

# 1. TENALIRAMAN AND THE TWO THIEVES

## ANSWERS

### Warm Up

1. The letter 'e'.
2. The peacock does not lay eggs!

### Read and Understand

A. 1. (a) 2. (b) 3. (c)

B. 1. sleep 2. understood 3. pretended 4. stones 5. promised

C. 1. Tenaliraman came to know that there were thieves in the garden when he saw some movement behind the bushes.

2. Tenaliraman's plan was to throw a trunk full of big stones into the well and fool the thieves.

3. They kept on taking out water from the well the whole night.

4. The thieves were shocked when they found that the trunk they took out from well had only stones in it! They thought that they would find jewellery and money in it.

5. Tenaliraman thanked the thieves because they had taken out water from the well the whole night and this helped in watering the plants.

D. Do it yourself.

E. 1. will visit 2. will teach 3. will go 4. will drive

F. 1. are going to take 2. am going to read 3. is going to win 4. are going to launch

G. 1. calendar 2. necessary 3. disappoint 4. tolerate 5. exhibition 6. received

H. 1. HOUSE 2. GARDEN 3. TRUNK 4. SLEEP

I. 1. An old man 2. Owl, hen. 3. Feared.

L. A old woman becomes blind. She calls a doctor. She agrees to pay him a large fee if cured but no money if she is not cured. The doctor is greedy. He delays the cure. Meanwhile, he takes away valuable things from the old woman's house every day. Finally, when the old woman is cured, she cannot see the valuable things in her house. She refuses to pay the doctor. The doctor goes to the court. The judge asks the woman why she is not paying the fee. The old woman tells the judge that her eyes are not cured because she cannot see her valuable things. The judge understands why she did not pay the fees. He decides the case in her favour.

## 2. ALIENS PAY A VISIT

### ANSWERS

#### Warm Up

1. Mars 2. Mercury 3. Earth

#### Read and Understand

- A. 1. (a) 2. (c) 3. (a)  
B. 1. father 2. secretly 3. stared  
C. 1. This was because Shaggy was always with Robin and followed him like a shadow.  
2. They saw a strange looking big disc with eight rods at the bottom.  
3. The strange creatures had green eyes, blue leathery faces and small bodies.  
4. The aliens were carrying Shaggy when they got down from their vehicle.  
5. Shaggy's eyes were brighter. His tail was more bushy and his coat very shiny. He could jump very high and bark louder [Any three].  
6. Shaggy won two awards, i.e., Most well-trained Dog and Most Shiny Coat Award.

**HOTS:** Any reasonable answer is acceptable.

- D. 1. AM 2. AP 3. AM 4. AT 5. AP

- E. 1. relationship 2. determination 3. surroundings 4. disability

- F. 1. (a) The word 'top' here means upper portion of the table.  
(b) The word 'top' here means a toy.  
2. (a) The word 'rose' here means a flower.  
(b) The word 'rose' here means 'to get up'.  
3. (a) The word 'light' here means not heavy.  
(b) The word 'light' here means bulb or tubelight.

- G. **Words (Column A):** FEAR, SLOW, CAREFUL, FALL, WIN

**Opposites (Column B):** FEARLESS, QUICK, CARELESS, RISE, LOSE

- H. 1. Keith Robins was camping with his friends.  
2. He was camping in Cardiff.  
3. On old Datsun Cherry car and his friends's dog were stolen when he went away for a short while.  
4. According to the person, 12–15 UFOs came down from space.  
K. Any reasonable answer is acceptable.

# IF I KNEW (POEM)

## ANSWERS

### Read and Understand

- A. 1. (a) 2. (a) 3. (c)
- B. Do it yourself.
- C. 1. The poet would scatter smiles over the land and the sea.  
2. He would gather frowns from nursery, school and street.  
3. He wanted to throw the box containing frowns because he did not want anyone to find it again.
- D. Do it yourself.

### 3. THE GIVING TREE

#### ANSWERS

##### Warm Up

- A. 1. (b) 2. (d) 3. (a) 4. (c)  
B. rubber, medicines, wood

##### Read and Understand

- A. 1. (a) 2. (c) 3. (b)  
B. 1. True 2. False 3. True 4. False  
C. 1. The little boy used to play with the tree by climbing up her trunk and swinging from her branches. He would gather leaves and make them into crowns and play king of the forest.  
2. The boy wanted money because he wanted to buy things and have fun.  
3. The boy made the boat by cutting down the trunk of the tree.  
4. The tree was special because she was always giving and did not want anything in return.  
5. The title of the story 'The Giving Tree' is right because the tree was always giving and did not ask for anything in return.  
D. We can find out the age of a tree but counting the number of rings in the stem.  
E. 1. into (Preposition of direction) 2. in (Preposition of time) 3. to (Preposition of direction)  
F. 1. garden 2. children 3. beautiful 4. greenery  
G. 1. skin 2. sheep 3. helicopter 4. plum  
H. 1. Root 2. Leaf 3. Flower 4. Stem  
K. There are three children. They are playing. One child is blindfolded. One child picking up mangoes which have fallen from the tree. There is greenery all around. All the children look happy.  
L. Do it yourself.

# RAIN IN SUMMER (POEM)

## ANSWERS

### Read and Understand

- A. 1. (c) 2. (c) 3. (b)
- B. 1. heat 2. narrow 3. hoofs 4. pane
- C. 1. The poet calls the rain beautiful because it is a beautiful sight to see rain coming after the heat and dust.  
2. Rain. It struggles out from the spout.
- D. One day as I was coming back from school, black clouds covered the sky. Soon it began to rain heavily. I ran and took shelter in a bus stand. Some distance away, I saw children sailing paperboats. They were sailing their boats in puddles of water. They were enjoying the rain very much.

## PERIODIC TEST—3

- A. 1. (a) 2. (c) 3. (b) 4. (c) 5. (b)
- B. 1. When the man became old, his eyes became dim, ears became dull of hearing and knees trembled.  
2. The old man's son and the wife of the son felt disgusted at his habits.  
3. The old man was deeply hurt and pained at the behaviour of his son and daughter-in-law.  
4. The grandson was making a wooden trough for his parents to be used when they will be old.  
5. The father and mother could immediately understand their fault and the impression they were leaving on the mind of their child. Thinking of their own situation when they will be old, they began to cry.
- C. Do it yourself.
- D. 1. honesty, bravery 2. joy 3. courage 4. weakness
- E. 1. will teach 2. will go
- F. 1. sings; intransitive 2. selling; transitive
- G. 1. AM 2. AP
- H. 1. Avik had to take the three punishments because of his greed.  
2. Air was unable to keep itself clean and was full of pollution because people had cut the trees that kept it clean.  
3. Tenaliraman came to know that there were thieves in the garden because he saw some movement behind the bushes.  
4. He would gather the tree's leaves and make them into crowns and play king of the forest. He would climb up her trunk and swing from her branches and when he was tired, he would rest in her shade.  
5. The boys were taken by complete surprise when they saw a strange-looking disc with eight rods at the bottom. Two funny looking creatures were coming down, one carrying Shaggy, from the vehicle.  
Thinking of their own situation when they will be old, they began to cry.

## 4. THE BOY WHO BORROWED

### ANSWERS

#### Warm Up

1. (d) 2. (c) 3. (e) 4. (a) 5. (b)

#### Read and Understand

- A. 1. (a) 2. (b) 3. (a) 4. (a) 5. (c) 6. (b)

- B. 1. dishonest 2. funny 3. temper 4. empty 5. handed 6. sorry

- C. 1. Benny was fond of reading books.

2. He borrowed books because he had not enough money to buy a lot of books and no one gifted him any except at Christmas time.

3. Benny became dishonest because once his bookcase began filling up, he could not bear to give away any of the books.

4. The children were angry with him because he didn't give back any of the things he took from them.

5. The books pushed the door open. They went downstairs and went out of the open window and returned to their respective owners.

6. He learnt that borrowing is a bad habit. If one borrows a thing, one should return it on time.

- D. **Hint:** Report to the librarian.

- E. 1. Shall 2. can 3. must 4. Could

5. Should (It should be 'instruction' in the brackets) 6. ought

- F. 1. borrowed 2. peculiar 3. suddenly 4. frightened 5. dream

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

- H. 1. Jawaharlal Nehru 2. Mahatma Gandhi 3. Rabindranath Tagore

4. Charles Dickens 5. R.K. Narayan 6. J.K. Rowling

- K. Do it yourself.

# THANKS TO MY FAMILY (POEM)

## ANSWERS

### Read and Understand

- A. There are six members in my family. They are—grandfather, grandmother, father, mother, myself and my sister. My sister and I play with grandfather and grandmother every day and grandmother tells us stories every night. We all help each other. We are a happy family. I love my family.
- B. Do it yourself.

# 5. ALI BABA AND FORTY THIEVES

## ANSWERS

### Warm Up

1. (d) 2. (c) 3. (e) 4. (b) 5. (a)

### Read and Understand

- A. 1. (c) 2. (c) 3. (a) 4. (a)

**B. Ali Baba** – One day, he was cutting trees. He saw robbers coming. He hid behind a bush. He saw the robbers going into a cave. After they went away, Ali Baba went inside the cave. He filled his pockets with jewels and gold coins.

**Qasim** – Qasim went to Ali Baba's house. Ali Baba told him where he had got the gold. Qasim went to the cave. He filled his bags with gold and jewels. In his excitement, he forgot the word which helped to open the cave. The robbers came and killed him.

**Marjina** – When Marjina saw that the leader of the robbers had put a cross on Ali Baba's door, she put a cross on the door of every house of the street. At night, Marjina needed oil to light the lamps. She went to the courtyard. She lifted the lid of a jar.

She heard someone whispering. She knew that the men had come to harm Ali Baba. She poured hot oil into all the jars. All the robbers died.

**The leader of the robbers**—When he found Qasim in the cave, he ordered his robbers to kill Qasim.

When the robbers had located Ali Baba's house, he put a cross on the door of the house.

The leader went to the tailor and gave him a gold coin and asked him to take him to Ali Baba's house. He went to Ali Baba's house with big jars. The robbers hid in the jars. But Marjina ensure that the plants ended in failure.

- C. 1. Marjina. She, by her presence of mind, was able to kill the robbers and saved Ali Baba's life twice.  
2. They put a cross on Ali Baba's house so that they could identify the house when they came there next time.  
3. Ali Baba knew the secret that the robbers were hiding the looted treasure in a cave. He knew the magic word to enter the cave.  
4. Marjina wanted some oil to light the lamps. So, she went to courtyard to get it. As she lifted the lid of a jar, she heard someone whispering. Thus, she came to know that there were thieves in the jar.
- D. Marjina's qualities that we like the most are her loyalty towards her master, her presence of mind and her courage.
- E. 1. Bingo! 2. Bravo! 3. Ouch! 4. Hey! 5. Alas!
- F. 1. odd 2. rabbit 3. curry 4. parrot 5. address 6. cobbler



G. 1. lion 2. coal 3. snow 4. peacock 5. honey

H. 1. able 2. able 3. ible 4. ible 5. able

I. 1. Robert Louis Stevenson.

2. (a) Treasure Island (b) Kidnapped.

