Question 1—Document-Based Question

BASIC CORE (competence)  0–7 Points

1. Has acceptable thesis.  1 Point
   - The thesis must include both Han and Roman attitudes toward technology with correct qualification of each empire.
   - The thesis does NOT have to include a comparison of Han and Roman attitudes.
   - The thesis must be explicitly stated in the introduction or the conclusion of the essay.
   - The thesis may appear as one sentence or as multiple sentences.
   - A thesis that is split among multiple paragraphs, or merely restates the prompt is unacceptable.

2. Understands the basic meaning of documents.  1 Point
   (May misinterpret one document.)
   - Students must address all eight documents in the essay.
   - Students must demonstrate understanding of the basic meaning of at least seven documents.
   - Listing the documents separately or as a group does not adequately demonstrate an understanding of basic meaning.
   - Merely quoting from the document does not demonstrate basic understanding.

3. Supports thesis with appropriate evidence from all or all but one document.  2 Points
   For 2 points:
   - Evidence must be drawn from seven or eight documents and address the question.
   For 1 point:
   - Evidence must be drawn from six documents and address the question.

4. Analyzes point of view in at least two documents.  1 Point
   - Students must correctly analyze point of view in at least two documents.
   - Point of view explains why this particular person might have this particular opinion or what particular feature informs the author’s point of view.
   - Students must move beyond mere description of that individual by considering and explaining the tone, the characteristics of the author, the intended audience, and/or how the intended outcome may have influenced the author’s opinion.
   - Mere attribution is not sufficient. Attribution is copying or repeating information verbatim from the source line of the document.

5. Analyzes documents by grouping them in two or three ways, depending on the question.  1 Point
   - Students must explicitly address the question by grouping the documents in at least two ways. Some examples include type(s) of technology, pro and con technology, role(s) of government with respect to technology, or by class, philosophers, government officials.
   - Noting the Han documents (Documents 1–4) and/or the Roman documents (Documents 5–8) will NOT count as groupings, BUT noting Han or Roman officials or Han or Roman upper classes as groups is acceptable.
Question 1—Document-Based Question (continued)

6. **Identifies and explains the need for one type of appropriate additional document or source.**  
   1 Point

   - Students must identify an appropriate additional type of document or source and explain how the document or source will contribute to an analysis of Han and Roman attitudes toward technology.  
   
   Some potential additional types of documents:
   
   o Documents by women—to explore whether there are similarities or differences in Han/Roman attitudes according to gender.
   
   o Documents by workers—to explore the attitudes of those classes that might be most affected by various technologies or those classes that would physically implement a new technology.
   
   o Documents with data about the effects of various technologies (road building, irrigation) to help explain positive/negative attitudes.
   
   o Documents regarding the economic effects of technologies to help explain positive/negative attitudes.

Subtotal 7 Points

**EXPANDED CORE** (excellence)

Expands beyond basic core of 1–7 points. A student must earn 7 points in the basic core area before earning points in the expanded core area.

Examples:

- Has a clear, analytical, and comprehensive thesis.
- Shows careful and insightful analysis of the documents.
  - Recognition of the historical context of the documents.
  - Analysis of all eight documents.
- Uses documents persuasively as evidence.
- Analyzes point of view in most or all documents.
  - Thoughtful analysis of author’s background, intended audience, or historical context.
- Analyzes the documents in additional ways—groupings, comparisons, syntheses.
  - Inclusion of groupings beyond the two required.
  - Additional analysis of subgroups within a larger grouping.
- Brings in relevant “outside” historical content.
- Explains why additional types of document(s) or sources are needed.
  - Identification of more than one type of appropriate additional document.
  - Sophisticated explanation of why the additional document is necessary.
  - Requests for additional documents are woven into the essay and integrated into a broader analysis.
- Has a clear and comprehensive conclusion that brings the argument into a meaningful perspective. (Cannot be used if conclusion is used for the thesis point.)

Subtotal 2 Points

TOTAL 9 Points

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Write in the box the number of the question you are answering on this page as it is designated in the exam.

A) Around the Dawn of the First Millennium, the Han and Roman attitudes toward technology were both self-glorifying. However, the Han Empire in China placed more value upon technology and technological enhancements than did the Roman Empire, as evidenced by the consent concern on the part of the Han dynasty over the excessive and indifference on the part of the Romans.

