BRAIN BUILDER Series

Reduce Bag
Term Book

Teacher's Manual

Class IV

Vidyalaya Prakashan
(Publishers of Quality Educational Books)
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Vidyalaya Prakashan

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Semester – I

English

Lesson – 1 : The Talking Tiger

Comprehension

1. (a) (i) (b) (i) (c) (ii)
   (d) (i)
2. (a) A tiger whisper, "Where are you going?"
   (b) I shall do nothing but walking.
   (c) A talking tiger never bites.
   (d) A tiger never fights who walks.
   (e) If you find he is a bore, I would go my home.

Word Knowledge

1. going door
   walking fights
   Talk keep
   biter do
2. reply house
   near shutter
   fedup cut
   struggle close
3. (b) playing (c) sleeping (d) laughing
   (e) drinking (f) lowing (g) eating
   (h) flying

Grammar Skill

1. (a) She is working hard to pass the examination.
   (b) He is playing in the field.
   (c) We are learning our lessons.
   (d) The fisherman is catching the fish.
   (e) The sun is rising in the sky.
2. going walking doing
   hearing playing gliding
   finding speaking

3. (a) pack (b) crowd (c) team
(d) herd (e) shoal (f) hive

Composition

We see a black dog in the picture. He is on the plank bridge of a water channel. It has a chapati in its mouth. His looks his image in the water. He takes it another dog. He opens his mouth to bark at his image. The chapati fell into the water. The dog began to repent.

Lesson – 2 : My Ideal Village

Comprehension

1. (a) (iii) (b) (i) (c) (i)
(d) (ii) (e) (iii)
2. (a) Amit and Mohit read in DAV Public School, Allahabad.
(b) Haripur is located in Rampur district in U.P.
(c) Amit went to Mohit's village in Dussehra holidays.
(d) Mohit gets fresh milk from his cow and vegetables from his farmhouse.
(e) The weekly market is held at Haripur on Sunday.
(f) No, there is no cinema house in Mohit's village.
(g) The modern tools which are used by farmers of Haripur village are harrow, tiller, seed drill etc.

Word Knowledge

1. (a) little (b) clever (c) sweet
(d) sour (e) deep
2. (a) play (b) go (c) are
(d) get (e) see (f) plough
3. (a) true (b) false (c) true
(d) false (e) true

Grammar Skill

1. (a) From where do villagers buy things of their daily use?
(b) Who plough their fields with tractors?
(c) When did Mohit go to his village?

(d) Who liked the village life very much?

(e) In which district is Haripur located?

2.

A	B
He is very curious	to know about a village
What is	that man doing with sugar canes?
We have	cows and buffaloes that give us fresh milk
There is a small	government dispensary in my village
No, the people	buy things from the weekly market.

3. (a) some (b) any (c) some

(d) some (e) any (f) any

Composition

Dear friend Sudhir,

Last month I went on a journey to South India. I reached Chennai with my parents in the early morning by aeroplane. After taking breakfast, we got ready to reach the Marine Beach. It is located near the Bay of Bengal. The water of the sea was full of waves. People with their children were enjoying picnic there. Stalls of sea-foods and products were crowded with customers. From there we went to see the temples of Meenakshi at Madurai and Rameshwaram. The temples were decorated and minar like structures were of special styles.

It was very difficult to get North Indian food in South India. So we also ate South Indian food like sambhar, idle, dosa, rice and drink coconut water.

Lesson – 3 : The Journey By Train

Comprehension

1. (a) (iv) (b) (iv)

(c) (iii) (d) (ii)

2. (a) The boys started their railway journey from Meerut.

(b) Ravi, Rohit, Karim and Wilson are going on journey.

(c) Karim bought tickets and he bought four tickets.

(d) The train arrived at the platform at half past eleven.
(e) The kempty falls is in Mussoorie.
(f) Karim and Willson helped the old lady.

3. (a) Ravi (b) Rohit (c) Wilson
(d) Rohit (e) Rohit (f) Karim
(g) Passenger

Word Knowledge

1. Saved winter selling
depart buyer easy decrease
2. (a) platform (b) stall (c) vendor
(d) signal (e) booking window

Grammar Skill

1. (b) The scale will weigh the luggage.
(c) The train has arrived at the platform.
(d) The bus will depart at 5a.m.
(e) I bought a cap to tea from the vendor.
(f) Railway time-table can be purchased from the book-stall.
2. (a) Which ticket is yours?
(b) Which box is ours?
(c) Which suitcase is his?
(d) Which luggage was yours?
(e) Which bangles are hers?
3. (a) annual (b) Karim (c) arrive
(d) book
4. (a) true (b) false (c) false
(d) true (e) true

Composition

Ravi, Rohit, Karim and Wilson are also going from Meerut to Dehradun. He is at the booking window. Please give me two hundred rupees. They are at the fruit stall. It is about to half past eleven. It is Meerut Cantt. They helped the old lady in getting down her luggage.

Lesson – 4 : Udaipur : The City of Lakes

Comprehension

1. (a) (i) (b) (i)
   (c) (iii) (d) (i)
2. (a) Udai Singh was the Maharana and he founded the city in 1567.
   (b) Udaipur comprises of lakes and polaces.
   (c) The Pichhola lake measuring about 12 sq km is on the south west of Uadipur and other three sides are surrounded by a high wall.
   (d) Maharana Jagat Singh-II got built the lake Palace on four acre in the Pichhola lake which was his summer resort.
   (e) The city Palace is the largest palace of Rajasthan which was built in the 16th century in white marble.
   (f) Three storeyed Jag Mandir palace is situated on another island on the south of pichhola lake has a circular home of yellow sand stone.
   (g) Saheliyon-ki-bari is a beautiful garden to the northeast side of fateh sagar with beautiful buildings inside it.
   (h) Maharana Pratap Memorial is located on east side of Fateh Sagar on Moti hill. On a white marble platform, the bronze statue of Maharana Pratap on the back of his famous horse Chetak is placed on the top of the hill.

Word Knowledge

1. (a) oasis (b) Udai Singh (c) Jagat Singh-I
   (d) Jai Singh (e) eastern (f) hill
2. closing always
   useless discomfortable
   softly hearable
   uninterested superior

Grammar Skill

1. bigger biggest
   smaller smallest

worst	worst	
stronger	strongest	
weaker	weakest	
wiser	wisest	
more brilliant	most brilliant	
more beautiful	most beautiful	
cleverer	cleverest	

2. (b) negative (c) negative (d) interrogative
   (e) exclamatory
3. (a) true (b) true (c) true
   (d) true (e) false

Lesson – 5 : Cradle Song

Comprehension

1. (a) (iii) (b) (i) (c) (i)
   (d) (iii)
2. (a) From groves of spices, over the fields of rice, a thwart the lotus steam.
   (b) Rice crops are described.
   (c) Through the fairy neem and poppy bole.
   (d) The poetess wants to steal and little lovely dream.
   (e) The stars are gleaming around the child.
   (f) The poetess wish to press a sweet lovely dream.

Grammar Skill

1.	better	best
	worst	worst
	less	least
	more	most
	more	most
	later	latest
	older	oldest
2.	Intelligent	simple
	sharp minded	sincere
	vision	handover
	unfresh	base

guass tell

attempt purpose

3.

	Subject	Object
(a)	We	chess
(b)	He	a ghost in the old house
(c)	the train	the station at 7 a.m.
(d)	The beautiful bird	a sweet song
(e)	The students	a very long race
(f)	The lion	a rabbit last night

Composition

Do Yourself

Lesson – 6 : The Lazy Ones

Comprehension

1. (a) (iii) (b) (i) (c) (iii)
   (d) (iii)
2. (a) The king lived in a palace located on the bank of a river.
   (b) He was very sad due to his lazy subjects.
   (c) He saw rubbish, stone pieces, garbage and rotten things lying on the way.
   (d) He determined to awake his people and teach him a lesson.
   (e) He put the bag into a pit.
   (f) The king and the minister.
   (g) The man was not least disturbed to see the stone in the middle of the road and he escaped his cart from it easily.
   (h) Because the people were lazy.

Word Knowledge

1. (b) cart-man (c) elephant-rider (d) sailor
   (e) sledger (f) driver
2. (a) poisonous (b) cold (c) strong
   (d) intelligent (e) tasty

Grammar Skill

1. (a) I caught cold since I have no woollen clothes.
   (b) You will not disturb me because I am tired.
   (c) We ran to a house since it was raining heavily.
   (d) Make haste otherwise you will miss the train.
   (e) Ravi is my friend so I shall help him.
2. (a) of (b) with (c) under
   (d) of (e) with
3. (a) river (b) sad (c) pit
   (d) servant (e) bag (f) stone

Composition

Do yourself

Lesson – 7 : The Greedy Boy

Comprehension

1. (a) (iii) (b) (i) (c) (i)
2. (a) Sammy Smith.
   (b) He was a greedy boy.
   (c) To buy apples, cake or plum.
   (d) Greedy Sam.

Word Knowledge

2. new hot night
   wrong reject dark

Grammar Skill

1. (a) sleep (b) wake
   (c) go (d) study
   (e) reach the platform
   (f) make him sleep
2. (a) instead of (b) instead of
   (c) instead of (d) besides
   (e) besides (f) instead of

Composition

Do yourself

Lesson – 8 : Meera Bai

Comprehension

1. (a) (i) Ratan Singh of Mewar (b) (i) Rajasthan
   (c) (iii) Vishnu (d) (iii) husband
   (e) (i) Lord Krishan (f) (i) sister-in-law
2. (a) Meera Bai was the daughter of Ratan Singh of Mewar.
   (b) She was brought up by her grandfather Raduda.
   (c) Raduda was the devotee of God Vishnu. He was a man of religious mind and spent most of his time in the devotion of God.
   (d) Meera Bai was married to Rana Sanga's eldest son Kunwar Bhojraj of Chittore.
   (e) Meera Bai was the devotee of Lord Krishna.
   (f) She was so famous far and wide that many a saint and people began to come to see Meera Bai members of her husband's family did not like this. Her mother-in-law Uda did not like her appearance of a saint like lady. They began to hate her. So her was given poison to drink.
   (g) Meera Bai breathed last in Dwarika.

Word Knowledge

1.

A	*B*
beautiful	ugly
saint	household
like	dislike
poison	nectar
God	devil
appear	disappear
hate	love

Grammar Skill

1. (a) Persian is spoken in Iran.
   (b) Japanese is spoken in Japan.
   (c) Latin is spoken in America.
   (d) Malyalam is spoken in Kerala.

(e) Telugu is spoken in Andhra Pradesh.

(f) Chinese is spoken in China.

2. (a) Rana is rich but had no house to live in.

(b) The parrot and kite are green.

(c) He got up or went for walking.

(d) She is beautiful yet not proud of it.

(e) Pay your school fee or will not be allowed to sit in the class.

3. (a) true (b) false (c) false

(d) true (e) false (f) true

Composition

It is the park. It is out of city. The sun is rising in the sky. It is the time of morning. The air is fresh and gaiety. Rahul with his parents is strolling in the park. All of them are happy. His father is wearing loose dress. Plants and trees are green. Flowers are blooming in the beds.

EVS

Lesson – 1 : Parts of a Plant

1. a. (iii) shoot

b. (ii) tap and fibrous root

c. (i) underground root d. (i) stems

e. (i) Africa f. (iv) all of these

2. a. Shoot b. top root c. roots

d. underground e. soil erosion

3.

	A	***B***
(a)	Potato	4. root
(b)	Radish	3. stem
(c)	Soil erosion	5. overgrazing
(d)	Shoot	2. over ground part of a plant
(e)	Root	1. underground part of a plant

4. a. Two parts of a plant are :

(i) The Shoot (ii) The Root

b. A shoot comprise branches, fruits, leaves, birds and flowers.

c. Root is an organ that anchors plants to the soil.

d. The two different type of roots are:

(i) A tap root (ii) A fibrous root

e. Root crops are grown for their tubers (swollen underground stems). They are good to eat as they contain large amount of starch, an energy giving substance.

f. Numerous similar fine roots all growing from the base of the plant's stem are called fibrous roots.

g. Soil erosion is the removal of topmost layer of soil by wind, rain, water, etc.

h. Any one reason for soil erosion is cutting or burning of trees.

5. Students draw yourself.

Lesson – 2 : Beautiful Flowers

1. a. (iii) seed b. (ii) pistil
   c. (ii) stamen d. (iii) sepals
   e. (iii) nectar f. (ii) petals
   g (i) stigma of saffron flower
2. a. True b. false c. false
   d. true e. true
3. a. Style b. carpals c. pollen
   d. nectar e. woody
4. a. Flowering plant reproduce
   b. seeds are formed
   c. cauliflower
   d. trees for wood and food
   e. rose and sunflower
   f. Alfalfa and blue weed
5. a. The seed-bearing part of a plant, consisting of reproductive organs (stamens and carpels) that are

typically surrounded by a brightly coloured corolla (petals) and a green calyx (sepals) is called flower.

b. Rose and jasmine.

c. The sepals of a flower, typically forming a whorl that encloses the petals and forms a protective layer around a flower in bud is called a calyx.

d. The main function of stigma in plants is to help collect the pollen. It is adapted to catch and trap pollen with various hairs, flaps and sculpturing. The stigma is the receptive tip of a carpel of a flower.

e. The pistil is the female reproductive organ of a flower. It contains the ovaries and accepts pollen from other flowers.

Lesson – 3 : Animal's Home

1. a. (iv) habitats
   b. (i) land as well as in water
   c. (i) nocturnal animal
   d. (i) tree groves
   e. (iii) arboreal animal

2. a. True b. False c. False
   d. True e. False

3. a. Aquatic b. limbs c. trees
   d. aerial animals e. natural

4.

	A	***B***
a.	Monkey	(vi) Aarboreal
b.	Cockroach	(i) Nocturnal
c.	Dog	(iii) Terrestrial
d.	Swallow	(v) Aerial
e.	Frog	(iv) Amphibian
f.	Fish	(ii) Aquatic

5. a. A habitat is said to be the natural surrounding that serve as home for various plants and animals.
   b. Dog and horse.

c. Frog and crocodile.
d. Eagle and swallow.
e. Fish and whale.

Lesson – 4 : Animal World

1. a. (iii) herbivores b. (i) other animals
   c. (iii) matriarch d. (iii) pod
   e. (iii) internal ears
2. a. True b. False c. True
   d. True e. True
3.

	A	*B*
a.	Honey bees	5. Beehive
b.	Ants	1. Anthill
c.	Young ones of a cat	2. Kittens
d.	Plant eaters	3. Herbivores
e.	Lizard	4. Internal ear

4. a. Herbivores go in groups in search of food and water.
   b. Carnivores move in groups to attack their preys.
   c. Elephants, dogs, cats, lion, etc. have external ears.
   d. Amphibians, reptiles, aquatic animals and birds have internal ears.
   e. Animals get skin patterns on their body that are formed by their hair.

Lesson – 5 : Food And Movement

1. a. (iii) carnivores b. (iv) all of these
   c. (iii) strong hooked beak d. (ii) crow
   e. (ii) pecking bird f. (ii) farm bird
2. a. True b. False c. True
   d. False e. True
3.

	A	B
a.	All purpose beak	3. Crow
b.	Dagger like pointed beak	5. Kingfisher
c.	Curved beak	4. Owl
d.	Strong hooked beak	1. Parrot

e. Beak with tiny holes 2. Duck

4. a. Goat and horse.
   b. Canine teeth.
   c. Birds of prey are birds that feed on other animals such as mammals and reptiles.
   d. A duck has beak with tiny holes to strain mud and water.
   e. Birds with feet adapted for perching as on tree branches are called perching birds. For example- sparrow.
5. Students do yourself.

Lesson – 6 : Our Teeth

1. a. (i) taste food b. (iii) 6 and 24 month of life
   c. (iv) dentist d. (i) 8
2. a. True b. False c. True
   d. True e. True
3. a. gum b. regular c. teeth
   d. incisors e. chewing
4. a. Teeth are important because they help us to bite and chew food.
   b. Teeth which appear between the first 6 to 24 month of life are called milk teeth.
   c. Permanent teeth begin growing from the age of about 6 to 20 years until the 20s.
   d. Incisors are used to for cutting off pieces of food.
   e. Teeth which are used for tearing food especially meat are called canine teeth.
   f. The function of molars and pre-molars is t break up the food and chew it.
2. Students draw yourself.

Lesson – 7 : Getting Food To The Table

1. a. (iv) all of these b. (iv) all of these
   c. (iii) fish market d. (iii) hens and ducks
   e. (i) hens f. (iii) Kerala

2. a. True b. False c. True
   d. True e. False
3. a. transported b. pasteurization
   c. hens, chicken d. spices
   e. pesticides
4. a. Anaaj Mandi 5. Food grains.
   b. Poultry 1. eggs and chicken
   c. Spices 2. Flavour
   d. Kerala 3. largest producer of spices
   e. Fertilizers 4. Help to grow plants
5. a. Farmers grow food grains.
   b. Fisherman gets fish for us.
   c. A dairy farmer owns or manages a farm where cows are raised for the production of milk and other dairy products.
   d. Poultry farmer takes care of hens and ducks.
   e. A farmer uses fertilizer to help the seedling grow.
   f. A farmer uses pesticide to save crops from pest attack.

Lesson – 8 : Eating As A Group

1. a. (iii) culture b. (iii) Guru Nanak
   c. (i) 300 calories of food d. (iv) Tamil Nadu
2. a. True b. False c. True
   d. False e. True
3 a. Buffet b. langer c. devotees
   d. Mid-day meal e. Free food
4. a. Guru Nanak the first Sikh guru started a community kitchen system in the Gurudwaras. It is called a Langer.
   b. The Langer is served in Gurudwaras.
   c. Community feasts are held on many religious festivals and national events.
   d. Tamil Nadu began the mid-day meal scheme.

5. The reasons or benefits of mid-day meal scheme are following:
   (i) The government wanted to provide minimum 300 calories of food to each child with 8-12 grams protein for 200 days in a year.
   (ii) Many poor parents began sending children to school because of free food. So the health and education of poor students improved.

Lesson – 9 : Source of Water

1. a. (ii) water b. (iii) rain
   c. (iii) reservoir d. (i) filtration plant
   e. (iv) all of these
2. a. Source of water on the earth
   b. To a filtration plant
   c. Electricity and pull underground water
   d. Tap
   e. River bed change from a hard rock to soft rock
3.

	A		B
a.	Tube well	5.	Underground water
b.	River	4.	main source of water supply
c.	Waterfalls	1.	natural open area
d.	Sea	2.	large body of salt water
e.	Chlorine gas	3.	kills bacterias

4. Handpump, Tubewell, River, Sea
5. a. River is the main source of water.
   b. Firstly water is purified from lake, river or sea into reservoir. In the reservoir the water river passes to a filtration plant where beds of sand and gravel remove more dirt and bacteria. The water finally goes through a chlorination plant where chlorine gas kills any remaining bacteria. This water is pumped into water mains. From the water mains the water is sent to water pipes and to taps in our homes this way, we get clean drinking water.
   c. A tube well is fitted with a filter to clean the

underground water. The filter removes sand from water and we get water that is pure and drinkable.

d. We should use water from covered wells because it is free of germs and dust.

e. Sea water is salty because it has salt and impurities.

Lesson – 10 : Polluting The Water

1. a. (iii) pollution b. (iv) all of these
   c. (iii) rivers d. (iii) the Ganga
   e. (ii) Mansarover lake f. (i) the Indus of sindhu
2. a. True b. true c. false
   d. true e. True
3.

	A	*B*
a.	The Ganga	3. a holy river of the Hindus
b.	The Brahmaputra	5. enters in Arunachal Pradesh
c.	The Sindhu	2. Indus valley civilization
d.	ORS	1. Diarrhoea
e.	Diarrhoea	4. disease

4. a. Boiled b. Diarrhoea c. borne
   d. avoid
5. a. River water gets polluted because of following reasons :
   (i) Waste and remains from chemicals are poured into rivers.
   (ii) By washing cloth and bathing of animals also pollute river water.
   (iii) Fertilizers from fields are wasted away with irrigation canal water and may pollute river water.

   b. Liquid waste products that are discharged out of a factory, farm, houses, etc. are called effluents.

   c. The Ganga is an important river because it is the longest river and it is considered to be holy by the Hindus.

   d. Sea gets polluted by the chemical waste released into the rivers which eventually flows into the sea. The most obvious polluted of the sea is oil from ships.

e. Fish, whale, cuttle fish, octopus, turtle and crocodile etc, are live in the sea.

f. During diarrhoea the person loses a lot of water from the body because he or she passes stool and vomits many times.

g. A glass of boiled and cooled water, a pinch of salt, a spoon of sugar, a few lemons drops.

h. We can avoid water borne diseases by the following ways:
   (i) Drink boiled and filtered water.
   (ii) Avoid use of water from broken or damage pipe.
   (iii) Chemicals and detergents must be replaced by environment-friendly soaps to cause no water pollution.
   (iv) Industrial waste must be stored before being left to flow into river or sea.
   (v) Industries must have waste treatment plans.
   (vi) People must avoid bathing their animals in river and canals

Lesson – 11 : Evaporation And Condensation

1. a. (iii) evaporation b. (iii) water vapour
   c. (ii) condensation d. (ii) dew point
2. a. True b. False
   c. True d. True
3.

	A	***B***
a.	Evaporation	4. Changes a liquid into gas.
b.	Condensation	1. Changes a gas into liquid
c.	Dew point	3. air may be cooled up-to a definite temperature
d.	Water molecules	2. Water Vapour

4. Draw yourself.
5. a. Evaporation is the process that changes a liquid into gas.
   b. When water vapour changes into water droplets, the process is called condensation.

c. Air may be cooled until it reaches a temperature know as dew point.

d. Two examples of Evaporation in daily life are following:
   (i) Rising of steam while making tea.
   (ii) Drying of wet clothes.

e. One example of condensation is the formation of clouds by tiny suspended water droplets.

6. Do yourself.

Lesson – 12 : Houses – Old And New

1. a. (iii) five rooms and a court yard
   b. (ii) 60 years old
   c. (i) pucca house
   d. (iii) school teacher
   e. (iii) seventh floor

2. a. fifty b. parents c. brick
   d. bio- e. canvas

3.

A	B
a. Kuchacha House	4. Straw and mud
b. Pucca House	1. brick, iron road and cement
c. Shaheen	2. Ali's cousin
d. Slums	3. dirty surrounding

4. a. A Kuchcha house is made of straw, mud and cow dung.

   b. Bricks, cement, iron rods, marble and wood are used to build a pucca house.

   c. The problems faced by slums people are following:
      (i) In the slums, people fight for using water and even to the few mobile toilet that are not enough.
      (ii) Most people in the slum are poor, without job and without food and educations.
      (iii) In the slums, the dirty environment causes the people to be ill and they suffer from malnutrition.

2. Draws yourself.

Mathematics

Lesson – 1 : Large Numbers

Exercise 1

1. (a) 8,735 : Eight thousand seven hundred thirty-five
   (b) 68,437 : Sixty eight thousand four hundred thirty-seven
   (c) 2,68,437 : Two lakh sixty eight thousand four hundred thirty seven
   (d) 32,68,736: Thirty-two lakh sixty eight thousand seven hundred thirty-six
2. (a) 12,678 (b) 1,00,234 (c) 30,19,300 (d) 99,00,775
3. 9999 + 1 = 10,000
4. 100,000 – 1 = 99999
5.

	Predecessor (–1)	Successor (+1)
(a)	39398	39400
(b)	68484	68486
(c)	188887	188889
(d)	3451749	3451751
(e)	20000	20002

6. (a) 37605 = 30000 + 7000 + 600 + 00 +5
   (b) 340650 = 300000 + 40000 + 0000 + 600 + 50 + 0
   (c) 1457003 = 1000000 + 400000 + 50000 + 7000 + 000 + 00 + 3
   (d) 590000 = 500000 + 90000 + 0000 + 000 + 00 + 0
7. (a) 247560 = 2 lakhs, 47 thousands, 5 hundreds, 6 tens
   (b) 830230 = 8 lakhs, 30 thousands, 2 hundreds, 3 tens
   (c) 50600 = 50 thousands, 6 hundreds
   (e) 9000 = 9 thousands
8. 13543850 = One crore thirty five lakhs forty three thousands eight hundred fifty

9. (a) 390,254 = Three hundred ninety thousands two hundred fifty four
   (b) 5,456,085 = Five millions four hundred fifty six thousands eighty five
   (c) 158,921,056 = One hundred fifty eight millions nine hundred twenty one thousands fifty six
   (d) 20,030,405 = Twenty millions thirty thousands four hundred five
10. (a) 390,254 (b) 56,702,868
    (c) 200,304,056 (d) 92,030,222

Exercise 2

1. (a) $44281 < 65823$ (b) $393941 > 295224$
   (c) $740003 > 579999$ (d) $270000 > 269999$
   (e) $812100 < 900003$ (f) $599099 > 587130$
   (g) $990032 > 320099$ (h) $443121 > 314349$
2. (a) 939389 (b) 858486
   (c) 345175 (d) 39393
3. (a) 39645 (b) 984181
   (c) 745562 (d) 843942
4. (a) 9876, 8678, 999, 4567, 89 and 1843

T.th	Th	H	T	O
	9	8	7	6
	8	6	7	8
		9	9	9
	4	5	6	7
			8	9
	1	8	4	3

=

T.th	Th	H	T	O
			8	9
		9	9	9
	1	8	4	3
	4	5	6	7
	8	6	7	8
	9	8	7	6

So, ascending order = 89, 999, 1843, 4567, 8678, 9876

(b)

T.th	Th	H	T	O
	7	7	7	7
6	6	6	6	6
		8	8	8
				9
9	0	0	0	0

=

T.th	Th	H	T	O
				9
		8	8	8
	7	7	7	7
6	6	6	6	6
9	0	0	0	0

So, ascending order 9, 888, 7777, 66666, 90000

(c)

Lakh	T.th	Th	H	T	O
1	0	0	0	0	0
8	9	4	3	2	1
	9	8	8	8	8
	5	4	6	0	0
	1	0	1	0	1

=

Lakh	T.th	Th	H	T	O
	1	0	1	0	1
	5	4	6	0	0
	9	8	8	8	8
1	0	0	0	0	0
8	9	4	3	2	1

So, ascending order 10101, 54600, 98888, 100000, 894321

5. (a) 399931 , 932993, 854431, 743539

Lakh	T.th	Th	H	T	O
3	9	9	9	3	1
9	3	2	9	9	3
8	5	4	4	3	1
7	4	3	5	3	9

=

Lakh	T.th	Th	H	T	O
9	3	2	9	9	3
8	5	4	4	3	1
7	4	3	5	3	9
3	9	9	9	3	1

So, descending order = 932993, 854431, 743539, 399931

(b) 851134, 663244, 333249, 778593

Lakh	T.th	Th	H	T	O
8	5	1	1	3	4
6	6	3	2	4	4
3	3	3	2	4	9
7	7	8	5	9	3

=

Lakh	T.th	Th	H	T	O
8	5	1	1	3	4
7	7	8	5	9	3
6	6	3	2	4	4
3	3	3	2	4	9

So, descending order=851134, 778593, 663244, 333249

(c) 845543, 288495, 399949, 656474

Lakh	T.th	Th	H	T	O
8	4	5	5	4	3
2	8	8	4	9	5
3	9	9	9	4	9
6	5	6	4	7	4

=

Lakh	T.th	Th	H	T	O
8	4	5	5	4	3
6	5	6	4	7	4
3	9	9	9	4	9
2	8	8	4	9	5

So, descending order = 845543, 656474, 399949, 288495

6. 30689
7. 304589
8. 985430
9. 9765420
10. 675, 657, 765, 756, 567, 576

Lesson – 2 : Addition of Numbers

Exercise 3

1.
$$\begin{array}{r} 53432 \\ +\ 45367 \\ \hline 98799 \end{array}$$

2.
$$\begin{array}{r} 98726 \\ +\ 1173 \\ \hline 99899 \end{array}$$

3.
$$\begin{array}{r} 85611 \\ +\ 13278 \\ \quad 1100 \\ \hline 99989 \end{array}$$

4.
$$\begin{array}{r} 32623 \\ +\ 33251 \\ \quad 4125 \\ \hline 69999 \end{array}$$

5.
$$\begin{array}{r} 712345 \\ +\ 287454 \\ \hline 999799 \end{array}$$

6.
$$\begin{array}{r} 719286 \\ +\ 280603 \\ \hline 999889 \end{array}$$

7.
$$\begin{array}{r} 820543 \\ +\ 138132 \\ \quad 41223 \\ \hline 999898 \end{array}$$

8.
$$\begin{array}{r} 623251 \\ +\ 145630 \\ \quad 30115 \\ \hline 798996 \end{array}$$

9.
$$\begin{array}{r} 624351 \\ +\ 32542 \\ \quad 32106 \\ \hline 688999 \end{array}$$

10.
$$\begin{array}{r} 62371 \\ +\ 21517 \\ \quad 4110 \\ \hline 87998 \end{array}$$

11.
$$\begin{array}{r} 32571 \\ +\ 23210 \\ \quad 24218 \\ \hline 79999 \end{array}$$

12.
$$\begin{array}{r} 524322 \\ +\ 213245 \\ \quad 62432 \\ \hline 799999 \end{array}$$

13.

	3	2	5	4	1
+	2	3	4	0	7
		4	0	3	1
	5	9	9	7	9

14.

	2	3	4	5	6	7
+	3	2	2	2	1	0
		4	3	1	1	2
	5	9	9	8	8	9

15.

	2	1	2	0	5
	2	4	2	2	0
+	1	0	1	1	0
	5	5	5	3	5

16.

	1	2	1	3	1	5
+	2	2	2	3	2	0
		1	0	1	1	0
	3	5	3	7	4	5

Exercise 4

1.

	1		**1**	**1**	**1**	
	7	5	4	3	2	1
	9	5	2	9	9	7
+	3	9	2	1	4	8
2	0	9	9	4	6	6

2.

	2	**1**	**1**	**2**	**1**	
	9	9	2	2	9	3
	7	4	7	5	9	0
+	2	8	9	2	7	9
2	0	2	9	1	6	2

3.

	2	**2**	**2**	**2**	**2**	
	3	4	3	5	3	6
		4	7	4	5	6
	4	8	4	5	9	9
+		7	7	4	5	3
	9	5	3	0	4	4

4.

	1	**3**	**3**	**2**	
			8	8	3
		1	8	9	9
	2	3	5	7	8
+	3	4	7	9	7
	6	1	1	5	7

5.