3. (a) New Arabian Nights (b) The Merry Men.

L. Do it yourself.

## LIFE SKILLS—2

A. Do it yourself.

B. Do it yourself.

C. Do it yourself.

## MODEL TEST PAPER

A. 1. (c) 2. (a) 3. (b) 4. (c) 5. (a)

B. 1. semi-transparent 2. pouring downwards 3. strong, fast-moving water

4. roll or lie on mud 5. feeling the need to drink

C. Do it yourself.

D. Do it yourself.

E. 1. you 2. me 3. She 4. We

3. Marjina put a cross on the door of every house on the street.

F. 1. into, Direction 2. in, Time 3. to, Direction

G. 1. long 2. curly 3. new

H. 1. has, gone 2. is, riding

I. 1. are going to take 2. am going to read 3. are going to launch

J. 1. Shall 2. can

K. 1. Bingo! 2. Bravo!

L. 1. No, he was just trying to cure his friend of his bad habit.

2. The king awarded the man by making him a minister.

3. Tenaliraman's plan was to throw a trunk full of big stones into the well and fool the thieves.

4. Benny was fond of reading books.

5. Marjina, the little girl because due to her cleverness and bravery, she was able to kill the robbers and save Ali Baba's life.

# GRAMMAR WORKSHEETS

## Grammar Worksheet 1

- A. 1. will visit 2. will meet 3. will begin 4. will go 5. will drive 6. will return  
7. will turn 8. will learn
- B. 1. going to cut 2. am going to visit 3. is going to inaugurate 4. is going to invent  
5. is going to revise 6. are going to sing

## Grammar Worksheet 2

- A. 1. easily 2. softly 3. bravely 4. quickly 5. brightly
- B. 1. today 2. soon 3. early 4. now 5. Yesterday
- C. 1. near 2. outside 3. Everywhere 4. behind 5. there

## Grammar Worksheet 3

- A. 1. on 2. off 3. into 4. for 5. under 6. to 7. for 8. out of 9. from 10. over  
11. at; in 12. since

## Grammar Worksheet 4

- A. 1. ought to 2. can 3. May 4. must 5. could 6. Would 7. must 8. should  
9. ought to 10. can 11. need 12. May

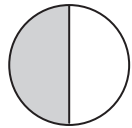
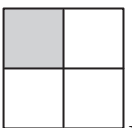
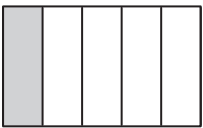
## Grammar Worksheet 5

- A. 1. Alas! 2. Hurrah! 3. Wow! 4. Ouch! 5. Hi! 6. Bravo! 7. Hey!
- B. 1. (c) 2. (d) 3. (b) 4. (e) 5. (a)

# 1. FRACTIONS

## ANSWERS

### Let Us Recall

- A. 1.  $\frac{1}{2}$    $\frac{1}{2}$     2.  $\frac{1}{4}$    $\frac{3}{4}$     3.  $\frac{1}{5}$    $\frac{4}{5}$
- B. 1.  $\frac{3}{4}$  —Nr  $\frac{2}{3}$  —Nr    2.  $\frac{2}{3}$  —Nr  $\frac{4}{7}$  —Nr    3.  $\frac{4}{7}$  —Nr  $\frac{5}{12}$  —Nr    4.  $\frac{5}{12}$  —Nr  $\frac{8}{15}$  —Nr  
       4 —Dr        3 —Dr        7 —Dr        12 —Dr        15 —Dr
- C. 1. 5 balls + 2 balls + 3 balls    2. 4 stars + 3 stars + 5 stars

### EXERCISE 1.1

- A. 1.  $\frac{1}{2}$  and  $\frac{1}{3}$ , No  
 2.  $\frac{1}{3}$  and  $\frac{2}{6}$ , Yes  
 3.  $\frac{2}{4}$  and  $\frac{3}{6}$ , Yes  
 4.  $\frac{2}{4}$ ,  $\frac{8}{16}$  and  $\frac{6}{12}$ , Yes
- B. 1. 4    2. 21    3. 1    4. 28    5. 3    6. 49    7. 22    8. 5
- C. 1. No    2. Yes    3. Yes    4. Yes    5. Yes    6. Yes    7. No    8. No
- D. 1.  $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10} = \frac{6}{12} = \frac{7}{14} = \frac{8}{16}$   
 2.  $\frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12} = \frac{10}{15} = \frac{12}{18} = \frac{14}{21} = \frac{16}{24}$   
 3.  $\frac{5}{7} = \frac{10}{14} = \frac{15}{21} = \frac{20}{28} = \frac{25}{35} = \frac{30}{42} = \frac{35}{49}$   
 4.  $\frac{4}{9} = \frac{8}{18} = \frac{12}{27} = \frac{16}{36} = \frac{20}{45} = \frac{24}{54} = \frac{28}{63}$
- E. 1.  $\frac{2}{5}$ ,  $\frac{4}{10}$ ,  $\frac{6}{15}$ ,  $\frac{8}{20}$ ,  $\frac{10}{25}$ ,  $\frac{12}{30}$   
 2.  $\frac{3}{4}$ ,  $\frac{6}{8}$ ,  $\frac{9}{12}$ ,  $\frac{12}{16}$ ,  $\frac{15}{20}$ ,  $\frac{18}{24}$   
 3.  $\frac{5}{8}$ ,  $\frac{10}{16}$ ,  $\frac{15}{24}$ ,  $\frac{20}{32}$ ,  $\frac{25}{40}$ ,  $\frac{30}{48}$   
 4.  $\frac{4}{11}$ ,  $\frac{8}{22}$ ,  $\frac{12}{33}$ ,  $\frac{16}{44}$ ,  $\frac{20}{55}$ ,  $\frac{24}{66}$

### EXERCISE 1.2

1. Yes
2. No,  $\frac{12 \div 3}{15 \div 3} = \frac{4}{5}$
3. No,  $\frac{9 \div 3}{21 \div 3} = \frac{3}{7}$
4. No,  $\frac{8 \div 4}{20 \div 4} = \frac{2}{5}$
5. No,  $\frac{16 \div 8}{40 \div 8} = \frac{2}{5}$     6. No,  $\frac{15 \div 3}{24 \div 3} = \frac{5}{8}$     7. Yes    8. No,  $\frac{6 \div 2}{16 \div 2} = \frac{3}{8}$     9. No,  $\frac{12 \div 6}{30 \div 6} = \frac{2}{5}$
10. No,  $\frac{24 \div 6}{42 \div 6} = \frac{4}{7}$

### EXERCISE 1.3

- A. 1. P    2. I    3. P    4. I    5. M    6. I    7. M    8. M    9. M    10. P

B. 1.  $\frac{2 \times 3 + 2}{3} = \frac{8}{3}$     2.  $\frac{5 \times 7 + 4}{7} = \frac{39}{7}$     3.  $\frac{1 \times 7 + 2}{7} = \frac{9}{7}$     4.  $\frac{3 \times 5 + 2}{5} = \frac{17}{5}$

5.  $\frac{8 \times 4 + 3}{4} = \frac{35}{4}$     6.  $\frac{12 \times 2 + 1}{2} = \frac{25}{2}$     7.  $\frac{4 \times 6 + 1}{6} = \frac{25}{6}$     8.  $\frac{7 \times 8 + 1}{8} = \frac{57}{8}$

C. 1.  $2\frac{2}{3}$     2.  $2\frac{1}{4}$     3.  $2\frac{3}{6}$     4.  $3\frac{4}{5}$     5.  $3\frac{5}{7}$     6.  $13\frac{1}{3}$     7.  $22\frac{1}{2}$     8.  $8\frac{1}{8}$

- D. 1. Unlike    2. Like    3. Unlike    4. Like    5. Like    6. Unlike

E. 1.  $\frac{8}{10}, \frac{2}{10}$     2.  $\frac{9}{16}, \frac{12}{16}$     3.  $\frac{8}{12}, \frac{3}{12}$     4.  $\frac{15}{80}, \frac{84}{80}$

### EXERCISE 1.4

A. 1.  $\frac{1}{5} < \frac{1}{3}$     2.  $\frac{6}{9} > \frac{4}{9}$     3.  $\frac{5}{12} < \frac{8}{12}$     4.  $\frac{6}{19} > \frac{6}{25}$     5.  $\frac{1}{3} < \frac{4}{6}$     6.  $\frac{2}{3} > \frac{5}{9}$     7.  $\frac{8}{12} = \frac{2}{3}$     8.  $\frac{4}{8} = \frac{3}{6}$

B. 1.  $\frac{2}{9}, \frac{5}{9}, \frac{6}{9}, \frac{7}{9}$     2.  $\frac{8}{25}, \frac{8}{17}, \frac{8}{13}, \frac{8}{9}$     3.  $\frac{4}{12}, \frac{2}{3}, \frac{5}{6}$     4.  $\frac{3}{8}, \frac{7}{16}, \frac{2}{4}$

C. 1.  $\frac{4}{3}, \frac{4}{7}, \frac{4}{9}, \frac{4}{12}$     2.  $\frac{12}{17}, \frac{9}{17}, \frac{8}{17}, \frac{4}{17}$     3.  $\frac{5}{13}, \frac{5}{16}, \frac{5}{19}, \frac{5}{40}$     4.  $\frac{2}{4}, \frac{2}{6}, \frac{3}{12}$

D. 1.  $\frac{18}{5}, 4\frac{2}{5}, \frac{9}{2}, \frac{16}{3}$     2.  $\frac{17}{4}, \frac{25}{6}, 3\frac{2}{3}, \frac{12}{5}$

### EXERCISE 1.5

- A. 1.  $\frac{3}{4}$     2.  $\frac{7}{8}$     3.  $\frac{10}{12}$  or  $\frac{5}{6}$     4.  $\frac{14}{20}$  or  $\frac{7}{10}$     5.  $\frac{10}{18}$  or  $\frac{5}{9}$     6.  $\frac{8}{20}$  or  $\frac{2}{5}$     7.  $\frac{15}{25}$  or  $\frac{3}{5}$
8.  $\frac{16}{32}$  or  $\frac{1}{2}$

- B. 1.  $\frac{2}{2}$  or 1   2.  $\frac{3}{4}$    3.  $\frac{7}{8}$    4.  $\frac{5}{7}$    5.  $\frac{9}{11}$    6.  $\frac{9}{15}$  or  $\frac{3}{5}$    7.  $\frac{12}{20}$  or  $\frac{3}{5}$    8.  $\frac{15}{25}$  or  $\frac{3}{5}$
- C. 1.  $\frac{1}{3}$    2.  $\frac{3}{13}$    3.  $\frac{5}{15}$  or  $\frac{1}{3}$    4.  $\frac{3}{11}$    5.  $\frac{7}{17}$    6.  $\frac{9}{21}$  or  $\frac{3}{7}$    7.  $\frac{2}{25}$    8.  $\frac{25}{40}$  or  $\frac{5}{8}$
- D. 1.  $\frac{5}{25}$  or  $\frac{1}{5}$    2.  $\frac{15}{40}$  or  $\frac{3}{8}$    3.  $\frac{15}{35}$  or  $\frac{3}{7}$    4.  $\frac{14}{60}$  or  $\frac{7}{30}$    5.  $\frac{16}{80}$  or  $\frac{1}{5}$
6.  $\frac{15}{60}$  or  $\frac{1}{4}$    7.  $\frac{25}{50}$  or  $\frac{1}{2}$    8.  $\frac{24}{48}$  or  $\frac{1}{2}$
- E. 1.  $\frac{4}{5}$    2.  $\frac{2}{8}$  or  $\frac{1}{4}$    3.  $\frac{6}{12}$  or  $\frac{1}{2}$    4.  $\frac{1}{15}$

