

Introduction to English for Scientific Communication:

Quiz 2 Answers

Part 1: Each of the sentences below has at least one incorrect use of a preposition. Please find this mistake (these mistakes) and correct them.

Q1. The function f here is identical as g above.

A1. The function f here is identical to g above.

Q2. These results are the same with those found in Ref. [4].

A2. These results are the same as those found in Ref. [4].

Q3. We expand the solution in first order of the perturbation δV .

A3. We expand the solution to first order in the perturbation δV .

Q4. The quantity $N_{<}$ represents the smaller among N_1 and N_2 .

A4. The quantity $N_{<}$ represents the smaller of N_1 and N_2 .

Q5. However, $\sigma(x)$ diverges at $x \rightarrow \infty$.

A5. However, $\sigma(x)$ diverges as $x \rightarrow \infty$.

A5'. However, $\sigma(x)$ diverges in the limit $x \rightarrow \infty$.

A5''. However, $\sigma(x)$ diverges in the $x \rightarrow \infty$ limit.

Q6. Note that in this case, all particles move to the direction of increasing τ .

A6. Note that in this case, all particles move in the direction of increasing τ .

Q7. Our ability to make strong statements in this theory is quite limited.

A7. Our ability to make strong statements regarding/concerning this theory is quite limited.

Part 2: The underlined word/phrase is incorrect. Please write the correct word or phrase above the underlined word/phrase.

Q8. In the early 1960s, similar effects were discovered by experiments on gel systems.

A8. In the early 1960s, similar effects were discovered through / with / in experiments on gel systems.

Q9. In this paper, the instability is studied by the energy method.

A9. In this paper, the instability is studied using/with/through application of the energy method.

Q10. This theorem can be proved by the argument given in Sec. 2.

A10. This theorem can be proved with / using the argument given in Sec. 2.

Q11. Entropy is preserved along streamlines in compressible, low-Mach-number flows.

A11. Entropy is conserved along streamlines in compressible, low-Mach-number flows.

Q12. The question as to why symmetry is retained has not been answered.

A12. The question as to why symmetry is preserved has not been answered.

Q13. This new model maintains several features of the more complex model presented in our previous paper.

A13. This new model retains several features of the more complex model presented in our previous paper.

Q14. It costs a huge amount of money to conserve the Large Hadron Collider.

A14. It costs a huge amount of money to maintain the Large Hadron Collider.

Part 2: Please write one paragraph about one topic relating to the universe.

Sample paragraph by Jonathan White

Topic Sentence: It was recently discovered - to everyone's surprise - that not only is the universe expanding, but that the rate of expansion is in fact increasing.

Supporting point 1: It was in the 1920s that Hubble first observed galaxies outside of the Milky Way and found them to be receding from us with speeds proportional to their distance from us. This led him to conclude that the universe is expanding.

Supporting point 2: Intuitively, it was expected that the gravitational attraction of all the matter in the universe would act so as to slow down this expansion, and researchers set out to measure the rate of this deceleration through the

observation of Supernovae redshifts as a function of their distance from us. However, much to everyone's surprise, the observations in fact indicated that the rate of expansion is increasing.

Concluding remark: The realisation that the expansion of our universe is accelerating is rather puzzling, as it suggests the presence of some kind of anti-gravity-like force. The source of the acceleration has been dubbed *Dark Energy*, but its nature is far from understood.

Sample Paragraph by Andrew Hillier

Topic Sentence: One of the major questions that faces humanity today is: Are we alone in this Universe?

Supporting point 1: We live in a universe with a huge number of stars, and recently it has been discovered that many stars are being orbited by planets. It is hoped that one of the planets we find orbiting a star may have life.

Supporting point 2: It is generally believed that a planet that is like Earth, with a lot of liquid water, would be a good place for extraterrestrial life to exist. However it is still very difficult to observe Earth-like planets due to their small size.

Concluding remark: So we are not yet able to say we have found a habitable planet that could host other life in the universe, but I think we are getting closer to this goal.