

# Key to Navjeevan Term Book - III

Standard  
**6**

**Teacher's Copy**

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## English Balbharati

### Unit - III

#### Topic 3.1 : It Can Be Done

- \*Q.1.** (1) The man who says “ it can’t be done” misses all the fun.  
(2) The title of the poem says that things can be done.  
(3) This man stands aloof in solemn pride and greets every dangerous task with criticism.  
(4) He misses all the fun because he believes that dangerous tasks can not be done.  
(5) If he had the power to do it, this man, would have effaced the history of the human race.  
(6) The poet has mentioned cars, electric lamps, telegraph and telephone.  
(7) If man wants to make progress he has to say, “ I can do it”
- Q.2.** aloof - reproof, efface - race, cars - stars, telephone - stone, run - done, fun - done

#### Extract - 1

- Q.1. (1)** (a) misses all the fun  
(b) men who say “It can’t be done”.  
(c) the history of the human race  
(d) Here, it means ‘looking very serious, grand and important’  
(e) linger in the Age of Stone
- (2)** (a) venture (b) reproof (c) linger
- Q.2.** Man has managed to progress in life because man has taken the initiative to look into things and discover ways and means

of changing things for the better. Man has believed in inventions and has taken the trouble to invent new machines, modes of travel, audio and visual apparatus, medical inventions, etc. If the telephone, telegraph, radio, motor cars, etc., had not been invented, man would still have been in the Stone Age.

- Q.3. (A)** (1) Alliteration - sound ‘h’ is repeated for poetic effect.  
(2) Metaphor - lamps are called electric stars.  
(Hidden or implied comparison)  
(3) Personification - world is given human quality of sleeping.  
(4) Alliteration - sound ‘t’ is repeated for poetic stress.
- (B)** These are called ‘couplets’ since each set is made up of just two rhyming lines.

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#### Topic 3.2 : Seven Sisters

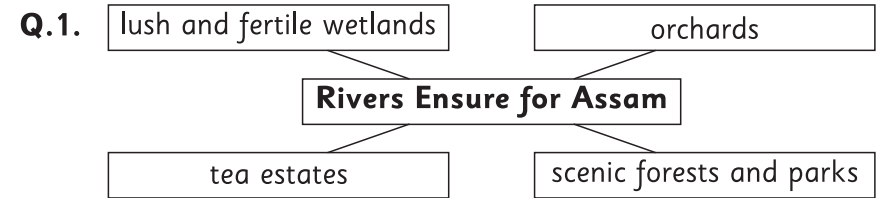
- Q.1.** (1) Arunachal Pradesh is called the Land of the Rising Sun - the Land of the Dawn Lit Sun.  
(2) It is well known for its 400 year old Buddhist monastery at Tawang, cultural festivals at Ziro, Namdapha tiger project and India’s first orchid sanctuary.  
(3) Assam is situated between the beautiful valleys of the Brahmaputra and Barak rivers.  
(4) Assam is well known for its artistic heritage, exotic dance forms and elegant temples and hand woven silk.  
(5) Meghalaya is known as the abode of clouds and its capital city Shillong is called ‘Scotland of the East’ because of its highlands, fog and scenery.

- (6) The rolling mists, the undulating hills, numerous lakes, waterfalls, caves, sacred forests and exotic flora and fauna are fascinating.
- (7) Krem Liat Prah - longest cave  
Synrang Pamiang - deepest cave  
Cherrapunji / Mawsinram - wettest places on earth.
- (8) Manipur is known as the Jewelled Land and as Kangleipak or Sanaleibak.
- (9) The credit of introducing polo to the Europeans goes to Manipur.
- (10) The Keibul Lamjao National Park that has 17 rare species of mammals is the only floating National Park of the world.
- (11) Champhai in Mizoram is known as the fruit bowl of Mizoram.
- (12) Nagaland is called the Switzerland of the East.
- (13) People visit Tripura for eco-tourism and archaeological tourism.

- Q.2. (a)** (1) I am proud to be the jewel of my mother India.  
(2) My people are simple and hospitable.
- (b)** (1) You must make it a point to visit the 400 years old Buddhist monastery at Tawang and enjoy cultural festivals at Ziro.  
(2) If you come here you can enjoy the cuisine which has its own distinctive aromas and flavours.
- (c)** (1) Don't miss the Namdapha tiger project.  
(2) Don't forget to visit the Ahom palaces.

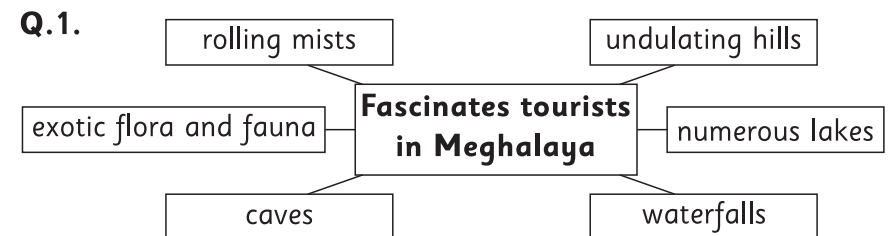
- Q.3.** (1) simple, hospitable (2) Brahmaputra (3) Bihu  
(4) Jhum (5) Imphal (6) Zarkawt  
(7) Mount Saramat (8) Indian Hornbill

**Extract - 1**



- Q.2.** (1) Ahom (2) 'Eri', 'Muga', 'Pat'  
(3) momos (4) 'tapenuru'.
- Q.3.** (1)-(c), (2)-(d), (3)-(a), (4)-(b), (5)-(e), (6)-(f)
- Q.4. (A)** (1) simplicity (2) greatness  
(3) popularity (4) hospitability
- (B)** (1) Indian (2) Natural  
(3) Silky (4) Enjoyables
- (C)** (a) hospitable (b) aromatic (c) steamed

**Extract - 2**



- Q.2.** (1) Cherrapunji / Mawsinram is the wettest place on earth.  
(2) Manipur is also called the Jewelled Land.  
(3) The 'Jhum' or shifting cultivation is practised in Meghalaya.

(4) The Keibul Lamjao National Park having rare and endangered species of the brow antlered deer is a treat for the eyes in Manipur.

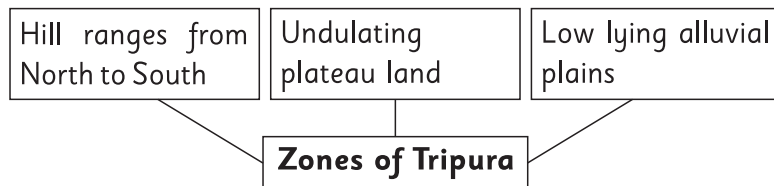
- Q.3.** (a) Manipuri (b) 'Thang Ta', 'Sarit Sarak'  
(c) Bangladesh (d) Shillong

- Q.4. (A)** (1) foggy (2) scenic  
(3) enjoyable (4) misty

- (B)** (1) differ (2) nationalise  
(3) acclaim (4) cultivate

### Extract - 3

**Q.1.**



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

- Q.3.** (1) Nagaland is an ideal place for trekking, rock climbing, jungle camping and exploration.  
(2) Mizoram is a host to numerous species of birds, wildlife and flora.  
(3) The Kokborok speaking Tripuri people are the major group among tribes and subtribes in Tripura.

- Q.4.** (1) smallest - superlative degree.  
(2) My land is an ideal place for trekking, isn't it?  
(3) (1) geography (2) peace  
(3) nourishment (4) majority

- Q.5.** (a) inhabit (b) shimmering  
(c) artifacts (d) falcon

**Q.6.** Meghalaya is known as the abode of clouds. It is very beautiful and everything here is green and alive. Cherrapunji is the wettest place on earth. Meghalaya has many wild life sanctuaries.

Manipur is known as the Jewelled Land. Manipur has the credit of introducing polo to the Europeans. Manipur is blessed with an amazing variety of flora and fauna.

### Topic 3.3 : Stone Soup

**Q.1.** \*(a) The story takes place in a small village.

\*(b) The characters are Motiram, Sonabai, Hirabai, Rupabai and a traveller.

**(i) Motiram** - is very selfish, he does not want to advertise that his farm has produced well, since this fact may attract guests. According to him uninvited guests are pests.

**(ii) Sonabai** - Her farm too has delivered good grain. She too does not want uninvited guests.

**(iii) Hirabai** - She does not believe in wasting food and money on others.

**(iv) Rupabai** - May be slightly better than the others. She wonders if it is right not to give food to others.

**(v) Traveller** - He is a poor footsore traveller. He is hungry, but he knows that the people in the village are not going to offer him any food.

\*(c) (1) Go away. No food and no rest for anyone here.

(2) Good. I do not want you to go elsewhere.

- \***(d)** Apart from the stone, some potatoes, carrots, tomatoes, beans, onions, a little ginger and a pinch of salt go into the soup.
- \***(e)** No, there is no such thing as a magic stone. The soup is made with water and vegetables such as potatoes, tomatoes, beans, onions and some ginger and a pinch of salt.
- \***(f)** **(i) Motiram** : Motiram told the traveller, that dinner was over and there was nothing left.
- (ii) Sonabai** : She pretended to be deaf and made it seem that the word 'food' was really 'wood'.
- (iii) Hirabai** : Hirabai pretended that she did not understand the language and started speaking gibberish.
- (iv) Rupabai** : Rupabai told the traveller that her larder was empty and that she herself was very hungry, but she had nothing at home.

- Q.2.** **(a)** Ram : I think we all should have a holiday on Monday.  
Sam : I agree with you.
- (b)** Rita : Is it true that your brother is an actor?  
Seema : Yes, it's true!
- (c)** Student : Ma'am are cars bad for the environment?  
Teacher : Yes, you are right.
- (d)** Daughter : Can we go to the park on Sunday?  
Father : Why not? Sure we can go.
- (e)** Mother : This book is for you.  
Son : Thank you so much mom.

- Q.3.** 'Charity begins at home' means that you should help your family and people close to you, before helping people you don't know.
- (1)** Sharing is caring.
- (2)** Kindness is learnt at home and best practised to help the weak.

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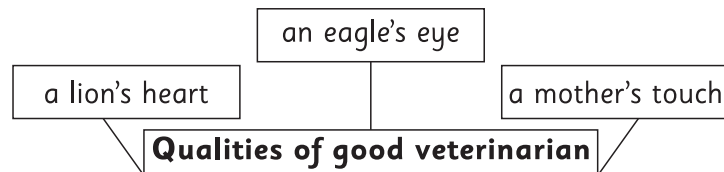
### Topic 3.4 : Sushruta (A Peep into the Past)

- Q.1.** **\*(a)** Sushruta was a bright student of veterinary medicine.
- \*(b)** Shalihotra was Sushruta's teacher, who one day decided to test him.
- \*(c)** Shalihotra asked Sushruta what all he would need to perform a surgery on a wonderful horse.
- \*(d)** Shalihotra gave Sushruta one week to find out the three missing things.
- \*(e)** By observing his teacher carefully and thinking about what he did.
- \*(f)** Emperor Ashoka created the first known veterinary hospitals of the world.
- Q.2.** Sushruta discovered that the person doing surgery must have an eagle's eye, a lion's heart and a mother's touch.
- Q.3.** **(a)** To observe everything very keenly and carefully.
- (b)** To treat someone and something as if it were your own. Not to show fright.
- (c)** To be loving and kind to the patient and help the patient to recover.
- Q.4.** Indian veterinary medicine is known for its specialised literature, which provides information on ancient methods of preventing and treating diseases of animals.

- Q.5.** Nakula, one of the five Pandavas, was a horse specialist.
- Q.6.** Giving the animals general tonics and stimulants was practised to ensure good health of animals.
- Q.7.** Cleanliness of animals, maintenance of stalls and stables, quality of food and disadvantages of overfeeding were looked after.
- Q.8.** (1) veterinary therapy (2) India  
(3) Nakula, Asva cikitsita (4) Ashoka  
(5) Prevention, occurrence
- Q.9.** (1) brightness (2) decision (3) performance  
(4) consolation (5) equality (6) goodness  
(7) development (8) composition
- Q.10.** (1) Who was regarded as father of Indian medicine?  
(2) What is Indian veterinary medicine know for?  
(3) Where did emperor Ashoka cultivate herbal medicines for men and animals?  
(4) When did a tradition veterinary therapy develop in India?  
(5) How was the good mental and physical health of animals ensured?  
(6) Why is veterinary science not chosen by many people in India?

#### Extract - 1

**Q.1.**



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

- Q.3.** (a) Before operating on the horse, Shalihotra observed every part of the horse.  
(b) While treating the horse, Shalihotra balanced science and compassion equally.  
(c) After the surgery, Shalihotra helped the horse to recover.
- Q.4. (A)** (1) equalise (2) brighten  
(3) teach (4) wonder  
**(B)** life - abstract noun; Sushruta - proper noun;  
book, surgery - common noun

#### Extract - 2

- Q.1.** (a) Asvayurveda Siddhanta (b) Nakula  
(c) Asva cikitsita (d) veterinarians
- Q.2.** (1)-(b), (2)-(c), (3)-(d), (4)-(a)
- Q.3.** (1) Chicken was utilized for its meat.  
(2) Indian veterinary medicine is based on Ayurveda.  
(3) Sushruta wrote on animal surgery.
- Q.4. (A)** Surgical methods, dressing of wounds, bandaging of fractures, herbal medicines.  
**(B)** (1) survival (2) knowledge  
(3) treatment (4) writing

#### Extra Questions

- (1)** \*(a) Utilization of animal by-products was done wisely by our ancestors. Conversion of milk into butter, ghee, curd, khoa, etc., was a common practice. Chicken was utilized for its meat, sheep was used for its wool.
- \*(2)** \*(a) subsequently; frequently; wisely; immensely; beautifully

- \* (b) happiness, business
- happier, costlier
- booklet, bracelet
- careful, cheerful
- attention, mention
- sunny, funny

### Topic 3.5 : The Donkey

- Q.1.** (1) The donkey was just one day old.
- (2) The donkey's head was too big for its neck to support. Its legs were long, loose and shaky. They were of not much use to him, since he moved unsteadily.
- (3) The poet calls the donkey's coat queer. His coat is soft and grey and curled at the neck. It looks very lovely that way.
- \* (4) The poet prayed for him, because he looked so little and weak and slim. He prayed that the world should be good to the donkey.
- (5) The wistful face of the donkey told the poet that he felt that life needed some thinking about.
- (6) After blundering around in some adventurous quest, he got tired and lay flat on the ground to rest.
- Q.2.** (1) hold      (2) use      (3) it      (4) way  
 (5) about      (6) ground      (7) rest
- \*Q.3.** (1) foal      (6) lamb      (11) owlet  
 (2) colt/foal      (7) lambkin      (12) cygnet  
 (3) cub      (8) calf      (13) eaglet

- (4) cub      (9) piglet      (14) duckling
- (5) calf      (10) calf      (15) peachick

- \*Q.4.** (1) hold his neck      (2) attend the meeting  
 (3) mix with the others      (4) enjoy the game  
 (5) attend the party      (6) go out for his morning walk

#### Extract - 1

- Q.1.** (a) Adjectives are shaky, long and loose.  
 (b) Adjectives are queer, little, soft and grey.  
 (c) (a) staggered (b) wistful (c) quest  
 (d) (i) moved with a jerk (ii) to make a stupid mistake
- Q.3.** (a) Alliteration - sound 'l' is repeated for poetic effect.  
 (b) Alliteration - sound 'h' is repeated for poetic effect.  
 Hyperbole - statement is exaggerated.

#### Extract - 2

- Q.1.** (a) The little donkey lay flat on the ground to have some rest from his daring adventurous quest.  
 (b) There was a wistful look on his face.  
 (c) There was a wistful look on the donkey's face because he felt that life needed some thinking.  
 (d) The poet felt that the young donkey looked very little and weak and slim, therefore he prayed that the world would be good to the donkey.
- \*Q.2.** I would not tolerate anyone abusing an animal. The same God who created us, also created the animals and birds in the world. I would speak to the person slowly and politely and explain that he is doing something wrong by ill-treating the

animal. If the person refuses to listen, I would complain to the Animal Welfare Organization.

\*Q.3. (1) about (2) ground (3) rest (4) him

### Topic 3.6 : The Merchant of Venice

- \*Q.1. (1) (a) He was a merchant, who lived in Venice. He was a kind man with many friends. Antonio was going through a bad patch, since he had lost his ships. Antonio had asked Bassanio to borrow money from Shylock in his name. The money had to be paid up or Shylock would take a pound of Antonio's flesh.
- (b) He was Antonio's best friend. He was a young and handsome nobleman, but unfortunately he had no money. He had to travel, to Belmont to try his luck with Portia's caskets. Bassanio won Portia's hand in marriage.
- (c) Portia was beautiful and intelligent. She was the only daughter of a very wealthy man. The man who would marry Portia had to choose between three caskets, Portia disguised herself as a young lawyer and fought Antonio's case against Shylock and won the case.
- (d) Shylock was a Jewish money lender. He had a lot of money but was not generous at all. He hated Antonio. When Bassanio borrowed money in Antonio's name, Shylock lent it to him on a strange condition that if the money was not returned within three months, he would cut off a pound of Antonio's flesh.

\*Q.2. (a) Will (b) Pound (c) Suitor (d) Bond

\*Q.3. (a) Adventurous, prosperous, dangerous, generous. Four more words are jealous, chivalrous, capricious, advantageous.

\*Q.4. (b) (1) unkind (2) unintelligent (3) disadvantage (4) unhappy (5) disallow (6) unsafe

\*Q.5. (1) True (2) False (3) False (4) False (5) True (6) True (7) True (8) True (9) False

\*Q.6. (1) far/away (2) noble/man (3) who/ever (4) money/lender (5) some/times

Ten more words :

- (1) breakfast - break/fast
- (2) afternoon - after/noon
- (3) bedroom - bed/room
- (4) handkerchief - hand/kerchief
- (5) handset - hand/set
- (6) rainbow - rain/bow
- (7) tablecloth - table/cloth
- (8) nobody - no/body
- (9) tablelamp - table/lamp
- (10) everyday - every/day
- (11) brainstorming - brain/storming

#### Extract - 1

Q.1. (a) Bassanio (b) prosperous  
(c) spices, treasures (d) merchandise

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



- Q.3.** (a) It was written 'Whoever chooses me shall gain what many men desire.'
- (b) Two of Portia's Suitors were the Prince of Morocco and the Prince of Arragon.
- (c) On the casket of lead it was written 'Whoever chooses me must give and hazard all he has.'
- (d) (i) cruel (ii) ugly (iii) poverty (iv) find
- (e) (i) a small decorative box use to keep jewellery  
(ii) goods that are bought and sold  
(iii) rich and successful  
(iv) joining two or more people together
- Q.4.** (a) (1) choice (2) opening  
(3) writing (4) kindness
- (b) Antonio was a merchant living in Venice
- (c) Portia was beautiful and intelligent, wasn't she ?