### EXERCISE 1.6

- A. 1.  $\frac{3}{2}$  or  $1\frac{1}{2}$    2.  $\frac{7}{8}$    3. 1   4.  $\frac{13}{10}$  or  $1\frac{3}{10}$    5.  $\frac{11}{12}$    6.  $\frac{14}{15}$    7.  $\frac{13}{12}$  or  $1\frac{1}{12}$    8.  $\frac{17}{20}$
- B. 1.  $\frac{14}{3}$  or  $4\frac{2}{3}$    2. 7   3.  $5\frac{6}{7}$    4.  $9\frac{1}{9}$    5.  $5\frac{1}{4}$    6. 10   7.  $4\frac{1}{3}$    8.  $3\frac{1}{9}$
- C. 1.  $\frac{1}{9}$    2.  $\frac{1}{10}$    3.  $\frac{1}{3}$    4.  $\frac{10}{21}$    5.  $\frac{1}{12}$    6.  $\frac{7}{15}$    7.  $\frac{7}{36}$    8.  $\frac{1}{10}$
- D. 1.  $\frac{3}{2}$  or  $1\frac{1}{2}$    2.  $\frac{24}{7}$  or  $3\frac{3}{7}$    3.  $\frac{10}{3}$  or  $3\frac{1}{3}$    4.  $\frac{67}{6}$  or  $11\frac{1}{6}$    5.  $\frac{25}{6}$  or  $4\frac{1}{6}$    6.  $\frac{29}{9}$  or  $3\frac{2}{9}$
7.  $\frac{149}{12}$  or  $12\frac{5}{12}$    8.  $\frac{32}{15}$  or  $2\frac{2}{15}$
- E. 1. 2   2.  $17\frac{3}{14}$    3.  $1\frac{13}{18}$    4.  $2\frac{17}{24}$

### EXERCISE 1.7

1. ₹  $9\frac{3}{4}$    2.  $\frac{3}{8}$  hour   3. ₹  $56\frac{1}{8}$    4. Fruits by  $\frac{1}{4}$  kg more   5.  $3\frac{13}{20}$  m   6.  $2\frac{7}{8}$  L
7.  $2\frac{1}{2}$    8.  $\frac{15}{16}$    9.  $6\frac{1}{4}$    10. 15 glasses

### Project (page 80)

1. 6   2. No, both are same   3. 2   4. yes

## 2. DECIMALS

### ANSWERS

1. Zero point three 2. 0.7 3. .8 4. Zero point six 5. Zero point nine 6. .5

#### EXERCISE 2.1

- A. 1.  $\frac{4}{10} = 0.4$  2.  $\frac{6}{10} = 0.6$  3.  $\frac{8}{10} = 0.8$  4.  $\frac{7}{100} = 0.07$  5.  $\frac{16}{100} = 0.16$  6.  $\frac{59}{100} = 0.59$   
7.  $\frac{9}{1000} = 0.009$  8.  $\frac{14}{1000} = 0.014$
- B. 1. 0.5 2. 0.6 3. 0.07 4. 0.17 5. 0.008 6. 0.035 7. 0.48 8. 0.3 9. 0.88 10. 0.145
- C. 1.  $\frac{4}{10}$  2.  $\frac{9}{10}$  3.  $\frac{73}{100}$  4.  $\frac{912}{1000}$  5.  $\frac{817}{1000}$  6.  $\frac{2}{100}$  7.  $\frac{91}{1000}$  8.  $\frac{6}{1000}$  9.  $\frac{123}{1000}$  10.  $\frac{9}{10}$
- D. 1. Zero point five 2. Zero point seven six 3. Zero point nine two one  
4. One point five zero eight 5. Sixty-two point one three eight
- E. 1.  $4 + \frac{2}{10}$  or  $4 + 0.2$  2.  $\frac{6}{10} + \frac{8}{100}$  or  $0.6 + 0.08$  3.  $\frac{8}{10} + \frac{9}{100} + \frac{7}{1000}$  or  $0.8 + 0.09 + 0.007$   
4.  $20 + 3 + \frac{5}{10} + \frac{9}{100} + \frac{4}{1000}$  or  $20 + 3 + 0.5 + 0.09 + 0.004$   
5.  $1 + \frac{0}{10} + \frac{6}{100} + \frac{2}{1000}$  or  $1 + 0.06 + 0.002$
- F. 1. (c) 2. (d) 3. (b) 4. (f) 5. (a) 6. (e)

#### Mental Test (page 87)

1. 5.92, 1.67 2. 0.7, 1.5 3. 4.123, 0.009 4. 1.23, 5.01

#### EXERCISE 2.2

- A. 1. No 2. No 3. Yes
- B. 1. 5.80, 0.58 2. 1.600, 0.160, 0.016 3. 1.25, 2.50, 65.00 4. 8.300, 9.150, 3.753  
5. 5.000, 7.510, 0.011 6. 0.900, 0.006, 0.520
- C. 1. < 2. > 3. > 4. > 5. > 6. > 7. < 8. = 9. <
- D. 1. 0.3, 0.4, 0.5, 0.9 2. 2.35, 2.53, 5.23, 5.32 3. 0.123, 0.132, 0.312, 0.321 4. 1.5, 1.55, 1.555, 2.555
- E. 1. 6.5, 5.6, 0.65, 0.56 2. 11.2, 2.11, 1.11, 0.112 3. 6.92, 6.29, 2.96, 2.69 4. 53, 0.53, 0.053, 0.035

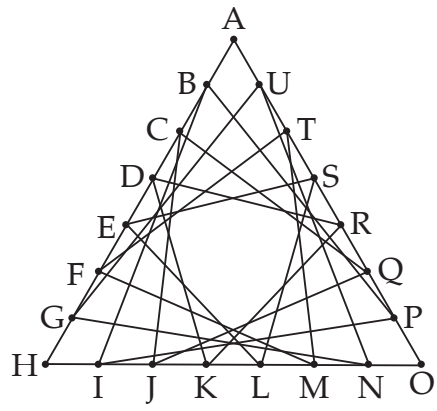
#### EXERCISE 2.3

- A. 1. 9.4 2. 12.82 3. 8.917 4. 20.48
- B. 1. 15.7 2. 146.75 3. 16.413 4. 19.6 5. 12.43 6. 3.949 7. 25.86 8. 32.079 9. 1.605
- C. 1. 4.2 2. 4.04 3. 6.099 4. 6.224
- D. 1. 1.8 2. 1.65 3. 13.711 4. 2.995 5. 8.653 6. 181.979 7. 10.71 8. 0.674 9. 3.561

#### HOTS (page 92)

1. (a) Lemons (b) Apples 2. 3.3 kg

PUZZLE (page 92)



# 3. MEASUREMENT

## ANSWERS

### Let Us Recall

1. cm 2. g 3. mL 4. m 5. L 6. kg 7. km 8. L

### EXERCISE 3.1

- A. 1. (a) cm (b) mm (c) m (d) km 2. (a) g (b) kg (c) g (d) kg  
3. (a) mL (b) mL (c) L (d) L
- B. 1. 500 2. 200, 100 3. 500, 100 4. 2, 500, 500 5. 50, 50, 50, 50 6. 100, 50, 50
- C. 1. Do it yourself. 2. Do it yourself.

### EXERCISE 3.2

- A. 1. 50 mm 2. 75 mm 3. 92 mm 4. 128 mm
- B. 1. 400 cm 2. 840 cm 3. 1005 cm 4. 1275 cm
- C. 1. 15000 m 2. 5150 m 3. 24080 m 4. 18005 m
- D. 1. 3000 g 2. 6200 g 3. 17009 g 4. 5070 g
- E. 1. 7000 mL 2. 4325 mL 3. 19060 mL 4. 48600 mL
- F. 1. 4 cm 2. 3 cm 6 mm 3. 9 cm 4 mm 4. 12 cm 5 mm
- G. 1. 3 m 2. 4 m 96 cm 3. 12 m 40 cm 4. 925 m 60 cm
- H. 1. 13 km 2. 1 km 234 m 3. 54 km 320 m 4. 62 km 8 m
- I. 1. 10 L 2. 6 L 789 mL 3. 98 L 705 mL 4. 87 L 45 mL
- J. 1. 2 kg 468 g 2. 97 kg 531 g 3. 46 kg 80 g 4. 10 kg 9 g

### EXERCISE 3.3

- A. 1. 15 cm 4 mm 2. 84 L 74 mL 3. 787 km 559 m 4. 79 m 91 cm 5. 148 kg 785 g  
6. 540 L 478 mL
- B. 1. 75 m 64 cm 2. 194 km 622 m 3. 340 kg 650 g 4. 206 L 830 mL
- C. 1. 7 kg 150 g 2. 18 L 90 mL 3. 392 kg 693 g 4. 17 km 901 m 5. 8 m 96 cm  
6. 209 km 399 m
- D. 1. 2 m 25 cm 2. 6 kg 975 g 3. 18 L 950 mL 4. 91 km 924 m

### EXERCISE 3.4

- A. 1. 14 cm 4 mm 2. 65 m 20 cm 3. 80 L 550 mL 4. 409 kg 428 g 5. 1512 km 826 m  
6. 1134 m 70 cm or 1 km 134 m 70 cm 7. 841 km 440 m 8. 1946 L 835 mL  
9. 217 kg 80 g
- B. 1. 3 m 61 cm 2. 4 km 115 m 3. 7 kg 88 g 4. 48 L 458 mL 5. 21 m 61 cm  
6. 2 L 29 mL 7. 3 kg 268 g 8. 10 km 288 m 9. 16 L 929 mL

### EXERCISE 3.5

1. 2 kg 505 g 2. 171 kg 325 g 3. 8 packets 4. 53 m 76 cm 5. 10 L 645 mL  
6. 266 L 30 mL 7. 750 mL 8. 139 m 9. 125 m 48 cm 10. 20 km 240 m



11. Yes, lines  $l$  and  $m$  are of equal length. 12. ₹ 24

**Puzzle (pages 107–108)**

2. Once Soni will weigh 3 kg sugar by putting 5 kg weight on one side and some sugar with 2 kg weight on another side. Further, she will replace 5 kg weight by 2 kg weight and separate 1 kg sugar from other pan (i.e., 3 kg sugar). That means,  $5 \text{ kg} = 2 \text{ kg} + 3 \text{ kg (sugar)}$  and  $2 \text{ kg} = (3 \text{ kg} - 1 \text{ kg}) \text{ sugar}$ .
3. Yes, Lata can do this job as given below:  
First, she will weigh 500 g onions. Then, she will put 500 g weight and 500 g onions on one pan and weigh 1 kg onion on another pan. Thus, she will get 1 kg 500 g onions.
4. Yes, First Rishav can weigh 8 kg flour by putting 10 kg weight on one pan and flour with 2 kg weight on another pan. Then, he can take out 2 kg flour from 8 kg flour so that the remaining flour will be 6 kg.  
That means,  $10 \text{ kg} = 2 \text{ kg} + 8 \text{ kg (flour)}$  and  $(8 \text{ kg} - 2 \text{ kg}) \text{ flour} = 6 \text{ kg flour}$

# 4. TIME AND CALENDAR

## ANSWERS

### Let Us Recall

A. 1. 3:00 2. 5:40 3. 7:20

B. Do it yourself.

### EXERCISE 4.1

A. 1. (c) 2. (d) 3. (a) 4. (b)

B. 1. 13 minutes past 8 2. 5:38 3. 22 minutes past 1

C. 1. 240 min 2. 720 min 3. 400 min 4. 975 min

D. 1. 540 s 2. 920 s 3. 425 s 4. 1448 s

E. 1. 5 h 2. 10 h 25 min 3. 23 h 20 min 4. 39 h 5 min

F. 1. 14 min 2. 30 min 3. 76 min 20s or 1 h 16 min 20 s 4. 109 min or 1 h 49 min

### Mental Test (page 112)

1. a.m. 2. p.m. 3. a.m., p.m. 4. p.m., p.m.

