

Class 7 - ICSE BIOLOGY

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Class 7 Biology ICSE | Allergy | DPP Solutions

Allergy Daily Practice Problems Solutions

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Question 1:

What is an allergy? [Level: Easy]

Answer:

An allergy is an exaggerated immune response by the body to a substance that is normally harmless. Common allergens include pollen, dust mites, pet dander, certain foods, and insect venom.

Question 2:

What are the common symptoms of an allergic reaction? [Level: Easy]

Answer:

Common symptoms of an allergic reaction include sneezing, runny nose, itching, hives, swelling, wheezing, shortness of breath, and in severe cases, anaphylaxis.

Question 3:

How are allergies diagnosed by healthcare professionals? [Level: Moderate]

Answer:

Allergies can be diagnosed through various methods, including skin prick tests, blood tests for specific antibodies and keeping a detailed record of symptoms and possible triggers.

Question 4:

What is the difference between food intolerance and a food allergy? [Level: Moderate]

Food intolerance involves difficulty digesting certain foods, leading to digestive symptoms, while a food allergy triggers an immune response that can cause a range of symptoms beyond digestion, such as hives, swelling, and anaphylaxis.

Question 5:

What are allergens? How do allergens enter the body to trigger allergic reactions? [Level: Moderate]

Answer:

Allergens are substances that trigger allergic reactions in individuals with allergies. Common allergens include pollen, dust mites, pet dander, certain foods like nuts and shellfish, insect venom, and mold spores. Allergens can enter the body through various routes, such as inhalation (breathing in pollen or dust), ingestion (eating certain foods), skin contact (touching allergens like latex or plants), or insect stings.

Question 6:

Can allergens vary depending on the type of allergy? [Level: Moderate] **Answer:**

Yes, allergens can vary depending on the type of allergy. For example, pollen, pet dander, and mold spores are common environmental allergens, while certain foods like peanuts, eggs, and seafood can trigger food allergies.

Question 7:

How do allergens enter the body through the respiratory system? [Level: Difficult]

Allergens can enter the body through the respiratory system when individuals inhale substances like pollen, dust mites, pet dander, mold spores, or air pollutants, leading to allergic reactions such as sneezing, coughing, and wheezing.

Question 8:

How can allergens enter the body through skin contact? [Level: Moderate] **Answer:**

Allergens can enter the body through skin contact when individuals touch substances like latex, plants (poison ivy), certain metals (nickel), or chemicals, leading to allergic skin reactions such as itching, redness, and dermatitis.

Question 9:

How do allergens enter the body through mucous membranes? [Level:

Moderate]

Answer:

Allergens can enter the body through mucous membranes in the eyes, nose, and mouth when individuals come into contact with substances like pollen, pet dander, or irritants, leading to symptoms such as watery eyes, runny nose, and sore throat.

Question 10:

What is the entry route for allergens in insect sting allergies? [Level: Moderate]

Insect venom allergens enter the body through insect stings when individuals are stung by bees, wasps, hornets, or other insects, triggering allergic reactions that can range from localized swelling to systemic anaphylaxis.

Question 11:

What are common respiratory signs and symptoms of allergies? [Level: Easy]
Answer:

Common respiratory signs and symptoms of allergies include sneezing, runny or stuffy nose, coughing, wheezing, shortness of breath, and chest tightness.

Question 12:

What systemic signs and symptoms may occur during a severe allergic reaction (anaphylaxis)? [Level: Difficult]

Answer:

Systemic signs and symptoms of anaphylaxis include difficulty breathing, swelling of the face and throat, rapid heartbeat, a drop in blood pressure, dizziness or fainting, and a sense of impending doom. Anaphylaxis is a medical emergency that requires immediate treatment with epinephrine.

Question 13:

What is the role of histamine in common allergic reactions? [Level: Moderate]

Answer:

Histamine is a chemical released by the immune system in response to allergens. It triggers symptoms like itching, sneezing, runny nose, and hives in common allergic reactions.

Question 14:

What is the mechanism behind allergic reactions like asthma and hives? [Level: Difficult]

Answer:

Allergic reactions like asthma involve inflammation and constriction of the airways, leading to breathing difficulties, while allergic reactions like hives result from the release of histamine, causing raised, itchy welts on the skin.

Question 15:

Why is it important for individuals with allergies to identify and avoid their specific triggers? [Level: Difficult]

Answer:

Identifying and avoiding specific allergens is crucial for individuals with allergies to prevent common allergic reactions and potentially severe complications. This may involve allergen avoidance strategies, medication management, and emergency preparedness for anaphylaxis.

Question 16:

What precautions can individuals with insect sting allergies take to avoid allergic reactions? [Level: Moderate]

Answer:

Individuals with insect sting allergies should wear protective clothing outdoors, avoid areas with high insect activity, use insect repellents, and carry prescribed epinephrine auto-injectors in case of insect stings.

Question 17:

What precautions can individuals take to avoid food allergies? [Level:

Moderate]

Answer:

To avoid food allergies, individuals should carefully read food labels, communicate food allergies to restaurants and food service providers, carry epinephrine if prescribed, and avoid cross-contamination of allergens in food preparation.

Question 18:

How can individuals prevent respiratory allergies like pollen or dust mite allergies? [Level: Moderate]

Answer:

Individuals can prevent respiratory allergies by using allergen-proof bedding, keeping indoor spaces clean and dust-free, using air purifiers, and avoiding outdoor activities during high pollen seasons.

Question 19:

How does a skin prick test help in diagnosing allergies? [Level: Moderate] **Answer:**

A skin prick test involves introducing small amounts of common allergens into the skin to observe any allergic reactions like redness, itching, or swelling, helping healthcare providers identify specific allergens.

Question 20:

Why is it important for individuals to seek medical advice for allergy diagnosis? [Level: Moderate]

Seeking medical advice for allergy diagnosis is crucial to receive accurate testing, identify specific allergens, develop personalized management plans, and prevent potentially serious allergic reactions. Healthcare providers can guide individuals in proper diagnosis and management of allergies.

