

## 5. Health and Hygiene

### **A. Choose the correct answer:**

- Substances causing allergy are  
a. resource    b. allergen    c. pollutant    d. antibody
- The fungi that causes allergy is  
a. yeast    b. Rhizopus    c. Aspergillus    d. Mucor
- The most common allergic disease is  
a. asthma    b. diabetes    c. acromegaly    d. dwarfism
- Allergy that occurs throughout the year is called \_\_\_\_\_ allergy.  
a. seasonal    b. perennial    c. biennial    d. annual
- The most dangerous of all allergies is  
a. hay fever    b. rhinitis    c. anaphylactic shock    d. dermatitis
- Sting of \_\_\_\_\_ causes allergy.  
a. butterfly    b. grasshopper    c. ant    d. bee
- Medicine that reduces allergies are  
a. antihistamines    b. antituberculosis drugs  
c. antacids    d. antiviral drugs
- Allergic reactions occur due to release of  
a. hormones    b. histamines    c. enzymes    d. lysozymes
- The cells of the body that produce antibodies are  
a. nerve cells    b. mast cells    c. B-cells    d. epithelial cells
- Machine that removes dust from curves and crevices is  
a. mixer-grinder    b. chopper    c. vacuum cleaner    d. floor cleaner

### **B. Fill in the blanks with suitable words:**

- Allergy starts when the body mistakes a harmless substance to be a harmful foreign body.
- Foods like eggs, dairy products and sea food cause allergy.
- Symptoms of skin allergy are reddening of particular area of skin and skin rashes.
- Symptoms of dust allergy are sneezing, watering of eyes and difficulty in breathing.
- When an allergen or antigen enters the body, the B-cells produce antibodies.
- Depending upon the amount of histamine released, allergy may be mild or severe.
- The dead skin, saliva and dried urine of pets cause allergy.
- In pulmonary allergic disease, there is chronic lung injury with chronic asthma and cystic fibrosis.
- Insect repellent should be used before going outdoor to prevent insect sting.
- Apart from antihistamines, steroids can be used to prevent allergy.

### **C. State whether the following statements are true or false:**

- Allergy is a disorder of the immune system. True
- Body's defence system produces antibiotics. False
- Hay fever is caused by indoor allergens. False
- Wooden floors are used in houses to reduce dust. True
- Clothes should be packed very tightly in the cupboard. False
- Tingling sensation of mouth is a symptom of skin allergy. False
- Fall in blood pressure occurs in drug allergy. True
- Allergy occurring in certain times of the year is perennial allergy. False

**D. Answer the following questions:**

1. How is allergy caused?

A. An allergy actually starts when our body mistakes a harmless substance to be a harmful foreign body and starts reacting to it. The body's defence system then produces antibodies that remain prepared for that particular substance. When our body is exposed to that substance again, these antibodies release certain chemicals that cause allergic symptoms.

2. Name some airborne allergens.

A. Dust, mites, pollen, spores, etc are airborne allergens.

3. State the various symptoms of drug allergy.

A. The symptoms of drug allergy are:

- Swelling of face
- Rashes
- Itching of skin
- Fall in blood pressure
- Shortness of breath
- Nausea, vomiting

4. What are the four main routes of entry of allergens?

A. Allergens enter the body through four main routes.

- The nose and mouth
- The digestive tract
- The skin
- The circulatory system

5. What happens when the skin comes in contact with allergens?

A. When the skin comes in contact with allergen, histamine is released. The skin becomes inflamed. Itching and redness occurs. Skin dermatitis can occur.

6. Give the steps of an allergic reaction.

A. The foreign substance or antigen enters the body. B-cells of the body produce antibodies. These antibodies act on the allergen. This releases histamine to battle with the allergen and so produces a reaction. Depending upon how much histamine is released, the allergy may be mild or severe.

Allergen + activated B-cells → Antibodies + mast cells → Allergen + activated mast cells → Release of mediators → Allergic reaction

7. What are the two main types of allergy? Give examples.

A. The two main types of allergy are seasonal and perennial allergy. Example of seasonal allergy is hay fever while that of perennial allergy is allergic rhinitis.

8. What is the role of fungi as an allergen?

A. Amongst fungi, Aspergillus is responsible for causing severe pulmonary allergic disease. In this disease, there is chronic lung injury, along with chronic asthma and cystic fibrosis.

9. How can we prevent dust allergy?

A. Some of the ways to reduce the amount of dust inside the house are:

- Putting up wooden floors instead of carpet .
- Cleaning cushions, soft toys and curtains regularly.
- Using a vacuum cleaner to remove dust from curved area or crevices .
- Wiping all surfaces with a damp clean cloth.

10. How can insect stings be prevented?

A. Insect stings can be prevented by:

- Covering the exposed skin
- Wearing covered shoes

- Applying any insect repellent before going out.

**E. Define the terms:**

1. Allergen: The substances to which our body produces allergic symptoms are called allergens.
2. Seasonal allergy: Allergies during certain times of the year are called seasonal allergy.
3. Anaphylactic shock: It is the most dangerous of all the allergies. It involves all the body tissues and occurs within a few minutes of the entry of the allergen. Rashes develop all over the body, face gets swollen, eyes become puffy, lips swell up and throat feels thick.
4. Histamine: Histamine is a chemical produced by mast cells and stored within the body. It is a part of our immune response and is released during an allergic reaction.
5. Food allergy: Food allergy is a kind of allergy caused due to food which causes swelling of lips, tongue or throat and causes tingling sensation of mouth.

**F. Differentiate between:**

1. Seasonal and perennial allergy

<b>Seasonal allergy</b>	<b>Perennial allergy</b>
1. Allergies that occur during certain times of the year like summer or spring are called seasonal allergies.	1. Allergies that occur throughout the entire year are called perennial allergies.
2. Symptoms include watering and itching of eyes, etc.	2. Symptoms include blockage of nasal passage, decrease in sense of smell.

2. Skin allergy and drug allergy

<b>Skin allergy</b>	<b>Drug allergy</b>
1. Allergens include fur of dogs, strong sunlight, articles like shoes, etc.	1. Allergens include medicines like antibiotics.
2. symptoms include itching and reddening of the skin.	2. Symptoms include swelling of face, fall in blood pressure.

3. Antihistamines and antibodies

<b>Antihistamines</b>	<b>Antibodies</b>
1. They are produced by mast cells.	1. They are produced by B-cells.
2. They are medicines used to treat allergies.	2. They are necessary to fight off infections.

**EXTRA NOTES:**

**Match the following:**

- |                      |                    |
|----------------------|--------------------|
| 1. Sneezing          | dust allergy       |
| 2. Dust mites        | Airborne allergens |
| 3. Perennial allergy | Allergic rhinitis  |
| 4. Hay fever         | outdoor allergy    |
| 5. Antihistamines    | medicines          |