### EXERCISE 4.2

A. 1. 7:00 a.m. 2. 11:30 a.m. 3. 1:15 p.m. 4. 8:45 p.m.

B. 1. Anuj wakes up at 6:00 a.m.

2. He washes his face at 6:10 a.m.

3. He takes his breakfast at 7:05 a.m.

4. He goes to school at 7:30 a.m.

5. He comes back from school at 2:20 p.m.

6. He goes to play at 4:45 p.m.

7. He takes his supper at 8:30 p.m.

8. He watches TV at 9:00 p.m.

9. He goes to bed at 9:30 p.m.

C. 1. 6:05 p.m. 2. 10:05 a.m. 3. 7:30 a.m. 4. 1:00 p.m. 5. 2:30 p.m., 9:30 a.m.

D. 1. 05:00 hours 2. 19:30 hours 3. 06:45 hours 4. 13:05 hours 5. 12:00 hours 6. 00:00 hours

7. 10:50 hours 8. 23:20 hours

E. 1. 6:00 a.m. 2. 8:10 a.m. 3. 3:00 p.m. 4. 5:55 p.m. 5. 8:05 p.m. 6. 12:30 a.m.

7. 12:00 noon 8. 12:00 midnight

### EXERCISE 4.3

A. 1. 40 minutes 2. 2 hours 40 minutes 3. 5 hours 15 minutes 4. 8 hours 22 minutes

5. 16 hours 9 minutes 6. 14 hours 50 minutes

B. 1. 11 h 2. 50 min 3. 1 min 20 s 4. 2 h 5 min 5. 9 h 10 min 6. 19 h 15 min

7. 55 min 55 s 8. 41 min 13 s

C. 1. 6 h 2. 13 s 3. 19 min 4. 2 h 15 min 5. 1 h 49 min 6. 7 min 50 s

D. 1. 2 h 25 min 2. 5 h 45 min 3. 5 h 35 min 4. 3 h 25 min

### EXERCISE 4.4

A. 1. 7 2. 12 3. 4, 52 4. leap year 5. February

B. 1. 2012 3. 2024 5. 2400

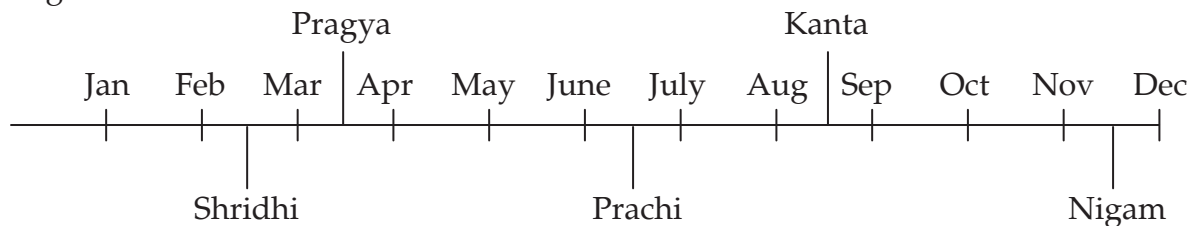
C. 1. 16 days 2. 26 days 3. 57 days 4. 112 days

D. 1. 15 October 2. 14 days 3. 56 days

E. 1. Shridhi

2. Nigam

3.



4. 264 days or 8 months 25 days

F. (a) 6 months 8 days or 191 days (b) 6 months 28 days or 211 days

(c) 2 years 3 months 14 days (d) Sunday

G. 32 years

### Life Skills (page 120)

1. 06:10 hours 2. 13:45 hours 3. 18:25 hours 4. 6 hours 45 minutes 5. New Delhi

6.

Station Name	Arrival Time	Departure Time
Lucknow	6:00 a.m.	6:10 a.m.
Bareilly	9:27 a.m.	9:30 a.m.
Moradabad	10:55 a.m.	11:00 a.m.
New Delhi	1:45 p.m.	2:00 p.m.
Ambala Cantt	4:40 p.m.	4:45 p.m.
Ludhiana	6:20 p.m.	6:25 p.m.
Jalandhar city	7:15 p.m.	7:20 p.m.
Beas	7:54 p.m.	7:55 p.m.
Amritsar	8:45 p.m.	Destination

## PERIODIC TEST—3

A. 1. False 2. False 3. False 4. True 5. True

B. 1. (a) 2. (c) 3. (d) 4. (c) 5. (c)

C. 1. 729281 2. 762988 3. 14:05 hours 4. 8:30 a.m. 5. 9:45 a.m.

D. 1. 22 2. 40 3. 6 4. 158

E. 1.  $\frac{6}{12}$  or  $\frac{1}{2}$  2. 181.979 3. 25

F. 5 h 35 min

G. ₹ 10, ₹ 190

# 5. MONEY – PROFIT AND LOSS

## ANSWERS

Page 123

1. ₹106.50, ₹13.50   2. ₹382, ₹118   3. ₹245, ₹1000

### EXERCISE 5.1

- A. 1. Profit = ₹20   2. Profit = ₹30   3. Loss = ₹120   4. Loss = ₹300   5. Profit = ₹38  
6. Profit = ₹3500
- B. 1. Profit = ₹170   2. Loss = ₹50   3. Profit = ₹240   4. Profit = ₹1400   5. ₹5  
6. Profit = ₹240   7. ₹200   8. Profit = ₹4

### EXERCISE 5.2

- A. 1. ₹525   2. ₹1350   3. ₹41   4. ₹3500   5. ₹9600
- B. 1. ₹400   2. ₹976   3. ₹1750   4. ₹17500   5. ₹54050
- C. 1. ₹35 per dozen   2. ₹7200   3. ₹11500   4. ₹37600   5. ₹16000

Life Skills (page 128)

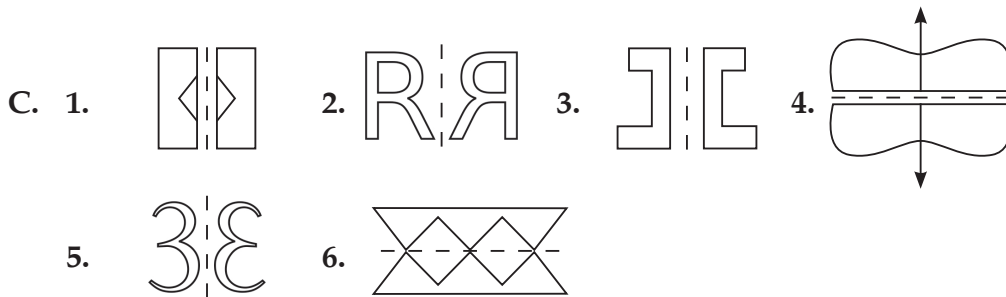
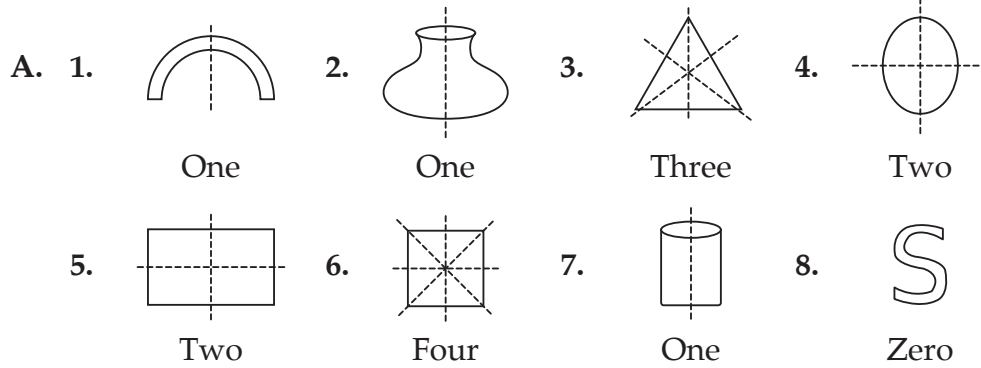
Item	Quantity	Cost price		Selling price		
		Rate/kg	Cost	Rate/kg	Cost	
Onion	5 kg	₹12	₹60	₹15	₹75	
Potato	12 kg	₹15	₹180	₹18	₹216	
Radish	6 kg	₹11	₹66	₹12	₹72	
Peas	3 kg	₹30	₹90	₹35	₹105	
Tomato	4 kg	₹24	₹96	₹26	₹104	
Lady's finger	2 kg	₹40	₹80	₹60	₹120	
Gourd	6 kg	₹25	₹150	₹30	₹180	
Apple	500 g	₹180	₹90	₹210	₹105	
Pear	2 kg	₹140	₹280	₹150	₹300	
Papaya	8 kg	₹35	₹280	₹42	₹336	
Mango	10 kg	₹45	₹450	₹50	₹500	
Watermelon	15 kg	₹10	₹150	₹16	₹240	
Pomegranate	120 kg	₹100	₹12000	₹120	₹14400	
Bananas	2 dozen	₹40/dozen	₹80	₹56/dozen	₹112	
<b>Total</b>			= ₹14052	<b>Total</b>		= ₹16865

$$\begin{aligned}\text{Cost price} &= ₹14052 \\ \text{Other expenses} &= ₹90 \\ \text{Total cost} &= ₹14052 + ₹90 = ₹14142 \\ \text{Selling price} &= ₹16865 \\ \text{Profit} &= ₹16865 - ₹14142 = ₹2723\end{aligned}$$

# 6. SYMMETRY AND PATTERNS

## ANSWERS

### EXERCISE 6.1



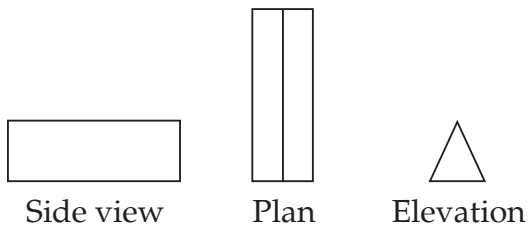
(Page 132)

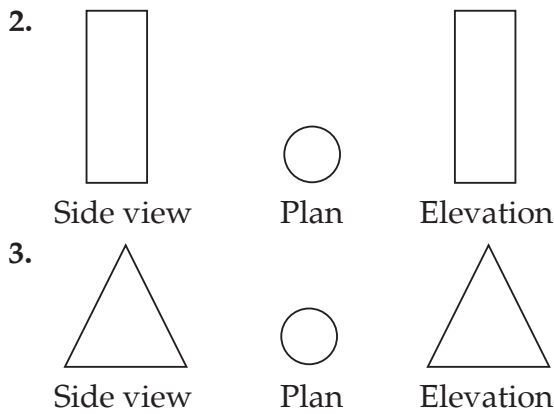
1. (c) 2. (a) 3. (b)

### EXERCISE 6.2

A. Do it yourself.

B. 1.





C. Do it yourself.

**EXERCISE 6.3**

- A. Do it yourself.  
 B. Do it yourself.

