अलग-अलग है।
 (2) काँटा सबकी आँखों में खटकता है।
 (3) फूल को उसके कुल के कारण बड़प्पन मिलता है।
 (4) फूलों की सुगंध हमें खुश नहीं कर पाती।

सूचना : Term Book में चौखाने में नहीं छपे है।

- (इ) (1) देवताओं के शीश पर (2) अपनी चाँदनी (3) काँटा
 (ई) (1) पौधा (2) श्याम (3) कुल

व्याकरण

सूचना : Term Book में चौखाने में दिए गए वर्णों में वर्ण 'न' Type नहीं हुआ है।

★ समानार्थी शब्दों की जोड़ियाँ विरुद्धार्थी शब्दों की जोड़ियाँ

पुष्प - फूल	रात × दिन
जल - पानी	छोटा × बड़ा
मेह - बादल	उदय × अस्त
पवन - हवा	सम्मान × अपमान

वाक्य : पुष्प = फूल - पुष्प बनकर जीवन को महकाना चाहिए।

बालक फूल-सा कोमल था।

जल = पानी - जल ही जीवन है, उसे व्यर्थ न बहाएँ।

पानी पीते ही प्यास काफूर हो गई।

मेह = बादल - मेह की कृपा से कृषि फूली-फली।

आकाश में बादल छाए थे।

पवन = हवा - मलय पर्वत से शीतल पवन बह रही है।

हवा में प्रदूषण बढ़ गया है।

रात × दिन - रमेश रात-दिन मेहनत कर अपने बच्चों को पढ़ा रहा है।

छोटा × बड़ा - कोई भी काम छोटा या बड़ा नहीं होता।

उदय × अस्त - ध्रुवीय प्रदेशों में सूर्य के उदय और अस्त का अंतर 20 से 22 घंटे तक बढ़ता होता है।

सम्मान × अपमान - आज तक जो लोग रमेश को सम्मान देते थे, दिन पलटते ही गरीबी आने पर उसका बात-बात पर अपमान करने लगे।

चर्चा करो और लिखो

- ★ भूल का अर्थ है गलती और शूल का अर्थ है काँटा। इस पंक्ति का अर्थ है कि हमें गलती से भी काँटा बनने की गलती नहीं करनी चाहिए बल्कि फूल बनना चाहिए। क्योंकि फूल बनकर ही हमें दुनिया में सम्मान मिलेगा।

फूल जिस तरह अपने सुगंध से सबको खुश करते हैं वैसे ही हमें अच्छे कर्म कर के दूसरों को खुश करना चाहिए। फूल जैसे अपने सुंदर रंग से लोगों को आकर्षित करते हैं वैसे ही हमें अच्छे गुणों से अपने व्यक्तित्व को आकर्षक बनाना चाहिए।

मैं अपने सहपाठियों की मदद करूँगा। घर में छोटे-बड़े सभी को सम्मान दूँगा। हमेशा अनुशासन का पालन करूँगा। अपने गाँव मोहल्ले को साफ-सुथरा रखूँगा। अपने खिलौने, पुरानी किताबें, कपड़े अनाथालय में दूँगा और उन बच्चों के साथ छुट्टी का दिन बिताकर उनके आँसू पोंछने की कोशिश करूँगा।

वाचन जगत से

- ★ खादी ग्रामोद्योग का उद्देश्य ग्रामीण क्षेत्रों में रहने वाले लोगों को अधिक से अधिक रोजगार के अवसर प्रदान करना है। खादी हाथ से काते हुए सूत का उपयोग करके हाथ से बुना हुआ कपड़ा होता है। सूत कटाई की यह प्रक्रिया चरखे द्वारा की जाती है। इस प्रक्रिया के लिए न तो फैक्ट्री बनाने की जरूरत होती है ना ही इंधन की जरूरत होती है जिससे पर्यावरण को नुकसान हो। सरकार जानती है कि खादी ग्रामोद्योग को प्रोत्साहन देकर जहाँ लोगों को रोजगार के अवसर प्राप्त होंगे वहीं देश और विश्व के पर्यावरण को अच्छा बनाने में भी योगदान होगा। खबर है कि खादी ग्रामोद्योग आयोग ने एअर इंडिया कंपनी के साथ करार किया है। अब उसके क्रू मेंबर खादी की वर्दी पहनेंगे। इससे देश विदेश में खादी का नाम होगा। खादी का विक्रय बढ़ाने में यह करार मददगार सिद्ध होगा और रोजगार के अवसर बढ़ेंगे।

बताओ तो सही

- ★ मुझे गुलाब का फूल पसंद है। इसलिए नहीं कि वह फूलों का राजा है बल्कि इसलिए कि अनगिनत काँटों के ऊपर खिला है और उफ तक नहीं करता बल्कि अपनी मुस्कराहट, अपनी सुगंध बिखेरकर दूसरों को प्रसन्न करता है। रेगिस्तान में जहाँ अन्य पेड़-पौधे अपने होश-हवास खो बैठते हैं वहाँ भी इसकी मुस्कराहट में कमी नहीं आती। यह मुस्कराहट मुझे कहती है कि जीवन की कठिनाइयों को हँसते-खेलते सहकर आगे बढ़ो और दूसरों की भलाई के लिए कुछ कर के अपने जीवन को सार्थक बनाओ।

