

## Test 4

Archimedes writes: “For you have known that the universe is called a sphere by several astrologers, its center the center of the earth, and its radius equal to a line drawn from the center of the sun to the center of the earth. This was written for the unlearned, as you have known from the astrologers. . . . [Aristarchus of Samos] concludes that the world is many times greater than the estimate we have just given. He supposes that the fixed stars and the sun remain motionless, but that the earth following a circular course, revolves around the sun as a center, and that the sphere of the fixed stars having the same sun as a center, is so vast that the circle which he supposes the earth to follow in revolving holds the same ratio to the distance of the fixed stars as the center of a sphere holds to its circumference.” These ancient philosophers realized in some degree the immensity of the universe in which the earth was but a point. They held that the earth was an unsupported sphere the size of which Eratosthenes (c. 276-194 B.C.) had calculated approximately. They knew the sun was far larger than the earth, and Cicero with other thinkers recognized the insignificance of earthly affairs in the face of such cosmic immensity. They knew too about the seven planets, had studied their orbits, and worked out astronomical ways of measuring the passage of time with a fair amount of accuracy. Hipparchus and other thinkers had discovered the fact of the precession of the equinoxes, though there was no adequate theory to account for it until Copernicus formulated his “motion of declination.” The Pythagoreans accepted the idea of the earth’s turning upon its axis, and some even held the idea of its revolution around the motionless sun. Others suggested that comets had orbits which they uniformly followed and therefore their reappearance could be anticipated. Why then was the heliocentric theory not definitely accepted? In the first place, such a theory was contrary to the supposed facts of daily existence. A man did not have to be trained in the schools to observe that the earth seemed stable under his feet and that each morning the sun swept from the east to set at night in the west. Sometimes it rose more to the north or to the south than at other times. How could that be explained if the sun were stationary? Study of the stars was valuable for navigators and for surveyors,

perhaps, but such disturbing theories should not be propounded by philosophers. Cleanthes, according to Plutarch, “advised that the Greeks ought to have prosecuted Aristarchus the Samian for blasphemy against religion, as shaking the very foundations of the world, because this man endeavoring to save appearances, supposed that the heavens remained immovable and that the earth moved through an oblique circle, at the same time turning about its own axis.” Few would care to face their fellows as blasphemers and impious thinkers on behalf of an unsupported theory. Eighteen hundred years later Galileo would not do so, even though in his day the theory was by no means unsupported by observation. Furthermore, one of the weaknesses of the Greek civilization militated strongly against the acceptance of this hypothesis so contrary to the evidence of the senses. Experimentation and the development of applied science was practically an impossibility where the existence of slaves made manual labor degrading and shameful. Men might reason indefinitely; but few, if any, were willing to try to improve the instruments of observation or to test their observations by experiments. At the same time another astronomical theory was developing which was an adequate explanation for the phenomena observed up to that time. This theory of epicycles and eccentrics worked out by Apollonius of Perga (c. 225 B.C.) and by Hipparchus (c. 160 B.C.) and crystallized for posterity in Ptolemy’s great treatise on astronomy, the *Almagest*, (c. 140 A.D.) became the fundamental principle of the science until within the last three hundred years. The theory of the eccentric was based on the idea that heavenly bodies following circular orbits revolved around a center that did not coincide with that of the observer on the earth. That would explain why the sun appeared sometimes nearer the earth and sometimes farther away. The epicycle represented the heavenly body as moving along the circumference of one circle (called the epicycle) the center of which moves on another circle (the deferent). With better observations additional epicycles and eccentric were used to represent the newly observed phenomena till in the later Middle Ages the universe became a “—Sphere with Centric and Eccentric scribbled o’er, Cycle and Epicycle, Orb in Orb”—

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## Answer Keys

1

According to the passage, which of the following exemplifies **earthly affairs**?