**EXERCISE 6.4**

- A. 1. 110, 120, 130, 140, 150, 160, 170, 180  
 2. 1234, 2234, 3234, 4234, 5234, 6234, 7234, 8234  
 3. 965, 865, 765, 665, 565, 465, 365, 265  
 4. 1091, 1081, 1071, 1061, 1051, 1041, 1031, 1021  
 5. 1, 2, 4, 8, 16, 32, 64, 128, 256  
 6. 10, 30, 90, 270, 810, 2430, 7290, 21870
- B. 1. 25; 30; 35    2. 6; 7; 8    3. 9876; 98765; 6    4. 1111; 11111; 1000000 - 1

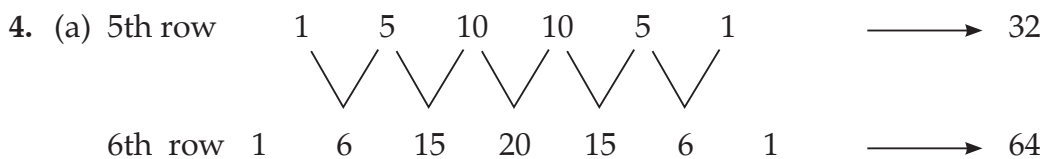
- C. 1. 5th row:  $41 + 42 + 43 + 44 + 45 + 46 + 47 + 48 + 49 + 50 = 455$   
 8th row:  $71 + 72 + 73 + 74 + 75 + 76 + 77 + 78 + 79 + 80 = 755$
2. 5th row:  $1 + 3 + 5 + 7 + 9 = 25$   
 6th row:  $1 + 3 + 5 + 7 + 9 + 11 = 36$   
 7th row:  $1 + 3 + 5 + 7 + 9 + 11 + 13 = 49$

3. 4th row:  $1 + 2 + 3 + 4 + 5 = 15 = \frac{6 \times 5}{2}$

5th row:  $1 + 2 + 3 + 4 + 5 + 6 = 21 = \frac{7 \times 6}{2}$

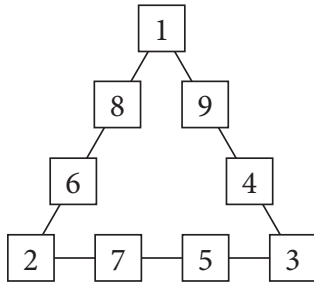
(a)  $\frac{16 \times 15}{2} - \frac{6 \times 5}{2} = 120 - 15 = 105$     (b)  $2 \times \frac{11 \times 10}{2} = 110$

(c)  $\frac{36 \times 35}{2} - \frac{25 \times 24}{2} = 630 - 300 = 330$     (d)  $10 \times \frac{11 \times 10}{2} = 550$



(b) 128

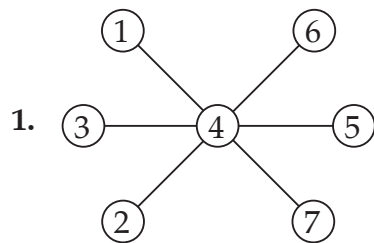
D.



**HOTS (page 139)**

- (a) A, M, T, U, V, W and Y    (b) B, C, D, E and K    (c) H, I, O and X
- 0|0, 1|1, 2|2, 3|3, 4|4, 5|5, 6|6, 7|7, 8|8, 9|9

**Puzzle (page 139)**



2. (a) As  $2 + 3 = 5$  and  $7 + 11 = 18$

So,  $17 + 43 = \boxed{60}$ ,  $29 + \boxed{61} = 90$

- (b) As  $3 \times 4 = 12$  and  $9 \times 15 = 135$

So,  $5 \times \boxed{7} = 35$  and  $2 \times 11 = \boxed{22}$

3. 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144

(**Rule:** Succeeding number is the sum of two numbers just before it.)

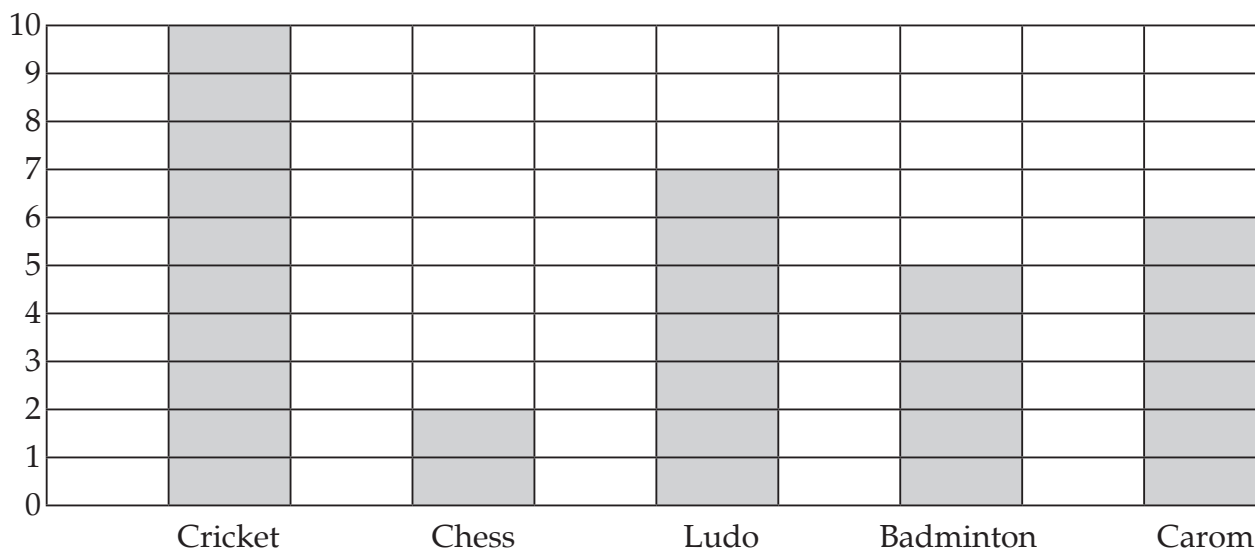


## 7. DATA HANDLING

### ANSWERS

Page 141

Game	Badminton	Carom	Chess	Cricket	Ludo
Tally marks					
No. of students	5	6	2	10	7



### EXERCISE 7.1

- A.** 1. (a) 8 (b) 5 (c) 3 (d) 4 (e) 42  
 2. (a) 25 (b) 20 (c) 10 (d) Red (e) Green (f) Yellow and blue (g) 110
- B.** 1. (a) IV C (b) IV B (c) IV D (d) 4 (e) 3 (f) 2  
 2. (a) Sunday (b) Wednesday (c) 35 pairs (d) Sale of shoes during a week  
 (e) 15 pairs (f) 245 pairs

### Value Corner (page 147)

1. ₹20
2.  $12 \times ₹1 + 20 \times ₹2 + 28 \times ₹5 = ₹192$
3. ₹2912
4. ₹1000
5. Pots' cost = ₹1200, Remaining = ₹ 712
6. No; As the cost of barbed wire is ₹800, so, she needs, i.e.,  $800 - 712 = ₹88$ , more to buy it.

# 8. PERIMETER AND AREA

## ANSWERS

Page 149

A. 1. 6 2. 4 3. 20 4. 20

B. 1. 11 2. 3 3. 14 4. 14

Mental Test (page 150)

1. 9 cm 2. 40 cm 3. 2.5 m

### EXERCISE 8.1

A. 1. 16 m 2. 75 cm 3. 160 cm 4. 8 km 5. 180 cm 6. 40 m

B. 1. 16 m 2. 180 cm 3. 400 cm 4. 110 m

C. 1. 120 m 2. 720 cm 3. 192 m 4. 300 cm

D. 1. 12 m 2. 46 cm 3. 65 m 4. 100 mm

E. 1. 40 cm 2. 48 cm 3. 64 cm 4. 48 cm 5. 64 cm 6. 40 cm

F. 1. 200 cm long stick 2. 480 m 3. 175 steps 4. Yes 5. 18 cm

### EXERCISE 8.2

A. 1. 12 sq cm 2. 9 sq cm 3.  $9\frac{1}{2}$  sq cm 4. 20 sq cm 5. 10 sq cm 6. 8 sq cm

B. 1. Perimeter = 20 cm, Area = 24 sq cm

2. Breadth = 8 cm, Perimeter = 36 cm

3. Length = 18 cm, Area = 216 sq cm

4. Breadth = 15 m, Area = 525 sq cm

5. Length = 60 km, Perimeter = 210 km

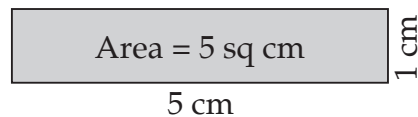
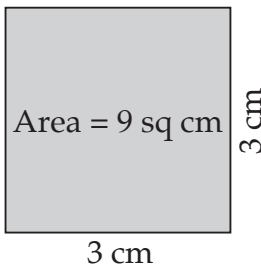
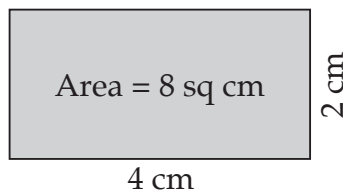
C. 1. 25 sq cm, 20 cm 2. 400 sq cm, 80 cm 3. 144 sq m, 48 m 4. 1 sq km, 4 km

