

Key to

My

SEMESTER

BOOK - 5A



PROGRESS PUBLISHERS

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ENGLISH

1. THE SWAN QUEEN

1. (a) collect (b) wondered (c) went
(d) heed (e) flew
2. (a) She lit the fire, cooked the dinner, cleaned and washed everything for the old couple.
(b) One day old man stayed back at home alone. The old man took away her wings and burnt them.
(c) The maid cried out badly because she could not find her wings. Now she would not be able to meet her parents and her love.
(d) The king married the maid.
(e) When the Queen did not come back, the king married Lauma, the witch.
(f) The old man told the king, put some tar on the window through which swan flies out. Her wings will be glued to it. Seize her with your left hand and tear the wings off with your right hand. She will then get back to her human form.
3. (a) keep at one side
(b) an evil woman having magical powers
(c) fixed
(d) take by force
(e) a grand meal
4. Concrete Nouns : man, dacoit, friend, slave, hero, owner, minister
Abstract Nouns : manhood, dacoity, friendship, slavery, heroism, ownership, ministry
5. Proper Nouns : Delhi, India, Yamuna, Red Fort, Qutub Minar, Humayun's Tomb, Mughal, British
Common Nouns : cities, river, buildings
6. a **cluster** of stars, a **pack** of cards,
a **pile** of books, a **herd** of cattle
an **army** of soldiers

7. closeby come back small
 story fix distant
8. *Man has removed my feathers. As such I can no longer fly.
 I miss you all. I miss the freedom to fly.
 I will surely wait for you in the garden in the evening when
 you fly over.*

2. MY MOTHER

1. (a) taught (b) affectionate (c) reward
 (d) healthy (e) despise
2. (a) The mother helped the child by teaching it to pray and love
 God's holy book and walk in wisdom's pleasant way.
 (b) The child can't stop being kind to mother because she was
 very kind to the child.
 (c) The child can't think of stopping to be affectionate and kind
 to the mother.
 (d) The child would support and soothe away the pains of the
 mother.
 (e) The child would shed affectionate tear.
 (f) God will not be happy with the child if he despises his
 mother.
3. childhood slavery theft
 ministry friendship
4. action agreement livelihood
 freedom invitation
5. honesty kindness length
 poverty strength
6. (a) She is hard-working and honest.
 (b) He is hard-working but not honest.
 (c) The fox is cunning as well as clever.
 (d) I took the umbrella as it was raining.
7. teacher attendance appearance
 correction invention settlement
8. 1. wisdom 2. reward 3. pain
 4. tear 5. despise
9. don't it is
 I'll I had
 we'll would not
 can't you have
 doesn't that is

10. (a) The monkey is getting down the tree.
- (b) The sun is setting.
- (c) The man is coming out of his house.
- (d) The cow is standing.
- (e) The bird is flying in to the nest.

Let's Make Friends

Feeling of the old man

What he will do at home. He will get bored.

Feeling of the child

The child is happy to get a friend to play with.

3. THE MAN WHO LOVED ALL

1. (a) false (b) true (c) true
(d) false (e) true
2. (a) slaves (b) felling (c) liked
(d) employed (e) won
3. (a) The condition of slaves was worse than that of animals. They were treated mercilessly and worked day and night.
- (b) The poor conditions of the family didn't permit Lincoln to go to school.
- (c) Working as a clerk he got much time to read.
- (d) People respect Lincoln because he was a good lover of mankind. He had great humour and logic.
- (e) Abraham Lincoln belonged to the Republican Party.
4. hens cities
classes families
mangoes stories
radios keys
5. lives thieves
knives roofs
teeth oxen
men women
6. boy stone ship tree student
7. bravery healthy fame bright seen
8. fully heavily favourably honestly
9. *He was born in Porbandar in Gujarat. After his education in England he went to practice law in Africa. The injustice he experience there forced him back to India. He took up the case of freeing India from the British through non-violence and truth. Because of him India got freedom on 15th August 1947.*
10. owner sister number theatre
declare elder desire river

4. HEALTHY EATING HABITS

1. (a) you are able to work more and earn more.
(b) your stomach may refuse to work.
(c) food will not be digested.
(d) it amounts to bad manners.
2. (a) When we have health we are able to work when we are able to work, we earn wealth.
(b) Ill-health brings sorrow and unhappiness.
(c) Eating with unwashed hands is same as putting germs straight into the mouth.
(d) It is not advisable to keep long nails on the hands as dirt may gather under that.
(e) When one eats too much it may result in obesity.
(f) We should not eat fast because the food will not be digested properly.
3. make haste
more than the normal size
to laugh at
stop working
sickness
4. scales pincers shorts scissors pants
5. physics economics politics gymnastics
6. deer, fish, score, fruit, innings
7. (a) reap (b) honesty (c) gains
(d) will (e) too (f) Rome
(g) cure
8. lion ice
lamb bee
wolf blood
lead cucumber
needle lightning
9. Your body needs energy to grow.
You should eat the right kind of food for proper growth.
You should eat a balanced diet.
Fats give you energy and stores food for later use.
Besides food you also need fresh air, exercise and proper rest.

5. THESEUS AND THE MINOTAUR - I

1. (a) married (b) move (c) acquired
(d) reached (e) cause (f) determined
2. (a) Aegeus met Aethra one day.
(b) Aethra would take her son to the pit on the hilltop every year for moving the stone from the pit.

- (c) Theseus was strong, wise and young man when he was eighteen years old.
 - (d) Theseus faced dense forests full of wild animals and robbers on his way to Athens.
 - (e) Crete had defeated Athens.
 - (f) He demanded from Athens an yearly gift of seven maidens and seven young men.
 - (g) Minotaur was a fierce and wicked beast, half bull and half man.
3. (a) Long ago, Athens in Greece, was ruled by a King named Pittheus.
- (b) He had a son by the name of Aegeus.
- (c) The King of Greece Pittheus wanted to make his son Aegeus the ruler of Greece.
- (d) But Aegeus wanted to go to Crete to kill Minotaur.
- (e) Aegeus tried to stop his son from going. But Theseus was determined to go.
4. (a) Aethra, Theseus
- (b) Theseus, Aethra
- (c) Aegeus, Theseus
- (d) Theseus, Aegeus
- (e) Theseus, Aegeus
5. (a) He is my nephew.
- (b) Her maid is very honest.
- (c) The lion loves his cubs.
- (d) The princess met the queen.
- (e) I saw peahens and tigress in the zoo.
- (f) She liked her bridegroom.
6. ahead - behind defeat - win
- brave - coward depart - arrive
- huge - small wild - domestic
7. disagree disallow
- unable unmoved
- unafraid unheard
8. grave candle moon knock apart
-

6. THESEUS AND THE MINOTAUR - II

1. (a) ✓ (b) ✗ (c) ✓
- (d) ✗ (e) ✓
2. (a) presented (b) courage (c) handed
- (d) passage (e) led
3. (a) Spectators had gathered at the court to see the prisoners.

- (b) Ariadne looked sad and sorrowful because of the fate of these unfortunate prisoners.
- (c) At night Ariadne quietly slipped out of her room and hurried to Theseus's cell to save his life from monster.
- (d) Ariadne helped Theseus by telling him that the secret of maze is to turn always to the right. She also gave thread to lead his way to monster.
- (e) Its horns looked like sharpened spears. Its teeth were long and pointed. It had the body of a man and the head of a bull.
- (f) Theseus woke his countrymen from the prison and led them to the shore. They found a boat. They got in and took the boat to Athens.
4. (a) yours (b) yours (c) theirs
(d) hers (e) ours
5. myself herself
himself yourself
ourselves yourselves
itself themselves
6. (a) which (b) which (c) who
(d) whom (e) that
7. (a) what (b) which (c) who
(d) whom (e) whose
8. unlucky - lucky alive - dead
evil - virtue huge - tiny
triumph - defeat entrance - exit sharp - blunt

7. I LIKE LITTLE PUSSY

1. (a) harm (b) gentle (c) purr
(d) show (e) pinched (f) claws
(g) teased
2. (a) Jane Taylor wrote a poem so he was a poet.
He liked pussy because her coat is so warm.
(b) The poet don't hurt her and not pull her tail.
(c) Pussy loved the poet because he was gentle and good.
(d) Pussy will purr when it is patted
(e) Pussy can't bear to be worried or teased.
3. (a) The temperature of the day is very warm.
(b) Pet animals do not harm us.
(c) Never hurt others.
(d) Her thoughts pinched me a lot.
(e) Lead of pencil is very sharp.
4. (a) sweet (b) new (c) good
(d) Indian (e) Indian

5. (a) with (b) into (c) in
 (d) across (e) on (f) in
 (g) at (h) on (i) at
6. short sound of 'oo' - look, hook, foot, shook, hood
 long sound of 'oo' - spoon, fool, balloon, pool, food,
7. farm way good teased caw
-

8. KRISHNA AND SUDAMA

1. (a) part (b) began (c) prospect
 (d) reached (e) beloved (f) palace
2. (a) Because they were very good friends. They live, eat and sleep together. They were sad as it was difficult to part from each other.
 (b) He led a poor life in his village.
 (c) Sudama's wife asked him to go to Dwarka because there was no food in their house.
 (d) Sudama took with him puffed rice to give to Krishna.
 (e) Krishna welcomed Sudama with warm embrace and washed his feet with his own hands.
 (f) Sudama was astonished because there was now a magnificent palace at the place where stood his hut when he had left.
 (g) Sudama and his wife understood that the Lord knows everything. God will shower His love and affection whosoever reaches God with pure heart.
3. King Yudhishtira said, "Let Nakula, son of Maadri, come back to life." Yaksha asked further, "Do you not want your real brother Bhima or Arjuna to become alive again ? Nakula is only your stepbrother." The king answered, "Yes I love them but Nakula is dearer to my mother Kunti than her own sons. She will be very happy to see him alive. Let us be kind to her." Then Yaksha said, "O king! I am Dharma the God of justice. I am very pleased with your just choice. I let all your brothers become alive."
4. (a) Yes (b) Coconut tree (c) Coconut tree
 (d) No (e) Banana tree
5.

<i>Positive</i>	<i>Comparative</i>	<i>Superlative</i>
rich	richer	richest
poor	poorer	poorest
heavy	heavier	heaviest
happy	happier	happiest
good	better	best
much	more	most
6. neighbourhood motherhood fatherhood
 sisterhood adulthood

7. Man is a social animal. He likes to live in association with other people. Every person wants to make friends. A true friend is one who is with us everytime in our happy and bad times. A friend in need is friend indeed.
8. (a) Krishna thought of his beloved friend's love for him.
(b) Krishna ate two handfuls of puffed rice.
(c) He did not like to go empty handed.
(d) Krishna became the King of Dwaraka and married Rukmani.
(e) Krishna and Sudama sat down to talk.
9. A barren land is hot and dry. A green land is cool and wet. Barren land is no place to live as the air is hot and not healthy. Green land gives lot of fresh air and is full of trees and grass.