	1	**1**	**3**	**2**	**2**	
	8	4	1	5	1	6
	3	4	1	7	1	8
		5	9	9	7	3
+			2	9	9	8
1	2	4	6	2	0	5

6.

	1	**1**	**2**	**1**	**2**	
	4	2	4	3	4	5
	7	5	7	6	7	7
	1	6	1	7	1	8
+				9	1	8
1	3	4	4	6	5	8

7.
$$\begin{array}{r} \mathbf{1\ 1\ 1\ 1\ 1} \\ 3\ 4\ 5\ 6\ 7\ 8 \\ 4\ 7\ 6\ 5\ 1 \\ +\ 2\ 3\ 5\ 3\ 9 \\ \hline 4\ 1\ 6\ 8\ 6\ 8 \end{array}$$

8.
$$\begin{array}{r} \mathbf{1\ 1\ 1\ 1\ 1} \\ 2\ 4\ 3\ 1\ 9\ 7 \\ 9\ 3\ 1\ 5\ 4\ 5 \\ +\ 7\ 2\ 6\ 5\ 3\ 1 \\ \hline 1\ 9\ 0\ 1\ 2\ 7\ 2 \end{array}$$

9.
$$\begin{array}{r} \mathbf{1\ 3\ \ 1} \\ 5\ 4\ 9\ 2\ 7 \\ 4\ 5\ 6\ 0\ 8 \\ 8\ 0\ 9\ 1\ 0 \\ +\ 7\ 0\ 8\ 5\ 1 \\ \hline 2\ 5\ 2\ 2\ 9\ 6 \end{array}$$

10.
$$\begin{array}{r} \mathbf{1\ 1\ 1\ 1} \\ 4\ 3\ 2\ 1\ 2 \\ 3\ 2\ 4\ 1\ 9 \\ 9\ 8\ 8\ 5\ 1 \\ +\ 3\ 3\ 2\ 2\ 5 \\ \hline 2\ 0\ 7\ 7\ 0\ 7 \end{array}$$

11.
$$\begin{array}{r} \mathbf{3\ 2\ 2\ 2} \\ 7\ 4\ 9\ 3\ 9 \\ 3\ 7\ 2\ 2\ 5 \\ 2\ 9\ 8\ 4\ 7 \\ +\ 9\ 9\ 2\ 9\ 3 \\ \hline 2\ 4\ 1\ 3\ 0\ 4 \end{array}$$

12.
$$\begin{array}{r} \mathbf{2\ 1\ 2\ 2} \\ 8\ 5\ 3\ 1\ 9 \\ 5\ 5\ 2\ 9\ 5 \\ 1\ 9\ 2\ 9\ 9 \\ +\ 4\ 4\ 4\ 5\ 3 \\ \hline 2\ 0\ 4\ 3\ 6\ 6 \end{array}$$

13.
$$\begin{array}{r} \mathbf{1\ 1\ 2\ 2} \\ 3\ 2\ 1\ 9\ 9 \\ 4\ 3\ 4\ 7\ 5 \\ 8\ 5\ 9\ 1\ 9 \\ +\ 3\ 3\ 3\ 2\ 4 \\ \hline 1\ 9\ 4\ 9\ 1\ 7 \end{array}$$

14.
$$\begin{array}{r} \mathbf{1\ 1\ 2\ 2\ 1} \\ 1\ 6\ 2\ 8\ 9\ 5 \\ 4\ 3\ 8\ 3\ 7\ 1 \\ +\ 3\ 8\ 4\ 7\ 9\ 7 \\ \hline 9\ 8\ 6\ 0\ 6\ 3 \end{array}$$

Exercise 5

1. In a town Males = 35497
Females = 49393
Total population = 84890

Total population of the town = 84890.

2. In a bank

1 deposited	=	₹89298
2 deposited	=	₹95394
Total amount deposited	=	184692

Total amount deposited in bank = ₹ 184692

3. People watched the match on

Friday	=	44572
Saturday	=	38785
Sunday	=	45295
Total viewers in 3 days	=	128652

In 3 days total people watched match are 128652.

4. Greatest 5 digit number = 99999
   Greatest 6 digit number = 999999
   Sum = 1099998
   Sum = 1099998

5. Persons visited Mussoorie in

May	=	44948
June	=	48398
Total persons visited	=	93346

In two months total persons visited = 93346 persons.

6. The required number =

$$\begin{array}{rr} & 91402\,5 \\ + & \quad 257\,7 \\ \hline & 91660\,2 \end{array}$$

7. In football match spectators in

Ist row	=	21932
2nd row	=	34259
3rd row	=	43245
Total spectators	=	99436

So, there are 99436 spectators.

8. A granary has

Basmati rice	=	32935
Ordinary rice	=	76999
Wheat	=	38935
Total grain	=	148869

Granary has 148869 kg grains.

9. A library has books

Hindi	=	29298
English	=	+35945
Maths	=	+ 8768
		74011

Total books = 74011

10. A man has

Land	=	₹323445
Building cost	=	₹375895
		₹699340

Total cost = ₹699340

11. In an election votes polled

	4	8	5	8	2
	5	7	4	5	2
+	5	2	2	5	9
1	5	8	2	9	3

Total votes polled altogether = 158293 votes.

12. Person visited in book fair

Sunday	=	44398	
Monday	=	39278	
Tuesday	=	27375	
		111051	persons

13. In a town

Men	=	85349	
Women	=	75289	
Children	=	39872	
		200510	

Total population = 200510

14. Difference 38493
Smaler Number +45285
Other Number 83778

15. Ist rolls of wire measure = 25277
IInd roll of wire measure = 38215
IIIrd roll of wire measure = 43523
IVth roll of wire measure = 19395
Total Length = 126410 Metres

Lesson – 3 : Subtraction of Number

Exercise 6

1.
$$\begin{array}{r} 43732 \\ -\ 23622 \\ \hline 20110 \end{array}$$

2.
$$\begin{array}{r} 54533 \\ -\ 23321 \\ \hline 31212 \end{array}$$

3.
$$\begin{array}{r} 57455 \\ -\ 24321 \\ \hline 33134 \end{array}$$

4.
$$\begin{array}{r} 89987 \\ -\ 34567 \\ \hline 55420 \end{array}$$

5.
$$\begin{array}{r} 76689 \\ -\ 34455 \\ \hline 42234 \end{array}$$

6.
$$\begin{array}{r} 69339 \\ -\ 47212 \\ \hline 22127 \end{array}$$

7.
$$\begin{array}{r} 85867 \\ -\ 54756 \\ \hline 31111 \end{array}$$

8.
$$\begin{array}{r} 99099 \\ -\ 45067 \\ \hline 54032 \end{array}$$

9.
$$\begin{array}{r} 74943 \\ -\ 62721 \\ \hline 12222 \end{array}$$

10.
$$\begin{array}{r} 99987 \\ -\ 63754 \\ \hline 36233 \end{array}$$

11.
$$\begin{array}{r} 92932 \\ -\ 61512 \\ \hline 31420 \end{array}$$

12.
$$\begin{array}{r} 85869 \\ -\ 74735 \\ \hline 11134 \end{array}$$

13.
$$\begin{array}{r} 78579 \\ -\ 66465 \\ \hline 12114 \end{array}$$

14.
$$\begin{array}{r} 96798 \\ -\ 52374 \\ \hline 44424 \end{array}$$

15.
$$\begin{array}{r} 98765 \\ -\ 66653 \\ \hline 32112 \end{array}$$

16.
$$\begin{array}{r} 776655 \\ -\ 343343 \\ \hline 433312 \end{array}$$

Exercise 7

1.
$$\begin{array}{r} 64955 \\ -\ 58976 \\ \hline 05979 \end{array}$$

2.
$$\begin{array}{r} 45785 \\ -\ 6549 \\ \hline 39236 \end{array}$$

3.
$$\begin{array}{r} 99643 \\ -\ 29728 \\ \hline 69915 \end{array}$$

4.
$$\begin{array}{r} 99865 \\ -\ 39846 \\ \hline 60019 \end{array}$$

5.
$$\begin{array}{r} 52545 \\ -\ 48796 \\ \hline 03749 \end{array}$$

6.
$$\begin{array}{r} 29301 \\ -\ 19285 \\ \hline 10016 \end{array}$$

7.
$$\begin{array}{r} 70000 \\ -\ 66394 \\ \hline 03606 \end{array}$$

8.
$$\begin{array}{r} 60000 \\ -\ 33343 \\ \hline 26657 \end{array}$$

9.
$$\begin{array}{r} 89200 \\ -\ 63330 \\ \hline 25870 \end{array}$$

10.
$$\begin{array}{r} 3000000 \\ -\ 63879 \\ \hline 2361211 \end{array}$$

Exercise 8

1. Rahul

Deposited	=	₹65812
Withdrew	=	₹46935
Balance amount	=	₹18877

2. Sum = 524567
   Smaller number = −86578
   Other number = 437989
   Other number is 437989

3. Total eggs = 352870
   Sent to market = −131567
   Remaining = 221303

4. Greater number = 823456
   Difference = −53432
   770024
   Smaller number = 770024

5. Total wheat = 87530
   1 day sold = −18420
   Remaining = 69110 kg
   Remaining = 69110
   IInd day sold = −25620
   43490 kg
   Wheat left after 2nd day stock is 43490 kg.

6.
$$\begin{array}{r} 52110 \\ -\ 22331 \\ \hline 29779 \end{array}$$
Number 29779 is 22331 less than 52110.

7.
$$\begin{array}{r} 98325 \\ -\ 59436 \\ \hline 38889 \end{array}$$
The number is 38899 greater than 59436

8. Ajay had = ₹96630
   Buy motorcycle = ₹43999
   Remaining = ₹52631
   Remaining = ₹52631
   buy refrigerator = – ₹7535
   at last left amount = ₹45096

9.
$$\begin{array}{r} 78653 \\ -\ 43242 \\ \hline 35411 \end{array}$$

35411 is added to 43242 to get 78653.

10.
$$\begin{array}{r} 76750 \\ -\ 56572 \\ \hline 20178 \end{array}$$

11. Total population = 82109
    Males = –59934
    Females = 22175
    So, there were 22175 females.

12. As Ist candidate won by
$$\begin{array}{r} 45290 \\ -\ 42315 \\ \hline 2975 \end{array}$$

13. Flat costs = ₹851300
    Mr. Jain has = –₹707875
    Money needed = ₹143425

14. Total milk = 60000
    Supplied to 1st depot= –39285
    Remaining = 20715 litre

Remaining = 20715

Supplied to IInd depot = −10382

10333 litre

Milk left in dairy 10333 litre.

Lesson – 4 : Multiplication of Numbers

Exercise 9

1. **Multiply :**
   (a) 215 by 4 = 860 (b) 206 by 5 = 1030
   (c) 184 by 3= 552 (d) 506 by 6 = 3036
   (e) 394 by 7 = 2758 (f) 613 by 8 = 4904
2. (a) $16 \times 8 = 128$ (b) $18 \times 11 = 198$
   (c) $9 \times 17 = 153$ (d) $1530 \times 1 = 1530$
   (e) $1405 \times 0 = 0$ (f) $0 \times 1301 = 0$
   (g) $14 \times 2 \times 1 = 28$ (h) $1150 \times 1 = 1150$
   (i) $209 \times 1 = 209$
3. (a) $15 \times 19 = 19 \times 15$ (b) $96 \times 7 = 7 \times 96$
   (c) $8 \times (4 \times 3) = (8 \times 4) \times 3$ (d) $(14 \times 7 \times 25) = 14 \times 7 \times 25$

Exercise 10

1. $48 \times 10 = 48 \times$ tens = 48 tens = 480
2. $32 \times 100 = 32 \times$ hundred = 3200
3. $16 \times 400 = 16 \times 4$ hundred = 6400
4. $212 \times 100 = 212 \times$ hundred = 21200
5. $3125 \times 1000 = 3125 \times$ thousand = 3125000
6. $605 \times 8000 = 605 \times 8$ thousand = 4840000
7. $101 \times 3000 = 101 \times 3$ thousand = 303000
8. $708 \times 500 = 708 \times 5$ hundred = 354000

9. $342 \times 9000 = 342 \times 9$ thousand $= 3078000$
10. $443 \times 7000 = 443 \times 7$ thousand $= 3101000$
11. $803 \times 6000 = 804 \times 6$ thousand $= 4818000$
12. $888 \times 2000 = 888 \times 2$ thousand $= 1776000$
13. $242 \times 10 = 2420$
14. $254 \times 100 = 25400$
15. $195 \times 1000 = 195000$

Exercise 11

1.
$$\begin{array}{r} 235 \\ \times\ 16 \\ \hline 1410 \\ 2350 \\ \hline 3760 \end{array}$$

2.
$$\begin{array}{r} 475 \\ \times\ 25 \\ \hline 2375 \\ 9500 \\ \hline 11875 \end{array}$$

3.
$$\begin{array}{r} 418 \\ \times\ 42 \\ \hline 836 \\ 16720 \\ \hline 17556 \end{array}$$

4.
$$\begin{array}{r} 256 \\ \times\ 18 \\ \hline 2048 \\ 2560 \\ \hline 4608 \end{array}$$

5.
$$\begin{array}{r} 1218 \\ \times\ 24 \\ \hline 4872 \\ 24360 \\ \hline 29232 \end{array}$$

6.
$$\begin{array}{r} 3124 \\ \times\ 55 \\ \hline 15620 \\ 156200 \\ \hline 171820 \end{array}$$

7.
$$\begin{array}{r} 212 \\ \times\ 253 \\ \hline 636 \\ 10600 \\ 42400 \\ \hline 53636 \end{array}$$

8.
$$\begin{array}{r} 262 \\ \times\ 153 \\ \hline 786 \\ 13100 \\ 26200 \\ \hline 40086 \end{array}$$

9.
$$\begin{array}{r} 254 \\ \times\ 238 \\ \hline 2032 \\ 7620 \\ 50800 \\ \hline 60452 \end{array}$$

10.
$$\begin{array}{r} 555 \\ \times\ 546 \\ \hline 3330 \\ 22200 \\ 277500 \\ \hline 303030 \end{array}$$

11.
$$\begin{array}{r} 5474 \\ \times\ 240 \\ \hline 0000 \\ 218960 \\ 1094800 \\ \hline 1313760 \end{array}$$

12.
$$\begin{array}{r} 5760 \\ \times\ 140 \\ \hline 0000 \\ 230400 \\ 576000 \\ \hline 806400 \end{array}$$

13.
$$\begin{array}{r} 4040 \\ \times\ 133 \\ \hline 12120 \\ 121200 \\ 404000 \\ \hline 537320 \end{array}$$

14.
$$\begin{array}{r} 4990 \\ \times\ 356 \\ \hline 29940 \\ 249500 \\ 1497000 \\ \hline 1776440 \end{array}$$

15.
$$\begin{array}{r} 1321 \\ \times\ 3214 \\ \hline 5284 \\ 13210 \\ 264200 \\ 3963000 \\ \hline 4245694 \end{array}$$

Exercise 12

1. 1 packet contains = 144 sheets
   25 packet contains = 144 × 25

$$\begin{array}{r} 144 \\ \times\ 25 \\ \hline 720 \\ 2880 \\ \hline 3600 \end{array}$$

2. Total students = 1154
   Each pays = ₹350

$$\begin{array}{r} 1154 \\ \times\ 350 \\ \hline 0000 \\ 57700 \\ 346200 \\ \hline 403900 \end{array}$$

   Total monthly collection = 403900

3. A truck loaded with 2750 bricks
   235 such truck has

$$\begin{array}{r} 2750 \\ \times\ 235 \\ \hline 13750 \\ 82500 \\ 550000 \\ \hline 646250 \end{array}$$

   So there are 646250 bricks loaded in 235 such trucks.

4. Days in June = 30 days
   1 day = 24 hours
   Hours in month of June

$$\begin{array}{r} 24 \\ \times\ 30 \\ \hline 00 \\ 720 \\ \hline 720 \end{array}$$

5. 1 box contains = 98 kg wheat
weight of such 188 boxes =

$$\begin{array}{r} 188 \\ \times\ 98 \\ \hline 1504 \\ 16920 \\ \hline 18424 \end{array}$$

6. 1 day production = 309 mobile
In 275 days =

$$\begin{array}{r} 309 \\ \times\ 275 \\ \hline 1545 \\ 21630 \\ 61800 \\ \hline 84975 \end{array}$$

In 275 days 84975 mobile set were produced.

7. Loaves produced in 1 day = 1657 loaves
1 year Or 365 days =

$$\begin{array}{r} 1657 \\ \times\ 365 \\ \hline 8285 \\ 99420 \\ 497100 \\ \hline 604805 \end{array}$$

In 1 year 604805 loaves were produced.

8. 1 cartoon has 25 copies.
Copies of different books = 16
Total book in 1 cartoon =

$$\begin{array}{r} 25 \\ \times\ 16 \\ \hline 150 \\ 250 \\ \hline 400 \end{array}$$

So, the truck has books = 160 × 400
= 64000 books

Lesson – 5 : Division of Numbers

Exercise 12

1.

```
8 ) 909 ( 113
    8
    ---
    10
     8
    ---
     29
     24
    ---
      5
    ---
```

Check :

Divisor $\times$ Quotient $+$ Remainder

$8 \times 113 + 5 = 909$

2.

```
6 ) 864 ( 144
    6
    ---
    26
    24
    ---
     24
     24
    ---
      ×
    ---
```

Check :

Divisor $\times$ Quotient $+$ Remainder

$6 \times 144 + 0 = 864$

3.

```
3 ) 810 ( 270
    6
    ---
    21
    21
    ---
      0
      0
    ---
      ×
    ---
```

Check :

Divisor $\times$ Quotient $+$ Remainder

$3 \times 270 + 0 = 810$

4. $8\overline{)7380}\,922$

72
18
16
20
16
4

Check :
Divisor × Quotient + Remainder
$8 \times 922 + 4 = 7380$

5. $5\overline{)2055}\,411$

20
5
5
5
5
×

Check :
Divisor × Quotient + Remainder
$53 \times 411 + 0 = 2055$

6. $9\overline{)2714}\,301$

27
14
9
5

Check :
Divisor × Quotient + Remainder
$9 \times 301 + 5 = 2714$

7. $9\overline{)9534}\,1059$

9
5
0
53
45
84
81
3

Check :
Divisor × Quotient + Remainder
$9 \times 1059 + 3 = 9534$

8. $7\overline{)8503}\,1214$

7
15
14
10
7
33
28
5

Check :
Divisor × Quotient + Remainder
$7 \times 1214 + 5 = 8503$

9. $6\overline{)2592}\,432$

24
19
18
12
12
×

Check :
Divisor × Quotient + Remainder
$6 \times 432 + 0 = 2592$

10. $7\overline{)4158}\,594$

35
65
63
28
28
×

Check :
Divisor × Quotient + Remainder
$7 \times 594 + 0 = 4158$

11. $5\overline{)62215}\,12443$

5
12
10
22
20
21
20
15
15
×

Check :
Divisor × Quotient + Remainder
5 × 12443 + 0 = 62215

12. $7\overline{)25431}\,3633$

21
44
42
23
21
21
21
×

Check :
Divisor × Quotient + Remainder
7 × 3633 + 0 = 25431

13. $6\overline{)71552}\,11925$

6
11
6
55
54
15
12
32
30
2

Check :
Divisor × Quotient + Remainder
6 × 11925 + 2 = 71552

14. $5\overline{)76425}\,15285$

5
26
25
14
10
42
40
25
25
×

Check :
Divisor × Quotient + Remainder
5 × 15285 + 0 = 76425

15. $6\overline{)11556}\,1926$

6
55
54
15
12
36
36
×

Check :
Divisor × Quotient + Remainder
6 × 1926 + 0 = 11556

16. $251 \div 1 = 251$
17. $645 \div 1 = 645$
18. $1234 \div 1 = 1234$
19. $6015 \div 6015 = 1$
20. $0 \div 2000 = 0$
21. $0 \div 625 = 0$

Exercise 14

1. $16\overline{)484}\,30$

48
4
0
4

Check : $16 \times 30 + 4 = 484$

2. $16\overline{)819}\,51$

80

19

16

3

Check : $16 \times 51 + 3 = 819$

3. $12\overline{)957}\,79$

84

117

108

9

Check : $12 \times 79 + 9 = 957$

4. $15\overline{)850}\,56$

75

100

90

10

Check : $15 \times 56 + 10 = 850$

5. $12\overline{)1250}\,104$

12

5

0

50

48

2

Check : $12 \times 104 + 2 = 1250$

6. $21\overline{)7506}\,357$

63
120
105
156
147
9

Check : $21 \times 357 + 9 = 7506$

7. $52\overline{)9005}\,173$

52
380
364
165
156
9

Check : $52 \times 173 + 9 = 9005$

8. $37\overline{)5083}\,137$

37
138
111
273
259
14

Check : $37 \times 137 + 14 = 5083$

9. $49\overline{)8355}\,170$

49
345
343
25
0
25

Check : $49 \times 170 + 25 = 8355$

10. $72\overline{)25542}\,354$

216
394
360
342
288
54

Check : $72 \times 354 + 54 = 25542$

11. $68\overline{)82576}\,1214$

68
145
136
97
68
296
272
24

Check : $68 \times 1214 + 24 = 82576$

12. $26\overline{)44152}\,1698$

26
181
156
255
234
212
208
4

Check : $26 \times 1698 + 4 = 44152$

13. $33\overline{)4639}\,140$

33
133
132
19
0
19

Check : $33 \times 140 + 19 = 4639$

14. $26\overline{)4236}\,162$

26	
163	
156	
76	**Check :** $26 \times 162 + 24 = 4236$
52	
24	

15. $37\overline{)3962}\,107$

37	
26	
0	
262	
259	**Check :** $37 \times 107 + 3 = 3962$
3	

16. $46\overline{)8853}\,192$

46	
425	
414	
113	
92	
21	**Check :** $46 \times 192 + 21 = 8853$

17. $25\overline{)8646}\,345$

75	
114	
100	
146	
125	
21	**Check :** $25 \times 345 + 21 = 8646$

18. $44 \overline{)\ 9837\ } 223$

88
103
88
157
132
25

Check : $44 \times 223 + 25 = 9837$

19. $75 \overline{)\ 33198\ } 442$

300
319
300
198
150
48

Check : $75 \times 442 + 48 = 33198$

20. $68 \overline{)\ 70434\ } 1035$

68
24
0
243
204
394
340
54

Check : $68 \times 1035 + 54 = 70434$

21. $18 \overline{)\ 96008\ } 5333$

90
60
54
60
54
68
54
14

Check : $18 \times 5333 + 14 = 96008$

Exercise 15

1. $8432 \div 10 = Q = 834, R = 2$
2. $816 \div 10 = Q = 81, R = 6$
3. $7321 \div 100 = Q = 73, R = 21$
4. $20042 \div 100 = Q = 200, R = 42$
5. $83061 \div 1000 = Q = 83, R\ 61$
6. $6301 \div 1000 = Q = 6, R = 301$
7. $54321 \div 10 = Q = 5432, R = 1$
8. $8007 \div 100 = Q = 80, R = 7$
9. $55913 \div 100 = Q = 559, R = 13$
10. $44946 \div 10 = Q = 4494, R = 6$
11. $31323 \div 1000 = Q = 31, R = 323$
12. $55663 \div 100 = Q = 556, R = 63$

Exercise 16

1. Product of two number is 14049
   One number is 21
   another number = $14049 \div 21$

$$
\begin{array}{r|l|l}
21 & 14049 & 669 \\
 & 126 & \\
\hline
 & 144 & \\
 & 126 & \\
\hline
 & 189 & \\
 & 189 & \\
\hline
 & \times &
\end{array}
$$

   Another number is 669

2. There are 4368 trees in a rows.
   Each row has 13 trees.
   Number of rows = $4368 \div 13$

$$
\begin{array}{r|l|l}
13 & 4368 & 336 \\
 & 39 & \\
\hline
 & 46 & \\
 & 39 & \\
\hline
 & 78 & \\
 & 78 & \\
\hline
 & \times &
\end{array}
$$

   Number of rows = 336

3. Total load in 1 truck = 11592 crates

Total crates = 92

$$
\begin{array}{r|l}
92 & 11592 \; (126 \\
 & \underline{92} \\
 & 239 \\
 & \underline{184} \\
 & 552 \\
 & \underline{552} \\
 & \underline{\times}
\end{array}
$$

So, 126 trucks are needed.

4. 1 packet contains = 24 biscuits

Total biscuits = 35644 biscuits

$$
\begin{array}{r|l}
24 & 35644 \; (1485 \\
 & \underline{24} \\
 & 116 \\
 & \underline{96} \\
 & 204 \\
 & \underline{192} \\
 & 124 \\
 & \underline{120} \\
 & \underline{4}
\end{array}
$$

1485 packet are needed and 4 bicsuits are left.

5. Total apples = 13612

Distributed among = 43 persons

$$
\begin{array}{r|l}
43 & 13612 \; (316 \\
 & \underline{129} \\
 & 71 \\
 & \underline{43} \\
 & 282 \\
 & \underline{258} \\
 & \underline{24}
\end{array}
$$

So, 316 apples are distributed to 1 person and 24 apples are remained undivided.

6. Total mangoes = 85394

Found rotten = 221

Packed in boxes = 89 boxes

No. of mangoes in each box are remaining = 85394 – 221

$$
\begin{array}{r}
85394 \\
-\;221 \\
\hline
85173 \\
\hline
\end{array}
$$

= 85173 ÷ 89

```
89 ) 85173 ( 957
     801
     ---
      507
      445
      ---
       623
       623
       ---
         ×
```

There are 957 mangoes in each box.

7. Greatest 6-digit number = 999999
   Product of 12 × 8 = 96

```
96 ) 999999 ( 10416
     96
     --
      39
      0
      --
      399
      384
      ---
       159
       96
       --
        639
        576
        ---
         63
```

   Quotient = 10416
   Remainder = 63

8. Total money = ₹ 271355
   Divided among = 4 + 3 = 7

```
7 ) 271355 ( 38765
    21
    --
     61
     56
     --
      53
      49
      --
       45
       42
       --
        35
        35
        --
         ×
```

   Each one get ₹38765

Lesson – 6 : Decimals

Exercise 17

1. (a) decimal four (b) decimal nine
   (c) decimal one six (d) decimal three one
   (e) decimal four four (f) decimal seven three two
   (g) decimal one four four two (h) decimal six two five
   (i) decimal one nine nine eight
2. (a) 0.2956 (b) 0.4020
   (c) 0.1509 (d) 0.29
   (e) 0.8031 (f) 0.5862
3. (a) $\frac{4}{10} = 0.4$ (b) $\frac{7}{10} = 0.7$
   (c) $\frac{9}{10} = 0.9$ (d) $\frac{3}{100} = 0.03$
   (e) $\frac{17}{100} = 0.17$ (f) $\frac{39}{100} = 0.39$
   (g) $\frac{78}{100} = 0.78$ (h) $\frac{79}{100} = 0.79$
   (i) $\frac{18}{1000} = 0.018$ (j) $\frac{27}{1000} = 0.027$
   (k) $\frac{116}{1000} = 0.116$ (l) $\frac{8912}{100000} = 0.08912$
   (m) $\frac{6125}{100000} = 0.06125$ (n) $\frac{7512}{100000} = 0.07512$
   (o) $\frac{8713}{100000} = 0.08713$ (p) $\frac{12135}{100000} = 0.12135$
   (q) $\frac{3}{10} = 0.3$ (r) $\frac{93}{100} = 0.93$
   (s) $\frac{237}{1000} = 0.237$ (t) $\frac{20676}{100000} = 0.20676$

Exercise 18

1. (a) $0.28 = 0.2 + 0.08$ (b) $0.34 = 0.3 + 0.04$
   (c) $0.56 = 0.5 + 0.06$ (d) $0.76 = 0.7 + 0.06$
   (e) $0.88 = 0.8 + 0.08$ (f) $0.101 = 0.1 + 0.001$
   (g) $0.112 = 0.1 + 0.01 + 0.002$
   (h) $0.189 = 0.1 + 0.08 + 0.009$
   (i) $0.187 = 0.1 + 0.08 + 0.007$
   (j) $0.382 = 0.3 + 0.08 + 0.002$
   (k) $0.4242 = 0.4 + 0.02 + 0.004 + 0.0002$
   (l) $0.5182 = 0.5 + 0.01 + 0.008 + 0.0002$
   (m) $0.7673 = 0.7 + 0.06 + 0.007 + 0.0003$
   (n) $4.721 = 4 + 0.7 + 0.02 + 0.001$
   (o) $6.1671 = 6 + 0.1 + 0.06 + 0.007 + 0.0001$
   (p) $28.312 = 20 + 8 + 0.3 + 0.01 + 0.002$
2. (a) 48.12 — forty eight decimal one two
   (b) 68.13 — sixty eight decimal one three
   (c) 78.87 — seventy eight decimal eight seven
   (d) 4.82 — four decimal eight two
   (e) 14.58 — fourteen decimal five eight
   (f) 111.78 — one hundred eleven decimal seven eight
   (g) 201.79 — two hundred one decimal seven nine
   (h) 412.112—four hundred twelve decimal one one two

3. (a) $0.139 = 0.1, 0.03, 0.009$ or $\frac{1}{10}, \frac{3}{100}, \frac{9}{1000}$
   (b) $0.7483 = \frac{7}{10}, \frac{4}{100}, \frac{8}{1000}, \frac{2}{10000}$
   (c) $8.312 = 8, \frac{3}{10}, \frac{1}{100}, \frac{2}{1000}$
   (d) $18.208 = 10, 8, \frac{2}{10}, \frac{8}{1000}$

(e) $204.243 = 200,4,\frac{2}{10},\frac{4}{100},\frac{3}{1000}$

(f) $25046.327 = 20000,5000,40,6,\frac{3}{10},\frac{2}{100},\frac{7}{1000}$

Exercise 19

1. (a) $0.41 > 0.14 \quad \left(\because \frac{41}{100} > \frac{14}{100}\right)$

(b) $0.89 < 0.98 \quad \left(\because \frac{89}{100} < \frac{98}{100}\right)$

(c) $0.325 < 0.365 \quad \left(\because \frac{325}{1000} > \frac{365}{1000}\right)$

(d) $0.814 > 0.199 \quad \left(\because \frac{814}{1000} > \frac{199}{1000}\right)$