प्रकल्प

(1)

छोटे	मध्यम	बड़े
तुलसी	नींबू	बरगद
पुदिना	अमरूद	पीपल
गाजर	हरसिंगार	नारियल
मूली	शरीफा	आम
टमाटर	अनार	नीम

(2)



नीले नीले आसमान में,
पानी काले बादल में ।
बादल है या कोई छाया,
ये तो है प्रकृति की माया ।
कब ये पानी बरसाएगा ?
हमको कब तक तरसाएगा?
जब यह पानी बरसेगा,
धरती को पहले सींचेगा

हम सब झूम के नाचेंगे ।

संग में सबके गाएँगे ।

धरती पर बिछेगी हरियाली,
घर-घर आएगी खुशियाली ।

रंगों की पहचान है फूल,

हम सबकी मुस्कान है फूल,

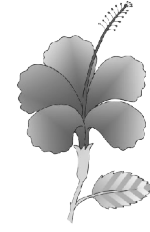
खुशबू की पहचान है फूल,

माँ धरती की आन है फूल,

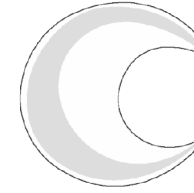
ऋतु वसंत की शान है फूल,
ईश्वर का वरदान है फूल ।

सुंदरता का मान है फूल,
उपवन की जान है फूल ।

मिलकर रहना ये सिखलाते,
भेदभाव ना ये दिखलाते,
कोमलता का पाठ पढ़ाते,
मुसकाना हमको सिखलाते ।
रंग-बिरंगे प्यारे फूल,
सबसे सुंदर न्यारे फूल



जात-पात से परे हैं फूल
लाल, गुलाबी, हरे ये फूल ।



चोट कड़ी है काल प्रबल की,
उसकी मुस्कानों से हल्की,
राजमहल कितने सपनों का पल में नित्य ढहा करता है ।
मुझसे चाँद कहा करता है
तू तो है लघु मानव केवल
पृथ्वी तल का वासी निर्बल
तारों का असमर्थ अश्रु भी नभ से नित्य बहा करता है ।

मुझसे चाँद कहा करता है

तू अपने दुख में चिल्लाता,

आँखों देखी बात बताता,

तेरे दुख से कहीं कठिन दुख यह जग
मौन सहा करता है ।

मुझसे चाँद कहा करता है....

तितली रानी, तितली रानी,

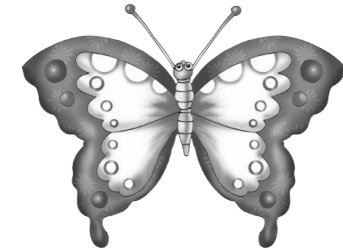
कौन देश से आई हो?

रंग बिरंगे सुंदर कपड़े

किस दुकान से लाई हो?

फूल फूल पर घूमा करती

सबके मनको भाई हो ।

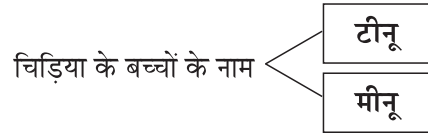


कोमल कोमल पंखों वाली
नभ को देखो छूने वाली
रंगीनी बरसाने वाली

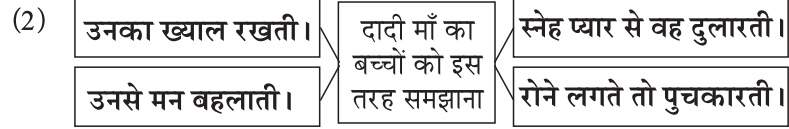
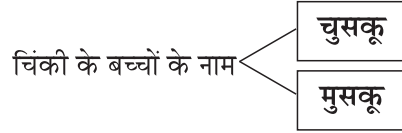
प्यारी तितली आई है
एक संदेश लाई है
मिल जुलकर रहा करो तुम
सच्चाई को अपनाओ तुम।

3. दादी माँ का परिवार

प्र.1. (1) (i)



(ii)



(3) (i) (1) हँसते-खेलते (2) घर-आँगन

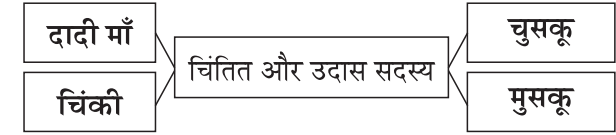
(ii) (1) गम (2) नफरत

(4) एकता का अर्थ है एक साथ रहना। कठिन परिस्थितियों में एक-दूसरे की मदद करना। एकता हमारे जीवन में हर कदम पर महत्त्वपूर्ण है। एकजुट रहने से विपत्ती में कोई अकेले नहीं रहता। एकजुट रहनेवाले स्वयं को सुरक्षित महसूस करते हैं। साथ रहने से सबके सुझाव और मार्गदर्शन से कोई भी कार्य पुरा हो सकता है। साथ में किया काम समय पर खत्म होता है। जब हम एक साथ काम करते हैं तो हम प्रेरित होते हैं और कड़ी मेहनत करने की ठान लेते हैं। एक