9. FAGIN AND HIS BOYS

1. (a) died (b) begged (c) reached
(d) flannel (e) followed (f) proud
2. (a) Oliver met with a boy who looked about his own age. His name was Jack Dawkins better known as Artful Dodger.
(b) He was short and bow legged and had ugly little eyes.
(c) He gave bread and jam and took Oliver to a tavern.
(d) Inside the box were beautiful jewellery, gold watches, bracelets and rings.
(e) He brought four silk handkerchiefs.
(f) Fagin told Oliver to follow the advice of Dodger and Bates and do what they did.
3. (a) all (b) no (c) any
(d) some (e) Many (f) few
4. unfortunate unlucky disobey illiterate
dislike unfold impossible disallow
5. cotton - clothes winding - path
cloudy - sky starry - night
silver - coin smiling - face
6. (a) The Dodger said to Oliver.
(b) Fagin is the gentleman mentioned in the extract.
(c) Boys brought the silk handkerchief by pick pocketing.
(d) The game was meant to teach how to pick pockets.

Activity - Word Maze

- | | | |
|-------------|------------|---------------|
| (b) journey | (c) shoes | (d) furnace |
| (e) ring | (f) wallet | (g) jewellery |

10. THE WONDERFUL WORLD

1. (a) wind (b) whirls (c) earth
(d) tremble (e) love, think
2. (a) The world is dressed with wonderful water and the wonderful grass.
(b) The wind is shaking the tree and the wonderful air is over the poet.
(c) The wheat fields that nod and the rivers that flow.
(d) The poet trembles to think of world because it is so great.
(e) The poet can love and think, but the Earth cannot.
3. (a) *Interrogative* Does it walk on the water ?
Negative It does not walk on the water.
(b) *Interrogative* Do they go for a morning walk ?
Negative They do not go for a morning walk.
(c) *Positive* Yes, they go to school.
Negative No, they do not go to school.
4. (b) lighter, lightest
(c) deeper, deepest
(d) harder, hardest
5. wisdom, depth, freedom, holiness, justice
6. wonder beauty
friend river
earth garden
7. (a) My hobby is to watch the television.
I have many watches.
(b) Paper is very light.
We decorate our house with lights on Diwali.
8. (a) My friend has many story books.
My house is double storey.
(b) Rain is the main source of water.
The lion's mane is very thick.
9. curled - coiled cliff - a steep rock
nod - shake greatly isles - islands
whirls - rotates
10. west curled so miles hills
11. 1. beauty 2. cliff 3. curl
4. field 5. grass 6. prayer
7. tremble 8. wheat 9. whirl
10. whisper
12. spoonful, fearful, cheerful, needful, thankful, helpful, careful, fearful, useful

SUMMATIVE ASSESSMENT - 1

1. (a) Sankaracharya was born in a very poor Brahmin family.
(b) Sankaracharya attained a lot of knowledge on Logic, Philosophy, Yoga and Mathematics.
(c) Sankaracharya wrote one hundred twelve books.
(d) Sankaracharya tried to redeem Hinduism and Hindu society from disintegration due to corruption, immorality and ignorance.
(e) We learn from his teachings that feel good about yourself and try to lead a good life, do good things, speak encouraging words and use your God given talents for the good of others.
2. There was a peacock and a crane who were good friends since a very long time. Although they never fought with each other, the peacock was proud of its beautiful feathers and one day the peacock said to the crane "I feel sorry for you. You have dull feathers; look at the colours of my feathers." Well! said the crane, "your look is brighter than mine, but I can fly high up in the sky, whereas you cannot".
Moral : Never find fault with others.
3. Friendship is the feeling or relationship that friends have. A real friend is one who stands by his friend in his hour of need. A friend is a part and parcel of one's life. The true friendship between John and Samuel is known all over the world. A person who is honest and sincere can prove to be a good friend. Friendship grows on mutual trust and help. One cannot enjoy true and permanent friendship if one does not value it. A true friend inspires the other to improve himself. He will always warn him against going towards the wrong path. One can reform a friend or group of friends who has fallen into bad company. The steady affection of a friend is a great support in one's life.
5. King Yudhishtira said, "Let Nakula, son of Maadri, come back to life." Yaksha asked further, "Do you not want your real brother Bhima or Arjuna to become alive again ? Nakula is only your stepbrother." The king answered, "Yes I love them but Nakula is dearer to my mother Kunti than her own sons. She will be very happy to see him alive. Let us be kind to her." Then Yaksha said, "O king! I am Dharma the God of justice. I am very pleased with your just choice. I let all your brothers become alive."

6. (a) a cluster of stars
 (b) a pack of cards
 (c) a pile of books
 (d) a herd of cattle
 (e) a army of soldiers
7. 1. hers 2. which
 3. that 4. who
8. (a) He is my nephew.
 (b) I saw peahens and tigress in the zoo.
 (c) The princess met the queen.
9. (a) closeby (c) come back
 (b) story (d) small
10. (a) few (b) few (c) no
11. wonder beauty
 friend river
 earth garden
12. (a) sweet (b) Indian (c) new
13. with across on
14. (a) *Interrogative* Does it walk on the water ?
 Negative It does not walk on the water.
15. 1. flannel 2. teased 3. liked
 4. prospect 5. cause
16. 1. ✗ 2. ✗ 3. ✓ 4. ✗
17. (a) 3 (b) 4 (c) 5 (d) 2
 (e) 1
18. (a) She lit the fire, cooked the dinner, cleaned and washed everything for the old couple.
 (b) It is not advisable to keep long nails on the hands as dirt may gather under that.
 (c) Theseus faced dense forests full of wild animals and robbers on his way to Athens.
 (d) Because they were very good friends. They live, eat and sleep together. They were sad as it was difficult to part from each other.
 (e) Inside the box were beautiful jewellery, gold watches, bracelets and rings.

MATHEMATICS

UNIT 2

Page No. 78

1. 1. 1000000 2. 10000000; 99999999 3. 100000000; 999999999
4. 100000000 5. 9999999
2. 1. 6428546 2. 89246365 3. 582536972 4. 66240916 5. 71604890
3. 1. Seventy-three lakh twenty-nine thousand six hundred forty
2. Sixty-two lakh forty-five thousand two hundred eighty-seven
3. Ninety lakh forty-nine thousand eighty-seven
4. Three crore twenty-one lakh sixty-five thousand seven hundred sixty-two
5. Eight crore five lakh forty-six
6. Nine crore twenty-five lakh forty-three thousand six hundred seventy-eight
4. 1. < 2. < 3. > 4. >
5. < 6. =

Page No. 81

1. 1. 36,29,48,405 - Thirty-six crores twenty-nine lakh forty-eight thousand four hundred five
2. 50,00,00,500 - Fifty crore five hundred
3. 58,68,42,931 - Fifty-eight crore sixty-eight lakh forty-two thousand nine hundred thirty-one
4. 70,07,70,77 - Seventy crore seven lakh seven thousand seventy-seven
5. 86,10,06,453 - Eighty-six crore ten lakh six thousand four hundred fifty-three
6. 93,40,70,809 - Ninety-three crore forty lakh seventy thousand eight hundred nine
7. 99,99,99,999 - Ninety-nine crore ninety-nine lakh ninety-nine thousand nine hundred ninety-nine
8. 80,05,00,462 - Eighty crore five lakh four hundred sixty-two
2. 1. 12,10,00,545 2. 6,00,32,107
3. 62,09,00,031 4. 81,00,06,020
5. 99,99,99,999
3. 1. **987654321** 2. **120304567**
90,00,00,000 10,00,00,000
8,00,00,000 2,00,00,000
70,00,000 0
6,00,000 3,00,000

- 7,142,965 (International) Seven million one hundred forty-two thousand nine hundred sixty-five
3. 39,25,013 (Indian) Thirty-nine lakh twenty-five thousand thirteen
- 3,925,013 (International) Three million nine hundred twenty-five thousand thirteen
4. 68,23,46,758 (Indian) Sixty-eight crore twenty-three lakh forty-six thousand seven hundred fifty-eight
- 682,346,758 (International) Six hundred eighty-two million three hundred forty-six thousand seven hundred fifty-eight
5. 50,67,41,693 (Indian) Fifty crore sixty-seven lakh forty-one thousand six hundred ninety-three
- 506,741,693 (International) Five hundred six million seven hundred forty-one thousand six hundred ninety-three
6. 42,85,36,423 (Indian) Forty-two crore eighty-five lakh thirty-six thousand four hundred twenty-three
- 428,536,423 (International) Four hundred twenty-eight million five hundred thirty-six thousand four hundred twenty-three
2. 9,99,99,999 (Indian) Nine crore ninety-nine lakh ninety-nine thousand nine hundred ninety-nine
- 99,999,999 (International) Ninety-nine million nine hundred ninety-nine thousand nine hundred ninety-nine

Page No. 87 MCQ - I

- | | | |
|--------------------|---------------|---------------------------|
| 1. 11,257 | 2. 23,517 | 3. 40,000 + 500 + 3 |
| 4. 10,447 | 5. 10,043,703 | 6. crores period |
| 7. millions period | | 8. largest 4-digit number |
| 9. 10 | 10. 100 | |

UNIT 3

Page No. 90

- | | | | | |
|-----------|------------|--------------|----------|----------|
| 1. 1. XVI | 2. XXV | 3. XXVII | 4. XXXII | 5. XXIX |
| 6. XIV | 7. XXXVIII | 8. XL | 9. XLVII | 10. LV |
| 11. LXIX | 12. LXXII | 13. LXXXVIII | 14. XC | 15. XCIX |
| 2. 1. 14 | 2. 16 | 3. 22 | 4. 25 | 5. 38 |
| 6. 49 | 7. 48 | 8. 76 | 9. 87 | 10. 111 |
| 11. 91 | 12. 157 | | | |
| 3. 1. X | 2. ✓ | 3. X | 4. X | 5. ✓ |
| 6. X | 7. ✓ | 8. X | 9. ✓ | |
| 4. 1. > | 2. > | 3. > | 4. < | 5. < |
| 6. < | 7. < | 8. < | 9. < | |

5. 1. LXXXIV 2. LXXXII 3. LXVII 4. XXIX
 5. XXXVII 6. X

UNIT 4

Page No. 91

1. 1. 112489 2. 168320 3. 116944 4. 184050

Page No. 92

1. 1. 8369649 2. 5931714 3. 10616801 4. 7608327
 5. 32379847 6. 18167439 7. 66191119
 8. 135193905 9. 22549664
 10. 48997367
 2. 1. 637620 2. 1879430040 3. 100999999 4. 57503648
 5. 41493114

Page No. 93

1. 1. 257804 2. 231302 3. 587927 4. 264929
 1. 1. 4762067 2. 6481152 3. 264929 4. 29512557
 5. 2885728 6. 6158062 7. 322991910 8. 291779999
 9. 15990225 10. 48815168
 2. 1676686 3. 663869

Page No. 94

4. 1. 5634605 2. 5974962 3. 9545635
 – 2721443 – 3876454 – 7237628
 2913162 2098508 2308007
 5. 1. 98668806 2. 636777917 3. 9277189
 6. 1. 3133 2. 168591 3. 15856
 4. 46642525; In April by 39468703

