DISTRICT PUBLIC SCHOOL & COLLEGE, KASUR

NOTES/HOME TASK/WORK SHEET FOR

CLASS: **7th**

SUBJECT: **G. SCIENCE**

1ST TERM SYLLABUS: **UNIT (1, 2, 3, 4)**

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Unit # 1
Structure of living organisms

Answers to Exercises in Unit 1

1. (a) Name the vegetative and reproductive parts of a plant.

Ans. The vegetative parts of a plant are stem, roots, and leaves. The reproductive parts of a plantare flowers.

(b) Describe the stem of a plant.

Ans. The stem is the part of a plant which grows above the ground. It is usually erect and uprightbut some stems grow horizontally along the ground. Some stems are long, thin, and weak orthey are thick and fleshy. Some stems grow underground and store food. Stems bear leaves,buds, flowers, and fruits. They also transport water from the roots to the leaves and preparedfood from leaves to all parts of the plant.

(c) Name and describe the different types of root.

Ans. The different kinds of roots are: tap roots, fibrous roots, adventitious roots.

Some roots have one thick main Root from which branch roots grow. Such roots, like carrotsand radishes, are called tap roots.In some plants, like grass, many branched roots of the same size grow out at the same time.Such roots are called fibrous roots.

Some roots, like the onion bulb, grow directly from the stem. These are called adventitious roots.

(d) Explain the functions of a leaf.

Ans. The leaf manufactures food for the plant. Stomata in the leaves help in gaseous exchange.Some thick and fleshy leaves store food.

(e) Describe the male and female reproductive parts of a flower.

Ans. **Male reproductive Part.**

The male reproductive part of the flower is called an androecium. It forms the third whorl. It iscomposed of stamens. Each stamen has a filament which is a thin stalk and an anther which isattached to the filament and contains four pollen sacs. The male sex cells are pollen grainswhich are produced inside the pollen sacs.

The female reproductive part

The female reproductive part of the flower is called the gynoecium. It is composed of carpels.Each carpel is composed of an ovary, style, and stigma. Ovary which is the swollen basal partcontains the female sex cells called ovules. The style is a thin stalk and the stigma which is theflat tip of the carpel, is sticky and receives the pollen grains during pollination.

(f) What is a skeleton? What are the different types of skeletons found in animals?

Ans. The hard material which supports and gives shape to the body of an animal is called skeleton.The types of skeleton are: hydrostatic skeleton, exoskeleton, and endoskeleton.

Hydrostatic skeleton.

Some soft-bodied animals like earthworms and caterpillars do not have hard skeletons. Theirbodies are supported by a liquid which is present in the cells and in the spaces between them.This type of a skeleton is called a hydrostatic skeleton.

An exoskeleton.

An exoskeleton is found in most invertebrates. The bodies of insects are covered by a hard,tough skin or cuticle which is made of a strong, waterproof material called chitin. The cuticle iscomposed of plates and hollow tubes which not only protect and support the body, but alsogive it a specific shape.Movement is brought about by muscles which are attached to the inside of the exoskeleton.

Endoskeleton.

All vertebrates are supported by a hard internal skeleton called the endoskeleton. Theendoskeleton is made up of bones of different shapes and sizes. It grows with the body of theanimal. It supports the body and gives it shape. It protects the internal organs and helps in themovement of the body. The long bones produce red and white blood cells.

2 Write two important functions of the following. Root, stem, leaf, flower, sensory organs, skeleton

Ans. **Root.**

A root fixes the plant firmly in the soil. It absorbs and mineral salts from the soil. It may storefood.

The stem

The stem bears leaves, buds, flowers, and the fruit of a plant. It spaces out the leaves so that eachleaf can get air and sunlight. It transports water from the roots to the leaves. The stem alsotransports prepared food from the leaves to all parts of the plant.

Leaf

A leaf manufactures food for the plant by photosynthesis. Stomata in the leaf help in gaseousexchange. Some thick and fleshy leaves store food.