व्यक्ति अकेले काम करता है तो अनेक कठिनाईयों का सामना करना पड़ता है। एकसाथ रहने से हम मजबूत हो जाते हैं। अकेले व्यक्ति को कोई भी तकलीफ पहुँचा सकता है। एकता अपने आप में आत्मविश्वास उत्पन्न करती है।

अपने लक्ष्य को पाने के लिए, अपनी जिंदगी में सुखी और स्वस्थ जीवन बिताना हो, अपना विकास करना हो तो एक साथ रहना आवश्यक है क्योंकि एकता में बल है।

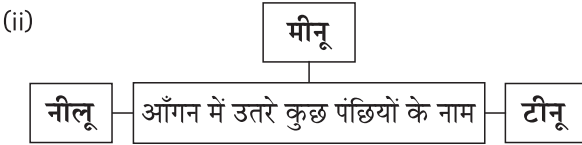
प्र.2. (1)



(2) (i) (1) पंछियों की एकता ने उसे हरा दिया था।

(2) उन्हें नीलू, टीनू, मीनू की चिंता हो रही थी और मन में बुरे विचार आ रहे थे।

(ii)



(3) (i) (1) एक (2) प्रसन्न

(ii) (1) छाया + दार = छायादार (2) दम + दार = दमदार

(4) समझदारी से हर समस्या का हल ढूँढा जा सकता है। समझदारी में ही भलाई है। किसी भी काम को करने से पहले समझदारी दिखाना जरूरी है। जल्दबाजी में सिर्फ नुकसान ही होता है। आपस में संघर्ष होते हैं और कोई काम सफल नहीं होता। दोनों बकरियों ने भी आपसी सूझबूझ से नदी पार कर ली थी। कोई भी निर्णय लेने से पहले अच्छी तरह सोच समझ लेना जरूरी है। समझदारी से किए हुए काम को हमेशा सफलता मिलती है क्योंकि बिना सोचे समझे कुछ भी करने से बाद में पछतावा होता है। जीवन में आयी कठिनाईयों, समस्याओं को समझदारी से दूर करना ही जरूरी है क्योंकि समझदारी से हम उचित निर्णय लेने में समर्थ हो सकते हैं।

स्वाध्याय

- प्र.1. (घ) घर के आँगन में बरगद का पेड़ था।
(क) चिंकी ने भी दो बेटों का उपहार दिया।
(ख) एक साथ उड़ने को रहेंगे तैयार।
(ग) टीनू-मीनू चुसकू-मुसकू खेलने लगे।
- प्र.2. (1) दादी माँ के घर के आँगन में बरगद का पेड़ था। चिड़िया ने उसपर घोंसला बनाया था और वहाँ अपने बच्चों के साथ वह रहती थी।
(2) बहेलिए के जाल में कई चिड़े-चिड़ियाँ फँसे थे। वे सब जाल के साथ उड़ गए। जाल में फँसे पंछियों की एकता देखकर बहेलिया ठगा-सा रह गया।
(3) दादी माँ सुबह उठकर घर बुहारतीं-सँवारतीं। आँगन में आसन धरतीं, खाना बनातीं, खातीं। अपने परिवारजनों से बातें करतीं।
(4) चुसकू-मुसकू चिंकी चुहिया के बच्चे थे। उनके पास पैसे दाँत थे। उन्होंने अपने पैसे दाँतों से जाल काटा और पंछियों को आजाद किया।
- प्र.3. (अ) (1) बरगद (2) खुशहाली (3) कलरव (4) एकता
(5) चरखा (6) हिलोरें (7) औरों
(आ) (1) एकता की ताकत दिखाएँगे। (2) उनका घर आबाद था।
(इ) (1) - (ग), (2) - (घ), (3) - (क), (4) - (ड), (5) - (ख)
- प्र.4. (अ) (1) घर के आँगन में (2) मुनमुन की (3) दादी माँ
(4) जाल में (5) एकता की (6) दादी माँ के घर
(आ) (1) दादी माँ समझदार और सयानी थी।
(2) नीलू और चिंकी के बच्चे कभी झगड़े-टंटा नहीं करते।
(3) मुनमुन के घर दादी-माँ आने वाली थी।
(4) दादी-माँ की सीख रंग लाई।

