ICSE Science 5

1 The Circulatory System

ANSWERS

CHECK POINT 1

1. Plasma **2.** Arteries **3.** Veins **4.** Capillaries

CHECK POINT 2

1. heart **2.** four **3.** left ventricle **4.** Pranayama

PRACTICE TIME

A. 1. (T) **2.** (F) **3.** (T) **4.** (F) **5.** (F)

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

C. 1. veins **2.** deoxygenated **3.** arteries **4.** cardiac **5.** Haemoglobin

D. 1. Circulatory system is a system of tubes in our body which carries food and oxygen to body cells and takes waste from them to the kidneys.

The parts of circulatory system are blood, blood vessels and the heart.

2. Blood has following functions:

(a) Blood carries nutrients and oxygen to all the body cells.

(b) It carries wastes from cells to kidneys.

(c) It takes carbon dioxide from cells to lungs for throwing out of the body.

(d) It keeps the body warm.

(e) It protects the body against infections.

3. Arteries are called distributing vessels because they carry blood away from the heart and distribute it to all parts of the body.

4. Veins carry impure blood which is without oxygen and contains waste. Therefore, blood in veins is bluish in colour.

5. The pumping action of heart is called heartbeat.

6. The heart pumps blood into the arteries with jerks. These jerks are called pulse. The pulse can be checked on the inner side of the wrist.

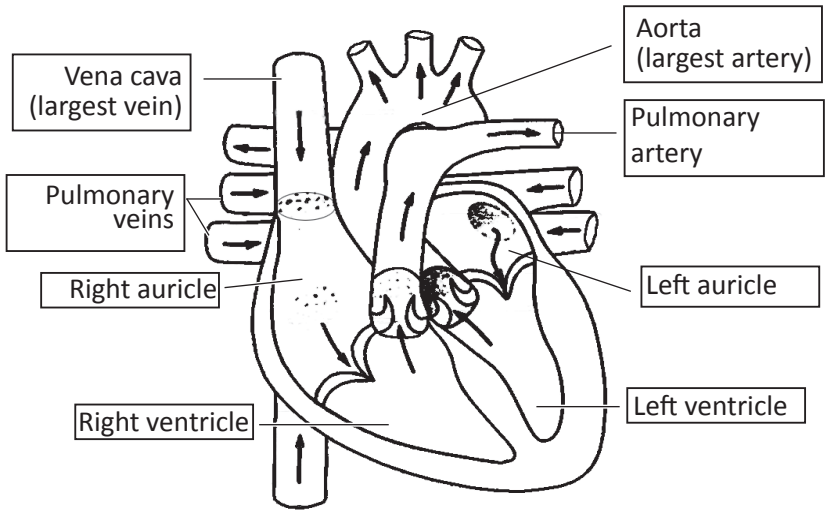
7. *Pranayama* are deep breathing yogic exercises. They keep the body fit and healthy.

E. 1. White Blood Cells (WBCs)

2. Lub and dub

3. Stethoscope

F.



THINK ZONE

1. The WBCs or white blood cells fight with germs and protect the body against infections. Therefore, they are called soldiers of the body.

2. Veins have valves because the flow of blood in veins is not jerky. These valves prevent backflow of blood and make it to flow only towards the heart.

2 The Skeletal System

ANSWERS

CHECK POINT 1

1. Humerus **2.** Radius and Ulna **3.** Maxilla and Mandible **4.** Femur

CHECK POINT 2

1. Ball and socket joint **2.** Hinge joint **3.** Gliding joint **4.** Immovable joints

CHECK POINT 3

1. (✗) **2.** (✓) **3.** (✓) **4.** (✗)

PRACTICE TIME

A. 1. (F) **2.** (T) **3.** (T) **4.** (F) **5.** (F) **6.** (F)

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

C. 1. ribcage **2.** cartilage **3.** breastbone **4.** wrist, ankle **5.** protein

D. 1. Skeleton is a framework of bones which gives shape and support to the body.

2. Following are the functions of skeletal system:

(a) Skeletal system gives shape and support to the body.

