

Standard High School

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السلام وعلیکم!

ہم سب آپ کے لیے دُعا گو ہیں کہ اللہ تعالیٰ آپ
سب کو اپنی حفظ و امان میں رکھے۔ اُمید ہے آپ سب
خیریت سے ہوں گے۔

آپ کے خیر خواہ

سٹینڈرڈ ہائی سکول انتظامیہ بمعہ سٹاف

شکریہ

Chapter # 1

HUMAN ORGAN SYSTEM

Q#1. Explain Human Digestive System in detail.

DIGESTIVE SYSTEM:

Our food consists of large molecules and it should be broken down into small molecules. This breakdown of food is called “**digestion**”. This digestion is carried out by a system called “**Digestive system**”.

Alimentary canal:

Process of digestion takes place in alimentary canal. It consists of,

1. Mouth
2. Esophagus
3. Stomach
4. Small intestine
5. Large intestine
6. Anus

1. **Mouth:**

We take in food through mouth. It has

- Teeth
- Tongue
- Saliva

- i. **Teeth** breaks the food into smaller pieces
- ii. **Tongue** rolls it. We taste food with the help of tongue.
- iii. **Saliva** is secreted into mouth which makes swallowing of food easier. It starts the digestion of *carbohydrates*.

2. **Esophagus (food pipe):**

It carries food from mouth to stomach. Movement of food through esophagus occurs by “**Peristalsis**”.

3. **Stomach:**

Walls of stomach secrete a juice called “**gastric juice**”. This juice kills the germs and helps in digestion of *protein*(meat, egg, milk, pulses etc.)

4. **Small Intestine:**

From stomach food enters into small intestine. Final digestion of carbohydrates, fats and proteins occurs here.

Bile from liver and *pancreatic juice* from pancreas is mixed with food and completely digested it. The digested food enters into blood and is carried to all parts of body.

5. Large Intestine:

The undigested food enters into large intestine. Here water is absorbed and food changes into solid form.

6. **Anus:** Undigested food is removed from the body through anus.

Q# 2. Explain disorders of digestive system.

DISORDERS OF DIGESTIVE SYSTEM:

Following are some disorders of digestive system.

1. DIARRHEA:

Diarrhea is passing semi-liquid faeces.

CAUSES:

- 1) Infection
- 2) eating contaminated food
- 3) reaction of medicine
- 4) anxiety or excitement.

SYMPTOMS:

- 1) Pain in abdomen
- 2) Fever
- 3) Nausea
- 4) Loose motion

TREATMENT:

Diarrhea results in dehydration so drinking a lot of water and antibiotics are used to treat it.

PREVENTION

It can be prevented by,

- 1) Washing hands properly.
- 2) Washing fruits and vegetables before cooking and eating.

2. CONSTIPATION:

It is difficulty in passing faeces.

CAUSES:

- 1) It is caused by not eating fruits and vegetables.
- 2) Less physical activity
- 3) Less drinking of water.

PREVENTION:

It can be prevented by

- 1) Regular exercise.
- 2) Eating fruits and vegetables.
- 3) Drinking lot of water (8-10 glasses/day)

Q# 3. Explain Human Respiratory System in detail.

HUMAN RESPIRATORY SYSTEM:

Our respiratory system consists of nose, pharynx, larynx, trachea, bronchi, bronchioles and lungs.

- 1) **NOSE:** Air enters through nostrils. Any germ or dust particles present in air get trapped by hair and mucus present in nose
- 2) **PHARYNX:**
From nose air enters pharynx and after passing through glottis, air enters larynx.
- 3) **LARYNX:**
It is a voice box which produce voice.
- 4) **TRACHEA (wind pipe):**
After larynx, air enters trachea. Trachea consists of C-shaped rings that keep or wind pipe open.
- 5) **BRONCHI:**
Trachea divides into two tubes called bronchi (singular bronchus). Right bronchus enters into right lung and left bronchus enters left lung.
- 6) **BRONCHIOLES:**
In each lung bronchus divides into smaller tubes called bronchioles.
- 7) **LUNGS:**
Two lungs are present in human body. It has many **alveoli** at the end of each bronchiole, exchange of gases takes place in alveoli.

Q# 4. Differentiate between breathing and Respiration.

<u>BREATHING</u>	<u>RESPIRATION</u>
Breathing is inhalation and exhalation of air	Respiration is the process by which living organisms use food and oxygen to produce carbon dioxide and energy.
	Food + O₂ → CO₂ + Energy

Q# 5. Compare between breathing and burning.