Page No. 96

1. 1. 2643 2. 3748 3. 1 4. 0
 5. 24 6. 2360
 2. 1. 16840, 168400, 1684000 2. 7500, 75000, 750000
 3. 89000, 890000, 8900000
 3. 1. 378050 2. 292740 3. 2048700 4. 11106000
 5. 1193400 6. 165284000
 4. 1. 3460 2. 146300 3. 82600 4. 3728000
 5. 12500 6. 1629000

Suprising Number Patterns

9874568, 98634568, 98765234568,
 9876541234568, 987654301234568

Page No. 97

- | | | | |
|--------------|-------------|--------------|--------------|
| 1. 1. 287700 | 2. 2389010 | 3. 1177848 | 4. 3286082 |
| 5. 8557959 | 6. 8629752 | 7. 851115 | 8. 2085135 |
| 9. 832464 | 10. 4292822 | 11. 43344180 | 12. 27244875 |

Page No. 98

- | | | | |
|---------------|------------|-----------|------------|
| 2. 1. 415 | 2. 2135 | 3. 6835 | 4. 2400 |
| 5. 21050 | 6. 108700 | 7. 9875 | 8. 70375 |
| 9. 172375 | 10. 11400 | 11. 19100 | 12. 785375 |
| 3. 1. 1513170 | 2. 3882250 | 3. 832545 | 4. 536250 |
| 5. 43702 | 6. 53874 | | |

Page No. 99

- | | | | |
|-------------|------------|-------------|------------|
| 1. 1. 12827 | 2. 98805 | 3. 6271200 | 4. 75190 |
| 5. 7021000 | 6. 9370361 | 7. 32232 | 8. 3012000 |
| 9. 2933775 | 10. 149240 | 11. 2319630 | 12. 54384 |

Page No. 100

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|---------------|-------------|------------|--------------|
| 1. 1. 16137 | 2. 1647044 | 3. 59170 | 4. 3046950 |
| 5. 810000 | 6. 621126 | 7. 475000 | 8. 6037900 |
| 9. 14994 | 10. 9024650 | 11. 195840 | 12. 13443543 |
| 2. 1. 4009825 | 2. 8768428 | 3. 159210 | |

Math Connections

- | | | | |
|-----------|-----------|-----------|----------|
| 2. 235625 | 3. 581972 | 4. 180635 | 5. 92541 |
| 6. 95202 | 7. 645498 | 8. 114597 | |

Page No. 101

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|---------|--------|--------|--------|
| 1. 1. 9 | 2. 11 | 3. 12 | 4. 182 |
| 5. 107 | 6. 33 | 7. 49 | 8. 61 |
| 9. 22 | 10. 12 | 11. 22 | 12. 65 |

Page No. 102

- | | | | |
|-------------|--------------|--------------|--------------|
| 1. 1. 36, 2 | 2. 61, 0 | 3. 131, 2 | 4. 34, 1 |
| 5. 37, 23 | 6. 243, 4 | 7. 1435, 24 | 8. 5647, 43 |
| 9. 1764, 3 | 10. 3549, 23 | 11. 2707, 24 | 12. 1949, 72 |
| 2. 1. 44557 | 2. 376129 | 3. 575682 | 4. 273435 |
| 5. 622851 | | | |
| 3. 1. 26708 | 2. 17895 | 3. 6875kg | 4. 2826 |
| 5. 4796 | | | |

Page No. 103

- | | |
|------------|-----------|
| 4. 1. 2800 | 2. 183750 |
|------------|-----------|

The Partially Completed Choice Puzzle

- | | | | |
|-------------|-------------|-------------|-------------|
| 1. 3158643 | 2. 8023054 | 3. 6552565 | 4. 4621818 |
| 5. 7141470 | 6. 4812310 | 7. 2132767 | 8. 3864742 |
| 9. 1056181 | 10. 5252413 | 11. 8321122 | 12. 6058437 |
| 13. 4561716 | 14. 3458007 | | |

Page No. 105

- | | |
|------------------------|------------------------|
| 1. 1. 760, 800, 1000 | 2. 8490, 8500, 8000 |
| 3. 1180, 1200, 1000 | 4. 9480, 9500, 9000 |
| 5. 13550, 13500, 14000 | 6. 67890, 67900, 68000 |

2. 2. 2450 to 2499; 2501 to 2549
3. 10750 to 10799; 10801 to 10849
4. 39950 to 39999; 40001 to 40049

Page No. 106

3. 1. 42 2. 349 3. 6575
4. 65 to 69 and 71 to 74 5. 750 to 799 and 801 to 849

Page No. 108

	Estimation	Actually		Estimation	Actually		Estimation	Actually
1.	1. 10000	9872	2.	17000	16516	3.	9000	9217
	4. 11000	11141	5.	15000	14265	6.	15000	14702
2.	1. 5000	4514	2.	3000	3025	3.	5000	4502
	4. 2000	2128	5.	1000	1039	6.	5000	4264
3.	1. 11400	12096	2.	92800	93058	3.	46400	47922
	4. 761100	764272	5.	185000	185000	6.	18427200	18435971
4.	1. 20	21	2.	9.8	9.42	3.	4.00	4.02
	4. 5	4.85	5.	3.06	3.02	6.	9.6	9.13
5.	1. Yes,		2.					

Page No. 109 Worksheet

1. 36105 2. 766 3. 203 4. 340 5. 888
6. 81 7. 187 8. 567 9. 558 10. 815
11. 617 12. 228 13. 348 14. 745 15. 983

Page No. 110 MCQ - II

1. 100999998 2. 164343 3. 7,50,000 4. 160000
5. 46,336 6. 1,001 7. 15 8. 53,300
9. 100 10. 5400

UNIT 5

Page No. 113

1. 1. 1438, 3740, 96832, 87564 2. 702, 585, 5724
3. 895, 4830, 3785, 4760

Page No. 114

4. 684, 1629, 9468, 8532 5. 820, 63500, 9070
6. 462, 396, 715, 253, 231, 1837 7. 462304, 135912, 365200
8. 1463512, 5379704 9. 9123456
10. 9214356
2. 1. 43686 2. 97650 3. 864 4. 831776 5. 345624

Shady Division

Divisible by 9 18, 27, 99, 36, 90, 63, 54

Divisible by 8 40, 8, 88, 24, 16, 32, 56, 96, 80, 24, 32, 64

Divisible by 5 15, 20, 45, 35, 30, 10, 55, 5, 50, 25, 60, 40

Page No. 115 Worksheet

2. yes, no, no, no 3. no, no, no, no
4. no, no, no, no 5. no, yes, yes, no
6. yes, yes, yes, no

Number Clubs

580 2, 3, 4, 5, 10

638 2

6072 2, 3, 4, 6, 8, 12

4648 2, 4, 8

441 3

1458 2, 3, 6

9000 2, 3, 4, 5, 6, 8, 10, 12

UNIT 6

Page No. 117

1. 1. 1, 2, 4, 5, 8, 10, 20, 40 2. 1, 3, 17, 51
3. 1, 2, 4, 7, 8, 14, 28, 56 4. 1, 3, 7, 9, 21, 63
5. 1, 2, 4, 17, 34, 68 6. 1, 2, 3, 6, 17, 34, 51, 102
2. 1. 7, 14, 21, 28 2. 9, 18, 27, 36
3. 4, 8, 12, 16 4. 11, 22, 33, 44
5. 17, 34, 51, 68 6. 15, 30, 45, 60

Page No. 120

1. 1. 1 2. 2, 3 3. 2 4. Yes, except 2
5. No; 7, 11 6. 2
7. 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59,
61, 67, 71, 73, 79, 83, 89, 97
8. (2,3); (5,7); (11,13); (17,19); (29,31); (41,43); (71,73)
9. 23, 37, 53, 73
10. 19, 37, 59, 97 11. 23, 61, 83, 97
2. 1. false 2. true 3. true 4. true
5. false 6. false
3. 1. (3,5); (5,7); (11,13) 2. (13,17); (17,19); (19,23)

Puzzle

1. 2, 3, 4, 6, 8, 12, 24, 48
2. 15, 30, 45, 60, 90, 105, 120, 135, 150
3. 3, 7, 11, 17, 43, 71, 89

Page No. 122

1. 1. $1 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$ 2. $3 \times 3 \times 5$
3. $2 \times 3 \times 3 \times 3$ 4. $3 \times 5 \times 5$
5. $3 \times 5 \times 11$ 6. $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3$
7. $2 \times 2 \times 2 \times 2 \times 3$ 8. $3 \times 3 \times 7$
9. $2 \times 2 \times 2 \times 3 \times 3$ 10. $2 \times 3 \times 17$
11. $2 \times 2 \times 2 \times 2 \times 2 \times 2$ 12. $2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3$
2. 1. $2 \times 2 \times 3 \times 3$ 2. $2 \times 3 \times 7$
3. $2 \times 2 \times 2 \times 7$ 4. $2 \times 2 \times 2 \times 3 \times 5$
5. $3 \times 5 \times 11$ 6. $2 \times 5 \times 11$
7. $2 \times 3 \times 3 \times 7$ 8. $3 \times 5 \times 7$
3. 1. C 2. P 3. C 4. C 5. C
6. P 7. P 8. C 9. C 10. C
11. P 12. C

Page No. 124

- | | | | | |
|-------------|----------------|----------|---------|---------|
| 1. 1. 1, 11 | 2. 1, 7 | 3. 1, 7 | 4. 1, 3 | 5. 1, 3 |
| 6. 1, 7 | 7. 1, 3, 5, 15 | 8. 1, 11 | 9. 1, 5 | |
| 2. 1. 4 | 2. 8 | 3. 25 | 4. 15 | 5. 16 |
| 6. 36 | 7. 48 | 8. 45 | 9. 14 | 10. 25 |
| 11. 5 | 12. 6 | 13. 5 | 14. 27 | 15. 6 |
| 16. 45 | 17. 8 | 18. 25 | | |
| 3. 1. 9 | 2. 1 | 3. 17 | 4. 8 | 5. 36 |
| 6. 115 | 7. 81 | 8. 121 | 9. 25 | |

Page No. 125

Puzzle 625

Page No. 126

- | | | | | |
|-----------|---------|---------|---------|---------|
| 1. 1. 15 | 2. 12 | 3. 20 | 4. 30 | |
| 5. 12 | 6. 12 | | | |
| 2. 1. 210 | 2. 120 | 3. 36 | 4. 72 | 5. 48 |
| 6. 72 | 7. 100 | 8. 96 | 9. 108 | 10. 162 |
| 11. 420 | 12. 360 | 13. 72 | 14. 144 | 15. 300 |
| 16. 360 | 17. 150 | 18. 288 | | |

Page No. 127

- | | | | | |
|------------|----------|---------|---------|---------|
| 1. 1. 1764 | 2. 1440 | 3. 1800 | 4. 180 | 5. 1008 |
| 6. 17712 | 7. 6048 | 8. 720 | 9. 3600 | 10. 240 |
| 11. 1080 | 12. 2040 | | | |

Page No. 128

- | | |
|-------------|-----------|
| 1. 1. 14850 | 2. 1 p.m. |
| 3. 432 | 4. 23188 |