(e) $0.75 > 0.698 \quad \left(\because \frac{750}{1000} > \frac{698}{1000}\right)$

(f) $0.37 > 0.189 \quad \left(\because \frac{370}{1000} > \frac{189}{1000}\right)$

(g) $0.325 > 0.14 \quad \left(\because \frac{325}{1000} > \frac{140}{1000}\right)$

(h) $0.18 > 0.125 \quad \left(\because \frac{180}{1000} > \frac{125}{1000}\right)$

(i) $0.03 > 0.01 \quad \left(\because \frac{3}{100} > \frac{1}{100}\right)$

(j) $0.001 < 0.1 \quad \left(\because \frac{1}{1000} < \frac{100}{1000}\right)$

2. (a) $0.063, 0.36, 0.89, 0.66, 0.569$

$$0.063 = \frac{63}{1000}$$

$$0.36 = \frac{36}{100} = \frac{360}{1000}$$

$$0.89 = \frac{89}{100} = \frac{890}{1000}$$

$$0.66 = \frac{66}{100} = \frac{660}{1000}$$

$$\frac{0.569}{1} = \frac{569}{1000} = \frac{569}{1000}$$

So, $0.063, 0.36, 0.569, 0.66, 0.89$

(b) $0.3, 0.8, 0.09, 0.13, 0.98$

$$0.3 = \frac{3}{10} = \frac{30}{100}$$

$$0.8 = \frac{8}{10} = \frac{80}{100}$$

$$0.09 = \frac{9}{100}$$

$$0.13 = \frac{13}{100}$$

$$0.98 = \frac{98}{100}$$

$0.09, 0.13, 0.3, 0.8, 0.98$

(c) $0.026, 0.36, 0.98, 0.77, 0.569$

$$0.026 = \frac{26}{1000}$$

$$0.36 = \frac{36}{100} = \frac{360}{1000}$$

$$0.98 = \frac{98}{100} = \frac{980}{1000}$$

$$0.77 = \frac{77}{100} = \frac{770}{1000}$$

$$0.569 = \frac{569}{1000}$$

$0.026, 0.36, 0.569, 0.77, 0.98$

(d) $0.981, 0.098, 0.89, 0.198, 0.809$

$$0.981 = \frac{981}{1000}$$

$$0.098 = \frac{98}{1000}$$

$$0.89 = \frac{89}{100} = \frac{890}{1000}$$

$$0.198 = \frac{198}{1000}$$

$$0.809 = \frac{809}{1000}$$

$0.098, 0.198, 0.809, 0.89, 0.981$

(e) $0.0631, 0.092, 0.351, 0.891, 0.039$

$$0.0631 = \frac{631}{10000}$$

$$0.092 = \frac{92}{1000} = \frac{920}{10000}$$

$$0.351 = \frac{351}{1000} = \frac{3510}{10000}$$

$$0.891 = \frac{891}{1000} = \frac{8910}{10000}$$

$$0.039 = \frac{39}{1000} = \frac{390}{10000}$$

$0.039, 0.0631, 0.092, 0.351, 0.891$

(f) $0.321, 0.63, 0.93, 0.05, 0.83$

$$0.321 = \frac{321}{1000}$$

$$0.63 = \frac{63}{100} = \frac{630}{1000}$$

$$0.93 = \frac{93}{100} = \frac{930}{1000}$$

$$0.05 = \frac{5}{100} = \frac{50}{1000}$$

$$0.83 = \frac{83}{100} = \frac{830}{1000}$$

$0.05, 0.321, 0.63, 0.83, 0.93$

3. (a) $0.7, 0.05, 0.92, 0.65, 0.12$

$$0.7 = \frac{7}{10} = \frac{70}{100}$$

$$0.92 = \frac{92}{100}$$

$$0.05 = \frac{5}{100}$$

$$0.65 = \frac{65}{100}$$

$$0.12 = \frac{12}{100}$$

$0.92, 0.7, 0.65, 0.12, 0.05$

(b) $0.92, 0.7, 0.65, 0.12, 0.05$

$$0.92 = \frac{92}{100}$$

$$0.7 = \frac{7}{10} = \frac{70}{100}$$

$$0.65 = \frac{65}{100}$$

$$0.12 = \frac{12}{100}$$

$$0.05 = \frac{5}{100}$$

$0.92, 0.7, 0.65, 0.12, 0.05$

(c) $0.35, 0.65, 0.85, 0.15, 0.015$

$$0.35 = \frac{35}{100} = \frac{350}{1000}$$

$$0.65 = \frac{65}{100} = \frac{650}{1000}$$

$$0.85 = \frac{85}{100} = \frac{850}{1000}$$

$$0.15 = \frac{15}{100} = \frac{150}{1000}$$

$$0.015 = \frac{15}{1000}$$

$0.85, 0.65, 0.35, 0.15, 0.015$

(d) $0.85, 0.45, 0.65, 0.25, 0.02$

$$0.85 = \frac{85}{100}$$

$$0.45 = \frac{45}{100}$$

$$0.65 = \frac{65}{100}$$

$$0.25 = \frac{25}{100}$$

$$0.02 = \frac{2}{100}$$

$0.85, 0.65, 0.45, 0.25, 0.02$

(e) $0.111, 0.011, 0.001, 0.999, 0.811,$
$0.999, 0.811, 0.111, 0.011, 0.001$

Exercise 20

1. (a)
$$\begin{array}{r} 1.3 \\ +\ 5.9 \\ \hline 7.2 \end{array}$$

(b)
$$\begin{array}{r} 8.2 \\ +\ 1.7 \\ \hline 9.9 \end{array}$$

(c)
$$\begin{array}{r} 28.82 \\ +\ 1.08 \\ \hline 29.90 \end{array}$$

(d)
$$\begin{array}{r} 112.31 \\ +\ 26.89 \\ \hline 139.20 \end{array}$$

(e)
$$\begin{array}{r} 12.80 \\ +\ 3.75 \\ \hline 16.55 \end{array}$$

(f)
$$\begin{array}{r} 412.93 \\ +\ 23.80 \\ \hline 436.73 \end{array}$$

(g)
$$\begin{array}{r} 357.13 \\ +\ 243.77 \\ +\ 56.00 \\ \hline 656.90 \end{array}$$

(h)
$$\begin{array}{r} 10.050 \\ +\ 100.005 \\ +\ 1000.500 \\ \hline 1110.555 \end{array}$$

(i)
$$\begin{array}{r} 2020.300 \\ +\ 850.650 \\ +\ 3445.713 \\ \hline 6316.663 \end{array}$$

2. (a)
$$\begin{array}{r} 4.270 \\ +\ 2.329 \\ +\ 18.039 \\ +\ 88.100 \\ \hline 112.738 \end{array}$$

(b)
$$\begin{array}{r} 69.390 \\ +\ 84.630 \\ +\ 02.922 \\ +\ 08.293 \\ \hline 165.235 \end{array}$$

(c)
$$\begin{array}{r} 0.323 \\ +\ 1.645 \\ +\ 13.850 \\ +\ 6.800 \\ \hline 22.618 \end{array}$$

(d)
$$\begin{array}{r} 112.910 \\ +\ 211.300 \\ +\ 69.380 \\ +\ 85.112 \\ \hline 478.702 \end{array}$$

(e)
$$\begin{array}{r} 1.121 \\ +\ 2.870 \\ +\ 3.009 \\ +\ 16.797 \\ \hline 23.797 \end{array}$$

(f)
$$\begin{array}{r} 0.888 \\ +\ 8.000 \\ +\ 0.800 \\ +\ 0.880 \\ \hline 10.568 \end{array}$$

3. (a)
$$\begin{array}{r} 0.9 \\ -\ 0.4 \\ \hline 0.5 \end{array}$$
(b)
$$\begin{array}{r} 1.3 \\ -\ 0.7 \\ \hline 0.6 \end{array}$$
(c)
$$\begin{array}{r} 2.6 \\ -\ 1.8 \\ \hline 0.8 \end{array}$$

(d)
$$\begin{array}{r} 48.32 \\ -\ 33.48 \\ \hline 14.84 \end{array}$$
(e)
$$\begin{array}{r} 149.130 \\ -\ 008.864 \\ \hline 140.266 \end{array}$$

(f)
$$\begin{array}{r} 141.650 \\ -\ 053.891 \\ \hline 87.759 \end{array}$$
(g)
$$\begin{array}{r} 373.43 \\ -\ 272.69 \\ \hline 100.74 \end{array}$$

(h)
$$\begin{array}{r} 512.48 \\ -\ 221.83 \\ \hline 290.65 \end{array}$$
(i)
$$\begin{array}{r} 312.710 \\ -\ 211.893 \\ \hline 100.817 \end{array}$$

4. (a)
$$\begin{array}{r} 49.4 \\ -\ 39.7 \\ \hline 9.7 \end{array}$$
(b)
$$\begin{array}{r} 148.52 \\ -\ 89.88 \\ \hline 58.64 \end{array}$$

(c)
$$\begin{array}{r} 421.50 \\ -\ 315.65 \\ \hline 105.85 \end{array}$$
(d)
$$\begin{array}{r} 36.13 \\ -\ 28.85 \\ \hline 7.28 \end{array}$$

(e)
$$\begin{array}{r} 61.00 \\ -\ 45.62 \\ \hline 15.38 \end{array}$$
(f)
$$\begin{array}{r} 82.00 \\ -\ 69.98 \\ \hline 12.02 \end{array}$$

(g)
$$\begin{array}{r} 442.1 \\ -\ 230.8 \\ \hline 211.3 \end{array}$$
(h)
$$\begin{array}{r} 412.3 \\ -\ 213.9 \\ \hline 198.4 \end{array}$$

(i)
$$\begin{array}{r} 272.00 \\ -\ 181.45 \\ \hline 90.55 \end{array}$$

5. $\begin{array}{r} 1000.00 \\ -\ 558.07 \\ \hline 441.93 \end{array}$

6. $\begin{array}{r} 3.01 \\ -\ 1.03 \\ \hline 1.98 \end{array}$

7. Total tomatoes = 10 kg
   Tomatoes used = 8.250 kg

$$\begin{array}{r} 10.00 \\ -\ 8.250 \\ \hline 1.750 \end{array}$$

   Tomatoes left 1.750 kg

8. Amit spend on

Groceries	=	850.75
Vegetables	=	+250.50
Milk	=	+750.00
		₹1851.25
Money he had		= 2000.00
Moneh he is left with		= 1851.25
		= **₹148.75**

Lesson – 7, Geometry

Exercise 21

1. (a) three (b) five (c) five (d) four
2. (a) line segment (b) ray (c) line
3. (a) straight line $\overleftrightarrow{PQ}$ (b) Ray $\overleftrightarrow{XY}$
   (c) line segment $\overline{CD}$
4. (a) $\angle ABC$
   (b) $\angle OPQ$ and $\angle QPR$ and $\angle OPR$
   (c) $\angle LMN$
5. (a) RQ and QP (b) Q
   (c) $\angle RQP$ or $\angle PQR$

Exercise 22

1. (a) one, two (b) 90°
   (c) right angle (d) 180°
   (e) 360°

2. (a) acute angle (b) right angle
   (c) obtuse angle (d) actue angle
   (e) actue angle
4. (a) $60°$ $(\therefore 90° - 30° = 60°)$ (b) $45°(\therefore 90° - 45° = 45°)$
   (c) $36°$ $(\therefore 90 - 54 = 36)$ (d) $1°(\therefore 90 - 89 = 1)$
   (e) $30°$ $(\therefore 90 - 60 = 30)$
5. (a) $180 - 35 = 145°$ (b) $180 - 75 = 115°$
   (c) $180 - 90 = 90°$ (d) $180 - 150 = 30°$
   (e) $180 - 170 = 10°$
6. $45°, 45°$ $(90/2 = 45°)$
7. $90°, 90°$ $(180/2 = 90°)$
8. (b)

Exercise 23

1. (a) same (b) isosceles triangle
   (c) equilateral triangle (d) 3, 3
   (e) unequal (f) acute
2. (a) triangle, LMC (b) three LM, MC, CM
   (c) 3, $\angle$L, $\angle$M, $\angle$C
3. (a) Scalene (b) equilateral
   (c) isosceles (d) isosceles
   (e) scalene (f) equilateral
4. (a) right angled (b) right angled
   (c) obtuse angled

Exercise 24

1. (a) four (b) four (c) right (d) equal
   (e) rectangle
2. (a) ✓ (b) ✓ (c) ✗ (d) ✓
   (e) ✗
3. (a) rectangle (b) square (c) rectangle (d) square

Computer

Lesson – 1 : Computer Peripherals

1. Multiple Choice Questions :
   (a) (i) (b) (ii) (c) (ii)
   (d) (ii) (e) (iii)
2. (a) True (b) True (c) False
   (d) True (e) False
3. (a) Peripherals (b) Input/output
   (c) Hot keys (d) Mouse pad
   (e) Input, output (f) Optical Mark Reader
   (g) Visual Display Unit
4. Match the following :

Scanner	To copy image from the paper to the computer
Joystick	Move in all four directions
OMR	Accept input from the mark of pen or pencil
Input device	Bar code reader, light pen, OCR
Monitor	Give soft copy
Printer	Impact and non inpact

5. (a) Different devices perform different functions like :
   (i) Accept input (ii) Do work
   (iii) Give output (iv) Remember things
   (b) The devices designed to accept the input from the user and send it to processor are called input devices. Keyboard, mouse, scanner are input devices.
   (c) Output devices are the devices that show the processed information or result to the user. Monitor, printer and speakers are some output devices.
   (d) LED status indicartors blink and you get aware about the status of the keys.
   (e) Numlock, Caps lock and Scroll lock are the LED status indicators in the keyboard.

(f) Different types of mouse are scroll mouse, roller mouse, optical mouse and cordless mouse.

(g) The output shown on the monitor is known as soft copy. The output we get as a printout from the printer is the hard copy.

(h) Printer prints the result on paper as printout. The two types of printers are : impact printers and non-impact printers.

6. Give the use of following keys :

(a) Page Up : Takes the cursor one screen up or top of the screen.

(b) Ctrl : This key works in combination with other keys.

(c) Home : Takes the cursor to the beginning of the sentence.

(d) Arrow keys : Moves the keys in four directions.

(e) Page down : Takes the cursor one screen down or bottom of the screen.

(f) Esc : It is used to cancel or ignore any command.

7. Give the functions of the following :

(a) Speakers : This device is used to give the sound output from the computer.

(b) Plotters: Device used to give high quality graphical outputs.

(c) Keyboard : Standard input device used to feed or input data through typing.

(d) Modem : This device is used to send and receive data through internet.

(e) Scanner : This device is used to copy or accept the image from the page or document to the computer.

(f) Joystick : This device is similar to mouse, used to control the movement in the four directions on the screen. Generally used to play games.

Lesson – 2 : Windows Basics

1. (a) (ii) (b) (i) (c) (i)
   (d) (i) (e) (ii)

2. (a) True (b) True (c) True
   (d) False (e) False
3. (a) Operating (b) Background
   (c) Start (d) Start up menu
   (e) More (f) Screen saver
   (g) Shut down (h) recycle bin
   (i) right click
4. (a) (i) Date/Time box
   (ii) Icons of some services that may be executing in the background.
   (b) (i) Primary name
   (ii) Secondary name/extension
   (c) (i) Left pane (ii) right pane
5. (a) .txt (b) .doc
   (c) .bmp (d) .gif
6. (a) (i) Programs
   (ii) Document
   (iii) Settings
   (iv) Find
   (v) Shut down
   (b) (i) Microsoft Excel
   (ii) Accessories
   (iii) Microsoft Powerpoint
   (iv) Paint
   (v) Notepad
   (c) (i) Active Desktop (ii) Arrange icons
   (iii) Refresh (iv) New
   (v) Properties
   (d) (i) Themes (ii) Desktop
   (iii) Screen saver (iv) Appearance
   (v) Settings
7. (a) Desktop : It is the opening screen of windows. This screen provides the background to the operating system. It can be made attractive by giving different

settings. This screen always remain open when window is loaded and we work on it. It is also known as windows workspace.

(b) Icons : These are the small graphical pictures to represent a software or a program. It is found on a desktop as well as in other menus of the operating system. The name of the software is written below it and it is opened when you double click on it.

(c) Programs : Shows the list of programs that run on the computer.

(d) File : A file is a collection of data stored under one name in the computer memory.

(e) Folder : A folder is a place where all the files and other folders can be stored together.

8. (a) (i) We can save a file and folder.
   (ii) We can give a name to a file and folder.
   (iii) We can open a file and a folder by double clicking on it.

   (b) (i) File name, must start with alphabet like a, b, d, e, k.
   (ii) It can have numbers in it, only after alphabet number can be written.
   (iii) Try to avoid using keywords like open, save, etc.

   (c) (i) You can open a program by simply clicking on its icon.
   (ii) Easy to learn and use.
   (iii) Supports multimedia features like sounds, movie, etc.

9. (a) Windows operating system has been given the name as windows because all the facilities provided by it are given within the simple rectangular boundaries called windows. You can view many windows within Windows Operating System.

   (b) The main components of windows operating system are : Windows, desktop, icons, taskbar, etc.

   (c) Taskbar consists of start button, and system tray.

(d) To change the wallpaper settings of the desktop right click on the plain area of desktop. Floating popup menu appears. Click on properties. Display properties dialog box will appear. Choose the wallpaper from the list and click OK. New wallpaper will be set on desktop.

(e) A file is a collection of data stored under one name is the computer memory whereas a folder is a place where all the files can be stored together.

(f) Windows explorer is a powerful program which helps you to organize files and folders in an efficient manner.

(g) Windows Operating System is a system software where as window is facility provided by window operating system.

10. (a) Done earlier.

(b) Open the display properties dialog box by clicking on properties option of floating pop up menu of desktop. Click on screen saver. Choose the desired screen saver and click OK.

(c) First right click on the blank area on the desktop or in windows explorer.

↓

Click on New option from the menu displayed.

(d) In windows explorer click on the folder.

↓

Click on copy icon from the menu box.

↓

Double click the folder where you want to copy the content.

↓

Click on paste icon.

(e) To open paint program double click on its icon.

Or

Click on start — Programs — Accessories — Paint

Lesson – 3 : MS Paint

1. (a) (iii) (b) (ii) (c) (i)
   (d) (ii) (e) (iii)
2. (a) True (b) True (c) False
   (d) True (e) False
3. (a) Draw (b) Background colour
   (c) Click (d) left click
   (e) one, two (f) three
   (g) file (h) three
   (i) .bmp (j) screen saver
4. (a) Flip : It turns the picture vertically or horizontally.
   (b) Rotate : It turns the picture in different angles.
   (c) Stretch : It increases the size horizontally or vertically.
   (d) Skew : It partially turns the picture horizontally or vertically.
5. (a) (i) Eraser (ii) Rectangle
   (iii) Ellipse (iv) Curve
   (v) Polygon (vi) Brush
   (vii) Magnifier (viii) Select tool
   (b) (i) File Menu (ii) Edit Menu
   (iii) View Menu (iv) Image Menu
   (v) Colours Menu (vi) Help Menu
   (c) (i) New (ii) Open
   (iii) Save (iv) Save as
   (v) Print (vi) Page setup
6. (a) This tool helps you to draw the closed figure, as it redraw the line from its end point.
   (b) Curve tool is used draw curves.
   (c) Magnifier is used to view the enlarge the size of the objects drawn on the workspace.
   (d) Select tool selects any object from the work space, selection is made in rectangle.
   (e) Free form select is also used to select objects from

the workspace, just using this you can select the area in any shape.

7. (a) Cut : Cut command is used to cut the selection portion on the workspace.
   (b) Clear selection : It clears the selected position.
   (c) Cut and paste : Using this we can cut the desired selection and can paste it to other location.
   (d) Select all helps us to select the entire work in the workspace.
   (e) UNDO helps us to cancel the previous action. We can undo three actions at a time.
8. (a) Click on start
   Select programs
   Click on accessories
   Select Paint
   (b) The main part of MS Paint screen are as follows :
      (i) Tool Bar : It has many options to draw and colour different objects on the work area.
      (ii) Colour bar : It offers different colours to be used in various drawings.
      (iii) Work area : This provides the space for drawing different things.
   (c) When we click on any menu and a list of more options displayed are called pop up menus.
   (d) Save command saves the file in a computer's memory where as save as option saves a file with a new name.
   (e) You can correct your mistakes in paint with two methods :
      (i) Using eraser tool
      (ii) Using the undo option of edit menu.
   (f) Undo helps us to cancel the previous option.
   (g) To save a file in MS Paint :
      (i) Click on file menu.
      (ii) Click on save.

(iii) Give the name of the file.
(iv) Click on save button.

(h) Draw an attractive pattern or figure in Paint.
Click on file menu.
Select the option as set *as wallpaper* (centred)
Give the name to save the file. Wallpaper is set.

General Knowledge

Lesson – 1 : Single Words

1.	Autobiography	2.	Biography
3.	Arbitrator	4.	Catalogue
5.	Centenary	6.	Fatalist
7.	Honorary	8.	Illiterate
9.	Manuscript	10.	Omnipotent

Lesson – 3 : Sanctuaries And Parks

1.	(K)	2.	(O)	3.	(I)
4.	(L)	5.	(J)	6.	(E)
7.	(G)	8.	(M)	9.	(A)
10.	(C)	11.	(F)	12.	(N)
13.	(D)	14.	(H)	15.	(B)

Lesson – 4 : Know More About Plants

1.	Teak	2.	Willow	3.	Cinchona,
4.	Kiwi	5.	Resurrection Fern	6.	Aloe Plant

Lesson – 5 : Historical Monuments of India

1. Char Minar (Hyderabad)
2. Taj Mahal (Agra)
3. Parliament House (New Delhi)
4. Hawa Mahal (Jaipur)
5. Sanchi stupa (M.P.)
6. Buland Darwaza (Fatehpur Sikri).

Lesson – 6 : Capitals of Indian States

1. Hyderabad	2. Dispur	3. Patna
4. Raipur	5. Panji	6. Simla
7. Ranchi	8. Bangaluru	9. Bhopal
10. Mumbai	11. Imphal	12. Bhuvaneshwar
13. Chandigarh	14. Jaipur	15. Lucknow

Lesson – 7 : World Tour

1. London (England)	2. Delhi (India)
3. Mecca (Arabia)	4. Kualalumpur (Malaysia)
5. Washington (USA)	6. Pisa Rome (Italy)

Lesson – 9 : Wonders of the World

1. Machu Picchu
2. Colosseum
3. Statue of Christ the Redeemer
4. Great Wall of China
5. Taj Mahal
6. Chichen Itza
7. The ancient city of Petra

Lesson – 9 : Capital And Currency

A.	1. (j)	2. (a)	3. (i)	4. (b)
	5. (h)	6. (c)	7. (g)	8. (d)
	9. (f)	10. (e)		
B.	1. (f)	2. (g)	3. (h)	4. (i)
	5. (j)	6. (a)	7. (b)	8. (c)
	9. (d)	10. (e)		

Lesson – 10 : First Man in the World

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

Lesson – 11 : First Women in the World

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

Lesson – 12 : Similar Persons

1. Actress
2. Actor
3. Presidents of India
4. Vice-President of India
5. Prime Minister of India
6. Vice Prime Minister of India
7. Viceroys of India
8. Mughal Emperors
9. Secretary Generals of U.N.O.
10. Cricket Players.

Lesson – 13 : National Sports

1. Cricket
2. Hockey
3. Table Tennis,
4. Bull Fighting
5. Baseball
6. Football

Lesson – 14 : Sports And Number of Players

1. 1
2. 2
3. 4
4. 5
5. 6
6. 7
7. 9
8. 11
9. 12
10. 15

Lesson – 15 : Sports And Terms

1. (a)
2. (a)
3. (b)
4. (b)
5. (a)
6. (b)
7. (b)
8. (a)
9. (b)
10. (a).

Lesson – 16 : Television Channels

1. Doordarshan
2. Cartoon Network,
3. Zee Cinema
4. Zee News
5. Zee Television
6. Star Plus
7. Star Sports
8. Sub TV
9. Discovery Channel
10. Sony Entertainment Television
11. Entertainment Sports Programming Network
12. National Geographic Channel

Lesson – 17 : Cinema

1. Vidya Balan
2. Amir khan
3. Ajay Devgan
4. Priyanka Chopra
5. Sonakshi Sinha
6. Shahid Kapoor.

Lesson – 19 : Medical Practitioners

1. (c) 2. (b) 3. (c) 4. (b)
5. (a) 6. (c) 7. (b) 8. (a)
9. (b) 10. (c)

Moral Values

Lesson – 1 : God Is Everywhere

1. (a) (iii) small village (b) (ii) God
   (c) (ii) leg (d) (i) seen
2. (a) Manu (b) Temple (d) Crutches
3. (a) False (b) False
   (c) True (d) False
4. (a) Manu asked the priest "Why do people say that God is everywhere?"
   (b) On hearing Manu, the priest replied that he will answer his question one day.
   (c) Manu lived in a small village.
   (d) The moral of the story is that, if we pray to God with our heart and with dedication, we will be able to feel his presence.

Lesson – 2 : Forgiveness

1. (a) (iii) mistakes
   (b) (i) Dr. Rajender Prasad
   (c) (i) scolded the servant
   (d) (iii) return
2. (a) mistakes (b) forgiveness (c) harm
   (d) fight (e) weak
3. (a) True (b) False (c) True
   (d) False
4. (a) Quarelling causes great harm.
   (b) 'Tit for tat' means, if someone hits somebody, they hit back. If any one insults them, they too insult them in return.
   (c) Yes, we all commit mistakes.
   (d) No, I do know anyone who does not commit mistakes.

(e) The first President of India was Dr. Rajendra Prasad.
(f) No, a person does not lose his or her degnity by apologizing.
(g) If we pardon those who have made mistakes then one day they will become our friends.

Lesson – 3 : Obedience

1. (a) (iii) parents
   (b) (ii) 10 years old
   (c) (iii) on the deck of the ship
   (d) (iii) stay on the deck till he returns
2. (a) True (b) True
   (c) True (d) True
3. (a) God (b) children
   (c) father (d) deck
   (e) eye
4. (a) 10 years (b) Father
   (c) Soldiers (d) Casabiarca
5. (a) Parents are the greatest gift of God to a child.
   (b) Parents teaches us good things so that everyone loves us.
   (c) Casabianca's father told him to stay at the deck till he come back.
   (d) When Casabiarca was on the deck of the ship, suddenly a few bombs came and fell on the deck causing great fire. The fire soon spread at the whole deck.
   (e) When fire spread on the deck, Casabianca stayed there.
   (f) Casabianca died but he did not leave the deck as his father told him to stay at the deck till he comes back.

हिंदी

पाठ - 1 : जतिन और उसके जूते

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क. (ब) ख. (ब) ग. (अ)

घ. (स) ङ. (अ)

2. खाली स्थान भरिए :

क. बाज ख. धुन ग. छलाँगें

घ. दौड़ ङ. दर्द

3. किसने, किससे कहा :

क. जतिन के पिता ने जतिन से कहा ख. जतिन की माँ ने जतिन से कहा

ग. मोचियों के नेता ने जतिन से कहा घ. मोचियों के नेता ने जतिन से कहा

ड. मोची ने जतिन से कहा च. जतिन ने दर्जियों से कहा

4. सत्य/असत्य लिखिये :

क. सत्य ख. सत्य ग. सत्य

घ. सत्य

5. निम्न प्रश्नों के उत्तर लिखिए :

क. जतिन के पिताजी ने उसे हिदायत दी कि यदि उसने फिर इन जूतों को तोड़ा, तो उसे फटे हुए जूते ही पहनने पड़ेंगे।

ख. स्कूल हो या घर हर वक्त धमा-चौकड़ी मचाना हर समय अपनी पेंसिल चबाना आदि जतिन की गंदी आदतें थीं।

ग. जतिन सबसे अधिक अपनी पतंग की हिफाजत करता था।

घ. आसमान के उस पार जाकर जतिन को अपने चारो ओर केवल मोची दिखाई दिए।

ड. मोचियों ने नेता ने जतिन से कहा कि 'मैंने सुना है कि तुम बहुत शरारती हो। तुमने अपने जूतों की ये क्या हालत बना रखी है। ये तो जैसे मर चुके हैं।''

च. ''हमारे पास तुम्हारे खाने के लिए कई चीजें हैं।'' यह कहकर सारे दर्जी हँसने लगे।

छ. जतिन अब पूरी तरह से बदल चुका था और वह अभी तक मोचियों और दर्जियों को भूला नहीं था इसलिए धमा-चौकड़ी करनी कम कर दी थी।

6. नीचे लिखे मुहावरों को वाक्यों में प्रयोग कीजिए :

➽ स्वंय कीजिए।

7. निम्न शब्दों के अर्थ लिखिए:

क. पुराना फैशन ख. आदेश ग. लीडर

घ. सफलता ङ. उछल-कूद च. सावधान

छ. हिफाजत दादी से कहा

पाठ - 2 : फूल का विलाप

2. बताइए :

क. फूल मनुष्य से पूछता है कि क्या सुंदर होना ही मेरा अपराध है।

ख. चार दिन जीवित रहकर फूल तितली को अपना मधुरस पिलाना चाहता था तथा सूरज से थोड़ा-सा प्यार लेना चाहता था।

ग. मनुष्य ने फूल को डाली से तोड़ा, सूँघा और फैक दिया।

घ. स्वंय कीजिए।

ङ. स्वंय कीजिए।

4. उस विद्‌वान का नाम श्री जगदीश चन्द्र बसु है।

जगदीश चन्द्र बसु का जन्म तीस नवंबर 1858 में पूर्वी बंगाल के एक छोटे से गाँव में हुआ था। इनके पिता एक चिकित्सक थे।

पाठ - 3 : हमारी संस्कृति

2. बताइए :

क. भारत के लोग उदार हृदय वाले हैं। अपने पराए सभी के प्रति स्नेह भाव लिए सबको प्रेम व आदर देते हैं।

ख. 1. नवरात्र
2. रक्षाबंधन
3. दीपावली

3. रिक्त स्थान भरिए :

क. दु:खी बनाते हैं।

ख. नवरात्रों

ग. सेवा

घ. संस्कृति

4. स्वंय कीजिए।

5. चहल-पहल छोटी-छोटी भाँति-भाँति

एक-दूसरे

6. भारतीय संस्कृति पश्चिमी संस्कृति भारतीय संस्कृति पश्चिमी संस्कृति

पाठ - 4 : सेब का पेड़

2. बताइए :

क. गोलू का घर पुराना व कई स्थानों से टूटा-फूटा था।

ख. गोलू अपनी माँ से कहता, ''माँ हमारा घर एकदम पुराना और बेकार है। इन फटे वस्त्रों में आप अभी से बूढ़ी दिखाई देती हो। सभी काम स्वयं ही करने पड़ते हैं। हमें न तो कोई सुख है और न ही आराम।''

ग. गोलू की माँ उसे यह कहकर समझाती कि ''यही सुख है और यही आराम। तुम्हें मेरे पास बैठने का वक्त भी है, मेहनत करके अच्छी भूख

लगती है और शांति से नींद आ जाती है-और हमें क्या चाहिए।''

घ. धनी बनने की लालसा में जतिन अपने मालिक का दुर्व्यवहार सहन कर लेता था।

ड. वह कभी-कभी सोचता कि काश वह आराम से अपने गाँव के घर में कुछ क्षण के लिए उस सेब के पेड़ के नीचे बैठ सकता यह सोचकर उसे अब दु:ख होता और हँसी भी आती।

3. वाक्य पूरे कीजिए:

क. पास जाने पर ही सच्चाई का पता चलता है कि उससे सुख मिलेगा या

ख. वर्तमान को भुला देता है। जिस पेड़ के नीचे बैठने के लिए वह आज लालायित है, उस पेड़ तले बैठकर पहले वह अपने को दु:खी समझा।

ग. नींद भी उसे वहाँ उस पेड़ वाले घर में ही मिलती थी।

घ. और अपने कर्मचारियों को अपमानित करना उसकी आदत थी।

4.