व्याकरण

- (अ) थैलियाँ - थैली : पॉलिथिन की **थैली** का प्रयोग नहीं करना चाहिए।
पंखा - पंखे : हमारी कक्षा में चार **पंखे** लगे हुए हैं।
दीवार - दीवारें : भेदभाव, नफरत की **दीवारें** गिरा दो।
राजा - राजा : **राजा** प्रजा का पालनहार कहलाता है।
वस्तुएँ - वस्तु : **वस्तु** का मूल्य उसकी उपयोगिता पर निर्भर होना चाहिए।
भेड़िया - भेड़िए : वन में लोमड़ी के साथ दो **भेड़िए** भी थे।
बहू - बहुएँ : खानदानी **बहुएँ** कुल की परंपरा का मान रखती हैं।
रोटी - रोटियाँ : अकाल के दिनों में जमींदार ने **रोटियाँ** बाँटना शुरू किया।
- (आ) (1) तुनककर बोलना - चिढ़कर बोलना।
वाक्य : चंदा माँगने आए लोगों को रमेश ने **तुनककर बोलते** हुए भगा दिया।
(2) अक्ल का पत्ता खोलना - तरकीब बताना।
वाक्य : राज ने **अक्ल का पत्ता खोलते** हुए अपने दोस्तों को बुरी संगति से मुक्त किया।
(3) ठगा-सा रह जाना - चकित होना।
वाक्य : गाँव का रघुनाथ मुंबई की ऊँची-ऊँची इमारतें देखकर **ठगा-सा रह गया**।
- (इ) (1) एकता में बल (2) परिणाम अच्छा तो सब अच्छा
- (ई) बुहारतीं - सँवारतीं कहानी - सयानी
चिड़िया - संगिया चिंचियाती - बतियाती
दुखी - सुखी टीनू - मीनू
चुसकू - मुसकू लड़ो - पड़ो
जहाँ - वहाँ बेहाल - खयाल
शांत - क्लान्त युक्ति - मुक्ति
समझदार - खबरदार बोली - गोली
भाई - आई लगे - पगे

- (उ) (1) संज्ञा (2) सर्वनाम (3) क्रिया (4) विशेषण

लेखन कौशल (Writing Skill)

★(1) प्रकृतिद्वारा, उपहार के रूप में प्रदान किए गए साधनों को प्राकृतिक संसाधन कहा जाता है, जैसे लकड़ी, मिट्टी का तेल, पानी आदि। ये प्रकृति द्वारा हमें हमारे जीवन को आसान बनाने के लिए दिए गए हैं। लेकिन शहरीकरण, औद्योगिककरण, बढ़ती आबादी के नाम पर मनुष्य द्वारा लगातार इनका शोषण हो रहा है। अगर हमने इसे नहीं रोका तो ये संसाधन भविष्य में समाप्त हो जाएँगे। क्योंकि ये सीमित हैं।

जल : हमें पीने के लिए, भोजन बनाने, नहाने, फसल पैदा करने के लिए पानी नितांत जरूरी है। पानी की बर्बादी और जलप्रदूषण नहीं रोका गया तो हमारा भविष्य खतरे में है। हम अपनी मामूली जरूरतें भी पानी के अभाव में पूरी नहीं कर पाएँगे और अपना अस्तित्व ही मिटा देंगे।

वन : वनों में नानाविध पेड़-पौधे, पशु-पक्षी, जीव-जंतु होते हैं। आज मनुष्य इन वनों की अंधाधुंध कटाई में लगा उनका बैरी बन बैठा है। इसके दुष्परिणाम साफ नजर आ रहे हैं। प्रदूषण बढ़ रहा है। बरसात में अनियमितता साफ नजर आ रही है, कहीं अति वर्षा, बाढ़, भूस्खलन हो रहा है तो कहीं सूखा। वन्य पशुओं से मनुष्य को खतरा बढ़ रहा है। इन वनों को नष्ट कर हम अपने अस्तित्व को ही चुनौति दे बैठे हैं।

★(2)

रक्षा बंधन

आज चार साल बाद मामाजी हमारे घर राखी बँधवाने आए थे। माँ भी बहुत भावुक हो उठी थी। मैं और दीदी भी मामा के साथ बतियाने में लगे थे। रसोई से स्वादिष्ट खीर की महक आ रही थी। माँ ने हमें आवाज लगाई।

“देखो, दो दिन मामाजी यहीं पर रहेंगे। फिर बातें तो होती रहेंगी। पहले नहा-धो लो। पानी चला जाएगा।” हमने हाँ तो कही पर तुरंत नहाने गए ही नहीं। घंटे-डेढ़ घंटे बाद मैं नहाने गया।

फिर क्या? जो होना था वही हुआ। मैंने पूरे शरीर पर साबुन लगा रखा था और शॉवर भी खुला छोड़ा था। धीरे-धीरे शॉवर का पानी कम होता गया

और अंत में पानी आना ही बंद हो गया। आँख में साबुन जाने पर वे जलने लगीं और मैंने घर सिर पर उठा लिया।

मेरा शोर सुनकर सब स्नानघर के पास आ गए। घर का दरवाजा खुला था। बिल्ली को मौका मिला तो वह रसोई में घुस गई और मेवे-मखाने डालकर बनी खीर चाटने लगी। दीदी ने देखा तो उसे भगाया पर अब वह खीर हम नहीं खा सकते थे।

मुझे बहुत डाँट पड़ी। पुस्तक में मुँह छिपाकर मैं रो रहा था और दीदी मुझे समझा रही थी। रक्षाबंधन का फर्ज मेरी दीदी निभा रही थी और मेरे आँसू पोंछ रही थी।

★(3) ‘एकता का दुर्ग इतना सुरक्षित होता है कि इसके भीतर रहने वाले कभी दुखी नहीं होते’ यह सुवचन हमें एकता की शक्ति ही समझा रहा है। इसे जीवन में उतारने के लिए मैं कभी भेदभाव नहीं करूँगा और जो भेदभाव करते हैं उनको भी समझाऊँगा। क्योंकि इस वजह से हम आपस में ही मनमुटाव कर लेते हैं और हमारे दुश्मन इसका लाभ उठाते हैं।