Page No. 130 MCQ - III

- | | | | | |
|-----------------------------------|-------|-----------------------------------|-------|--------|
| 1. 91 | 2. 42 | 3. $2 \times 2 \times 3 \times 5$ | 4. 10 | 5. 200 |
| 6. $2 \times 3 \times 3 \times 5$ | 7. 36 | 8. 360 | 9. 8 | 10. 3 |

UNIT 7**Page No. 132**

2. numerator 5; denominator 12

- | | | | |
|---|---|--|---|
| 3. $\frac{5}{9}, \frac{2}{7}, \frac{3}{8}$ | 4. $\frac{7}{3}, \frac{5}{2}, \frac{20}{17}$ | 5. $\frac{4}{11}, \frac{7}{11}, \frac{10}{11}$ | 6. $\frac{15}{7}, \frac{15}{11}, \frac{15}{13}$ |
| 7. 1. $\frac{6}{10}, \frac{9}{15}, \frac{12}{20}$ | 2. $\frac{2}{16}, \frac{3}{24}, \frac{4}{32}$ | 3. $\frac{4}{8}, \frac{6}{12}, \frac{8}{16}$ | 4. $\frac{10}{4}, \frac{15}{6}, \frac{20}{8}$ |

Page No. 133

- | | |
|--|--|
| 8. 1. $\frac{2}{5} = \frac{4}{10} = \frac{6}{15} = \frac{8}{20} = \frac{10}{25}$ | 2. $\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20}$ |
|--|--|

$$3. \frac{2}{3} = \frac{10}{15} = \frac{12}{18} = \frac{8}{12}$$

$$9. \quad 1. \frac{10}{13} \quad 2. \frac{10}{16} \quad 3. \frac{15}{9}$$

$$10. \quad 1. \frac{4}{12} \quad 2. \frac{8}{11} \quad 3. \frac{1}{4}$$

Page No. 135

$$1. \quad 1. \frac{5}{4} \quad 2. \frac{11}{4} \quad 3. \frac{30}{9} \quad 4. \frac{15}{4} \quad 5. \frac{29}{6}$$

$$6. \frac{58}{9} \quad 7. \frac{67}{12} \quad 8. \frac{47}{3}$$

$$2. \quad 1. 1\frac{4}{5} \quad 2. 4\frac{5}{8} \quad 3. 6\frac{2}{3} \quad 4. 3\frac{1}{8} \quad 5. 4\frac{3}{4}$$

$$6. 4\frac{3}{10} \quad 7. 2\frac{3}{7} \quad 8. 9\frac{6}{11}$$

3. Proper fractions

Improper fractions

Mixed fractions

$$\frac{3}{9}, \frac{2}{3}, \frac{99}{100}, \frac{7}{77}$$

$$\frac{5}{2}, \frac{3}{2}, \frac{9}{7}, \frac{100}{99}, \frac{77}{7}$$

$$6\frac{1}{6}, 1\frac{1}{4}, 2\frac{1}{2}$$

Page No. 137

$$1. \quad 1. \frac{2}{3} \quad 2. \frac{3}{4} \quad 3. \frac{3}{4} \quad 4. \frac{2}{3} \quad 5. \frac{1}{3} \quad 6. \frac{3}{5}$$

$$7. \frac{3}{4} \quad 8. \frac{6}{7} \quad 9. \frac{3}{4} \quad 10. \frac{3}{4} \quad 11. \frac{5}{9} \quad 12. \frac{5}{12}$$

$$2. \quad 1. 6 \quad 2. 8 \quad 3. 15 \quad 4. 12 \quad 3. \frac{2}{10} = \frac{1}{5}$$

Think, Think, Think !

$$1. 4, 20, 23$$

$$2. 5, 8, 8, 3$$

$$3. 6, 42, 47$$

$$4. 9, 2, 2, 2$$

Page No. 138

$$1. \quad 1. \frac{3}{7} \quad 2. \frac{4}{9} \quad 3. \frac{2}{3} \quad 4. \frac{3}{4} \quad 5. \frac{2}{3} \quad 6. \frac{3}{4}$$

$$7. \frac{3}{4} \quad 8. \frac{1}{2} \quad 9. \frac{5}{7} \quad 10. \frac{3}{4}$$

$$2. \quad 1. \frac{21}{31} \quad 2. \frac{7}{15} \quad 3. \frac{1}{4} \quad 4. \frac{6}{5} \quad 5. \frac{5}{6} \quad 6. \frac{1}{5}$$

$$7. \frac{4}{3}$$

Page No. 139

1. 1. 10, 7 2. 9, 2 3. 6, 1 4. 5, 1
2. 1. 12 2. 3 3. 15 4. 12
5. 6 6. 44 7. 35 8. 56
3. 1. eaten 6; left 18 2. 10cm; left 40cm
3. 21 children can swim

Page No. 142

1. 1. $\frac{3}{4}$ 2. $\frac{3}{5}$ 3. $\frac{5}{6}$ 4. $\frac{5}{6}$ 5. $\frac{7}{8}$ 6. $\frac{8}{11}$
7. $\frac{5}{8}$ 8. $\frac{2}{7}$
2. 1. $\frac{7}{12}$ 2. $\frac{7}{10}$ 3. $\frac{4}{9}$ 4. $\frac{7}{10}$ 5. $\frac{9}{16}$ 6. $\frac{2}{8}$
7. $\frac{2}{14}$ 8. $\frac{15}{18}$
3. 1. $\frac{3}{10}$, $\frac{2}{5}$, $\frac{7}{15}$ 2. $\frac{1}{3}$, $\frac{2}{5}$, $\frac{1}{2}$ 3. $\frac{7}{9}$, $\frac{5}{6}$, $\frac{11}{12}$
4. $\frac{8}{15}$, $\frac{11}{18}$, $\frac{7}{10}$ 5. $\frac{2}{3}$, $\frac{3}{4}$, $\frac{7}{8}$ 6. $\frac{4}{5}$, $\frac{7}{8}$, $\frac{9}{10}$
4. 1. $\frac{9}{10}$, $\frac{13}{15}$, $\frac{5}{6}$ 2. $\frac{2}{5}$, $\frac{5}{16}$, $\frac{3}{10}$ 3. $\frac{7}{9}$, $\frac{2}{3}$, $\frac{1}{2}$
4. $\frac{7}{10}$, $\frac{5}{8}$, $\frac{3}{5}$ 5. $\frac{7}{10}$, $\frac{2}{3}$, $\frac{3}{5}$ 6. $\frac{5}{6}$, $\frac{3}{4}$, $\frac{7}{12}$

Page No. 144

1. 1. $\frac{6}{8}$ 2. $\frac{15}{19}$ 3. $\frac{12}{11}$ 4. 1 5. 1 6. $\frac{17}{10}$
2. 1. 3 2. $\frac{24}{9}$ 3. $\frac{41}{5}$ 4. 4 5. $\frac{26}{7}$ 6. $\frac{61}{8}$
7. $\frac{22}{5}$ 8. 4 9. $\frac{39}{6}$

Brain Tuner

$\frac{1}{4}, \frac{3}{4}$	$\frac{2}{3}, \frac{1}{3}$	$\frac{7}{8}, \frac{1}{8}$	$\frac{5}{8}, \frac{3}{8}$
$\frac{1}{2}, \frac{5}{10}$	$\frac{1}{10}, \frac{9}{10}$	$\frac{5}{12}, \frac{7}{12}$	$\frac{3}{10}, \frac{7}{10}$

Page No. 145

- | | | | | | |
|---------------------|--------------------|--------------------|---------------------|--------------------|---------------------|
| 1. 1. $\frac{2}{3}$ | 2. $1\frac{5}{12}$ | 3. $\frac{8}{9}$ | 4. $\frac{7}{10}$ | 5. $\frac{37}{30}$ | 6. $\frac{31}{20}$ |
| 7. $\frac{18}{12}$ | 8. $\frac{22}{24}$ | 9. $\frac{19}{24}$ | 10. $\frac{13}{18}$ | 11. $\frac{9}{18}$ | 12. $\frac{37}{30}$ |

Page No. 146

- | | | | | | |
|------------------------|--------------------|--------------------|--------------------|---------------------|-------------------|
| 1. 1. $5\frac{1}{6}$ | 2. $9\frac{9}{20}$ | 3. $6\frac{1}{10}$ | 4. $9\frac{5}{6}$ | 5. $5\frac{10}{21}$ | 6. $4\frac{1}{9}$ |
| 7. $7\frac{11}{12}$ | 8. $6\frac{9}{16}$ | | | | |
| 2. 1. $7\frac{11}{12}$ | 2. $5\frac{1}{4}$ | 3. $9\frac{7}{8}$ | 4. $\frac{47}{60}$ | 5. $3\frac{7}{10}$ | |

Page No. 147

- | | | | | | |
|----------------------|-------------------|-------------------|-------------------|------------------|--------------------|
| 1. 1. $\frac{2}{11}$ | 2. $\frac{2}{5}$ | 3. $\frac{4}{13}$ | 4. $\frac{1}{3}$ | 5. $\frac{1}{2}$ | 6. $\frac{10}{13}$ |
| 7. $\frac{1}{5}$ | 8. $\frac{1}{3}$ | | | | |
| 2. 1. $\frac{7}{4}$ | 2. $\frac{11}{5}$ | 3. $\frac{3}{2}$ | 4. $\frac{13}{5}$ | 5. 3 | 6. $\frac{5}{2}$ |
| 7. $\frac{29}{9}$ | 8. $\frac{7}{4}$ | | | | |
| Puzzle $\frac{1}{2}$ | | | | | |

Page No. 148

- | | | | | | |
|---------------------|------------------|-------------------|-------------------|--------------------|-------------------|
| 1. 1. $\frac{4}{5}$ | 2. $\frac{4}{9}$ | 3. $\frac{1}{9}$ | 4. $\frac{1}{3}$ | 5. $\frac{1}{8}$ | 6. $\frac{7}{10}$ |
| 7. $\frac{5}{4}$ | 8. $\frac{9}{5}$ | 9. $\frac{11}{7}$ | 10. $\frac{8}{5}$ | 11. $\frac{12}{7}$ | 12. $\frac{7}{4}$ |

Page No. 149

- | | | | | | |
|----------------------|--------------------|--------------------|-------------------|-------------------|------------------|
| 1. 1. $\frac{7}{15}$ | 2. $\frac{1}{35}$ | 3. $\frac{8}{45}$ | 4. $\frac{2}{15}$ | 5. $\frac{5}{24}$ | 6. $\frac{3}{2}$ |
| 7. $\frac{7}{4}$ | 8. $\frac{5}{6}$ | | | | |
| 2. 1. $\frac{1}{40}$ | 2. $2\frac{7}{12}$ | 3. $2\frac{3}{10}$ | | | |

Page No. 150

- | | | | | | |
|---------------------|--------------------|-------------------|------------------|--------------------|------------------|
| 1. 1. $\frac{1}{4}$ | 2. $\frac{14}{12}$ | 3. $\frac{7}{12}$ | 4. $\frac{3}{4}$ | 5. $\frac{11}{24}$ | 6. $\frac{5}{6}$ |
| 7. $\frac{15}{24}$ | 8. $\frac{25}{24}$ | | | | |