पुत्रवान	गाड़ीवान
कोचवान	रूपवान
शीलवान	ऐश्वर्यवान

5. वाक्य बनाइए:

स्वंय कीजिए।

6. वाक्य पूरे कीजिए:

क. गहने ख. बुढ़िया ग. घमंडी

घ. दु:खी ङ. बुरा व्यवहार

च. ललचाया हुआ, अधिक लालच के कारण

छ. जोर देकर बात मनवाना

पाठ - 5 : पुराने दिनों की छुट्टियाँ
खण्ड 'क'

2. बताइए :

क. निधि ने गर्मियों की छुट्टियों में खेल-कूद की योजनाएँ बना रखी थी लेकिन उन पर तो पानी फिर गया क्योंकि सुबह नौ बजे ही बिजली चली जाती थी।

ख. पुराने दिनों में घने पेड़ों की छाया में गर्मी का पता ही नहीं चलता था। निधि की दादी जी पेड़ों की डाली पर मोटी-रस्सी का झूला डालकर झूलनी थी। पेड़ों से पके फल जामुन, बेर इमली इक्ट्ठा करके मिल बाँटकर खाती थी। इसके बाद रस्सी कूदकर थक जाने पर पत्रिकाएँ पढ़कर छुट्टियाँ बिताती थी।

ग. मनुष्य ने फर्नीचर, इमारती सामान आदि बनाने के लिए पेड़ों की अंधाधुध कटाई कर दी।

घ. दादी की बातें सुनकर निधि ने निर्णय लिया कि वह भी एक पेड़ लगाएगी।

च. स्वयं कीजिए।

3. खाली स्थान भरिए :

क. बड़बड़ाने ख. मुस्करा

ग. कट घ. प्रसन्नता

4. वाक्य में प्रयोग कीजिए :

स्वयं कीजिए।

5. विलोम शब्द लिखिए :

खिन्नता	जोर से
छोटा	असंभव
संभव	बेमजा
पतली	कच्चे

पाठ - 6 : छोटे कद पर काम बड़े

1. बताइए :

क. इनके छोटे-छोटे कद, छोटी-छोटी, किन्तु चौकन्नी आँखे, तेजस्वी चेहरे और फुर्तीली देह इन्हें अनोखा व्यक्तित्व प्रदान करते हैं।

ख. पूरी एकाग्रता व मनोयोग से किए जाने के कारण इनका प्रत्येक कार्य अत्यंत उच्चकोटि का होता है।

ग. प्राय: फूलों द्वारा ये अपनी भावनाएँ प्रकट किया करते हैं।

घ. स्वयं कीजिए।

3. लिखिए :

रुचि	व्यवस्था
जोड़	थक
चिन्हों	

पाठ - 7 : अपने बलबूते

2. बताइए :

क. व्यक्ति चिड़िया को सोने के पिंजरे का लोभ देकर पिंजरे में डालना चाहता है।

ख. चिड़िया पिंजरे को बंदीगृह कहकर अस्वीकार करती है।

ग. सच्चा सुख आजादी में होता है।

घ. पराधीन को हमेशा सिर झुकाकर सब कुछ सहना पड़ता है। उसका जीवन खिलौने की तरह अभिशापित बनकर जाता है।

ड. चिड़िया को अपनी शक्ति पर भरोसा है।

3. निम्नलिखित मुहावरों को वाक्य में प्रयोग कीजिए :

क. सोनम अपने पति के आगे नतमस्तक हो गई।

ख. संजय अपना काम अपने बलबूते करता है दूसरों के भरोसे नहीं रहता।

ग. मदन ने अपने मित्र से कहा–टेढ़ी–मेढ़ी चालें मत चलो मैं तुम्हारी बातों में आने वाला नहीं हूँ।

घ. साहूकार से कर्ज लेने के कारण श्याम उसके हाथ का खिलौना बन गया।

4. खाली स्थान भरिए :

क. आजादी ख. अपने बलबूते

ग. प्यारी घ. नतमस्तक

5. कविता में से शब्द–युग्मों को छाँटिए :

जन्म–जन्म टेढ़ी–मेढ़ी भली–भाँति

6. स्वयं कीजिए।

7. स्वयं कीजिए।

Semester – II

English

Lesson –1 : What are you doing?

Comprehension

1. (a) (iv) (b) (ii) (c) (iii)
   (d) (iii)
2. (a) The gentleman was throwing the wastes in the drain.
   (b) Dirty water was speread on the road.
   (c) The dirty water does not find way to pass over so it begins to spread on the road. This dirty water is a heaven for breeding mosquitoes. These mosquitoes spread malaria and dengue fever.
   (d) High volumed noise (sound) is harmful because it can make the people deaf.
   (e) Making too much sound is said the sound pollution.
   (f) The germs of cholera are taken by flies from contaminated food and drinks to fresh sweets and food. It is the way by which cholera is spread.
   (g) Yes, it is our moral duty to keep the public place clean.

Word Knowledge

1. (a) of (b) on (c) by
   (d) on (e) with (f) in
2.

A	B
cholera	housefly
jaundice	dirty water
malaria	mosquito
high volumed sound	may make you deaf
platform, park	public places
drains	choked with polythene

Grammar Skill

1.

isn't	doesn't
aren't	didn't
amn't	haven't

willn't shan't

shouldn't mustn't

3. (a) in, at (b) off (c) over

(d) in (e) on (f) of

Composition

My dear friend,

I went to see the Taj Mahal at Agra. When I entered the main gate of the Taj, I was checked by metal dictator. People from all corners come to visit this grand monuments made of white marble, it stands on the right bank of the Yamuna. It is really a dream in marble. It has a big dome, four tall minerates on the four corners, it was built by Shah Jahan in the memory of his beloved queen Mumtaj Mahal.

Lesson – 2 : The King And His Three Daughter

Comprehension

1. (a) (iii) (b) (i) (c) (ii)

(d) (i)

2. (a) The king have three daughters.

(b) The first two daughters were very cunning and wicked.

(c) When the king was eighty years old, he felt tired of ruling the kingdom, so he wanted to rest.

(d) The king called his eldest daughter. He said to her, "How much do you love me?"

(e) The third daughter said, "Your majesty and my dear father. I respect you as a king and love as a father. I do not love you more or less. I believe in hard work and luck.

(f) The second daughter said to her old father, "Dear father, I think, you need only 5 courtiers. They need much money and make a lot of noise in the palace.

(g) At last the king lived with his third daughter.

Word Knowledge

1. (a) daughters (b) my (c) few
   (d) wicked (e) angry (f) ashamed
2. crafty empire
   cruel treatment
   dishonest disregard
   answer zeal
3. (a) courtier (b) prince (c) princess
   (d) messenger (e) queen

Grammar Skill

1. (a) The king called his three daughters to him.
   (b) The king had 50 courtiers.
   (c) The king went to his eldest daughter for stay.
   (d) The king wanted to rest now.
   (e) The king became very old.
2. (a) We got five rupees.
   (b) They reached the city in time.
   (c) She remembered her old days.
   (d) I understood the problem.
   (e) The train started for the next station.
   (f) We welcomed the guests.
3. (a) I went to school daily.
   (b) She wrote a letter to her mother.
   (c) Mayank spoke English frequently.
   (d) Sachin scored a century in every match.
   (e) Ravi bought a book from the bookstall.
4. (a) true (b) false (c) true
   (d) true (e) false

Composition

In this picture, a weaver is weaving a cloth. The colour of the cloth is green. His weaving is called handloom. It is an old method of weaving clothes. It falls under cottage or small scale industries. It is also the oldest occupation of Indians.

Lesson – 3 : Running And Shouting

Comprehension

1. (a) (ii) (b) (i) (c) (i)
   (d) (i)
2. (a) The boy is longing because he is running.
   (b) The boy will run across the field.
   (c) The boy wants to run down the hill.
   (d) The boy will run upto the sunset.
   (e) The girl is shouting because she is longing to shout.
   (f) The girl will shout in the rain.
3. (a) I am crossing a field.
   (b) And I shall run and I shall run.
   (c) And I shall shout down the hill.
   (d) And I shall run as I shout;

Word Knowledge

1. (a) hill running
   still fun
   shout down
2. (a) chalk (d) potato (c) lamp
   (d) tadpole

Grammar Skill

1. (a) Are you a funny girl?
   (b) Alas! We have lost the match.
   (c) Who called you here?
   (d) I met a boy in the street.
   (e) She does not attend her period.
2. (a) He was running when I saw him.
   (b) She was eating when I saw her.
   (c) The sun rose and we got up.
   (d) Let us walk for swimming.
   (e) The doctor had come before the patients died.
3. (a) The Ganga does not rise from the Himalayas.
   (b) I do not get up early in the morning.

(c) Hari does not write a letter to his mother.
(d) The boys do not work hard during the examinations.
(e) Sushma does not sing a sweet song.
(f) The teachers do not teach us English in the first period.
(g) I do not read the 'Ramayana' daily.
(h) We should not play in the playground.

Composition

My parents took me and my sister to the zoo yesterday. We first of all reached the cage of the lion. He was roaring. My father gave peanuts to the monkeys who was in the cage. From there we reached the pond of the alligator. It was widening its mouth. Then we saw giraffes and rhinos. There was a horn on the nose of the rhino. In the end we saw white peacocks. They were very beautiful big birds. We enjoyed much at the zoo.

Lesson – 4 : Eklavya : The True Pupil

Comprehension

1. (a) (i) (b) (ii) (c) (ii)
(d) (iii)

1. (a) Eklavya was the son of Hirnayadhenu, a chief of a tribe in the forest near Hastinapur.
(b) Eklavya fell down the ripen fruit from the tree.
(c) Dronacharya took the ring out by shooting an arrow.
(d) Eklavya pierced the target.
(e) Dronacharya had promised to Arjuna that there would be no archer better than you in the world. He reminded his words so he refused Aklavya to make him his pupil.
(f) He made a clay statue of Dronacharya, put it on a mound and began to practise of shooting arrow daily. In a few days he became skilled in shooting arrow.
(g) Eklavya took knife, cut his right hand thumb and presented to Dronacharya.

Word Knowledge

1. pupil — thumb
   archer — permission
   knife — arrow
   world — shooter

Grammar Skill

1. (a) The snake is swallowing its prey.
   (b) The earth is moving on its axis.
   (c) The whale devoured the small fish.
   (d) The pigeon swallows grains.
   (e) The crow caws.
2. (a) Ram and Shyam are swimming, aren't they?
   (b) There is a hen in the yard, isn't there?
   (c) It is not true; isn't it?
   (d) Your brother was in the class; wasn't your brother?
   (e) We cannot tell a lie; can't we?
3. (a) writing (b) running
   (c) sweeping, dusting (d) eating, dancing
   (e) shouting
4. (a) yellow (b) bird (c) prince
   (d) refused (e) arrows

Composition

It is the city park. People come here to enjoy picnic or walking. A pair is walking there. Another pair is enjoying picnic. Their children are plucking flowers which is a very bad habit. On the other hand their parents are sitting under a tree and enjoying eatables. The man is spitting on the grass. It is a very bad habit. He should spit in the dustbin. A dustbin if being seen behind him but he did not use it we should keep the park clean.

Lesson – 5 : How Great is God Almighty!

Comprehension

(a) (iii) (b) (iv) (c) (iv)
(d) (i) (e) (i)

2. (a) The God made all things and creatures.
   (b) He made their glowing colours. He made their tiny wings.
   (c) God brighten up the sky.
   (d) The summer sun is pleasant.
   (e) Eyes to see and lips to tell are given to us.
3. (a) All things bright and beautiful,
   (b) Each little flower that opens,
   (c) The ripe fruits in the garden,
   (d) How great is God almighty!

Word Knowledge

1.

A	B
tiny	very small
opens	blooms
living things	creatures
purple	violet
Almighty	God

2.

tall	sun
beautiful	tell
sings	wings
sky	wise

Grammar Skill

1. (1) flowers (2) plants (3) hills
   (4) glaciers (5) seas
2.

light	dull
big	raw
short	stupid, fool
ugly	huge

3. Countable : glass, leaf, dogs, ice, flats, villas, rings, books, temperature, houses, orange, sweet, king, traveller, sailor.
   Uncountable : air, ink, wind, suck, storewell

Composition

Do yourself

Lesson – 6 : Victory Before Defeat

Comprehension

1. (a) (i) (b) (i) (c) (iii)
   (d) (ii) (e) (ii)

Word Knowledge

1. (a) notorious (b) Sultan (c) determined
   (d) pity (e) thought (f) he
2. (a) Baba Bharti was a great saint of his time. He lived in a Ashram with his horse Sultan.
   (b) His horse Sultan was the only property of Baba Bharti.
   (c) The name of the horse was Sultan.
   (d) Kharag Singh a notorious dacoit came to BabaBharti.
   (e) Kharag Singh said to Baba Bharti, "Just move it for a while. It is heard that its gait is very splendid."
   (f) Baba Bharti went to him and requested the dacoit, "You may take Sultan but don't tell anybody how you have taken the horse."
   (g) In future, the people will not help the handicapped and needy persons. Nobody will believe them.

Word Knowledge

1. (a) notorious (b) Sultan (c) determined
   (d) pity (e) thought (f) he
2. (a) The rose was very beautiful.
   (b) He is a strong man.
   (c) There are many great leaders in my country.
   (d) The horse's gait was very splendid.
   (e) The queen of the palace was very ugly.
3.

A	B
Kharag Singh	was a notorious dacoit.
Sultan	the name of Baba's horse.
Baba Bharti	lived in a Ashram.
The dacoit	fell in Baba's feet.
The words of Baba	change the heart of the dacoit.

4. (a) false (b) true (c) true
   (d) true (e) false (f) true

Grammar Skill

1. He or she writes books.
   He or she teaches dance.
   He or she speaks.
   He or she preaches the people.
   He or she delivers speech.
   He or she writes novels.
2. (b) sleeping (c) ploughing (d) drinking
   (e) flying (f) reading
3. **Masculine :** brother, pouches, tiger, nephew, boy
   Feminine : cow, niece, lass
   Neuter : chair, tables, fans, cycle, cupboard, grass, field, room, spear, chain

Composition

He is a snake-charmer. He is playing on the pipe. A cobra is raising its hood. It looks at the pipe. Girls and boys are looking at the snake and his master. The snake-charmer has a stick and a cloth-bag inside him. Two baskets are also near him. In them he has some more snakes. Perhaps he will show them after it.

Lesson – 7 : Space : The House of Astronauts

Comprehension

1. (a) (iii) (b) (iii) (c) (iv)
   (d) (i)
2. (a) Sunita Williams is an astronaut of Indian origin.
   (b) Sunita Williams lives in America.
   (c) Sunita visited India in the month of September 2007.
   (d) The most important requirement of a person to become an astronaut is to be courageous.
   (e) Astronauts sleep in their spacecrafts. They not only take sleep but also snore like us. Their sleep in their seats or sleeping bags.
   (f) They do not eat like us. Their food is tinned in aluminium tubes or plastic containers. Sometimes

they eat cold food or sometimes they warm it in oven. They also eat bread, nuts, fruits, etc.

(g) Yes. They wash their bodies with body sponge. They use faneless bathing soaps. They wash their hands with waterless shampoo.

Word Knowledge

1. Cosmonaut walks in the space.

   Spacecraft is a space vehicle.

   Cosmonaut wear special kind of clothes, known as space suit.

   Atmosphere contains many gases.

   Patients with throat diseases are given liquid food to eat.

2. SPACE, EARTH, THEIR, MOUTH

3.

	A	B
(a)	Sunita Williams	is a citizen of America
(b)	She visited India	in the month of September 2007
(c)	Ayushi	is a ten year old girl student
(d)	I too want	to fly like you in the space
(e)	Rakesh Sharma	is the first Indian to walk in space
(f)	Since, there	is no water in the space

Grammar Skill

1. (a) softly (b) soundly/daily (c) slowly
   (d) quickly (e) sharply
2. (a) Does he work hard daily?
   (b) Is the mason building the room?
   (c) Does she tell a lie?
   (d) Were we in the garden yesterday?
   (e) Does Mona like reading novels?

Composition

My mother is ill at home and my father has gone out of home. There is none to look after her in her illness. I shall attend my ill mother.

Kindly ..... to .....

I shall be highly obliged to you.
With thanks
Dated ..... Your obediently
XYZ

EVS

Lesson – 1 : Our Relationship

1. (a) (iii) big family (b) (iv) all of these
   (c) (iv) grandpa (d) (ii) servant
   (e) (iii) gulli-danda and unch-neech
2. (a) True (b) False (c) False
   (d) False (e) True
3. a. Fun b. Play c. Wasted
   d. Video e. Homework
4. Students do yourself.
5. a. My family is a small family.
   b. I spend the most time at home with my mother.
   c. I spend my free time by playing games.
   d. I play cricket, football and hide and seek.
   e. I go with my family to amusement park, zoo and fairs.

Lesson – 2 : Our Relatives

1. a. (iv) all of these b. (i) earn money
   c. (ii) plants and animals d. (iii) aunt
   e. (i) guitar
2. a. True b. False c. True
   d. True e. True
3. a. Life b. Skate and to ride the cycle
   c. studies d. shopping
   e. Paper craft work
4. a. About plant and animals
   b. Stories about great, brave and trustful people

c. do paper craft work neatly
d. in my homework

5. a. My maternal uncle name is Mohit.
b. My paternal uncle name is Amit.
c. My father's sister name is Madhvi.
d. My mother's sister name is Monica.
e. My mother's sister's husband name is Vikas.

Lesson – 3 : People And Society

1. a. (i) families b. (ii) States
c. (iv) not work d. (ii) is scared of grandpa
e. (i) quarrel
2. a. True b. False c. True
d. False e. True
3. a. different b. together c. extra
d. women e. ignore
4. a. Ali and Sukhvindar should play with each other.
b. Tim's aunt should work in an office to earn extra money for the family.
c. No, Nishu and Nitin not behaving properly.
d. At such time our parents advice to study properly and to don't waste our time.

Lesson – 4 : Babies and Parents

1. a. (iii) lot of care b. (iv) can do all of these
c. (iii) warm them d. (ii) viviparous animals
e. (i) mammal
2. a. True b. False c. True
d. True e. True
3. a. nest b. eggs c. animals
d. body e. flood
4. A B
a. Reproduction 5. To give birth to their young ones

b.	Oviparous	3.	Birds
c.	Viviparous	1.	Mammals
d.	Frog	2.	Leaves its young ones after birth
e.	Mr. and Mrs. Dey	4.	Anil's foster parents

5. a. Reproduction is the process by which living beings produce their young ones.
   b. Many animals give birth to young ones like themselves. Such animals are called viviparous.
   c. Birds and some animals that they lay eggs for reproduction are called oviparous animals.
   d. Birds lay eggs in the nests.
   e. Snake.
   f. Human being and cow.
   g. Children who don't have any one to take care of them are adopted by some other people legally. These children are called adopted children.
   h. Children without parental support and protection, placed with a person or family to be cared for, are called foster children.

Lesson – 5 : At Playtime

1. Tick the correct alternative in the following :
   a. (i) dress and gears b. (ii) sports room
   c. (i) sports room d. (iv) all of these
   e. (iii) slums
2. a. True b. False c. true
   d. False e. true
3. a. Playground b. sports teacher
   c. indoor d. break
   e. personal
4. a. Yes, sukhvindar right in is his views to play honestly.
   b. No, we do not fight if we lose in a game.
   c. Yes, we let poor children to join in our games.

d. We play football in the school.
e. Mr. Vikas is our sports teacher.
f. Yes, we celebrate sports day in our school.

5. Unjumble the letters to name the sports/game:
   a. Cricket b. Marbles
   c. Football d. Kho-kho
   e. Kabaddi f. Tennis.

Lesson – 6 : Visiting The Fair

1. a. (ii) Fair b. (iv) ice cream
   c. (iii) tent d. (i) ice- candies
   e. (ii) food stall
2. a. False b. True
   c. True d. False
3.

A	B
a. Maut ka kuan	5. death well
b. Campa can	1. hoopla counter
c. Balloons	2. shooting
d. Magician	3. rabbit from an empty box
e. Acrobats	4. walking on the thin ropes

4. a. Yes, I have ever visited a fair.
   b. I saw magic tricks, acrobats, death well, monkey dance and food stalls in the fair.
   c. Yes, I saw many of the things discussed in the lesson like ice-cream corner, magic tricks, toys shop, rides and acrobats.
   d. I also go to zoo, picnic and shopping malls to spend time together with my family.
   e. I liked death well the most because it was exited and horrible show.

Lesson – 7 : Skilled Worker

1. a. (iii) embroider b. (i) tailor
   c. (iii) Akthar Bhai Sherwaniwale

d. (i) pot e. (ii) potter
f. (iii) motor-mechanic

2.

A	B
a. Saira	5. embroiderer
b. Rashid	1. tailor
c. Radhey shyam	2. carpenter
d. Ramu	3. cobbler
e. Jaggu lal	4. motor-mechanic

3. a. False b. False c. True
d. False e. False
4. a. An embroiderer uses strong, shiny threads and beads.
b. A tailor uses sewing machine.
c. A potter makes pots and vases.
d. A cobbler uses needle, hammer, nails and awl.
e. An ustad is a teacher.
5. Students do yourself.

Lesson – 8 : Pay and Travel

1. a. (iv) Bangaluru b. (iii) Rajdhani express
c. (ii) Mr. Narayan d. (iii) Bus
e. (iv) Vrindavan garden f. (i) numismats
2. a. Ticket b. TTE
c. Bangaluru d. Vrindavan garden
e. Indian
3. a. True b. true
c. true d. true
e. true
4. a. Nishu went at Railway Reservation Counter to reserve rail tickets.
b. Yes, I have ever travelled in a train.
c. Yes, I have bought tickets for any purpose travel.
d. The Indian currency is called rupees.
e. One hundred (100) paise make a rupee.
5. Students do yourself.

Lesson – 9 : The Neighbourhood Map

1. a. (i) neighbour
   b. (i) lake
   c. (iv) all of these
   d. (iii) red or black line
   e. (i) small tufts of grass
2. a. True
   b. false
   c. true
   d. false
   e. true
3.

A	B
a. Police Station	3. FIR of theft
b. Bank	5. Currency
c. Hospital	4. Patients and doctors
d. School	2. Students and teachers
e. Market	1. Shops and customers

4. a. Neighbourhood services near Ali's house are police station, bank, fire station, hospital, post office, school and market.
   b. A map is the representation of the land, complete with cities, mountains and lakes, roads and railways and many other features.
   c. The scale map is important because it shows the distance between places.
   d. Symbols resemble the features they represent; such as forests are representing by a group of trees. In this way, symbols help us to read a map.
   e. Two types of map scales are: (i) Large Scale Maps (ii) Small Scale Maps

Lesson – 10 : Garbage

1. a. (iv) all of these
   b. (iv) all of these
   c. (ii) animal dung
   d. (iv) all of these
   e. both (i) and (ii)
2. a. True
   b. False
   c. True
   d. False
   e. True
3. a. Garbage
   b. Biodegradable
   c. land pollution, air pollution and water pollution
   d. manure
   e. recycled

4. a. Vegetable peels and strained tea-leaves.
   b. Paper waste and batteries.
   c. Bandages and syringes.
   d. Biodegradable wastes are wastes that can decompose easily and in less time. Example- Dead leaves, cow dung, etc.
   e. Three categorized wastes: (i) Organic waste, (ii) Toxic waste, and (iii) Recyclable waste.
   f. The 4 ₹ of waste management are Refuse, Reduce, Reuse and Recycle.

Lesson – 11 : Brick Makers And Bridges

1. a. (iii) clay and straw b. (iv) kiln
   c. (iv) all of these d. (iii) beam bridge
   e. (iv) all of these
2. a. True b. False c. False
   d. True e. False
3.

	A	*B*
a.	Cantilever bridge	4. is not supported evenly along its length
b.	Suspension bridge	3. Golden Gate Bridge
c.	Beam Bridge	1. the simplest and oldest kind of bridge
d.	Bridges	2. are made of iron, steel, wood, etc.

4. Students do yourself.
5. a. The earliest bricks were made of mixture of clay and straw.
   b. The bricks are baked in the high temperature oven of kilns.
   c. Clay is used to make modern bricks.
   d. A brick kiln has temperature of 100C to 10000C.
   e. Courses are the route or direction followed by a road or river.
   f. Bridges are used for carrying traffic high above wide rivers and deep valleys.

Maths

Lesson –1 : Multiple And Factors

Exercise 1

1. (a) $3 \times 1 = 3$; $3 \times 2 = 6$; $3 \times 3 = 9$; $3 \times 4 = 12$
   3, 6, 9, 12
   (b) $4 \times 1 = 4$; $4 \times 2 = 8$; $4 \times 3 = 12$; $4 \times 4 = 16$
   4, 8, 12, 16
   (c) $8 \times 1 = 8$; $8 \times 2 = 16$; $8 \times 3 = 24$; $8 \times 4 = 32$
   8, 16, 24, 32
   (d) $13 \times 1 = 13$; $13 \times 2 = 26$; $13 \times 3 = 39$; $13 \times 4 = 52$
   13, 26, 39, 52
   (e) $18 \times 1 = 18$; $18 \times 2 = 36$; $18 \times 3 = 54$; $18 \times 4 = 72$
   18, 36, 54, 72
   (f) $20 \times 1 = 20$; $20 \times 2 = 40$; $20 \times 3 = 60$; $20 \times 4 = 80$
   20, 40, 60, 80
2. (a) 6, 12, 18
   $6 \times 4 = 24$; $6 \times 5 = 30$; $6 \times 6 = 36$
   (b) 11, 22, 33
   $11 \times 4 = 44$; $11 \times 5 = 55$; $11 \times 6 = 66$
   (c) 15, 30, 45
   $15 \times 4 = 60$; $15 \times 5 = 75$; $15 \times 6 = 90$
   (d) 19, 38, 57
   $19 \times 4 = 76$; $19 \times 5 = 95$; $19 \times 6 = 114$
3. Multiple of 7 greater than 49 but less than 77.
   $7 \times 7 = 49$; $7 \times 8 = 56$; $7 \times 9 = 63$; $7 \times 10 = 70$; $7 \times 11 = 77$
   as 56, 63, 70 are the mutiples.
4. $4 \times 3 = 12$ $6 \times 2 = 12$
   $4 \times 6 = 24$ $6 \times 4 = 24$
   $4 \times 9 = 36$ $6 \times 6 = 36$
   as 12, 24 are the first two common multiplier of 4 and 6.
5. 24, 48, 72
   $4 \times 6 = 24$ $6 \times 4 = 24$ $8 \times 3 = 24$

$4 \times 12 = 48$ $6 \times 8 = 48$ $8 \times 6 = 48$

$4 \times 18 = 72$ $6 \times 12 = 72$ $8 \times 9 = 72$

6. (a) 36 = even (b) 275 = odd
   (c) 800 = even (d) 3575 = odd
   (e) 23746 = even (e) 640231 = odd
7. (a) 2 (b) 1 (c) 90 (d) 101
   (e) 99

Exercise 2

1. (a) factors (b) 9 and 8 (c) 54 (d) 11
2. Smallest factor 1 and greatest factor 36.
3. Yes

   as
```
9 ) 1089 ( 121
    9
   ----
    18
    18
   ----
     9
     9
   ----
     ×
   ----
```
   As on dividing it is exactly divisible by 9 therefore 9 is a factor of 1089.
4. Yes
```
19 ) 1558 ( 82
     152
    -----
      38
      38
    -----
      ×
    -----
```
   On dividing 1558 with 19 it is exactly divisible which leaves no remiander.
5. (a) $7 \times 7 = 49$, Yes (b) 8, 42 No
   (c) 8, 48 Yes as $8 \times 6 = 48$
6. 160 factors

   $16 \times 10 = 160$; $20 \times 8 = 160$; $32 \times 5 = 160$; $40 \times 4 = 160$

   As 16, 20, 32, 40 are factor.

7. Factors of 72

   1 itself

   1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72

   $1 \times 72 = 72$; $2 \times 36 = 72$; $3 \times 24 = 72$; $4 \times 18 = 72$; $6 \times 12 = 72$

8. Factors of 108

   $1 \times 108 = 108$ $\quad$ $2 \times 54 = 108$

   $3 \times 36 = 108$ $\quad$ $4 \times 27 = 108$

   $6 \times 18 = 108$ $\quad$ $9 \times 12 = 108$

   as 1, 2, 3, 4, 6, 9, 12, 18, 27, 46, 54, 108 are the factor of 108.

