

AP[®] English Language and Composition Exam

SECTION II: Free Response

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Instructions

The questions for Section II are printed in this booklet. You may use this booklet to organize your answers and for scratch work, but you must write your answers on the lined pages provided for each question.

The proctor will announce the beginning and end of the reading period. You are advised to spend the 15-minute period reading Question 1, analyzing and evaluating the sources, and planning your answer. You may read the other essay questions at this time. You may begin writing your response before the reading period is over.

Section II of this exam requires answers in essay form. Each essay will be judged on its clarity and effectiveness in dealing with the assigned topic and on the quality of the writing. Quality is far more important than quantity. You should check your essays for accuracy of punctuation, spelling, and diction; you are advised, however, not to attempt many longer corrections.

Write clearly and legibly. Number each answer as the question is numbered in the exam. Begin each answer on a new page. Do not skip lines. Cross out any errors you make; crossed-out work will not be scored.

Manage your time carefully. You may proceed freely from one question to the next. You may review your responses if you finish before the end of the exam is announced.

At a Glance

Total Time

2 hours and 15 minutes

Number of Questions

3

Percent of Total Score

55%

Writing Instrument

Pen with black or dark blue ink

Reading Period**Time**

15 minutes. Use this time to read the question and plan your answer to Question 1, the synthesis question. You may begin writing your response before the reading period is over.

Writing Period**Time**

2 hours

Suggested Time

40 minutes per question

Weight

The questions are weighted equally.

ENGLISH LANGUAGE AND COMPOSITION

SECTION II

Total time—2 hours and 15 minutes

3 Questions

Question 1

Suggested reading and writing time—55 minutes

It is suggested that you spend 15 minutes reading the question, analyzing and evaluating the sources, and 40 minutes writing your response.

Note: You may begin writing your response before the reading period is over.

(This question counts as one-third of the total essay section score.)

Space exploration has historically been led by government programs with public funding, but in 2004 the United States legalized privatized space travel. Since then private industries have been investigating ways to make exploring space both affordable and profitable. Critics of privatized space exploration believe that the costs of space travel are too prohibitive to be worthwhile for the general public.

Carefully read the following six sources, including the introductory information for each source.

Write an essay that synthesizes material from at least three of the sources and develops your position on the extent to which privatizing space exploration is beneficial.

Source A (McCarthy testimony)

Source B (Schwartz article)

Source C (Pappalardo book excerpt)

Source D (table from Federal Aviation Administration)

Source E (cartoon from Toos)

Source F (Al-Rodhan editorial)

In your response you should do the following:

- Respond to the prompt with a thesis that presents a defensible position.
- Select and use evidence from at least three of the provided sources to support your line of reasoning. Indicate clearly the sources used through direct quotation, paraphrase, or summary. Sources may be cited as Source A, Source B, etc., or by using the description in parentheses.
- Explain how the evidence supports your line of reasoning.
- Use appropriate grammar and punctuation in communicating your argument.

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

Source A

McCarthy, Kevin. "Commercial Space: Hearing Before the Subcommittee on Space, Committee on Science, Space, and Technology." 20 Nov. 2013, www.govinfo.gov/content/pkg/CHRG-113hhrg86894/pdf/CHRG-113hhrg86894.pdf.

The following is excerpted from the testimony of a United States representative during a congressional hearing.

America is built on a strong heritage of exploration, discovery, and innovation. From President Thomas Jefferson's commissioning of the Lewis and Clark Expedition to exploring the American West, to the Transcontinental Railway linking east and west together, to the public-private partnership that helped the airline industry grow to become a safe mode of travel all over the world, to the internet, which has generated as much economic growth in 15 years as the Industrial Revolution did in 50.

Space, like the internet before the dot-com boom of the 1990s, was originally a government-run enterprise. Many believe that the commercial spaceflight is poised to have its own dot-com moment in the near future. NASA's Commercial Crew and Cargo program alone has already created thousands of high-quality jobs here in America, including many at the NASA Dryden Flight Research Center, which I represent. My district is also home to Mojave Air and Space Port where many commercial spaceflight companies have located to research, develop, and test their hardware that will soon take Americans back to space.