Before beginning it must be stated that every single document provided is written by somebody in the upper class, giving no insight into how the lower classes or peasants felt about technology. This provides a very limited viewpoint into the different attitudes as the upper class was not the majority. Plus, there are no documents from women, leaving the reader to guess what women felt about technology they used, how it helped them, or was all technology geared toward helping men in those patriarchal societies? A document from either of these sources would provide great insight into the attitudes toward technology in each nation.

The Han’s view of technology was predominantly self-glorifying, with good reason as the Chinese invented everything from paper to acupuncture. The Han’s seemed to feel that technology was about helping the people. As demonstrated in the letter in Dec 1, the first goal of technology is to ward off disasters. In this case a flood. This demonstrates a concern for the people, or at least the property given the impression that technology is there to aid the Chinese. This impression is increased by the obvious concern shown by Huan Guan in the second document, where he writes about the problems he
Part A

Write in the box the number of the question you are answering on this page as it is designated in the exam.

The Han’s concern for effectiveness if shows some probable correctness to the extent the water power helped the peasant and writer. Document 4 contains, even amplifies, the self-glorying as it sings the praises of Tu Shih. However, this document questions the government sponsored around the same time the Han lost their Mandate of Heaven of course it glorifies the technology introduced under the Han; they need everyone to still support them.

The Roman attitude, on the other hand, shows little to no concern to how the common man will benefit from technology. Cicero calls craftsmen "vulgar" (Doc. 5). This shows no respect and a lack toward any inventions they may invent, the Roman upper class doesn’t care. Seneca reports the sentiment as the minds who invented hammer and tongs were "not great or elevated." (Doc. 7). The Romans view toward technology in one of "if it doesn’t directly benefit the upper class it doesn’t matter." This may explain the lack of great inventions under the Roman Empire. Plutarch shows some appreciation toward technology in his bestiating how the Roman Roads are laid out with obvious pride. But he points out things like "stones on either side of the road at lesser intervals so that it would be easier for..."
those who had horses to mount them." (Doc 6). This is a bit of
technology that will do absolutely no good toward the common
man, only to those who are wealthy enough to afford a horse to ride.
Indeed, the only document where the Romans show concern to tech-
that will benefit commoners is in Doc 8, where Frontinus goes
on and on about the Roman aqueducts, declaring them better than
the pyramids. Can anyone say "egalitarian monarch?" However this
pragmatic view of the aqueducts came from a water commissioner
for the city of Rome. Of course he points the aqueducts as the biggest
they have ever seen. His job is to bring water to Rome, which his
income depends on the aqueducts being maintained. If he
said the aqueducts were bad, he'd probably lose his job, so his opinions
are at best questionable.

What these documents show however is not so much the
different views of the Huns and Romans toward technology, but rather
their different views toward commoners toward the poor and unfortunate
in their kingdom. The Huns demonstrate having glimpses of compassion;
the Romans show naught but cold indifference. Which begs the
question: "Was it truly the "Gladiators" Roman Empire?"
While both the Romans and the Hans appreciated the use of technology towards the improvements of water regulation, the Romans concentrated more intently on mathematical and scientific advancements, looking down upon the laboring tools-related inventions that were appreciated by the Hans. One of the reasons the Romans increased their slave labor force, the intellectuals cared little about making the work easier for the slaves. This led them to focus more on science and math advancements.

The Hans, however, relied heavily on agriculture and although they held a centralized government, a feudalism system held a slight presence. This promoted technological advancements in tools that would increase production.

Documents 4 and 7 can be grouped together because they both depict the appreciation the Hans had towards the technology used to make agricultural tools. Document 2, through a request to allow for personal manufacturing of tools, shows how valuable these
are to the workers. Document 2 is written with a bias perspective towards the workers mentioned. This is evident by the comparison of tools (where the workers' are described as "excellent", and the state regulated tools are said to be "crude and not functional"), as well as the appeal that the author tries to gain for the workers in the pity-toned closing statement of the document. Document 4 clearly states that the agricultural technological advancements made by Tu Shih were appreciated by the laborers, providing for more leisure time as well as higher yields. Document 4 can also be viewed as having a slight bias, however, in contrast to Document 2, its bias is towards the government, namely the governor Tu Shih. This bias is evident because the source is sponsored by the government, and consequently only good things will be said about Tu Shih's accomplishments. This provided doubt as to how much the Han people really appreciated the technology.
used to make advancements with agricultural tools.