(b) It protects the soft organs of the body.

(c) It moves body parts with the help of muscles.

(d) Its long and flat bones contain bone marrow which forms blood cells.

3. Bones of forelimbs: Humerus is found in upper arm, while radius and ulna are found in lower arm.

Bones of hindlimbs: Femur is the thigh bone. Tibia and fibula are found in lower legs.

4. Ball and socket joint allows movement of bones in all directions. It is found in hips between hip bone and femur and in shoulders between shoulder bone and humerus.

5. In skull, immovable joints are found which lock the skull bones together like a jigsaw puzzle.

6. Calcium, phosphorus, fluorine, vitamin D and proteins are essential for healthy bones and muscles. They are found in milk and milk products, green leafy vegetables, seafood, eggs, pulses, meat, fish, soybean, etc.

7. Outdoor games, aerobics, skipping, running, cycling, swimming, walking and yoga make our muscles strong.

E. **1.** (d) **2.** (e) **3.** (a) **4.** (c) **5.** (f) **6.** (a)

F.

O	I	F	U	P	D	U	K	Q	M
C	A	L	C	I	U	M	V	W	F
R	Q	U	B	E	S	G	E	O	I
P	H	O	S	P	H	O	R	U	S
B	W	R	G	U	T	B	A	N	H
H	M	I	L	K	Z	X	G	J	L
A	S	N	W	V	C	R	I	D	U
C	H	E	E	S	E	N	H	P	F

THINK ZONE

1. Calcium is used in the formation of bones. Therefore, calcium-rich food is good for bones.

2. If there were no joints in the skeletal system, we would not have been able to bend our body parts and do our daily life activities such as walking, sitting, kneeling, etc.

3 Food and Health

ANSWERS

CHECK POINT 1

1. balanced **2.** grain, milk **3.** junk **4.** Sprouts **5.** fermented

CHECK POINT 2

1. Kwashiorkor **2.** Anaemia **3.** Vitamin D **4.** Vitamin C **5.** Brick powder

PRACTICE TIME

A. 1. (T) **2.** (T) **3.** (F) **4.** (F) **5.** (T)

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

C. 1. roughage **2.** nutrients **3.** vitamins **4.** insulin **5.** rickets

D. 1. Nutrients are different components of our food which give us energy to do work, help in building body muscles and protect us from various diseases. They are carbohydrates, fats, proteins, vitamins and minerals.

2. A diet which contains the right amount of all the nutrients is called balanced diet.

Eating only one type of food will cause deficiency of other nutrients in the body, but a balanced diet provides all the nutrients in proper amounts. Therefore, we should eat a balanced diet.

3. The food which is good for health is called healthy food. Healthy food gives us energy, keeps active, helps us to grow and fight against diseases.

Fruits, nuts, vegetables, cereals, pulses, milk and milk products are healthy food.

4. Junk food such as pizza, burger, *samosa*, etc. is prepared with lots of sugar, salt, spices, refined flour and oil. It has large parts of fats and carbohydrates. Thus, it makes us obese, weak, lazy and sick, and does not help us to grow well.

5. We should eat sprouts because they are good for our digestive system. They control our blood pressure, keep our skin and hair shiny. They boost up our body to fight diseases. They make our bones and muscles strong.

Seeds of green gram, bengal gram, sunflower, chickpea, radish, etc. are used as sprouts.

6. Curd, vinegar, yoghurt, *uttappam*, *idli*, *dosa*, *dhokla*, *kanji*, bread, ketchup, etc. are fermented food items.

7. Eating more junk food, not playing outdoor games, watching TV for long hours and not doing physical work are the causes of obesity in children.

8. The mixing of toxic and harmful substances in food is called food adulteration. Cowdung powder, horse dung powder, brick powder, starch, wax, lead chromate and metanil yellow are some food adulterants.

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

F.