This is why I support the commercial spaceflight industry: the creation of thousands of good paying jobs on U.S. soil and the continuation of America's legacy in space exploration and innovative technologies. Think about this: Over the last 50 years, about 500 humans have been to space. With the commercial space market, the number could double over the next ten years with the government only serving as a customer. The next U.S. astronauts to fly to space on American rockets will do so because of this new model.

The use of innovative public-private partnerships offers the government new ways of solving problems. A study shows these partnerships benefit the taxpayer, by providing space services at nearly 1/10 the cost of traditional contracting methods, getting results for less money, getting innovation, growth, and risk-sharing in the private sector. As NASA leads continued exploration missions and related technology development, entrepreneurs will follow, spending their own money and creating new industries.

However, it is up to us as legislators to ensure our current regulatory environment is appropriate for the needs of the 21st Century and to make sure safety is paramount in the commercial spaceflight industry's endeavors. This is why I introduced H.R. 3038 to ensure that the U.S. commercial spaceflight industry has a clear path ahead as it continues to innovate and generate high-quality American manufacturing jobs. A robust commercial space industry will also help attract students to the STEM fields of education by inspiring the next generation to literally reach for the stars.

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

Source B

Schwartz, John. "Thrillionaires: The New Space Capitalists." *The New York Times*, 14 June 2005, www.nytimes.com/2005/06/14/science/space/thrillionaires-the-new-space-capitalists.html.

The following is excerpted from a newspaper article about space entrepreneurship.

[Paul G.] Allen, who became a co-founder of Microsoft, is responsible for SpaceShipOne, the pint-size manned rocket that won the \$10 million Ansari X Prize competition last year as the first privately financed craft to fly to the cusp of space—nearly 70 miles up.

Mr. Allen is not the designer; that is Burt Rutan, the legendary aeronautical engineer with the sideburns that look like sweeping air scoops. He is not one of the test pilots who made the competition-winning flights; they are Michael Melvill and Brian Binnie. Mr. Allen is, instead, the one who gets little glory but without whom nothing is possible—he is the guy who signs the checks. And he did what the rich do: he hired good people.

The SpaceShipOne flight made him the best-known member of a growing club of high-tech thrillionaires, including the Amazon founder Jeff Bezos, who find themselves with money enough to fulfill their childhood fascination with space. Rick N. Tumlinson, co-founder of the Space Frontier Foundation, a group that promotes public access to space, said the effort had become a geeky status symbol. "It's not good enough to have a Gulfstream V," he said. "Now you've got to have a rocket."

Many self-professed "space geeks" say the possibility that entrepreneurs like Richard Branson of the Virgin Group may help regular people see the black sky—well, regular rich people, at least—has drawn away much of the excitement that government-financed human space efforts long enjoyed.

"It's completely shifted," said Charles Lurio, a space consultant with an interest in private efforts that goes way beyond ardent. "This is where the action is, not at NASA."

The new generation of deep-pockets space entrepreneurs includes Mr. Bezos, who founded Blue Origin, in Washington State, and quietly announced this year that he had bought 165,000 acres of land in West Texas as a base for his eventual launching operations.

Elon Musk, the founder of PayPal, created the rocket company SpaceX, and John Carmack, the creator of computer games like Doom and Quake, has been testing rocket designs through his company, Armadillo Aerospace near Dallas.

The engine for Mr. Allen's craft was developed by SpaceDev, a company formed as a second act by another computer entrepreneur turned space man, Jim Benson. And Larry Page, a co-founder of Google, recently joined the board of the X Prize Foundation.

The rise of the space money men is a unique moment in history, said Dr. Peter H. Diamandis, a co-founder of the X Prize. "There is sufficient wealth controlled by individuals to start serious space efforts," he said.

What's more, they are frustrated, he went on, adding: "The dreams and expectations that Apollo launched for all these entrepreneurs have failed to materialize. And in fact, those who look into it realize that the cost of going into space has gone up and the reliability has, effectively, gone down."

For Mr. Allen, 52, SpaceShipOne was no set-it-and-forget-it bauble of a project. It was an expression of a lifelong passion, he said, a "love of science and technology, and what can be done with engineering."