9. Greatest factor of 27 is 27.

10. Smallest factor of 36 is 1.

Exercise 3

1. For divisibility of 2, the ones place should be even i.e. 0, 2, 4, 6, 8.

   (a) 561 — No $\quad$ (b) 1524 — Yes

   (c) 2724 — Yes $\quad$ (d) 18658 — Yes

   (e) 13479 — No $\quad$ (f) 75672 — Yes

   (g) 10000 — Yes $\quad$ (h) 33333 — No

2. For divisibility of 10 at the ones place it must be zero.

   (a) 70 — Yes $\quad$ (b) 600 — Yes

   (c) 5005 — No $\quad$ (d) 100003 — No

3. For 5 divisibility of 5 at ones place there must be 5 or zero.

   (a) 75 — Yes $\quad$ (b) 685 — Yes

   (c) 400 — Yes $\quad$ (d) 4002 — No

4. Divisibility of 3 is losted by the sum of the places digit while the sum of digit is divisible by 3 or not.

   (a) $5436 = 5 + 4 + 3 + 6 = 18$ — Yes

   (b) $5689 = 5 + 6 + 8 + 9 = 28$ — No

   (c) $3835 = 3 + 8 + 3 + 5 = 19$ — No

   (d) $10101 = 1 + 0 + 1 + 0 + 1 = 3$ — Yes

5. For 2 divisibility —Ones place should be even.

   For 3 divisibility— places sum of digit should be the multiple of 3

(a) 3454
4 is even so divisible by 2.
as $3+5+4+4=16$ so it is not divisible by 3 — No.

(b) 4323
3 is odd so not divisible by 2 — No

(c) 8007
7 is odd so not divisible by 2 — No

(d) 5028
8 is even so divisible by 2
as $5+0+2+8=15$ so it is divisible by 3 – Yes

6. (a) $4321 \div 10 = Q = 432, R = 1$
So, 1 must be subtracted to make it divisible by 10.

(b) $35685 \div 10 = Q\ 3568; R = 5$
So, 5 must be subtracted.

(c) $80004 \div 10 = Q\ 8000; R = 4$
So, 4 must be subtracted.

(d) $123456 \div 10 = Q = 12345; R = 6$
So, 6 must be subtracted.

7. For 5 divisibility at ones place it should be 5 or 0.

(a) 9256
$6+4=10$; number became 9260 when 4 is added
$\therefore$ 9260 is divisible by 5.

(b) 82451
$1+4=5$ 4 ia added to ones place to get 5.
$\therefore$ 8245 is dividible by 5.

(c) 88888
$8+2=10$
number become 88890 when 2 is added.
$\therefore$ 88890 is divisible by 5

(d) 123462
$2+3=5$ number becomes 123465 when 3 is added.
$\therefore$ 123465 is divisible by 5.

8. (a) 763
$7+6+3+2=18$
Ans . 2 is in ones place.

(b) 2176
$2+1+7+6+2=18$
2 is in ones place.

(c) 457
$4+5+7+2=18$
so 2 at ones place.

(d) 5038
$5+0+3+8+2=18$
so 2 at ones place.

(e) 56322

$5+6+3+2+2+0=18$

So, 0 at ones place

Exercise 4

1. (a) 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47

   (b) 53, 59, 61, 67

2. (a) 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30

   (b) 32, 33, 34, 35, 36, 38, 39, 40, 42, 44, 45, 46, 48, 49

3. 2 only

4. 4

5. (a) true (b) false (c) true (d) false

6. (a) 48

2	48
2	24
2	12
2	6
3	3
	1

Prime factors

$=2\times2\times2\times2\times3$

(b) 50

2	50
5	25
5	5
	1

Prime factors

$2\times5\times5$

(c) 84

2	84
2	42
3	21
7	7
	1

Prime factors

$2\times2\times3\times7$

(d) 120

2	120
2	60
2	30
3	15
5	5
	1

Prime factors

$2\times2\times2\times3\times5$

7. $2\times3\times5=30$

8. $2\times5\times7=70$

9. 3 and 5

10. 4 and 8

Exercise 5

1. H.C.F.

(a) 46 and 8

$46 = 2 \times 23$

$8 = 2 \times 2 \times 2$

The common factor is 2.

H.C.F. = 2

(b) 6, 9 and 15

$6 = 3 \times 2$

$9 = 3 \times 3$

$15 = 3 \times 5$

The common factor is 3.

H.C.F. = 3

(c) 8, 12 and 16

$8 = 2 \times 2 \times 2$

$12 = 2 \times 3 \times 2$

$16 = 2 \times 2 \times 2 \times 2$

The common factor is $2 \times 2 = 4$

H.C.F. = 4

(d) 18, 24 and 40

$18 = 2 \times 3 \times 3$

$24 = 2 \times 2 \times 2 \times 3$

$40 = 2 \times 2 \times 2 \times 5$

The common factor is 2

H.C.F. = 2

(e) 120 and 96

$120 = 2 \times 2 \times 3 \times 2 \times 5$

$96 = 2 \times 2 \times 2 \times 2 \times 2 \times 3$

The common factor is $2 \times 2 \times 2 \times 3 = 24$

H.C.F. = 24

(f) 60, 210 and 240

$60 = 2 \times 3 \times 2 \times 5$

$210 = 2 \times 5 \times 3 \times 7$

$240 = 2 \times 5 \times 2 \times 2 \times 2 \times 3$

The common factor is $2 \times 5 \times 3 = 30$

H.C.F. = 30

2. (a) 42 and 63.

2	42
3	21
7	7
	1

3	63
3	21
7	7
	1

$42 = 2 \times 3 \times 7$

$63 = 3 \times 3 \times 7$

The common factors are 3 and 7.

(b) 168 and 60

2	168
2	84
2	42
3	21
7	7
	1

2	60
2	30
3	15
5	5
	1

$168 = 2 \times 2 \times 2 \times 3 \times 7$

$60 = 2 \times 2 \times 3 \times 5$

The common factors are 2, 2 and 3

(c) 60, 210 and 320

2	60
2	30
3	15
5	5
	1

2	210
3	105
7	35
5	5
	1

2	320
2	160
2	80
2	40
2	20
2	10
5	5
	1

$60 = 2 \times 2 \times 3 \times 5$

$210 = 2 \times 3 \times 7 \times 5$

$320 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 5$

The common factors are 2 and 5.

(d) 60, 150 and 210

2	60
2	30
3	15
5	5
	1

3	150
5	50
2	10
5	5
	1

2	210
5	105
3	21
7	7
	1

$60 = 2 \times 2 \times 3 \times 5$

$150 = 2 \times 5 \times 5 \times 3$

$210 = 2 \times 3 \times 7 \times 5$

The common factors are 2, 5, 3 (e) Do your self

3. (a) 45 and 75

5	45
3	9
3	3
	1

5	75
5	15
3	3
	1

$45 = 5 \times 3 \times 3$

$75 = 5 \times 5 \times 3$

The common factors are $= 5 \times 3 = 15$

H.C.F. = 15

(b) 108 and 162

2	108
2	54
3	27
3	9
3	3
	1

2	162
3	81
3	27
3	9
3	3
	1

$108 = 2 \times 2 \times 3 \times 3 \times 3$

$162 = 2 \times 3 \times 3 \times 3 \times 3$

The common factors are $= 2 \times 3 \times 3 \times 3 = 54$

H.C.F. = 54

(c) 240, 720

2	240
2	120
2	60
2	30
3	15
5	5
	1

3	720
3	240
2	80
2	40
2	20
2	10
5	5
	1

$240 = 2 \times 2 \times 2 \times 2 \times 3 \times 5$

$720 = 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 5$

The common factors are $= 2 \times 2 \times 2 \times 2 \times 3 \times 5 = 240$

H.C.F. $= 240$

(d) 128, 136 and 512

2	128
2	64
2	32
2	16
2	8
2	4
2	2
	1

2	136
2	68
2	34
17	17
	1

2	512
2	256
2	128
2	64
2	32
2	16
2	8
2	4
2	2
	1

$128 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$

$136 = 2 \times 2 \times 2 \times 17$

$512 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$

The common factors are $2 \times 2 \times 2 = 8$

H.C.F. $= 8$

(e) 54, 90 and 216

2	54
3	27
3	9
3	3
	1

3	90
3	30
2	10
5	5
	1

2	216
2	108
2	54
3	27
3	9
3	3
	1

$54 = 2 \times 3 \times 3 \times 3$

$90 = 2 \times 5 \times 3 \times 3$

$216 = 3 \times 3 \times 3 \times 2 \times 2 \times 2$

The common factors are $= 2 \times 3 \times 3 = 18$

H.C.F. = 18

Exercise 6

1. The number which divide 36 and 56 will be H.C.F.

2	36
2	18
3	9
3	3
	1

2	56
2	28
2	14
7	7
	1

$36 = 2 \times 2 \times 3 \times 3$

$56 = 2 \times 2 \times 2 \times 7$

The common factor $= 2 \times 2 = 4$

H.C.F. = 4

2. The number which divided 48 and 72.

2	48
2	24
2	12
2	6
3	3
	1

2	72
2	36
2	18
3	9
3	3
	1

$48 = 2 \times 2 \times 2 \times 2 \times 3$

$72 = 2 \times 2 \times 2 \times 3 \times 3$

The common factor $= 2 \times 2 \times 2 \times 3 = 24$

H.C.F. $= 24$

3. The number which divided 24, 36 and 108

2	24
2	12
2	6
3	3
	1

2	36
2	18
3	9
3	3
	1

2	108
2	54
3	27
3	9
3	3
	1

$24 = 2 \times 2 \times 2 \times 3$

$36 = 2 \times 2 \times 3 \times 3$

$108 = 2 \times 2 \times 3 \times 3 \times 3$

The common factors are $= 2 \times 2 \times 3 = 12$

H.C.F. $= 12$

4. $24 - 2 = 22$; $35 - 2 = 33$; $46 - 2 = 44$

2	22
11	11
	1

3	33
11	11
	1

4	44
11	11
	1

$22 = 2 \times 11$

$33 = 3 \times 11$

$44 = 4 \times 11$

The common factor is $= 11$

H.C.F. $= 11$

5. $34 - 4 = 30$; $56 - 6 = 50$; $68 - 8 = 60$

3	30
2	10
5	5
	1

5	50
2	10
5	5
	1

3	60
2	20
2	10
5	5
	1

$30 = 3 \times 2 \times 5$

$50 = 5 \times 2 \times 5$

$60 = 3 \times 5 \times 2 \times 2$

The common factors are $5 \times 2 = 10$

H.C.F. $= 10$

6. $65-5=60$; $96-6=90$ $142-7=135$

2	60
2	30
3	15
5	5
	1

3	90
3	30
2	10
5	5
	1

5	135
3	27
3	9
3	3
	1

$60 = 2 \times 2 \times 3 \times 5$
$90 = 3 \times 3 \times 2 \times 5$
$135 = 3 \times 3 \times 3 \times 5$
The common factors are $= 5 \times 3 = 15$
H.C.F. $= 15$

Exercise 7

1. (a) 8 and 16
The two common multiples are
$8 \times 2 = 16$ $16 \times 1 = 16$
$8 \times 4 = 32$ $16 \times 2 = 32$
16, 32

(b) 4 and 6
The two common multiples are
$6 \times 2 = 12$ $4 \times 3 = 12$
$6 \times 4 = 24$
12, 24

(c) 12 and 15
The two common multiples are
$12 \times 5 = 60$ $15 \times 4 = 60$
$12 \times 10 = 120$ $15 \times 8 = 120$
60, 120

(d) 10 and 20
The two common multiples are
$10 \times 2 = 20$ $20 \times 1 = 20$
$10 \times 4 = 40$ $20 \times 2 = 40$
20, 40

(e) 2, 3 and 4
The two common multiples are
$2 \times 6 = 12$, $2 \times 12 = 24$
$3 \times 4 = 12$, $3 \times 8 = 24$

$4 \times 3 = 12$ $4 \times 6 = 24$

12, 24

(f) 3, 6 and 9

The two common multiple are

$3 \times 6 = 18$, $3 \times 12 = 36$

$6 \times 3 = 18$, $6 \times 6 = 36$

$9 \times 2 = 18$, $9 \times 4 = 36$

18, 36

2. (a) 3 and 6

The L.C.M. is 6.

(b) 4 and 8

the L.C.M. is 8.

(c) 6 and 10

the L.C.M. is 30

as $6 \times 5 = 30$; $10 \times 3 = 30$

(d) 8 and 10

The L.C.M. is 40

(e) 4, 6 and 10

The L.C.M. is 60.

Exercise 8

1. 6 and 9

3	6, 9
2	2, 3
3	1, 3
	1, 1

LCM = $3 \times 3 \times 2 = 18$

2. 6 and 21

3	6, 21
2	2, 7
7	1, 7
	1, 1

LCM = $3 \times 2 \times 7 = 42$

3. 9 and 24

3	9, 24
3	3, 8
2	1, 8
2	1, 4
2	1, 2
	1, 1

LCM = $3 \times 3 \times 2 \times 2 \times 2 = 72$

4. 12 and 36

2	12, 36
3	6, 18
3	2, 6
2	2, 2
	1, 1

L.C.M. = $2 \times 2 \times 3 \times 3 = 36$

5. 18 and 54

2	18, 54
3	9, 27
3	3, 9
	1, 3

LCM = $2 \times 3 \times 3 \times 3 = 54$

6. 20 and 45

2	20, 45
5	10, 45
2	2, 9
3	1, 9
	1, 3

LCM = $2 \times 5 \times 2 \times 3 \times 3 = 180$

7. 36 and 48

2	36, 48
3	18, 24
2	6, 8
2	3, 4
	3, 2

LCM = $2 \times 3 \times 2 \times 2 \times 2 \times 3 = 144$

8. 25 and 80

5	25, 80
2	5, 16
2	5, 8
2	5, 4
	5, 2

LCM = $5 \times 2 \times 2 \times 2 \times 2 \times 5 = 400$

9. 6, 9, and 12

3	6, 9, 12
2	2, 3, 4
	1, 3, 2

$LCM = 3 \times 2 \times 2 \times 3 = 36$

10. 15, 20 and 25

5	15, 20, 25
2	3, 4, 5
	3, 2, 5

$LCM = 5 \times 2 \times 3 \times 2 \times 5 = 300 = 30$

11. 16, 24 and 40

2	16, 24, 40
2	8, 12, 20
2	4, 6, 10
	2, 3, 5

$LCM = 2 \times 2 \times 2 \times 3 \times 2 \times 5 = 240$

12. 14, 21 and 35

7	14, 21, 35
2	2, 3, 5
	1, 3, 5

$LCM = 7 \times 2 \times 3 \times 5 = 210$

Exercise 9

1. $12 = 2 \times 3 \times 2$
   $30 = 2 \times 5 \times 3$
   H.C.F. $= 2 \times 3 = 6$
   L.C.M. $=$ (Product) $\div 6$
   $= (12 \times 30) \div 6$
   $= 360 \div 6 = 60$

2. L.C.M. of 36, 54, 72

3	36, 54, 72
3	12, 18, 24
2	4, 6, 8
2	2, 3, 4
	1, 3, 2

$LCM = 3 \times 3 \times 2 \times 2 \times 3 \times 2 = 216$

3. 12, 30 and 6

2	12, 30, 6
3	6, 15, 3
2	2, 5, 1
5	1, 5, 1
	1, 1, 1

L.C.M. = $2 \times 3 \times 2 \times 5 = 60$

4.

2	10, 14, 18
	5, 7, 9

LCM = $2 \times 5 \times 7 \times 9 = 630$

So, the required number = $630 + 2 = 632$

5.

3	15, 25, 30
5	5, 25, 10
5	1, 5, 2
2	1, 1, 2
	1, 1, 1

LCM = $3 \times 5 \times 5 \times 2 = 150$

So, the required number = $150 + 1 = 151$

6. Product of two numbers = 4

H.C.F. = 4

L.C.M. = Product ÷ H.C.F.

= $48 \div 4 = 12$

7. Product of numbers = 135

L.C.M. = 45

H.C.F. = product ÷ L.C.M.

= $135 \div 45 = 3$

8. H.C.F. = 8

L.C.M. = 96

Product of numbers = H.C.F. × L.C.M.

= $8 \times 96 = 768$

Another number = $768 \div 24 = 32$

Lesson – 2 : Unitary Method

Exercise 10

1. Cost of 15 kg vegetable oil = ₹840

   Cost of 1 kg vegetable oil = $840 \div 15$

   15) 840 (56
   75
   90
   90
   ×

   Cost of 1 kg vegetable oil = ₹56

   Cost of 5kg vegetable oil = 56×5 = ₹280

2. Production of 3000 cycles in 12 days.

   $1 \text{ day} = \frac{3000}{12}$

   12) 3000 (250
   24
   60
   60
   0

   So one day 250 cycle were produced.

   In 30 days = $250 \times 30 = 7500$ cycles.

3. A box of 12 pencil cost = ₹24

   Cost of 1 pencil = $24 \div 12 = 2$

   The cost of 144 pencils are = $2 \times 144 = 488$

4. Train fare for 3 passengers = ₹ 540

   Train fare for 1 passenger = $540 \div 3$

   3) 540 (180
   3
   24
   24
   0
   0
   ×

For 1 passenger = ₹180

Train fare for 5 passengers = 5 × 180 = ₹900

5. In 5 hour bus covers = 240km

in 1 hour bus cover = 240 ÷ 5

$$5\overline{)240}\,48$$
$$\underline{20}$$
$$40$$
$$\underline{40}$$
$$\times$$

In 1 hour bus covers = 48 km

In 7 hour bus covers = 48 × 7 = 336km

6. 25 boxes pack = 300 cupplate

1 box packs = 300 ÷ 25

$$25\overline{)300}\,12$$
$$\underline{25}$$
$$50$$
$$\underline{50}$$
$$\times$$

1 box packs = 12 cup-plates.

20 boxes pack = 20 × 12 = 240 cup-plates

7. 45 buses carry = 2340 passengers

1 bus carries = 2340 ÷ 45

$$45\overline{)2340}\,52$$
$$\underline{225}$$
$$90$$
$$\underline{90}$$
$$\times$$

1 bus carrise= 52 passengers

36 buses carry = 52 × 36 = 1872 passengers

8. 18 boys fees = ₹4410

1 boy fee = 4410 ÷ 18

$$
\begin{array}{r|l}
18 & 4410 \\
\cline{2-2}
 & 36 \\
\cline{2-2}
 & 81 \\
 & 72 \\
\cline{2-2}
 & 90 \\
 & 90 \\
\cline{2-2}
 & \times \\
\cline{2-2}
\end{array}
\quad 245
$$

For 1 boy fee = ₹ 245

For 45 boys = 245 × 45 = ₹11025

9. 12 dozen pencil cost = ₹30 × 12 = ₹360

10. For 60 quintal load containers needed = 2

For 1 quintal load containers needed = $\frac{2}{60}$

For 18 tonne or 180 quintal load containers needed = $\frac{2}{60} \times \frac{180}{1} = 6$

So, 6 containers are needed.

Lesson – 3 : Fractional Numbers

Exercise 11

1. (a) $\frac{4}{7}$ (b) $\frac{3}{8}$ (c) $\frac{2}{4}$

2. (a) N = 3, D = 7 (b) N = 5, D = 12
   (c) N = 7, D = 8 (d) N = 8, D = 11

Exercise 12

1. (a) $\frac{4}{5}\times\frac{4}{4}=\frac{16}{20}=\frac{16}{20}$ Yes

   (b) $\frac{5}{9}\times\frac{3}{3}=\frac{15}{27}\neq\frac{15}{17}$ No

   (c) $\frac{8}{9}$ and $\frac{24}{27}$ $\frac{8\times3}{9\times3}=\frac{24}{27}$ Yes

   (d) $\frac{4}{11}$ and $\frac{12}{33}$ $\frac{4\times3}{11\times3}=\frac{12}{33}$ Yes

2. (a) $\frac{7}{28}$ $\left(\because \frac{7}{28}=\frac{1}{4}\neq\frac{1}{6}\right)$ (b) $\frac{12}{15}$ $\left(\because \frac{12}{15}=\frac{4}{5}\neq\frac{3}{4}\right)$

   (c) $\frac{5}{30}$ $\left(\because \frac{5}{30}=\frac{1}{6}\neq\frac{1}{7}\right)$ (d) $\frac{13}{25}$ $\left(\because \frac{13}{25}\neq\frac{3}{5}\right)$

3. (a) $\frac{1}{4},\frac{2}{8},\frac{3}{12},\frac{4}{16},\frac{5}{20},\frac{6}{24}$ (b) $\frac{2}{3},\frac{4}{6},\frac{6}{9},\frac{8}{12},\frac{10}{15},\frac{12}{18}$

   (c) $\frac{3}{4},\frac{6}{8},\frac{9}{12},\frac{12}{16},\frac{15}{20},\frac{18}{24}$ (d) $\frac{8}{14},\frac{12}{21},\frac{16}{28},\frac{20}{35},\frac{24}{42}$

   (e) $\frac{5}{8},\frac{10}{16},\frac{15}{24},\frac{20}{32},\frac{25}{40},\frac{30}{48}$

4. (a) $\frac{1}{2}$, Numerator $= 16$

$16 \div 2 = 8$

$\frac{1}{2} \times \frac{8}{8} = \frac{8}{16}$

(b) $\frac{1}{4}$, $16 \div 4 = 4$

$\frac{1}{4} \times \frac{4}{4} = \frac{4}{16}$

(c) $\frac{8 \div 4}{64 \div 4} = \frac{2}{16}$ (d) $\frac{4 \div 2}{32 \div 2} = \frac{2}{16}$

5. (a) $\frac{1}{4}$, Denominator 36 $36 \div 4 = 9$

$\frac{1}{4} \times \frac{9}{9} = \frac{9}{36}$

(b) $\frac{2}{9}$, $36 \div 9 = 4$

$\frac{2}{9} \times \frac{4}{4} = \frac{8}{36}$

(c) $\frac{2}{3}$, $36 \div 3 = 12$

$\frac{2}{3} \times \frac{12}{12} = \frac{24}{36}$

(d) $\frac{5}{6}$, $36 \div 6 = 6$

$\frac{5}{6} \times \frac{6}{6} = \frac{30}{36}$

6. (a) $\frac{1}{5} = \frac{\square}{25}$

$\frac{25}{5} = 5$ So, $\frac{1 \times 5}{5 \times 5} = \frac{\boxed{5}}{25}$ Ans.

(b) $\frac{1}{4} = \frac{4}{\square}$, $4 \div 1 = 4$

$\frac{1}{4} \times \frac{4}{4} = \frac{\boxed{4}}{16}$

(c) $\frac{3}{4} = \frac{\square}{20}$

$\frac{3 \times 20}{4} = 3 \times 5 = 15$

(d) $\frac{5}{7} = \frac{20}{\square}$

$\square = \frac{20 \times 7}{5}$

$\square = 28$

(e) $\frac{5}{8} = \frac{\square}{24}$

$\frac{5 \times 24}{8} = \square$

$15 = \square$

(f) $\frac{2}{12} = \frac{\square}{72}$

$\frac{2 \times 72}{12} = \square$

$\square = 12$

(g) $\frac{8}{9} = \frac{64}{\square}$

$\square = \frac{64 \times 9}{8}$

$\square = 8 \times 9$

$\square = 72$

(h) $\frac{1}{9} = \frac{\square}{81}$

$\frac{81}{9} = \square$

$\square = 9$

7. (a) Numerator $= 6$

$\frac{48}{64}$

$48 \div 6 = 8$

$\frac{48 \div 8}{64 \div 8} = \frac{6}{8}$

(b) Denominator $= 8$

$64 \div 8 = 8$

$\frac{48 \div 8}{64 \div 8} = \frac{6}{8}$

(c) Numerator $= 24$

$48 \div 24 = 2$

$\frac{48 \div 2}{64 \div 2} = \frac{24}{32}$

8. (a) $\frac{4 \times 2}{5 \times 2} = \frac{8}{10}$ $(\because\ 8 \div 4 = 2)$

(b) $\frac{4 \times 6}{5 \times 6} = \frac{24}{30}$ $(\because 24 \div 4 = 6)$

(c) $\frac{4 \times 4}{5 \times 4} = \frac{16}{20}$ $(\because 20 \div 5 = 4)$

(d) $\frac{4 \times 7}{5 \times 7} = \frac{28}{35}$ $(\because 35 \div 5 = 7)$

(e) $\frac{4 \times 8}{5 \times 8} = \frac{32}{40}$ $(\because 32 \div 4 = 8)$

(f) $\frac{4\times10}{5\times10}=\frac{40}{50}$ ($\because\ 50\div5=10$)

9. (a) $\frac{1}{2}=\frac{2}{4}=\frac{\boxed{4}}{8}=\frac{\boxed{6}}{12}$

$\frac{1\times4}{2\times4}=\frac{4}{8}$ [$\therefore\ 8\div2=4$]

$\frac{1\times6}{2\times6}=\frac{6}{12}$ [$\therefore 12\div2=6$]

(b) $\frac{2}{5}=\frac{\square}{15}=\frac{10}{\square}=\frac{18}{\square}$

$\frac{2\times3}{5\times3}=\frac{6}{15}$ [$\therefore 15\div5=3$]

$\frac{2\times5}{5\times5}=\frac{10}{25}$ [$\therefore 10\div2=5$]

$\frac{2\times9}{5\times9}=\frac{18}{45}$ [$\therefore 18\div2=9$]

(c) $\frac{3}{4}=\frac{9}{\square}=\frac{15}{\square}=\frac{\square}{32}$

$\frac{3\times3}{4\times3}=\frac{9}{12}$ [$\therefore 9\div3=3$]

$\frac{3\times5}{4\times5}=\frac{15}{20}$ [$\therefore 15\div3=5$]

$\frac{3\times8}{4\times8}=\frac{24}{32}$ [$\therefore 32\div4=8$]

(d) $\frac{4}{11}=\frac{8}{\square}=\frac{20}{\square}=\frac{\square}{77}$

$\frac{4\times2}{11\times2}=\frac{8}{22}$ [$\therefore 8\div4=2$]

$\frac{4\times5}{11\times5}=\frac{20}{55}$ [$\therefore 20\div4=5$]

$$\frac{4\times7}{11\times7}=\frac{28}{77} \qquad [\therefore 77\div11=7]$$

10. (a) $\frac{28\div4}{60\div4}=\frac{7}{15}$ (b) $\frac{25\div25}{100\div25}=\frac{1}{4}$

(c) $\frac{27\div3}{30\div3}=\frac{9}{10}$ (d) $\frac{60\div60}{240\div60}=\frac{1}{4}$

Exercise 13

1. (b), (c), (d) 2. (a), (d)

3. (a) $\frac{1}{4}\times\frac{3}{3}=\frac{3}{12}$ (b) $\frac{1}{3}\times\frac{5}{5}=\frac{5}{15}$

$\frac{2}{3}\times\frac{4}{4}=\frac{8}{12}$ $\frac{4}{5}\times\frac{3}{3}=\frac{12}{15}$

(c) $\frac{3}{5}\times\frac{9}{9}=\frac{27}{45}$

$\frac{4}{9}\times\frac{5}{5}=\frac{20}{45}$

4. (a) $\frac{5}{8}$ (d) $\frac{1}{9}$

5. (a) $\frac{19}{10}$ (b) $\frac{15}{7}$ (c) $\frac{11}{8}$

6. (c) $5\frac{1}{3}$ (d) $6\frac{3}{4}$

7. (a) $\frac{13}{3}=4\frac{1}{3}$ (b) $\frac{17}{2}=8\frac{1}{2}$ (c) $\frac{21}{4}=5\frac{1}{4}$ (d) $\frac{52}{11}=4\frac{8}{11}$

(e) $\frac{27}{5}=5\frac{2}{5}$

8. (a) $6\frac{3}{4}=\frac{6\times4+3}{4}=\frac{27}{4}$ (b) $4\frac{5}{7}=\frac{4\times7+5}{7}=\frac{33}{7}$

(c) $4\frac{1}{10}=\frac{4\times10+1}{10}=\frac{41}{10}$ (d) $5\frac{2}{3}=\frac{5\times3+2}{3}=\frac{17}{3}$

9. Integral Part (a) 2, (b) 4, (c) 5, (d) 10
Fractional Part (a) $\frac{2}{3}$ (b) $\frac{1}{2}$ (c) $\frac{1}{3}$ (d) $\frac{3}{7}$

Exercise 14

1. (a) $\frac{2}{5}, \frac{3}{4}$

L.C.M. of 5 and 4 = 20

$$\frac{2\times4}{5\times4}=\frac{8}{20}$$

$$\frac{3\times5}{4\times5}=\frac{15}{20}$$

(b) $\frac{7}{12}, \frac{3}{7}$

L.C.M. of $12\times7=84$

$$\frac{7\times7}{12\times7}=\frac{49}{84}$$

$$\frac{3\times12}{7\times12}=\frac{36}{84}$$

(c) $\frac{1}{4}, \frac{5}{16}$

L.C.M. of 4 and 16 = 16

$$\frac{1\times4}{4\times4}=\frac{4}{16}$$

$$\frac{5}{16}$$

$$\frac{4}{16}, \frac{5}{16}$$

(d) $\frac{4}{9}, \frac{5}{12}$

L.C.M. of 9 and 12 = 36

$$\frac{4\times4}{9\times4}=\frac{16}{36}$$

$$\frac{5\times3}{12\times3}=\frac{15}{36}$$

$$\frac{16}{36},\frac{15}{36}$$

(e) $\frac{1}{2},\frac{1}{4},\frac{3}{10}$

L.C.M. of 2, 4, 10 is 20

$$\frac{1\times10}{2\times10}=\frac{10}{20}$$

$$\frac{1\times5}{4\times5}=\frac{15}{20}$$

$$\frac{3\times2}{10\times2}=\frac{6}{20}$$

$$\frac{10}{20},\frac{5}{20},\frac{6}{20}$$

(f) $\frac{1}{4},\frac{3}{8},\frac{1}{16}$

L.C.M. of 4, 8, 16 = 16

$$\frac{1\times4}{4\times4}=\frac{4}{16}$$

$$\frac{3\times2}{8\times2}=\frac{6}{16}$$

$$\frac{1}{16}$$

$$\frac{4}{16},\frac{6}{16},\frac{1}{16}$$

2. (a) $\frac{5}{3}, \frac{9}{2}$

L.C.M. of $3 \times 2 = 6$

$$\frac{5 \times 2}{3 \times 2} = \frac{10}{6}$$

$$\frac{9 \times 3}{2 \times 3} = \frac{27}{6}$$

as $\frac{27}{6} > \frac{10}{6}$

so, $\frac{9}{2}$ is greater than $\frac{5}{3}$

(b) $\frac{4}{9}, \frac{3}{5}$

L.C.M. of 9 and 5 are $9 \times 5 = 45$

$$\frac{4 \times 5}{9 \times 5} = \frac{20}{45}$$

$$\frac{3 \times 9}{5 \times 9} = \frac{27}{45}$$

$$\frac{20}{45} < \frac{27}{45}$$

$\frac{27}{45}$ is greater than $\frac{20}{45}$; so $\frac{3}{5} > \frac{4}{9}$

(c) $\frac{1}{4}, \frac{11}{18}$

L.C.M. of 4,18 is 36

$$\frac{1 \times 9}{4 \times 9} = \frac{9}{36}$$

$$\frac{11 \times 2}{18 \times 2} = \frac{22}{36}$$

$$\frac{9}{36} < \frac{22}{36}$$

as $\frac{22}{36}$ is greater than $\frac{9}{36}$ so, $\frac{11}{18} > \frac{1}{4}$

(d) $\frac{3}{7}, \frac{9}{15}$

L.C.M. of 7 and 15 is = 105

$$\frac{3 \times 15}{7 \times 15} = \frac{45}{105}$$

$$\frac{9 \times 7}{15 \times 7} = \frac{63}{105}$$

as $\frac{63}{105} > \frac{45}{105}$

$\frac{9}{15}$ is greater than $\frac{3}{7}$

(e) $3\frac{1}{2}, \frac{13}{3}$

$\frac{7}{2}, \frac{13}{3}$

L.C.M. = 3, 2 is 6

$$\frac{7 \times 3}{2 \times 3} = \frac{21}{6}$$

$$\frac{13 \times 2}{3 \times 2} = \frac{26}{6}$$

as $\frac{26}{6} > \frac{21}{6}$

so, $\frac{13}{2}$ is greater than $3\frac{1}{2}$

(f) $1\frac{9}{12}, 1\frac{11}{15}$

L.C.M. of 12 and 15 is 60

$\frac{21}{12}, \frac{26}{15}$

$\frac{21 \times 5}{12 \times 5} = \frac{105}{60}$

$\frac{36 \times 4}{15 \times 4} = \frac{104}{60}$

$\frac{105}{60} > \frac{104}{60}$

so $1\frac{9}{12}$ is greater than $1\frac{11}{15}$

(g) $\frac{26}{27}, \frac{7}{12}$

L.C.M. of 27, 12 is 108.