### Extract - 2

- Q.1.** (1)-(c), (2)-(d), (3)-(a), (4)-(b), (5)-(f), (6)-(e)
- Q.2.** (a) Bassanio chose the lead casket.  
(b) When Shylock heard that Antonio had lost his ships, he became very happy.  
(c) Shylock said that if Antonio failed to return the money within three months, Shylock would cut a pound of Antonio's flesh.  
(d) The young lawyer requested Shylock to show mercy, since, mercy is a quality of God.
- Q.3.** (a) less, more (b) Antonio's life  
(c) Bassanio, Portia (d) blessed

- Q.4.** (a) (1) merciful (2) valuable  
(3) fleshy (4) conditional
- (b) Shylock was adamant, wasn't he?  
(c) rushed - Simple Past Tense  
(d) Mercy, quality, God

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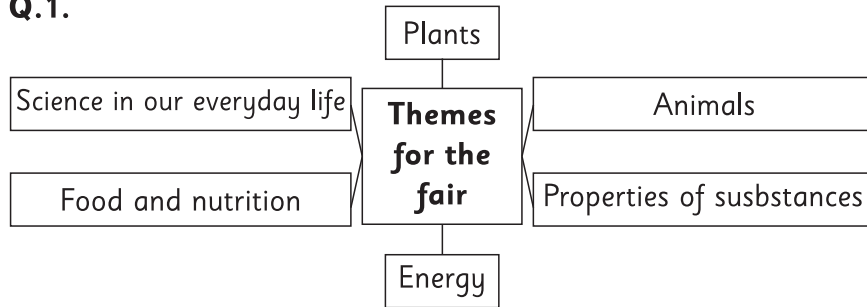
### Topic 3.7 : At the Science Fair

- Q.1.** \*(a) The two basic rules followed were, **(i)** everything should be handled by students and **(ii)** even the entertainment booths and refreshment stalls had to have a scientific base.
- \*(b) Preparation for the Science Fair began at least a couple of months in advance.
- \*(c) The themes identified by the committee were - Plants, Animals, Properties of Substances, Energy, Science in our Everyday life, Latest News from the World of Science and Food and Nutrition.
- \*(d) It was decided to allow 56 stalls in the Fair. Stalls were allotted to as many group of children. Each group selected a topic/ idea from the chosen themes. The young scientists began collecting information about their topic. They shared and discussed their information. They next decided the exact activity for their stall-whether to build and display a model, or give a demonstration or present their project through posters or simply exhibit a collection.
- \*(e) Mr. Gizare appreciated the fact that in most of the stalls, visitors could also try out the various scientific experiments and models.

- Q.2.** (1) chosen themes (2) brainstorming  
 (3) representatives (4) scientists  
 (5) language, appearance, content (6) Mr. Gizare  
 (7) Clean Brigade (8) disciplined

**Extract - 1**

**Q.1.**



- Q.2.** (a) committee (b) topics, repeated  
 (c) graphic, oral (d) shared, discussed

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

- Q.4.** (a) (1) contribution (2) selection  
 (3) consideration (4) announcement  
 (b) (1) graphically (2) orally  
 (3) earnestly (4) simply

**Q.5.** \*(1) The first step was brainstorming. The Principal invited ideas from students, teachers and parents. Plenty of ideas poured in. Parents contributed ideas and volunteered to help with planning and implementation of the big event. Hence, a committee of parents, teachers and even student representatives was set up to look after all the work of the fair.

**Extract - 2**

**Q.1.**



- Q.2.** (a) Mr. Gizare had introduced the idea of the Science Fair.  
 (b) Mr. Gizare appreciated the fact that in most of the stalls, visitors could also try out the various scientific experiments and models.  
 (c) They did this to spread the message of cleanliness.

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

- Q.4.** (a) He was happy to see the stalls, wasn't he?  
 (b) had been inaugurated - Past Perfect Tense.  
 (c) disciplined - Adjective of quality, lot - collective noun.

## मराठी सुलभभारती

### १०. बाबांचं पत्र

#### स्वाध्याय

- प्र.१. \* (अ) गणिताचा \* (आ) बाबा (इ) कला  
 (ई) गणित \* (उ) आंतरिक गुण \* (ऊ) पुस्तके
- \* प्र.२. (अ) आईने दूरध्वनीवरून बाबांना निरोप दिला की, वैष्णवीला सहामाहीचा पेपर खूपच कठीण गेला.
- (आ) बाबांनी दूरध्वनीवरून बोलणे पसंत केले नाही कारण त्यांना पत्र लिहूनच वैष्णवीशी हितगुज करायचे होते.
- (इ) गणित विषय वैष्णवीचा लाडका होण्यासाठी बाबांनी तिला गणिताशी मैत्री करायला सांगितले आहे.

#### उतारा क्र. १

- प्र.१. (१) (i) (१) दूरध्वनीवरून सांगणारी - आई  
 (२) निराश झालेली - मिन्
- (ii) (१) बरोबर (२) चूक
- (२) (i) वैष्णवीच्या बाबांनी गणितातील या गोष्टी समजावून घ्यायला सांगितल्या
- |          |       |        |
|----------|-------|--------|
| संकल्पना | संबोध | क्रिया |
|----------|-------|--------|
- (ii) गणिताशी
- (३) (i) (१) मी (२) तुझा  
 (ii) (१) आशीर्वाद (२) हितगुज
- (४) मला शालेय अभ्यासक्रमात इतिहास हा विषय खूप कठीण जातो. भूतकाळातील घटनांची नोंद सनावळ्यांच्या गुंतागुंतीमुळे आणखी अवघड वाटते. जे घडले आहे तेच इतिहासात लिहिणे महत्त्वाचे आहे.

भूतकाळात घडलेला प्रत्येक प्रसंग क्रमानुसार इतिहासात अपेक्षित असतो. बऱ्याचदा हा क्रम लक्षात न राहिल्याने उत्तर लिहिणे खूपच अशक्य वाटते. भारताचा इतिहास व जगाचा इतिहास याबाबत बऱ्याचदा गोंधळ होतो. प्राचीन, मध्ययुगीन, अर्वाचीन कालखंड ह्या कालखंडातील घटना नेमक्या कशा लक्षात ठेवायच्या असा प्रश्न मनाला पडतो. लढाया, तह, तहाची कारणे, पराभवाची कारणे वेगवेगळ्या प्रकारची असतात. सारे काही लक्षात घेऊन ह्या घटना, प्रसंगांचे वर्णन करताना माझी खूपच दमछाक होते. तरीही या विषयाचा अभ्यास करावाच लागतो.

#### उतारा क्र. २

- प्र.१. (१) (i) (१) दिवाळीत गावी येणारे - बाबा  
 (ii)
- |                               |          |        |
|-------------------------------|----------|--------|
| वैष्णवीच्या अंगी असलेल्या कला |          |        |
| नृत्यकला                      | चित्रकला | कथाकथन |
- (२) (i)
- |  |  |
|--|--|
| बाबांनी कला जोपासण्याचा आग्रह केला. कारण कला ... | आपले जीवन सुंदर करतात.                   |
|  | आपले व्यक्तिमत्त्व फुलवतात.              |
|  | स्वतःमधील गुणांची वाढ करायला संधी देतात. |
- (ii)
- |  |                    |
|--|--------------------|
| किल्ले बांधणे                                  | कंदील तयार करणे    |
| वैष्णवी आणि तिचे बाबा दिवाळीत करणार असलेली मजा |                    |
| गप्पा मारणे                                    | दिवाळीचा फराळ खाणे |
- (३) (i) (१) पुल्लिंग (२) स्त्रीलिंग (३) नपुंसकलिंग  
 (४) स्त्रीलिंग (५) पुल्लिंग (६) नपुंसकलिंग
- (ii) (१) अधिक (२) कठीण (३) प्रत्येक  
 (४) विषय (५) जीवन (६) सुंदर

- (४) दिवाळीच्या सुट्टीत आम्ही खूप खूप धमाल करणार. प्रथम खरेदी करणार. नवीन कपडे, सर्वांसाठी भेटवस्तू, कंदीलाचे साहित्य, मातीच्या पणत्या आणणार. नंतर घराची साफसफाई करण्यासाठी आईला मदत करणार. बाबांच्या मदतीने आकाश कंदील तयार करून घरासमोर लावणार. शाळेत बाईंनी सांगितल्याप्रमाणे पणत्या विविध रंगांनी रंगविणार. मित्रांच्या मदतीने सोसायटीच्या आवारात किल्ले बांधणार. आईने केलेल्या फराळावर ताव मारणार. नातेवाईकांना भेटणार. कमी आवाजाचे व कमी धूर करणारे फटाके लावणार. दारासमोर सुंदर रांगोळी काढणार.

### अधिक प्रश्न

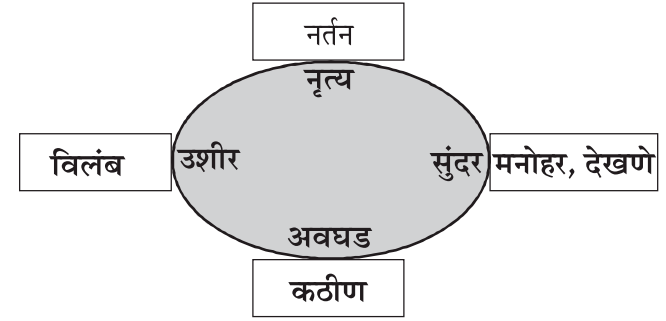
- प्र.१. (१) तुला अनेक संधी मिळतील.  
 (२) तुझ्या आवडीचा खाऊ घेऊन येणार आहे.
- प्र.२. (१) अनेकवचन (२) एकवचन (३) एकवचन (४) अनेकवचन
- प्र.३. (१) रजा (२) आयुष्य (३) गंमत (४) कहाणी

सूचना : Term Book मध्ये क्र. (४) सराव Type झाला आहे तो शब्द 'गोष्ट' आहे.

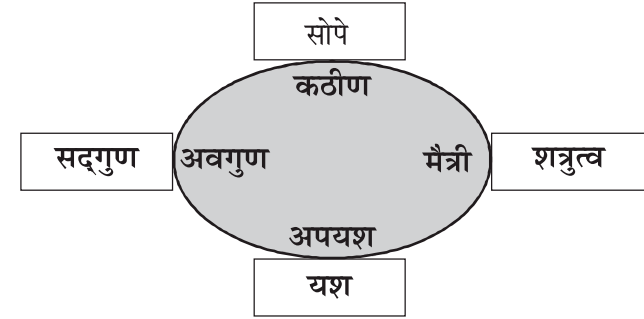
### व्याकरण

- प्र.१. (१) पहिल्या प्रयत्नात **अपयशी ठरलो** म्हणजे सारे काही संपले असे समजू नये.  
 (२) एखाद्याला पत्र लिहून आपल्याला त्या व्यक्तीशी चांगले **हितगुज करता** येते.  
 (३) हवामान खात्याच्या अंदाजानुसार पावसाच्या अपेक्षेने शेतकऱ्यांनी पेरण्या केल्या पण पाऊस न पडल्यामुळे शेतकरी **निराश झाले**.  
 (४) परीक्षेच्या कामात मी पूर्ण **गुरफटला गेलो** त्यामुळे गावी जायला मला उशीर झाला.  
 (५) जागतिक स्पर्धेत चांगले यश मिळावे म्हणून सानिया मिर्झाने आपल्या खेळाचा चांगला **सराव केला**.

प्र.२.



\*प्र.३.



\*प्र.४. (अ) उंच (आ) शंभर (इ) टवटवीत (ई) नवा

### आपण समजून घेऊया

- \* (१) वर्तमानकाळ (२) भूतकाळ (३) भविष्यकाळ
- काळ ओळखा.**
- (१) भूतकाळ (२) वर्तमानकाळ (३) भविष्यकाळ  
 (४) भविष्यकाळ (५) भविष्यकाळ (६) भूतकाळ
- \* (१) आज शाळेला सुट्टी आहे.  
 (२) काल शाळेला सुट्टी होती.  
 (३) उद्या शाळेला सुट्टी असेल.

## उपक्रम

- ★(१) (१) पोस्ट कार्ड (२) आंतरदेशीय पत्र (३) स्पीड पोस्ट  
(४) पाकीट (५) कुरीयर (६) फॅक्स (७) ई-मेल

★(२)

**हार्दिक अभिनंदन सानिया !**  
पोहण्याच्या स्पर्धेत राज्यातून तू प्रथम क्रमांक पटकावलास  
म्हणून तुझे मनःपूर्वक अभिनंदन !!  
आणि असेच तुला यश मिळत राहो हीच सदिच्छा !

- ★(३) (१) प्रयत्न करा, यश तुमचेच आहे.  
(२) अपयशाने खचून न जाता प्रामाणिकपणे पुन्हा प्रयत्न करावेत.

## प्रकल्प

विद्यार्थ्यांनी स्वतः कृती करा.

## ११. मिनूचा जलप्रवास

### स्वाध्याय

- ★ प्र.१. (अ) निळ्या, थंडगार व स्वच्छ पाण्याच्या नदीत मिनू मासोळी माशांच्या समूहात राहायची.
- (आ) 'रोज खूप पाणी जमणारा समुद्र केवढा मोठा असेल?' या जिज्ञासेपोटी मिनूला समुद्र बघायचा होता.
- (इ) एक दिवस मुसळधार पाऊस पडू लागला आणि जमिनीवरून पाण्याचे लोंढे वाहायला लागले त्यामुळे नदीचे पाणी गढूळ झाले.
- (ई) खडकावर फुललेल्या फुलांचे लाल, गुलाबी, अंजिरी असे छान रंग होते.
- (उ) समुद्राच्या खोलवर अंधार असतो, कारण इतक्या खोलवर प्रकाश पोहचत नाही.

★ प्र.२. (अ) एक नदी होती. तिच्यात खूप खूप पाणी होते. निळे निळे, थंडगार व स्वच्छ! इतके स्वच्छ की वरून पाहिले तर तळाची वाळू, गोल गोटे व सुळसुळ पोहणारे मासे दिसायचे. अशा सुंदर शब्दांत लेखिकेने नदीचे वर्णन केले आहे.

(आ) मुसळधार पाऊस पडल्यामुळे जमिनीवरून पाण्याचे लोंढे वाहू लागले, त्यामुळे नदीचे पाणी गढूळ झाले. मासे बावरले. कोणीच कोणाला दिसेना. या गोंधळात मिनूची व तिच्या आईची चुकामूक झाली.

(इ) समुद्रामध्ये मिनूची एका माशाशी टक्कर झाली. त्याचे तोंड घोड्यासारखे होते व पोटाला पिशवी होती. त्यात छोटी छोटी पिल्ले बसलेली होती. ते पाहून मिनूला हसू आले.

★ प्र.३. (अ) असे समुद्रातील मोठे कासव मिनूला म्हणाले, जेव्हा मिनूला ते जाणून घ्यायचे होते.

(आ) खेकड्याला पाहून मिनूची घाबरगुंडी उडाली तेव्हा कासवदादा मिनूला असे म्हणाले.

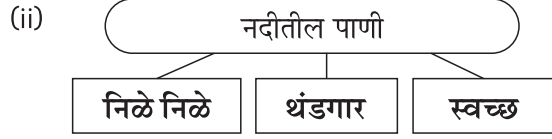
प्र.४. (अ) **घोडमासा** : हा एक विचित्र मासा आहे. त्याचे तोंड घोड्यासारखे असते. त्याच्या पोटाला पिशवी असते. त्यात त्याची छोटी-छोटी पिल्ले बसलेली असतात. खोल समुद्रातील हा विचित्र मासा पाहून मिनूला हसू आले.

**सूचना** : Term Book 35 वर घोडमासा ऐवजी घोडामासा असे Type झाले आहे.

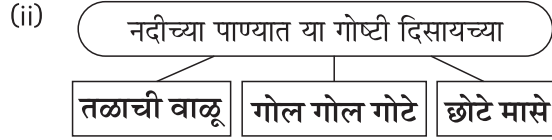
(आ) **खेकडा** : हा प्राणी तिरका तिरका चालतो. त्याचे डोळे बटबटीत असतात. त्याच्या पाठीवर कासवासारखे कठीण कवच असते. त्यामुळे शत्रू त्याच्यावर हल्ला करू शकत नाही. सहा ते आठ पाय असूनही त्याला सरळ चालता येत नाही. तोंडाजवळच्या नांग्यांनी तो स्वतःचे रक्षण करतो व भक्ष्यही पकडतो.

### उतारा क्र. १

- प्र.१. (१) (i) (१) जमिनीवरून वाहायला लागले - पाण्याचे लोंढे  
(२) समुद्राच्या पाण्याची चव - खारट  
(३) नदीतील मासे हीचे खूप लाड करायचे - मिनू मासोळीचे



(२) (i) मिन्ची व मिन्च्या आईची चुकामूक झाली. पाण्याबरोबर ती गिरक्या घेऊ लागली पोहताना तिच्या तोंडात खारट पाणी गेले तेव्हा ती स्वतःशीच म्हणाली “समुद्र, समुद्र म्हणता तो आला की!”



(३) (i) (१) मासे (२) रंग (३) फुले (४) नद्या  
(ii) “आई समुद्र केवढा असतो?” मिन् विचारी.

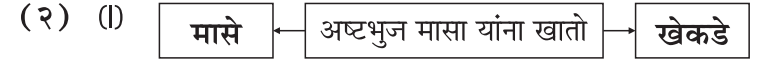
(४) मासा हा पाण्यात राहणारा जलचर प्राणी. मानवाचे एक पौष्टिक अन्न म्हणजे मासा. माशांचे खाऱ्या पाण्यातील मासे व गोड्या पाण्यातील मासे असे स्थानावरून दोन प्रकार पडतात. आकार, चव यांनुसार पापलेट, रावस, सुरमई, बांगडा असे कमी काटे असलेले मासे मला आवडतात.

पापलेट माशांमध्ये रूपेरी, पांढरा, काळा असे तीन प्रकार आहेत. यातील रूपेरी पापलेट मला विशेष आवडते. त्यातही सुपर पापलेट पेक्षाही लहान पापलेटचा रुबाव काही औरच असतो रस्सा, फ्राय व भाजून मासे खाता येतात. पापलेट मासा थोडासा महाग असला तरी त्याची चव नक्कीच जीभेवर रेंगाळणारी असते. चवीने खाणाऱ्या व्यक्ती किंमतीचा विचार करित नाहीत. चांगले खाण्याची सवय असणारा पापलेटचीच निवड करतो.

### उतारा क्र. २

प्र.१. (१) (i) (१) आठ हात असलेला	-	अष्टभुज मासा
(२) समुद्राच्या तळाशी बसलेले	-	कासव
(३) विचित्र मासा	-	घोडमासा

(ii) असे मिन् कासवदादांना म्हणाली कारण तिला त्यांना आपल्या नदीतल्या घराकडे न्यायचे होते.



(ii) (अ) - (२), (आ) - (४), (इ) - (१), (ई) - (३).