संगठन की शक्ति को जीवन में उतारने के लिए त्याग, सेवा, समर्पण, सहयोग जैसे गुणों को जीवन में उतारने का जरूर प्रयत्न करूँगा। अपने अहं को भुलाकर समाज और राष्ट्रहित को महत्त्व दूँगा।

प्रकल्प

★ महाराष्ट्र राज्य में छह राष्ट्रीय उद्यान और सैंतालीस अभयारण्य हैं। जैसे कि मुंबई में संजय गांधी नेशनल पार्क और मुंबई के पास में ही है कर्नाला पक्षी अभयारण्य।

कर्नाला पक्षी अभयारण्य की स्थापना ई.1968में हुई। यहाँ पक्षियों की लगभग 150 प्रजातियाँ वास करती हैं। साथ ही लगभग 37 प्रकार के प्रवासी पक्षी भी यहाँ समय-समय पर आते रहते हैं। यहाँ मैना और उल्लू ये दो पक्षी मुख्य रूप से पाए जाते हैं। यहाँ 33 पक्षीगृह बनाए गए हैं। ठंड के मौसम में प्रवासी पक्षियों के साथ-साथ अन्य जानवर भी इस अभयारण्य का आश्रय लेते हैं। कई प्रकार की औषधियाँ भी यहाँ पाई जाती हैं।

मध्यप्रदेश में भी कई राष्ट्रीय उद्यान और अभयारण्य हैं। सातपुड़ा बाघ

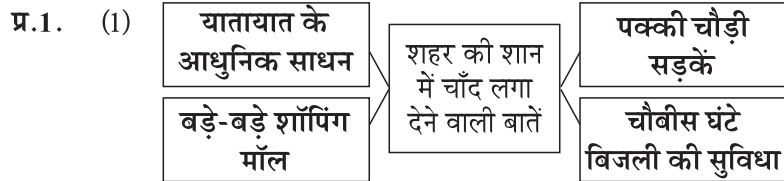
अभयारण्य होशंगाबाद जिले में सातपुड़ा की बिहड़ पहाड़ियों में बसा हुआ है। यह अभयारण्य जैव विविधता से परिपूर्ण है। मध्यप्रदेश की सबसे ऊँची चोटी 'धूपगढ़' भी इसी अभयारण्य में स्थित है। सूखे काँटेदार जंगलों से लेकर उष्ण कटीबंधीय शुष्क पर्णपाती और अर्ध सदाबहार जंगलों की जैवविविधता के कारण यह अद्वितीय है। बाघ यहाँ बड़ी संख्या में पाए जाते हैं। अर्थात् बाघ घने वनक्षेत्रों तक ही सीमित हैं।

वाचन जगत से :

- ★(1) ◆ स्वामी जी के भाषण के कुछ प्रमुख वाक्य -
- ◆ उठो, जागो और तब तक नहीं रुको, जब तक लक्ष्य न प्राप्त हो जाए।
 - ◆ बस वही जीते हैं जो दूसरों के लिए जीते हैं।
 - ◆ स्वयं पर विश्वास करो।
 - ◆ किसी के साथ विवाद न कर हिल-मिलकर अग्रसर हो जाओ, हुंकार मात्र से दुनिया को बदल देंगे।
 - ◆ जिस समय जिस काम के लिए प्रतिज्ञा करो, ठीक उसी समय पर उसे करना ही चाहिए, नहीं तो लोगों का विश्वास उठ जाता है।
 - ◆ सब कुछ खो देने से ज्यादा बुरा है उस उम्मीद को खो देना, जिसके भरोसे पर हम सबकुछ वापस पा सकते हैं।

★(2) विद्यार्थी स्वयं करें।

4. देहात और शहर



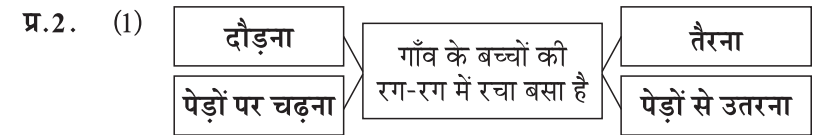
- (2) (i) (1) असुविधा, बेरोजगारी, गुटबाजी, आपसी झगड़े, अशांति
(2) अशिक्षित लोग, अल्पशिक्षित लोग

- (ii) (1) गाँव में पहले बहुत खुशहाली थी। चारों तरफ हरियाली थी पर अब पहले जैसे रौनक नहीं रही यह सोचकर
(2) गाँव में पीने का पानी लाने के लिए दूर-दूर तक जाना पड़ता है इसलिए

(3)	उपसर्गयुक्त शब्द	प्रत्यययुक्त शब्द
	असुविधा बेरोजगार	विकसित उदासीन

- (4) गाँव में शिक्षा, वैद्यकीय सुविधा, पीने का पानी, बिजली, यातायात के साधन, बाजार व्यवस्था इन पर ध्यान देकर बदलाव लाने की बहुत आवश्यकता है। लोक संगठन, सहकारिता, स्वच्छता का महत्त्व समझाना चाहिए। गाँव के युवा व्यक्ति पैसों के लिए शहर भाग रहे हैं। उन्हें कृषि व पशुपालन के अतिरिक्त या उनपर आधारित अनेक लघु उद्योग, फलोत्पादन जैसे व्यवसाय शुरू करने के लिए प्रोत्साहित करना चाहिए। उन्हें सही दिशा और उचित मार्गदर्शन देना चाहिए। लोगों में व्यावसायिक कौशल, विज्ञान संबंधी जानकारी विकसित करनी चाहिए ताकि उनका उत्पादन स्रोत बढ़ जाए।