X	O	C	S	T	P	E	A	T	S	T
W	O	U	D	P	A	P	Q	Z	N	C
T	N	H	C	S	P	I	N	A	C	H
M	I	L	K	T	A	V	W	M	K	Y
P	O	S	Z	U	Y	T	S	L	T	C
Y	N	P	Q	V	A	C	N	A	O	L

1. Papaya **2.** Pea **3.** *Amla* **4.** Milk **5.** Spinach **6.** Onion

THINK ZONE

1. Curd is prepared from milk by the action of curd bacteria which are active only when the temperature of milk is between 25–35°C. The curd bacteria will not act upon milk if its temperature is below or above this range. Therefore, the milk used for setting curd should not be too hot or cold.

2. Green vegetables and fruits contain many vitamins and minerals which help our body to fight against many diseases. They also make our bones, teeth and muscles strong. Therefore, we should eat more of green vegetables.

4 Pollination

ANSWERS

CHECK POINT 1

1. Bisexual flowers **2.** Corolla **3.** Stamen **4.** Thalamus **5.** Calyx **6.** Cross-pollination

PRACTICE TIME

A. 1. (T) **2.** (F) **3.** (F) **4.** (T) **5.** (T)

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

C. 1. Calyx **2.** Bisexual **3.** petals **4.** ovules

D. 1. The four whorls of a flower are calyx, corolla, androecium and gynoecium.

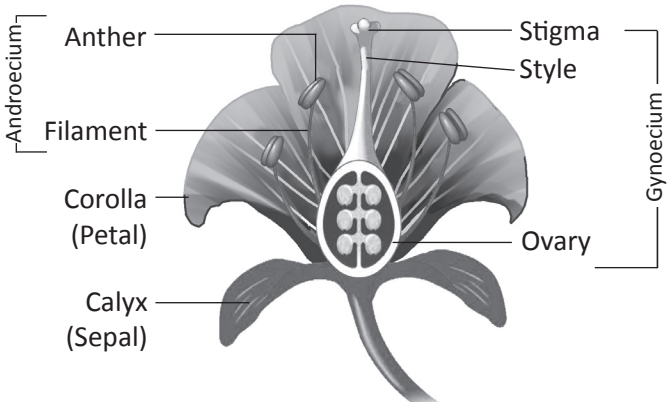
2. Anther is a sac-like structure which contains pollen. It is found in androecium of a flower.

3. The flowers which have both androecium and gynoecium are called bisexual flowers. They are china rose, pea, mustard, gram, rose, petunia, etc.

4. The process of transfer of pollen grains from the anther to the stigma of a flower is called pollination. It is of two types – self-pollination and cross-pollination.

5. Self-pollination occurs in potato and wheat while cross-pollination occurs in maize and cucumber.

6.



E. Bisexual flowers
Mustard, Rose, Pea

P	X	P	Z	P	A	P	A	Y	A
U	T	U	C	E	D	P	U	P	T
M	U	S	T	A	R	D	W	V	X
P	Z	R	A	S	O	T	D	O	P
K	O	T	V	E	S	V	W	T	U
I	M	A	I	Z	E	X	I	M	P
N	C	V	X	T	P	Q	N	P	S

Monosexual flowers
Pumpkin, Papaya, Maize

THINK ZONE

1. In monosexual flowers, either androecium or gynoecium is found. Thus, for pollination to occur, pollen has to travel to other flower. Therefore, mostly cross-section occurs in them.
2. Butterflies and honeybees go flower to flower in search of nectar. When they sit on a flower, pollen stick to their body parts. When same insects sit on other flowers, pollen from their body parts reach the stigma of that flower and pollination occurs. In this way, butterflies and honeybees help in pollination.