From The New York Times. © 2019 The New York Times. All rights reserved. Used under license.

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

Source C

Pappalardo, Joe. *Spaceport Earth: The Reinvention of Spaceflight*. Abrams Press, 2017.

The following is excerpted from a book about advances in spaceflight.

SpaceX's footprint at Cape Canaveral is getting larger. The company is planning a new launch control center, the details of which became public in the form of an environmental review. The first renders resemble a giant water tower with the curves of a Martian vehicle from *The War of the Worlds*, standing as high as three hundred feet over Kennedy Space Center. SpaceX calls it "a very uniquely shaped building with limited windows" and adds that, "mitigation to reduce bird collisions will be addressed in the final design."

Why does it have to be so big? "The launch and landing control center would be of sufficient size to host a data center; firing room; engineering room; control center for Falcon 9, Falcon Heavy and Dragon; customer control center; temporary customer offices; and indoor and outdoor meeting space," the company says in the environmental impact report.

SpaceX's expansion at Kennedy anticipates a ferocious satellite launch schedule. "There are over 70 missions on its manifest from commercial and government customers in the U.S. and countries around the world, representing more than \$10 billion under contract," SpaceX says in the report.

SpaceX plans on building a 133,000-square-foot hangar to handle these customers. "With plans to refurbish and reuse Falcon vehicles to support manifest rate, an additional vehicle processing and storage facility is required," the report says.

Fitting the company's sense of its place in history, SpaceX company is reserving an area to serve as a "rocket garden" to display its retired, trailblazing spacecraft to visitors. There's a similar such garden at Kennedy Space Center's visitor's center, which tells you something about the place SpaceX sees itself in aerospace history.

This is not just hubris. Musk and SpaceX have changed the trajectory of spaceflight, not just in the United States but across the world. The increase in launch competition and drop in launch prices is called the "SpaceX effect" for good reason. And the company is poised to keep going, using the profits from paying customers to create even more ambitious rockets and spacecraft meant to carry people.

In 2019 the company will launch astronauts to the International Space Station, proving its human-rated Dragon capsule is ready for customer rental. What the company does with a crew-rated capsule will be sure to capture headlines, and already has.

In fall 2018, SpaceX announces the identity of the first private passenger it intends to shoot into space: Japanese billionaire Yusaku Maezawa. The passenger comes on stage to reveal that he will fund a trip around the moon and will take six others with him as part of a global art project in 2023. "I choose to go to the moon," Maezawa says during the announcement. "With artists!"

This isn't a stunt, this is a customer. The whole point of the private space movement is that anyone could pay for a ticket for any reason. The old idea that space is reserved for stern-faced scientists and military pilots—and any other flight is silly—is an archaic, vanishing distinction.

SPACEPORT EARTH by Joe Pappalardo. Copyright © 2017, 2019 Joe Pappalardo. Used by permission of Abrams Press, an imprint of Harry N. Abrams, Inc., New York. All rights reserved.

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

Source D

Federal Aviation Administration. *The Annual Compendium of Commercial Space Transportation: 2018*. Jan. 2018, www.faa.gov/about/office_org/headquarters_offices/ast/media/2018_AST_Compndium.pdf.

The following is excerpted from a government report about commercial flights to space. Suborbital reusable vehicles (SRVs) are commercially developed reusable space vehicles that travel just beyond the threshold of space, about 100 km (62 mi) above the Earth.

U.S.-Based Providers of SRVs

Operator	Vehicle	Seats*	Maximum Payload kg (lb)	Price	Announced Operational Year
Blue Origin	<i>New Shepard</i>	6	22.7 (50)**	TBD	2017
Masten Space Systems	Xodiac	N/A	TBD	TBD	2016
UP Aerospace	SpaceLoft XL	N/A	36 (79)	\$350,000 per launch	2006 (actual)
Virgin Galactic	SpaceShipTwo	6 passengers 2 crew	600 (1,323)	\$250,000 per seat	2018
World View	Voyager	6 passengers 2 crew	TBD	\$75,000	2018

* Spaceflight participants only; several vehicles are piloted. ** Net of payload infrastructure

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

Source E

Toos, Andrew. "Their Lowest Cost Vacation Yet." 4 Nov. 2011, www.cartoonstock.com/cartoonview.asp?catref=aton3069.

