

3) “On average, viral shedding was higher in nasal swabs than in throat swabs for each of coronavirus (median 8.1 log₁₀ virus copies per sample versus 3.9)”. Middle of fourth paragraph of results and red dots in left panel of Fig. 1.a. Explain what the median of nasal swab represents? If the authors reported mean instead of median do you expect it to be higher or lower than reported median and why? How about the mode of that data set? (2 Marks)

4) Could you please explain what is shown on Fig. 1.a (left, middle and right panels)? (1.5 Marks)

6) Refer to Fig. 1.a, could you please state null and alternative hypothesis that was tested both for droplets and for aerosol? (2 Marks)

7) Although for each hypothesis that the authors tested there were only two groups, could you please state why they didn't run t-tests to test their hypothesis? (1 Mark)

(Hint: look at presented data in Fig.1 and consider t-test requirements).

8) Even if they didn't use t-tests to test hypotheses regarding viral detection, that shouldn't prevent us from interpreting their results. In their abstract they reported that: “Surgical face masks significantly reduced detection of influenza virus RNA in respiratory droplets and coronavirus RNA in aerosols, with a trend toward reduced detection of coronavirus RNA in respiratory droplets.” This quotation summarizes the findings of three separate hypothesis tests. Let us know which three hypotheses they are referring in each case and what was the conclusion of that test by providing the relevant information presented in Table 1.b, which support or not support authors' hypothesis? (3 Marks)