5 Plant Reproduction

ANSWERS

CHECK POINT 1

1. Androecium **2.** Egg **3.** Fertilisation **4.** Ovule

CHECK POINT 2

1. Wind **2.** Dispersal of seeds **3.** Germination **4.** Seed leaves or cotyledons

CHECK POINT 3

1. Stem **2.** Leaf **3.** Root **4.** Stem **5.** Stem **6.** Stem

PRACTICE TIME

A. 1. (F) **2.** (F) **3.** (T) **4.** (T) **5.** (T)

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

C. 1. male **2.** female **3.** fruit **4.** sycamore **5.** seedling

D. 1. The process of producing individuals of own kind is called reproduction.

2. A type of reproduction which occurs by the union of male and female gametes is called sexual reproduction.

3. The fusion of male and female gametes is called fertilisation.

Fertilisation is necessary in plants because it helps in the formation of seeds and fruits.

4. The scattering of seeds away from the parent plant is called dispersal of seeds.

It is necessary for plants because if all the seeds fall and grow near the parent plant, they will not get enough amount of air, water and warmth for their growth.

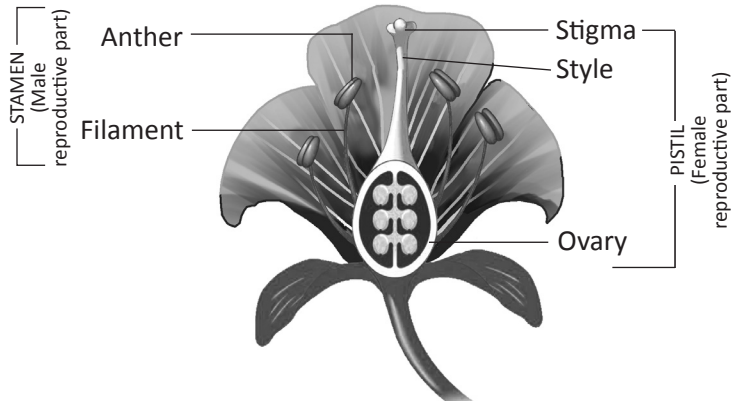
5. The aids which carry out dispersal of seeds are called agents of seed dispersal. They are air, water, animals and some special structures which develop on seeds and fruits.

6. Air, water and warmth are the necessary conditions for seed germination.

7. Growing of plants from plant parts such as roots, stems, leaves and buds is called vegetative reproduction.

Vegetative reproduction occurs in potato, onion, ginger, carrot, rose and *Bryophyllum*.

8.



E. Air: Dandelion, Hiptage
Water: Lotus, Coconut
Animals: Burdock, Cocklebur

F. 1. seed **2.** buds **3.** wind **4.** male **5.** seed leaves

THINK ZONE

1. The seeds of a rose plant take many months to germinate and only a small number of seeds germinate to produce plants. On the other hand, a rose plant from stem cutting grows in a few days. Therefore, it is grown by stem cutting.

2. Most plants bear flowers to produce seeds for growing new plants.

6 Solids, Liquids and Gases

ANSWERS

CHECK POINT 1

1. gaseous **2.** Solids **3.** Liquids **4.** Solvent, solute **5.** Warm, cold

CHECK POINT 2

1. wind **2.** breeze **3.** sea **4.** Summer

PRACTICE TIME

A. 1. (T) **2.** (F) **3.** (T) **4.** (F)

B. 1. (a) **2.** (a) **3.** (a) **4.** (a)

C. 1. molecules **2.** crystalline **3.** Solute **4.** insoluble **5.** Muslin

D. 1. Solid, liquid and gas are the three states of matter.

Solid: Spoon, pen, pencil, etc.

Liquid: Water, milk, fruit juice, etc.

Gas: Oxygen, carbon dioxide, nitrogen, etc.

2. Sugar, blue vitreol, potash alum, etc. are some crystalline solids.

3. Solids: (a) Solids have a definite shape and occupy a definite amount of space.
(b) Solids are hard and cannot flow.

Liquids: (a) Liquids do not have a definite shape but occupy a definite amount of space.
(b) Liquids are not hard and they can flow.

Gases: (a) Gases neither have a definite shape nor occupy a definite amount of space.
(b) Gases can flow in all directions.

4. A uniform mixture of a solid or a gas in a liquid is called a solution.
Some common solutions are salt solution, fruit juices, lemon water, tea, coffee, vinegar, etc.