(३) (i) (१) नपुसकलिंग (२) स्त्रीलिंग  
(३) स्त्रीलिंग (४) नपुसकलिंग

(ii) (१) तोंड (२) नदी (३) पाणी (४) समुद्र

(४) मोती तयार होण्याची क्रिया - (१) दोन शिंपल्यांच्या पेटीत एक किडा बसलेला असतो. अगदी मांसाचा गोळा असतो. (२) त्याला चालायचे असले, की तो आपले पाय फटीतून बाहेर काढून चालतो. (३) या शिंपल्यात चुकून एखादा वाळूचा कण गेला, की शिंपल्यातील गोळ्याला तो टोचू लागतो. (४) मग तो आपल्या अंगावरील पातळ रस काढून त्यावर गुंडाळतो. (५) मग त्यातून छानदार मोती तयार होतो.

### उतारा क्र. ३

प्र.१. (१) (i) (१) बटबटीत डोळ्यांनी मिन्कडे पाहणारा प्राणी - खेकडा  
(२) वाटेत ठिकठिकाणी सोडलेली होती - जाळी

(ii) (१) नदीच्या गोड पाण्याचा (२) कासव

(२) (i) खेकड्याच्या दोन नांग्यांचे उपयोग

संरक्षण करण्यासाठी भक्ष्य पकडण्यासाठी

(ii) खेकड्याच्या पाठीवर कठीण कवच असते.

(३) (i) (१) स्वच्छ (२) हळूहळू

(ii) (१) सोपे (२) कडू (३) चांगले (४) मित्र

(४) आई, मी आज पहाटे पोहत समुद्रात पोहचले. समुद्राचे पाणी खारट होते. समुद्र खूप लांब पसरलेला होता. पाण्यात एका बाजूला लांबपर्यंत खडकांच्या रांगा होत्या. एका खडकावर लाल, गुलाबी, अंजिरी फुलेच फुले होती. माझी घोडामाशाशी टक्कर झाली. त्याच्या पोटाला पिशवी होती व त्यात छोटी छोटी पिल्ले बसलेली होती. मला एक मोठे कासव भेटले. त्याने मला अष्टभुज मासा, खेकडे, शंख-शिपले दाखविले व मला त्यांची माहिती सांगितली. ते कासव मला आणखी गमतीजमती दाखविणार होते पण मीच नको म्हटले. त्यानीच मला परत नदीत आणून सोडले. पण समुद्र खूप छान होता.

### अधिक प्रश्न

- प्र.१. (१) खेकड्याला पाहून मिनूची घाबरगुंडी उडाली तेव्हा कासवदादा मिनूला असे म्हणाले.
- प्र.२. नदीच्या गोड पाण्याचा स्पर्श झाल्यावर मिनूने दोन-तीन चुळा भरल्या. तिचे खारट तोंड स्वच्छ झाले.

### व्याकरण

- प्र.१. (१) छोटीशी, (२) लहानशी, (३) छानशी,  
(४) मोठीशी, (५) बारीकशी (६) नाजुकशी
- प्र.२. विद्यार्थ्यांनी स्वतः कृती करा.
- \*प्र.३. (१) लहान (२) उष्ण (३) लांब (४) प्रचंड
- \*प्र.४. (१) मऊ (२) मोठे (३) पुढे (४) प्रकाश
- \*प्र.५. (अ) - (२) (आ) - (३) (इ) - (४) (ई) - (१)
- प्र.६. (१) घाबरगुंडी उडाली (२) चुकामूक झाली  
(३) चक्कर मारली (४) नजरेआड झाली.

- प्र.७. (१) कंटाळा घेणे - मित्राच्या त्याच त्याच बोलण्याचा मला कंटाळा आला.  
(२) गंमत वाटणे - खेकड्याचा विचित्र आकार पाहून मला गंमत वाटली.  
(३) टक्कर होणे - काल दोन मोटारींची रस्त्यावर टक्कर झाली.  
(४) घाबरगुंडी उडणे - अचानक रस्त्यावर साप पाहताच माझी घाबरगुंडी उडाली.
- प्र.८. (१) जल, प्रवाह, वास, लस, वाल, सल  
(२) छान, दार, दान, नर  
(३) क्षण, भर, क्षर, भरण, रण, रक्षण

### काळ ओळखा :

- (अ) वर्तमानकाळ (आ) वर्तमानकाळ (इ) भूतकाळ  
(ई) भविष्यकाळ (उ) वर्तमानकाळ (ऊ) भविष्यकाळ

### उपक्रम

विद्यार्थ्यांनी स्वतः कृती करा.

## १२. चंद्रावरची शाळा (कविता)

### स्वाध्याय

- \* प्र.१. (अ) एकविसाव्या शतकात चंद्रावरती शाळा भरेल.  
(आ) चंद्रावरच्या शाळेत जाताना दप्तराचे ओझे नसेल.  
(इ) चंद्रावरच्या शाळेत भाजी-पोळीच्या डब्याची कटकट राहणार नाही.  
(ई) (संगणकावरील) बटणे दाबून चंद्रावरच्या शाळेत अभ्यास करावा लागेल.
- \* प्र.२. (अ) चंद्रावरती पोचलात की चंद्रावरच्या शाळेत पास केले जाते. तेथे फक्त (संगणकावरची) बटणे दाबणे एवढाच फक्त अभ्यास असतो.  
(आ) चंद्रावरची शाळा अशी भारी असेल की त्यामुळे तेथे फक्त चांदण्यांशीच खेळावे लागणार आहे.

★ प्र.३. (अ) चंद्रावरती प्राणवायूचे प्रमाण कमी असल्यामुळे.

(आ) चंद्रावर गेल्यावर गुरुत्वाकर्षण कमी होते म्हणून तरंगतात.

प्र.४. (१) नसेल (२) खुले (३) पटपट

(४) रहाल (५) पास (६) फळा

प्र.५. (१) झटपट, (२) कटकट, (३) पटपट,

(४) वटवट, (५) झटझट, (६) सटसट.

प्र.६. बटण, ऑक्सिजन, सिलिंडर, पी.टी.

प्र.७. पोळी-भाजी, इडली-चटणी, पोहे, उपमा, डोसे असे विविध पदार्थ आम्ही शाळेत नेतो.

### पद्य

प्र.१. (अ) (१) (i) यान (ii) चूक

सूचना : Term Book Page No. 43 वर (अ) Type झालेले नाही.

(२) (अ) - (३), (आ) - (१), (इ) - (२).

(३) बाहेरील रस्त्यावरचे पदार्थ, चायनीज पदार्थ, रंगीबेरंगी पाकीटातून मिळणारा सुका खारू उदा. लेज्, चिटोझ असे पदार्थ डब्यात आणायचे नाहीत असे शिक्षक आम्हांला वारंवार सांगतात. कारण असे पदार्थ आपल्या आरोग्याला घातक असतात.

(४) केवळ संगणकावरची बटणे दाबून अभ्यास करायचा. चंद्रावरती पोचलात की पास झालाच म्हणून समजा. चंद्रावरच्या शाळेत फक्त चांदण्यांशीच खेळायचे. मग मुलांना आणखी काय हवे? म्हणूनच कवयित्री म्हणते, चंद्रावरची शाळा अशी भारी असेल.

(आ) प्र.१. चारूता पेंढरकर

प्र.२. दप्तराचे ओझे तेव्हा नसेल पाठीवरती,

ऑक्सिजनचा सिलिंडरच न्यावा लागेल वरती.

प्र.३. आम्हाला शाळेत जाताना सर्व विषयांच्या वह्या, पुस्तके, डबा यांनी भरलेले जड दप्तर घेऊन शाळेत जावे लागते. ते ओझे चंद्रावरच्या शाळेत न्यावे लागणार नाही. किती मजेदार कल्पना आहे. म्हणून या ओळी मला आवडल्या.

प्र.४. चंद्रावरची शाळा ही एक कल्पनारम्य कविता आहे. एकविसाव्या शतकात सारेच बदलले आहे. त्याप्रमाणे चंद्रावर असलेल्या शाळेतील गमती जमती या कवितेत कवयित्रीने मांडल्या आहेत.

### अधिक प्रश्न

प्र.१. चंद्रावरच्या शाळेत मला जायला आवडेल कारण तेथे खडू आणि फळा ही पारंपरिक शैक्षणिक साधने नसतील. छोट्या-छोट्या यांनातून तेथे जायचे. दप्तराचे ओझे पाठीवर नसेल, भाजी-पोळी ऐवजी गोड गोळी खायची. पी.टी.च्या तासाला तरंगत राहायचे, नुसती बटणे दाबून अभ्यास करायचा व चांदण्यांशीच खेळायचे.

### व्याकरण

प्र.१. (१) विद्यालय (२) भार (३) दरवाजा, कवाड (४) शशी

प्र.२. (१) कडू (२) नापास (३) मोठ्या (४) बंद

★ विद्यार्थ्यांनी स्वतः कृती करा.

### उपक्रम

(१) व (२) विद्यार्थ्यांनी स्वतः कृती करा.

(३)

### आमची पृथ्वी

निळी निळीशार पृथ्वी हिरवीगार. पृथ्वीवर अनेक प्रकारचे सजीव राहतात. या सर्व सजीवांचे पालनपोषण पृथ्वी करते. पृथ्वीवर पाणी आणि जमीन आहे. पण पाण्याचा भाग जास्त असल्यामुळे चंद्रावरून पृथ्वी निळी दिसते. ही पृथ्वी स्वतःभोवती सतत फिरत असते. म्हणजे जणू काही ती आपल्याला संदेशच देते की सतत काम करा.

### प्रकल्प

विद्यार्थ्यांनी स्वतः कृती करा.



## १३. मोठी आई

### स्वाध्याय

★ प्र.१.(अ) लोखंडी खुर्च्या, पलंग, सुया, टाचण्या, चाकू, कात्र्या, गुंड्या, काचेचे सामान, मोटारी, आगगाड्या, विमाने इत्यादी वस्तू तयार होतात.

(आ) जमिनीत चुनखडीचे खडक असतात. या खडकांपासून चुना तयार करतात.

(इ) मातृभूमीतले अन्न खाऊन आपण शहाणे झालो, मोठे झालो. तिनेच माणसांना प्रत्येक गोष्ट दिली म्हणून मातृभूमीबद्दल आपण प्रेमभाव बाळगावा.

★ प्र.२. मातृभूमी, धरणीमाता, जमीन, माती.

★ प्र.३.(अ) अन्नपदार्थ : ज्वारी, बाजारी, गहू, तांदूळ, कडधान्ये, तीळ, डाळी, भाज्या, शेंगदाणे.

(आ) फळे : सफरचंद, कलिंगड, अननस, चिकू, पेरू, केळी, सीताफळ, द्राक्षे.

(इ) औषधे : तुळस, शतावरी, अडुळसा, कडुनिंब, हळद, हरडा, बेहडा.

(ई) लाकडे : साग, शिसव, चंदन, बांबू, वेत

(उ) खाणींत मिळणारे धातू : लोखंड, तांबे, जस्त, सोने, चांदी, शिसे, पितळ.

★ प्र.४. विद्यार्थ्यांनी स्वतः कृती करा.

★ प्र.५.(अ) साखर (आ) द्राक्षे (इ) तांदूळ, ज्वारी, नाचणी, बाजरी

(ई) गहू (उ) बटाटे, केळी (ऊ) टोमॅटो

(ए) फळे, कोकम (ऐ) गूळ, खोबरे, शेंगदाणे

प्र.६.	लोखंडी वस्तू	काचेच्या वस्तू	लाकडी वस्तू	मातीच्या वस्तू
	मोटार, विमानासाठी लागणारे भाग, कुलुप, खिळे, कुऱ्हाड, विविध आवजारे, स्वयंपाकाची साधने. उदा. तवा, कढई,	ग्लास, प्लेट्स, दिवे, बाऊल्स, आरसा, टिपॉय, शोभेच्या विविध वस्तू, कप.	कपाट, खुर्ची, पलंग, दरवाजे, खिडक्या.	भांडी, शोभेच्या वस्तू, मडके, पणती, विटा, कौले.

★ प्र.७.

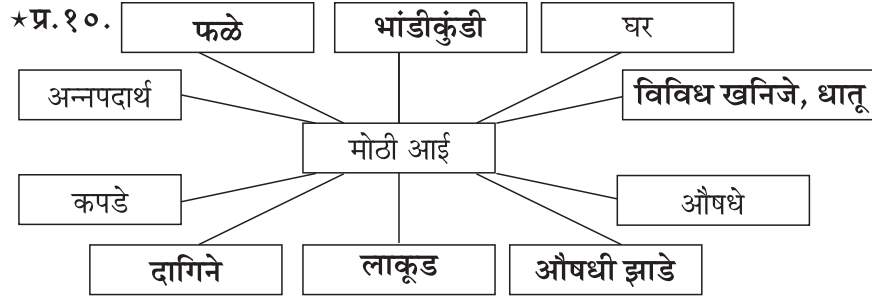
अ.क्र.	मनुष्याचे खाद्य	घरबांधणीला उपयुक्त वस्तू	विविध खनिजे	प्राण्यांचे खाद्य
(१)	अन्नधान्ये	दगड	लोहखनिज	गवत
(२)	भाज्या	लोखंड	बॉक्साइट	कडबा
(३)	फळे	विटा	मँगनीज	फळे
(४)	चहा	चुना	चुनखडक	झाडांची कोवळी पाने
(५)	कॉफी	लाकूड	क्रोमाइट	छोटे प्राणी, कीटक
(६)	दूध	सिमेंट	डोलोमाइट	
		वाळू	सिलिका	

★ प्र.८.

जमिनीच्या खाली येणारी पिके	जमिनीच्या वर येणारी पिके
उदा. बटाटे, रताळी, भुईमूग	गहू, तांदूळ, मका, बाजरी, ज्वारी
गाजर, मुळा, लसूण, हळद, कांदा	नाचणी, ऊस

★ प्र.९.

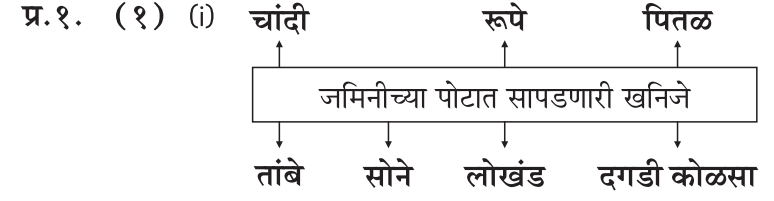




उतारा क्र. १

- प्र.१. (१) (i) (१) गव्हाची चपाती  
तांदळाचा - भात
- (२) जोंधळ्याची भाकरी  
पाटी पेन्सिल - मऊ दगड
- (ii) फळांची नावे - केळी, पेरू, आंबे, कवठ, द्राक्षे, फणस
- (२) (i) (१) भूमी, जमीन (२) जमिनीतल्या खाणीत
- (ii) (१) बरोबर (२) चूक
- (३) (i) (१) पुल्लिंग (२) नपुंसकलिंग (३) स्त्रीलिंग  
(४) नपुंसकलिंग (५) पुल्लिंग (६) स्त्रीलिंग
- (ii) (१) अन्नवस्त्र, (२) भांडीकुंडी, (३) चहासाखर,  
(४) घरदार, (५) दूध-दही, (६) गाई-म्हशी  
(७) खाऊपिऊ (८) दगडमाती
- (४) नांगरणी, पेरणी, सिंचन, फवारणी, कापणी, मळणी, लावणी, झोडणी इत्यादी.

उतारा क्र. २



(ii) कापूस

- (२) (i) (१) कापूस ह्या झाडापासून मिळतो - कपाशी  
(२) रेशमाचे किडे या झाडावर जगतात - तुती
- (ii) (१) चूक (२) बरोबर
- (३) (i) (१) अनेकवचन (२) अनेकवचन (३) एकवचन  
(४) एकवचन (५) एकवचन (६) अनेकवचन
- (ii) (१) दागिना (२) कापड (३) सोने  
(४) झाड (५) आई (६) जमीन
- (४) मोठी आई म्हणजे जमीन, भूमी नसती तर आपले जगणेच अशक्य झाले असते. आपल्याला जगण्यासाठी लागणाऱ्या मूलभूत गोष्टी म्हणजे अन्न, वस्त्र, निवारा या गोष्टी आपल्याला मिळाल्या नसत्या. कारण जमीन नसती तर कोणतेही पीक जसे गहू, ज्वारी, तांदूळ, डाळी, भाज्या घेता आले नसते. जमीन नसती तर झाडेही नसती. मग कापूस, रेशमाचे कीडेही नसते. त्यामुळे आपल्याला वस्त्रही मिळाले नसते. घरे बांधण्यासाठी लागणारे लाकूड, दगड कोटून मिळाले असते? आपल्याला झाडांपासून मिळणारी गोड फळेही खाता आली नसती. चहाही प्यायला मिळाला नसता. औषधी वनस्पती मिळाल्या नसत्या. सुंदर फुलांचा सुगंध घेता आला नसता.

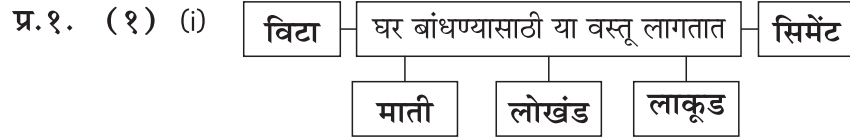
सोने, चांदी सारखे दागिने बनवणारे धातूही मिळाले नसते तसेच पितळ, तांबे, कथील नसल्यामुळे भांडीही तयार करता आली नसती.

खाणीतून मिळणाऱ्या लोखंडापासून तयार होणाऱ्या खुर्च्या, पलंग, सूया, टाचण्या, मोटारी, आगगाड्या, विमाने, कुलूप, चावी, खिळे, कड्या काहीच तयार करता आले नसते.

प्राणी जमिनीवरील गवत-झाडे यांवर जगतात. पक्षी झाडांवर रहातात. पक्षी आणि प्राण्यांचे आश्रयस्थानच नसते तर त्यांचेही जगणे कठीण झाले असते. आपल्याला दूधही मिळाले नसते.

आपले जीवन जगण्यासाठी लागणारी प्रत्येक वस्तू ही आपल्याला जमिनीपासून मिळते. ती आपल्याला सर्व देत असते म्हणून आपण तिच्याबद्दल प्रेम, आदर बाळगला पाहिजे. तिचे उपकार मानले पाहिजेत.

### उतारा क्र. ३



(ii) (१) झाडांपासून (२) मोठी आई

(२) (i) गाई-म्हशी यांवर जगतात

गवत
कडवा

(ii) धरणीमातेचे छोटेसे रूप - मातृभूमी

(३) (i) (१) कडक (२) वेडे  
(३) छोटे (४) अपकार

(ii) (१) तुळ्या (२) दागिने (३) बिजाग्या  
(४) गाई (५) झाडे (६) माती

(४) आपली मातृभूमी आपल्या अन्न, वस्त्र, निवारा या मूलभूत गरजा भागवते. तिच्यामुळेच आपल्याला आजारातून बरी करणारी औषधे

मिळतात. आपली प्रत्येक गरज आपली मातृभूमी पूर्ण करते म्हणून जसा आपण आपल्या आईबद्दल प्रेमभाव बाळगतो तसाच आपल्या मातृभूमीबद्दलही प्रेमभाव बाळगला पाहिजे.