2. 1. $\frac{71}{24}$ 2. $\frac{5}{8}$

3. 1. $\frac{1}{15}$ 2. 3 3. $\frac{1}{5}$

Page No. 151

1. 1. $\frac{9}{4}$ 2. $\frac{15}{4}$ 3. $\frac{8}{3}$ 4. $\frac{30}{7}$ 5. $\frac{18}{5}$ 6. 6
 7. 9 8. 10 9. $\frac{35}{3}$ 10. 11 11. 30 12. $16\frac{1}{2}$

Fraction Puzzlers

1. 10 days 2. $\frac{1}{5}$ 3. $\frac{4}{5}$

Page No. 152

1. 1. $\frac{8}{15}$ 2. $\frac{1}{10}$ 3. $\frac{3}{20}$ 4. $\frac{11}{20}$ 5. $\frac{2}{3}$ 6. $\frac{15}{28}$

7. $\frac{7}{10}$ 8. $\frac{3}{2}$

2. 1. 1 2. $\frac{13}{6}$ 3. 3 4. $\frac{1}{2}$ 5. $\frac{5}{4}$ 6. $\frac{26}{17}$

Puzzle 1

Page No. 153

3. 1. 21 kg 2. $13\frac{1}{8}$ 3. 36 kg 4. $37\frac{1}{2}$ 5. 180 6. 35

Page No. 154

1. 1. 3 2. 6 3. 24 4. 4 5. 9 6. 30
 7. 10 8. 8

2. 1. $\frac{3}{8}$ 2. $\frac{2}{11}$ 3. $\frac{2}{5}$ 4. $\frac{2}{9}$ 5. $\frac{5}{24}$ 6. $\frac{2}{7}$
 7. $\frac{9}{20}$ 8. $\frac{7}{48}$ 9. $\frac{3}{20}$ 10. $\frac{2}{11}$ 11. $\frac{1}{12}$ 12. $\frac{1}{15}$

Page No. 155

1. 1. $1\frac{15}{49}$ 2. $\frac{5}{6}$ 3. 2 4. $\frac{5}{4}$ 5. $2\frac{2}{9}$ 6. $1\frac{1}{7}$
 7. $\frac{9}{20}$ 8. $2\frac{1}{4}$ 9. $1\frac{1}{8}$ 10. $4\frac{1}{6}$ 11. 12 12. $1\frac{3}{7}$
 2. 1. $\frac{1}{2}$ 2. $\frac{3}{4}$ 3. 10 4. 8 5. $\frac{3}{4}$

Page No. 156

2. 1. $\frac{1}{2}$ 2. $\frac{3}{4}$

Page No. 158 MCQ - IV

1. $\frac{1}{6}$ 2. $\frac{4}{9} \times \frac{1}{2}$ 3. 2kg 4. $10\frac{2}{3}$ 5. $\frac{7}{9}$
 6. $\frac{2}{8}$ 7. $\frac{7}{8}$ 8. 300 9. $7\frac{1}{2}$ 10. 24

UNIT 8**Page No. 161**

1. 1. .9 2. 2.7 3. .37 4. 1.45
 2. 1. zero point nine 2. zero point one seven
 3. four point three 4. twenty one point four five
 5. ten point zero seven five 6. seventy eight point one two
 7. five point eight six one 8. thirty four point four five eight
 3. 1. .3 2. 2.4 3. 41.98 4. .553
 5. 9.149 6. 81.092
 4. 1. 521.08 2. 39.471 3. 802.124

Page No. 162

1. 1. In fraction $80 + 6 + \frac{3}{10} + \frac{2}{100}$
 In decimal $80 + 6 + .3 + .02$
 2. In fraction $50 + 8 + \frac{4}{10} + \frac{1}{100}$
 In decimal $50 + 8 + .4 + .01$
 3. In fraction $4 + \frac{9}{10} + \frac{3}{100} + \frac{7}{1000}$
 In decimal $4 + .9 + .03 + .007$
 4. In fraction $10 + 6 + \frac{1}{10} + \frac{3}{100} + \frac{9}{1000}$
 In decimal $10 + 6 + .1 + .03 + .009$
 5. In fraction $200 + 60 + 4 + \frac{2}{10} + \frac{5}{100} + \frac{7}{1000}$
 In decimal $200 + 60 + 4 + .2 + .05 + .007$
 6. In fraction $600 + 40 + 2 + \frac{4}{10} + \frac{2}{100} + \frac{8}{1000}$
 In decimal $600 + 40 + 2 + .4 + .02 + .008$

2. 1. 129.1 2. 647.32 3. 408.134 4. 792.543
 3. 1. 45.723 2. 34.612 3. 456.725 4. 642.357

Page No. 164

1. 1. $\frac{7}{10}$ 2. $\frac{7}{100}$ 3. $\frac{101}{1000}$ 4. $\frac{3}{1000}$ 5. $\frac{75}{1000}$
 6. $1\frac{7}{10}$ 7. $\frac{274}{1000}$ 8. $14\frac{5}{100}$ 9. $5\frac{16}{100}$ 10. $17\frac{7}{1000}$
 11. $23\frac{158}{1000}$ 12. $20\frac{101}{1000}$

Page No. 165

2. 1. .09 2. .8 3. .32 4. .43 5. .002 6. .081
 7. 1.2 8. 3.005 9. 4.02 10. 5.81 11. 14.007 12. 13.126
 3. 1. 0.5 2. 0.75 3. 0.8 4. 0.45 5. 0.28
 6. 1.4 7. 3.16 8. 5.3
 1. 1. **.300** **.290** **.104** 2. **4.600** **7.910** **5.283**
 3. **1.290** **2.300** **2.143** 4. **0.600** **52.270** **7.836**
 5. **22.100** **20.090** **21.389** 6. **1.982** **1.200** **1.340**

Page No. 166

1. 1. .73 2. .07 3. .37 4. .362 5. .976 6. .063
 7. 1.7 8. 1.03 9. 1.52
 2. 1. .31 2. .452 3. .001 4. .7643 5. .013 6. 1.45

Page No. 168

1. 1. 18.196 2. 58.4494 3. 90.2229 4. 917.6875
 5. 855.4849 6. 255.8308 7. 83.182 8. 738.495
 9. 6668.2921 10. 237.9530
 2. 1. 29.135 2. 700.9 3. 517.33 4. 23.572

Magic Squares in Decimals

1. 1.5 0.9 1.8 2. **2.0** **2.1** 1.3
 1.3 1.4 **1.5** **1.1** 1.8 **2.5**
 1.4 **1.9** **0.9** **2.3** **1.5** **1.6**

Page No. 169

1. 1. 34.5766 2. 26.7490 3. 85.1634 4. 144. 5141
 5. 76.2744 6. 9.5655 7. 42.0893 8. 9.0001
 9. 331.58575 10. 1634.5
 2. 1. 4.53 2. 4.61 3. 19.7 4. 576305.04151

Page No. 170

3. 1. 734.25 2. 8.28 3. 22.472 4. 26.45
 5. a. 634.05 b. 72.75 c. 108

Puzzle

22.46

15.73

2.97; 0.13

Page No. 171

- | | | | | |
|---------------|-----------|-------------|-------------|-------------|
| 1. 1. 0.9 | 2. 0.35 | 3. 0.11 | 4. 2.5 | 5. 8.4 |
| 6. 4.4 | 7. 4.5 | 8. 0.012 | 9. 0.072 | |
| 2. 1. 39.42 | 2. 26.056 | 3. 70.015 | 4. 14.084 | 5. 198.08 |
| 6. 165.4984 | 7. 757.44 | 8. 6045.116 | 9. 5197.836 | 10. 0.01728 |
| 11. 207480.06 | | 12. 9.5 | | |

Page No. 173

- | | | | | |
|--------------|--------------|-------------|---------------|-----------|
| 1. 1. 6 | 2. 0.6 | 3. 0.73 | 4. 0.009 | 5. 35.7 |
| 6. 90.325 | 7. 7 | 8. 0.8 | 9. 0.09 | 10. 5.2 |
| 11. 790 | 12. 3700.8 | 13. 2 | 14. 1190 | 15. 23200 |
| 16. 6210.1 | | | | |
| 1. 1. 204.75 | 2. 34.335 | 3. 105.393 | 4. 593.664 | |
| 5. 18.9075 | 6. 162.4 | 7. 316.11 | 8. 112.566 | |
| 9. 336.2055 | 10. 726.0192 | 11. 295.775 | 12. 166.68716 | |

Page No. 174

- | | | | | |
|-------------|----------|----------|---------|-----------|
| 1. 1. 332.5 | 2. 103.5 | 3. 663.3 | 4. 97.5 | 5. 191.45 |
|-------------|----------|----------|---------|-----------|

Puzzle

$$(3.84 \times 5) + 4.48 = (4 \times 5.13) + 3.16$$

Page No. 175

- | | | | | |
|-----------|----------|-----------|-----------|-----------|
| 1. 1. 2.9 | 2. 1.6 | 3. 2.48 | 4. 12.78 | 5. 1.6 |
| 6. 1.3 | 7. 2.5 | 8. 0.22 | 9. 16.93 | 10. 7.47 |
| 11. 0.9 | 12. 0.45 | 13. 15.24 | 14. 16.97 | 15. 18.36 |

Page No. 176

- | | | | | |
|------------|--------------|------------|-------------|--------------|
| 1. 1. 006 | 2. 0.009 | 3. 0.635 | 4. 3.6823 | 5. 56.256 |
| 6. 0.039 | 7. 0.002 | 8. 0.00007 | 9. 4.853 | 10. 0.549 |
| 11. 0.0067 | 12. 59.3105 | 13. 0.0003 | 14. 0.00004 | 15. 0.000008 |
| 16. 0.3167 | 17. 0.038537 | | 18. 98.7654 | |

Page No. 178

- | | | | | |
|-------------|----------|---------|----------|----------|
| 1. 1. 8 | 2. 1.5 | 3. 0.54 | 4. 0.77 | 5. 3.07 |
| 6. 1.54 | | | | |
| 2. 1. 12.78 | 2. 16.93 | 3. 3.58 | 4. 16.97 | 5. 21 |
| 6. 36.1 | 7. 34.7 | 8. 6.24 | 9. 7.24 | |
| 3. 1. 4.25 | 2. 94.5 | 3. 700 | 4. 40.34 | 5. 49.19 |

Puzzle

$$(21.21 \div 7) \times 8 = (36.36 \div 9) \times 6$$

Page No. 179

1. 1. 58

6. 8
2. 1

7. 30
3. 12

8. 6
4. 3
5. 4
2. 1. 1.7

6. 4.3
2. 1.5

7. 3.8
3. 7.4

8. 3.7
4. 6.4
5. 5.2
3. 1. 48.29

6. 6.01
2. 2.98

7. 5.44
3. 8.00

8. 3.45
4. 17.07
5. 50.05
4. 1. 17, 9, 23, 5, 46
2. 17.0, 8.7, 23.1, 4.6, 46.5
3. 17.02, 8.70, 23.11, 4.63, 46.49

Page No. 181 MCQ - V

1. .93657

2. 8.30

3. .052>.0052

4. five thousandths
5. .0089

6. 0.62

7. 0.82

8. 750.28

9. $3\frac{7}{20}$
10. 117.33

UNIT 9

Page No. 183

2. 20

3. 25

4. 20

5. 10

6. 5
7. 25

8. 45

9. 95

Page No. 184

1. 20

2. Grade B

3. Grade E

4. 62 students

Page No. 185

1.