5. Sedimentation and decantation, filtration and evaporation are the methods used for separating impurities from water.

6. Air contains 78 per cent nitrogen, 21 per cent oxygen, 0.03 per cent carbon dioxide, some water vapour and other gases.

7. Ventilators are placed at higher level to throw out impure and warm air which we breathe out while the windows are placed at lower level to let the fresh and cool air in. In this way, a circulation of air is formed and ventilation of air occurs in a room.

8. Monsoon winds are seasonal winds and blow over a large area. They bring rainfall. On the other hand, sea breeze and land breeze blow daily in coastal areas only.

E. 1. Monsoon **2.** Land breeze **3.** Nitrogen **4.** Filtration **5.** Winter monsoon **6.** Sedimentation

THINK ZONE

1. Liquids always flow from higher level to lower level due to force of gravity. Therefore, a waterfall falls from a height to the ground only.

2. The molecules of warm air have more energy. They move away from each other and take up more space. In this way, the warm air expands, becomes lighter and rises up.

7 Interdependence in Living Beings – Plants and Animals

ANSWERS

CHECK POINT

1. Producers (Green plants) **2.** Chlorophyll **3.** Oxygen **4.** Herbivores

PRACTICE TIME

A. 1. (T) **2.** (T) **3.** (F) **4.** (F) **5.** (T)

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

C. 1. Green **2.** sunlight **3.** Herbivores **4.** Scavengers **5.** decomposers

D. 1. Green plants are called producers because they are the only living beings which can make food at their own using raw materials.

2. Animals are called consumers because they consume the food produced by green plants.

3. Scavengers are the animals which eat dead animals or plants. Crow, vulture, jackal, hyena, etc. are scavengers.

4. Herbivores: Cow, buffalo

Carnivores: Lion, tiger

Omnivores: Crow, bear

5. A food chain is the feeding relationship between organisms. It is the sequence of organisms in which an organism eats the one below it and is eaten by some other above it.

Example: A deer eats plants and is eaten by a tiger.

Plants $\longrightarrow$ Deer $\longrightarrow$ Tiger

6. Animals get food and oxygen from plants. Plants give shelter to many animals to dwell upon there. We also get wood, medicines, oils, spices, gum, rubber, etc. from plants.

7. Wild animals are hunted for food, recreation and for illegal trading of their body parts such as horns, feathers, hoofs, skin, nails, etc.

E.

A	I	U	E	T	D	Z	E	G	M	A	E	I	T	Z
S	K	O	F	P	E	A	C	O	C	K	T	K	S	X
W	Z	W	B	H	E	P	R	A	P	C	R	L	H	P
V	U	L	T	U	R	E	P	T	E	R	M	I	T	E
J	X	E	T	A	O	T	X	M	V	O	X	O	F	T
R	P	A	X	N	I	P	Y	T	N	W	Y	N	Q	P

Herbivores: Deer, Goat
Carnivores: Owl, Lion
Omnivores: Peacock, Crow
Scavengers: Termite, Vulture

THINK ZONE

1. If the producers in a food chain disappear, all the consumers will die of hunger because consumers depend on producers for food.

   On the other hand, if one of the consumers in a food chain disappears, the consumers above it will die of hunger and whole food chain will be disturbed.
2. Only green plants are called producers because they contain a green pigment called chlorophyll in their leaves which helps them in trapping solar energy and making food.

8 Sound and Noise

ANSWERS

CHECK POINT

1. Pleasant sounds **2.** Noise pollution **3.** Warning sounds **4.** Factories

PRACTICE TIME

A. 1. (F) **2.** (F) **3.** (T) **4.** (T) **5.** (T)

B. 1. (c) **2.** (d) **3.** (b)

C. 1. noise **2.** Pleasant **3.** eardrum **4.** crackers

D. 1. Animals communicate by producing sounds. For example, dogs bark, birds chirp, frogs croak, etc.

2. The sounds which make us feel good are called pleasant sounds. They are the sound of chime, songs of birds, etc.

3. The sounds which make us alert during emergency are called warning sounds. The sounds produced by the siren of police van, ambulance and fire engine are examples of warning sounds.