The following is a cartoon about space tourism.



Their lowest cost vacation yet.

www.CartoonStock.com

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

Source F

Al-Rodhan, Nayef. "The Privatization of Space: When Things Go Wrong." *Center for Security Studies* 14 Aug. 2015, www.gcsp.ch/global-insights/privatization-space-when-things-go-wrong.

The following is excerpted from an editorial by a member of an international security policies think tank.

A few weeks ago, SpaceX's Falcon 9 rocket carrying an unmanned Dragon capsule destined for the International Space Station (ISS) exploded. The explosion was likely caused by a failed strut. In October of last year, Orbital Sciences had a rocket destined for the ISS explode for unrelated reasons, just after they were awarded a \$1.9 billion contract with NASA. In the wake of these incidents, it may be time to assess the implications of private sector involvement in state-sponsored space programs.

Over the past few years, private companies such as SpaceX and Virgin Galactic have been hailed as the new major players in space. Indeed, they are effectively changing how space exploration is conducted and how related technology is developed and implemented. From an operational point of view, private companies are able to implement decisions and fund projects much faster than most governments can.

These companies have been able to complete missions that only governments had been able to previously, and have garnered major contracts with NASA. But although this takes pressure off of governments and introduces a more competitive environment for space-related innovation, outsourcing government projects can lead to complications, or at the very least, a shift in how space exploration is conducted.

The most cited benefit of the shift to private space exploration is cost. These companies must bid for NASA contracts, which lowers the taxpayer cost of these missions, as some research and development R&D costs are absorbed by the company. Governments and private companies also function differently in terms of the different interest groups to whom they are responsible. NASA is beholden to the government and the taxpayer, while private companies must deal with a more complex web of investors/shareholders, the bottom line, and the need to keep a secure contract. Yet with these benefits, there are new challenges that must be addressed; perhaps the greatest of which is "what happens when something goes wrong"? Rocket missions and space travel are inherently difficult and risky; it's only a matter of time before this becomes a bigger issue. . . .

So far, SpaceX has had a practically flawless track record: under contract with NASA, it has already made seven trips to the ISS. NASA has a strong vested interest in these companies, even geopolitically speaking, as they end the Russian monopoly in supplying the ISS. SpaceX plans on sending humans to space in 2017, and NASA has publicly said that this last incident will not hinder that goal.

So far, so good. While these companies remain private, they still have to answer to their investors, and to governments, but otherwise have quite a large amount of freedom. What will happen when they go on the market? Overnight, the company would have to answer to its shareholders and function in a very different dynamic. The bottom line for a company is arguably more intensely scrutinized than where a government is investing its tax dollars. Given the benefits of private space exploration, it would behoove the government to stand behind such companies when things do go wrong.

Used by permission.

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

Question 2

Suggested time—40 minutes

(This question counts as one-third of the total essay section score.)

The United States participation in the Second World War began in 1941 and lasted until the Axis powers surrendered in 1945. During that period, on September 24, 1942, Congresswoman Clare Boothe Luce delivered the following address, “The Role of American Women in Wartime,” to a women’s banking committee. Read the passage carefully. Write an essay that analyzes the rhetorical choices Luce makes to convey her message that women needed to prepare to make more sacrifices as the war effort continued.

In your response you should do the following:

- Respond to the prompt with a thesis that analyzes the writer’s rhetorical choices.
- Select and use evidence to support your line of reasoning.
- Explain how the evidence supports your line of reasoning.
- Demonstrate an understanding of the rhetorical situation.
- Use appropriate grammar and punctuation in communicating your argument.

Par.