Students participated in Sports Day	
100 metre race	△ △ △ △
50 metre race	△ △ △ △ △ △
Frog race	△ △
Spoon & Lime race	△
High Jump	△ △ △
2.

Animals in the farm house	
Cows	⊗ ⊗ ⊗ ⊗ ^
Goats	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗
Pigs	⊗ ⊗ ⊗ ^
Hens	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗
Horses	⊗

Meals	
Burgers	☐ ☐ ☐ ☐ ☐
Pizza	☐ ☐ ☐ ☐
Dosa	☐ ☐ ☐ ☐ ☐ ☐
Idli	☐ ☐ ☐ ☐ ☐ ☐ ☐
Noodles	☐ ☐ ☐

1. Noodles 2. Idli 3. 8

Page No. 186

4. 1. 900 2. 1200 3. 200 4. Horror 5. Cartoon
5. 1. Saturday 2. Friday 3. 1675

Page No. 189

2. 1. Class V 2. Class II 3. 15 students
4. 5 students 5. 200 students
3. 1. Monday 2. Saturday 3. 40 4. 40 5. 370

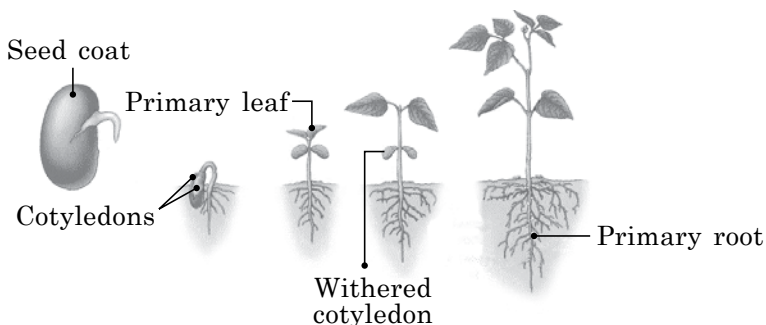
SUMMATIVE ASSESSMENT - 1

1. 1. product 2. 4 3. number system
4. improper fraction 5. common
2. 1. largest 4-digit number 2. $.052 > .0052$
3. 15 4. $\frac{2}{8}$ 5. $\frac{4}{9} \times \frac{1}{2}$
4. 1. $\times$ 2. $\times$ 3. $\times$
4. $\times$ 5. $\checkmark$
5. 1. 423013568, 421013568
2. 347361540, 367361540
6. 1. 80000000 2. 700000 3. 400000000
7. 1. 135193905 2. 237.9530 3. $\frac{31}{20}$
8. 1. 42.08930 2. $\frac{14}{8}$ 9. 1. 7.24 2. $\frac{9}{20}$
10. 1. $\frac{7}{9}, \frac{5}{6}, \frac{11}{12}$ 2. $\frac{2}{3}, \frac{3}{4}, \frac{7}{8}$
11. 1. 408.134 2. 456.725
12. 1. 43686 2. 864
13. 1. 9370361 2. $\frac{26}{17}$ 3. 0.01728
15. 360 16. 121
17. 1. August 2. 2200 3. May and October
4. March
18. 1. 40.34 2. 26.45 3. 3 litre
4. 46642525; In April by 39468703 5. 432

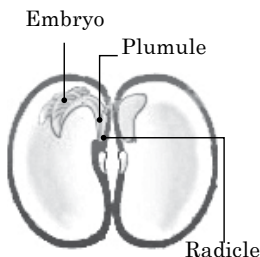
GENERAL SCIENCE

1. REPRODUCTION IN PLANTS

- A. 1. cotyledons 2. A 3. wind
 4. stem cutting
- B. 1. T 2. F 3. T
 4. T 5. F
- C. 1. plumule 2. air, water, warmth
 3. underground 4. wing 5. roots
- D.



- E. 1. c 2. a 3.d
 4. b
- F. 1. All living things grow and can produce young ones which usually resemble their parents. This is called reproduction. It takes place in plants through :
- * seeds
 - * vegetative parts such as roots, stems, leaves, etc.
 - * spores
2. The process of development of a seed into seedling is called germination. Air, water and warmth are the conditions necessary for germination.
- 3.



4. The seeds carried to places where the conditions for germination are favourable are known as dispersal of seeds.
5. Wind, water, animals and human beings are the various agents of dispersal.
6. Potatoes are grown through stems. Stems are cut into pieces and put into the soil, they give rise to new plants.
7. The different methods of reproduction in plants are :
 - * Vegetative Propagation through Roots
Sweet potato, asparagus are some examples.
 - * Vegetative Propagation through Stems
Potato, onion are some examples.
 - * Vegetative Propagation through Leaves
Begonia, bryophyllum are some examples.
 - * Vegetative Propagation through Stem Cuttings
Rose plant, sugarcane are some examples.
 - * Vegetative Propagation through Layering
Jasmine, lemon are some examples.
 - * Vegetative Propagation through Grafting
Mango, guava are some examples.
 - * Vegetative Propagation through Spores
Mould, mushroom are some examples.
8. Agriculture is necessary to provide food for large population directly or indirectly.
9. For healthy crops :
 - * Seeds must be healthy and ripe to yield good crops.
 - * Seeds must be sown in the right type of soil.
 - * Crops should be protected from insects, birds, rats etc. We should use pesticides to protect crops.
 - * Proper irrigation is necessary for growth of plants.
 - * Weeding or removal of unwanted plants should be done regularly.
 - * Harvested crops must be stored properly to avoid being spoilt by moisture or animals like rats and birds.
10. The crops that are grown from November to April are called rabi crops. These crops are sown in winter season. Wheat, barley, peas, and mustard are examples of rabi crops.
The crops that are grown from July to October are called kharif crops. These crops are sown in rainy season. Millet, rice, maize and sugarcane are examples of kharif crops.

Think and write

1. Some seeds stick to your clothes when you pass across a field because they have curved hooks, tiny barbs, spines and stiff hair or even a sticky coating.

2. ANIMALS – LIFESTYLE

- A. 1. feathers 2. tortoise 3. herbivores
4. gills 5. Arctic tern
- B. 1. Camel, Hedgehog 2. Frog, Toad, 3. Crow, Bear
4. Lizard, Tortoise 5. Butterfly, Grasshoppers
- C. 1. T 2. F 3. T
4. T 5. T
- D. 1. forest 2. flippers 3. fur
4. omnivore 5. air holes
- E. 1. A habitat is important for animals because the habitat of an animal provides it food, shelter and suitable conditions to live. Different animals need different conditions to live and have chosen different habitats for themselves.
2. Desert animals have thick skin to avoid water loss through sweating. They have special features to adapt themselves to live in desert.
3. Feathers help birds to keep heat in and water out. They provide insulation and help maintain body temperature.
4. Animals in polar regions have thick fur and a layer of fat under their skin to keep themselves warm.
5. Animals that eat only flesh and meat of other animals are called carnivores. Lion, tiger, leopard and wolf are some carnivorous animals.
6. Human beings have two lungs inside their chest. Air enters through the nostrils. From there, it passes into the wind-pipe and then into the lungs. In the lungs, the oxygen of the air passes into the blood and it is then carried to the whole body.
7. Aquatic animals have fins or flippers that help them to swim. Fish, whale and dolphin have fins which help them to move forward and to keep balance and sea lion, turtle, penguin and seal have flippers which help them for paddling in water.
8. Annual journey of animals in search of suitable weather conditions is called migration. Some popular birds which migrate to India from Siberia (Russia) are painted storks, siberian cranes, flamingos, night heron and mallard duck.

3. FOOD, HEALTH AND HYGIENE

- A. 1. water 2. fats 3. goitre
4. air-borne 5. rest
- B. 1. Proteins 2. Roughage 3. Deficiency disease
4. Diarrhoea 5. Rickets
- C. 1. c 2. e 3. d
4. b 5. a
- D. 1. Goitre 2. Night blindness 3. Rickets
- E. 1. We need food to stay alive. The five main nutrients that our body requires are carbohydrates, fats, proteins, vitamins and minerals.
2. Minerals help in strengthening the bones formation of teeth, blood and maintaining a normal heart beat.
3. Water is very important for all of us because it helps the body cells to do their work. It aids digestion and takes the nutrients from the food to the different cells of the body. It keeps our body temperature constant. It also helps to remove the waste products from the body as urine.
4. A meal which includes all the nutrients in adequate and appropriate amount is called a balanced meal or diet. It contains carbohydrates, fats, proteins, vitamins and minerals together with roughage and water.
5. Diseases that spread from an infected person to another are known as communicable diseases.
Non-communicable diseases do not spread from person to person. These diseases are present at birth while some others are caused by lack of a particular nutrient in the diet. They are also called deficiency diseases.
6. A disease caused by consuming contaminated food or drink is called food-borne disease. It usually spreads from person to person. Flies and dust are big carriers of germs of diseases. Flies sit on food items and leave germs on them. Similarly, dust particles also contain germs. When a healthy person eats these food items, the person falls ill.
7. Diseases spread by vectors such as houseflies, mosquitoes, and cockroaches are known as vector-borne diseases like malaria and dengue.
8. We can prevent communicable diseases through vaccination.
9. We can maintain proper hygiene by the following ways :
- * Wash your hands thoroughly with soap after using the toilets.
 - * Wash your hands with soap before and after having your meals.

- * Take a bath daily to remove sweat, dust and germs from the body.
 - * Rinse your eyes with cold water while bathing.
 - * Brush your teeth twice a day.
 - * Trim your nails regularly.
 - * Cleaning the tongue with a tongue cleaner helps prevent bad breath.
10. A good posture is necessary for body because it gives a smart look to our body and prevents problems such as back ache, muscular pain and strain.

4. HUMAN BODY SYSTEM

- A. 1. tissues 2. biggest 3. thirty-three
 4. gliding 5. heart
- B. 1. T 2. F 3. T
 4. T 5. T 6. F
- C. 1. Ribcage 2. Skull 3. Shoulder girdle
 4. Backbone
- D. 1. Various organs of the body work together to make up an organ system. Different organ systems are-
- * Respiratory System * Skeletal System
 - * Muscular System * Digestive System
 - * Circulatory System * Nervous System
 - * Excretory System * Reproductive System
2. The skeletal system is important to us because it provides the framework for the body and protects delicate internal organs.
3. A soft and spongy matter found inside the bone is called bone marrow. Bone marrow is the body's factory for producing red blood cells and it also stores fat.
4. The ribcage is made up of 12 pairs of curved bones called the *ribs*. It protects the heart, lungs and liver. The first seven pairs of ribs are attached to the front to the *sternum*, a strong bone in the centre of the chest that holds the ribs in place. The next three pairs are held on with the *cartilage* to the ribs above them. The last two sets of ribs are called *floating* as they are not connected to the sternum or the ribs above them. But they do not float freely. They are securely attached to the spine in the back.



