The ancestor of our modern microscopes are nearly four hundred years old. The early microscopes were worked and operated by lenses that, by forcing light to bend, could focus and enlarge the image of whatever object reflecting the light. By improving lensmaking, microscopes could be made to enlarge an object as much as one thousand times its original size. The word “telescope” derives from the Greek meaning “to view” and “far off”; “microscope” comes from the Greek meaning “to view” and “small.”

8. F. NO CHANGE  
G. are near  
H. is near  
J. is nearly

9. A. NO CHANGE  
B. were worked and were  
C. worked and operated by  
D. worked by

10. F. NO CHANGE  
G. was reflecting  
H. reflected  
J. will reflect

11. A. NO CHANGE  
B. By having improved lensmaking,  
C. Lensmaking having improved,  
D. With the improvement of lensmaking,

12. F. NO CHANGE  
G. OMIT the preceding sentence.  
H. OMIT the semicolon and the part of the sentence preceding the semicolon only.  
J. OMIT the semicolon and the part of the sentence following the semicolon only.
But—for a time microscopes could not be improved beyond that point. When the objects to be studied were smaller than the light waves that were used to see them, the objects could not be seen. The first attempt to solve this problem, in the 1920s, will use shorter light waves, such as ultraviolet. And the improvement was negligible. Waves any shorter than these could not be focused properly. The problem was unlocked and set free by using...

13. A. NO CHANGE  
   B. But for a time:  
   C. But, for a time,  
   D. But, for a time;

14. What might most logically be added to the paragraph at this point?
   F. A quotation from a famous scientist  
   G. A comparison of microscopes and telescopes  
   H. Examples of objects too small to be seen by these instruments  
   J. The names of the scientists who worked on microscopes

15. A. NO CHANGE  
   B. (Delete the commas around “in the 1920s.”)  
   C. (Move “in the 1920s” to the beginning of the sentence.)  
   D. (Move “in the 1920s” to after “attempt to.”)

16. F. NO CHANGE  
   G. will have used  
   H. used  
   J. did use

17. A. NO CHANGE  
   B. Therefore,  
   C. But  
   D. Thus,

18. F. NO CHANGE  
   G. problem was unlocked and opened  
   H. difficulty was unlocked  
   J. problem was solved
the much shorter electron waves, which can be focused by magnetic fields.

19. A. NO CHANGE
   B. and these
   C. and the waves
   D. who

20. The probable audience for this passage is:
   F. elementary-school children.
   G. general readers with some science.
   H. advanced students of the history of science.
   J. advanced students of mathematics.

**Answers**

8. J. The subject of the sentence is the singular noun *ancestor*, so the singular verb, *is*, is correct. The adverb *nearly* is the correct modifier of the adjectives *four hundred*.

9. D. Although all four choices are grammatically correct, three of them are wordy. Since *worked* and *operated* mean the same, one of the verbs is all that’s needed. The active verb *worked* is briefer than the passive *were worked*.

10. H. So far, this sentence has used the past tense in *worked* and *could focus*. There’s no reason to change to another tense here.

11. D. Choices A. and B. are gerund phrases. A gerund (a verbal noun; for example, *improving*), like a participle, dangles if it isn’t placed close to a noun or pronoun, or the performer of the action it describes. In this sentence, there’s no word like *scientists*. To correct the sentence, remove the dangling gerund, as in choice D.

12. G. The telescope half of this sentence has no relation to the rest of this paragraph. The explanation of the roots of the word *microscope*, although more related than the telescope, still isn’t appropriate here, and the paragraph is improved if the entire sentence is omitted.

13. C. The correct punctuation here is commas setting off the phrase *for a time*.

14. H. At this point, specific references to what still could not be seen (for example, viruses or atomic particles) would make clear the need for continued improvements.

15. C. The best place for the prepositional phrase is at the beginning of the sentence.

16. H. The past tense is the basic verb tense in this paragraph.

17. C. The sense of the sentence suggests that the necessary conjunction is *But*.

18. J. As it stands, the phrase is verbose, and the metaphors are confusing. Choice J. is the conventional phrasing with no mixed metaphor or wordiness.
19. **A.** The *which* has a specific antecedent (*waves*) and says in one word what takes two or three in choices **B.** and **C.**

20. **G.** The level of the passage is evidently above elementary-school children but below what could be expected of advanced students of the history of science.

In the passage and questions above, you have examples of the grammar/usage questions in numbers 8, 10, and 16. Question 13 is a punctuation question, and questions 11 and 15 are questions about sentence structure. Questions 12, 14, 18, and 19 are examples of the sort of question the rhetorical skills portion of the test uses.