शहर के विकास के लिए यातायात के नियमों का पालन करना, बिजली-पानी का उपयोग करते वक्त उनकी बचत का ख्याल रखना इनपर ध्यान देने की जरूरत है। शहर को स्वच्छ रखने की जिम्मेदारी हर नागरिक की है। कचरा केवल कूड़ेदान में ही डालें। प्रदूषण पर नियंत्रण रखे जिसके कारण फैलनेवाली बिमारियोंसे हर व्यक्ती छुटकारा पा सके और अपना स्वास्थ्य अच्छा रख सके। शहर में पेड़-पौधे उगाएँ, उनकी देखभाल करें, अनुशासन का पालन करें। इन सब का पालन हर व्यक्ति करेगा तो शहर और गाँव का विकास दूर नहीं।





(ii) (1) जिम्मेदारियाँ (2) समस्याएँ

(4) गरीबी दूर करने के लिए बढ़ती जनसंख्या नियंत्रित की जाए। अधिक जनसंख्या के कारण संसाधन कम पड जाते हैं। जो भी काम आए हमें वह काम करने में शर्म महसूस नहीं करनी चाहिए। बच्चों को अच्छी शिक्षा जो उनके कौशल्य को विकसित करनेवाली हो और उसके लिए अत्याधुनिक और अच्छी सुविधाएँ मिलने की जरूरत है। अच्छी शिक्षा के कारण वे पढ़-लिखकर अच्छी नौकरिया पा सके। सभी लोगों को रोजगार उपलब्ध कराने की आवश्यकता है। ग्रामीण भागों में महिलाओं के लिए भी रोजगार मिलने का अवसर देना चाहिए ताकि पूरा परिवार अपना जीवन स्वस्थ और अच्छे से बिता सके। युवाओं को छोटे व्यवसाय करने के लिए प्रेरित करना चाहिए क्योंकि वे अपने पैरोंपर खड़े होकर अपना और अपने परिवार का भरण-पोषण कर सके। सबको समान अधिकार मिलना चाहिए। हर किसी के लिए सरकार के द्वारा रोजगार की व्यवस्था की जानी चाहिए। कोई भी व्यक्ति बिना काम घर पर न बैठे। कृषी आधारित उद्योगों का विकास करना चाहिए। इन उपायों को लागू कर गरीबी को दूर हटाया जा सकता है।

स्वाध्याय

प्र.1. (अ) (1) गाँव में बीमारियाँ हैं पर पर्याप्त मात्रा में सुसज्ज और अच्छे अस्पताल हैं।

- (2) 'मोबाईल' के माध्यम से नित-नवीन सूचनाएँ हम तक पहुँचने लगी हैं।
- (3) अपने गाँव को परिवार समझकर उसे विकसित करने का प्रयत्न करना होगा।
- (4) तुम गाँववाले यहाँ रोजगार की तलाश में आया करो।
- (5) खेल ग्रामीण जीवन की आत्मा है।
- (आ) (1) क्योंकि रोजगार की तलाश में लोग शहर जा रहे हैं।
 (2) क्योंकि शहर में दिन-ब-दिन भीड़ बढ़ती जा रही है।
 (3) क्योंकि पहले खुशहाली और हरियाली की जो रौनक थी वह अब नहीं रही।
- (इ) (1) घर-घर (2) स्वास्थ्य (3) व्यथित
 (4) अंतरराष्ट्रीय (5) प्रदूषणमुक्त
- (ई) (1) उनमें आवश्यक सुविधाएँ नहीं हैं।
 (2) परिवार कल्याण के प्रति आज भी उदासीन हैं।
 (3) यहाँ आकर भी सब कहाँ सुखी है?
- (उ) (1) इमारतों के जंगल में (2) खेल
 (3) अशिक्षित और अल्पशिक्षित लोग (4) सहकारिता का
 (5) जनप्रतिनिधियों का
- (ऊ) (1) दूरध्वनि (2) स्वास्थ्य (3) ग्रामीण (4) प्रदूषणमुक्त
 (5) परियोजना (6) अत्याधुनिक (7) विख्यात (8) सर्वांगीण

व्याकरण

- प्र.1. (अ) (1) दुखड़ा रोना - दुख सुनाना।
 वाक्य : चंदा माँगने आए व्यक्ति के सामने सेठ धनपतराय अपना दुखड़ा रोने लगा।
- (2) दिन दूनी - रात चौगुनी उन्नति - तेज गति से विकास।
 वाक्य : प्रधान मंत्री के सत्ता पर आते ही देश दिन दूनी रात चौगुनी आगे बढ़ा।

