Subjects: Biology  Date: 5/06/2020

Topic: Plant Life – Ch- 7 Health and hygiene (allergy)
Time Limit: 40 minutes

Worksheet No.: 9

Children today we are going to start an interesting chapter in which we will discuss about allergy, allergens causes of allergy and allergic reactions.

**Instruction:** Students please go through the video link given below as this will help you to comprehend this chapter better.

https://youtu.be/-TYcikRKyXU

**Allergy** – It is a body reaction that occurs in an individual who is hypersensitive to certain substances that may be fairly harmless for the body in general. Allergies can affect anyone regardless of age, gender or socioeconomic status.

**Allergens** - The substances that trigger an allergic reaction are called allergens. Some examples of allergens are stress, smoke, certain medicines, perfumes or environmental irritants such as pollen grains, house dust and so on.

<table>
<thead>
<tr>
<th>Types of allergens</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air-borne allergens</td>
<td>Pollen grains, animal fur, house dust, mould spores, cigarette smoke</td>
</tr>
<tr>
<td>Drugs</td>
<td>Penicillin, flu vaccine and tetanus vaccine</td>
</tr>
<tr>
<td>Insects</td>
<td>Bees, wasps, mosquitoes, scabies, fleas</td>
</tr>
</tbody>
</table>

**Entry Routes of Allergens**

Different types of allergens can enter the body through mainly four routes:

- Through the nose and mouth
- Through the digestive tract
- Through the skin
- Through the circulatory system.
Steps of an allergic reaction

1. The foreign substance or antigen or allergen enters the body.
2. B cells of the body produce antibodies.
3. These antibodies act on the allergen.
4. This releases histamine to battle with the allergen and so produce an allergic reaction.
5. Depending upon how much histamine is released, the allergy may be mild or severe.

N.B- Histamines are the chemicals that the immune cells release to draw more blood and lymph to the area affected by the allergen.

B-cells are the B-lymphocytes or W.B.C which is responsible for producing immune response in the body.

Symptoms of some common allergic reactions include:-

- Skin rashes
- Difficulty in breathing
- Hives (allergic reactions marked by the red, raised areas on the skin.)
- Stomach upset

Q1) Fill in the blanks:

1. Allergy is an example of -----disease.
2. The substance that trigger an immune response are called-------
3. In a ------reaction people are hypersensitive to certain substances.
4. Symptoms that result from the interaction between allergen and antibody are called -------
5. Allergies can affect anyone regardless of ------, -----, or ------

Q2) Answer the following questions:

1. What is allergy?.
2. What are the causes of allergy?
3. Name the four main routes through which allergen can enter.
4. Write the steps of allergic reaction
5. Write the symptoms of some common allergic reaction.