### व्याकरण

प्र.१. (अ) धरणीमाता (आ) प्रेम  
(इ) विश्व (ई) उदर

प्र.२. (अ) “आवडले का तुला पुस्तक?” आई म्हणाली.  
(आ) “तो प्रामाणिक आहे.” बाबांनी सांगितले.

(इ) गणू म्हणाला, “अगं आई, उद्या सुट्टी आहे असे दिवने सांगितले म्हणून मी शाळेत गेलो नाही.”

(ई) “अहाहा! किती छान चित्र आहे.”

(उ) तुला लाडू आवडतो का ?

(ऊ) माझे काका मुंबईला राहतात.

(ए) मधू, राजा, रझिया व मारिया गप्पा मारत बसले.

प्र.३. (१) कड्या, (२) गाई, (३) लाकडे,  
(४) खिडक्या, (५) कवटे

### उपक्रम

विद्यार्थ्यांनी स्वतः कृती करा.

### प्रकल्प

विद्यार्थ्यांनी स्वतः कृती करा.

**General Science**  
**9. Motion and Types of Motion**  
**Formative Evaluation**

**I. Unit Test**

**(A)** (1) 60 minutes (2) circular motion (3) random motion  
(4) speed (5) motion

**(B)** (1)- e, (2) - c, (3)- a, (4)- b, (5)- d

**\*(C) True:** (1), (4), (6), (7), (9)

**False:** (2), (3), (5), (8), (10)

**(D)** **(1)** Circular motion, **(2)** Periodic motion,  
**(3)** non-uniform linear motion,  
**(4)** Circular motion, **(5)** Periodic motion.

**II. Questionnaire**

**\*(A) (1)** The different types of motion are uniform linear motion, non-uniform linear motion, oscillatory motion, random motion, periodic motion, circular motion.

**(2)** Speed is the distance travelled by an object in unit time.

**(3)** The formula for finding speed

$$\text{Speed} = \frac{\text{Distance travelled}}{\text{Time taken}}$$

**(4)** The motion in which a specific distance is covered in a particular period is called uniform linear motion.

**(5)** Change of place of an object is called displacement.

**(6)** When the distance traversed by an object along a straight line in unit time keeps on changing, the motion is called non-uniform linear motion.

**(B)** (1) **(a)** Soldiers marching in a parade. **(b)** A train going in one direction with a constant speed.

(2) **(a)** A child coming down on a slide. **(b)** Children coming back from school.

**(C)** (1) Periodic motion.

(2) Circular motion.

(3) Non-uniform linear motion.

(4) Random motion.

(5) Oscillatory motion.

(6) Linear motion.

**\*(D)**

<sup>1</sup>	o	s	<sup>2</sup>	c	i	l	l	a	t	o	r	y
					i							
			<sup>3</sup>	p	e	r	i	o	d	i	c	
						c						
					<sup>4</sup>	u	n	i	f	o	r	m
						l						
<sup>5</sup>	l	i	n	e	a	r						
					<sup>6</sup>	r	a	n	d	o	m	

**III. Quiz**

**(A)** (1) linear (2) non-uniform linear (3) m/sec (4) cm/sec.

(B)

	Motion	Example
(1)	Periodic	(a) The motion of the hands of a clock. (b) The motion of the moon moving around the earth.
(2)	Oscillatory	(a) The motion of a bell. (b) The plucked string of a sitar.
(3)	Circular	(a) The motion of a farmer's sling. (b) The motion of a bicycle wheel.
(4)	Random	(a) The motion of a butterfly. (b) The motion of a football player.

#### IV. Orals

- (A) (1) Circular motion, (2) Oscillatory motion,  
(3) Circular motion, (4) Random motion,  
(5) Circular motion, (6) Periodic motion,  
(7) Random motion

(B) (1) True, (2) False, (3) False, (4) False (5) True

#### V. Home Assignments

(A) (1)  $\text{Speed} = \frac{\text{Distance travelled}}{\text{Time taken to travel the distance}} = \frac{1800}{10}$   
 $= 180 \text{ kms/hr}$

In M.K.S. system  $= \frac{180 \times 1000}{60 \times 60} = \frac{180 \times 10}{36}$   
 $= 50 \text{ m/sec.}$

- (2) Distance = 20 km, Speed = 120 km/hr, Time = ?  
Speed = Distance travelled / Time taken to travel the distance.  
 $120 = 20/\text{Time}$

$\therefore \text{Time} = 20/120 \text{ h} = 1/6 \text{ hr. } 60 \text{ minutes} = 1 \text{ hour}$

$\therefore 1/6 \text{ hr} = 1/6 \times 60 = 10 \text{ min.}$

- (3) 100 cm = 1 meter,  
Distance = 400 cm =  $400/100 \text{ m} = 4 \text{ m}$   
Time = 2 sec  
Speed = Distance travelled / Time taken to travel the distance =  $4 \text{ m}/2 \text{ sec} = 2 \text{ m/sec.}$

(B) (1) 200 cm/sec, (2) 5 m/sec, (3) 10 m/sec, (4) 200 cm/sec.

### Summative Evaluation

#### I. Semester Examination

- (A) (a) non-uniform linear, non-linear  
(b) non-uniform linear (c) random  
(d) non-uniform circular, uniform circular
- (B) (1)-b, (2)-d, (3)-a, (4)-c
- (C) (1) A child coming down a slide is moving only in one direction. But its speed is continuously increasing. Hence, this motion is non-uniform. Therefore a child coming down a slide is a non-uniform linear motion.
- (2) The movements of trapeze artists show regular and precise movements in order to avoid a fall. When a moving object passes through a certain point at regular intervals of time, it is called periodic motion. Therefore the movements of trapeze artists are said to be an example of periodic motion.
- (3) When an object is released from a height, gravitational force acts on it. The object, therefore moves in a straight line but its speed changes as time increases, therefore, the object moves in a non-uniform linear motion.
- (4) The pendulum of a clock moves back and forth from a fixed position. Therefore, the motion of the pendulum in a clock is called oscillatory motion.

- (5) Coins on the carrom board move in one direction only. Hence, the motion of the coins on the carrom board is called linear motion.

(D)

(1) Oscillatory Motion		Linear Motion
(1) The motion of a body that is oscillating i.e. swinging back and forth is called oscillatory motion.	(1)	Motion in only one direction is called linear motion.
(2) Eg., Flapping of the wings by birds.	(2)	Eg., Man walking in one direction.

(2) Linear Motion		Random Motion
(1) Motion in only one direction is called linear motion.	(1)	The motion that changes its direction and continuously speed is called random motion.
(2) Eg., Man walking in one direction.	(2)	Eg., Movement of a football player on the playground.

(3) Random Motion		Oscillatory Motion
(1) The motion that changes its direction and speed continuously is called random motion.	(1)	The motion of a body that is oscillating i.e. swinging back and forth is called oscillatory motion.
(2) Eg., Movement of a football player on the playground.	(2)	Eg., Flapping of the wings by birds.

- (E) (a) **Linear Motion :-** A train or a moving vehicle on a road may travel in a straight line or in the same direction. This motion of an object is called linear

motion. An object in linear motion shows displacement along a straight line. Motion in only one direction is called linear motion.

- (b) **Oscillatory Motion :-** The swing always comes back from one end to the other end. It takes about the same time for each swing or oscillation. This movement of a swing is called oscillatory motion. The motion of a body that is oscillating i.e. swinging back and forth is called oscillatory motion.
- (c) **Circular Motion :-** The hands of a clock move in a circular manner, similarly a fan, a giant wheel and a merry-go-round complete each round along a circular route. The motion of an object along a circular path is called circular motion.
- (d) **Random Motion :-** A butterfly constantly flits from one flower to another. There is no definite direction to its motion. Such motion is called random motion. The motion that changes its direction and speed continuously is called random motion.
- (e) **Periodic Motion :-** The minute hand of a clock completes one round in exactly 60 minutes every time, while a merry-go-round also completes every round in the same period of time. Such motion is called periodic motion. The motion in which the moving object passes through a certain point again and again after a fixed period is called periodic motion.

- \*(F) (1) Oscillatory motion is seen in the birds flying in the sky.
- (2) When we ride the bicycle we experience different kinds of motion. The wheels of the bicycle shows

circular motion. At the same time the bicycle moves forward in linear motion.

- (G) \* (1)** The motion which is back and forth and repetitive is known as oscillatory motion. The motion of bird's wings is back and forth and is repetitive. Therefore the motion of bird's wings is an example of oscillatory motion.
- (2)** The motion whose direction changes continuously is called random motion. The football players move in different directions on the field. Hence, it is an example of random motion.

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## 10. Force and Types of Force

### Formative Evaluation

#### I. Unit Test

- (A)** (1) Force, (2) muscular force, gravitational force, frictional force, (3) muscular, (4) motion, force  
(5) decreases, (6) Force, (7) against
- (B)** (1)-c, (2)-a, (3)-d, (4)-e, (5)-b
- (C)** (1) Muscular force, (2) Muscular force, (3) Electrostatic force, (4) Magnetic force, (5) Muscular force
- (D)** (1) True, (2) False (3) True, (4) False,  
(5) True, (6) True (7) False, (8) False

#### II. Questionnaire

- (A) (1)** Motor car (all others are muscular forces),  
**(2)** Grinding stone (all others are mechanical forces),  
**(3)** Aluminium (all others produce static electricity when they are rubbed),

**(4)** Seeing (all others are actions where force is exerted).

- (B) (1)** Direction changes, muscular force, **(2)** Shape changes, muscular force, **(3)** Coins will move, muscular force, **(4)** Ball will stop, frictional force, **(5)** Object will move, magnetic force, **(6)** Shape changes, muscular force, **(7)** Ball will move, gravitational force.
- (C) (1) (a)** When a car gets stuck in mud, its wheels turn without moving forward since the surface of the mud is smooth and friction is reduced.  
**(b)** A wooden plank is placed under the wheels so that friction increases, which helps the wheels to come out of the mud.
- (2) (a)** Roads during monsoons are covered with water. This reduces the friction between the surface of the road and the wheels of the vehicle.  
**(b)** Hence, there is a possibility of the vehicle slipping, resulting in an accident.

#### III. Orals

- (A)** (1) mechanical force, (2) muscular force, (3) frictional force, (4) spring balance, (5) frictional force
- (B) (1)** The different types of forces are muscular force, mechanical force, gravitational force, magnetic force, frictional force and electrostatic force.  
**(2)** A stationary object is set in motion.  
**(3)** Ball bearings reduce friction and decrease the wear and tear of the machines.  
**(4)** The surfaces of slopes in the railway stations are made rough to increase friction so that people do not slip while walking on them.

#### IV. Quiz

- (A) (1) Wrong, (2) Right, (3) Right, (4) Wrong, (5) Right
- (B) (1) Static Electricity, (2) Friction, (3) Maglev train, (4) Crane, (5) Gravity

#### V. Home Assignment

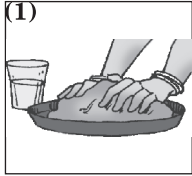
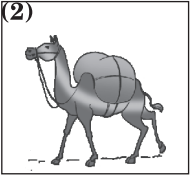
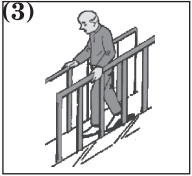
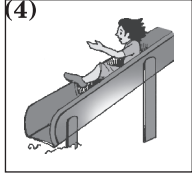
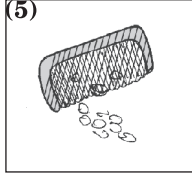
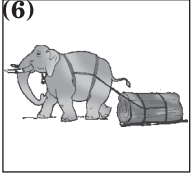
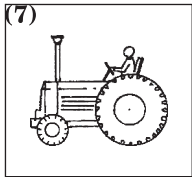
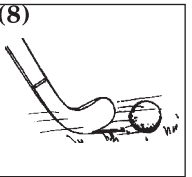
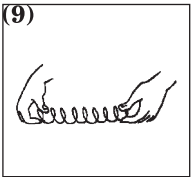
- (A) (1) electrostatic, (2) decreased, increased, (3) gravitational, (4) gravitational
- \* (B) (1) gravitational force (2) gravitational force, mechanical force, muscular force (3) muscular force, mechanical force. (4) muscular force, gravitational force
- \* (C) **Down :** (1) muscular, (2) magnetic  
**Across :** (1) magnet, (3) mechanical, (4) gravity
- (D) (1) (a) The boat is initially at rest. (b) No object can move unless force is applied to it. (c) The boatman applies the force with the help of a pole to move the boat.
- (2) (a) A body in motion can only be stopped by applying force on it. (b) The rubber pads of the brakes rub against the rim of the bicycle wheel and the force applied stops the cycle.
- (3) (a) A spin bowler uses his fingers to impart motion to only one side of the ball. (b) Hence, he applies force to set the ball in motion in a particular direction.
- (4) (a) A footballer has to change the motion of the ball or change its direction. (b) He does this by the force applied by his legs.
- (5) (a) The shape of a body changes by applying external force. (b) Therefore, the force applied by the fingers changes the shape of the spring.

#### Summative Evaluation

##### I. Semester Examination

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

(B)

		
muscular force	muscular force	mechanical and frictional force
		
gravitational force	electrostatic force	muscular force
		
mechanical force	muscular force	muscular force

(C) (1) **Muscular force** : Eg. Riding bicycle, playing hockey, doing exercises. In the given examples all the actions have movements with the help of the bones and muscles in the body. In all the above actions muscular force is used.

So the force applied with the help of muscles is called muscular force.

(2) **Gravitational force** : If an object is thrown upward by applying force, it reaches a certain height and comes down again. This happens because the earth pulls all the objects towards itself.



The force applied by the earth to pull objects towards itself is called gravitational force.

- (3) Electrostatic force :** Eg. Spread small pieces of paper on a table. Rub a piece of thermocol or an inflated balloon against silk cloth and bring it near these pieces, then pieces of paper attract the thermocol or balloon due to formation of static electricity. It is the weakest force amongst all. Static electricity is produced on materials like rubber, plastic and ebonite due to friction.

The force exerted by such electrically charged materials is called electrostatic force.

- (4) The force of friction :** Eg. : Take two pieces of smooth paper and two of sandpaper and rub them against each other and observe it.

The smooth surfaces of paper can be easily rubbed against each other because the force of friction between them is less, while rough surfaces cannot be easily rubbed against each other. Sandpapers are rough papers. Rough papers have more force of friction between them.

So a force which acts between a moving object and the surface along which it moves is called frictional force.

- (D) (1) (a)** Cranes in goods yard have strong magnets.  
**(b)** These magnets exert the force of magnetism which is used to lift heavy loads.
- (2) (a)** Tyres of motor vehicles have patterns of grooves on their surface so that there is sufficient friction between the wheels and the surface of the road.  
**(b)** Hence, there is sufficient force of friction between the vehicle and the road. It also helps the vehicle against slipping off the surface of the road.
- (3) (a)** Powder sprinkled on the carrom board reduces

the frictional force between the surface of the board and the coins. **(b)** Hence, the coins move smoothly on the board.

- (4)** Due to oil, surface becomes smooth and friction reduces. So wear and tear of the machines becomes less. So to reduce the friction and to keep machines in a good condition for a long period machines are oiled from time to time.
- (5)** Rough surface has more friction so people while walking don't fall down and don't get hurt and they can walk properly without any problem so the ramp at the railway station has a rough surface.
- (6)** When we throw an object upwards at that time we use muscular force. At certain point muscular force becomes zero and earth pulls all the objects towards itself so due to gravitational force of the earth an object thrown upwards comes down after reaching a point.

<b>(1) Muscular force</b>	<b>Mechanical force</b>
(1) It is a force applied by muscles of the body.	(1) It is a force applied by machines.
(2) Movements of the muscles produce the force to do work.	(2) Movement of the machines produces the force to do work.
(3) Eg., lifting the weight	(3) Eg., Washing machine

<b>(2) The force of friction</b>	<b>Gravitational force</b>
(1) It is the force that acts between a moving object and the surface along which it moves.	(1) It is the force applied by earth on any object.

(2)	Frictional force acts in a direction opposite to the motion of the body.	(2)	The force attracts the object towards the earth and hence acts downwards.
(3)	Frictional force can be reduced or increased by modifying the nature of the surface.	(3)	Gravitational force depends upon the mass of the object.

**(F) (1)** The chisel marks increase the friction and grinding becomes easier and better.

**\* (2)** Many actions such as lifting, pulling, riding a bicycle or stopping it, pushing a load, squeezing or bending, driving vehicles all the given things can be done by applying force.

**\* (3)** The gravitational force acting on an object is called the weight of that object.

**\* (4)** Potter's wheel, pulley, inclined plane, etc., run on muscular force.

## 11. Work and Energy

### Formative Evaluation

#### I. Unit Test

**(A)** (1) work (2) Joule (3) Kinetic energy  
(4) calorie (5) Heat (6) chemical (7) energy

**(B)** (1)- c; (2)- e; (3)- d; (4)- a; (5)- b

**(C) (1)** taste (others are forms of energy)  
**(2)** dam water (others are examples of kinetic energy)  
**(3)** coal (others are non-conventional sources of energy)  
**(4)** sun (others are conventional sources of energy)

- (5)** wind (others are conventional sources of energy)
- (6)** a book kept on a table (others are examples of kinetic energy)
- (7)** petrol (others are sources of non - conventional sources of energy)
- (8)** Putting off the light when going out (others are the examples of the wastage of electricity)

#### II. Questionnaire

**(A)** (1) work, force, displacement (2) motion, potential, kinetic (3) chemical, light (4) heat, light (5) energy (6) equal

**(B)** (1) electrical energy (2) coal, petrol  
(3) solar energy, wind energy  
(4) plant refuse, animal dung (5) petrol, diesel  
(6) sunlight, wind energy

**(C)** (1) True (2) False (3) True (4) True (5) True

**(D) (1)** Kinetic energy is used when a ball that has been thrown up comes down.

**(2)** A match stick contains chemical energy.

**(3)** While cycling our body produces heat which results in sweat.

**(4)** The stored up energy which has the potential to do work is called potential energy.

**(5)** Energy possessed by an object due to its motion is known as kinetic energy.

#### III. Quiz

**(A)** (1) energy (2) displacement (3) potential energy  
(4) kinetic (5) solar cells

**(B)** (1) Nuclear fuel (2) Electrical energy (3) Coal  
(4) Non-conventional source (5) Magnetic energy

- (C) (1) Electrical energy into heat and light energy.  
 (2) Electrical energy into heat energy.  
 (3) Electrical energy into sound energy  
 (4) Electrical energy into sound energy.  
 (5) Electrical energy into heat energy.  
 (6) Solar energy into electrical energy.  
 (7) Chemical energy into heat, light and sound energy.

(D)

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

#### IV. Orals

- (A) (1) displacement (2) capacity (3) Muscular  
 (4) potential (5) heat (6) energy  
 (7) Magnetic cranes (8) limited

- (B) (1)- d (2)- c (3)- b (4)- a

(C) **From of stored energy -**

- (1) Chemical (2) Chemical (3) Potential (4) Kinetic  
 (5) Electrical

**Converted into -**

- (1) Heat, light (2) Heat, light, sound (3) Kinetic  
 (4) Electrical (5) Kinetic energy

#### V. Home Assignment

- (A) (1) non-conventional source (2) potential  
 (3) potential (4) sun (5) Cowdung, plant-refuse  
 (6) hydro-electric.