Documents 5, 7, and 8 are all similar because they give examples of the Romans viewing labor, as well as technology promoting labor through tools, etc., as degrading. Document 5 describes skilled work as more virtuous than labor, which shows the importance of intellectual studies during the Roman Empire. Document 7 also describes the craft-oriented occupations as those of lesser intelligence and importance. This document also questions the intelligence level of the inventor of tools which promote such crafts. Document 8, which shows the technological advancements in the fields of architecture of aqueducts and chemistry or sediment concentrations, clearly states its superiority to the monuments of craft made by the Egyptians or Greeks. The fact that the author is a general already shows that there will be animosity towards the Greeks and Egyptians, for they did not get along.
Furthermore, the description of the works of the others as “idle” and “useless” shows bias towards the Romans. This does question if the aqueducts are truly as magnificent as the authors describes.

Although the Han and Roman elites had different views on what areas the technology was better used for, Documents 1 and 8 are similar because they both show that each empire promoted the use of technology towards the improvement of water regulation. Document 1 shows the request for flood prevention offices, proving that the Hans were aware of that ability and did have the knowledge to regulate water. Document 8, in its description of the Roman aqueducts, also shows their knowledge on the subject. Both societies appreciated and promoted technology, as stated in Documents 1 and 3. Document 6 describes the intricate roadways built with measured road mites, while Document 3 expressed that technology builds upon past inventions, making ordinary tools
better and better.

Additional documents from a laborer's point of view would be helpful on the account of the Hans or Romans, because every document is written by elites or government officials. Also, a woman's point of view on a document would help represent whether or not household tools were invented to help women with their jobs. Both the Han and Roman societies had a clear appreciation for technological advancements. Despite the difference in areas where the technological attention was focused.
The classical civilizations of Han China and Rome had very differently defined views as it came to technology. While Han China saw technology as necessary to economic life, Romans saw technology as unnecessary and no substitute for hard work and manual labor. The documents entail that it is technology that kept Han China's productivity and efficiency high. They also show a Roman pattern of dislike for technology in favor of a stronger work ethic and larger table system. It is these views of technology that will also indicate the decline of these civilizations.

Documents 1 and 8 show the how Han China and Rome would generally solve similar situations. China's solution is to first look for the quickest, most efficient way to solve the problem without much labor (Doc 1). Rome does not seem to have any. The Roman solution is not clear, however Romans use more than what was sufficient for regular pressure (Doc 8). They do not actually solve the problem of the over abundance of water but merely find ways to use it. There is no indication of bias in Document 1 simply because of the author's position as an official, he would generally try to solve a problem rather than exaggerate one. However, the author of Document 8 is in a position to hide the truth of the "success" of his aqueducts because of his position as a water commissioner. An additional document from
the officials in response to the author of Doc 1 would be helpful in determining better the Chinese value of technology. Also, a document from a Roman citizen enjoying the "pleasure" of excess water would be helpful in determining the validity of the remissioneer's claims.

Documents 2 and 5 show each society's use of technology. In China, the quality of the tools is crucial for productivity and economic stimulation (Doc 2). However, in Rome, the dependence on productivity seems to be on the laborers (Doc 5). Rather than advance in technology, Romans would rather increase the labor force (given the slave population at the time, it was undoubtedly easier). As in Document 1, there is no indication of bias because of the author of Document 2's position as a government official; however, a document detailing reasons for government monopolization would be helpful in determining the Chinese value of technology. The position of Cicero's position as an upperclassman would make it much easier for him to simply acquire more labor leaving questioning to the validity of his claims. A document from a slave laborer detailing how to increase productivity would be helpful in getting the general Roman outlook.

