

Zoonotic and Environmental Epidemiology

Epidemiology · Answer Key · 8 Questions

1. Which specific reservoir host is primarily responsible for the maintenance and transmission of the Nipah virus in Southeast Asian ecosystems?

- A) Pteropus fruit bats**
- B) Macaca fascicularis
- C) Sus scrofa domesticus
- D) Rattus norvegicus

2. In the epidemiology of Lyme disease, which life stage of the Ixodes scapularis tick is considered the most significant vector for transmitting Borrelia burgdorferi to humans?

- A) Egg
- B) Larva
- C) Nymph**
- D) Adult

3. What is the primary natural reservoir host for the Ebola virus, as identified through extensive ecological and molecular epidemiological surveys?

- A) African Green Monkeys
- B) Pteropodidae bats**
- C) Pan troglodytes
- D) Sylvicapra grimmia

4. Which environmental factor is most strongly associated with the increased incidence of Rift Valley Fever outbreaks in livestock populations across sub-Saharan Africa?

- A) Increased solar radiation
- B) Extended periods of extreme drought
- C) Heavy rainfall and flooding leading to egg hatching of Aedes mosquitoes**
- D) Widespread deforestation

5. The persistence of Chronic Wasting Disease (CWD) in wild cervid populations is facilitated by the environmental stability of which specific infectious agent?

- A) Single-stranded RNA virus
- B) Gram-negative bacteria
- C) Misfolded prion proteins**
- D) Protozoan parasites

6. Which migratory bird species has been most significantly implicated in the long-distance transcontinental dissemination of Highly Pathogenic Avian Influenza (HPAI) H5N1?

- A) *Anser anser* (Greylag Goose)
- B) *Larus argentatus* (Herring Gull)
- C) *Anas platyrhynchos* (Mallard)**
- D) *Cygnus olor* (Mute Swan)

7. In the context of environmental epidemiology, which soil-dwelling bacterium is the causative agent of melioidosis, a disease often contracted through contact with contaminated soil and water in tropical regions?

- A) *Burkholderia pseudomallei***
- B) *Bacillus anthracis*
- C) *Clostridium tetani*
- D) *Leptospira interrogans*

8. Which specific vector is the primary transmitter of the Hantavirus Pulmonary Syndrome (HPS) in the Americas, through the inhalation of aerosolized excreta?

- A) *Mus musculus*
- B) *Peromyscus maniculatus***
- C) *Rattus rattus*
- D) *Apodemus sylvaticus*