4. Loud and irritating sounds are called noise. For example, sounds of honking vehicles, loudspeakers, etc. are noise.

5. The noise produced in the surroundings by various objects is called noise pollution.

Following are the harmful effects of noise pollution:

(a) Noise pollution may damage our eardrum and make us deaf.

(b) It may lead to high blood pressure and may cause heart failure.

(c) It upsets our mood and we cannot do our work well.

(d) It disturbs our sleep.

(e) Noise due to bursting of crackers may cause cracks in buildings.

6. Noise pollution can be reduced by following ways:

(a) Planting trees on both sides of roads and highways, around hospitals, schools, houses, etc.

(b) Not driving vehicles without silencers.

(c) Not using loudspeakers anywhere.

(d) Not honking unnecessarily.

THINK ZONE

1. Objects such as curtains, carpets, etc. placed in a room absorb the sound produced but in an empty room, the sound produced is not absorbed but bounced back from floor, ceiling and walls. Therefore, we hear our voice loud in an empty room.
2. Playing music system at full volume causes noise and may make us deaf. Therefore, we should not play music at full volume.

9 WORK AND ENERGY

ANSWERS

CHECK POINT

1. Work **2.** Energy **3.** Renewable sources of energy **4.** Piped Natural gas (PNG)

PRACTICE TIME

A. 1. (F) **2.** (T) **3.** (T) **4.** (F) **5.** (T)

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

C. 1. electrical **2.** sun **3.** power **4.** CNG **5.** vibrating

D. 1. The capacity of doing work is called energy. Light, heat, sound and electricity are different forms of energy.

2. We need energy to get strength for doing different types of work such as reading, playing, running, etc.

3. The sources of energy which have huge but limited reserves in the earth and we cannot use them again and again are called nonrenewable sources of energy. They are coal, petroleum and natural gas.

4. Natural gas is found in oil wells.

5. We should save energy because there are limited amounts of coal, petroleum and natural gas in the earth. Once they are finished, we cannot get them again. Also, producing energy costs huge amount of money.

We can save energy by following ways:

(a) Switching off lights, fans, etc. when not in use.

(b) Using LED bulbs and CFLs instead of incandescent bulbs.

(c) Using solar cooker, solar water heater, etc.

(d) Using bicycle or going on foot to short distances instead of using vehicles.

6. Electrical energy is used to light bulbs, run fans, TV, ACs and other electrical appliances.

E. 1. (✓) **2.** (✓) **3.** (✗) **4.** (✗) **5.** (✗)

THINK ZONE

1. In the context of science, the work is said to be done only when some force is applied on an object to move it some distance. As there is no displacement or change in position while studying, so, it is not considered as work.

10 Light and Shadows

ANSWERS

CHECK POINT 1

A. 1. (T) **2.** (F) **3.** (T)

CHECK POINT 2

1. opaque **2.** casting of shadow **3.** lunar

PRACTICE TIME

A. 1. (T) **2.** (T) **3.** (F) **4.** (T) **5.** (F)

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

C. 1. seven **2.** opaque **3.** noon **4.** axis **5.** solar

D. 1. Light is a form of energy which makes things visible to us.
Following are some properties of light:
(a) Light travels in a straight line.
(b) It travels with a speed of 3,00,000 km/s in vacuum.
(c) Light is made up of seven colours.

2. Opaque objects: Book, rubber, stone, wood, etc.
Translucent objects: Butter paper, honey, oils, etc.
Transparent objects: Water, glass, air, etc.

3. Shadow is a dark shape of an opaque object formed on a surface when the object comes in the path of light.
A shadow is formed when an opaque object blocks the path of light.