$\frac{26 \times 4}{27 \times 4} = \frac{104}{108}$

$\frac{7 \times 9}{12 \times 9} = \frac{63}{108}$

as $\frac{104}{108} > \frac{63}{108}$

so, $\frac{26}{27}$ is greater than $\frac{7}{12}$

(h) $2\frac{2}{5}, 2\frac{7}{17}$

$\frac{12}{5}, \frac{41}{17}$

L.C.M. of 5 and 17 is 85.

$\frac{12 \times 17}{5 \times 17} = \frac{204}{85}$

$$\frac{41\times5}{17\times5}=\frac{205}{85}$$

$$\frac{205}{85}>\frac{204}{85}$$

So, $2\frac{7}{17}$ is greater than $2\frac{2}{5}$

(i) $\frac{5}{12},\frac{10}{21}$

L.C.M. of 12 and 21 = 84

$$\frac{5\times7}{12\times7}=\frac{35}{84}$$

$$\frac{10\times4}{21\times4}=\frac{40}{84}$$

$$\frac{40}{84}>\frac{35}{84}$$

So, $\frac{10}{21}$ is greater than $\frac{5}{12}$

3. (a) $\frac{7}{19}$ (b) $\frac{5}{13}$ (c) $\frac{6}{19}$

(d) $\frac{15}{16},\frac{9}{20}$

L.C.M. of 16 and 20 = 80

$$\frac{15\times5}{16\times5}=\frac{75}{80}$$

$$\frac{9\times4}{20\times4}=\frac{36}{80}$$

As $\frac{36}{80}<\frac{75}{80}$

$\frac{9}{20}$ is smaller than $\frac{15}{16}$

(e) $\frac{11}{16}$ (f) $\frac{10}{11}$

(g) $\frac{8}{11}, \frac{4}{9}$

L.C.M. $= 11 \times 9 = 99$

$$\frac{8 \times 9}{11 \times 9} = \frac{72}{99}$$

$$\frac{4 \times 11}{9 \times 11} = \frac{44}{99}$$

$$\frac{72}{99} > \frac{44}{99}$$

So, $\frac{4}{9}$ is smaller.

(h) $\frac{7}{25}, \frac{6}{17}$

L.C.M. 25×17

$$\frac{7 \times 17}{25 \times 17} = \frac{119}{425}$$

$$\frac{6 \times 25}{17 \times 25} = \frac{150}{425}$$

as $\frac{119}{425}$ is smaller.

so, $\frac{7}{25}$ is smaller than $\frac{6}{17}$

4. (a) $\frac{1}{3}, \frac{5}{6}, \frac{2}{9}$

L.C.M. of 3, 6, 9 is 18

$$\frac{1 \times 6}{3 \times 6} = \frac{6}{18}$$

$$\frac{5 \times 3}{6 \times 3} = \frac{15}{18}$$

$$\frac{2\times2}{9\times2}=\frac{4}{18}$$

$$\frac{6}{18},\frac{15}{18},\frac{4}{18}\Rightarrow\frac{4}{18},\frac{6}{18},\frac{15}{18}$$

So $\frac{2}{9},\frac{1}{3},\frac{5}{6}$

(b) $\frac{5}{6},\frac{8}{9},\frac{1}{3}$

L.C.M. of 6, 9, 3 is 18

$$\frac{5\times3}{6\times3}=\frac{15}{18}$$

$$\frac{8\times2}{9\times2}=\frac{16}{18}$$

$$\frac{1\times6}{3\times6}=\frac{6}{18}$$

$$\frac{6}{18},\frac{15}{18},\frac{16}{18}$$

So, $\frac{1}{3},\frac{5}{6},\frac{8}{9}$

(c) $\frac{1}{18},\frac{5}{18},\frac{11}{18}$

ascending order $\frac{1}{18},\frac{5}{18},\frac{11}{18}$

(d) $\frac{5}{7},\frac{9}{21},\frac{5}{14}$

L.C.M. = 42

$$\frac{5\times6}{7\times6}=\frac{30}{42}$$

$$\frac{9\times2}{21\times2}=\frac{18}{42}$$

$$\frac{5\times3}{14\times3}=\frac{15}{42}$$

$$\frac{15}{42}, \frac{18}{42}, \frac{30}{42}$$

So, $\frac{5}{14}, \frac{9}{21}, \frac{5}{7}$

(e) $\frac{2}{6}, \frac{7}{12}, \frac{13}{18}$

L.C.M. of $6, 12, 18 = 36$

$$\frac{2 \times 6}{6 \times 6} = \frac{12}{36}$$

$$\frac{7 \times 3}{12 \times 3} = \frac{21}{36}$$

$$\frac{13 \times 2}{18 \times 2} = \frac{26}{36}$$

$$\frac{12}{36}, \frac{21}{36}, \frac{26}{36}$$

So, $\frac{2}{6}, \frac{7}{12}, \frac{13}{18}$

(f) $\frac{4}{9}, \frac{1}{3}, \frac{6}{27}$

L.C.M. $= 27$

$$\frac{4 \times 3}{9 \times 3} = \frac{12}{27}$$

$$\frac{1 \times 9}{3 \times 9} = \frac{9}{27}$$

$$\frac{6 \times 1}{27 \times 1} = \frac{6}{27}$$

$$\frac{6}{27}, \frac{9}{27}, \frac{12}{27}$$

So, $\frac{6}{27}, \frac{1}{3}, \frac{4}{9}$

5. (a) $\frac{1}{3}, \frac{14}{15}, \frac{11}{20}$

L.C.M. of 3, 15, 20 is 60

$$\frac{1}{3} \times \frac{20}{20} = \frac{20}{60}$$

$$\frac{14 \times 4}{15 \times 4} = \frac{56}{60}$$

$$\frac{11 \times 3}{20 \times 3} = \frac{33}{60}$$

$$\frac{56}{60}, \frac{33}{60}, \frac{20}{60}$$

So, $\frac{14}{15}, \frac{11}{20}, \frac{1}{3}$

(b) $\frac{3}{4}, \frac{9}{16}, \frac{21}{20}$

L.C.M. of $4, 16, 20 = 80$

$$\frac{3 \times 20}{4 \times 20} = \frac{60}{80}$$

$$\frac{9 \times 8}{10 \times 8} = \frac{72}{80}$$

$$\frac{21 \times 4}{20 \times 4} = \frac{84}{80}$$

$$\frac{84}{80}, \frac{72}{80}, \frac{60}{80}$$

So, $\frac{21}{40}, \frac{9}{16}, \frac{3}{4}$

(c) $\frac{7}{3}, \frac{3}{10}, \frac{19}{30}$

L.C.M. is 30

$$\frac{7 \times 10}{3 \times 10} = \frac{70}{30}$$

$$\frac{3\times3}{10\times3}=\frac{9}{30}$$

$$\frac{19\times1}{30\times1}=\frac{19}{30}$$

$$\frac{70}{30},\frac{19}{30},\frac{9}{30}\ ; \quad \text{So, } \frac{7}{3},\frac{19}{30},\frac{3}{10}$$

(d) $\frac{3}{4},\frac{5}{12},\frac{5}{8}$

L.C.M. = 24

$$\frac{3\times6}{4\times6}=\frac{18}{24}$$

$$\frac{5\times2}{12\times2}=\frac{10}{24}$$

$$\frac{5\times3}{8\times3}=\frac{15}{24}$$

$$\frac{10}{24},\frac{15}{24},\frac{18}{24}$$

So, $\frac{5}{12},\frac{5}{8},\frac{3}{4}$

(e) $\frac{1}{4},\frac{7}{12},\frac{11}{14}$

L.C.M. of 4, 12 and 14 = 84

$$\frac{1\times21}{4\times21}=\frac{21}{84}$$

$$\frac{7\times7}{12\times7}=\frac{49}{84}$$

$$\frac{11\times6}{14\times6}=\frac{66}{84}$$

$$\frac{66}{84},\frac{49}{84},\frac{21}{24} \quad \text{So, } \frac{11}{14},\frac{7}{12},\frac{1}{4}$$

(f) $\frac{1}{4}, \frac{4}{5}, \frac{13}{15}$

L.C.M. of $4, 5, 15 = 60$

$$\frac{1\times15}{4\times15} = \frac{15}{60}$$

$$\frac{4\times12}{5\times12} = \frac{48}{60}$$

$$\frac{13\times4}{15\times4} = \frac{52}{60}$$

$$\frac{52}{60}, \frac{48}{60}, \frac{15}{60}$$

So, $\frac{13}{15}, \frac{4}{5}, \frac{1}{4}$

Exercise 15

1. $\frac{2}{8}+\frac{5}{8}=\frac{2+5}{8}=\frac{7}{8}$

2. $\frac{1}{9}+\frac{4}{9}=\frac{1+4}{9}=\frac{5}{9}$

3. $\frac{3}{19}+\frac{8}{19}=\frac{3+8}{19}=\frac{11}{19}$

4. $\frac{3}{14}+\frac{5}{14}=\frac{5+3}{14}=\frac{8}{14}\ or\ \frac{4}{7}$

5. $\frac{11}{32}+\frac{15}{32}=\frac{11+15}{32}=\frac{26}{32}\ or\ \frac{13}{16}$

6. $\frac{3}{19}+\frac{7}{19}=\frac{3+7}{19}=\frac{10}{19}$

7. $\frac{1}{5}+\frac{3}{5}+\frac{1}{5}=\frac{1+3+1}{5}=\frac{5}{5}=1$

8. $\frac{5}{21}+\frac{4}{21}+\frac{8}{21}=\frac{5+4+8}{21}=\frac{17}{21}$

9. $\frac{7}{23}, \frac{5}{23}$ and $\frac{9}{23}$

$$\frac{7+5+9}{23}=\frac{21}{23}$$

10. $\frac{4}{45}+\frac{16}{45}+\frac{21}{45}$

11. $\frac{7}{30}+\frac{9}{30}+\frac{11}{30}$

$$\frac{7+9+11}{30}=\frac{27}{30} or \frac{9}{10}$$

12. $\frac{7}{37}+\frac{8}{37}+\frac{11}{37}$

$$\frac{7+8+11}{37}=\frac{26}{37}$$

13. $\frac{1}{3}+\frac{2}{7}$

L.C.M. = 21

$$\frac{1\times7}{3\times7}=\frac{7}{21}$$

$$\frac{2}{7}\times\frac{3}{3}=\frac{6}{21}$$

$$\frac{7}{21}+\frac{6}{21}=\frac{13}{21}$$

14. $\frac{1}{2}+\frac{1}{6}$

L.C.M. = 6

$$\frac{1\times3}{2\times3}=\frac{3}{6}$$

$$\frac{3}{6}+\frac{1}{6}=\frac{3+1}{6}=\frac{4}{6}=\frac{2}{3}$$

15. $\frac{1}{2}+\frac{11}{26}$

L.C.M. = 26

$$\frac{1\times13}{2\times13}=\frac{13}{26}$$

$$\frac{11}{26}+\frac{13}{26}=\frac{11+13}{26}=\frac{24}{26} \quad \text{or} \quad \frac{12}{13}$$

16. $\frac{3}{7}+\frac{5}{14}$

L.C.M. = 14

$$\frac{3\times 2}{7\times 2}=\frac{6}{14}$$

$$\frac{6}{14}+\frac{5}{14}=\frac{6+5}{14}=\frac{11}{14}$$

17. $\frac{1}{3}+\frac{11}{24}$

L.C.M. = 24

$$\frac{1\times 8}{3\times 8}=\frac{8}{24}$$

$$\frac{8}{24}+\frac{11}{24}=\frac{8+11}{24}=\frac{19}{24}$$

18. $\frac{1}{3}+\frac{3}{5}$

L.C.M. = $3\times 5=15$

$$\frac{1\times 5}{3\times 5}=\frac{5}{15}$$

$$\frac{3\times 3}{5\times 3}=\frac{9}{15}$$

$$\frac{5}{15}+\frac{9}{15}=\frac{5+9}{15}=\frac{14}{15}$$

19. $\frac{2}{7}+\frac{1}{14}+\frac{4}{21}$

L.C.M. = 42

$$\frac{2\times6}{7\times6}=\frac{12}{42}$$

$$\frac{1\times3}{14\times3}=\frac{3}{42}$$

$$\frac{4}{21}\times\frac{2}{2}=\frac{8}{42}$$

$$\frac{12}{42}+\frac{3}{42}+\frac{8}{42}=\frac{12+3+8}{42}$$

$$=\frac{23}{42}$$

20. $\frac{3}{4}+\frac{1}{12}+\frac{5}{24}$

L.C.M. = 24

$$\frac{3\times6}{4\times6}=\frac{18}{24}$$

$$\frac{1\times2}{12\times2}=\frac{2}{24}$$

$$\frac{5}{24}+\frac{2}{24}+\frac{18}{24}$$

$$\frac{5+2+18}{24}=\frac{25}{24}=1\frac{1}{24}$$

21. $\frac{3}{5}+\frac{2}{5}+\frac{4}{15}$

L.C.M. = 15

$$\frac{3\times3}{5\times3}=\frac{9}{15}$$

$$\frac{2\times3}{5\times3}=\frac{6}{15}$$

$$\frac{4\times1}{15\times1}=\frac{4}{15}$$

$$\frac{9}{15}+\frac{6}{15}+\frac{4}{15}=\frac{9+6+4}{15}$$

$$=\frac{19}{15} \text{ or } 1\frac{4}{15}$$

22. $\frac{1}{2}+\frac{3}{4}+\frac{5}{12}$

L.C.M. = 12

$$\frac{1\times6}{2\times6}=\frac{6}{12}$$

$$\frac{3\times3}{4\times3}=\frac{9}{12}$$

$$\frac{5\times1}{12\times1}=\frac{5}{12}$$

$$\frac{6}{12}+\frac{9}{12}+\frac{5}{12}=\frac{6+9+5}{12}=\frac{20}{12} \text{ or } \frac{5}{3} \text{ or } 1\frac{2}{3}$$

23. $\frac{11}{15}+\frac{23}{30}+\frac{67}{90}$

L.C.M. = 90

$$\frac{11\times6}{15\times6}=\frac{66}{90}$$

$$\frac{23\times3}{30\times3}=\frac{69}{90}$$

So, $\frac{66}{90}+\frac{69}{90}+\frac{67}{90}$

$$=\frac{66+69+67}{90}=\frac{202}{90}$$

$$=\frac{101}{45} \text{ or } 2\frac{11}{45}$$

24. $\frac{5}{16}+\frac{7}{32}+\frac{41}{64}$

L.C.M.

$$\frac{5\times4}{16\times4}=\frac{20}{64}$$

$$\frac{7\times2}{32\times2}=\frac{14}{64}$$

$$\frac{20}{64}+\frac{14}{64}+\frac{41}{64}=\frac{75}{64}=1\frac{11}{64}$$

25. $\frac{4}{13}+\frac{17}{26}+\frac{5}{52}$

L.C.M. = 52

$$\frac{4\times4}{13\times4}=\frac{16}{52}$$

$$\frac{17\times2}{26\times2}=\frac{34}{52}$$

$$\frac{5}{52}+\frac{16}{52}+\frac{34}{52}=\frac{55}{52} \text{ or } 1\frac{3}{52}$$

26. $\frac{7}{8}+\frac{9}{16}+\frac{3}{64}$

L.C.M. = 64

$$\frac{7\times8}{8\times8}=\frac{56}{64}$$

$$\frac{9\times4}{16\times4}=\frac{36}{64}$$

$$\frac{3\times1}{64\times1}=\frac{3}{64}$$

$$\frac{56}{64}+\frac{36}{64}+\frac{3}{64}=\frac{95}{64} \text{ or } 1\frac{31}{64}$$

27. $\frac{5}{6}+\frac{11}{12}+\frac{19}{24}$

L.C.M. = 24

$$\frac{5\times4}{6\times4}=\frac{20}{24}$$

$$\frac{11\times2}{12\times2}=\frac{22}{24}$$

$$\frac{19}{24}+\frac{20}{24}+\frac{22}{24}=\frac{61}{24} \text{ or } 2\frac{13}{24}$$

Exercise 16

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

   $\frac{7}{2}+\frac{9}{2}=\frac{7+9}{2}=\frac{16}{2}=8$

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

   $\frac{7}{3}+\frac{13}{3}=\frac{7+13}{3}=\frac{20}{3}$ or $6\frac{2}{3}$

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

   $\frac{26}{5}+\frac{11}{5}=\frac{26+11}{5}=\frac{37}{5}$ or $7\frac{2}{5}$

4. $1\frac{2}{7}+3\frac{3}{8}$

   $\frac{9}{7}+\frac{27}{8}=\frac{72+189}{56}=\frac{261}{56}$ or $4\frac{37}{56}$

5. $2\frac{2}{7}+2\frac{1}{7}$

$$\frac{16}{7}+\frac{15}{7}=\frac{16+15}{7}=\frac{31}{7} \text{ or } 4\frac{3}{7}$$

6. $5\frac{2}{7}+7\frac{3}{7}$

$$\frac{37}{7}+\frac{52}{7}=\frac{37+52}{7}=\frac{89}{7} \text{ or } 12\frac{5}{7}$$

7. $2\frac{1}{8}+3\frac{1}{4}$

$$\frac{17}{8}+\frac{13}{4}=\frac{17+26}{8}=\frac{43}{8}=5\frac{3}{8}$$

8. $\frac{1}{5}+4\frac{2}{5}$

$$\frac{1}{5}+\frac{22}{5}=\frac{23}{5} \text{ or } 4\frac{3}{5}$$

9. $7\frac{1}{9}+3\frac{2}{9}$

$$\frac{64}{9}+\frac{29}{9}=\frac{64+29}{9}=\frac{93}{9}$$

10. $1\frac{3}{4}+2\frac{1}{2}+1\frac{5}{12}$

$$\frac{7}{4}+\frac{5}{2}+\frac{17}{12}=\frac{21+30+17}{12}=\frac{68}{12} \text{ or } \frac{17}{3} \text{ or } 5\frac{2}{3}$$

11. $2\frac{1}{3}+2\frac{7}{9}+3\frac{1}{12}$

$$\frac{7}{3}+\frac{25}{9}+\frac{37}{12}=\frac{84+100+111}{36}=\frac{295}{36} \text{ or } 8\frac{7}{36}$$

12. $4+3+2+\frac{2}{3}+\frac{5}{9}+\frac{11}{12}$

$$9+\frac{24+20+33}{36}$$

$$9+\frac{77}{36}$$

$$9+2\frac{5}{36}$$

$$11\frac{5}{36}$$

13. $2\frac{1}{2}+1\frac{2}{3}+3\frac{3}{5}$

$$2+1+3+\frac{1}{2}+\frac{2}{3}+\frac{3}{5}$$

$$6+\frac{15+20+18}{30}$$

$$6+\frac{53}{30}$$

$$6+1\frac{13}{30}$$

$$7\frac{13}{30}$$

14. $4\frac{3}{8}+3\frac{5}{8}+5\frac{1}{2}$

$$4+\frac{3}{8}+3+\frac{5}{8}+5+\frac{1}{2}$$

$$12+\frac{3+5+4}{8}$$

$$12+\frac{12}{8}$$

$$12+1\frac{1}{2}$$

$$13\frac{1}{2}$$

15. $5\frac{5}{8}+6\frac{13}{16}+1\frac{5}{24}$

$$5+6+1+\frac{5}{8}+\frac{13}{16}+\frac{5}{24}$$

$$12+\frac{30+39+10}{48}$$

$$12+\frac{79}{48}$$

$$12+1\frac{31}{48}$$

$$13\frac{31}{48}$$

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

$$\frac{2}{3}+\frac{5}{6}+\frac{9}{4}+\frac{3}{1}$$

$$\frac{8+10+27+36}{12}$$

$$=\frac{81}{12} \text{ or } \frac{27}{4}$$

$$=6\frac{3}{4}$$

17. $\frac{11}{10}+5\frac{1}{3}+2$

$$\frac{11}{10}+\frac{16}{3}+\frac{2}{1}$$

$$\frac{33+160+60}{30}=\frac{253}{30} \text{ or } 8\frac{13}{30}$$

18. $3\frac{3}{4}+2+\frac{27}{12}$

$$3+\frac{3}{4}+2+2\frac{3}{12}$$

$$(3+2+2)+\frac{3}{4}+\frac{3}{12}$$

$$7+\frac{9+3}{12}$$

$$7+\frac{12}{12}=8$$

19. (a) $7\frac{1}{3}+2=\frac{22}{3}+2$

$$=\frac{22+6}{3}=\frac{28}{3}=9\frac{1}{3}$$

(b) $3\frac{2}{5}+\square=4\frac{2}{5}$

$$3\frac{2}{5}+1=4\frac{2}{5}$$

(c) $2\frac{1}{4}+3\frac{1}{5}=3\frac{1}{5}+\boxed{2\frac{1}{4}}$

(d) $\left(\frac{2}{3}+\frac{3}{4}\right)+\frac{3}{5}=\boxed{\frac{3}{5}}+\left(\frac{2}{3}+\frac{3}{4}\right)$

Exercise 17

1. $\frac{5}{7}-\frac{2}{7}=\frac{5-2}{7}=\frac{3}{7}$
2. $\frac{9}{11}-\frac{7}{11}=\frac{9-7}{11}=\frac{2}{11}$
3. $\frac{8}{13}-\frac{5}{13}=\frac{8-5}{13}=\frac{3}{13}$
4. $\frac{5}{6}-\frac{1}{6}=\frac{5-1}{6}=\frac{4}{6}$ or $\frac{2}{3}$
5. $\frac{13}{19}-\frac{11}{19}=\frac{13-11}{19}=\frac{2}{19}$
6. $\frac{14}{25}-\frac{12}{25}=\frac{14-12}{25}=\frac{2}{25}$
7. $\frac{15}{17}-\frac{11}{17}=\frac{15-11}{17}=\frac{4}{17}$
8. $\frac{15}{22}-\frac{11}{22}=\frac{15-11}{22}=\frac{4}{22}$ or $\frac{2}{11}$
9. $\frac{28}{29}-\frac{10}{29}=\frac{28-10}{29}=\frac{18}{29}$
10. $\frac{18}{30}-\frac{9}{30}=\frac{18-9}{30}=\frac{9}{30}$ or $\frac{3}{10}$
11. $\frac{41}{47}-\frac{32}{47}=\frac{41-32}{47}=\frac{9}{47}$
12. $\frac{79}{89}-\frac{52}{89}=\frac{79-52}{89}=\frac{27}{89}$
13. $\frac{1}{2}-\frac{1}{4}=\frac{2-1}{4}=\frac{1}{4}$
14. $\frac{3\times4}{5\times4}-\frac{1\times5}{4\times5}\Rightarrow\frac{12-5}{20}=\frac{7}{20}$

15. $\frac{1\times2}{6\times2}-\frac{1}{12}\Rightarrow\frac{2-1}{12}=\frac{1}{12}$

16. $\frac{11}{12}-\frac{2\times4}{3\times4}\Rightarrow\frac{11-8}{12}=\frac{3}{12}$

17. $\frac{7\times2}{10\times2}-\frac{1\times5}{4\times5}\Rightarrow\frac{14-5}{20}=\frac{9}{20}$

18. $\frac{3\times3}{5\times3}-\frac{2}{15}\Rightarrow\frac{9-2}{15}=\frac{7}{15}$

19. $\frac{1\times4}{12\times4}-\frac{1\times3}{16\times3}\Rightarrow\frac{4-3}{48}=\frac{1}{48}$

20. $\frac{17\times3}{20\times3}-\frac{5\times5}{12\times5}\Rightarrow\frac{51-25}{60}=\frac{26}{60}$ or $\frac{13}{30}$

21. $\frac{7\times3}{16\times3}-\frac{5\times4}{12\times4}\Rightarrow\frac{21-20}{48}=\frac{1}{48}$

22. $\frac{8}{21}-\frac{5}{42}\Rightarrow\frac{8\times2}{21}-\frac{5}{42}=\frac{16-5}{42}=\frac{11}{42}$

23. $\frac{18}{21}-\frac{7}{42}\Rightarrow\frac{18\times2}{21\times2}-\frac{7}{42}=\frac{36-7}{42}=\frac{29}{42}$

24. $\frac{5}{9}-\frac{3}{18}\Rightarrow\frac{5\times2}{9\times2}-\frac{3}{18}=\frac{10-3}{18}=\frac{7}{18}$

Exercise 18

1. $9\frac{1}{6}-4\frac{3}{4}$

   $=\frac{55}{6}-\frac{19}{4}$

   $=\frac{110-57}{12}=\frac{53}{12}$ or $4\frac{5}{12}$

2. $4\frac{5}{12}-1\frac{1}{12}$

   $\frac{53}{12}-\frac{13}{12}$

$$\frac{53-13}{12}=\frac{40}{12} \text{ or } \frac{10}{3} \text{ or } 3\frac{1}{3}$$

3. $7\frac{7}{1}-2\frac{3}{32}$

$$(7-2)+\left(\frac{7}{16}-\frac{3}{32}\right)$$

$$5+\frac{14-3}{32} \Rightarrow \frac{5}{1}+\frac{11}{32}=5\frac{11}{32}$$

4. $8\frac{3}{4}-2\frac{1}{8}$

$$(8-2)+\left(\frac{3}{4}-\frac{1}{8}\right)$$

$$6+\frac{6-1}{8}$$

$$6+\frac{5}{8}$$

$$6\frac{5}{8}$$

5. $5\frac{3}{4}-3\frac{1}{6}$

$$(5-3)+\left(\frac{3}{4}-\frac{1}{6}\right)$$

$$2+\frac{9-2}{12}$$

$$2+\frac{7}{12}$$

$$2\frac{7}{12}$$

6. $6\frac{1}{4}-2\frac{1}{2}$

$$\frac{25}{4}-\frac{5}{2}$$

$$\frac{25-10}{4}=\frac{15}{4}=3\frac{3}{4}$$

7. $4\frac{5}{6}-3\frac{11}{12}$

$$\frac{29}{6}-\frac{47}{12}$$

$$\frac{58-47}{12}=\frac{11}{12}$$

8. $11\frac{1}{2}-3\frac{11}{12}$

$$\frac{23}{2}-\frac{47}{12}$$

$$\frac{138-47}{12}=\frac{91}{12} \text{ or } 7\frac{7}{12}$$

9. $3\frac{5}{16}-1\frac{1}{8}$

$$(3-1)+\left(\frac{5}{16}-\frac{1}{8}\right)$$

$$2+\frac{3}{16}$$

$$2\frac{3}{16}$$

10. $6\frac{7}{18}-2\frac{3}{9}$

$$(6-2)+\left(\frac{7}{18}-\frac{3}{9}\right)$$

$$4+\frac{1}{18}$$

$$4\frac{1}{18}$$

11. $9\frac{5}{16}-4\frac{5}{8}$

$\frac{149}{16}-\frac{37}{8}$

$\frac{149-74}{16}=\frac{75}{16}$ or $4\frac{11}{16}$

12. $14\frac{7}{8}-11\frac{11}{24}$

$(14-11)+\left(\frac{7}{8}-\frac{11}{24}\right)$

$3+\left(\frac{21-11}{24}\right)$

$3+\frac{10}{24}$

$3\frac{10}{24}$ or $3\frac{5}{12}$

13. $13\frac{2}{3}-12\frac{1}{6}$

$\frac{41}{3}-\frac{73}{6}$

$\frac{82-73}{6}=\frac{9}{6}=\frac{3}{2}$ or $1\frac{1}{2}$

14. $15\frac{3}{8}-12\frac{3}{4}$

$\frac{123}{8}-\frac{51}{4}$

$\frac{123-102}{8}=\frac{21}{8}$ or $2\frac{5}{8}$

15. $11\frac{1}{2}-1\frac{7}{8}$

$\frac{23}{2}-\frac{15}{8}$

$$\frac{92-15}{8}=\frac{77}{8} \text{ or } 9\frac{5}{8}$$

16. $13-12\frac{1}{4}$

$$13-\frac{49}{4}$$

$$\frac{52-49}{4}=\frac{3}{4}$$

17. $14-11\frac{2}{3}$

$$14-\frac{35}{3}$$

$$\frac{42-35}{3}=\frac{7}{3} \text{ or } 2\frac{1}{3}$$

18. $15-3\frac{3}{4}$

$$15-\frac{15}{4}$$

$$\frac{60-15}{4}=\frac{45}{4} \text{ or } 11\frac{1}{4}$$

19. (a) $12\frac{1}{4}-10=\frac{49}{4}-\frac{10}{1}$

$$\frac{49-40}{4}=\frac{9}{4} \text{ or } 2\frac{1}{4}$$

(b) $5\frac{3}{8}-3\frac{3}{4}$

$$\frac{43}{8}-\frac{15}{4}=\frac{43-30}{8}=\frac{13}{8} \text{ or } 1\frac{5}{8}$$