Flower

A flower helps to make fruits and seeds.

Sensory organs

Sensory organs help the animal to detect changes in its surroundings and to react to themaccordingly.

Skeleton

A skeleton helps to support and protect the internal organs of the body. It also helps to bringabout movement.

Q. 6. Match the part of the body to its description.

Ans.

Part of the body	Description
Head	contains the mouth and the sensory organs
Trunk	contains the important organs and systems
Exoskeleton	is composed of plates and hollow tubes which protect and support the body
Cuticle	gives shape and support s the body of animals
Hydrostatic skeleton	supports soft-bodied animals by a liquid present between the cells
Endoskeleton	made up of bones of different sizes and grows inside the body
Moulting	is the process when the cuticle is shed and a new one grows in its place
Bones	are hard and made up living cells and mineral substances

Unit # 2

Organ systems in human beings

Answers to Exercises in Unit 20

1. . Name the correct part of the digestive system:

Ans. (a) Teeth (b) Mouth (c) Stomach
(d) Pancreas (e) Liver (f) Glands in the intestines
(g) Large intestine (h) Anus (i) Villi

2. (a) Define respiration.

Ans. Respiration is the process by which food is broken down, or oxidized in the body to release energy

(b) What gas is needed for respiration?

Ans. Oxygen

(c) What gas is produced by respiration?

Ans. Carbon Dioxide

(d) Where does gaseous exchange take place in the lungs?

Ans. Alveoli.

(e) Which structure protects the lungs?

Ans. Rib Cage

(f) Differentiate between breathing and burning.

Ans. Breathing takes place in living organisms. It releases energy slowly. The rate of respiration canbe controlled. It produces only heat.

3. Arranging the activities in the correct sequence:

Ans.	The diaphragm contracts.	The intercostal muscles contract.
	The chest gets larger.	Air is forced into the lungs.
	The diaphragm relaxes.	The intercostal muscles relax.
	The chest gets smaller.	Air is forced out of the lungs.

Unit # 3

Transport systems in plants and animals

Answers to Exercises in Unit 3

2. (a) What is the heart made of

Ans. The heart is made of a special kind of muscle called 'cardiac muscle'.

(b) What stops blood flowing backwards through the heart?

Ans. Valves present between the atria and the ventricles stop the blood from flowing backwardsthrough the heart.

(c) What is a heartbeat?

Ans. The heart pumps blood by contracting and relaxing. One complete contraction and relaxationis called a heart beat.

(d) How many time does the heart normally beat?

Ans. The heart normally beats about 70 times in a minute.

(e) What is a capillary?

Ans. Arteries divide into small thin-walled blood vessels called capillaries. They penetrate into all thetissues of the body. Exchange of food, gases, and materials takes place by diffusion through thethin capillary walls.

3. (a) Why is the breathing take different for each activity?

Ans. The body needs more energy when it is working harder, so the breathing rate increases.

(b) Why is the pulse rate different for each activity?

Ans. The heart beats normally when the body is at rest, but it has to work more when the body isworking harder.

(c) What would the pulse rate and breathing rate be after vigorous activity?

Ans. The pulse rate would be over 100 times per minute. The breathing rate would be over 25 timesper minute.

4 (a) What is the medium of transport in flowering plants?

Ans. Water

(b) What is the medium of transport in mammals?

Ans. Blood

5. What is the purpose of the valves between the atria and ventricles?

Ans. Valves inside the heart help the blood to circulate in one direction only. They stop the backwardflow of blood.

6. How do substances move from the blood to the body cells?

Ans. The transfer of food, gases, and excretory materials between the blood and the cells takes place bydiffusion through the thin capillary walls.

7. How is water lost from a plant?

Ans. Plants lose water vapour into the atmosphere by evaporation. The water passes through tiny holescalled stomata which are found mainly on the lower side of leaves. This process is calledtranspiration.