4. The shortest shadow is formed at the noon and the longest shadows are formed in the morning and in the evening.

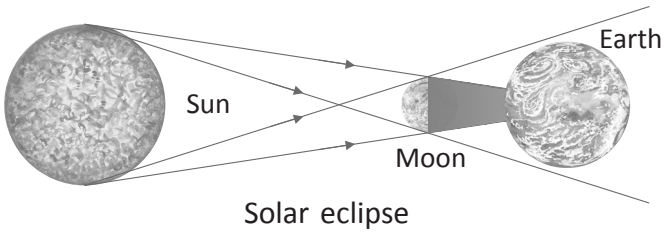
5. Following are the conditions for the formation of a shadow:
(a) A shadow is formed when an opaque object comes in the path of light.
(b) Shadow is formed only on an opaque surface called screen.
(c) A shadow is always formed in the direction opposite to the source of light.

6. The day and night are caused by the rotation of the earth on its axis. Due to rotation, the half part of the earth which faces the sun has day while the other half part which does not face the sun has night.

Due to rotation, the part which was facing the sun comes in dark and the one which was in dark comes in light, thus, causing day and night.

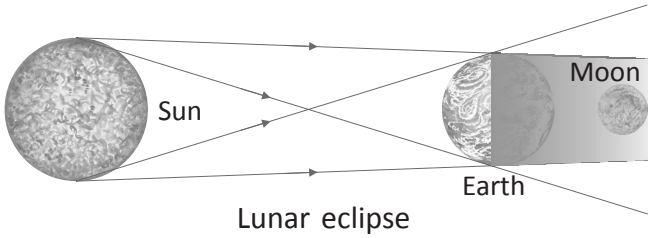
7. An eclipse is the casting of shadow by one celestial body on the other in the space. It is of two types – solar eclipse and lunar eclipse.

8. Solar eclipse: When the moon comes in between the sun and the earth, the shadow of the moon falls on the earth and the view of the sun is partially or completely blocked for some time. This is called solar eclipse.



Solar eclipse

Lunar eclipse: When the earth comes in between the sun and the moon, the shadow of the earth falls on the moon and the view of the moon gets partially or completely blocked for some time. It is called lunar eclipse.



Lunar eclipse

E.

Opaque
Rubber, Brick, Wood

Transparent
Water, Glass, Air

Translucent
Butter paper, Oil, Honey

P	S	V	B	R	I	C	K	E
T	O	P	U	C	N	F	O	N
U	W	E	T	E	C	H	P	G
M	O	X	T	D	T	O	I	L
H	O	N	E	Y	S	Q	P	A
N	D	V	R	B	T	A	C	S
S	M	O	P	S	O	I	T	S
Q	T	W	A	T	E	R	O	P
V	P	C	P	O	W	T	V	T
R	A	D	E	P	X	Z	K	C
T	S	N	R	U	B	B	E	R

THINK ZONE

1. When it is daytime in India, it is night in America because these two countries lie on opposite sides of the earth. The side facing the sun has daytime while the other side which does not face the sun has night.

2. Lunar eclipse does not occur on a new moon night because moon is not visible on this night.

11 Simple Machines

ANSWERS

CHECK POINT

1. complex **2.** three **3.** changes **4.** wedge

PRACTICE TIME

A. 1. (F) **2.** (T) **3.** (F) **4.** (T)

B. 1. (b) **2.** (d) **3.** (b)

C. 1. second **2.** lever **3.** third **4.** screw **5.** wedge

D. 1. A simple machine is a device which is manually handled to do some work. Scissors, knife, bottle opener, fire tongs, etc. are some simple machines found at home.

2. A rigid rod which can be turned about a fixed point is called a lever.

Livers are of three types – first class, second class and third class levers.

3. A sloping surface which reduces the effort required to lift a load is called an inclined plane.

Inclined plane is used in hospitals, hotels, cinema halls, underground parkings, footover bridges and airports. A ramp is used to take things up a building and for loading and unloading heavy goods from trucks, etc.

4. Wheel and axle arrangement helps us to turn or move something across a surface. For example, the direction of a car is changed by using the steering wheel.

5. The three kinds of levers in human body are as follows:

(a) The nodding action of the head is an example of first class lever.