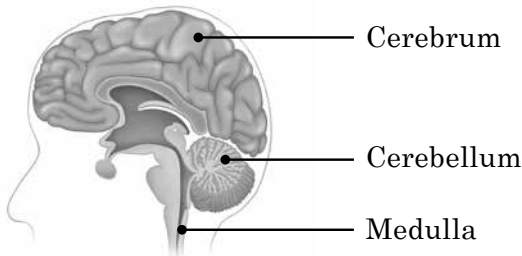
5. An elastic tissue called *cartilage* is present between the bones, at the joint, to prevent the bones from rubbing against each other.
6. Hinge Joint for ex. elbow, knee, fingers
Ball-and-socket Joint for ex. arms and legs
Pivot Joint for ex. head and the neck
Gliding Joints for ex. wrist and ankles
7. Muscles give shape to the flesh and beauty to the body. Also, they help in the movement of the bones.
8. (a) Bones in the spine are called *vertebrae*.
(b) Strong cord like tissues that connect bones are called *tendons*.
(c) Bones at the joints are joined together by a strong tissue known as *ligament*.

5. NERVOUS SYSTEM

- A. 1. cerebrum 2. cerebellum 3. sense organs
4. skin
- B. 1. b 2. c 3. a
- C. 1. Sensory nerves 2. Voluntary 3. outer
4. Skin 5. eyelid
- D. 1. The nervous system is the control centre of the body, working continuously to keep us alert and healthy.
2. Brain, spinal cord and nerves are the different parts of the nervous system.
3. The three parts of the brain are :
Cerebrum : It is responsible for thinking, reasoning, memory and for voluntary muscle movement.
Cerebellum : It controls *motor* movement, coordination, balance, equilibrium and muscle tone.
Medulla : It controls all the body functions, that are required for us to stay alive, like breathing air, digesting food and circulating blood.
4. The two kinds of nerves are :
Sensory nerves : The nerves that *carry* messages from the sense organs to the spinal cord and to the brain are called sensory nerves.
Motor nerves : The nerves that *convey* orders of the brain to muscles and other parts of the body are called motor nerves.
5. The action under the control of the will is known as voluntary action.
The action not under the control of the will is known as involuntary action.

6. The eyes are the *organs of sight*. The front part of the eye is called *cornea*. The outer surface of cornea is convex in shape. The light coming from objects enter the eye through cornea. Just behind the cornea is the *iris*. There is a hole in the middle of the iris, called *pupil* of the eye. The screen, on which the image is formed in the eye is called *retina*. The image formed on the retina is conveyed to the brain by the optic nerve and gives rise to the sensation of vision.
7. The tongue gives us *sense of taste*. There are tiny taste buds situated in different regions of the tongue which help in tasting different things. These taste buds can be grouped into four basic tastes that our tongue can detect. The four basic tastes are sweet, salty, sour and bitter. These taste buds contain the ends of nerves. The taste messages are sent to the brain through these nerves.

E.



6. SAFETY AND FIRST AID

- | | | |
|------------------------|---------|-----------|
| A. 1. school ahead | 2. b | 3. rabies |
| 4. support it by sling | 5. sand | |
| B. 1. T | 2. F | 3. F |
| 4. F | 5. T | |
- C. 1. We should not wear synthetic clothes in the kitchen because they can catch fire easily.
 2. An anti-rabies injection is necessary to treat animal bites immediately because the saliva of these animals enters the skin of the victim and can cause rabies.
 3. A bandage is tied tightly above the snake bite at once because it will slow down the flow of the infected blood towards the blood.
- D. 1. We can avoid accidents by being careful and by following certain rules.
 2. We should follow the road signs to avoid accidents and to keep ourselves safe.

3. First aid saves the life of a victim and helps the victim recover fast. It helps the victim's condition from becoming more serious during his/her transportation to a hospital.
4. Small cuts can be treated with tincture of iodine.
5. The victim must be made to sit down on a chair with the head held back. An ice pack should be applied on the nose to stop bleeding.
6. It is very necessary to treat animal bites immediately as the saliva of these animals enters the skin of the victim which can cause rabies.

7. ROCKS, MINERALS AND SOIL

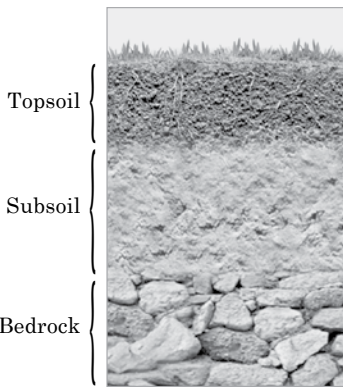
- A. 1. pumice 2. refineries 3. sun
 4. topsoil 5. bedrock
- B. 1. Granite, Pumice 2. Sandstone, Shale
 3. Marble, Slate 4. Coal, Petroleum
 5. Coal, Petroleum 6. Weathered rock, Decayed Plant
- C. 1. b 2. d 3. e
 4. f 5. a 6. c
- D. 1. Igneous rocks were the first rocks to form on the earth. They were formed either underground or above ground. They were formed underground when the melted rock deep within the earth, called *magma*, became trapped in small pockets. These pockets of magma cooled slowly and became igneous rocks. Igneous rocks were also formed when *volcanoes erupted*, causing the magma to rise above the earth's surface.
2. Sedimentary rocks are formed by the deposition of sediments brought by rivers and winds. Sandstone, shale, limestone and conglomerate are examples of sedimentary rocks.
3. The two types of minerals are metallic and non-metallic. Metallic minerals contain *metals*. Metals are hard substances with lustre or shine. Gold, iron, silver, copper are important metallic minerals.
 Non-metallic minerals contain *no metals*. Potassium, phosphorus, limestone, mica, oil, coal and petroleum are important non-metallic minerals.
4. Fossil fuels are formed from the remains of *living things* which once flourished on the planet, but died and got buried under thick layers of younger rocks.

5. Natural Gas is a clean fuel. It causes less pollution than petrol and diesel. It does not give out any smoke and can burn completely. Nowadays it is used in automobile vehicles.
6. If we use mineral resources too fast and carelessly there will be great scarcity of these resources. So, we must use them carefully and economically.

7. The uppermost layer is called topsoil. It is the most fertile layer that contains sand, clay, water, air and above all humus that makes it suitable for the growth of plants.

The layer below the topsoil is called subsoil. It contains pieces of rocks. It has water but less humus. Some roots go deep down into this layer.

The lowermost layer is called bedrock. It contains still larger pieces of rocks. It has very little water. This layer is very deep down the earth.



Layers of Soil

SUMMATIVE ASSESSMENT - 1

- | | | |
|--|-----------------|---------------|
| A. 1. refineries | 2. school ahead | 3. cerebellum |
| 4. thirty-three | 5. gills | |
| B. 1. Sensory nerves | 2. gliding | 3. wing |
| 4. underground | 5. air holes | |
| C. 1. T | 2. T | 3. T |
| 4. T | 5. F | |
| D. 1. Bones in the spine are called vertebrae. | | |
| 2. The nerves that carry messages from the sense organs to the spinal cord and to the brain are called sensory nerves. | | |
| 3. A meal which includes all the nutrients in adequate and appropriate amount is called a balanced meal or diet. | | |
| 4. Strong cord like tissues that connect bones are called tendons. | | |
| 5. Diseases that spread from an infected person to another are known as communicable diseases. | | |
| E. 1. Granite, Pumice | | |
| 2. Coal, Petroleum | | |
| 3. Milkweed, drumstick | | |
| 4. Mango, guava | | |
| 5. Lizard, Tortoise | | |

- Mould, mushroom are some examples.

SOCIAL STUDIES

1. CONTINENTS AND OCEANS

- A. 1. continents 2. oceans 3. Pacific
4. Suez 5. Isthmus of Panama
- B. 1. Asia 2. Nile 3. Africa
4. Atlantic 5. Pacific
- C. 1. Australia 2. Pacific Ocean 3. Arctic Ocean
4. Antarctica 5. Australia
- D. 1. Asia, Africa, North America, South America, Antarctica, Europe and Australia are the names of continents of the world.
2. The Pacific Ocean, the Atlantic Ocean, the Indian Ocean, the Antarctic Ocean and the Arctic Ocean are the names of oceans of the world.
3. The continent Asia has the largest population.
4. Antarctica is called Frozen Continent because it is permanently covered with thick ice sheets.
5. The two important parts of the Indian Ocean are the Arabian Sea and the Bay of Bengal.

2. LATITUDES AND LONGITUDES

- A. 1. equator 2. latitude 3. equator
4. parallels 5. Hemisphere
- B. 1. 0° latitude 2. 180° 3. 360
4. 23½°N 5. 23½°S
- C. 1. The important latitudes are :
a. The Tropic of Cancer
b. The Tropic of Capricorn
c. The Arctic Circle
d. The Antarctic Circle
2. The equator is the other name for latitude line at 0 degree.
3. The line which passes through Greenwich, near London, is called Prime Meridian.
4. The imaginary circular lines parallel to the equator running east-west around the globe are called latitudes.
The imaginary semi-circular lines joining the North Pole and the South Pole are called lines of longitudes.

5. Latitudes - Northern Hemisphere and Southern Hemisphere
 Longitudes - Eastern Hemisphere and Western Hemisphere

3. MOVEMENTS OF THE EARTH

- A. 1. rotation, revolution 2. axis
 3. orbit 4. Japan 5. seasons
- B. 1. orbit 2. elliptical 3. 29 days
 4. equal day and night 5. longest day
- C. 1. d 2. c 3. e
 4. a 5. b
- D. 1. F 2. F 3. F
 4. T 5. F
- E. 1. Day and night are caused by the earth's rotation. The earth spins on its axis from west to east once in 24 hours. This movement of the earth is called rotation. The part of the earth which faces the sun has day. While the part of the earth away from the sun, has night.
2. Seasons are caused by the effect of revolution of the earth around the sun. It is due to the tilting of the earth's axis.
3. A year, occurring once every four years, which has 366 days including 29 days in February is called a leap year.
4. An equinox occurs twice a year when the earth's axis has no tilt, so the sunlight hits the earth evenly at the equator and day and night are of equal length.
5. Days and nights are equal on September 22 or 23 and on March 21 or 22.

4. HEAT ZONES OF THE EARTH

- A. 1. Climate 2. poles 3. moderate
 4. humidity 5. torrid
- B. 1. Equator 2. $23\frac{1}{2}^{\circ}\text{N}$ - $66\frac{1}{2}^{\circ}\text{N}$
 3. $23\frac{1}{2}^{\circ}\text{N}$ - $23\frac{1}{2}^{\circ}\text{S}$ 4. decreases 5. thinner
- C. 1. c 2. a 3. e
 4. b 5. d
- D. 1. Latitude, altitude, distance from the sea, humidity and wind are the factors that affect the climate of a place.
2. The sun rays fall almost vertically throughout the year over the equator. So equator is very hot.
 The slanting sun rays spread over a larger surface of the earth specially near the areas of the poles throughout the year. So poles areas are very cold.