- (B) (1) When the force is applied on an object and work is done, means the displacement has taken place.  
 (2) For measuring work (i) applied force (ii) displacement of the object should be taken into account.  
 (3) Various forms of energy are mechanical energy, heat energy, light energy, sound energy, chemical energy and electrical energy.

(C) (1) Energy is measured in terms of the magnitude of the force and displacement. Greater force is required to move a heavy object compared to a lighter object. Hence, energy required to move a heavy object is more than energy required to move a lighter object.

(2) Work is measured in terms of force and displacement of an object. When water is drawn to a height of 20 meters, the displacement is more than the water drawn to a height of 10 metres. Hence, more work has to be done to draw 5 litres of water from a well measuring 20 metres in depth compared to a well measuring 10 metres in depth.

(3) When the branch is bent force is applied and displacement of the branch takes place. Potential energy is stored in the branch which is bent. This stored up energy helps the branch to go back to its original position. Therefore, force is applied while bending a branch of a tree.

(D) (1) **Solar energy** : The energy obtained from the sun is continuous and enormous and is called solar energy.

(2) **Wind energy** : The energy obtained from the wind is called wind energy.

- (3) **Tidal energy** : The energy obtained from the tides of sea is called tidal energy.
- (4) **Atomic energy** : The energy obtained during the fission of atoms of heavy elements such as uranium, thorium to generate electricity is called atomic energy.
- (5) **Hydro electric energy** : The energy obtained from the water stored in a dam at a height is brought down through a tunnel and generates electricity is called hydro -electric energy.
- (E) (1) The substances in the fireworks are packed with chemical energy. When they are burst they give out heat, light and sound simultaneously. Hence, chemical energy is converted into light, heat and sound energy.
- (2) (a) Electrical energy is converted into kinetic energy. In a water heater, electricity is used to heat the rods or the coils which are surrounded by water.
- (b) Chemical energy is converted into kinetic energy. The burning of petrol which has chemical energy is used to set the car in motion.
- (c) Kinetic energy is converted into electrical energy. The kinetic energy of the wind rotates the fans which rotates the turbines to produce electricity.
- (3) A dynamo is attached to the bicycle wheel. Its little cap turns as it runs against the rim of the wheel. As a result, the dynamo produces electricity which lights the bicycle lamp. Hence, kinetic energy is converted to electrical energy.

## Summative Evaluation

### I. Semester Examination

(A) (1) work (2) more (3) physical (4) energy  
(5) chemical

(B) (1) - c, (2)- e, (3)- d, (4)- b, (5)- a

(C)

(1)	Potential energy		Kinetic energy
(1)	The stored up energy which has the potential to do work is called potential energy.	(1)	Energy possessed by an object due to its motion is called kinetic energy.
(2)	It should be converted into kinetic energy to do work.	(2)	It can be used to do work.
(3)	Eg., winding up clockwork.	(3)	Eg., rolling object.

(2)	Conventional source		Non-conventional source
(1)	Energy resources used since a long time and are available in limited quantity are called conventional sources of energy.	(1)	Energy resources which are available in limitless quantities are called non-conventional sources of energy.
(2)	They are formed from plants and animals over a very long period of time.	(2)	They are formed from plants, animals and also other sources like sun, wind, etc.
(3)	Occur mostly as chemical energy.	(3)	Occur as chemical energy, wind energy, solar energy, atomic energy etc.
(4)	They are found below the surface of the earth as deposits of coal, petrol and gas.	(4)	They are obtained from plant bodies as biofuels, hydroelectric plants, atomic sources etc.

(5)	They are commercially exploited and hence, their reserves are decreasing.	(5)	Never ending sources have the scope for commercial exploitation.
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- (D) (1) When force is applied on an object it is set in motion or it is displaced.
- (2) When force is applied to an object it is set in motion and the direction of motion changes.
- (3) The factors which must be considered to measure work are the force applied and the displacement.
- (4) Heat is used to change water into steam. In the pressure cooker, when water gets heated up, a jet of steam comes up. In steam engine, work is done by heat to change water into steam. So heat is considered as a form of energy.

## 12. Simple Machine

### Formative Evaluation

#### I. Unit Test

- (A) (1) simple machine (2) complex (3) first (4) simple (5) simple (6) axle (7) complex
- (B) (1) Beam balance, crowbar, (2) Bottle opener, Wheel barrow, (3) Fishing rod, pair of tongs, (4) Pulley, screw wheel (5) T.V., mixer grinder
- (C) (a) **Simple machines** : A screw, a pulley, an inclined plane.  
 (b) **Complex machine** : A mixer, an iron box, a television set, a computer, sewing machine.
- (D) (1) pulley (2) lever (3) inclined plane (4) lever (5) pulley

#### II. Questionnaire

- (A) (a) Fulcrum, load, effort (b) Load, fulcrum, effort  
 (c) Effort, fulcrum, load

#### III. Quiz

- (A) (1) 3rd order (2) 1st order (3) 2nd order  
 (4) 1st order (5) 3rd order
- (B) (1) inclined (2) circular (3) diagonally (4) lever  
 (5) wheels.
- (C) (1) False (2) True (3) False (4) True (5) True

#### IV. Orals

- (A) (1) Its is difficult to climb a circular staircase because every time direction changes, more energy is required to climb in comparison to a straight staircase.
- (2) A winding road going up a mountain is like an inclined plane wrapped around the mountain. It helps to climb up and down the mountain easily.
- (3) Lever of the third order.
- (4) Inside water at the tip of the oar.
- (5) The bicycle tyre, electric fan.
- (B) (a) **Inclined Plane** : a staircase, a slide.  
 (b) **A Pulley** : the wheel of a flagpole, a crane.  
 (c) **A Lever** : nutcrackers, scissors, an opener,  
 (d) **A Wedge** : an axe, a knife.
- (C) (1) A sloping board or a plank of wood or a strong steel plate constructed from masonry is used to load boxes on to a truck. It works on the principle of inclined plane. The effort required to push a load using an inclined plane is less than the efforts

required to lift directly. Hence, an inclined plane is used.

- (2) A pulley is a simple machine. It is a wheel with a groove on its rim fixed on a strong support. The pulley is attached in such a way that the rope of the bucket is pulled down diagonally rather than straight up. Thus, it becomes easier to pull.

## V. Home Assignment

(A) (1) A screw is a type of inclined plane. It has circular grooves. So it can be easily turned and pushed into wood with the help of a screw driver. If it is turned in the opposite direction, it can be easily taken out. Instead of hammering a nail into the plank one can easily turn a screw, which is considered as a simple machine.

(2) When a heavy load is to be pushed on an inclined plane, iron pipes help to push the box easily. Here the rolling pipes acting as wheels and the inclined plane are used in combination. Another advantage of the pipe is that the base of the box is not damaged.

(B) (1) Winding roads built along mountain sides work on the principle of the inclined plane. Hence, effort required to go up these roads is much less and it becomes easier to travel.

(2) (1) **See-saw** : 1st order of the lever. In this fulcrum is in the middle and load and effort are on either sides of the fulcrum.

(2) **Wheelbarrow** : It is a 2nd order of lever. In this load is in the middle and fulcrum on one side and effort on the other side.

(3) **Lemon squeezer** : It is a 2nd order of lever. In

this load is in the middle and fulcrum is on one side and effort on the other side.

- (4) **Tongs** : It is a 3rd order of lever. In this effort is in the middle while fulcrum and load are on either sides.

## Summative Evaluation

### I. Semester Examination

- (A) (1) effort (2) complex (3) Complex machines  
(4) machinery

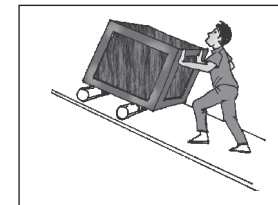
(B)

	Type of lever	Position of load, fulcrum and effort	Examples
(1)	First order	Effort-fulcrum-load	(1) beam balance (2) crowbar
(2)	Second order	Fulcrum-load-effort	(1) bottle opener (2) wheel barrow
(3)	Third order	Fulcrum-effort-load	(1) Fishing rod (2) pair of tongs

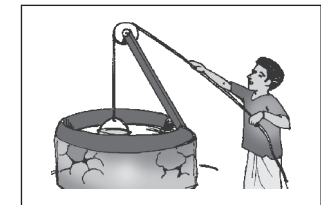
(C) (1) Inclined plane (2) lever (3) lever (4) wheel (5) lever

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

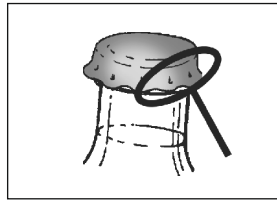
(E)



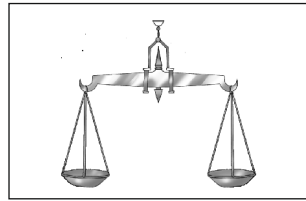
Inclined plane



Pulley



Bottle opener



Beam balance

**(F)** Devices with a simple structure which help us to do work with greater ease are called simple machines.

Eg., (a) pulley (b) lever (c) inclined plane (d) wheel.

A machine made by combining together many simple machines is known as a complex machine.

Eg., (a) bicycle (b) wheelbarrow (c) crane (d) sewing machine.

**\*(G)** We must clean the machine with a clean and soft cloth. It should be oiled regularly to reduce wear and tear. It should be kept in a dry place away from moisture to prevent rusting.

**(H)**

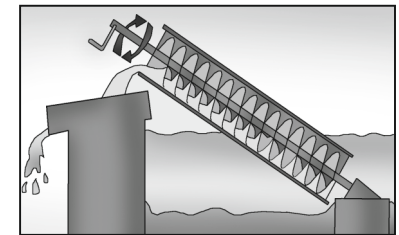
(1)	1st Order Lever		2nd Order Lever
(1)	Fulcrum is in the middle and load and effort are on either sides of the fulcrum.	(1)	Fulcrum is on one side, load is in middle. Effort is applied on the other side.
(2)	Eg. crowbar to move a boulder.	(2)	Eg. bottle opener

(2)	Simple Machine		Complex Machine
(1)	Devices with a simple structure are called simple machines.	(1)	Many simple machines by combining together form a complex machine.

(2)	Eg. pulley, wheel, lever.	(2)	Eg., T.V. set, mixer grinder.
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(3)	1st Order Lever		3rd Order Lever
(1)	Fulcrum is in the middle and load and effort are on the either side of fulcrum.	(1)	Effort is in the middle while fulcrum and load are on the either side.
(2)	Eg. crowbar to move a boulder.	(2)	Eg. fishing rod, a pair of tongs.

**(I)** The Greek scientist Archimedes invented the machine shown in this given picture. That is why it is called the Archimedes screw. It was used to lift water from the hold of a ship. Archimedes used a round pipe fitted with a rod inside it. The pipe was placed at an angle of  $45^\circ$  with one end inside the water and the rod resting on a flat surface. When the rod was turned water got lifted in it.



## History

### 7. India during the Maurya Period

#### Formative Evaluation

#### I. Unit Test

- (A) (1) Greek (2) Chandragupta  
(3) Bindusara (4) Kalinga
- (B) (1)-b, (2)-a, (3)-d.
- (C) (1) The satraps began to fight among themselves for power after Alexander's death, .  
(2) The message of Emperor Ashoka:  
(i) It's good and right to serve one's parents;  
(ii) The victory which arouses compassion and love is the real victory.  
(3) According to Emperor Ashoka, the important values were truth, non-violence, compassion and forgiveness.

#### II. Questionnaire

- (A) (1) Buddhism (2) Emperor Ashok
- (B) (1) Pataliputra (2) Agricultural production  
(3) Art of rock-cut sculpture.
- (C) (1) Ashoka sent his own son Mahendra and daughter Sanghamitra to Sri Lanka for the spread of Buddhism.  
(2) Crossing the river Indus, Emperor Alexander reached Takshashila.

#### III. Quiz

- (1) Dhanananda (2) Mudrarakshasa

#### IV. Orals

- (1) According to the Jain tradition, it is believed that Chandragupta Maurya had accepted the Jain religion.  
(2) Ashoka, Bindusara's son, succeeded to his throne after his death.  
(3) Seleucus Nicator was Alexander's General.  
(4) The victory which arouses compassion and love is the real victory.  
(5) Chess was called Ashtapad.

#### V. Class / Home Assignments :

- (A) (1) wage (2) real
- (B) (1)-c, (2)-b, (3)-a.
- (C) (1) Occupations during the Maurya period were agricultural production, trade, ship building, pottery, ivory work carving and engraving on ivory, weaving and dyeing cloth and metal work.  
(2) Emperor Ashoka made provisions for free medicines and medical treatment for people as well as for animals. He builds many roads and planted trees for shade of both sides of the road. He dug wells and built dharmashalas.
- (D) (1) (i) Pataliputra was the capital of the Maurya empire.  
(ii) For the sake of administrative convenience, the empire was divided into four regions, each with its own capital.  
(1) Eastern region - Toshali (Odisha)



- (2) Western region - Ujjayani (Madhya Pradesh)
- (3) Southern region - Suvarnagiri (Kanakgiri in Karanataka)
- (4) Northern region - Takshashila (Pakistan).
- (iii) There was a Council of Ministers which advised the King in matters of administration.
- (iv) There were many officers working at different levels.
- (v) There was an efficient intelligence service which kept an eye on the administration and on the movements of enemies.

### Summative Evaluation

#### I. Semester Examination

- (A) (1) occupation (2) four
- (B) (1)-c (2)-a (3)-b.
- (C) (1) Animals like the lion, elephant, bull.  
(2) The pillars erected by Ashoka.
- (D) (1) **Satrap** - Satrap were the Greek officers deputed by Alexander while returning to Greece to administer the conquered territory.  
(2) **Sudarshan** - Chandragupta Maurya had built a dam called 'Sudarshan' near Junagadh in Gujarat State.  
(3) **'Devanampiyao Piyadasi'** was the title referred to Emperor Ashoka, which was engraved on stone inscriptions and pillar edicts raised by him.

- (4) **Ashtapad** - The board game of chess was known as Asthapad which was very popular among the people during the Maurya period.
- (E) (1) By defeating Dhananand, Chandragupta, conquered Magadha and established his own rule in Magadha. He won Avanti and Saurashtra and began to extend his empire. The defeat of Seleucus Nicator led to the inclusion of the northwest region of Kabul, Kandahar and Herat.  
(2) Ashoka's empire extended from Afghanistan in the northwest and Nepal in the north to Karnataka and Andhra Pradesh in the south, and from Bengal in the east to Saurashtra in the west.
- (F) (1) During Alexander's invasion, his army had to suffer severe hardships. The soldiers were eager to go back home. So they rebelled against Alexander and he was forced to turn back.  
(2) Coins of Greek King were characteristic because (a) on one side, the coin had a picture of the king and on other side, a picture of Greek god. (b) The name of the king was also written on the coin. (c) Later, Indian Kings also started minting similar coins.  
(3) Ashoka was deeply moved by the bloodshed of the Kalinga war. And so he decided never to wage war again.
- (G) (1) Emperor Ashoka laid stress on the creation of facilities for the welfare of the people. For example, he made provisions for free medicines and medical treatment for people as well as for animals. He built many roads and planted trees for shadow on both sides of the roads. He dug wells and built dharmashalas.

- (2) In villages and towns different festivals and functions were celebrated. There were dance and music concerts. Wrestling bouts and chariot races were popular sports and so were board games and chess. Chess was called Ashtapad.
- (3) The National Anthem of India is an adaptation of the Lion capital of Ashoka at Sarnath. Sarnath is near Varanasi Uttar Pradesh. The Lion capital was erected in the third century BC by Emperor Ashoka. Our National Emblem was adopted on 26th January 1950.

## 8. States after the Maurya Empire

### Formative Evaluation

#### I. Unit Test

- (A) (1) Emperor Ashoka (2) Greek
- (B) (1)-c, (2)-b, (3)-a.
- (C) (1) The Kushanas were from Central Asia.
- (2) Kanishka's empire extended from Kabul in the west to Varanasi in the east.
- (3) Emperor Kanishka minted Kanishka's gold coin.
- (4) Kashmir was ruled by the Karkot dynasty.
- (5) King Menander is referred to as Milinda.

#### II Questionnaire

- (A) (1) Gupta dynasty (2) Chandragupta I
- (3) Samudragupta
- (B) (1) Fa Hien, a Chinese traveller came to India during the reign of Chandragupta II.

- (2) Many States emerged in North India due to the decline of the Gupta power.
- (3) Prabhakar Vardhan was the king of Thanesar, near Delhi.
- (4) Yuan Chwang had words of praise for the people of Maharashtra.

#### III. Quiz

- (A) (1) Yuan Chwang (2) Ulupi

#### IV. Orals

- (A) (1) Kashmir was known as Kashyapapur.
- (2) Last Maurya Emperor was called Brihadratha.

#### V. Class / Home Assignments

- (A) (1) Indo-Greek (2) several tribes
- (B) (1)-c, (2)-b, (3)-a.
- (C) (1) (i) Kanishka's gold coin was minted by Emperor Kanishka.
- (ii) It has the words 'Shao Nano Shao Kaneshki Koshano' on one side.
- (iii) It means 'King of kings, Emperor Kanishka Kushana'.
- (iv) On the other side, there is an image of Gautama Buddha and the word 'Boddo', meaning Buddha, written in the Greek script.

### Summative Evaluation

#### I. Semester Examination

- (A) (1) three (2) Samudragupta
- (B) (1) Chandragupta II (2) Fa Hien
- (3) Vardhan Dynasty.

- (C) (1) Kushana kings (2) Kanishkapur  
(3) Samudragupta (4) Pragjyotish
- (D) Delhi, Valabhi, Bharuch, Sopara, Ujjayani, Sanchi, Prayag, Kanauj, Kashi, Vaishali, Pataliputra, Champa, Bodhgaya.

- (E) (1) **Emperor Kanishka.**
- (i) Kanishka's empire extended from Kabul in the west to Varanasi in the east.
  - (ii) It is believed that the village of Kampur near Srinagar today could be Kanishkapur.
  - (iii) The well-known poet Ashvaghosh lived during the period of Kanishka.
  - (iv) The famous Vaidya Charaka was also in Kanishka's court.
  - (v) Kanishka's gold coin was minted by Emperor Kanishka.
- (2) **The Iron pillar at Mehrauli.**
- (i) The iron pillar is at Mehrauli near Delhi.
  - (ii) It is an excellent specimen of the metallurgical skill of the ancient Indian people.
  - (iii) The inscriptions on the pillar bear the name of a king called 'Chandra'.
  - (iv) It is on this basis that the iron pillar is assumed to be of the period of Chandragupta II.
  - (v) It has not rusted even in the course of the last fifteen hundred years.
- (3) **The Shunga Dynasty.**
- (i) Maurya power started declining after Emperor Ashoka.