D. 1. 15 sq m 2. 2304 sq cm 3. 80 cm, 6400 sq cm 4. 81 sq cm 5. 400 m, 9600 sq m

6. 5000 sq cm

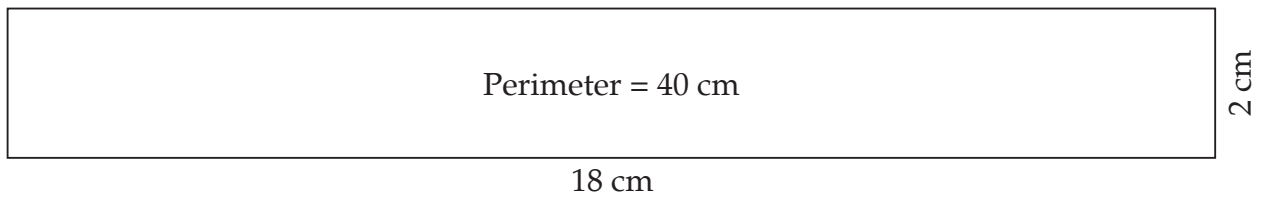
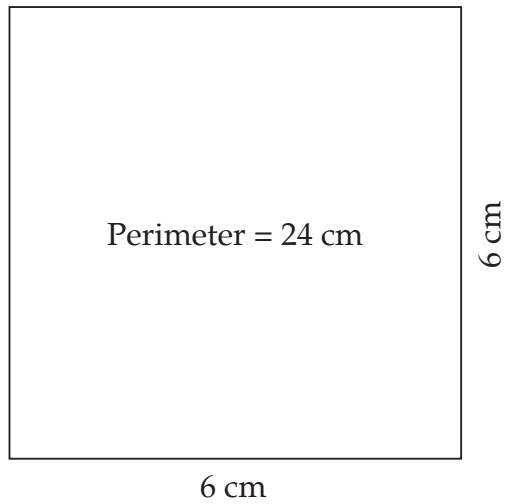
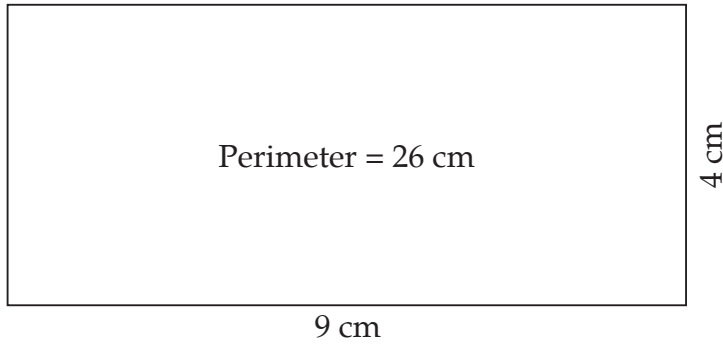
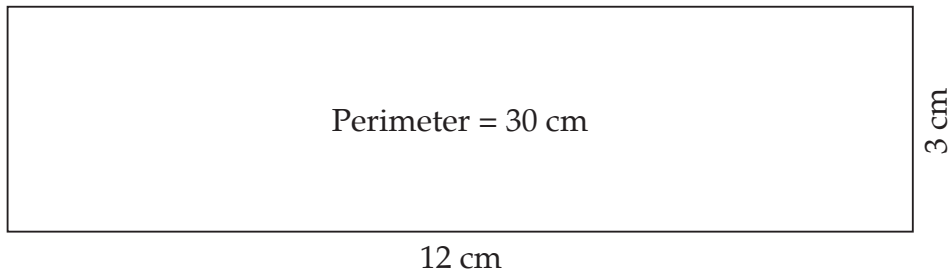
Puzzle (page 157)

1.



No

2.



No

## MODEL TEST PAPER

- A. 1. 13600 2. 45242 3. 0 4. 4250 5. 1, 2, 4, 8, 16 6. 1 sq. cm 7. 35 articles 8. profit
- B. 1. 7295, 9028, 42568, 42587, 123546 2. 10851 3. 3, 5: 5, 7; 11, 13; 17, 19; 29, 31; 41, 43; 59, 61 and 71, 73 4. L.C.M = 24, H.C.F. = 4
- C. 1. 450105 2. 100110 3. Q = 203, R = 5 4. 0.218 5. 9.44

D.	Roman Numerals	XXV	XLVII
	Hindu–Arabic Numerals	25	48

E. 1. 596, 248    2. 395, 170, 1000

F. 1.  $\frac{5}{7}$     2.  $\frac{3}{4}$

G. 1. 2 m 50 cm    2. 1540 sec

H. 2

I. ₹ 57

J. 2 hours 40 minutes

K. 21600 sq cm    or    2.16 sq m

L. Gain = ₹2

M. 1. 2    2. 0

N. 1. 3rd over, 16 runs    2. 0

# 1. STAYING SAFE

## ANSWERS

### Warm Up

No, because these children are playing on the road and can be injured by the vehicles passing by.

### Checkpoint

1. No 2. No 3. No 4. Yes

### Check Your Study

- A. 1. (b) 2. (b) 3. (a) 4. (b)
- B. 1. zebra 2. labelled 3. sand 4. open
- C. 1. False 2. True 3. False 4. True
- D. 1. An accident is an unfortunate, unexpected and unintentional incident that harms us.  
2. We should wear life jacket while swimming to avoid drowning.  
3. (a) Walk on footpath. If there is no footpath, walk on the right side of the road.  
(b) Cross the road at Zebra Crossing.  
(c) Before crossing the road, look at both sides (left and right) one by one and cross when it is clear.  
(d) Avoid walking between vehicles and talking on phone while crossing the road.  
(e) Never play on or near the road.
4. The first help given to an injured person before the doctor comes is called first aid.
5. We should keep medicines in labelled bottles inside locked cupboards to keep them out of reach of children.
6. By making the person sit and lean the head forwards and closing the nose by holding it between the thumb and fingers.
- E. 1. To slow down the bleeding under the skin.  
2. So that he does not swallow blood.  
3. To prevent dust or germs from entering the cut or wound.

## 2. CLOTHES FOR US

### ANSWERS

#### Warm Up

Cotton cloth

#### Checkpoint 1

1. Early human
2. Heat of sun
3. Jute plant
4. Cotton clothes

#### Checkpoint 2

1. FABRICS
2. SILK
3. DRYCLEAN
4. MOTHBALLS

#### Check Your Study

- A.** 1. (a) 2. (d) 3. (d) 4. (a)
- B.** 1. False 2. True 3. False 4. False
- C.** 1. The early humans wore leaves, animal skin and the bark of trees.  
2. We need clothes to cover our body.  
3. Clothes are made from natural fibres such as cotton, linen, wool, silk and fur, and from man-made fibres such as nylon, rayon and polyester.  
4. Socks and shoes protect our feet from dust, heat, cold, insects, worms and germs. They protect us from getting hurt.  
5. The clothes of a patient should always be disinfected with some antiseptic solution.  
6. The woollen and silk clothes should be washed or dry-cleaned as required, kept in the sun for a few hours and stored with mothballs or dried neem leaves.  
7. Because cotton clothes are porous. They soak the sweat easily and keep the body cool.
- D.** 1. Synthetic clothes are nonporous and do not soak water. Therefore, they dry very quickly.  
2. White or light-coloured clothes do not absorb much heat from the sun and keep our body cool.  
3. Synthetic fibres are waterproof. They do not allow water to get into the objects made of them.

# 3. WATER

## ANSWERS

### Warm Up

Liquid form

### Checkpoint 1

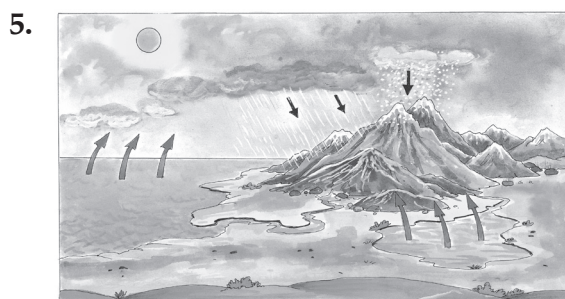
1. snowflakes or snow
2. hailstones
3. dew
4. Rain

### Checkpoint 2

1. water table
2. water cycle
3. clouds
4. water pollution
5. Boiling / Potassium permanganate/Chlorine

### Check Your Study

- A. 1. (d) 2. (b) 3. (a) 4. (d) 5. (a) 6. (c)
- B. 1. humidity 2. condenses 3. water table 4. jaundice; cholera
- C. 1. (e) 2. (d) 3. (b) 4. (a) 5. (c)
- D. 1. Clouds are formed by gathering of water droplets present in the atmosphere.
2. Temperature, surface area, speed of wind and humidity.
3. **Rain:** When small droplets of clouds collide with each other, they form bigger and heavy drops. These drops fall down as rain.
- Snow:** In colder regions, when temperature is very low, water vapour in the clouds freezes into ice crystals which fall down as snow.
- Hail:** When raindrops pass through very cold regions of the earth's atmosphere, they freeze into small round balls of ice and fall as hail.
4. The mixing of harmful substances in water is called water pollution.
- The polluted water can be purified for drinking by sedimentation and decantation, filtration, boiling and chlorination.



- E. 1. This is because during winter, mornings are generally foggy and have reduced visibility which hinders the landing and take off of flights.
2. This is because during rainy season, rainwater seeps into porous layers of the earth and gets collected there and raises the water table.
3. Because during the rainy season, the amount of water vapour in air is very high, therefore, the rate of evaporation is low. So the clothes do not dry easily in this season.

# 4. WEATHER

## ANSWERS

### Warm Up

Violet, Indigo, Blue, Green, Yellow, Orange, Red

### Checkpoint

1. Weather 2. climate 3. Temperature 4. sea breeze

### Check Your Study

- A. 1. (b) 2. (c) 3. (a)
- B. 1. weather 2. slanting 3. faster; water 4. lighter
- C. 1. Noons are hotter than mornings and evenings because sunrays fall straight on the earth at this time and stay in a small area making it hot.
2. Weather is the state of atmosphere at a particular place and time whereas climate is the average weather condition at a particular place over a long period of time.
3. Rural areas are cooler than towns and cities because these are generally open and green and have lesser number of dwelling places whereas towns have large number of buildings that absorb heat during the day and release it slowly at night making the surrounding air warmer.
4. Weather forecasting helps us to know whether the day will be cold or hot or cloudy or rainy. It helps farmers to plan their field work.
5. The difference in heating and cooling of land and water, and expansion of air on heating cause sea and land breezes.
- D. 1. Because hot air is lighter which raises balloon up in air.
2. Because sand gets heated up quickly during the day and loses more heat at night and becomes cool.
3. Room heaters make the room air warm which becomes lighter and rises up whereas air-conditioners cool the air which is heavier and tends to remain at lower level.

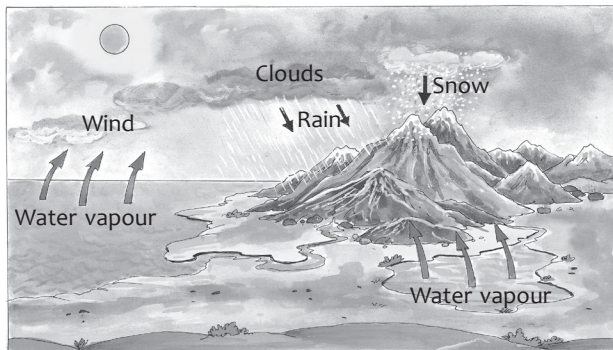
## PERIODIC TEST—3

- A. 1. sand 2. condenses 3. Neem 4. cotton 5. lighter
- B. 1. False 2. True 3. False 4. True 5. False
- C. 1. (e) 2. (d) 3. (b) 4. (a) 5. (c)
- D. 1. (b) 2. (c) 3. (c) 4. (c) 5. (d)
- E. 1. The first help given to an injured person before the doctor comes is called first aid.
2. We need clothes to cover our body.
3. The hot air is lighter which raises balloon up in the air.