(c) $3\frac{5}{8}+\frac{10}{1}$

$$=\frac{29}{8}+\frac{10}{1}=\frac{29+80}{8}=\frac{109}{8} \text{ or } 13\frac{5}{8}$$

(d) $15\frac{1}{3}-12\frac{1}{4}=(15-2)\left(\frac{1}{3}-\frac{1}{4}\right)$

$= 3+\left(\frac{1}{3}-\frac{1}{4}\right)$

$= 3+\left(\frac{4-3}{12}\right)$

$= 3+\frac{1}{12}$

$= 3\frac{1}{12}$

Exercise 19

1. $\frac{3}{8}-\frac{1}{4}+\frac{1}{12}$ L.C.M. = 24

$\frac{3\times3}{8\times3}=\frac{9}{24}$; $\frac{1\times6}{4\times6}=\frac{6}{24}$; $\frac{1\times2}{12\times2}=\frac{2}{24}$;

$\frac{9}{24}-\frac{6}{24}+\frac{2}{24}$

$\frac{9-6+2}{24}=\frac{3+2}{24}=\frac{5}{24}$

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

L.C.M. = 12

$\frac{10+3-4}{12}=\frac{13-4}{12}=\frac{9}{12}=\frac{3}{4}$

3. $\frac{5}{8}+\frac{1}{2}-\frac{1}{4}$ $(\because$ L.C.M. = 8)

$\frac{5+4-2}{8}=\frac{9-2}{8}=\frac{7}{8}$

4. $\frac{1}{3}-\frac{5}{12}+\frac{7}{9}$ (L.C.M. = 36)

$$\frac{12-15+28}{36}=\frac{40-15}{36}=\frac{25}{36}$$

5. $\frac{7}{10}-\frac{3}{20}+\frac{1}{5}$

$$\frac{14-3+4}{20}=\frac{11+4}{20}=\frac{15}{20}=\frac{3}{4}$$

6. $\frac{8}{27}+\frac{5}{9}-\frac{2}{3}$

$$\frac{8+15-18}{27}=\frac{23-18}{27}=\frac{5}{27}$$

7. $5-\frac{3}{4}+\frac{5}{6}$

$$\frac{60-9+10}{12}=\frac{61}{12}=5\frac{1}{12}$$

8. $\frac{11}{12}-\frac{1}{4}-\frac{1}{2}$

$$\frac{11-3-6}{12}$$

$$\frac{11-9}{12}=\frac{2}{12}=\frac{1}{6}$$

9. $\frac{1}{3}+\frac{5}{8}-\frac{9}{12}$

$$\frac{8+15-18}{24}$$

$$\frac{23-18}{24}=\frac{5}{24}$$

10. $\frac{5}{6}-\frac{2}{3}+\frac{4}{9}$

$$\frac{15-12+8}{18}=\frac{11}{18}$$

11. $2\frac{1}{2}-1\frac{3}{4}+5\frac{3}{8}$

$\frac{5}{2}-\frac{7}{4}+\frac{43}{8}$

$$\frac{20-14+43}{8}=\frac{49}{8}=6\frac{1}{8}$$

12. $3\frac{1}{3}-1\frac{1}{6}+5\frac{7}{12}$

$\frac{10}{3}-\frac{7}{6}+\frac{67}{12}$

$$\frac{40-14+67}{12}=\frac{107-14}{12}=\frac{93}{12}=7\frac{9}{12} \quad \text{or} \quad 7\frac{3}{4}$$

13. $4\frac{1}{5}-3\frac{3}{10}+1\frac{3}{20}$

$\frac{21}{5}-\frac{33}{10}+\frac{23}{20}$

$$\frac{84-66+23}{20}=\frac{107-66}{20}$$

$$\frac{41}{20}=2\frac{1}{20}$$

14. $8\frac{3}{4}-3\frac{1}{2}+1\frac{3}{8} \Rightarrow \frac{35}{4}-\frac{7}{2}+\frac{11}{8}$

$$\frac{70-28+11}{8} \Rightarrow \frac{81-28}{8}$$

$$=\frac{53}{8}=6\frac{5}{8}$$

Exercise 20

1. Ashu

$$\text{Studies time} = 4\frac{1}{2} \text{ hours}$$

$$\text{Play time} = 1\frac{1}{4} \text{ hours}$$

$$\text{Total time} = 4\frac{1}{2}+1\frac{1}{4}$$

$$= \frac{9}{2}+\frac{5}{4}$$

$$= \frac{18+5}{4}$$

$$= \frac{23}{4}=5\frac{3}{4} \text{ hours}$$

2. Milk drink by

$$\text{Deepu} = \frac{3}{4}l$$

$$\text{Riya} = \frac{2}{3}l$$

or $\frac{9}{12},\frac{8}{12}$

So, Deepu drank more

by $\frac{9-8}{12}=\frac{1}{12}$ litre

3. It takes me to go

$$\text{Market by biycle} = 1\frac{1}{3} or \frac{4}{3}$$

$$\text{On foot} = 2\frac{1}{5} \text{ or } \frac{11}{5}$$

$$\text{Total time} = \frac{11}{5}+\frac{4}{3}$$

$$= \frac{33+20}{15}$$

$$= \frac{53}{15} = 3\frac{8}{15} \text{ hours}$$

4. Rahul bought milk

$$\text{On Monday} = 3\frac{1}{2}l \text{ or } \frac{7}{2}$$

$$\text{On Tuesday} = 2\frac{3}{4}l \text{ or } \frac{11}{4}$$

$$\text{On Wednesday} = 3$$

$$\text{Total} = \frac{7}{2}+\frac{11}{4}+3$$

$$= \frac{14+11+12}{4}$$

$$= \frac{37}{4} = 9\frac{1}{4}l$$

5. $\text{Total oil} = 15\frac{2}{3}l \Rightarrow \frac{47}{3}l$

$$\text{Leaked} = 7\frac{1}{4}l \Rightarrow \frac{29}{4}l$$

$$\text{Remaining oil} = \frac{47}{3}-\frac{29}{4}$$

$$= \frac{188-87}{12}$$

$$= \frac{101}{12} = 8\frac{5}{12}l$$

6. Total Petrol $= 10\,\ell$

Used in car = $5\frac{1}{2}l$ or $\frac{11}{2}l$

In Scooter = $3\frac{1}{4} = \frac{13}{4}l$

$= 10 - \frac{11}{2} - \frac{13}{4}$

$= \frac{40 - 22 - 13}{4}$

$= \frac{40 - 35}{4} = \frac{5}{4} = 1\frac{1}{4}l$

7. Total vegetables used = $4\frac{2}{3}$ kg $= \frac{14}{3}$ kg

Potatoes = $3\frac{1}{4}$ kg $= \frac{13}{4}$ kg

Tomatoes = $\frac{1}{2}$ kg $= \frac{1}{2}$ kg

Peas = $\frac{14}{3} - \frac{13}{4} - \frac{1}{2}$

$= \frac{56 - 39 - 6}{12}$

$= \frac{56 + 45}{12} = \frac{11}{12}$ kg

8. Suhail travelled $= 50\frac{5}{8}$ km $= \frac{405}{8}$ km

He travelled in two days = $20\frac{2}{5} + 18\frac{3}{4}$

$= \frac{102}{5} + \frac{75}{4}$

$= \frac{405 + 375}{20} = \frac{783}{20}$

He travelled on third day =

$$= \frac{2025-1566}{40}$$

$$= \frac{459}{40} = 11\frac{19}{40} \quad km$$

9. Total ribbon $= 15\frac{1}{6}\ m\ +\ 12\frac{3}{4}$

$$= 15+12+\frac{1}{6}+\frac{3}{4}$$

$$= 27+\frac{2+9}{12}$$

$$= 27+\frac{11}{12}$$

$$= 27\frac{11}{12}\ m$$

She used $= 9\frac{7}{12}\ m$

Ribbon left with her $= 27\frac{11}{12}-9\frac{7}{12}$

$$= (27-9)-\left(\frac{11}{12}-\frac{7}{12}\right)$$

$$= 18+\frac{4}{12} = 18\frac{1}{3}$$

10. $25\frac{1}{4}+9\frac{1}{8}$

$$= (25+9)+\left(\frac{1}{4}+\frac{1}{8}\right)$$

$$= 34+\left(\frac{3}{8}\right)$$

$$= 34\frac{3}{8}$$

$13\frac{2}{5}+9\frac{1}{15} = 13+9+\left(\frac{2}{5}+\frac{1}{15}\right)$

$$= \quad 22+\left(\frac{6+1}{15}\right) \quad = 22+\frac{7}{15}$$

$$= \quad 22\frac{7}{15}$$

$$= \quad 34\frac{3}{8}-22\frac{7}{15}$$

$$\left(33+1\frac{3}{8}\right)-\left(22+\frac{7}{15}\right)=(33-22)+\left(\frac{11}{8}-\frac{7}{15}\right)$$

$$11+\left(\frac{165-56}{120}\right)=11\frac{109}{120}m$$

Lesson – 4 : Measurement of Time

Exercise 21

1. (a) 4:30 (b) 5:40 (c) 8:25 (d) 11:55
3. (a) 8:15 (b) 12:45 (c) 10:50 (d) 5:35
   (e) 7:20 (f) 8:50
4. (a) 5 minutes past 6 (b) 15 minutes past 6
   (c) 30 minutes past 8 (d) 10 minutes past 10
   (e) 15 minutes to 12 (f) 5 minutes past 1

Exercise 22

1. (a) 4 hours
   1 hour = 60 minutes
   4 hours = $4 \times 60 = 240$ minutes

   (b) 6 hours 25 minutes
   1 hour = 60 minutes
   4 hours = 6×60 minutes
   = 360 minutes
   = $360 + 25$
   = 385 minutes

   (c) 11 hours 49 minutes
   1 hour = 60 minutes
   11 hours = $11 \times 60 = 660$ minutes
   = $660 + 49 = 709$ minutes

   (d) 12 hours 15 minutes
   1 hour = 60 minutes
   12 hours = $12 \times 60 = 720$ minutes
   = $720 + 15 = 735$ minutes
2. (a) 6 hours 45 minutes 15 seconds
   1 hour = 60 minutes
   6 hours = $6 \times 60 = 360$ minutes

$= 360 + 45 = 405$ minutes

1 minute $= 60$ seconds

405 min. $= 405 \times 60 = 24300$ seconds

$= 24300 + 15 = 24315$ seconds

(b) 8 hour 30 minutes 20 seconds

1 hour $= 60$ minutes

8 hours $= 8 \times 60 = 480$ minutes

$= 480 + 30 = 510$ minutes

1 minutes $= 60$ seconds

510 minutes$= 510 \times 60 = 30600$ secodns

$= 30600 + 20 = 30620$ seconds

(c) 10 hours 35 minutes 16 seconds

1 hour $= 60$ minutes

10 hours $= 10 \times 60 = 600$ minutes

$= 600 + 35 = 635$ minutes

1 minnute $= 60$ seconds

635 min. $= 635 \times 60 = 38100$ seconds

$= 38100 + 16 = 38116$ seconds

3. (a) 60 minutes = 1 hour

```
60 ) 242 ( 4
     240
     ---
       2
     ---
```

4 hour 2 minutes

(b) 60 minutes = 1 hour

```
60 ) 940 ( 15
     60
     ---
     340
     300
     ---
      40
     ---
```

15 hours 40 minutes

(c) 872 minutes

60) 872 (14
60
270
240
30

14 hours 30 minutes

(d)

60) 345 (5
300
45

5 hours 45 minutes

(e)

60) 1034 (17
60
434
420
14

17 hours 14 minutes

(f)

60) 1244 (20
120
4
0
44

20 hours 44 minutes

4. (a) 60 seconds = 1 minutes

60) 3760 (62
360
160
120
40

62 minutes 40 seconds

```
60 ) 62 ( 1
     60
     --
      2
     --
```

So, 1 hour 2 minutes 40 seconds

(b)

```
60 ) 8758 ( 145
     60
     ---
     275
     240
     ---
      358
      300
      ---
       58
      ---
```

145 minutes 59 seconds

60 minutes = 1 hour

```
60 ) 145 ( 2
     120
     ---
      25
     ---
```

2 hours 25 minutes 58 seconds

(c)

```
60 ) 2738 ( 45
     240
     ---
      338
      300
      ---
       38
      ---
```

45 minutes 38 seconds

Exercise 23

1. (a) 6:00 am (b) 4:00pm (c) 7:15pm (d) 0:15am
2. (a) 820 hours (b) 1245 hours
   (c) 1515 hours (d) 00:07 hours
   (e) 1830 hours (f) 2200 hours
3. (a) 3:00 am (b) 10:00am (c) 12:30pm (d) 3:05pm

4. (a) 1 week = 7 days

$$7\overline{)80}\ 11,\quad 7,\quad 10,\quad 7,\quad 3$$

11 week 3 days

(b) 65 days

$$7\overline{)65}\ 9,\quad 63,\quad 2$$

9 weeks 2 days

(c) 95 days

$$7\overline{)95}\ 13,\quad 7,\quad 25,\quad 21,\quad 4$$

13 weeks 4 days

(d) 167 days

$$7\overline{)167}\ 23,\quad 14,\quad 27,\quad 21,\quad 6$$

23 weeks 6 days

Exercise 24

1. (a)

Min	Sec
10	30
+ 5	45
15	75

15 min 75 sec.

(b)

Min	Sec
2	35
+ 3	50
5	85

5 min 85 sec.

(c)

Min	Sec
2	38
+ 3	49
5	87

5 min 87 sec.

(d)

Hr.	Min	Sec
10	20	30
+ 9	18	36
19	38	66

19 hours 38 min 66 sec.

(e)

Hr.	Min	Sec
12	40	45
+ 5	15	30
17	55	75

17 hours 55 min 75 sec.

(f)

Hr.	Min	Sec
15	16	17
+ 20	30	40
35	46	51

35 hours 46 min 51 sec.

2. (a)

Yr	M
10	30
+ 5	45
15	75

15 years 75 months

$75 = 12 \times 6 + 3$ ($\therefore$ 12 months = 1 year)

so, $15 + 6 = 21$

21 years 3 months

(b)

Yr	M
12	4
+ 4	12
16	16

16 years 16 months

$16 = 12 + 4$ ($\therefore$ 12 months = 1 year)

so, $16 + 1 = 17$

17 years 4 months

(c)

Yr	M
14	10
+ 15	7
29	17

29 years 17 months

$17 = 12 + 5$ ($\therefore$ 12 months = 1 year)

so, $29 + 1 = 30$

30 years 5 months

3. (a)

Min	Sec
35	40
– 10	29
25	11

(b)

Min	Sec
25	35
– 17	15
8	20

(c)

Hr.	Min	Sec
37	45	30
– 18	25	15
19	20	15

4. (a)

Min	Sec
34	20
– 12	10
22	10

22 minutes 10 seconds

(b)

Hr.	Min	Sec
11	15	20
– 4	20	30
6	54	50

6 hours 54 minutes 50 seconds

(c)

Hr.	Min	Sec
25	25	25
+ 15	35	35
9	49	50

5. Namita travelled by

bus	5	20
train	+ 4	55
	9	**75**

60 minutes = 1 hour

75 = 60 + 15 = 1 hour 15 min.

So, 10 hours 15 minutes

6. Programme ends at = 1:15 pm or 1315 hrs
Programme starts at = 11:15 or 1115 hours
Length of programme = 1315
–1115
2:00

So, its 2 hours.

7. Nikita reaches her schol at = 7 : 45
Time taken = 50
7 : 45 – 50 = 6 : 55 am

Lesson – 5 : Money

Exercise 25

1. ₹8 = 800p
2. 1000p
3. ₹65
4. 10525P
5. 17358P
6. 32476P
7. ₹35.65
8. ₹46.85
9. ₹98.9.
10. ₹14.980
11. ₹12.960

Exercise 26

Find the sum :

1.
$$\begin{array}{r} ₹\,55 \\ +\ ₹\,48 \\ \hline ₹\,103 \end{array}$$

2.
$$\begin{array}{r} ₹\,183 \\ +₹\,165 \\ \hline ₹\,348 \end{array}$$

3.
$$\begin{array}{r} ₹\,278 \\ +₹\,389 \\ \hline ₹\,667 \end{array}$$

4.
$$\begin{array}{r} ₹\,600 \\ +₹\,630 \\ \hline ₹\,1230 \end{array}$$

5.
$$\begin{array}{r} ₹\,64.638 \\ +₹\,23.083 \\ \hline ₹\,87.721 \end{array}$$

6.
$$\begin{array}{r} ₹\,235.75 \\ +₹\,445.85 \\ \hline ₹\,681.90 \end{array}$$

7.
$$\begin{array}{r} ₹\,384.70 \\ +₹\,355.45 \\ \hline ₹\,740.15 \end{array}$$

8.
$$\begin{array}{r} ₹\,325.90 \\ +₹\,365.75 \\ \hline ₹\,691.65 \end{array}$$

Subtract

9.
$$\begin{array}{r} ₹\,90 \\ -₹\,46 \\ \hline ₹\,44 \end{array}$$

10.
$$\begin{array}{r} ₹\,195 \\ -₹\,095 \\ \hline ₹\,100 \end{array}$$

11 ₹ 3 7 0 0
− ₹ 1 8 5 0
₹ 1 8 5 0

12. ₹ 4 5 0 0
− ₹ 2 7 7 5
₹ 1 7 2 5

13. ₹ 555 . 65
− ₹ 270 . 95
₹ 284 . 70

14. ₹ 700 . 50
− ₹ 245 . 78
₹ 454 . 72

15. ₹ 860 . 95
− ₹ 640 . 45
₹ 220 . 50

Exercise 27

1. Veena buy fruits

2 kg apple cost	=	₹250
1 dozen banana cost	=	₹50
3 kg oranges cost	=	₹120
Sum	=	₹420

She gave	=	₹500
sum	=	₹420
Shopkeeper return	=	₹80

2. Ajay bought

Shirt	=	₹325 95P
Jeans	=	₹525 95P
He paid	=	₹851 90P

3. Meenal bought 6 pens

1 pen cost = ₹10.50

6 pen costs = ₹6 × 10.50 = 63.00

She gave	=	₹100
Sum	=	− ₹63
Amount she will get	=	₹37

4. Sonal purchased

Hindi book	=	₹125 25P
English book	=	+₹170 50P
Maths book	=	+₹225 75P
She spent on these	=	₹521 50P

She spent on books is ₹521.50

Lesson – 6 : Perimeter

Exercise 28

1. Perimeter of triangle = side + side + side
   (a) 25 + 35 + 40 = 100 m
   (b) 135 + 125 + 105 = 265 m
   (c) 65 + 85 + 80 = 230m
   (d) 90 + 110 + 115 = 315m
   (e) 60 + 90 + 100 = 250m
   (f) 135 + 140 + 150 = 425m
2. Perimeter of square = 4 × side
   (a) 4 × 12 = 48m (b) 4 × 15 = 60 m
   (c) 18 × 4 = 72m (d) 4 × 20 = 80m
   (e) 25 × 4 = 100m (f) 4 × 33 = 132m
   (g) 4 × 40 = 160m (h) 4 × 75 = 300m
3. Perimeter of a rectangle is = $2(\ell + b)$
   (a) 2 ×(55 + 35)
   = 2 × 90 = 180m
   (b) 2 ×(90 + 80)
   = 2 × 170 = 340m
   (c) 2 ×(120 + 105)
   = 2 × 225 = 450m
   (d) 2 ×(240 + 170)
   = 2 × 410 = 820m
   (e) 2 ×(360 + 225)
   = 2 × 585 = 1170m
   (f) 2 ×(275 + 165)
   = 2 × 440 = 880m

4. 1 round $=$ Perimeter of triangluar park
$= 20 + 35 + 25 = 80\text{m}$

4 rounds $= 4 \times 80 = 320\text{m}$

5. Perimeter $=$ length of boundary wall
$= 2 \times (\ell + b)$
$= 2 \times (35 + 30)$
$= 2 \times 65 = 130\text{ m}$

6. Perimeter of the field
$= 30 + 40 + 40 + 50$
$= 160\text{ m}$

Cost of fencing $=$ ₹15×160
$=$ ₹2400

7. Perimeter of square $= 4 \times$ side
$= 4 \times 115 = 460\text{m}$

8 times turn $= 8 \times 460 = 3680\text{m}$

8. Perimeter $= 4 \times$ side

side $=$ perimeter $\div 4$
$= 240 \div 4$
$= 60\text{ m}$

9. Perimeter $= 2 \times (l + b)$

$\frac{\text{Perimeter}}{2} - l = b$

$\frac{140}{2} - 35 = b$

$70 - 35 = b$

$35\text{ m} = b$

Breadth $= 35$ m

10. $\frac{\text{Perimeter}}{2} - breadth =$ length

$\frac{360}{2} - 40 = 180 - 40 = 140$ m length

Lesson – 7 : Metric Measures

Exercise 29

1. (a) 1m = 100 cm
   (b) 1km = 1000 m
   (c) 1cm = 10mm
   (d) 1kg = 1000g
   (e) 1g = 1000mg
   (f) 1ℓ = 1000ml
   (g) 1ℓ = 100cl
   (h) 1dam = 10m
   (i) 1hg = 100g

2. (a) 4m 5cm to cm
   1m = 100 cm
   $400 + 5 = 405$cm

   (b) 6cm 6mm to mm
   1cm = 10mm
   $6 \times 10 + 6 = 66$mm

   (c) 5km 325m to m
   1km = 1000m
   5km = 5000m
   $5000 + 325 = 5325$m

(d) 8l 30ml to ml

1l = 1000ml

8000 + 30 = 8030ml

(e) 18cm 14mm to mm

1cm = 10mm

180 + 14 = 194mm

(f) 12kg 15g to g

1kg = 1000g

12kg = 1200g

12000 + 15 = 12015g

(g) 80m 18cm to cm

1m = 100cm

80m = 8000cm

8000 + 18 = 8018cm

(h) 333kg 42g to g

1kg = 1000g

333kg = 333000g

333000 + 42 = 333042g

(i) 634ℓ 4ml to ml

1ℓ = 1000ml

634ℓ = 634000ml

634000 + 4 = 634004ml

3. (a) 60 mm to cm

$$1\text{mm} = \frac{1}{10}\text{ cm}$$

$$60\text{mm} = \frac{60}{10}\text{ cm} = 6\text{cm}$$

(b) 800 cm = m

$$1\text{cm} = \frac{1}{100}\text{ m}$$

$$800\text{cm} = \frac{800}{100}\text{ m} = 8\text{m}$$

(c) $5000\text{m} = \text{km}$

$$1\text{m} = \frac{1}{1000}\text{ km}$$

$$5000\text{m} = \frac{5000}{1000}\text{ km} = 5\text{km}$$

(d) $3000\text{ml} = \ell$

$$1\text{ml} = \frac{1}{1000}\ \ell$$

$$3000\text{ml} = \frac{3000}{1000}\ \ell = 3\ell$$

(e) $4000\text{g} = \text{kg}$

$$1\text{g} = \frac{1}{1000}\text{ kg}$$

$$4000\text{g} = \frac{4000}{1000}\text{ kg} = 4\text{kg}$$

(f) $2000\text{mg} = \text{g}$

$$1\text{mg} = \frac{1}{1000}\ \text{g}$$

$$2000\text{mg} = \frac{2000}{1000}\ \text{g} = 2\text{g}$$

4. (a) 683 cm to m and cm

$$1\text{cm} = \frac{1}{100}\text{ m}$$

$$638\text{cm} = \frac{638}{100}\text{ m}$$

$\therefore$ 6m 38cm

(b) 82mm to cm and mm

$$1\text{mm} = \frac{1}{10}cm$$

$$82\text{mm} = \frac{82}{10}cm$$

8cm 2mm

(c) 457mm to cm and mm

$$1\text{mm} = \frac{1}{10}cm$$

$$457\text{mm} = \frac{457}{10}cm$$

45cm 7mm

(d) 23230 m to km and m

$$1\text{m} = \frac{1}{1000}km$$

$$23230\text{m} = \frac{23230}{1000}km$$

$$= 23\text{km}\ 230\text{m}$$

(e) 1658m to km and m

$$1\text{m} = \frac{1}{1000}km$$

$$1658\text{m} = \frac{1658}{1000}km$$

$$= 1\text{km}\ 658\text{m}$$

(f) 16725g to kg and g

$$1\text{g} = \frac{1}{1000}kg$$

$$1675\text{g} = \frac{16725}{1000}kg$$

$$= 16\text{kg}\ 725\text{g}$$

Exercise 30

1. (a)

	km	m
	52	516
+	67	835
	120	351

(b)

	km	m
	384	375
+	289	375
	673	750

(c)

	kg	g
	45	375
+	30	285
	75	660

(d)

	kg	g
	149	387
+	244	276
	393	663

(e)

	ℓ	mℓ
	390	239
+	195	325
	585	564

(f)

	ℓ	mℓ
	149	367
+	343	255
	492	622

Difference

2. (a)

	km	m
	816	230
−	765	385
	50	845

(b)

	kg	g
	615	305
−	378	816
	236	489

(c)

	ℓ	mℓ
	151	230
−	75	385
	75	845

Exercise 31

1. (a)

	m	cm
	45	63
×		2
	91	26

(b)

	m	cm
	36	91
×		7
	258	37

(c)

m	cm
26	45
×	6
158	70

(d)

km	m
22	275
×	4
89	100

(e)

km	m
96	185
×	8
763	480

(f)

m	cm
135	126
×	7
945	882

(g)

l	ml
38	250
×	3
114	750

(h)

kg	g
21	450
×	12
42	900
214	500
257	400

(i)

kg	g
85	854
×	18
686	832
858	540
1545	372

2. (a)

$$4 \overline{)\ 28\ 64\ 7\text{m}16\text{cm}}$$

28

6

4

24

24

×

7.16 or 7m 16cm

(b)

9) 81 189 (9.021
81
―――
1
0
―――
18
18
―――
9
9
―――
×
―――

Ans. 9kg 2ℓgm

(c) 12ℓ612ml ÷ 6

6) 12 612 (2.102
12
―――
6
6
―――
1
0
―――
12
12
―――
×
―――

Ans. 2ℓ 102ml

(d) 281km 862m ÷ 4

14) 281.862 (20.133
28
―――
1
0
―――
18
14
―――
46
42
―――
42
42
―――
×
―――

Ans. 20km 133m

(e) 3950kg 592g ÷ 32

```
32 ) 3950 592 ( 123.456
     32
     ---
      75
      64
     ---
      110
       96
     ---
       145
       128
     -----
        179
        160
     -----
          192
          192
     -----
            ×
     -----
```

Ans. 123kg 456g

(f)

```
8 ) 192800 ( 24.1
    16
    --
     32
     32
    --
      8
      8
    --
      0
    --
```

Ans. 24ℓ 1ml

Exercise 32

1. Raja bought

	kg	**g**
Sugar	100	250
rice	+ 40	800
	141	**050**

Total weight 141kg 5g

2. Milk

	l	ml
Total =	50	000
Sold =	– 32	500
Left =	**17**	**500**

3. Mr. Saxena travelled by

	km	**m**
foot	2	375
bus	7	725
train	+ 15	125
	25	**225**

Total distance travelled by Mr. Sasena was 25km 225m

4. Heap of wheat

	kg	**g**
together	50	250
one heap	–32	525
	17	**725**

Ans. : another heap is 17.725kg.

5. Mangoes

	kg	**g**
Total	320	400
discard	– 5	300
remaining	**315**	**100**

Remaining	315	100
Sold	– 289	400
	25	**700**

Ans. : Weight left is 25kg 700gm or 25.7kg

6.

	l	**ml**
Total oil	5	250
taken out	2	100
oil spoiled	1	200

Remaining oil = 2 ℓ 100ml + 1 ℓ 200 ml – 5ℓ 250 ml

= 3ℓ300ml – 5ℓ 250 ml

$$\begin{array}{r} 5\ 250 \\ -3\ 300 \\ \hline \mathbf{1\ 950} \end{array}$$

Ans. : Remaining oil is 3ℓ 300ml

7. Wood pieces

one 2 m 20 cm or 220cm

(1 m = 100cm; 2m = 200cm)

another = 4m 60cm or 460cm

Total wood = 220 + 460 = 680cm

Wood painted = 225cm

Wood left = 680 – 225 = 455cm or 4.55m

Computer

Lesson –1 : MS Word

1. (a) (iv) (b) (i) (c) (ii)
2. (a) True (b) False (c) False
   (d) True (e) True
3. (a) Microsoft (b) .doc
   (c) Document
4. (a) MS Word is the software created by Microsoft Corporation of America, to create and edit text documents in an attractive and easy manner.
   (b) Done earlier.
   (c) Word provides groups of icons to help you in doing different work in it, these options are called toolbars.
   (d) Standard toolbar and formatting toolbar are the two toolbars of MS word.
   (e) Font colours option give different colours to text.
   (f) Font formatting, bullets and numbering, spelling checker and some facilities that makes the word document look attractive.
   (g) Spelling checker helps in correcting your spelling mistakes in the text document.
   (h) Word count helps you to count the number of words you have typed on the screen.

Lesson – 2 : Internet

1. (a) (iii) (b) (i) (c) (ii)
   (d) (ii) (e) (iii)
2. (a) True (b) True (c) False
   (d) False (e) True
3. (a) internet (b) world (c) information
   (d) domain name (e) username
4. (a) Mobile phone SMS, MMS, MP3 etc.
   (b) Internet Network of networks

(c) Web page — Collection of information on single page

(d) Web browser — Browsing websites

(e) Website — Collection of web pages

5. (a) Telephone :

People can talk to each other easily.

Was not available everywhere.

(b) Mobile phone :

Has features like scheduler, call history, SMS, MMS, etc. can't store large amount of data.

(c) Internet :

Can get information on any topic from it.

6. (a) WWW : It stands for World Wide Web. It is the largest collection of computers providing information on the computer.

(b) Website : It is a collection of webpage which displays information from the internet.

