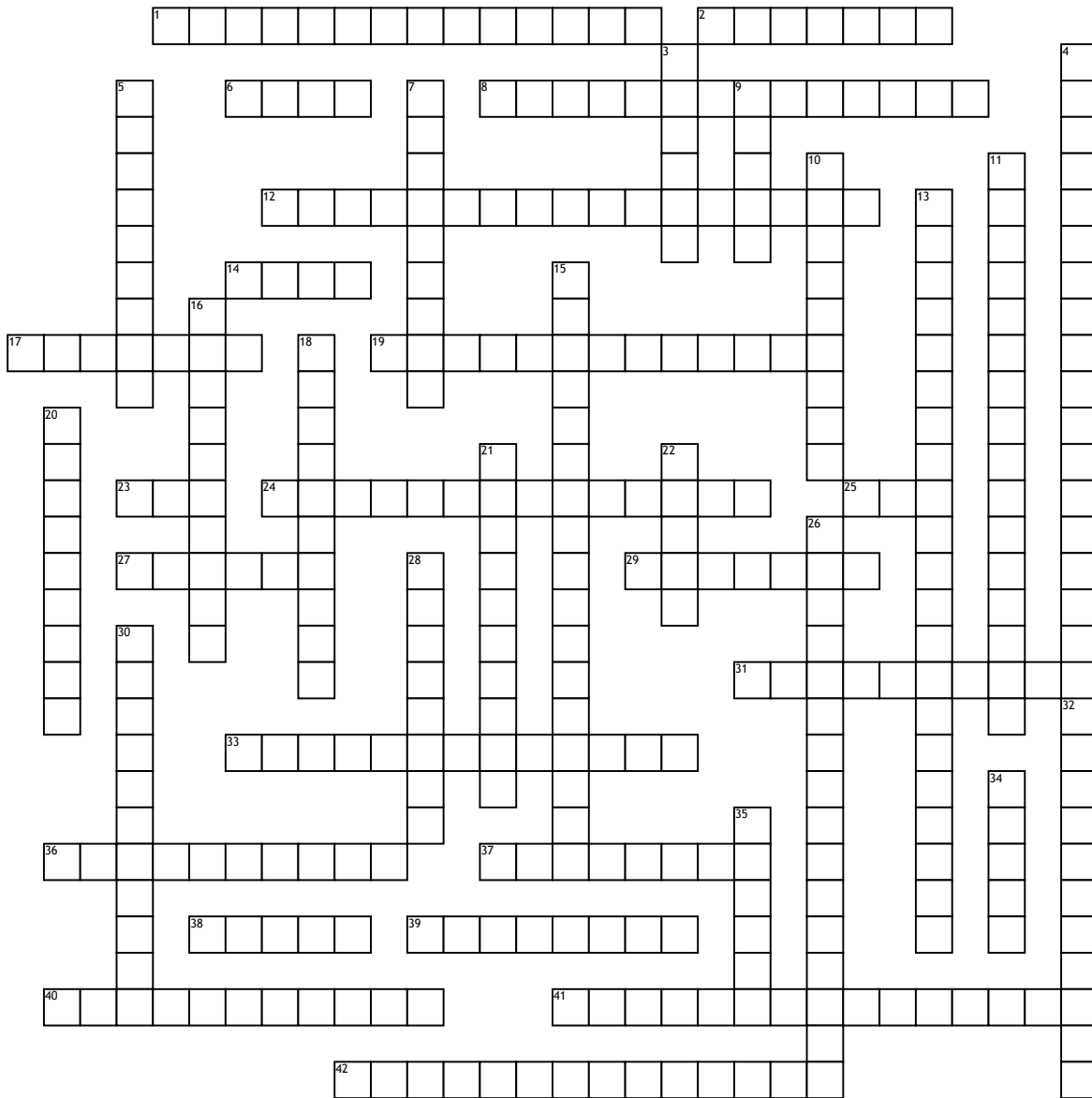


Influenza virus - Assignment 2 Microbiology Crossword Puzzle



Across

1. Only occurs in influenza A and results in the rearrangement of RNA sequences from two separate viral strains infecting the same cell making new antigens for the virus.
2. The best way to prevent getting the flu is by getting a _____ each year.
6. How many influenza epidemics have there been in the last century?
8. In 1918, what pandemic killed 50 billion people worldwide?
12. In the United States, how many annual deaths are caused by the influenza virus?
14. True or False: the most common symptoms of influenza include: fever, chills, fatigue, headaches, muscle aches, coughing, and sore throat.
17. What is the name of the high-dose quadrivalent influenza vaccine approved for people 65 years and older?
19. About 80% of the influenza viral glycoprotein spikes are haemagglutinin (HA) and 20% are _____.
23. How long does it take a person to experience symptoms of the flu after being infected? (hint: -blank- days)
24. What is the gradual accumulation of point mutations during the seasonal and annual circulation of influenza?
25. How long can the influenza virus survive on hard surfaces? _____ to eight hours.
27. Viral glycoprotein _____ protrude from the influenza virus envelope.
29. The proportion of people who get infected _____ based on the severity of the flu season.
31. What type of drugs are used to treat influenza?

33. Bacterial pneumonia, ear infections, and sinus infections can all lead to _____ of the flu.
 36. In the influenza virus, what is the name of the receptor molecule that is linked to the saccharides attached to the host cell surface? (hint: terminal alpha -blank-)
 37. In the fourth step of the influenza virus entry process, what does the fusion of the viral membrane with the host membrane form?
 38. A person infected with influenza is more contagious 3-4 days _____ their symptoms begin.
 39. How about long can it for the flu vaccine to protect a person against the influenza virus?
 40. Besides getting the flu shot, a person can prevent infection by practicing _____.
 41. What type of cells in the upper respiratory tract does the influenza virus infect?
 42. Which surface glycoprotein on the influenza virus cell contains the host binding site?
- Down**
3. What is the term for an influenza virus particle that carries genetic material on the single strand RNA segments?
 4. What type of protein contains influenza viral RNA and viral polymerase used for replication?
 5. In order to enter the cell, the influenza virus must first _____ the host cell receptor molecule on the surface.
 7. _____ and October are the best months to receive the influenza vaccine.
 9. True or False: the flu vaccine causes the flu.
 10. "Influenza" originates from the Italian language, meaning _____.

11. What family does the influenza virus belong to?
13. Where does the influenza virus most commonly infect humans?
15. People at risk of getting infected include: infants, pregnant women, elders, and _____.
16. Injecting a small dose of a crippled influenza strain or a purified HA protein can help make _____ to HA and protect people from the flu.
18. Virus isolation, the nucleic acid amplification test (NAAT), and the immunochromatography-based rapid diagnostic test (RDT) are types of _____ techniques for influenza.
20. The four influenza strains that circulate in the human population are A/H3N2, A/H1N1, and two _____.
21. There are 3 different types of influenza, A, B, and C, which one is the most severe?
22. How many segments of the nucleoprotein-enwrapped single-stranded RNA are in the viral genome?
26. What will that influenza viruses constantly undergo?
28. The influenza virus is passed from person to person via bodily fluid droplets released when sneezing and _____.
30. After the influenza virus enters the host cell, it releases its viral genome segments into the nucleus initiating transcription and _____.
32. In the second step of the influenza virus entry process, what does the tight association of the virus particle with the the host cell induce?
34. What type of influenza can infect humans, birds, pigs, and horses?
35. Infected adults can infect others around them beginning 1 day _____ symptoms develop and 5-7 days after experiencing symptoms.