<u>SIMILARITY</u>	<u>DIFFERENCE</u>
Both use oxygen and release carbon dioxide and energy	During breathing, release of energy is very slow then burning.

Q# 6. Write down about diseases of Human Respiratory System.

Ans. Following are some common diseases of human respiratory system.

1. Common cold
2. Pneumonia

1) **COMMON COLD:**

It can spread from person to person by coughing, sneezing and touching things of patients.

SYMPTOMS:

1. Sore throat.
2. Cough
3. Running nose
4. Sneezing
5. Headache
6. Fever

TREATMENT:

There is no proper treatment for common cold. However, taking rest and drinking a lot of liquid is helpful.

2) **PNEUMONIA:**

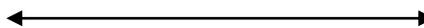
In pneumonia alveoli are filled with pus and breathing becomes difficult.

SYMPTOMS:

1. Cough
2. Fever
3. Chest pain
4. Nasal congestion.

TREATMENT:

Vaccination to prevent pneumonia. Use of antibiotics to treat pneumonia.



CHAPTER NO. 4

ENVIRONMENT AND FEEDING RELATIONSHIPS

1. ENVIRONMENT:

All living and non-living things surrounding an organism and effects its growth is called environment.

2. ECOSYSTEM:

It is an area formed by interaction of living and non-living things of an environment e.g. forest ecosystem.

3. BIOTIC FACTORS:

All living components of an environment are called biotic factors. E.g. plants, animals, fungi

4. ABIOTIC FACTORS:

All non-living parts of an environment are called abiotic factors. E.g. temperature, sunlight, water etc.

5. POPULATION:

Organisms of same kind living and reproducing in an area is called population. E.g. human population.

6. COMMUNITY:

Different populations living together in an area makes a community.

7. HABITAT:

The place where an organism lives is called its habitat.

8. PRODUCER:

Plants are producers because they make their own food by photosynthesis.

9. CONSUMERS:

Animals are consumers because the eat plants and other animals.

10. FOOD CHAIN:

Feeding relationship among organisms is called food chain

Grass → Zebra → Lion

11. FOOD WEB:

Many food chains in an ecosystem make a network known as food web.

Q# 1. How many kinds of habitat are there? Explain them.

KINDS OF HABITAT:

Following are different types of habitat.

1. Grassland habitat.
2. Pond habitat.
3. Desert habitat.
4. Rainforest habitat.

1. GRASSLAND HABITAT:

It is a grassy area with medium rainfall. Soil is very fertile. Grasses are the main producers of the area. Mostly grazing animals are found here.

2. POND HABITAT:

This is an aquatic habitat which is rich in life. Many plants, animals and microorganisms are found here.

3. DESERT HABITAT:

They are driest land areas with little rainfall throughout the year. Common animal found here is camel. Common plant found here is cactus.

4. RAINFOREST HABITAT:

Rainforests are always wet. They receive rain the whole year. A large number of plants and animals are found here.

Q#2. Write about the factors which causes changes in habitat.

Ans. Following are the factors that causes changes in habitat.

1. Sunlight:

It is necessary for photosynthesis. Changes in intensity of light causes changes in habitat.

2. Temperature:

Rise or fall of temperature may disturb the habitat.

3. Migration:

Migrations changes the size of population. When few individuals come to an area, size of population increases.

4. Drought:

It is a period when there is no rainfall for a long time in an area, as a result of which animals and plants die.

5. Flood:

Lots of rain in area causes flood which results in death of plants and animals.

6. Earthquake:

Earthquake causes changes in habitat very quickly.

7. Lightning:

Sometime lightning cause forest fire so death of plants and animals occur.

Q#3. Explain adaptations of organisms to live in habitat.

ADAPTATIONS:

It is a change in body or behavior of an organism for survival in its habitat.

1. Aquatic habitat:

Aquatic organisms have following adaptations to live in water.

- i. Streamlined body shape.
- ii. Webbed feet of duck and frogs etc.
- iii. Waxy covering on leaves of floating plants

2. Land habitat:

Land organisms have following adaptations.

- i. Thick fur on body e.g. polar bear.
- ii. Thin spiny leaves on desert plants.
- iii. Large stomach e.g. camel
- iv. Animals sound are adaptation of behavior e.g. roar of lion

Q# 4. How can we protect our habitat?

Ans. We can protect our habitat in following ways.

1. Reduce:

It means to cut down excessive use of resources.

2. Reuse:

It means not to throw away the things that can be used again.

3. Recycle:

It means to make new things from used materials.



For further details and guidance contact at **0335-3477662**.