(c) Webpages : It is the single screen full of information in a website which is accessed around the world.

(d) Email : It stands for electronic mail. It is a fast and cheap facility of internet to send the letters/mails to different people along the internet. In internet every user has its own email address.

(e) Email address : It is the special identity of the person which represents record of person on the internet.

7. (a) Internet is the biggest network of computers connected all around the world.

(b) We can do a number of works on internet. Some of these are as follows :

(i) We can get information on any topic.

(ii) We can send and receive messages via email.

(iii) Can do shopping.

(iv) Can access news from anywhere in the world.

(v) Ticket reservation can be done easily by using internet.

(c) To access internet, the things needed are :

(i) Computer (ii) Modem

(iii) Telephone line (iv) Internet connection

(v) Web browser

(d) All the computers required for internet connections are arranged in an order and all have a particular work to do. For example all the computer are connected to modem which send the data to the telephone, which further pass the data to the modem of the computer and finally the data is used by the other computer by the means of internet application software or web browser.

(e) A special software which is used to access the web page on the internet is called a web browser. Two common web browsers are :

(i) Microsoft Internet Explorer.

(ii) Netscape Navigator.

Lesson – 3 : LOGO 1

1. (a) (ii) (b) (iii) (c) (i)
   (d) (i) (e) (iii)
2. (a) True (b) False (c) True
   (d) False (e) True
3. (a) 0 and 1 (b) BBN (c) turtle
   (d) primitive (e) paint (f) set head
   (g) pen erase (h) LT, RT
4.

	Section A	Section B
(a)	FD	Forward
(b)	BK	Back
(c)	RT	Right turn
(d)	LT	Left turn
(e)	PD	Pen down
(f)	PE	Pen erase
(g)	PPT	Pen paint
(h)	SETH	Set head

5. (a) CLEAN : Erases everything on the screen.
   (b) HOME : Helps or moves the turtle back to its original position.
   (c) HT : It disappears the turtle from the screen.
   (d) ST : It keeps the turtle to reappear on the screen.
   (e) SETH : It sets the head on a turtle in specified direction.
   (f) REPEAT : It repeats the given sets of LOGO command as many times specified by you.
   (g) ST : Done earlier.
   (h) RT : It turns the turtle right.
6. (a) Main screen and commander window.
   (b) Input box, command list box and command buttons.

2. (a) PU and PD : Helps the turtle to move on screen without drawing a line whereas PD enables the turtle to draw lines again.
   (b) FD and BK : Helps the turtle to move forward whereas BK moves the turtle backward as per specified .
   (c) ST and HT : HT command disappears the turtle from the screen whereas ST helps the turtle to reappear on the screen.
   (d) RT and LT : RT turns the turtle to right, LT turns the turtle to left direction.
   (e) CS and HOME : CS cleans the entire matter on the screen whereas home moves the turtle back to its original position.

3. (a) LOGO is a functional programming language stands for Language of Graphic Oriented.
   (b) (i) We can draw simple shapes, figures, patterns and drawing.
   (ii) Can do arithmetic calculations such as addition, subtraction, multiplication and division.
   (iii) Also helps us to display text messages.
   (c) Click on start button

Click on program option

Click on microsoft windows LOGO

Click on microsoft windows LOGO sub option

(d) The pen looks like a triangle on logo screen is called a turtle in logo.

(e) The top pointed end of the turtle is called its head. The bottom wide base of turtle is called its tail.

(f) A logo program is a set of primitives (command/ instructions).

(g) The two basic types of logo commands are :

(i) Action commands : Those which show some action on screen when they are given. Few example FD, BK, LT, RT, etc.

(ii) Control commands : Those which control some group of commands for eg REPEAT.

Lesson – 4 : LOGO 2

1. (a) (i) (b) (i) (c)
   (d) (ii) (e) (iii)
2. (a) True (b) False (c) False
   (d) True (e) True
3. (a) PRINT (b) First
   (c) Show uppercase (d) Sum
   (e) To and End (f) Procedure (g) .Lgo
4. Do yourself.

General Knowledge

Lesson –1 : Amazing Animals

1. Ostrich 2. Lamprey 3. Piranha
4. Flamingo 5. Anaconda 6. Basenji
7. Salmon 8.Ant 9. Bat
10. Giraffe.

Lesson – 2 : Trees And Plants

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

5. (f) 6. (e) 7. (h) 8. (g)
9. (j) 10. (i)

Lesson – 3 : Surnames of Indian Cities

1. Amritsar 2. Bangaluru
3. Jaipur 4. Hyderabad (Secunderabad)
5. Mumbai 6. Madurai
7. Kolkata 8. Lucknow
9. Kolkata 10. Panipat
11. Srinagar 12. Varanasi
13. New Delhi 14. Bangalore
15. Jamshedpur

Lesson – 4 : Religion

1. Rishavdeva 2. Gautam Buddha
3. Prophet Mohammed 4. Guru Nanak
5. Vardh man Mahavir 6. Ten
7. Guru Govind Singh 8. Gura Granth Saheb
9. Islam 10. Hinduism
11. The birthday of Lord Jesus
12. Good Friday 13. Church
14. Temple 15. Zoroaster

Lesson – 5 : Discoveries And Discoverers

1. (j) 2. (a) 3. (i) 4. (b)
5. (c) 6. (h) 7. (f) 8. (g)
9. (e) 10. (d)

Lesson – 6 : First Man in India

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

Lesson – 7 : First Woman In India

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

Lesson – 8 : Great Indian Men

1. Anna Hazare
2. A. R. Rehman,
3. Sirus Mistri
4. Amzad Ali Khan
5. Parnab Mukherjee
6. Rajesh Khanna

Lesson – 9 : Indian Women

1. S. Vijaya Lakshmi
2. Bachhendri Pal
3. Kiran Bedi
4. Arundhati Roy
5. Mamta Banerjee
6. Lata Mangeshkar
7. Nirupma Rao
8. M.S. Subbulakshmi

Lesson – 10 : Nicknames

1. William Shakespeare
2. Khan Abdul Gaffar Khan
3. Lala Lajpat Rai
4. C.F. Andrews
5. C.R. Das
6. Mahatma Gandhi
7. Major General Rajendra Singh,
8. Pt. Jawaharlal Nehru
9. Dadabhai Naoroji
10. Rabindra Nath Tagore
11. M.S. Golwalker
12. Bal Gangadhar Tilak
13. Sarojini Naidu
14. Dr. Hochi Minh
15. Sardar Patel
16. Lal Bahadur Shastri
17. Napolen
18. Bismarck
19. Hitler
20. Maharaja Kumar of Vijaynagar

Lesson – 11 : Sports And Players

1. (a)
2. (b)
3. (a)
4. (b)
5. (b)
6. (a)
7. (a)
8. (b)
9. (b)
10. (a)

Lesson – 12 : Sports And Cups/Trophies

1. Badminton
2. Boxing
3. Bridge
4. Cricket
5. Football
6. Golf
7. Hockey
8. Horse racing
9. Polo
10. Table Tennis
11. Lawn Tennis
12. Wrestling
13. Shooting
14. Billiards
15. Basketball

Lesson – 13 : Sports And Places (Grounds)

1.	(e)	2.	(d)	3.	(i)
4.	(g)	5.	(h)	6.	(o)
7.	(k)	8.	(f)	9.	(a)
10.	(n)	11.	(b)	12.	(m)
13.	(c)	14.	(l)	15.	(j)

Lesson – 14 : Behind The Scenes

1.	Script writer	2.	Film Producer
3.	Film director	4.	Lyricist
5.	Composer	6.	Playback Singer
7.	Choreographer	8.	Cinematographer
9.	Stuntman	10.	Art director.

Lesson – 15 : Branches of Science

1.	(h)	2.	(o)	3.	(a)	4.	(k)
5.	(d)	6.	(m)	7.	(f)	8.	(j)
9.	(c)	10.	(b)	11.	(n)	12.	(e)
13	(l)	14.	(i)	15.	(g)		

Lesson – 16 : Doctor's Advice

1.	(j)	2.	(e)	3.	(i)	4.	(h)
5.	(a)	6.	(b)	7.	(c)	8.	(f)
9.	(g)	10.	(d)				

Lesson – 17 : Phobia

1.	(i)	2.	(g)	3.	(b)	4.	(a)
5.	(h)	6.	(c)	7.	(d)	8.	(e)
9.	(j)	10.	(f)				

Moral Values

Lesson –1 : A True Brother

1.	(a)	(ii) Ayodhya	(b)	(iii) Bharat
	(c)	(iii) 14 years	(d)	(i) royal seat of Ayodhya
2.	(a)	False	(b)	False
	(c)	True	(d)	False
3.	(a)	heir	(b)	Kekayi
	(c)	Manthra, wicked	(d)	Promise
	(e)	king		

4. (a) Four (b) Rama
   (c) Manthara (d) Sandals
5. (a) Name of Dashratha four sons were : Rama, Lakshmana, Bharat, Shatrughana.
   (b) Dhashratha had become old and he wanted Rama to be his successor because Rama being the eldest is the rightful heir to the throne.
   (c) Manthara was a wicked maid of queen Kekayi.
   (d) Manthra coax Kekayi to ask her the two wishes from the king which he granted her once.
   (e) Kekayi ask the king Dashratha to send Rama to the forest for fourteen years and secondly to make Bharat the heir to the throne.
   (f) As the king Dashratha promised Kekayi to grant her wishes, he had to agree. Hence Rama was forced to leave Ayodhya. Due to this injustice, with a heavy heart and profound grief, he passed away.
   (g) Hearing the news of his father's death, Bharat become very upset and reached Ayodhya. He was very angry at his mother for what she had done.
   (h) With a large band of men, Bharat reached Chitrakoot where Rama had stayed. He insisted Rama to change his mind and return Ayodhya.
   (i) Rama did not returned with Bharat because he had made a promise with his father that he will remain in the forest for fourteen years.
   (j) This episode from Ramayana tells us that Rama and Bharat were true brothers as both love each other truely.

Lesson – 2 : He is Watching ...

1. (a) (iii) study (b) (ii) fruiterer
   (c) (iv) wall (d) (ii) God
2. (a) honest (b) greedy
   (c) steal (d) alert
3. (a) True (b) True (c) False
   (d) True (e) False
4. (a) Abid was a poor boy but his mother had taught him always to be honest.
   (b) His mother sent him to his uncles house so that he could study under his supervision.

(c) Sajid had a bad quality. He was greedy. He used to steal fruits from the nearby orchard at night.
(d) One night Sajid took Abid with him to an orchard for stealing fruits and told Abid to alert him if somebody watches him.
(e) Allah was watching when Sajid was stealing.
(f) Sajid was ashamed of himself when Abid told him that Allah is watching him stealing. Hearing such words from a little boy, he realised his mistake.

Lesson – 3 : The Mice And The Elephant

1. (a) (i) forest
   (b) (iii) elephants
   (c) (i) guide his herd through another route
   (d) (i) trapped elephants by cut open nets
2. (a) tree (b) destroyed, death
   (c) trapped (d) hunters
3. (a) True (b) False
   (c) True (d) False
   (e) False
4. (a) Old mice (b) Elephant king
   (c) Hunters (d) Elephant king
5. (a) A group of mice lived under a tree in a part of forest. One day a group of elephants came that way and destroyed the homes of all the rats.
   (b) The elephants pass that way regularly as it was the way to a lake where they quench their thirst.
   (c) While elephants passes from the route, to their lake, they destroyed the homes of all the rats which comes in their way and even many of the rats were crushed to death, this worried the mice.
   (d) The king of mice approached the elephants king to find out the solution for their problem, the elephant king agreed to this and took another route to the lake.
   (e) One day a group of elephant hunters came and trapped the group of elephants in huge nets.
   (f) Hence, we learn that friends always help each other and a friend in need is a friend in deed.

हिंदी

पाठ - 1 : बस्ता बोला

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क. (अ) ख. (ब) ग. (ब)
घ. (द) ङ. (अ)

2. खाली स्थान भरिए :

क. सिर ख. प्रेम ग. विश्व
घ. सदबुद्धि ङ. मुँह

3. किसने, किससे कहा:

क. बस्ते ने पेंसिल से कहा
ख. किताब ने बस्ते से कहा
ग. रबड़ ने पेंसिल से कहा
घ. किताब ने पेंसिल से कहा
ङ. किताब ने पेंसिल से कहा

4. सत्य/असत्य लिखिये :

क. सत्य ख. असत्य
ग. असत्य घ. सत्य
ङ. असत्य

5. निम्न प्रश्नों के उत्तर लिखिए :

क. पेन्सिल के सिर को रोज ही कटर में घुमाया जाता है इसलिए उसे चक्कर आ रहे हैं।
ख. बच्चे बस्ते को पटककर रखते हैं इसके कारण बस्ते को पीड़ा हो रही थी।
ग. बच्चे ने बीच-बीच में से किताब के पेज फाड़ रखे थे और जगह-जगह पर स्याही फैलाकर किताब को कुरूप बना दिया।
घ. किताब का अभिनंदन और गुणगान पूरे विश्व में किया जाता है।
ड. बस्ते ने बच्चे के लिए ईश्वर से सद्बुद्धि माँगी।

6. निम्नलिखित शब्दों का वाक्य प्रयोग कीजिए :

क. दुर्दशा - तुम्हारी बुरी आदतों के कारण ही आज तुम्हारी यह दुर्दशा है।
ख. सहमत - बेटे ने पिताजी से कहा, ''मैं आपकी बात से सहमत हूँ।''
ग. अभिनंदन - माँ लक्ष्मी का फूलों से अभिनंदन करना चाहिए।
घ. सद्बुद्धि - माँ ने रोहन से कहा कि भगवान तुझे सद्बुद्धि दें।

7. निम्नलिखित मुहावरों के अर्थ बताइए :

क. भय से काँपना : डर लगना
ख. खात्मा करना : अंत करना, हत्या
ग. शेखी बघारना : स्वयं अपनी प्रशंसा करना
घ. गुणगान करना : किसी के गुणों का वर्णन करना

8. निम्न शब्दों के अर्थ लिखिए:

क.	बुरी सूरत वाला	ख.	भद्दी सूरत वाला
ग.	बुरी दशा	घ.	सदाचारिता
ङ.	हालत, अवस्था	च.	दशा
छ.	बताती	ज.	क्लेश, दु:ख
झ.	नहीं तो, या तो	ञ.	कोशिश
ट.	एकमत, राजी	ठ.	अभिवादन
ड.	दु:ख	ढ.	पूर्णरूप से

पाठ - 2 : मेरी मातृभूमि

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क.	(स)	ख.	(द)	ग.	(ब)
घ	(स)	ङ.	(अ)		

2. खाली स्थान भरिए :

क.	बढ़कर	ख.	गाकर	ग.	इतराते
घ.	देव	ङ.	लद		

3. निम्न विलोम शब्दों का सही मिलान कीजिए:

क.	4	ख.	5	ग.	6
घ.	7	ङ.	3	च.	2
छ.	1				

4. सत्य/असत्य लिखिये :

क.	सत्य	ख.	सत्य	ग.	सत्य
घ.	सत्य	ङ.	सत्य		

5. निम्न प्रश्नों के उत्तर लिखिए :

क. संसार में सबसे अधिक पावन मातृभूमि है।

ख. मातृभूमि की महिमा और यश गाकर देशभक्त को सुख मिलता है।

ग. भारतवर्ष में अतिथियों को देव समझा जाता है।

घ. भारत में सर्दी, गर्मी, बरसात तथा बसन्त आदि ऋतुएँ आती-जाती रहती है।

ड. कवयित्री की यही कामना है कि भारत की मातृभूमि पर बार-बार जन्म लूँ तथा इस भूमि पर जितने भी काम हो उन सब मैं काम आऊँ।

6. निम्न शब्दों के अर्थ लिखकर वाक्यों में प्रयोग करें :

स्वयं कीजिए।

पाठ - 3 : मुन्नू की डायरी

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क.	(स)	ख.	(अ)	ग.	(अ)

घ. (अ) ङ. (अ)

2. खाली स्थान भरिए :

क. नाराज ख. घूमने ग. प्रिय

घ. अंताक्षरी

3. निम्न विलोम शब्दों का सही मिलान कीजिए (वचन बदलिए) :

1. ज 2. घ 3. छ

4. च 5. क 6. ख

7. ग 8. ङ

4. सत्य/असत्य लिखिये :

क. असत्य ख. सत्य ग. असत्य

घ. सत्य ङ. सत्य

5. निम्न प्रश्नों के उत्तर लिखिए :

क. डायरी में अपने अनुभव की बातें लिखी जाती हैं।

ख. डायरी अपने लिए तथा पत्र दूसरों के लिए लिखा जाता है।

ग. डायरी में लिखने वाला व्यक्ति अपने दिनभर के अनुभवों को तिथि डालकर लिखता है।

घ. डायरी प्रत्येक व्यक्ति लिख सकता है।

ड. लेखक के घर सुशीला मौसी आने वाली थी।

च. विपिन ने कार्ड देखा। कार्ड देखकर उसे बहुत खुशी हुई।

6. निम्न शब्दों को वाक्यों में प्रयोग कीजिए:

क. मेरे पास नीले रंग की फ्राक है।

ख. रीना को अच्छी-अच्छी कहानियाँ पढ़ने का शौक है।

ग. खेल खेलना स्वास्थ्य के लिए अच्छा होता है।

घ. फुटबाल मेरा प्रिय खेल है।

ड. दीपावली पर चारो तरफ रौनक रहती है।

7. निम्नलिखित के पर्यायवाची शब्द लिखिए:

क. सुबह - प्रातः, सवेरा, प्रभात

ख. रात - रजनी, निशा, रात्रि

ग. मित्र - दोस्त, सखा, सहचर

8. निम्न शब्दों के अर्थ लिखकर वाक्यों में प्रयोग करो :

क. उड़ाई हुई खबर, अपुष्ट समाचार

ख. अभिनंदन, बधाई

ग. चमक-दमक और शोभा

घ. एक प्रकार का खेल या प्रतियोगिता जिसमें कोई एक कविता पढ़ता या गाता है और दूसरा उस कविता या गाने के अन्तिम अक्षर से आरंभ होने वाली दूसरी कविता या गाना गाता है।

पाठ - 4 : आयुर्वेद

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क. (ब) ख. (स) ग. (ब)
घ. (ब) ङ. (अ)

2. खाली स्थान भरिए :

क. अत्याचार ख. आहार-विहार
ग. पीड़ारहित चिकित्सा पद्धति घ. सिकाई

3. सही मिलान कीजिए (वचन बदलिए) :

क. 3 ख. 4 ग. 5
घ. 6 ङ. 2 च. 1

4. सत्य/असत्य लिखिये :

क. सत्य ख. असत्य ग. सत्य
घ. सत्य ङ. सत्य

5. निम्न प्रश्नों के उत्तर लिखिए :

क. बीमार हो जाने पर व्यक्ति चिकित्सकों के पास जाता है और कहता है कि वह उसे जल्दी ठीक कर दें।

ख. क्योंकि वे आयुर्वेद के बताए नियमों को अपनाते थे इसलिए हमारे पूर्वज हमसे अधिक स्वस्थ रह पाते थे।

ग. आयुर्वेद भारतीय ऋषियों द्वारा बनाया गया 'चिकित्साशास्त्र' है।

घ. 'आहार' अर्थात् हमारा भोजन और 'विहार' अर्थात् हमारी दिनचर्या।

ड. शुद्ध हवा एवं सूर्य की धूप। इसके अलावा मिट्टी, हवा, पानी, कुछ तेल व जड़ी-बूटियों के उपयोग आयुर्वेदिक उपचारों के लिए किया जाता है।

च. नीम, आँवला, हींग, हल्दी, चंदन, इलायची, केसर, स्वर्ण, मोती एवं तुलसी, लौंग आदि।

6. निम्न शब्दों के वाक्य प्रयोग कीजिए :

क. चिकित्सक : बीमार हो जाने पर हम चिकित्सक के पास जाते हैं।

ख. औषधियाँ : सरकारी अस्पतालों में औषधियाँ नि:शुल्क दी जाती हैं।

ग. दुष्प्रभाव : आजकल बच्चे बहुत अधिक टी.वी. पर प्रोग्राम देखते हैं इसका उनकी आँखों पर दुष्प्रभाव पड़ता है।

घ. दिनचर्या : मैं अपनी दिनचर्या भगवान का नाम लेकर शुरू करता हूँ।

ड. मनोयोग : मनोयोग के बिना सफलता नहीं मिलती।

7. निम्न शब्दों के अर्थ लिखिए:

क. बेचैन ख. दिन भर का काम
ग. बुरा प्रभाव घ. पकड़
ङ. उपाय च. इलाज करने वाला वैध
छ. उसूल ज. नियंत्रित
झ. साधना, ध्यान

पाठ – 5 : सारथी

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क. (स) ख. (स) ग. (अ)
घ. (अ) ङ. (अ) च. (अ)
छ. (स)

2. खाली स्थान भरिए :

क. उपहास ख. गौण
ग. आत्मा घ. उपदेश

3. किसने, किससे कहा :

क. अर्जुन ने कृष्ण से कहा
ख. कृष्ण ने अर्जुन से कहा
ग. कृष्ण ने अर्जुन से कहा

4. सत्य/असत्य लिखिये :

क. असत्य ख. असत्य
ग. सत्य घ. सत्य
ङ. सत्य

5. निम्न प्रश्नों के उत्तर लिखिए :

क. युद्ध के मैदान में अर्जुन से लड़ने गुरु द्रोणाचार्य, भीष्म पितामह और दुर्योधन आए थे।

ख. युद्ध में उससे लड़ने के लिए उसके गुरु तथा बड़े आए हुए थे जो अर्जुन के लिए आदरणीय थे, इसलिए अर्जुन ने युद्ध करने से इंकार कर दिया।

ग. अर्जुन ने कहा–''यदि तुम युद्ध नहीं करोगे तो तुम्हें तुम्हारा खोया हुआ अधिकार कैसे मिलेगा?

घ. हर परिस्थिति में मनुष्य को केवल अपने कर्त्तव्य पर ही ध्यान देना चाहिए।

ड. वास्तव में हम सब यह शरीर नहीं वरन् आत्मा है। मृत्यु से केवल शरीर नष्ट होता है, आत्मा नहीं। आत्मा तो नया शरीर धारण कर पुनः जन्म लेती है।

6. निम्न शब्दों के विशेषण लिखिएः

क. आत्मीय, आत्मिक ख. आदरणीय
ग. अन्यायी घ. शारीरिक

7. निम्न शब्दों के अर्थ लिखिए :

क. धैर्य ख. हक, कब्जा
ग. डरपोक घ. माहौल
ङ. रथ हाँकने वाला च. भीख माँगना
छ. हँसी ज. बेकार
झ. एकमत, राजी

पाठ - 6 : ज्ञान व भक्ति के दोहे

2. बताइए :

क. हमें केवल हरि नाम की चिंता करनी चाहिए।

ख. यदि नाव में पानी बढ़ जाए तो दोनों हाथ से उलीचना चाहिए।

ग. वृक्ष, नदी, सज्जन व्यक्ति और बादल परमार्थ के कारण देह धारण करते हैं।

घ. स्वयं कीजिए।

ङ. स्वयं कीजिए।

3. दिये गये वाक्य से सम्बन्धित दोहे की पंक्ति लिखिए :

क. टूटै सुजन मनाइए, जो टूटै सौ बार

ख. तेरा साई तुझ में, ज्यों पहुपन में बास

ग. पानी केरा बुद बुदा, अस मानस की जात

घ. जानि बुझै कंचन तजै, क्यों तू पकरै काँच

पाठ - 7 : असम

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क.	(ब)	ख.	(अ)	ग.	(ब)
घ.	(अ)	ङ.	(अ)		

2. खाली स्थान भरिए :

क.	विदेशी	ख.	सरल	ग.	म्यांमार
घ.	कनकलता	ङ.	बाँसुरी		

3. निम्न विलोम शब्दों का सही मिलान कीजिए :

1.	झ	2.	ज	3.	छ
4.	च	5.	क	6.	ख
7.	ग	8.	घ	9.	ङ

4. सत्य/असत्य लिखिये :

क.	सत्य	ख.	सत्य	ग.	सत्य
घ.	सत्य	ङ.	सत्य		

5. निम्न प्रश्नों के उत्तर लिखिए :

क. असोम की चाय विश्वभर में प्रसिद्ध है।

ख. कामाख्या मंदिर का संबंध शैव तान्त्रिकों एवं जादू-टोने से है।

ग. असोम का नाम म्यांमार (वर्मा) की ओर से आयी एक जाति 'असोम' पर आधारित है।

घ. चावल, जूट, ईख, मकई, कपास, राई व सरसों असोम की मुख्य फसलें हैं। यहाँ के वनों में हाथी, गैंडे, चीते, रीछ और हिरण विशेष रूप से पाये जाते हैं।

ड. 'बिहू' असोम का प्रमुख त्योहार है। इस दिन सभी असोम निवासी

नाचते-गाते एवं खुशियाँ मनाते हैं। मणिपुर नृत्य इसी प्रदेश की देन है।

6. निम्नलिखित शब्दों का वाक्य में प्रयोग कीजिए:

क. हमारी भारतीय संस्कृति बहुत लोकप्रिय है।

ख. भारत में अनेक प्रकार की मृदा पाई जाती है।

ग. मदन की आर्थिक स्थिति ठीक नहीं है।

घ. 'मणिराम' का नाम स्वतंत्रता आंदोलन में विशेष रूप से उल्लेखनीय है।

7. निम्न शब्दों के अर्थ लिखिए :

क. झरना ख. तंत्र शास्त्र का जाता

ग. खुशियों से भरा चेहरा घ. देखने योग्य

पाठ - 7 : रानी अवंतीबाई

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क. (स) ख. (स) ग. (ब)

घ. (अ) ङ. (अ)

2. निम्न पुल्लिंग शब्दों का उनके स्त्रीलिंग शब्दों से सही मिलान कीजिए :

क. 6 ख. 9 ग. 7

घ. 8 ङ. 5 च. 4

छ. 3 ज. 2 झ. 1

3. खाली स्थान भरिए :

क. छोटे पुत्र ख. अधिकार ग. पाकर

घ. भागने ङ. विरुद्ध

4. सत्य/असत्य लिखिये :

क. सत्य ख. सत्य ग. सत्य

घ. असत्य ङ. सत्य

5. निम्न प्रश्नों के उत्तर लिखिए :

क. अवंतीबाई मरखेड़ के राजा जूझारसिंह की पुत्री थी। उनके पति का नाम विक्रमादित्य था।

ख. उन्होंने रानी को एक पत्र लिखा और कहा कि अब रामगढ़ का कोई वारिस नहीं है। अत: रामगढ़ पर अब उनकी कंपनी का अधिकार है।

ग. यह पत्र पाकर रानी का खून खौल उठा। वह अंग्रेजों की धूर्तता से भली-भाँति परिचित थी। वह समझ गयी कि उन्हें अकेली महिला व उनके पुत्रों को असहाय जानकर, उनके पति का राज्य उनसे छीनने की चेष्टा की जा रही है।

घ. रानी केवल वीरांगना ही नहीं थीं, वह बड़े उदार हृदय की नारी थीं। वाडिंगटन व उसके पुत्र को बंदी बना कर जब उनके सामने लाया गया तो उन्होंने उन्हें क्षमा कर दिया।

ड. वाडिंगटन को क्षमा करके रानी ने अनुचित किया क्योंकि रानी ने वाडिगंडन को क्षमा करके आजाद कर दिया उसके बाद वाडिंगटन चुपचाप

रानी के विरूद्ध सेना तैयार करने लगा। अन्य अंग्रेज अधिकारियों ने भी उसे गुप्त रूप से सैन्य-सहायता प्रदान की। एक दिन, अवसर देखकर अपने रामगढ़ पर धावा बोल दिया। रानी को जब यह सूचना मिली तो वह देवहरगढ़ की पहाड़ियों की ओर बढ़ चलीं। क्रोधित वाडिंगटन ने सारा रामगढ़ तहस-नहस कर दिया और रानी को चारों ओर से घेर लिया।

6. निम्नलिखित मुहावरों को वाक्यों में प्रयुक्त कीजिए :

क. शत्रुओं को सामने देखकर जवानों का खून खौल उठा।

ख. दयालु महाजन ने एक गरीब किसान को अपने घर में शरण दी।

ग. अवसर देखकर वाडिंगटन ने रामगढ़ पर धावा बोल दिया।

घ. चोरों ने घर में घुसकर सारे घर को तहस-नहस कर दिया।

7. निम्न शब्दों के अर्थ लिखकर वाक्य में प्रयोग कीजिए :

क.	वीर स्त्री	ख.	जो समर्थ न हो
ग.	साजिश	घ.	मजबूर
ङ.	खराब भाग्य	च.	द्वारा
छ.	छल-कपट	ज.	भगाना
झ.	प्रबल, प्रचंड	ण.	समर्पित कर देना
ट.	वीरता, शूरता	ठ.	कथा, वृतांत

पाठ - 8 : वंशीधर वर दो

1. सही विकल्प पर सही (✓) का चिह्न लगाओ :

क.	(अ)	ख.	(अ)	ग.	(अ)
घ.	(अ)	ङ.	(अ)		

2. खाली स्थान भरिए :

क.	मधुर	ख.	बाँसुरी	ग.	साहसी
घ.	छिड़कूँ				

3. अनेक शब्दों के लिए एक शब्द का मिलान कीजिए :

क.	3	ख.	4	ग.	5
घ.	6	ङ.	2	च.	1

4. सत्य/असत्य लिखिये :

क.	सत्य	ख.	सत्य
ग.	सत्य	घ.	सत्य
ङ.	असत्य		

5. निम्न प्रश्नों के उत्तर लिखिए :

क. कवि ने श्री कृष्ण भगवान से वर माँगा है।

ख. कवि श्रीराम से मर्यादा में रहना सीखना चाहता है।

ग. कवि फूल जैसा तन और वज्र जैसा मन चाहता है।

घ. बुद्ध को शांति का प्रतीक माना जाता है।

ड. कर्ण दान के लिए प्रसिद्ध थे।

6. **निम्न शब्दों के अर्थ लिखकर वाक्य में प्रयोग कीजिए :**

क.	भेष	ख.	बोली	ग.	तीरंदाज
घ.	वरदान	ङ.	गौरव, सीमा	च.	शस्त्र
छ.	धारण करने योग्य	ज.	रूपरहित, निराकर,	झ.	सिंदूर
ञ.	स्तुति, पूजन				