Test based on Greenhalgh et al., 2021 (total marks = 10)

Greenhalgh, T., Jimenez, J. L., Prather, K. A., Tufekci, Z., Fisman, D., & Schooley, R. (2021). Ten scientific reasons in support of airborne transmission of SARS-CoV-2. Lancet (London, England), 397(10285), 1603–1605. <https://doi.org/10.1016/S0140-6736(21)00869-2>

1. Pre-symptomatic or asymptomatic transmission of SARS-COV-2 may account for up to \_\_\_ of all transmission globally. (1)

A) 100%

B) 59%

C) 33%

D) 10%

2. According to reference number 12, SARS-COV-2 stayed infectious in the air for up to \_\_\_ h with a half life of \_\_\_ h. (1)

A) 1.1, 3

B) 3, 2

C) 3, 1.1

D) none of the given choices

3. Some people have avoided SARS-COV-2 infection even when they have shared a room with an infected person. This could be explained by a combination of factors including (1)

A) viral shredding and environmental conditions such as ventilation

B) personal immunity

C) use of sanitizers

D) sunlight in the room

4. Statement 1 (S1): SARS-COV-2 cannot be airborne because it has a R0 value of 2.5, which is much lower than that of measles (estimated to be 15). Statement 2 (S2): SARS-COV-2 shows wide variation in viral respiratory viral load, and its R0 values are over-dispersed. (1)

A) S2 counter-argues with S1

B) S2 corroborates S1

C) S2 is unrelated to S1

D) S2 adds more information to S1

5. Respiratory droplets contain more viruses because they are larger than aerosols. Which reference number contradicts this statement? (1)

A) 10

B) 15

C) 25

D) 28

6. Why is sampling airborne viruses challenging? (3)

A sampling of the airborne virus is technically challenging for several reasons, including the limited effectiveness of some sampling methods for collecting fine particles, viral dehydration during collection, viral damage due to impact forces (leading to loss of viability), reaerosolisation of the virus during collection, and viral retention in the sampling equipment.

7. What is a superspreader event? (2)

An instance where a person infected with a virus distributes the infection to a greater number of persons than usual is referred to as a superspreader event. This may result in a substantial percentage of all transmissions. It has been determined that superspreader events are a primary cause of SARS-CoV-2 transmission.