8. What is the importance of transpiration for a plant?

Ans. It is important because it helps in the transportation of water in the plants and it also helps a plantto keep cool in summer.

9. (a) Differentiate between an artery and a vein

Ans. An artery is a blood vessel that takes blood away from the heart. It has thick muscular walls towithstand the high pressure of the blood. It usually lies deeply embedded inside the body. Itdivides into small thin-walled vessels called capillaries.Capillaries join up to form veins. A vein returns blood to the heart. It is wider than an arteryand has thinner walls. It has valves to make sure that the blood flows in one direction only.The blood pressure in an artery is usually low.

(b) Differentiate between xylem and phloem.

Ans. In flowering plants materials are circulated in a system of tubes called the vascular system. Thevascular system of plants is composed of specialized tissues called xylem and phloem. Xylem ismade up of long, dead cells called vessels. Vessels have thick walls. They carry water from theroots, through the stem to the veins in the leaves. Phloem is made up of long thin walled tubescalled sieve tubes. Sieve tubes are made of living cells whose horizontal walls have tiny holes.Food flows from the leaves to other parts of the plant through the sieve tubes.

(c) Differentiate between photosynthesis and respiration.

Ans. Photosynthesis is a process by which green plants make their own food in the presence ofsunlight. It takes place in the green parts of a plant. Oxygen gas is released duringphotosynthesis.Respiration is a process by which food is oxidized to release energy. It takes place in all thecells of the body. Carbon dioxide gas is released during respiration, along with heat energy.

(d) Differentiate between transpiration and circulation.

Ans. Water flows in a continuous stream through a plant. It enters through the roots and flows upthe xylem vessels of the root and stem to the leaves and diffuses out of the stomata in theleaves. This evaporation of water from the leaves is called transpiration. Transpiration is themain force which moves water through a plant.Circulation of blood takes place in the blood vascular system which is composed of the heart,arteries, and veins. It helps to circulate food, oxygen, and food materials inside the body. Italso helps to remove waste products such as carbon dioxide and urea from the body.

(e) A root hair and a capillary.

Ans. The absorption of soil water by plants is done by the root hairs which occur in a small zone ashort distance behind the root tip. Each root hair is only a part of a cell; however, the vastnumber of root hairs helps to bring about a very large increase in the absorbing area of the root.

A capillary is a thin walled blood vessel which forms a connection between an artery and avein. Capillaries penetrate into all the tissues of the body. The transfer of food, gases, andexcretory materials takes place by diffusion through the thin capillary walls.

Unit # 4

Growth and reproduction in living organisms.

Answers to Exercises in Unit 4

1. (a) What is growth? What is the difference between the growth of plants and animals?

Ans. Growth is an increase in the size of an organism. The body of an animal grows all over till itreaches adult size, after which growth stops. Only some cells retain the power to divide andbring about the repair of worn out or damaged tissues, whereas, plants grow throughout theirlives, if they get sufficient warmth, air, light, water, and minerals. Growth in plants is restrictedto the tips of the roots and shoots, where cell division occurs. The new cells that are producedgrow to a maximum size and then become specialized to form different tissues.

(b) What is reproduction? What type of organisms are produced by asexual reproduction?

Ans. The process by which living organisms produce new living organisms of their own kind is calledreproduction. In asexual reproduction the offspring is an exact copy of the parent.

(c) What is sexual reproduction?

Ans. In sexual reproduction there are two parents male and female. In animals the female produceseggs in the ovaries and the male produces sperms in the testes. In plants the ovules areproduced in the ovaries of the flowers and the pollen grains are produced in the anthers of thestamens. For sexual reproduction to take place one cell from the male and one cell from thefemale join together to form new off-spring.

(d) What is pollination? What happens after pollination?

Ans. In plants, the pollen is carried from the anther to the stigma of flowers by insects, or by wind.This process is called pollination. After pollination, a pollen tube grows out from the pollengrain and enters the ovule. The male gamete is released and joins with the female gamete. Thisprocess is called fertilization.