- (3) चार चाँद लगाना - शोभा बढ़ाना।
वाक्य : मोनिका के गीत गायन ने महफिल को **चार चाँद लगा** दिए।
- (4) चिराग तले अँधेरा - योग्य व्यक्ति के आस-पास ही अयोग्यता।
वाक्य : लोगों को स्वच्छता का पाठ पढ़ाने वाले मित्र को मैंने कचरा फेंकते देखा तो लगा **चिराग तले अँधेरा** ही है।

- (आ) (1) चाचा - वाक्य : चाचा जी प्रकल्प में मेरा मार्गदर्शन करते हैं।
(2) बालिका - वाक्य : बालिका अब पाठशाला जाने लगी है।
(3) अध्यापक - वाक्य : अध्यापक हमें पाठ पढ़ा रहे हैं।
(4) अभिनेत्री - वाक्य : अभिनेत्री ने घमंड दिखाया।
(5) गुड्डे - वाक्य : मेरी गुड़िया से तुम्हारे गुड्डे की शादी रचाएँगे।
(6) ऊँटनी - वाक्य : ऊँटनी का दूध बहुत महँगा है।
(7) सास - वाक्य : रजनी की अपनी सास के साथ नहीं बनती।
(8) हंस - वाक्य : हंस सरोवर की शोभा बढ़ा रहे थे।

- (इ) (1) पुरुष (2) बेटा (3) देवर (4) छात्रा (5) मोरनी
(6) पत्नी (7) विदुषि (8) बेटा (9) कार्यकर्ती

- (ई) (1) आबादी (2) कल्याण (3) कृषि (4) ग्रामजन
(5) चिल्लपों (6) तहसील (7) विख्यात
(8) व्यथित (9) यातायात (10) रौनक

- वाक्य : (1) आबादी दिन-ब-दिन बढ़ती जा रही है।
(2) मिल-जुलकर रहने में ही हमारा कल्याण है।
(3) गाँव में कृषि महाविद्यालय का उद्घाटन हुआ।
(4) ग्रामजन बेरोजगारी से परेशान हो उठे हैं।
(5) वाहनों की चिल्लपों से रक्तचाप बढ़ता है।
(6) नेता को अपने तहसील की भलाई में लग जाना है।

- (7) देवगढ़ का आम विश्व भर में विख्यात है।
(8) महिलाओं पर अन्याय की खबरें मुझे व्यथित कर देती हैं।
(9) यातायात के आधुनिक साधन विश्व की दूरियाँ मिटाने में योगदान दे रहे हैं।
(10) त्योहार पास में आने पर बाजार में रौनक आ गई।

- प्र. 2. (अ) (1) पुरस्कार या सम्मान मिलने पर (2) प्रतियोगिता जीतने पर
(3) विवाह, सगाई पर (4) जन्मदिन पर
(5) बेटा, बेटा की प्राप्ति पर (6) किसी कठिन कार्य के पूरे होने पर
(7) यात्रा पूरी होने पर (8) परीक्षा में सफलता पाने पर
(9) घर, जमीन आदि की खरीदारी पर
(10) मनपसंद नौकरी पाने पर (11) व्यवसाय की सफलता पर आदि।

(आ)	बोली	प्रदेश	बोली	प्रदेश
	मारवाड़ी	- राजस्थान	भोजपुरी	- बिहार
	कुमाऊँनी	- उत्तराखंड	बुंदेली	- हरियाणा
	अवधी	- उत्तर प्रदेश	छत्तीसगढ़ी	- छत्तीसगढ़
	मैथिली	- बिहार	बांगरू	- हरियाणा
	मेवाती	- राजस्थान	मालवी	- राजस्थान
	ब्रज भाषा	- उत्तर प्रदेश	गढ़वाली	- हिमाचल प्रदेश
	खड़ी बोली	- उत्तर प्रदेश	बघेली	- मध्य प्रदेश

परिच्छेद लेखन :

- ★ गाँव में घर पास-पास में होते हैं इसलिए यातायात के साधन न हों तो भी मिलने-जुलने में कोई दिक्कत नहीं आएगी, लेकिन उनके उत्पाद, जो वे शहर जाकर

बेचते हैं, बेच नहीं पाएँगे और बहुत नुकसान उठाना पड़ेगा। सब्जी, अनाज, दूध आदि चीजें खराब हो जाएँगी। न उनके दाम मिलेंगे ना ही किसी की क्षुधा मिटाने में काम आएँगी।

शहरों में खेती बाड़ी होती नहीं। वहाँ गाँव से सब्जी, फल, दूध वगैरह नहीं पहुँच सकेंगे और कई मुसीबतों से वे घिर जाएँगे। महानगर में तो अलग ही समस्या होगी। दूर-दूर तक काम पर जाने वाले लोगों को यातायात के साधन न होने की वजह से काम पर पहुँचना ही मुश्किल हो जाएगा। न मंडी में सब्जी होगी न कारखानों में कच्चा माल। इन सारी बातों का असर देश की अर्थव्यवस्था पर होगा। देश का विकास थम जाएगा।

लेखन कौशल (Writing Skill)