3. Humidity is the amount of moisture or water vapour present in the air. The humidity causes sweat or perspiration.
4. The hot or torrid zone, the temperate zone and the frigid zone are three heat zones of the earth.
5. The temperate zone is found in both the hemispheres. The north temperate zone lies between the Tropic of Cancer ($23\frac{1}{2}^{\circ}\text{N}$) and the Arctic Circle ($66\frac{1}{2}^{\circ}\text{N}$) in the Northern Hemisphere. The south temperate zone lies between the Tropic of Capricorn ($23\frac{1}{2}^{\circ}\text{S}$) and the Antarctic Circle ($66\frac{1}{2}^{\circ}\text{S}$) in the Southern Hemisphere.

5. INDIA WINS FREEDOM

- A. 1. Bahadur Shah Zafar
3. Khilafat 4. 1942 2. 1857
5. Pakistan
- B. 1. Bal Gangadhar Tilak
3. Sardar Vallabhbhai Patel
4. Lord Mountbatten
5. at midnight of August 14, 1947 2. A.O. Hume
- C. 1. c 2. d 3. a
4. e 5. b
- D. 1. T 2. F 3. T
4. T 5. T
- E. 1. The Battle of Plassy was fought in 1757. Siraj-ud-Daula fought it and was defeated by the British.
2. The main cause of the Revolt of 1857 was a wide spread discontent with the British rulers.
3. The Indian National Congress was formed to establish an All India Organisation for the betterment of India.
4. The British rulers opened fire in Jallianwala Bagh at a crowd gathered for a meeting on April 13, 1919 on Baisakhi day at Amritsar. Thousands of people were killed. The news of the oppression spread like wild fire.
5. India became independent at the midnight of August 14, 1947.

6. THEY SHOWED US THE PATH

- A. 1. Manu
2. Subhash Chandra Bose
3. October 2, 1869
4. Bal Gangadhar Tilak
5. Subhash Chandra Bose
- B. 1. Subhash Chandra Bose
2. Subhash Chandra Bose
3. Bal Gangadhar Tilak
4. Sardar Vallabhbhai Patel
5. Mahatma Gandhi

- C. 1. T 2. F 3. F
4. T 5. T
- D. 1. Kesari and Maharatta were the names of two weeklies, started by Bal Gangadhar Tilak.
2. INA (Indian National Army) was founded by Subhash Chandra Bose. It was formed to fight against British empire for independence.
3. Netaji Subhash Chandra Bose formed Rani Jhansi Battalion.
4. The two factions of Indian National Congress were Garam Dal (Hot Faction) and Naram Dal (Soft Faction)
5. Sardar Vallabhbhai Patel convinced the princely states to merge into the Union of India.

7. INDIA AND ITS NEIGHBOURS

- A.
- | | | |
|----------|-------------|--------------|
| 1. eight | 2. Pakistan | 3. Sri Lanka |
| 4. Taka | 5. Burmese | |
- B.
- | | | |
|-------------|---------|----------|
| 1. 1947 | 2. Yuan | 3. North |
| 4. Dzongkha | 5. Kyat | |
- C.
- | | | |
|------|------|------|
| 1. d | 2. a | 3. f |
| 4. b | 5. c | 6. e |
- D.
1. The neighbouring countries are Pakistan, Afghanistan, Sri Lanka, Bangladesh, Myanmar, Bhutan, Nepal and China.
 2. SAARAC stands for South Asian Association for Regional Cooperation.
 3. Kathmandu is the capital of Nepal. The official language of Nepal is Nepali. The currency of Nepal is Nepalese Rupee.
 4. China has the highest population in the world while Bhutan has the lowest.
 5. China has the largest area while Bhutan is the smallest.

8. OUR RIGHTS AND DUTIES

- A. 1. August 15, 1947 2. 26th January 1950
3. rights 4. caste, creed, religion or sex
5. duties
- B. 1. to choose their government
2. all people are equal before the law
3. to set up their own educational institutions
- C. 1. T 2. F 3. T
4. T 5. F
- D. 1. Democracy, Socialism, Secularism and National Integration are the goals as laid down by our constitution, to be achieved by our nation.

2. The right to freedom includes the rights to -
 - a. freedom of speech and expression.
 - b. form association.
 - c. assemble and hold peaceful public meetings.
 - d. move freely and reside in any part of the country.
 - e. practise any profession, occupation or business.
3. This right allows Indian citizens to practise, profess and propagate the religion of their choice.
4. Young boys and girls should join the Defence Forces of the country to stand if any kind of exploitation from other nations i.e. to defend freedom of our country.
5. We should keep our environment clean because it is our fundamental duty to protect natural environment and help it making better for living beings.

9. CONCERN FOR POLLUTION

- | | | |
|-----------------------|-------------------|---------|
| A. 1. environment | 2. pollutants | 3. air |
| 4. ozone | 5. fertility | |
| B. 1. carbon monoxide | 2. jaundice | 3. soil |
| 4. noise | 5. carbon dioxide | |
| C. 1. T | 2. F | 3. T |
| 4. T | 5. T | |
| D. 1. b | 2. c | 3. e |
| 4. a | 5. d | |
- E. 1. The addition of harmful substances to the environment is called pollution.
 2. The various sources of air pollution are -
 - a. smoke from domestic sources.
 - b. poisonous gases released from automobiles and jet planes.
 - c. poisonous gases released from factories, petroleum refineries and coal burning power plants.
 3. Excessive smoke from different sources increases the amount of carbon dioxide in the air. This carbon dioxide does not allow the heat escape from the earth. This causes an increase in the earth's temperature. This is called global warming.
 4. Ozone layer is important for us because it protects us from the harmful ultraviolet rays of the sun.
 5. Important causes of noise pollution are -
 - a. Noise from motor vehicles and car horns.
 - b. Noise from musical instruments.
 - c. Noise from low flying aircraft.
 - d. Noise from barking animals.

- e. Noise from loudspeakers.
- f. Noise from audio instruments.
- g. Noise created by people.

10. PROTECTING THE ENVIRONMENT

- A. 1. Biodegradable 2. liquid 3. Recycling
 4. polluting 5. waste
- B. 1. biodegradable 2. reduces soil erosion
 3. leftover food 4. paper 5. liquid
- C. 1. F 2. T 3. F
 4. T 5. T
- D. 1. Waste is anything that is no longer needed for use.
 2. Biodegradable waste decomposes easily and mixes up with the soil. For ex. vegetable and fruit peels, waste paper, etc.
 Non-biodegradable waste does not decompose and thus pollutes the environment. For ex. plastic, glass, etc.
 3. The simplest way to control the waste material lies in the three R's - Reduce, Reuse and Recycle.
 4. Glass, metals like aluminium, iron, paper and plastic are some common materials that can be recycled.
 5. Waste generated by burning of things like petrol, diesel, kerosene etc. is called gaseous waste. It pollute the air and causes harm to living and non-living things.

11. NATURAL DISASTERS

- A. 1. disaster 2. epicentre 3. Floods
 4. magma 5. drought
- B. 1. focus 2. earthquake
 3. cannot be predicted 4. active volcano
 5. flood
- C. 1. e 2. d 3. c
 4. a 5. b
- D. 1. T 2. T 3. T
 4. F 5. T
- E. 1. Earthquakes are caused due to internal pressure inside the earth. The crust of the earth is made up of hard rock and the mantle is mainly lava on which the crust is floating. It is believed that the earth is divided into plates which are floating on the mantle. When two floating plates collide, the vibrations or tremors in the earth's crust occur. These sudden and devastating vibrations cause earthquakes.

2. Flood occurs when water flows or rises above and beyond its natural course and covers land that is normally dry. Floods are very harmful. They destroy crops, houses and other properties and even carry off the topsoil leaving the land barren.
3. Tsunami cannot be prevented or predicted but there are some warning signs and many systems have been developed to reduce the damage from tsunami.
 - * Many animals sense danger and flee to higher grounds before tsunami.
 - * Tree plantation along the coastline could offer a much cheaper and longer lasting means of tsunami control.
4. The three types of volcanoes are -
 - a. Active Volcanoes
The volcanoes that erupted recently and probably going to erupt again soon are called active volcanoes.
 - b. Dormant Volcanoes
The volcanoes that are quiet for many years and may erupt again are called dormant or sleeping volcanoes.
 - c. Extinct Volcanoes
The volcanoes that have not erupted for the last 10000 years and are not expected to erupt again are called extinct or dead volcanoes.
5. The causes of drought are -
 - a. cutting down trees.
 - b. not taking care of ponds and tanks.
 - c. drawing out too much ground water.

The effects of drought -
Drought leads farmers to starvation. Plants and animals also die due to less or no rain.

SUMMATIVE ASSESSMENT - 1

- | | | |
|--|-------------------------------|-------------------|
| A. 1. earthquake | 2. Lord Mountbatten | 3. carbon dioxide |
| 4. $23\frac{1}{2}^{\circ}\text{N}$ - $66\frac{1}{2}^{\circ}\text{N}$ | 5. to choose their government | |
| B. 1. continents | 2. Hemisphere | 3. Khilafat |
| 4. caste, creed, religion or sex | 5. waste | |
| C. 1. F | 2. F | 3. T |
| 4. T | 5. T | |
- D. 1. Biodegradable waste decomposes easily and mixes up with the soil. For ex. vegetable and fruit peels, waste paper, etc.
Non-biodegradable waste does not decompose and thus pollutes the environment. For ex. plastic, glass, etc.

2. The imaginary circular lines parallel to the equator running east-west around the globe are called latitudes.
The imaginary semi-circular lines joining the North Pole and the South Pole are called lines of longitudes.
 3. Day and night are caused by the earth's rotation. The earth spins on its axis from west to east once in 24 hours. This movement of the earth is called rotation. The part of the earth which faces the sun has day. While the part of the earth away from the sun, has night.
Seasons are caused by the effect of revolution of the earth around the sun. It is due to the tilting of the earth's axis.
- E. 1. air pollution 2. water pollution 3. noise pollution
4. soil pollution
- F. 1. d 2. c 3. b 4. a
- G. India China Nepal Sri Lanka
- H. 1. The line which passes through Greenwich, near London, is called Prime Meridian.
2. Humidity is the amount of moisture or water vapour present in the air. The humidity causes sweat or perspiration.
 3. Excessive smoke from different sources increases the amount of carbon dioxide in the air. This carbon dioxide does not allow the heat escape from the earth. This causes an increase in the earth's temperature. This is called global warming.
- I. 1. Tsunami cannot be prevented or predicted but there are some warning signs and many systems have been developed to reduce the damage from tsunami.
- * Many animals sense danger and flee to higher grounds before tsunami.
 - * Tree plantation along the coastline could offer a much cheaper and longer lasting means of tsunami control.
2. The British rulers opened fire in Jallianwala Bagh at a crowd gathered for a meeting on April 13, 1919 on Baisakhi day at Amritsar. Thousands of people were killed. The news of the oppression spread like wild fire.
 3. Ozone layer is important for us because it protects us from the harmful ultraviolet rays of the sun.
 4. Latitude, altitude, distance from the sea, humidity and wind are the factors that affect the climate of a place.
 5. Democracy, Socialism, Secularism and National Integration are the goals as laid down by our constitution, to be achieved by our nation.