(e) How is a fruit formed?

Ans. After fertilization all the parts of the flower dry up and fall off except the ovary which growsrapidly to form the fruit. The ovules form the seeds.

(f) Explain the different ways in which seeds are dispersed.

Ans. Fruits and seeds are dispersed in different ways. Some seeds and fruits have feathery hairs orwings by which they are carried by wind tofar away places. Some seeds and fruits have smallhooks by which they get attached to the fur of animals. Some juicy fruits are eaten by birds.Their seeds remain undigested and they are passed out of their gut away from the parent plant.Some flowers produce pods which dry up in the Sun. The pod splits and the two halves curl upand flick out the seeds.

2. (a) What is a fruit?

Ans. A fruit is the part of the plant that contains seeds.

(b) Why do seeds need to be dispersed?

Ans. Seeds need to be dispersed or scattered away from the parent plant so that each seed has achance to grow into a new plant.

(c) What is inside a seed?

Ans. A seed has the baby plant or embryo, which is made up of a baby shoot or plumule, and ababy root or radicle, and one or two seed leaves or cotyledons, which contain stored food.

(d) Why do seeds need a store of food?

Ans. Seeds need a store of food for the growth of the embryo till the shoot develops its own greenleaves.

3. (a) Which part produces pollen grains?

Ans. Anthers

(b) Which part receives pollen during pollination?

Ans. Stigma

(c) Which parts show that this flower is insect-pollinated?

Ans. Petals are brightly coloured.

(d) What changes will take place in the petals and the ovary after fertilization has occurred?

Ans. The petals shrivel and fall off; the ovary either swells up or dries up to form the fruit; the ovulesdevelop into seeds

(e) Name two things which insects collect from flowers.

Ans. Pollen and nectar.

4 Fill in the blanks to complete the statements.

Ans.. (a) Growth (b) Adult (c) Mitosis
(d) Clones (e) Binary fission (f) Buds

5 Match the items of lists A and B

Ans.

A	**B**
An amoeba reproduces by	binary fission
Fungi reproduce	by spores
A sea anemone	forms buds
A potato tuber is a	swollen underground
A cutting is	part of a stem
Grafting needs	a stock and scion
Ovules are produced	in ovaries
A pine tree	has cones
Dormancy is	is the resting period of a seed

Q .6 Fill in the table.

Characteristic	Insect-pollinated flowers	Wind-pollinated flowers
Petals	large, brightly coloured	small, green
Scent	Present	Absent
Nectar	Present	Absent
Pollen grains	Large, sticky.	Powdery, numerous
Anthers	large, inside the flower	have long filaments, hang outside the flower
Stigmas	large, sticky	feathery, hang outside flower

7. Complete the following.

Ans. Tube, pollen, ovule, gamete, seed, fruit

Class 7th MCQ,s

Unit # 1

MCQs

(a) The stem, root, and leaves are the parts of a plant.

Vegetative reproductive characteristic [***vegetative***]

(b) The part of the plant that bears the leaves, buds, flowers, and fruits of the plant is

Roots leaves stem [***stem***]

(c) The flat green part of the leaf is called .

Petiole midrib lamina [***lamina***]

(d) Flowers arranged in a group or cluster is called .

Spike inflorescence florets [***inflorescence***]

(e) Flowers of the wheat plant are arranged in an inflorescence called .

floret spike florets [***spike***]

(f) The part of the animal body that contains the sensory organs is called .

Head trunk limbs [***head***]

(g) Which one of the following animals does not have a hard skeleton?

Rabbit squirrel jellyfish [***jelly fish***]

(h) A hydrostatic skeleton is made up of a .

solid liquid gas [***liquid***]

(i) The body of an insect is covered by a hard, water-proof skin called .

Chitin cuticle wax [***cuticle***]

(j) The skeleton which forms the main axis of the body of a mammal is called .