- (1) अनन्या जोशी,
286/102,
सुंदर नगर,
मलाड (प.), मुंबई।
दि. 5 नवंबर, 2020।

प्रिय मित्र नील,
सप्रेम नमस्ते।

तुम्हारा पत्र कल ही मिला। यह जानकर बहुत खुशी हुई कि तुम कक्षा में अव्वल आए। बहुत बहुत बधाई हो, मेरे दोस्त। मिठाई तो बनती है। खैर जब मिलूँगी तो सूद के साथ वसूल करूँगी। आज मैं तुम्हें कुछ और भी बताना चाहती हूँ।

पढ़ाई के साथ-साथ खेलों का भी हमारे जीवन में बड़ा महत्त्व है। खेलने से शरीर फुर्तिला बनता है। शरीर स्वस्थ रहता है और स्वस्थ शरीर में तेज दिमाग भी बसता है। हम अपने सभी कार्य सुचारू रूप से पूरे करने में सक्षम बनते हैं। खेल-कूद से मनोरंजन भी होता है और सहकारिता, अचूक निर्णयक्षमता, सूझ-बूझ जैसे गुणों का भी हमारे अंदर विकास होता है। हमारा शरीर सुंदर, सुदृढ़ बनता है। जब इतने लाभ होते हैं तो हमें खेल-कूद को भी पढ़ाई के बराबर महत्त्व देना चाहिए। उम्मीद है कि मेरी बातों से प्रभावित होकर जल्द ही टेनिस टूर्नामेंट में तुम्हें देखने का सौभाग्य मुझे मिले।

आदरणीय चाचा जी तथा चाची जी को मेरा प्रणाम कहना। दीदी को भी मेरा नमस्ते कहना।

तुम्हारी सहेली,

अनन्या

टिकट

प्रति,
नील भागवत,
24, नवी पेठ,
पुणे।

प्रेषक,
अनन्या जोशी,
286/102, सुंदर नगर,
मलाड (प.), मुंबई।

- (2) संदीप शाह,
बी / 403, कमला अपार्टमेंट,
मुलुंड, मुंबई।
दि. 5 अक्टूबर, 2020।

सेवा में,
मा. सरपंच महोदय,
ग्राम पंचायत,
अकोले, अहमदनगर।

विषय : 'स्वच्छ-ग्राम पुरस्कार' के उपलक्ष्य में अभिनंदन पत्र।

मा. महोदय,

मुझे बड़ी खुशी है कि मेरा गाँव राज्य का सबसे साफ-सुथरा गाँव है। आज 'स्वच्छ भारत, स्वस्थ भारत' के नारे चारों ओर लग रहे हैं पर गाँव के अशिक्षित और अल्पशिक्षित लोगों को समझाना चुनौतिभरा होता है और आप इस चुनौति

को सफलता से जीत गए। आपके मार्गदर्शन में आगे भी गाँव ऐसा ही साफ-सुथरा रहेगा और प्रगति करेगा यही उम्मीद करता हूँ।

प्राप्त पुरस्कार हेतु सभी ग्रामजनों को और आपको बहुत बहुत बधाई।
धन्यवाद।

भवदीय,
संदीप शाह।

टिकट

प्रति,
मा. सरपंच महोदय,
ग्राम पंचायत,
अकोले, अहमदनगर।

प्रेषक,
संदीप शाह,
बी / 403, कमला अपार्टमेंट,
मुलुंड, मुंबई।

विचार मंथन

- ★ **अमर :** भारत में बढ़ते हुए शहरीकरण के बावजूद भी गाँवों की संख्या अधिक है।
- सागर :** शायद इसलिए महात्मा गांधीजी गाँवों के उत्थान के पक्षपाती थे।
- अमर :** बिलकुल सही बात है। अगर हमारे गाँवों की उन्नति हो जाएगी तो देश की प्रगति होने में देर नहीं लगेगी।
- सागर :** सरकार भी गाँव के विकास के लिए कई योजनाएँ बना रही है।
- अमर :** गाँव वालों को भी उन योजनाओं में बढ़-चढ़कर हिस्सा लेना चाहिए।

सागर : हाँ अमर, ताली एक हाथ से नहीं बजती। सरकार की कोशिशें तभी सफल होंगी जब ग्रामजन पूरे जोश के साथ उसमें सहभागी होंगे।

अमर : और एक बात यहाँ जोड़ना चाहूँगा। गाँव के पढ़े-लिखे युवकों को अपनी शिक्षा का लाभ गाँव के विकास में लगाना चाहिए।

सागर : नहीं तो ये पढ़े-लिखे युवक स्वयं की प्रगति जरूर कर लेंगे, लेकिन अपनी जन्मभूमि का कर्ज कभी उतार नहीं पाएँगे।

अमर : गाँव का हर एक युवक अगर गाँव का कर्ज उतारने के लिए गाँव में बस गया तो देश के सभी गाँव विकसित होंगे और गाँवों का विकास हुआ तो देश का विकास होगा।

सागर : जी, हमें सदैव याद रखना होगा कि गाँव की समृद्धि में ही शहर की खुशहाली समाहित है।

अमर : गाँव के लोग अपने उत्पाद शहर वासियों को बेचकर खुश करेंगे। अपनी जरूरतें पूरी होने के कारण शहरों में खुशहाली होगी।

सागर : और अपने उत्पादों का उचित मूल्य पाकर ग्रामजन संतुष्ट होंगे। वहाँ भी आर्थिक सुबत्ता आएगी।