- (ii) The last Maurya Emperor was called Brihadratha.
- (iii) The Maurya General Pushyamitra Shunga revolted against Brihadratha, killed him and became the king himself.

(F)

	Book	Writer
(1)	Harshacharita	Poet Banabhatta
(2)	Milind Panha	Menander
(3)	Buddacharita and Vajrasuchi	Ashvaghosh
(4)	Ratnavali, Naganand, Priyadarshika	Harshavardhan
(5)	Rajtarangini	Kalhan

(G)

Points	Gupta Dynasty	Vardhan Dynasty
(i) <b>Founder</b>	It was founded by Shrigupta.	It was founded by Prabhakar Vardhan.
(ii) <b>Expansion of the kingdom/ empire.</b>	During the reign of Samudragupta, Gupta empire extended from Assam upto Punjab and eastern coastal region upto Kanchi in Tamilnadu. Chandragupta II extended it towards the northwest and Malwa, Gujarat and Saurashtra.	Harshavardhan extended the vardhan empire to Nepal in the north upto river Narmada in the south, Assam in the east and Gujarat in the west.

<b>(iii) Achievemets</b>	(i) Efficient Administration.	(i) Trade flourished.
	(ii) Made treaties of friends with kings on the northwestern frontiers and those in Sri Lanka.	(ii) Develop cordial relation with Raja Bhaskarvarman of Kamrup and friendly relation with the Emperor of China.
	(iii) An iron pillar built at Mehrauli is an excellent specimens of the metallurgical skills.	(iii) Spent large portion of his revenue for the welfare of people.
	(iv) Made treaties of friendship with kings in north-west and Sri Lanka.	(iv) Made treaties of friendship with Kamrup and China.

**(H)** (To be done by students with teachers help)

**(I) Down :** (1) Raja, (2) Fa Hien,  
(3) Nagasena (4) Banabhatta (5) Malwa

**Across :** (5) Panha (6) Menander  
(7) coin (8) Nalanda

**Teacher's Note :** In the question, Down. (1) has been wrongly printed. We request you to ask the students to change as per the following.

(1) (A word for) King in Indian Languages. Apologies for the inconvenience.

## 9. Ancient Kingdoms of the South

### Formative Evaluation

#### I. Unit Test

**(A)** (1) South (2) Maharashtra

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

**(C)** (1) The Cher, Pandya and Chola dynasties were the ancient dynasties of southern India.

(2) The mountain pass, part of Junnar-Murbad, joining Pune and Thane districts is known as Naneghat.

(3) The Satavahanas' power began to weaken by the third century CE.

#### II. Questionnaire

**(A)** (1) Chalukya (2) South India

(3) Vindhya mountains.

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

**(C)** (1) After the decline of the Maurya Empire the local kings in Maharashtra, Andhra Pradesh, Karnataka became independent.

(2) Periplus is a handbook, that gives information about the trade that went on along the Indian coastline, the Persian Gulf and Egypt.

(3) The Cher, Pandya and Chola dynasties are mentioned in the Mahabharata and Ramayana epics.

#### III. Quiz

(1) Satvahana

(2) 5 km

#### IV. Oral

- (1) King Vindhyashakti was the founder of Vakataka dynasty.
- (2) The kingdoms of Kadamba, Kalachuri became powerful after the decline of Vakatakas.
- (3) Kanchipuram was the capital of Pallava Dynasty.

#### V. Class / Home Assignments

**(A)** (1) Dantidurg (2) Erythrean (3) Muziris

**(B)** (1) - a, (2) - c, (3) - b.

**(C)** (1) Pratihthan was the capital of Satvahana dynasty.

(2) Nane Pass was used for trade and transport.

**(D)** (1) (i) Mahendra Varman extended the Pallava kingdom.

(ii) He formed a powerful and well-equipped navy of the Pallavas.

(iii) During his reign, India came in close contact with the countries of Southeast Asia.

(iv) Internal and foreign trades flourished during his reign.

(v) Yuan Chwang who visited Kanchi and has recorded that people of all religions received tolerant and just treatment under the rule of the Pallava Kings.

(vi) He was also a playwright.

(vii) The famous 'ratha' temples of Mahabalipuram were sculpted during his reign.

(2) (i) Gautamiputra Satakarni is described as 'Tri-samudra-toya-peat-vahan.'

(ii) 'Toya' means 'water.'

(iii) The title means, 'one whose horses have drunk the water of three seas.'

(iv) The three seas are the Arabian Sea, the Bay of Bengal and the Indian Ocean.

(v) During his reign, the empire of Satavahanas extended from the river Narmada in the north to the Tungabhadra river in the south.

(3) (i) 'Muziris' was an important port on the coast of Kerala.

(ii) This port was a major centre for the export of spices, pearls, precious stones etc. to Rome in Italy and to other countries of the west.

(4) (i) After the death of Vindhyashakti, the kingdom of Vakatakas got divided.

(ii) It was divided into two main branches.

(iii) The capital of the first was at Nandivardhan (near Nagpur) and the capital of the other branch was at Vatsagulm, which is today's Washim.

(iv) Pravarsen I, son of Vindhyashakti extended the Vakataka empire in the north up to Malwa and Gujarat and in the south up to Kolhapur.

(v) At that time, Kolhapur was known as 'Kuntal'.

## Summative Evaluation

### I. Semester examination

**(A)** (1) Mahendra Varman (2) Kailas (3) Persian Gulf

**(B)** (1)-b, (2)-a, (3)-c.

**(C)** (1) The Pandya kingdom was a part of today's Tamil Nadu.

(2) King Simuk was the founder of Satavahana dynasty.

(3) Statues of the Satavahana kings and some ancient inscriptions are found in the caves at Naneghat.

(4) The Vakataka king Pravarsen II composed 'Setubandh'.

(5) The famous temples at Badami, Aihole and Pattadakal were built during Chalukya period.

(6) While on his visit to Kanchi, Yuan Chwang recorded that people of all religions received tolerant and just treatment under the rule of the Pallava kings.

**(D)** (1) The Satavahana kings wrote their mother's name before their own.

(2) Kuntal.

**(E)**

<b>Pallav</b>	<b>Kanchi</b>
<b>Chalukya</b>	Aihole, Badami, Pattadakal
Satavahana	<b>Ajanta, Nashik, Ellora, Paithan, Naneghat, Ter, etc.</b>

**(F)**

Sr. No.	Dynasty	Capital
(1)	Satavahana	Pratishthan
(2)	Pandya	Madurai
(3)	Chalukya	Badami
(4)	Pallava	Kanchipuram
(5)	Vakataka	Nandivardhan/ Vatsagulm

**(G)** (1) (To be done by students with teachers help)

(2) (i) The powerful dynasty in Karnataka was the Chalukya dynasty .

(ii) After the decline of the Vakatakas the kingdoms of Kadamba, Kalachuri had become powerful.

(iii) But the Chalukya kings established their dominance over all of them.

(iv) Pulakeshi I established the rule of the Chalukya dynasty in the sixth century CE.

## Civics

### 4. Urban Local Government Bodies

#### Formative Evaluation

#### I. Unit Test

- (A) (1) rapidly (2) Nagar Panchayat (3) essential.
- (B) (1)-b (2)-a
- (C) (1) The Municipal Council is the form of local government body for small cities.
- (2) The President of Municipal Council is the chairman of all the meetings in Municipal Council.

#### II. Questionnaire

- (A) (1) binding (2) discretionary functions  
(3) Chief Officer
- (B) (1) True (2) True
- (C) (1) The Municipal Corporation carries out its work through different committees.
- (2) The head of the administration of the Corporation is the Municipal Commissioner.

#### III. Quiz

- (A) (1) Nearly half (2) Backward class citizens  
(3) Towns

#### IV. Oral

- (1) Elections of the Municipal Council are held every five years.
- (2) The urban local government bodies consist of Nagar Panchayat, Municipal Council and Municipal Corporation.

- (3) The office bearers of the urban local government bodies are President, Vice - President of Nagar Panchayat and Municipal Council and Mayor and Deputy Mayor of Municipal Corporation.
- (4) Issues related to food, energy, water etc. are handled by the women.

#### V. Class / Home Assignments

- (A) (1) President of the Municipal Council (2) obligatory  
(3) discretionary
- (B) (1) The Chief Officer implements the decisions taken by the Municipal Council.
- (2) The first Municipal Corporation was established at Mumbai.
- (C) (1) **Problems faced by people in cities are :-**  
(a) Shortage of housing (b) Insufficient space  
(c) Traffic congestion (d) Problem of disposal of waste (e) Increasing crime (f) A large proportion of population in slums.
- (2) **The various committees of Municipal Corporation are :-** (a) Education Committee  
(b) Health Committee (c) Transport Committee

#### Summative Evaluation

#### I. Semester Examination

- (A) (1) Mumbai (2) Nagar Panchayat (3) Chief Officer
- (B) (1) Municipal Commissioner  
(2) Working of Government
- (C) (1) Only members of a specific category can be elected to the reserved seats.

- (2) The rural areas neighbouring cities are also getting transformed.
- (D)** (1) Since, holding a separate election for citizens to vote for the President and Vice President would be expensive and time consuming.
- (2) (i) Women handle issues like food, energy, water everyday as part of their daily routine but have no say. So it is important for women to be given opportunity to participate in finding solutions to important issues.
- (ii) It is important that all the people get an opportunity to participate in all the processes.
- As a result, there is fifty percent reservation for women in the local bodies.

**(E) (1) The Municipal Council :**

- (i) The Municipal Council is the form of the local government body for small cities.
- (ii) The President of Municipal Council is the chairman of all its meetings.
- (iii) He controls the working of the Council and keeps a watch on the financial matters.
- (iv) There are some functions that are binding on the Council.

**(2) The Municipal Corporation :**

- (i) The local body that provides different services to the people in big cities is called Municipal Corporation.

- (ii) The elections to the Corporation are held every five years.
- (iii) The Corporation carries out its work through different committees.
- (iv) The Municipal Commissioner is the head of the administration of the Corporation.

**(F)**

Points	Nagar Panchayat	Municipal Council	Municipal Corporation
<b>Office Bearers</b>	President and Vice President	President and Vice President	Mayor and Deputy Mayor
<b>Number of Members</b>	9-15	17-38	The total number of members is inproportion to to the population of the city.
<b>Officers</b>	Executive Officer	Chief Officer	Commissioner

**(G) (1) Essential functions of Municipal Council**

**are:-** (a) Lighting of public streets (b) Providing drinking water (c) Public hygiene (d) Sewage disposal (e) Registration of births, deaths, marriages etc.

- (2) The Nagar Panchayat functions in the villages which are in the process of becoming towns.

**(H)** (To be done by students with teachers help)



## Geography

### Topic 6 : Importance of Oceans

#### Formative Evaluation

#### I. Unit Test

- (A) (1) hydrosphere, (2) salinity,  
(3) seas, rivers, lakes, (4) coastal, (5) oceans
- (B) (1)-(c), (2)-(a), (3)-(d), (4)-(b)
- (C) (1) We find abundant aquatic life in the oceans from the microscopic planktons to huge whales.  
(2) Dead remains decompose and release various minerals and salts in the ocean water.  
(3) The maximum salinity of the Dead Sea is 332%.  
(4) Besides food, marine animals are also used for the production of fertilizers, pharmaceuticals and in research.  
(5) The water body that extends from 60° S parallel to the coast of the Antarctic Continent is named as the Southern Ocean.

#### II. Questionnaire :

- (A) (1) water, (2) Pollution, (3) Ocean currents,  
(4) equable, (5) Oceans
- (B) (1) **True**  
(2) **False** - These rivers flow into the seas and oceans.  
(3) **False** - They get more heat from the sun since the sun shines perpendicular on these areas.  
(4) **True**

- (C) (1) The earth is the only planet that has a living world.  
(2) The Southern Ocean extends from 60°S. It is parallel to the coast of the Antarctic Continent.  
(3) Water transport carried out along ocean currents help to accelerate the speed of ships and saves fuel.

#### III. Orals

- (A) (1) The Hydrosphere (2) Salty  
(3) Volcanic eruptions (4) In Ocean

#### IV. Class / Home Assignments

- (A) (1) perpendicular (2) equable (3) Mangrove  
(4) International (5) water
- (B) **True** : 1, 4 **False** : 2, 3
- (C) (1) About 70.8% is occupied by water.  
(2) Pollution of oceanic waters is a major issue.  
(3) It is given preference to transport bulky materials such as coal, crude oil, raw materials, metallic minerals, food grain, etc.
- (D) (1) Oil spills, release of waste products into the sea, exploitative fishing, cutting of mangrove forests, release of sewage by industries and cities and excavations carried out in the seas have polluted oceanic waters. Coastal regions are turning into death traps for aquatic animals, hence many aquatic animals like the blue whale, some types of turtles, dolphins, etc., are under threat of being extinct.

## Summative Evaluation

### I. Objective Type (Semester)

- (A) (1) Volcanic, (2) 35%, (3) marine, (4) fish
- (B) (1)-(d), (2)-(c), (3)-(a), (4)-(b)
- (C) (1) In drinking water, the proportion of salts is quite low.
- (2) Salt is obtained by constructing salt pans in coastal areas.
- (3) Marine animals are used for food, for the production of fertilizers, pharmaceuticals and also in research.

### II. Subjective Type

- (A) There are several ways man is polluting the oceans. We are using the oceans for oil spills of big factories. Waste products are being released in seas, materials are being thrown from ships, there is exploitative fishing, we are cutting our mangrove forests in coastal areas, water mines are causing disasters, sewage is being released by industries and cities and excavations are being carried out in the seas.
- All the above factors are leading to large scale oceanic pollution.
- (B) (1) The wood of mangrove trees is light and oily. These forests protect coastal areas from huge waves. These forests also protect the biodiversity in the coastal areas, hence they are called lungs of the towns near which they are located.
- (2) Regions close to the sea have equable climate.

Coastal regions have always attracted man due to the climate, abundance of food and various products obtained from the sea.

### Textual Exercises

- (A) (1) Ship (2) Dead Sea (3) Peru  
(4) Bay of Bengal (5) Gold
- (A) (1) Man gets salt, fish, shells, minerals like iron, lead, cobalt, sodium, manganese, chromium, zinc, etc., mineral oil, natural gas, pearls, corals and some medicinal plants.
- (2) Large scale transport of goods is carried out with the help of ships, trawlers, boats, etc. International trade is carried out on a large scale using waterways. Ocean currents are important to water transport. They accelerate the speed of ships and also save fuel to a considerable extent.
- (3) In regions close to the oceans, seas or large reservoirs, there is not much of a difference in the temperatures during the day.
- There are differences in the temperatures of different places on the earth. There is also a difference in the maximum and minimum temperatures. This difference is less in the coastal areas while it is more in the regions far from the sea. Places far from the sea get less heat since there is very little water vapour released through evaporation since there are no water bodies.
- (4) North America, South America, Australia and Asia.

## Topic 7 : Rocks and Rock Types

### Formative Evaluation

#### I. Unit Test

- (A) (1) crust (2) minerals (3) high  
(4) primary (5) porous
- (B) (1)-(c), (2)-(a), (3)-(d), (4)-(b)
- (C) (1) Rocks are a mixture of different minerals formed by natural processes in the lithosphere.  
(2) Silica, aluminium, magnesium and iron are the major rock forming minerals.  
(3) Lava, gases, dust, ashes, etc., are thrown out during volcanic eruptions.  
(4) It is easy to carve on sandstone because it is relatively soft.

#### II. Questionnaire :

- (A) (1) Laterite (2) Taj Mahal  
(3) diamond (4) fossils
- (B) (1) True  
(2) False - They are generally brittle and lightweight.  
(3) True  
(4) False - It provides information about life in that period.
- (C) (1) They are Igneous rocks, Sedimentary rocks and Metamorphic rocks.  
(2) Rocks are a mixture of different minerals formed by natural processes in the lithosphere.

- (3) As igneous rocks are formed out of material from the interior of the earth, they are referred to as primary rocks.  
(4) Rocks develop cracks due to continuous variation in the temperature.

#### III. Class / Home Assignments

- (A) (1) granite (2) Ratnagiri, Sindhudurg  
(3) Rocks (4) lava
- (B) (1) They are called elephant yards or lakes.  
(2) It is an igneous rock, formed out of volcanic froth.  
(3) The molten material within the earth's crust is known as Magma.  
(4) One may find coal seams in sedimentary rocks.  
(5) Igneous rocks. e.g., Basalt are used for building forts in Maharashtra. This is because the forts were built on old quarry sites. The rocks extracted from these sites were used for building the forts.
- (C) (1) Due to thick and extensive layer of basalt, Maharashtra does not have large reserves of mineral wealth. Therefore mining activity is concentrated in South Konkan and eastern Maharashtra.  
(2) Due to continuous variations in the temperature, rocks develop cracks. Similarly, the water percolating through rocks dissolves the soluble minerals. This leads to the weathering of rocks. This makes the rocks disintegrate or decompose and they get reduced to pieces.

## Summative Evaluation

### I. Objective Type (Semester)

- (A) (1) soil, rocks      (2) fossils  
 (3) sedimentary      (4) Laterite
- (B) (1)-(c), (2)-(a), (3)-(d), (4)-(b)

### II. Subjective Type

- (A) (1) Properties of rocks depend on the constituent minerals and their proportion, as well as on the formation process. Silica, aluminium, magnesium and iron are the major rock forming minerals.
- (2) When the molten material, known as magma within the crust and lava on the surface, cools down, it solidifies, giving rise to rocks. These rocks are known as igneous rocks. These rocks appear hard, homogenous and heavy too. We do not get fossils in these rocks. Basalt is a major example of igneous rocks.
- (3) Due to variations in the temperature and the water percolating through rocks, they get disintegrated and are reduced to pieces. These pieces get transported by rivers, glaciers, wind, etc., towards low lying areas and get deposited there. Sediments after sediments get deposited. The upper layers exert heavy pressure on the lower layers leading to the development of sedimentary rocks.

## Textual Exercises

- (A) Sand is made from tiny grains of rocks and minerals. It can also be tiny particles of the shells of sea creatures. Some sand comes from the calcium (a mineral) in seaweed. Sand can be of different colours. That's because shells, rocks and minerals are of different colours. Sand on beaches can be black, white, brown, green, yellow or even pink!

Sand is formed when rocks or shells break into tiny pieces. Over time, rock is broken down by water, wind and ice. It takes thousands or millions of years to create sand. Wind, water (rain), ice, and even the processes of freezing and thawing take place on mountains. Pieces of rocks break off from the mountain. These pieces fall because of gravity. Water and wind may carry them far away.

- (B) Fort Raigad, Ellora Sculptures.

- (C) (1)

	Igneous rocks		Sedimentary rocks
(a)	They are formed when the molten material such as magma and lava cool down and solidify.	(a)	Rocks break up and get disintegrated due to the variations in the temperature. These particles get transported by rivers, glaciers, wind, etc., and get deposited in layers. One layer forms over the other forming sedimentary rocks.
(b)	These rocks are formed out of material from the interior of the earth.	(b)	These rocks are formed from disintegrated or decomposed pieces of rocks.