Appendicular skeleton axial skeleton exoskeleton [***axial skeleton***]

Unit # 2

MCQs

(a) The breaking down of food into liquid form is called .

Digestion respiration excretion [***digestion***]

(b) The digestion of food in humans takes place inside a long tube called .

excretory canal alimentary canal respiratory canal [***alimentary canal***]

(c) Enzymes in the gastric juice in the stomach help to digest .

Proteins fats carbohydrates [***proteins***]

(d) Bile is produced in the .

stomach intestines liver [***liver***]

(e) Digested food is absorbed into the blood by finger like projections called .

tubes villi capillaries [***villi***]

(f) Water from the undigested food is absorbed in the .

colon small intestine kidney [***colon***]

(g) The process by which food is oxidized to release energy is called .

Digestion excretion respiration [***respiration***]

(h) Exchange of gases in the body takes place in the .

Lungs kidneys stomach [***lungs***]

(i) Excess animal fat in the diet leads to the formation of .

Cholesterol proteins vitamins [***cholesterol***]

(j) Many respiratory diseases like emphysema are caused by .

Sleeping eating smoking [***smoking***]

Unit # 3

MCQs

(a) are blood vessels that carry blood away from the heart.
Arteries Veins Capillaries [***Arteries***]

(b) Arteries divide into small thin-walled vessels called .
veins villi capillaries [***capillaries***]

(c) Blood vessels that carry blood back to the heart are called .
Arteries veins capillaries [***arteries***]

(d) The heart is made up of a special type of muscle called .
musclefibre cardiac muscle intercostal muscle [***cardiac muscle***]

(e) Normally the human heart beats about times in a minute.
40 70 100 [***70***]

(f) Xylem is the type of vascular tissue through which are transported.
water and mineral salts food and salts water and food [***water and mineral salts***]

(g) The evaporation of water from the leaves is called .
Respiration translocation transpiration [***transpiration***]

(h) The transport of food from the leaves to all parts of the plant is called .
respiration translocation transpiration [***translocation***]

(i) When is the rate of transpiration fastest?
On a bright sunny day At night On a rainy day [***On a bright, sunny day***]

(j) Translocation is the movement of in the phloem.
Water food oxygen [***food***

Unit # 4

MCQs

(a) The increase in the size of an organism is called .
growth reproduction elongation [***growth***]

(b) Growth in plants takes place at the of the root and shoot.
Sides tips base [***tips***]

(c) The type of reproduction in which there is only one adult of the species is called .
sexual reproduction asexual reproduction fission [***asexual reproduction***]

(d) Yeast is a simple non-green plant that reproduces by .
Cuttings tubers budding [***budding***]

(e) The process by which pollen from the anther is carried to the stigma of a flower is called
fertilization germination pollination [***pollination***]

(f) The process of the joining of male and female cells is called .
Fertilization germination pollination [***fertilization***]

(g) Pine trees produce male and female reproductive organs called .
fruits seeds cones [***cones***]

(h) The process by which the embryo of a seed grows into a new plant is called .
Germination pollination fertilization [***germination***]

(i) The scattering of seeds away from the parent plant is called .
Dispersal pollination fertilization [***dispersal***]

(j) When a seed is planted in the soil it absorbs water through the .
Testa micropyle cotyledon [***micropyle***]