- 1 And now I am going to say something which I could only say among us girls. So far in this war we are still the luckiest women in the whole world. For instance we still have lipsticks, and even some silk stockings. And although many of us have gone into uniforms, they are still made of good cloth and are well cut. Sisters, for a lot of us, perhaps too many of us, important though the part we have played in it so far, it is still easy—and I almost said “glamorous” for us. But, believe me, for each of us these are the good old days now, my friends.
- 2 Now we have got to face a great, big fact. We have got to face the fact that the ‘interesting’ part of our participation in this war effort is just about over. There isn’t going to be any glamour in what we have to do from here on in. I realize that for most women there is little that is glamorous in a war, any war. But we have to be frank enough with ourselves to admit that in our effort to help, we have still managed to do a lot of things that are both helpful and, by a remarkable coincidence, attractive. We’ve been able, as we went about our wartime activities, to find time to wonder, as I say, a little about those uniforms. We’ve had time to be disturbed a bit about the freezing of fashion designs, about the lack of silk stockings. Yes, we’ve found time to look a little for glamorous.
- 3 But, from here on in to victory, glamour is out and toughness is in. From here on in to victory, girls, the way

is going to be hard. From here on in, women and men and children, too, for that matter, are going to have to take on the serious task of winning this war. Our president has called this the “toughest war in history” and whether you here tonight class yourself as a political follower of the president or one of his political opponents, you must accept that definition as completely accurate.

- 4 What, then, are we women going to do in the tough days that lie ahead? Well, we’re going to do a lot of the things we are doing right now, but we are going to do them a lot more intensely and, if you will pardon me, a lot more intelligently.
- 5 With our men, we’re going to work and fight for victory. We’re going to submit, but we’re going to understand why we submit to, rules and regulations; we’re going to take, and manage with, more and more rationing. We’re going to have colder homes, different foods, less clothing—we’re going to accept the challenges imposed by these conditions. We’re going to keep our homes and jobs going because we know, being women, what happens if we don’t keep them going.
- 6 The women of the next few years—and please believe that my use of the plural ‘years’ while pessimistic, is honest—the women of the next few crucial years are going to see that their children, those precious treasures for whom we fight, are kept healthy and warm and well fed and well schooled and as happy as possible under

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

conditions which are bound to become less and less favorable and not at all glamorous for anyone from here on in.

7 Yes, ladies, the road ahead is going to be a bumpy one. It is going to be full of ruts and rocks, the ruts of endless, colorless effort, and the rocks of almost insurmountable obstacles. It takes no gifted prophet to foresee this road to victory. A soft war leads to a hard peace. A hard war leads to a happy peace. We must fight a hard war. I think we will not much long kid ourselves that this war can be won by an effort which, though

extremely great, is still a comfortable one. I think we are coming to the grim realization that such dreams of comfort are insidious saboteurs of our war effort.

8 We have got to come to some grim conclusions in the days that lie ahead. We have got to come to the conclusion that it will not be won until we all fight to win it, every minute of every hour of every day, from here on in. We dare not measure our effort by its drain on our comforts; we dare to measure it only by its contribution toward the victory for which we fight.

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

Question 3

Suggested time—40 minutes

(This question counts as one-third of the total essay section score.)

One of the first-year-student orientation initiatives at a local university is to collect incoming students' cell phones and keep them for 48 hours. The purpose of the initiative is to give students an opportunity to integrate into their new school culture and make friends on campus. Carefully consider the effects of this initiative and the extent to which they might support, complicate, or contradict its intended goals.

Write an essay that argues your position on the advisability of the 48-hour cell phone ban.

In your response you should do the following:

- Respond to the prompt with a thesis that presents a defensible position.
- Provide evidence to support your line of reasoning.
- Explain how the evidence supports your line of reasoning.
- Use appropriate grammar and punctuation in communicating your argument.

GO ON TO THE NEXT PAGE.

Unauthorized copying or reuse of any part of this is illegal.

**STOP
END OF EXAM**

**THE FOLLOWING INSTRUCTIONS APPLY TO THE COVERS OF THE SECTION II BOOKLET.
MAKE SURE YOU HAVE DONE THE FOLLOWING:**

- **COMPLETED THE IDENTIFICATION INFORMATION AS REQUESTED ON THE FRONT AND BACK COVERS OF THE SECTION II BOOKLET**
- **CHECKED THAT YOUR AP ID LABEL IS IN THE BOX ON THE FRONT COVER**