(c)	These rocks are hard and heavy.	(c)	These rocks are brittle, lightweight and porous.
(d)	We do not get fossils in these rocks.	(d)	We find fossils in these rocks.

(2)

	Igneous rocks		Metamorphic rocks
(a)	They are formed when the molten material such as magma and lava cool down and solidify.	(a)	Due to volcanic activity and other earth movements, igneous or sedimentary rocks are subjected to tremendous pressure and heat, which change the nature as well as the composition of the original rocks.
(b)	These rocks are formed out of material from the centre of the earth.	(b)	The rocks get metamorphosed.
(c)	These rocks are hard and heavy.	(c)	These rocks are heavy and hard.
(d)	We do not get fossils in these rocks.	(d)	They do not contain fossils.

- (D) (1) Basalt  
(2) Laterite and Basalt  
(3) Granite

## Topic 8 : Natural Resources

### Formative Evaluation

#### I. Unit Test

- (A) (1) air (2) agriculture (3) water (4) animals  
(B) (1)-(c), (2)-(d), (3)-(b), (4)-(a)  
(C) (1) Air, water, soil, land, minerals, plants and animals are all natural resources.  
(2) Soil is a natural resource which is used all over the world, hence it is a very important resource.  
(3) Plants are broadly classified as grass, herbs, shrubs and trees.  
(4) Settled life sprang up in the basins of Huang He, Sindhu (Indus), Nile and Euphrates.  
(5) Minerals are classified as metallic and non-metallic minerals.  
(6) The increase in population and the greed of humans led to exploitative use of resources.

#### II. Questionnaire :

- (A) (1) natural resources (2) 29.20% (3) milk  
(4) natural (5) uniform  
(B) (1) **False** - Some chemicals are used to make medicines.  
(2) **True**  
(3) **False** - It is collected from trees.  
(4) **True**

- (C) (1) Equatorial evergreen forests are found near the equator.  
 (2) Horses, oxen, camels, asses etc. are used for ploughing, riding, etc.  
 (3) Land is sold or bought because it is an invaluable resource.

### III. Class / Home Assignments

- (A) (1) Exploitative (2) uniform  
 (3) prevailing conditions (4) Rock
- (B) (1) Goats, cows and buffaloes are some milk animals.  
 (2) Metallic minerals are used for obtaining metals such as iron, bauxite, etc.

### Summative Evaluation

#### I. Objective Type (Semester)

- (A) (1) depletes (2) cultivable  
 (3) mature soil (4) water
- (B) (1)-(d), (2)-(c), (3)-(a), (4)-(b)

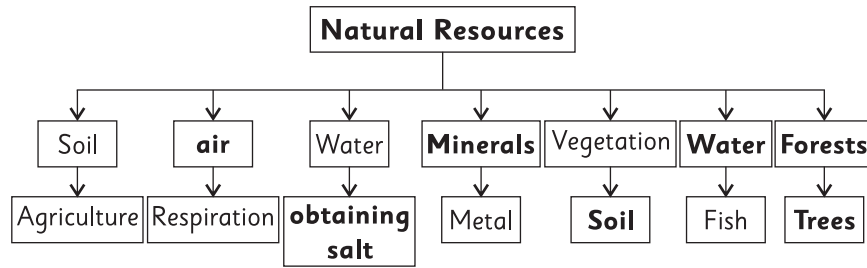
#### II. Subjective Type

- (A) (1) Non-metallic minerals are used in obtaining various chemicals like gypsum, rocksalt, calcite, etc.  
 (2) This depends on the characteristics like physiography, soil, climate, minerals and availability of water in different regions of the world.

### Textual Exercises

- (A) (1) Man and other living beings need water. The entire living world depends on water. We obtain salt from seawater.  
 (2) Forests are habitats for many animals. Many food chains develop in the forests. We get wood, trees, honey, rubber latex, resin, medicinal plants, herbs and shrubs from trees in forests.  
 (3) Animals are used by man for various reasons. Horses, oxen, camel, asses, etc., are employed for ploughing, riding, transporting goods etc. Goats, cows, buffaloes are used as milk animals. We get meat, eggs, bone powder, hide, etc., from animals.  
 (4) Minerals are inorganic substance that form in naturally occurring chemical processes. We get different metals and chemicals from minerals. Some chemicals are used in preparing different medicines. Metallic minerals are used for obtaining iron, bauxite, etc. Non-metallic minerals are used for obtaining gypsum, rock salt, calcite, etc.  
 (5) Land is an invaluable resource. Land is used for construction and trade. Man attempts to make changes in the prevailing conditions of land to suit his needs. Land is used for construction, to build roads and railways, for agriculture, etc.

(B)



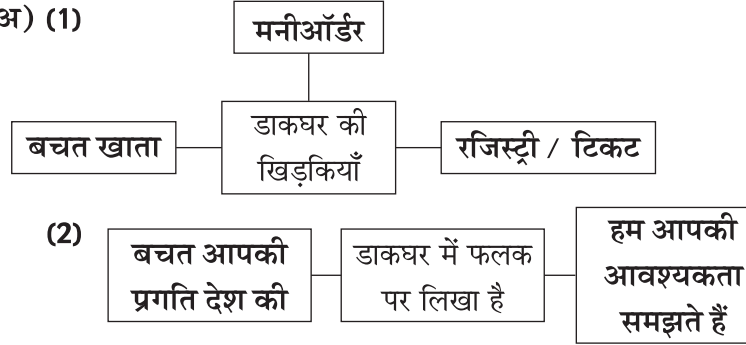
- (C) (1) Soil formation mainly depends on the original rock, climate, organic components, slope of the land and time. According to the types of rocks and climates in different regions, different types of soils are formed. A long period is required for the formation of mature soil.
- (2) We obtain many products from forests such as wood, fruits, honey, resin, rubber, latex, etc. Forests give us plants. Plants such as grass, herbs, shrubs, etc. We also get medicinal plants from forests.
- (3) Minerals are inorganic substances that form in naturally occurring chemical processes. Some chemicals are used in preparing different medicines. Non-metallic minerals are used in obtaining various chemicals like gypsum, rock salt, calcite, etc., and metallic minerals are used for obtaining metals such as iron, bauxite, etc.
- (4) Land is a natural resource. It is an invaluable resource. Obtaining land at strategic locations, using it for construction as well as for trade are some uses of land.
- (5) Man has to depend on nature for many things, whatever the extent of his progress. Most of the natural resources

are limited in nature, therefore they are invaluable. Man fulfills his needs using the natural resources such as air, water, soil, land, minerals and animals. Man must realise that nature is not for man alone. It belongs to other living things too, therefore we must always use natural resources judiciously.

हिंदी सुलभभारती  
दूसरी इकाई

1. उपयोग हमारे

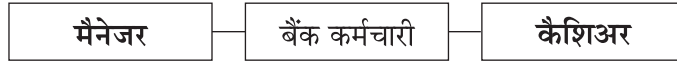
प्र.1. (अ) (1)



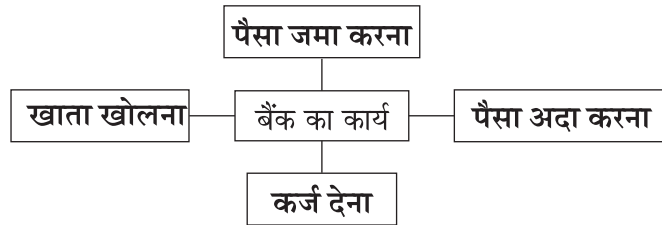
सूचना - Term Book में क्र. (अ) Type नहीं हुआ।

- (आ) (i) डाकघर (ii) टिकट  
(iii) मनीऑर्डर (iv) पोस्टकार्ड  
(v) किसान विकास पत्र (vi) राष्ट्रीय बचत पत्र  
(vii) लिफाफा (viii) रजिस्ट्री  
(ix) डाकिया (x) पोस्ट मास्टर

प्र.2. (1)



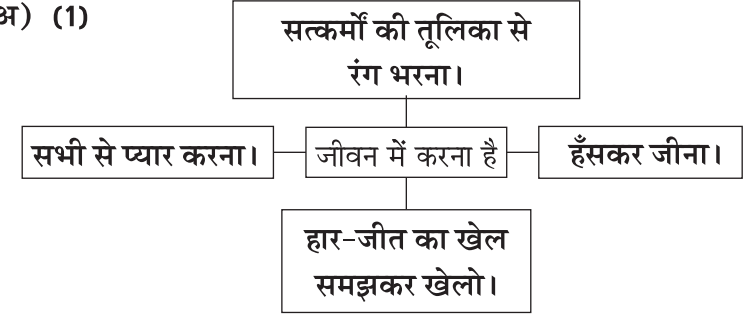
(2)



प्र.3. विद्यार्थी स्वयं करे।

2. तूफानों से क्या डरना  
कृतिपत्रिका

प्र.1. (अ) (1)



- (2) (i) (1) मदद सब लोगों की। (2) खेल समझकर।  
(ii) (1) बढ़ाकर (2) इनसे
- (3) कवयित्री हमें कह रही हैं कि हमें सभी से प्यार करना चाहिए। हम किसी से नफरत न करें। जिंदगी में तूफान (मुसीबतें) तो आते रहेंगे। हमें उनसे डरना नहीं चाहिए। जो हिम्मत के साथ आगे बढ़ेगा उसे सब लोगों की मदद भी मिलेगी। अपने जीवन में सत्कर्मों की तूलिका से रंग भरने हैं।

प्र.2. (1)

- (i) दीप - आत्मज्ञान (ii) सवेरा - रात का अंत  
(iii) जीवन - धूप-छाँव (iv) महामारी - देह - अभिमान

(2)

- (i) (1) समय एक सा कभी नहीं रहता।  
(2) जिंदगी में तूफान तो आते रहेंगे।  
(ii) (1) देह (2) महामारी
- (3) शरीर के बल और सौंदर्य का घमंड ही वे कारण हैं जो भीषण युद्ध की जड़ें हैं। संक्रामक बीमारियों के कारण हैं। ऐसे में हमारी जिम्मेदारी बनती है कि हम सबको सही राह दिखाए। आत्मज्ञान के दीप जलाकर हमें अपने मन का अंधेरा दूर करना है। तभी तो हम दुनिया से प्यार कर पाएँगे और नफरत को मिटा पाएँगे। जीवन में तूफान आते रहेंगे। इनसे डरना नहीं उनका सामना करना।

प्र.3. (1) शिखा शर्मा



- (2) हिम्मत करनेवालों को, मिलती मदद सब लोगों की, सत्कर्मों की तूलिका से, जीवन में रंग भरना जी।
- (3) हमें किसी भी मुसीबत का सामना करने के लिए हिम्मत करनी चाहिए तो हमें लोगों का सहयोग भी मिलेगा। सत्कर्म करते हुए खुशी से रंग भर दो। यह पंक्तियाँ काम करने के लिए प्रेरित करती है। हमारा हौसला बढ़ाती है इसलिए मुझे ये पंक्तियाँ पसंद है।
- (4) जीवन में तूफान तो आते ही रहेंगे। हमें उनसे डरना नहीं चाहिए बल्कि हिम्मत से आगे बढ़ना चाहिए। हार-जीत हाथ बढ़कर खुशी से ले लो। जीवन में हमें सतत संघर्षशील रहने का संदेश मिलता है। मुसीबतों का अंत निश्चित होगा क्योंकि नई सुबह अवश्य आती है। इसलिए हिम्मत से काम लो। अच्छे कर्म करते रहो। सबको अच्छी राह दिखानी चाहिए यह संदेश मिलता है।

### स्वाध्याय

- प्र.1. कविता 'तूफानों से क्या डरना' कवयित्री शिखा शर्मा की लिखी हुई है। इस कविता में उन्होंने जीवन में सतत संघर्षशील रहने का जीवन मूल्य प्रस्तुत किया है। वे कहती हैं जीवन में तूफान तो आते रहते हैं उनसे डरने की जरूरत नहीं बल्कि हिम्मत से मुकाबला करने की उमंग हो। सबके साथ प्यार से पेश आओ और अच्छे कर्म करके जीवन में खुशियों के रंग भर दो। जीवन को हार-जीत का खेल समझकर खेलो और जो भी प्राप्त हुआ उसे खुशी से ले लो। जब तक जिंदगी जिओ हँसी-खुशी से जिओ। जीवन में सुख-दुख आते जाते रहते हैं। अतः दुख के अँधेरों में डरने की जरूरत नहीं बल्कि धीरज से आगे बढ़ो। सबको सच्ची राह दिखाओ और लोगों के जीवन से अँधेरा दूर करो।

- ★प्र.2. (अ) (1) थोड़ा धैर्य रखना चाहिए।  
(2) हिम्मत करते हुए आगे बढ़ते हैं।

- (आ) (1) बढ़ाकर (2) सच्ची (3) लंबी  
(इ) (1) तूलिका (2) सवेरा (3) महामारी  
(ई) (1)  (2)  (3)

### व्याकरण

- (1) (i) जीवन × मृत्यु (ii) खुशी × गम  
(iii) अंत × आरंभ (iv) लंबी × छोटी  
(v) दूर × पास

### उपयोजित लेखन

- (1) 'समय का यह चक्र कहीं हम रोक पाते तो समय की कमी का कभी बहाना न बनाते।'

अगर हम बातें करने बैठेंगे तो कोई हमें याद नहीं दिलाएगा कि देर हो गई है अब बस भी करो। पर ऐसा हमारा भाग्य कहाँ। समय का यह पहिया तो रुकने का नाम ही नहीं लेता। क्षण-क्षण यह परिवर्तन करता रहता है। अगर रुक गया तो यह धरती चित्र की भाँति स्थिर नजर आएगी। कुछ समय के लिए भले ही अच्छा लगे पर हर वक्त उसे देखना उबा देनेवाला होगा। मैं तो छठी कक्षा में ही पड़ा रहूँगा। बापरे! आगे बढ़ूँगा कैसे समय का चक्र जो रूका होगा। साथ में प्रगति भी ठप्प।

जब हम दोस्तों के साथ खेलते हैं या कहीं सैर सपाटे पर निकल जाते हैं तब लगता है समय की गति बढ़ गई है और कभी किसीका इंतजार हो तो लगता है उसकी गति धीमी पड़ गई है। वास्तव में यह हमारे मन के खेल हैं। समय की अपनी गति है और वह कभी न रुकी है न रुकेगी। हमारे मन को धैर्य धारण करने के लिए समझाया जाए तो समय के खेल का मजा उठा पाएँगे। दुख की घड़ियाँ बोझ न लगेंगी और असफलताएँ हमें कमजोर नहीं बना पाएँगी। हम समय के साथ कदम से कदम मिलाकर आगे बढ़ सकेंगे और सफलता प्राप्त कर सकेंगे।

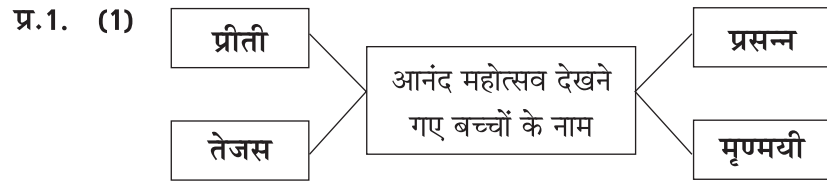
- (2) साक्षरता का अर्थ है अक्षर का ज्ञान। शिक्षा के बिना मनुष्य का विकास संभव नहीं। साक्षरता अभियान का उद्देश्य देश के विकास की ओर उठाया एक सार्थक कदम है। इस अभियान के अंतर्गत सभी को खासकर उन व्यक्तियों को जो किसी कारणवश शिक्षा प्राप्त न कर सके उनमें पढ़ने की रुचि पैदा करना है। इस अभियान का प्रारंभ सन 1937 ई. में राष्ट्रीय

आंदोलन के रूप में हुआ। इसके अंतर्गत कई प्रौढ़ शिक्षा केंद्र एवं रात्रि पाठशालाएँ खोली गईं।

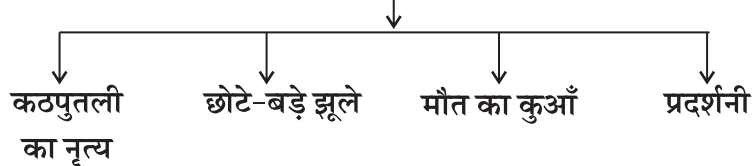
इस अभियान के अंतर्गत साक्षरता दिवस पर स्कूल कॉलेजों में निबंध प्रतियोगिताएँ, वादविवाद प्रतियोगिताएँ, चित्रकला, नाटक आदि की प्रतियोगिताएँ आयोजित की जाती हैं जिनके माध्यम से जनमानस को साक्षरता का महत्त्व बताया जाएँ तथा लोगों को साक्षर होने के लिए प्रेरित किया जाएँ। हर नागरिक को ज्ञान और जानकारी के अथाह भंडार को पाने का अधिकार है। शिक्षा से वंचित व्यक्ति न तो अपने अधिकारों का सही प्रयोग कर सकता है न ही जनसामान्य के लिए उपलब्ध सुविधाओं का लाभ उठा सकता है। निरक्षरता एक दुर्गुण से कम नहीं। अतः हर व्यक्ति को साक्षर बनाने के नेक कार्य में हमें अवश्य भाग लेना चाहिए और अपनी जिम्मेदारी निभानी चाहिए।

### 3. कठपुतली

#### कृतिपत्रिका



(2) आनंद महोत्सव में आकर्षित करनेवाले घटक

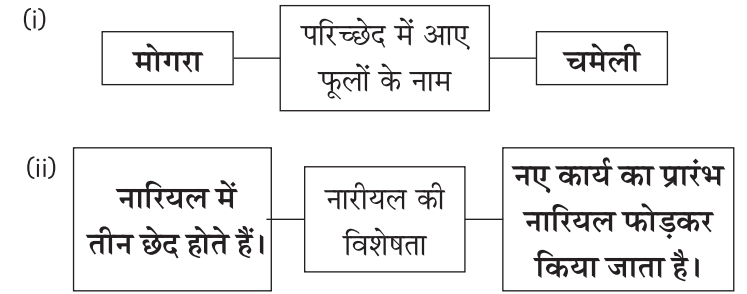


- (3) (i) (1) छोटे-बड़े (2) शकुन- अपशकुन  
(ii) (1) झूला (2) कठपुतलियाँ

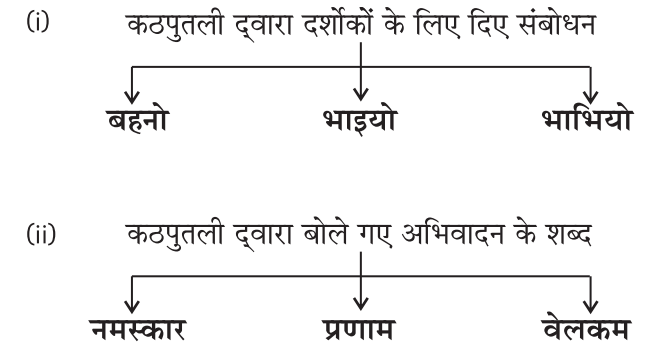
(4) शकुन-अपशकुन समाज में प्रचलित एक कल्पना हैं। इसमें कुछ अच्छी-बुरी घटनाएँ हमारे भविष्य का संकेत देती है। अच्छा भविष्य बतानेवाले संकेतों को शुभ-शकुन और बुरा भविष्य बतानेवाले संकेतों को अपशकुन माना जाता है। संसार में बहुत से लोग शकुन-अपशकुन पर विश्वास रखते हैं। काली बिल्ली द्वारा रास्ता काट जाना, बाँई आँख फड़कना, शुभ काम करने जाते समय दही खाकर जाना, किसी काम करने जाते वक्त किसी का छींक देना, कौआ का चिल्लाना, छिपकली गिरना आदि समाज में चले आए शकुन-अपशकुन है।