(b) Raising the weight of the body on the toes is a second class lever.

(c) The forearm is a third class lever.

6. The drawings of three kinds of levers are as follows:

(a) First class lever

(b) Second class lever

(c) Third class lever

E. First class lever
Seesaw, Handpump, Head

Second class lever
Nutcracker, Wheelbarrow, Toes

Third class lever
Fire tongs, Forceps, Forearm

P	Q	P	F	W	X	T	N	W	V	O	M	F	S	P
H	T	R	O	V	M	U	C	H	S	F	T	O	E	S
A	V	S	R	X	P	R	T	E	T	G	U	R	T	N
N	U	T	C	R	A	C	K	E	R	P	H	E	A	D
D	Q	N	E	B	M	Q	O	L	U	O	T	A	C	D
P	Z	A	P	C	G	K	H	B	V	M	V	R	Q	Z
U	X	Q	S	T	P	C	T	A	T	U	M	M	Y	P
M	O	T	N	S	O	F	I	R	E	T	O	N	G	S
P	A	C	U	V	C	U	V	R	P	K	E	L	V	T
C	B	H	C	P	N	T	C	O	X	L	C	P	W	X
E	D	Y	S	E	E	S	A	W	U	M	J	G	I	O

THINK ZONE

1. It is easy to lift a bucket of water out of a well with the help of a pulley because it changes the direction of force applied.
2. Screws are used to join two wooden planks together because the grip of screw is so firm that it cannot be pulled out easily.

12 Cleanliness and Hygiene

ANSWERS

CHECK POINT 1

1. (T) **2.** (F) **3.** (F) **4.** (F) **5.** (T) **6.** (T)

CHECK POINT 2

1. Community hygiene **2.** Communicable disease **3.** Green bins **4.** Degradable waste

PRACTICE TIME

A. 1. (F) **2.** (T) **3.** (T) **4.** (T) **5.** (F)

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

C. 1. germs **2.** neem **3.** wash **4.** communicable **5.** dirty

D. 1. Keeping clean one's own body is called personal cleanliness.

We can take care of our body by keeping our body parts clean, eating healthy food, doing regular exercise, doing recreational activities and taking proper rest and good sleep for eight hours at night.

2. We can keep food clean by cooking, storing and eating it in clean environment and keeping it covered. We can keep water clean by storing it in clean and covered vessels.

3. Keeping the surroundings clean is called community hygiene.

Following are the ways to keep the surroundings clean:

(a) Not burning the garbage in open places.

(b) Growing more and more plants.

(c) Not allowing water and garbage to stagnate.

(d) Not throwing garbage in nearby river or waterbody.

(e) Using public toilets.

(f) Always throwing garbage in covered bins.

4. The diseases which spread from one person to the other are called communicable diseases.

Cholera, typhoid, jaundice and diarrhoea are caused by eating uncovered food.

5. The garbage which rots or decays is called degradable garbage. It is produced from plant and animal waste. For example, kitchen waste, leftover food, animal dung, etc. are degradable garbage.

6. Polythene bags, plastic articles, glass, paints, lead, tin, fused bulbs, chemical waste, etc. are nondegradable garbage.

The nondegradable garbage, if left untreated, gathers into heaps over a period of time and pollutes the surroundings.

7. Four ways to reduce nondegradable garbage are as follows:

(a) Using cloth or jute bags instead of polythene bags for shopping.

(b) Reusing plastic and metallic boxes and bottles for keeping biscuits, sweets, etc.

(c) Reusing polythene bags.

(d) Sending nonreusable plastic and metallic items to recycling units.

E. 1. Plastic **2.** Paper **3.** Pneumonia **4.** Hygiene

THINK ZONE

1. Dengue, malaria and chikungunya are spread by mosquito bite. Mosquitoes breed in stagnant water, garbage and dirty places. Therefore, dengue, malaria and chikungunya spread from dirty places.

2. Hygiene keeps our body and surroundings clean. It keeps our body and air around us germ-free, and thus, helps to prevent diseases.