Extra MCQ

Unit # 1 Structure of living organisms

	Statement	A	B	C
1	Leave and buds grow on the stem from swollen areas is called	Nodes	Inter nodes	Buds
2	The root tip is protected by a strong ……..	Root hair	Root cap	Cortex
3	The ---------- is the male part of flower	Gynoecium	Androecium	Corolla
4	The male sex cell is called ----------	Pollen grain	Ovule	Style
5	Corolla is actually composed of a number of small flowers called ……	Disc florets	Ray florets	Inflorescence
6	The parts of a flower are arranged in circles called	Pedicel	Whorls	Petals
7	The female part of flower is called	Gynoecium	Corolla	Androecium
8	The dense brown part of flower is composed of very small complete flowers called	Disc florets	Ray florets	Spike.
9	The hard material which supports and gives shape to the body of an animals is called	Trunk	Skeleton	Head
10	The place where two bones meet is called	Joint	Ligament	Tendons
11	The stem, root, and leaves are the ……. Parts of plants.	Vegetative	Reproductive	Stem
12	The part of the plant that bear the leaves buds flowers And fruits of the plants is ……..	Roots	Leaves	Stem
13	The flat green part of the leaf is called ……	Petiole	Midrib	Lamina
14	Flowers arranged in a group or cluster is called……..	Spike	inforescence	Florets
15	Flowers of the wheat plant are arranged in an inflorescence called ……..	Floret	Spike	Florets
16	The part of the animals body that contains the sensory organs is called …….	Head	Trunk	Limbs
17	Which one of the following animals dose not have a hard skeleton.	Rabbit	squirrel	Jellyfish
18	A hydrostatic skeleton is made up of a…….	Solid	Liquid	gas
19	The endo-skeleton is made of ----------	Bones	Cartilage	Muscles
20	The place where two bones meet is called	Skeleton	Joint	Cartilage

Unit # 2 Organ systems in human beings

	Statement	A	B	C
1	The breaking down of food into a liquid called	Digestion	absorption	Pancreas
2	The wall breaking down of the gut produce chemical called	Digestive enzymes	salivary	stomach
3	The obtain energy for all our activities by a process called	Intercostals	Bronchi	Respiration
4	The bronchi divide into thousands of narrow tube	Diaphragm	Bronchioles	Alveoli

5	The ---------is the sheet of muscle below the lungs	Diaphgram	Trachea	Bronchi
6	------- is inflammation of the air passages in the lungs	Bronchitis	Cancer	Emphysema
7	The length of alimentary canal is ----------	7	6	5
8	---------- helps to grind food into pulp	Teeth	Tongue	canal
9	---------- helps to soften the food	Saliva	Uric acid	Chemical
10	---------- helps the food to mix with saliva	Teeth	tongue	canal
11	From gullet the food passes to the --------	Stomach	Lever	Lung
12	---------- is gastric juice helps to digest proteins	enzymes	Acid	Stomach
13	Un digested food passes into the ----------	Colon	intestine	Lever
14	The digestion of food in humans takes place inside a long tube called	Excretory canal	Alimentary canal	Respiratory canal
15	Enzymes in the gastric juice in the stomach help to digest	Proteins	Fats	Carbohydrate
16	Bile is produced in the	Stomach	Intestines	Liver
17	Digested food is absorbed in to the blood by finger like projections called	Tubes	Villi	Capillaries
18	Exchange of gases in the body take place in the	Lungs	Kidneys	Stomach
19	Excess animal fat in the diet leads to the formation of	Cholesterol	Protein	Vitamins
20	Many respiratory diseases like emphysema are caused by	Sleeping	Eating	Smoking

Unit # 3 Transport systems in plants and Animals

	Statement	**A**	**B**	**C**
1	It pushes blood around the body through tubes called-----	Blood vessels	Tubes	canals
2	The blood vessels that carry blood away from the heart called----------	Veins	Capillaries	Arteries
3	Arteries divide into small thin-walled vessels called --------	Arteries	Capillaries	veins
4	Capillaries join up to from ---------- which return blood to the heart	Vessels	Arteries	Veins
5	Your heart is made of -------	Cardiac muscles	Smooth muscles	Skeletal muscles
6	The heart has four compartments called ------	Cells	Chambers	Compartment
7	Upper two chambers are called ----------	Ventricles	Pulmonary	Atria
8	Lower two lower chambers are called ----------	Ventricles	Atria	Heart
9	One complete contraction and relaxation is called ……	Pulse	heartbeat	Stroke
10	The arteries which supply blood , food and oxygen to hear	Artery	Vein	Coronary Artery
11	Normally then human heart beats about ---------- times in a minute	40	70	100
12	Xylem is the type of vascular tissue through which --------- are transported	water and mineral salts	Food and salts	Water and food
13	The evaporation of water from the leaves is called	Respiration	Translocation	Transpiration
14	The transport of food from the leaves to all parts of the plants is called	Respiration	Translocation	Transpiration
15	When is the rate of transpiration fastest?`	On a bright	At night	On a rainy

