INDIAN SCHOOL AL WADI AL KABIR		
CLASS: VIII	**DEPARTMENT: SCIENCE** **2026 - 2027**	**DATE: 31/10/2026**
TEXTBOOK Q&A NO: 9	**TOPIC:** **HEALTH: THE ULTIMATE TREASURE**	**NOTE: A4 FILE FORMAT**
CLASS & SEC:	**NAME OF THE STUDENT:**	**ROLL NO.**

1. Group the diseases shown in the images as communicable or non-communicable.



Ans. Communicable diseases: Cold and Flu, Typhoid, Chickenpox
Non-communicable diseases: Diabetes, Asthma.

2. Diseases can be broadly grouped into communicable and non-communicable diseases. From the options given below, identify the non-communicable diseases.
(i) Typhoid (ii) Asthma (iii) Diabetes (iv) Measles
(a) (i) and (ii)
(b) (ii) and (iii)
(c) (i) and (iv)
(d) (ii) and (iv)
Ans. (b) (ii) and (iii)

3. There is a flu outbreak in your school. Several classmates are absent, while some are still coming to school coughing and sneezing.
(i) What immediate actions should the school take to prevent further spread?
(ii) If your classmate, who shares the bench with you, starts showing symptoms of the flu, how can you respond in a considerate way without being rude or hurtful?
(iii) How can you protect yourself and others from getting infected in this situation?
Ans. (i) Screen students at morning assembly; advise students having symptoms to isolate at home until recovery; maintain good ventilation in classrooms; disinfect benches, doorknobs, and handrails daily; ensure handwashing basins have soap and clean water; display posters illustrating respiratory etiquette.
(ii) Show empathy rather than disgust. Offer a clean tissue or spare mask. Inform the teacher so the child can rest in the sick room, and call his/her parents. Never tease or isolate them socially.

(iii) Wear a mask; wash hands frequently with soap; avoid touching eyes, nose, or mouth; cover coughs with a flexed elbow; refrain from sharing water bottles, napkins, or tiffin boxes.

Question 4: Your family is planning to travel to another city where malaria is prevalent.
(i) What precautions should you take before, during, and after the trip?
(ii) How can you explain the importance of mosquito nets or repellents to your sibling?
(iii) What could happen if travellers ignore health advisories in such areas?
Ans. (i) Before Trip: Consult a doctor for preventive advice and medication; pack mosquito nets, repellents, and long-sleeved clothes.
During Trip: Sleep under mosquito nets; apply repellent creams to exposed skin; wear light-colored, full-length clothing; stay in air-conditioned or screened rooms; avoid stagnant water puddles outdoors.
After Trip: Monitor your health for 2 to 4 weeks; see a doctor immediately if you develop fever, chills, or a headache.
(ii) Malaria is caused by a protozoan injected by biting mosquitoes. Mosquito nets and repellents keep mosquitoes from reaching our skin, protecting us while we sleep.
(iii) Travellers face a high risk of contracting malaria, suffering severe recurring chills, high fever, profuse sweating, and anaemia. Severe cases can lead to organ failure or death, and returning travellers may introduce the parasite to local mosquito populations back home.

Question 5: Your uncle has started smoking just to fit in with his friends, even though it is well known that smoking can seriously harm health and even cause death.
(i) What would you say to him to make him stop, without being rude?
(ii) What would you do if your friend offers you a cigarette at a party?
(iii) How can schools help prevent students from indulging in such harmful habits?
Ans. (i) I would talk to my uncle politely and explain that smoking harms the lungs and heart and can even cause death. True friends will accept him without asking him to smoke. I would encourage him to stop smoking to protect his health and stay healthy for his family.
(ii) Say 'NO' calmly, firmly, and directly: If they persist, firmly repeat your choice, and move to join a peer group that supports healthy habits.
(iii) Conduct scientific awareness workshops; teach peer-pressure refusal skills; organise sports and yoga programs for positive stress release; enforce strict tobacco-free campus policies; provide supportive counselling for adolescents.

Question 6: Saniya claims to her friend Vinita that “Antibiotics can cure any infection, so we don’t need to worry about diseases.” What question(s) can Vinita ask her to help Saniya understand that her statement is incorrect?
Ans:
- Which germs cause infections? (Answer: Infections are caused by different types of germs like bacteria, viruses, fungi, and protozoa.
- Do antibiotics work against viral infections like the common cold, dengue, or chickenpox?' (Answer: No, antibiotics only kill bacteria.)
- What happens to the beneficial, healthy bacteria that protect our digestive system when we swallow antibiotics unnecessarily? (Answer: Antibiotics kill beneficial bacteria too.)
- What is antibiotic resistance? (When antibiotics are taken irresponsibly, the bacteria mutate and become immune to medicines.)

- Can antibiotics cure non-communicable diseases like diabetes, asthma, or heart conditions? (Answer: No, antibiotics cannot cure non-communicable diseases.)