Documents 4 and 6 give a picture on
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How each society's view on technology resulted in each society's productivity? China glorifies those who make work easier so that they are able to get more done (Doc. 4). But Document 6 shows that Roman perfection took a long time to make and was not the efficient or productive. There is a possibility of bias in Doc. 4; because the history is sponsored by the government, the general trend would be to glorify an emperor, not to mention that glorification of an emperor was a promotion of Buddhism. An additional document from some of the "common people" would be helpful in determining Doc. 4's validity. Documents 3 and 7 are written by philosophers of each society and show their take on technology. The Chinese seem to find technology of great benefit. Consequently, they are always seeking technological innovation (Doc. 2). However, Seneca, author of Doc. 7, finds technology useless and goes as far as to say that those who make it are not wise. Because of the fact that there are two sets of philosophers, these are only opinions. Additional documents from philosophers of both societies would be helpful in determining each society's general view of technology.

Both China and Rome sought perfection within their societies but had very different methods.
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of achieving it, China's solution was technology. Rome's solution was an increase in labor which might explain the empire's fall in 467 CE. However, method each decided to use was indicative of how societies ran.
Question 1—Document-Based Question

Overview

As with previous document-based questions, students were required to answer the prompt using their analyses of a preselected set of documents. The prompt was straightforward and asked students to write an essay regarding Han and Roman attitudes toward technology based on their analyses of eight documents. The eight documents, four from Han China and four from Rome, were written by upper-class males and reflect little diversity in social opinion or class within their societies. In addition to showing the societies’ attitudes toward technology, students were to demonstrate their understanding of the documents by grouping them and analyzing the authors’ points of view. Finally, in order to provide evidence that they understood the broader context presented by the question, students were to identify an additional type of document and explain how it would help illustrate the attitudes of the Han and/or Romans toward technology.

Sample: 1A
Score: 8

The essay has a clear thesis in the introduction that correctly characterizes the attitudes toward technology for each empire (1 point). The student addresses all eight documents and demonstrates an understanding of each (1 point). Evidence of Han and Roman attitudes toward technology is drawn out of all eight documents, specifically addressing the question (2 points). The essay analyzes point of view in two documents (4 and 8), calling into question the validity of the documents because of the authors’ status or occupation (1 point). The student groups the documents in two ways: the Han view of technology as “self-glorifying” and “about helping the people” (Documents 1, 2, 3, and 4), and the Roman view as less positive, without concern for the common people (Documents 5, 6, 7, and 8) (1 point). Two additional types of documents are suggested in the second paragraph, with the student receiving 1 point for the discussion of the need for documents from women. The essay received all 7 basic core points, plus an additional point for including relevant information beyond the documents (the Han dynasty’s loss of the “Mandate of Heaven”) to analyze Document 4, for a final score of 8.

Sample: 1B
Score: 5

The thesis for this essay is in the conclusion that states the similarity in Han and Roman appreciation for new technology but notes their differences in areas in which the technology was used (1 point). The student addresses and understands the meaning of all eight documents (1 point). Support is drawn from Documents 2, 4, 5, 7, and 8, but not from 1, 3, and 6, and thus the essay received no points for evidence. Point of view is analyzed in Document 2 (weakly) by discussing the document’s tone; in Document 4 by considering the government’s view of Tu Shih; and in Document 8 by discussing a general’s probable view of the Egyptians and Greeks (1 point). The student groups the documents in four ways: Han “appreciation” for technology (Documents 2 and 4); the Roman view of technology as “degrading” (Documents 5, 7, and 8); similar promotion of water technology (Documents 1 and 8); and similar appreciation for technology in general (Documents 3 and 6) (1 point). The student identifies two additional documents in the conclusion, receiving a point for noting the usefulness of adding a document with a woman’s perspective (1 point). The final score was 5.
Sample: 1C
Score: 3

The essay has a thesis in the introduction, but the student incorrectly interprets the Roman view (“Romans saw technology as unneeded”) and thus received no credit. The student correctly addresses and understands Documents 1, 2, 3, 4, 5, and 8, but misinterprets Documents 6 and 7, so received no points for understanding the documents. Support is drawn only from Document 3; therefore the essay received no points for evidence. Point of view is analyzed in Documents 8 and 4 (1 point). The essay presents four groupings: solving problems (Documents 1 and 8); “use of technology” (Documents 2 and 5); “productivity” (Documents 4 and 5); and views of philosophers on technology (Documents 3 and 7) (1 point). At the end of the second paragraph, the student identifies the need for an additional document from an official responding to Document 1 in order to assess the Han attitude toward technology more accurately (1 point). The final score was 3.