		day		day
16	Translocation is the movement of …… In the phloem	Water	Food	Oxygen
17	Bile from the liver breaks down -------	Fats	Carbohydrate	Protein
18	Pancreatic juice is made in the ----------	Liver	Pancreas	Stomach
19	In the stomach, enzymes in the gastric juice help to digest	Protein	Fats	Carbohydrate
20	Exchange of gases take place in the	Heart	Lungs	Stomach

Unit # 4 Growth and reproduction in living organisms

	Statement	**A**	**B**	**C**
1	The increase in the size of an organism is called …….	Growth	Reproduction	Elongation
2	Growth in plants takes place at the ……. Of the root and shoot.	Sides	Tips	Base
3	The type of reproduction in which there is only one adult of the species called …….	Sexual reproduction	Asexual reproduction	Fission
4	Yeast is a simple non-green plant that reproduces by ……	Cuttings	Tubers	Budding
5	The process by which pollen from the anther is carried to the stigma of a flower is called ……	Fertilization	Germination	Pollination
6	Pine trees produce male female reproductive organs called ……	Fruits	Seeds	Cones
7	The process by which the embryo of a seed grows into a new plant is called …….	Germination	Pollination	Fertilization
8	The scattering of seeds away from the parent is called …	Dispersal	Pollination	Fertilization
9	When a seed is planted in the soil it absorbs water through the …….	Testa	Micropyle	Cotyledon
10	The process of the joining of male and female cells is called ……	Fertilization	Germination	Pollination
11	Fungi are non-green plant that reproduce asexually by …	Spores	Budding	Cutting
12	Spores are produced in special cases called	Pollen cases	Sporangia	Ovary
13	A v-shaped cut is made in the stem of a healthy plant called ……..	Scion	Stock	Graft
14	The female gametes or ovules are produced in the	Anther	Ovaries	Pollen cases
15	Pollen grains are produced in	Anthers	Ovaries	Pollen cases
16	The transfer of pollen from the anther to the stigma of a flower is called	Fertilization	Pollination	Germination
17	The wall of the ovary grows to form the	Fruit	Seed	Flower
18	Seeds can wait a long time before they start growing. The resting period of a seed is called	Dormancy	Sleep	Non growing period
19	The ovules change into	Fruit	Seed	Flower
20	The union of the gametes is called	Germination	Pollination	Fertilization

Amazing Science 7th

Work sheets

Unit # 1 Structure of living organisms

Name _____ date _____

Write the name of the that marches the description.

Description	Name
a. The main body of the plant that is made up of roots, stem and leaves	_____
b. The reproductive part of the plant which make seeds and fruits	_____
c. Swollen areas on the stem from where leaves and buds grow	_____
d. Tiny holes on the stems and leaves for the exchange of gases	_____
e. A bud at the tip of the stem.	_____
f. The part of the root from where it increases in length.	_____
g. Fine hair on the root which absorb water and salts from the soil.	_____
h. The flat green part of a leaf	_____
i. The parts of a leaf which transport food and water	_____
j. A group or a cluster of flowers	_____

Q. 2. Draw the diagram, label the parts of the joint and name the type of joint. Page # 8

Write in the human skeleton would you find the following types of joint?

Type of joint	Example
a. Ball and socket joint	_____, _____
b. Hinge joint	_____, _____
c. Sliding joint	_____, _____
d. Fixed joint	_____, _____
e. Pivot joint	_____, _____

Unit # 2 Organ systems in human beings

Name: _____

1. Complete the table of information about the digestive system.

Part of the digestive system	Gland	Juice produced	Food it acts upon
Mouth			
Stomach			
Pancreas			
Liver			
Small intestine.			