Question 7: The table below contains information about reported dengue cases in a hospital over one year:

S. No.	1	2	3	4	5	6
Month	January	February	March	April	May	June
No. of dengue cases	10	12	15	18	22	40

S. No.	7	8	9	10	11	12
Month	July	August	September	October	November	December
No. of dengue cases	65	65	65	30	30	20

Make a bar graph of the number of cases on the Y-axis and the month on the X-axis. Critically analyse your findings and answer the following:

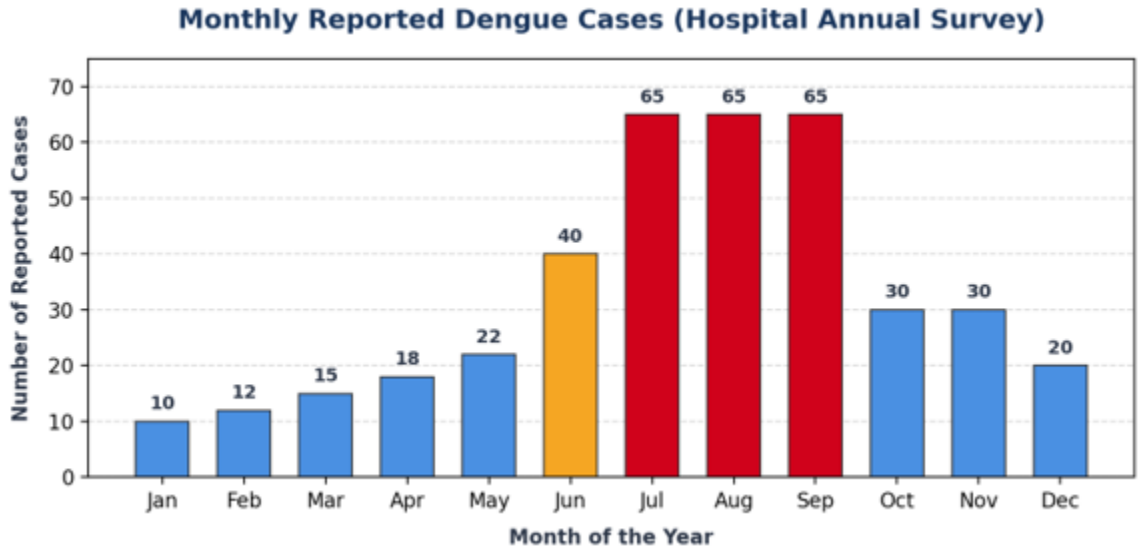
(i) In which three months were the dengue cases highest?

(ii) In which months were the cases lowest?

(iii) What natural or environmental factors during peak months might contribute to the increase in dengue cases?

(iv) Suggest a few preventive steps that the community or government can take before peak season to reduce the spread of dengue.

Ans.



(i) Three Highest Months: July, August, and September recorded the highest incidence, with 65 dengue cases in each month.

(ii) Lowest Month(s): January had the lowest incidence with only 10 reported dengue cases, followed by February with 12 cases.
(iii) July to September coincides with the monsoon rainy season. Frequent heavy rains cause fresh water accumulation in coolers, discarded tyres, flowerpots, plastic containers, and open drains. Stagnant rainwater provides ideal breeding sites for mosquitoes, which transmit diseases.
(iv) Conduct pre-monsoon cleaning of drains; execute citywide anti-larval spraying; encourage people to empty and scrub water containers and coolers; inspect public parks, construction sites, and scrap yards; stock hospitals with testing kits and fluids before July.

Question 8: Imagine you are in charge of a school health campaign. What key messages would you use to reduce communicable and non-communicable diseases?
Ans. Key Messages for Communicable Diseases:
1. Wash hands with soap and water before meals and after play; cuts infection risks by 50%.
2. Cover mouth with elbow when sneezing; wear masks in crowded spaces.
3. Drink only boiled or purified water; avoid uncovered street food.
4. Keep campus clean, prevent stagnant water puddles, use repellents.
5. Complete all national vaccinations to maintain acquired immunity.
Key Messages for Non-Communicable Diseases:
1. Fill plates with green vegetables, seasonal fruits, and whole grains; cut processed sugar, salt, and fried snacks.
2. Walk, cycle, run, or play sports every day to maintain metabolic health.
3. Practice pranayama and meditation daily to reduce anxiety and enhance academic focus.
4. Restrict phone/social media use to prevent eye strain and sleep disruption; ensure 8–9 hours of nightly sleep.
5. Protect lungs and organs from lifetime chronic disease.

Question 9: It is recommended that we should not take an antibiotic for a viral infection like a cold, a cough, or flu. Can you provide the possible reason for this recommendation?
Ans.
• Antibiotics are drugs designed to kill bacteria, so they should not be taken for viral infections.
• When antibiotics are consumed for a viral infection, they kill harmless and beneficial bacteria residing in our digestive tract, causing stomach distress.
• Unnecessary exposure to antibiotics allows surviving bacteria to develop mutations and resistance genes. Over time, these bacteria cannot be treated when genuine bacterial infections occur.

Question 10: Which disease(s) among the following may spread if drinking water gets contaminated by the excreta from an infected person?
Hepatitis A, Tuberculosis, Poliomyelitis, Cholera, Chickenpox.
Ans. Waterborne Diseases: Hepatitis A, Cholera, and Poliomyelitis.

Question 11: When our body encounters a pathogen for the first time, the immune response is generally low, but on exposure to the same pathogen again, the immune response by the body is much higher compared to the first exposure. Why is it so?

Ans. When our body meets a pathogen (like a virus or bacterium) for the first time, the immune system takes time to recognise it, learn its shape, and make the right antibodies. This slow and weak reaction is called the primary immune response.
During this first encounter, the body creates special memory cells that remember the pathogen. When the same pathogen enters again, these memory cells recognize it immediately and produce a large number of antibodies much faster and stronger. This is called the secondary immune response.

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