इन शकुन-अपशकुनों के चक्कर में आकर कभी-कभी लोगों को हानी भी होती है फिर भी वे इन्हें मानते ही हैं। शकुन-अपशकुन मनुष्य को कमजोर बनाते हैं। उनका आत्मविश्वास कम करते हैं। जिनको खुद पर विश्वास नहीं, जो हिम्मत हार बैठे हैं वह लोग अपने कार्य न होने पर शकुन-अपशकुन का सहारा लेकर अपनी जिम्मेदारियों से पीछे हटते हैं और अपना लक्ष्य कभी प्राप्त नहीं कर सकते। विज्ञान इन शकुन-अपशकुनों को अंधविश्वास ही कहता है।

प्र.2. (1)



(2)



- (3) (i) (1) आँख दिखाना।, आँख खुलना।  
(2) नाक कट जाना।, नाक में दम आना।

(ii) (1) काँटे (2) आसमान

- (4) किसी भी बात को बिना सोच समझ के, बिना किसी आधार के मानना-अंधश्रद्धा है। सदियों से चली आयी हमारी मान्यताएँ, मृत्यु का डर, पाप से मिलनेवाला दंड, आर्थिक नुकसान आदि कई कारण हैं जो हमें अंधविश्वासी बना देते हैं। अंधश्रद्धा को दूर करने का एकमात्र उपाय है अपने आप पर भरोसा। कड़ी मेहनत, लगन और संकल्प से अपने पथ पर चलनेवालों को मंजिल मिल ही जाती है। अपने मन का डर भगाना होगा और हमें टोने-टोटके न कर कर्मठ बनना होगा, क्योंकि 'उद्यम से क्या हो सकता है पूछो, तुम इतिहास से।' सच्चाई को सहजता से स्वीकार करना होगा। तभी हम अंधश्रद्धा की दलदल से बाहर निकलेंगे।

अंधविश्वास या अंधश्रद्धा को पूरी तरह से खत्म नहीं कर सकते लेकिन लोगों को अंधविश्वास का सहारा लेकर शोषण करनेवालों से बचाना चाहिए। लोगों को वैज्ञानिक दृष्टि से सोचना सीखाना चाहिए। उनके मन में सकारात्मकता, आत्मविश्वास के जरिये लोगों को अंधश्रद्धा के प्रभाव से दूर रखने के लिए कोशिश करनी चाहिए। उन्हें श्रद्धा और अंधश्रद्धा का फर्क समझाने के लिए उचित मार्गदर्शन करना चाहिए। अंधश्रद्धा निर्मूलन कार्यक्रमों का आयोजन करना चाहिए। कर्म करने से ही इच्छित फल मिलेगा यह धारणा लोगों की अंधश्रद्धा कम करने में मदद कर सकती है। विज्ञान के इस युग में तर्क के आधार पर समस्या का हल ढूँढ़ना चाहिए।

### स्वाध्याय

प्र.1. (अ) (i) महोत्सव (ii) विद्यार्थियों (iii) अंधविश्वास

(आ) (1)  (2)  (3)

प्र.2. (अ) (i) सारी कठपुतलियाँ ठिठककर खड़ी हो गईं।

(ii) ऐसे ही छींकता हुआ आ रहा है।

(आ) (i) नारियल (ii) ठिठककर (iii) अंधश्रद्धा (iv) मोहल्ला

### व्याकरण

- (1) (1) पानी : अकाल के कारण पीने के पानी की समस्या बढ़ गई है।  
(2) भीड़ : मेले में बहुत भीड़ थी।  
(3) ईमानदारी : सारा शहर रामू की ईमानदारी की मिसाल देता है।  
(4) हाथी : उस दिन चौपाटी पर मैंने हाथी की सवारी की।  
(5) भारत : भारत में सर्वत्र विविधता में एकता दिखाई देती है।

(2)



(i) आप - आप हमारे प्रेरणा स्रोत हो।



(ii) हम - हम साथ में अध्ययन करेंगे।

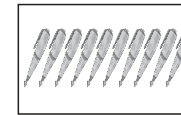
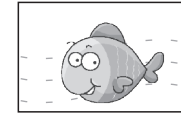


(iii) कोई - दरवाजे पर कोई है।



(iv) तुम - तुम मेरी मदद करोगी क्या ?

★(3)



विशेषणयुक्त शब्द : काली मछली, सुंदर फूल, थोड़ा नमक, एक लीटर दूध, प्रथम, द्वितीय और तृतीय स्थान, आठ कलमें, यह पुस्तक, हरा-भरा वृक्ष।

(1) काली मछली तैर रही है।

(2) गुलाब का सुंदर फूल खिला है।

(3) सब्जी में थोड़ा नमक डाल दो।

- (4) एक लिटर दूध दीजिए।  
 (5) प्रतियोगिता में प्रथम, द्वितीय और तृतीय स्थान पर आनेवाले बच्चों को पुरस्कार दिया गया।  
 (6) मेरे पास आठ कलमें हैं।  
 (7) यह पुस्तक मैंने पढ़ ली है।  
 (8) मैदान में एक हरा-भरा वृक्ष है।

- ★(4) (i) अपशकुन (ii) निडर (iii) सुस्वागत  
 (iv) अव्यावहारिक (v) कुप्रथा (vi) भरपूर

सूचना - Term Book 188 पर 'क' Type हुआ है जहाँ पर 'कु' चाहिए।

प्र.5. (अ) (i) अर्थ : पूरी तरह बरबाद करना।

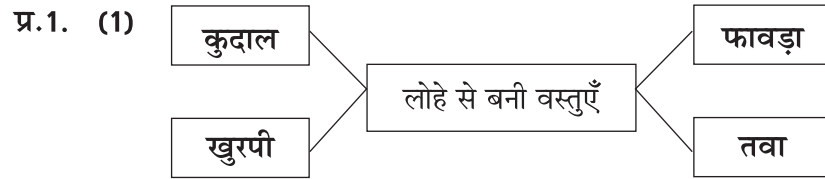
वाक्य : शराब और जुए ने रमेश का घर बंटाधार कर दिया।

(आ) (i) दोस्त (ii) शुरुआत (iii) सुमन, पुष्प (iv) छात्र

(इ) (i) अपशकुन (ii) अविश्वास (iii) विविधता/अनेकता (iv) अंत

#### 4. सोना और लोहा

##### कृतिपत्रिका

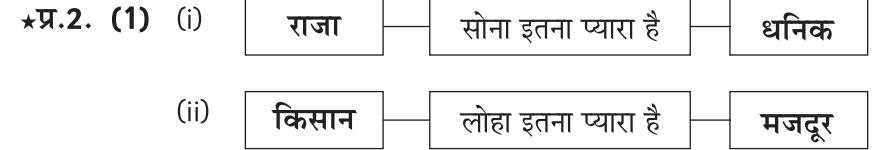


- (2) (i) (1) उसके गुण ही ऐसे हैं।  
 (2) सोने का तिजोरी से बाहर आना खतरे से खाली नहीं।  
 (ii) (1) सत्य (2) असत्य  
 (3) (i) (1) नौकर-चाकर (2) पच्चीस-तीस

(ii)	मूल शब्द	उपसर्गयुक्त शब्द	प्रत्यययुक्त शब्द
(1)	रूप	कुरूप	रूपवान
(2)	मूल्य	अमूल्य	मूल्यवान

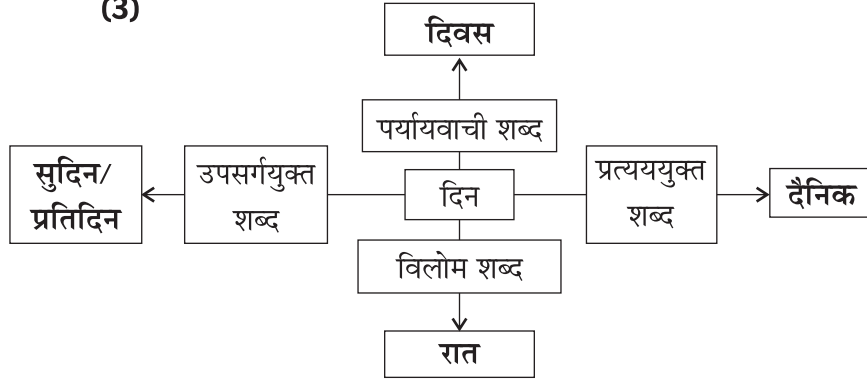
- (4) राजा हो या नौकर नम्रता सबसे बड़ा गहना है। राजा हो या नौकर मतलब अमीर हो या गरीब सबके पास नम्रता का गुण होना आवश्यक है। हमारे पास कितने भी सोने-चाँदी के गहने क्यों न हो लेकिन नम्रता सबसे बड़ा गहना है। जो हमारे व्यक्तित्व की शोभा बढ़ाता है, व्यक्तित्व में निखार लाता है। नम्रता से वह कार्य भी हो जाते हैं जो कठोरता से नहीं हो पाते। हम नम्रता से किसीसे मदद माँगते हैं तो कोई भी व्यक्ति हमें मदद करने की कोशिश जरूर करता है। विनम्रता श्रेष्ठता की पहचान है। कोई कितने ही उँचे पद पर हो अगर उसके पास नम्रता नहीं तो वो श्रेष्ठ नहीं है। नम्रता हमें सम्मान देती है। विनम्रता के कारण आपका शत्रु भी हथियार नीचे डाल देता है।

व्यवहार में नम्रता एक बड़ी शक्ति है। नम्रता हर किसी का हृदय जीत सकती है। सफलता के शिखर पर पहुँचना है तो नम्र होना जरूरी है क्योंकि नम्रता ही हमारी सबसे बड़ी संपत्ति है, सर्वोत्तम गुण है। विनम्रता ही सब गुणों का आधार है।



- (2) (i) (1) जो काम करेंगे, उन्हीं का सम्मान होगा।  
 (2) लोहा सदा सोने की रक्षा करता आया है।  
 (ii) (1) कल - कारखानें (2) श्रम

(3)



(4) गीता में भगवान श्रीकृष्ण ने अर्जुन से कहा था, 'कर्मण्येवाधिकारस्ते'

कर्म करना ही जीवन है और कर्म न करना मृत्यु के समान है। श्रम करके चित्त प्रसन्न होता है, देह तंदुरुस्त होती है। परिवार और समाज में सम्मान मिलता है। श्रम करनेवाला सदैव उन्नति की ओर अग्रेसर होता है। 'उद्यम से ही कार्य सिद्धि होती है।' ऐश्वर्य, वैभव आदि सब श्रम की ही देन है। श्रम ही उज्ज्वल भविष्य का निर्माता है। जहाँ श्रम की पूजा होगी वहाँ कोई भी कमी नहीं रह पाएगी।

आचार्य विनोबा भावे जी के शब्दों में 'परिश्रम' हमारा देवता है, जो हमें अनेक वरदानों से संपन्न करता है। श्रम ही जीवन है। श्रम न करनेवालों को अपमान, लाचारी, परतंत्रता के विषमय घूँट पीने पड़ते हैं। अतः श्रम की कुंजी से भाग्य के बंद कपाट का द्वार खोले और सुनहरे भविष्य का सुवर्ण कलश प्राप्त करें।

### स्वाध्याय

प्र.1. (अ) (1) गुण (2) अस्त्र-शस्त्र (3) घमंड (4) नौकर-चाकर  
(5) व्यर्थ (6) रक्षा

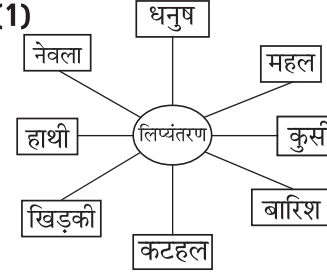
(आ) (1) सही (2) गलत (3) सही (iv) गलत

प्र.2. (अ) (1) तू तूजोरी से बाहर क्यों आया ?  
(2) मुझे डॉटने का तुम्हें कोई अधिकार नहीं।  
(3) श्रमिकों के दिन हैं।

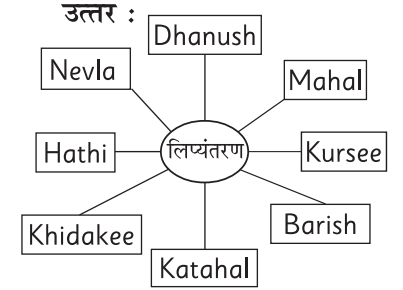
- (आ) (1) मैं क्या झूठ बोल रहा हूँ ?  
(2) मकान बनाना हो तो लोहा चाहिए।  
(3) मैं तो आराम से रहता आया हूँ।  
(4) मैं सदा तेरी रक्षा करता आया हूँ।

### व्याकरण

★ (1)



उत्तर :



सूचना - Term Book Page No. 192 पर निवाला शब्द Type हुआ है वो नेवला है।

★ (2) सुंदरता, गुणवान, डरावना, दैनिक, घबराहट, उपयोगी

सूचना - Term Book Page No. 193 पर 'तो' शब्द Type हुआ है वह 'ता' है।

(3) ने - मैंने अपना काम समय पर पूरा किया।

को - व्यायाम को टालना उचित नहीं।

से - मैंने नई कलम से पत्र लिखा।

को - अध्यापक ने छात्रों को प्रतियोगिता में भाग लेने के लिए प्रेरित किया।

से - हमारे घर शहर से मेहमान आए हैं।

का, की, के - राम की चाची ने गाँव के बगीचे का रूप ही बदल दिया।

में, पर - रमेश ने गाँव में पाठशाला खोली और लोगों पर शिक्षा का रंग जमाया।

अरे - अरे, कोई मेरी बात तो सुनो।

★ (4) (अ) (1) मदद करना।

वाक्य : छुट्टी के दिन मैं रसोई में माँ का हाथ बँटाता हूँ।

(2) बीती बात होना।

वाक्य : अब बैलगाड़ी में यात्रा करने के दिन लद गए हैं।

- (आ)(i) मेहनत (ii) खोज (iii) कीमत (iv) संग्राम  
(इ) (i) बाहर (ii) निरुपयोगी (iii) बड़ा (iv) अपमान।

### उपयोजित लेखन

- ★ (1) 'खनिज तेल नहीं अपार, संरक्षण करें इसे हर बार।' तख्ती पर लिखा घोष वाक्य पढ़कर ख्याल आया कि खनिज तेल समाप्त हो गया तो? हमारे वाहन कैसे चलेंगे? और बिना वाहन के तो जिंदगी की रफ्तार ही रुक जाएगी। खाना पकाने की गैस नहीं होगी। कई कल- कारखाने बंद पड़ जाएँगे। उनमें काम करनेवाले हजारों श्रमिक बेरोजगार हो जाएँगे। देश की प्रगति रुक जाएगी। अतः हमें उसके संरक्षण हेतु उपाय योजना करनी चाहिए। खनिज तेल सीमित मात्रा में उपलब्ध है। अतः हमारा दायित्व बनता है कि इसका संरक्षण करें और आनेवाली पीढ़ी के लिए संभालकर रखें। इसके लिए जनजागृति की आवश्यकता है, खासकर स्कूली बच्चों में क्योंकि वे ही देश का भविष्य है।
- (2) अंकुरित अनाज में भरपूर मात्रा में लगभग सभी पोषक तत्त्व होते हैं जो रोगप्रतिकारक शक्ति बढ़ाते हैं, हिमोग्लोबिन, कैल्शियम, विटामिन और मिनरल्स इनमें पर्याप्त मात्रा में होते हैं। इनसे हमें प्रोटीन मिलता है। ये वजन नियंत्रित रखते हैं, पाचनशक्ति बढ़ाते हैं। अंकुरित अनाज में फाइबर अधिक मात्रा में होता है। अतः कब्ज, गैस, अम्लपित्त की शिकायत नहीं रहती। वास्तव में यह ज्यादा पौष्टिक, कम खर्चीला, दुष्परिणाम रहित और बनाने में आसान एक लाभकारी भोजन है। यह एक प्राकृतिक पौष्टिक आहार है जो हमें चुस्त-दुरुस्त रखता है।
- (i) अंकुरित मूंग (ii) अंकुरित मसूर  
(iii) अंकुरित चना (iv) अंकुरित मूँगफली के दाने  
(v) अंकुरित गेहूँ (vi) अंकुरित मोठ  
(vii) अंकुरित चौलाई (viii) अंकुरित मटर आदि

### 5. (अ) क्या तुम जानते हो ?

- ★प्र.1. (अ) (i) मुंबई (ii) 2 वर्ष, 11 माह, 18 दिन (iii) स्पर्म व्हेल  
(iv) मनाली-लेह सड़क (v) मिरजापुर (उत्तर प्रदेश)

- (आ) (i) तक्षशिला (ii) 8 मार्च (iii) राजस्थान, गोवा  
(iv) शुक्र (v) 29, 8

### 5. (ब) पहेलियाँ

- ★प्र. जल में, थल में रहता, मिट्टी धूप हवा से भोजन,  
वर्षाऋतु का गायक। वह प्रतिदिन ही लेता है।  
कहो कौन टर्-टर् करता, कहो कौन, जो प्राणवायु संग,  
इधर उधर फुदक फुदक। छाया भी हमको देता है।
- उत्तर: **मेंढक** उत्तर: **पेड़**
- अर्धचक्र और सतरंगी, उत्तर: **इंद्रधनुष**  
नभ में बादल का संगी।  
कहो कौन, जो शांत मनोहर,  
रंग एक है, जिसमें नारंगी।

### उपक्रम

- रंगबिरंगी पोशाक पहनता, नहीं मैं मिलती बाग में,  
एक हाथ में छड़ी घुमाता, आधी फल हूँ, आधी फूल  
हँसा-हँसाकर लोट-पोट करता, काली हूँ पर मीठी हूँ  
बच्चों को वह प्यारा लगता। खा के न पाया कोई भूल।  
बोलो कौन ? बोलो कौन ?
- उत्तर: **जोकर** उत्तर: **गुलाबजामुन**
- सारे तन में छेद कई हैं आदि कटे से सबको पारे।  
इन छेदों का भेद यही है मध्य कटे से सबको मारे।  
ये ना हो तो मैं बेकार अंत कटे से सबको मीठा।  
इनसे ही है मेरा संसार खुसरो वा को आँखों दीठा।  
लाती हूँ सूरों की बहार बोलो कौन ?
- उत्तर: **बाँसुरी** उत्तर: **काजल**