2. Complete the sentences on the importance of dietary fiber.

i. It helps avoid _____

_____

ii. It absorbs _____

_____

It allows gut muscles to _____

_____

It helps the body to avoid diseases such as _____

_____

Write the functions of the parts of the respiratory system.

a. Larynx: _____
b. Ribcage _____
c. Intercostals muscles: _____
d. Alveoli: _____
e. Diaphragm: _____

3. Match the symptoms to the diseases of the respiratory system.

Disease	**Symptoms**
Cancer	Inflammation of the air passages in the lungs. Reduces the ability of the lungs to absorb oxygen
Bronchitis	Cells start dividing rapidly until they ger out of control
Emphysema	Walls of alveoli become thin and week and eventually break down, leaving large empty spaces in the lungs.

Amazing Science 7th

Unit # 3 Transport systems in plants and Animals

Name: _____

Q. 1 Draw the diagram, label the parts of the heart. Draw arrows to show the circulation of the blood inside the heart. Page # 20

Q.2 Draw the diagram , draw arrows to show how water circulates inside a plant. Page # 23

Q. 3 fill in the blanks to complete the description of heart diseases.

The heart needs _____ and _____ to keep working properly.

The arteries which supply blood to the heart are called _____ arteries. _____ is a fatty substance which can stick to the walls of an artery and make it narrow. Bits of f_____ break off into the blood st ream and block narrow blood vessels. This blockage is called a _____ . this kind of blockage can cause a _____

If a coronary artery becomes blocked, a heart surgeon can by-pass the blockage using a piece of a vein taken from the patient's leg; this is called a graft. Heart valves can be replaced with _____

Valves, which help to control the heartbeat. Receiving a healthy heart from another person is called a _____.

Amazing Science 7th

Unit # 4 Growth and reproduction in living organisms

Name: _____

Q.1 fill in the table to show how fruit and seed dispersal take place.

Seed/fruit	Adaptation	Method of dispersal
Dandelion		
Sycamore		
Burdock		
Guava		
Blackberry		
Pea pod		
Coconut		

Q.2 Match the organism to its method of asexual reproduction

Name of organism	Method of reproduction
Amoeba	Budding
Paramecium	Binary fission
Hydra	Spores
Yeast	Eyes
Fungi	Budding
Potato	Runner
Strawberry	Budding
Rose	Grafting
Mango	Cutting

Q 3. Fill in the blanks to compete the description of how seeds and fruits are formed.

In plants, during pollination the . ---------- or the male cells are carried from the …… to the stigma of flowers by insects or by the wind. The ---------- cells and the ---------- cells unite to produce seeds which grow into new plants. After pollination, a pollen ---------- grows from the pollen grain. It enters the …….. and the male gamete is released. it joins with the female gamete and the ovule becomes a ----------the wall of the ovary grows to form the ----------

Pine trees produce male and female reproductive organs called ---------- which are made up of woody ---------- arranged around an ---------- each scale of a female cone has ---------- ovules. Male cones are small. They have pollen ---------- on their scales. ---------- carries the pollen grains to the ovules of the female cones. ---------- and production of seed takes three years.

Prepared by Dr. Muhammad Arif Saleemi (DPS Boys Wing)

Home work for class 7th

Unit # 1

Write down first three parts of exercise question no. 01

Activities

Draw and label the diagram of leaf page 3

Unit #2

Write down first three parts of exercise question no. 01

Activities

Draw and label the diagram of digestive system page 13

Unit # 3

Write down first three parts of exercise question no. 01

Activities

Draw and label the diagram of heart page 20

Unit # 4

Write down first three parts of exercise question no. 01

Activities

Draw and label the diagram of reproduction in plants page 31

Write the symptoms and precautions of Corona Virus?

Note: Complete the work sheets