4. Synthetic clothes are nonporous and do not soak water. Therefore, they dry very quickly.

5.



Water cycle in nature

# 5. MATTER AND MATERIALS

## ANSWERS

### Warm Up

Glass

### Checkpoint 1

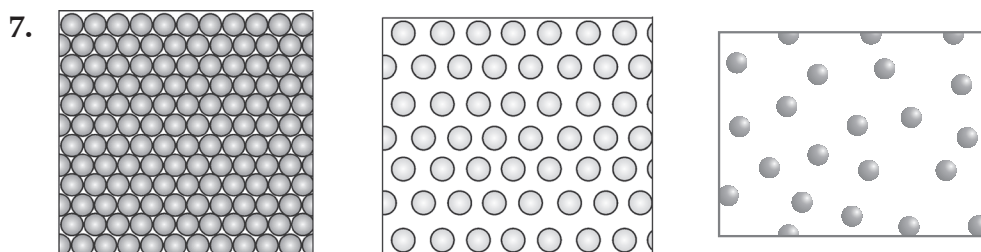
1. Yes 2. No 3. Yes 4. Yes

### Checkpoint 2

1. Salt solution; Sugar solution
2. Milk in water; Lemon juice in water
3. Carbon dioxide in water; Oxygen in water

### Check Your Study

- A. 1. (d) 2. (a) 3. (b) 4. (b)
- B. 1. False 2. False 3. True 4. False
- C. 1. space; weight 2. atoms 3. molecule 4. solid, liquid, gas
- D. 1. Anything that takes up space and has weight is called matter.
2. Molecules are particles formed by the combination of atoms of same or different kinds.
3. The molecules of water are made up of two different types of atoms, i.e., hydrogen and oxygen whereas molecules of chlorine are made up of same type of atoms, i.e., chlorine.
4. When an incense stick (agarbatti) is lighted, its molecules get far apart from each other and easily spread through all the space in the room.
5. The process of changing a liquid into its vapour form is called evaporation. The phenomenon opposite to evaporation is called condensation.
6. When a solid mixes in a liquid, it forms a solution where solid is called solute and the liquid is solvent.



- E. 1. (a) Water; Water is liquid, rest are solids.  
(b) Ice; Ice is a solid, rest are gases.  
(c) Milk; Milk mixes in water, rest make a film on the surface of water.  
(d) Milk; Milk is liquid, rest are solids.
2. This is because the gas formed by the shaking of the bottle of club soda takes the space inside the balloon.
3. This is because the molecules of sugar take the space between the molecules of water.

## 6. FORCE, WORK AND ENERGY

### ANSWERS

#### Warm Up

By pulling the cart

#### Checkpoint 1

1. Muscular force   2. Gravity   3. Solar energy   4. Hydroenergy

#### Checkpoint 2

1. No   2. No   3. Yes   4. Yes

#### Check Your Study

- A.** 1. (d)   2. (b)   3. (d)
- B.** 1. True   2. True   3. False   4. False
- C.** 1. Muscular force   2. Gravity   3. Friction   4. Muscular force   5. Gravity
- D.** 1. Force is a pull or push that makes some changes in an object.  
2. A force can make an object move, stop a moving object, change the direction of a moving object and change the shape of an object.  
3. We need energy to do different types of work. Four different forms of energy are solar energy, wind energy, hydroenergy and muscular energy.  
4. The sources of energy that cannot be finished are called renewable sources of energy. They are the sun, wind and water.  
5. Fuels such as coal, petrol, diesel and Compressed Natural Gas (CNG) are called fossil fuels. They were formed from the remains of dead plants and animals which got buried under the earth millions of years ago.  
6. Machines make our work easier and faster by changing the direction of the applied force.  
7. Some simple machines used in our home are pulley, pliers, screw, screwdriver, bottle opener, scissors, nutcracker, etc.
- E.** 1. Change of climate; Change of climate is a natural process, rest are carried out by applying some force.  
2. Friction; Friction is not a kind of energy, it is a kind of force.  
3. Metre rod; Metre rod is a device used for measuring length; rest are simple machines.

# 7. OUR SOLAR SYSTEM

## ANSWERS

### Warm Up

Saturn

### Checkpoint 1

1. star
2. orbit
3. planet
4. dwarf

### Checkpoint 2

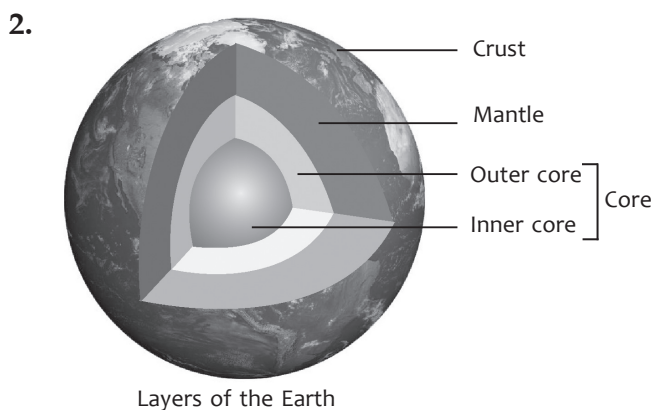
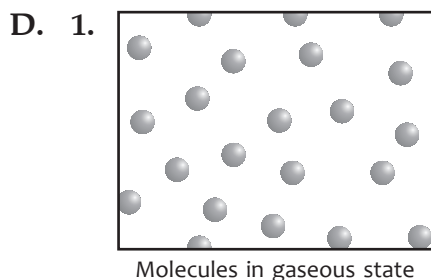
1. axis
2. hemisphere
3. outer
4. tilted axis; revolution

### Check Your Study

- A.** 1. (a) 2. (a) 3. (c) 4. (d) 5. (a)
- B.** 1. False 2. True 3. False 4. False
- C.** 1. galaxy 2. star 3. Saturn 4. equator 5. crust
- D.** 1. Star 2. Orbit 3. Planet 4. Earth 5. Pluto
- E.**
1. A star is a huge ball of hot gases which gives out heat and light.
  2. Galaxy is a huge group of stars.
  3. Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.
  4. The Earth is a unique planet because it is the only planet in the solar system which has air and water and hence life on it.
  5. Stars are the heavenly bodies that give out heat and light, whereas planets are the heavenly bodies that revolve around the stars and do not have their own heat and light but reflect the light of their closest star falling on them.
  6. (a) The outer layer is called crust.  
(b) The middle layer below crust is mantle.  
(c) The innermost layer is called core.
  7. The tilted axis of the Earth and the movement of the Earth around the Sun, i.e., revolution cause change in seasons on the Earth. The four main seasons are spring, summer, autumn and winter.
- F.**
1. Due to tilted axis and revolution of the Earth, when the north pole is tilted towards the Sun, it gets more sunlight and has summer. On the other hand, south pole gets less sunlight and has winter. The condition becomes just opposite when the south pole tilts towards the Sun and the north pole is away from the Sun. Therefore, northern and southern hemispheres always have opposite seasons.
  2. Because of the bright glare of the sun.
  3. Seasons are caused due to revolution of the Earth around the sun. It takes the Earth one year to complete its one revolution. Therefore, each season takes a year to come again.

## MODEL TEST PAPER

- A. 1. Atom 2. Solute 3. Gravity 4. Simple machine 5. Sun
- B. 1. (e) 2. (b) 3. (d) 4. (c) 5. (a)
- C. 1. Solvent is a liquid in which a solid is dissolved to make a solution.  
2. Removal of water from a substance is called dehydration.  
3. Energy is the ability to do work.  
4. The rotation of the earth causes day and night.



- E. 1. Stomata 2. Horse 3. Crow 4. Chickenpox  
5. Cashewnut
- F. 1. embryo 2. zebra 3. everywhere 4. land 5. fats
- G. 1. We should not wear synthetic clothes while working in the kitchen because they catch fire easily.  
2. Sand is used to extinguish an electric fire because it does not conduct electricity.  
3. Cotton clothes are preferred during summers as they are porous and soak the sweat easily and keep the body cool.  
4. Chlorine gas or chlorine tablets are mixed with water to kill the germs present in it. Thus, chlorine makes the water germ-free.
- H. 1. Tigers have strong and long legs to run fast to catch the prey.  
2. A cut or wound should not be left open to prevent dust or germs from entering the cut or wound.  
3. On dissolving sugar in water, the molecules of sugar take the space between the molecules of water. Hence, the volume of water does not rise.

# 1. INDIA – MINERAL RESOURCES

## ANSWERS

### Warm Up

1. Silver 2. Gold 3. Bronze

### Checkpoint

1. ores 2. mining 3. smelting 4. aluminium

### Check Your Study

- A. 1. (c) 2. (a) 3. (b) 4. (c)
- B. 1. Frying pan 2. Aeroplane 3. Odisha 4. West Bengal 5. Digboi, Assam
- C. 1. A rock which is rich in one mineral is called the ore of that mineral.  
2. (i) Metallic mineral— (a) iron (b) copper.  
(ii) Non-metallic mineral— (a) mica (b) limestone.  
3. Jharkhand and Odisha.  
4. Barauni, Bihar and Gujarat Refinery, Gujarat.  
5. TISCO & IISCO.
- D. (i) Switch off fans when not in use. (ii) Use solar energy (iii) Use CFL
- E. Do it yourself.
- F. Glass (R) Plastic (R)
- G. (b)
- H. **Hint:** Consumption of electricity

## 2. INDIA – HUMAN RESOURCES

### ANSWERS

#### Warm Up

3. (✓)

#### Checkpoint

1. (×) 2. (×) 3. (✓) 4. (✓)

#### Check Your Study

- A. 1. (c) 2. (a) 3. (a) 4. (b) 5. (a)

- B. 1. 70 2. 30 3. population

- C. 1. Human resource that is healthy and educated can turn other resources useful.  
2. The population in our country is not evenly distributed. Some areas are very thickly populated and some are sparsely populated. The average density of population (2011 provisional) in our country is about 382 persons per square kilometre. It is very high in comparison to the world's average density, which is only 45 persons per square kilometre.

The thickly populated States are Uttar Pradesh, Bihar, Maharashtra, West Bengal and Andhra Pradesh. About half of the total population of India lives in these States. The sparsely populated regions are the desert in Rajasthan, the hilly areas in the northern and north-eastern States and parts of the Deccan Plateau.

3. Huge population and lack of resources.  
4. The rapid growth of population creates many problems such as shortage of food, water, housing, schools, hospitals and employment. About half of the total population of India is very poor. It does not have enough to eat. It consists of big families whose income is limited.  
5. Overpopulation; lack of space.
- D. Do it yourself.  
E. Do it yourself.  
F. control

## 3. INDIA – AGRICULTURE

### ANSWERS

#### Warm Up

Dr. M.S. Swaminathan

#### Checkpoint

1. Agriculture. 2. Rice. 3. India ranks second in rice production. 4. Tea.

#### Check Your Study

A. 1. (b) 2. (b) 3. (c) 4. (b)

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

C. 1. The kharif season begins with pre-monsoon showers. The main kharif crops are rice, maize, millets, pulses, groundnut, cotton and jute.

The rabi season begins when the rainy season is over. The main rabi crops are wheat, gram, mustard, barley and oilseeds.

2. Agriculture includes the cultivation of crops, horticulture, rearing of animals and fishing.

3. In India, there has been continuous progress in agriculture. This is due to improved irrigation facilities, improved seeds, high use of fertilisers, manures and pesticides. This continuous progress in agriculture production is called the **Green Revolution**.

4. Wheat needs a cool and moist climate at the time of sowing and growing. The warm and dry climate is useful at the time of harvesting. Wheat grows well in Punjab, Haryana, western Uttar Pradesh, Madhya Pradesh, Bihar, Rajasthan, Gujarat and Maharashtra.

D. **Hint:** Rice is produced in large quantity.

E. COTTON, OILSEEDS, WHEAT, TEA, SUGARCANE, MAIZE, COFFEE

F. Do it yourself.

G. **Hint:** 1. Where does he live?

2. Condition of soil

3. Irrigation system

4. Size of land



# 4. INDIA – INDUSTRIES

## ANSWERS

### Warm Up

1. (c) 2. (d) 3. (a) 4. (b)

### Check Your Study

- A. 1. (a) 2. (a) 3. (c) 4. (b)

- B. 1. (a) Ahmedabad (b) Varanasi  
2. (a) Mumbai (b) Gurgaon (Gurugram)  
3. (a) Jamshedpur (b) Durgapur  
4. (a) Bengaluru (b) Nashik  
5. (a) Nangal (b) Sindri

- C. 1. Large-scale industries require big power-driven plants and employ a large number of skilled and unskilled workers. The production of finished goods is also on a large scale. Examples of large-scale industries are iron and steel plants, textile mills, oil refineries, automobile industry, chemical plants, etc. They play an important role in the development of the country.  
2. An agro-based industry is an industry that uses agricultural products as raw materials. Important agro-based industries are cotton textiles, woollen textiles, silk textiles, jute textiles, sugar, vegetable oil, food processing, etc.  
3. The cottage industry is also called household industry. It is run by family members. They use locally available raw materials, such as wood, cane, brass, clay, stone, etc. They use simple tools. Carpet weaving, handloom, handicrafts, leather goods, toy making basket making, etc., are cottage industries.

- D. 1. Large-scale 2. Agro 3. Cottage

- E. 1. The process of converting raw materials into useful finished goods is called manufacturing. Manufacturing is done by an industry.  
2. The small-scale industries employ a few workers and produce mostly consumer goods. They also use small machines. The factories are also small. The factories producing garments, automobile parts, hosiery goods, plastic goods, furniture, utensils, electrical appliances and leather goods are included in small-scale industries.

Large-scale Industries require big power-driven plants and employ a large number of skilled and unskilled workers. The production of finished goods is also on a large scale. Examples of large-scale industries are iron and steel plants, textile mills, oil refineries, automobile industry, chemical plants, etc. They play an important role in the development of the country.

3. India has both agro-based and mineral-based industries. An agro-based industry is an industry that uses agricultural products as raw materials. Important agro-based industries are cotton textiles, woollen textiles, silk textiles, jute textiles, sugar, vegetable oil, food processing, etc.

A mineral-based industry is an industry that uses minerals as raw materials. The important mineral-based industries are iron and steel, transport equipment, machine tools, cement, fertilisers and chemicals.

4. The cottage industry is also called household industry. It is run by family members. They use locally available raw materials, such as wood, cane, brass, clay, stone, etc. They use simple tools. Carpet weaving, handloom, handicrafts, leather goods, toy making, basket making, etc., are cottage industries. The cottage industry needs less investment (capital) and manpower.
5. Industries grow where the raw materials, source of power and markets are easily available.

F. Raw materials, capital, labour and market.

G.

Name of Countries	Automobile Industries	IT Industries
UK	Birmingham	London
USA	Detroit	Silicon Valley (California)
Germany	Berlin	Berlin
Japan	Nagoya	Ota
Russia	Moscow	Moscow

## 5. INDIA – TRANSPORT AND COMMUNICATION

### ANSWERS

#### Warm Up

Golden Quadrilateral.

#### Checkpoint

1. Thane 2. 16 3. Air

#### Check Your Study

- A. 1. (a) 2. (c) 3. (c)  
B. 1. Waterways 2. Airways 3. Tankers 4. Internet  
C. 1. Early men carried goods themselves. Later on, they used animals to carry the goods.  
2. NHAI builds and maintains National Highways.  
3. Mumbai to Thane. The train service started in 1853.  
4. Kolkata, Delhi, Mumbai and Bengaluru.  
5. They bring us information about the different events happening in the world.  
D. **Hint:** Railways carry lakhs of people and lakhs of tonnes of goods every day.  
E. **Hint:** Due to technological advancement, it became outdated.  
F. Do it yourself.  
G. **Hint:** I should not buy ticket from an unauthorised person.

### PERIODIC TEST—3

#### Warm Up

- A. 1. (c) 2. (a) 3. (a) 4. (b) 5. (a)  
B. 1. Kumaon 2. Indira Gandhi 3. smelting 4. 385 5. 16  
C. 1. False 2. True 3. False 4. True 5. True  
D. 1. (b) 2. (d) 3. (e) 4. (a) 5. (c)  
E. 1. The Union Territories are under the control of the Central Government. The states are under the control of their respective State Governments.  
2. Low hills of sand in deserts are called sand dunes. Strong winds can move sand dunes from one part of the desert to another.  
3. Babul and Kikar.  
4. Availability of raw materials, source of power and markets are the main factors that influence the establishment of an industry.  
5. Tea and coffee.

## 6. OUR RIGHTS AND DUTIES

### ANSWERS

#### Checkpoint

1. A constitution of a country contains the laws of that country.
2. 26 January every year.

#### Check Your Study

A. 1. (c) 2. (c) 3. (c)

B. 1. Constitution 2. Fundamental Rights 3. Democratic 4. Citizen

C. 1. A democratic country is a country whose government is elected by its people.

2. This is because in India, every citizen is free to choose and follow any religion.

3. The Rights are protected by courts. We can go to the court if any of our Rights are violated.

4. (a) Provide proper living conditions (b) Provide work for everyone.

D. **Hint:** We can demand our rights only when we fulfil our duties.

E. Do it yourself.

# 7. INDIA – THE NATIONAL SYMBOLS

## ANSWERS

### Warm Up

It is our National Emblem.

### Checkpoint

1. National Flag   2. Tricolour   3. 24   4. 4   5. Bankim Chandra Chatterjee

### Check Your Study

- A. 1. (a)   2. (c)   3. (b)
- B. 1. (d)   2. (c)   3. (a)   4. (e)   5. (b)
- C. 1. Tricolour.  
2. Blue.  
3. After sunset.  
4. 'Satyameva Jayate'.
- D. To bring unity and universal friendship.
- E. Do it yourself.

## 8. INDIA'S RICH HERITAGE

### ANSWERS

#### Warm Up

Karnataka Vidhan Saudha

#### Checkpoint

1. 800
2. 22
3. Bijapur, Karnataka
4. South India

#### Check Your Study

- A.** 1. (a) 2. (c) 3. (a) 4. (c)
- B.** 1. dialects 2. script 3. miniatures 4. art gallery
- C.** 1. In a dance drama, stories are told through dance, e.g., Kathakali.  
2. There are two types of classical music in India. These are Hindustani and Carnatic music.  
3. India is popularly called the land of temples, forts and palaces. The ancient temples of Madurai, Thanjavur, Belur, Halebid, Dilwara, Ranakpur, Khajuraho, Puri, Konark and Kailash temple at Ellora are known for their artistic work all over the world.  
4. New Delhi.
- D.** Language is a vehicle through which the people of a country or region express their art, literature and culture.
- E.** Do it yourself.
- F.** Do it yourself.

## 9. THEY ENRICHED OUR THOUGHTS

### ANSWERS

#### Checkpoint

1. Hindus
2. Lord Mahavira
3. Sikh
4. sati system
5. Ashoka

#### Check Your Study

- A. 1. (b) 2. (a) 3. (c) 4. (a)
- B. BUDDHISM, JAINISM, ISLAM, PARSI, HINDUISM, CHRISTIANITY (It should be 'Christianity' instead of 'Christian' in the grid.)
- C. 1. Raja Rammohan Roy lived in Bengal about 250 years ago. He fought against the practice of child marriage, caste system and sati (burning of the widow along with the body of her dead husband). He forced the government to pass a law against the sati system.
2. He preached truth and non-violence.
  3. Kabir worked against the caste system, blind faith and unnecessary rituals in all religions. He spread his message of love and brotherhood through *dohas* and bhajans.
- D. **Hint:** Established peace and nonviolence.
- E. **Hint:** visit site [www.indiansaga.com/history/reforms\\_vidyasagar.html](http://www.indiansaga.com/history/reforms_vidyasagar.html)

### MODEL TEST PAPER

- A. 1. (b) 2. (a) 3. (c) 4. (c) 5. (a)
- B. 1. dialects 2. 24th 3. Ganga 4. rice 5. Indira Point
- C. 1. False 2. True 3. False 4. True 5. True
- D. 1. (e) 2. (c) 3. (a) 4. (b) 5. (d)
- E. 1. R 2. D 3. D 4. R 5. R
- F. Do it yourself.
- G. 1. Jharkhand, Odisha, Chhattisgarh.
2. Rights and Duties are inseparable. They are two sides of the same coin. Every Right has a corresponding Duty. For example, if one has a right to vote, it is the duty of that person to exercise that Right judiciously in electing the right candidate without being swayed by religious, caste and monetary considerations.
  3. Our National Emblem has four lions. The lions guard the four directions. They are symbols of courage and power. Only three out of the four lions are visible at a time. The base of the lions has a galloping horse on the left and a mighty bull on the right. The horse stands for energy and speed. The bull stands for hard work. In between the horse and the bull, lies a Wheel—the wheel of the Law. The wheel on the National Flag has been adopted from it. And below the Wheel of the Law is written 'Satyameva Jayate' which means 'Truth alone triumphs'. The words are written in the Devanagari script.

4. Ramabai Ranade was a well-known social reformer in Maharashtra. She devoted her life to educate women and get them a place of respect in the society. She started the Poona Sewa Sadan to help women and orphans.
  5. Pine, cedar, fir, chir and spruce.
- H. 1. M.S. Swaminathan   2. National Emblem   3. Bankim Chandra Chatterjee
4. Victoria Memorial   5. J.C. Bose