- A) the size of the earth
- B) the distance between the earth and the Sun
- C) the orbit of the earth
- D) **the revolution of the earth around the sun**

**The best answer is (D).**

Any affair is an action, not an object. And the author is talking about “orbit”. The only action from these four choices is (D).

2

In context, which of the following most clearly shows the author’s intention for mentioning **daily existence**?

- A) to show that it is impossible to verify whether it is valid or not
- B) **to imply that sometimes, it cannot be used as a basis for theorization.**
- C) to indicate that experiencing it can be a very subjective
- D) to explain that, in most cases, without it, theorization is impossible, especially in the realm of science

**The best answer is (B).**

“Daily existence” or daily experience might not be a valid basis for a corresponding theorization (“**such a theory was contrary to the supposed facts of daily existence**”). In other words, what you see is not what you get.

3

According to the passage, which of the following is NOT a direct obstacle to fully accepting the heliocentric theory?

- A) **the theory of epicycles**
- B) the observations of a navigator on a vessel at sea
- C) everyday experience
- D) religion

**The best answer is (A).**

The theory of epicycles cannot be a direct obstacle because it was only “**another astronomical theory**” that was “**developing which was an adequate explanation for the phenomena observed up to that time.**”

(B), (C); Refer to the explanation for the answer to the previous question.

(D); Religion was probably the greatest obstacle (“advised that the Greeks ought to have prosecuted Aristarchus the Samian for blasphemy against religion, as shaking the very foundations of the world, because this man endeavoring to save appearances, supposed that the heavens remained immovable and that the earth moved through an oblique circle.”)

4

Which of the following provides the best evidence for the answer to the previous question?

- A) “such a theory was contrary to the supposed facts of daily existence.” (Lines 41-42)
- B) **“At the same time another astronomical theory was developing” (Lines 72-74)**
- C) “seemed stable under his feet” (Line 44)
- D) “Sometimes it rose more to the north or to the south than at other times.” (Lines 46-47)

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**The best answer is (B).**

Refer to the explanation for the answer to the previous question.

5

In context, why was using applied science almost out of the question?

- A) Performing the procedures necessary in the applied science was regarded as shameful.
- B) Philosophers did not have the instruments necessary to conduct accurate scientific experiments.
- C) Slaves could not work in the field of science.
- D) Getting involved in applied science was considered blasphemous.

**The best answer is (A).**

This is almost exactly stated in the passage (“the development of applied science was practically an impossibility **where the existence of slaves made manual labor degrading and shameful.**”)

(B); A lack of suitable instruments was not the point.  
(C); There was nothing that prevented slaves from working in applied science.  
(D); Not everything “degrading and shameful” is blasphemous.

6

Which of the following provides the most direct evidence for the answer to the previous question?

- A) “Few would care to face their fellows as blasphemers” (Lines 58-59)
- B) **“an adequate explanation for the phenomena observed up to that time.” (Lines 74-75)**
- C) “on behalf of an unsupported theory.” (Lines 59-60)

- D) “where the existence of slaves made manual labor degrading and shameful.” (Lines 68-69)

**The best answer is (B).**

Refer to the explanation for the answer to the previous question.

7

Why does the author probably mention **within the last three hundred years**?

- A) A major breakthrough must have occurred around that time.
- B) **There must have been some reason why the Almagest could no longer serve as a fundamental basis for a meaningful theory.**
- C) Something happened to the idea of eccentric theory so that it was no longer dependable.
- D) Heliocentric theorists couldn’t defend themselves against blasphemous criticism.

**The best answer is (B).**

According to the passage, what is known is only that the theory of epicycles was accepted “until within the last three hundred years” and nothing more; anything other than that is all **WRONG INFERENCE** ((A), (C), (D)).

8

Which of the following would be the best way to comprehend the connection between the heliocentric and the eccentric theory?

- A) They were compatible with each other to a certain degree.
- B) They could have worked in harmony with each other in that one could have taken care of the other’s weaknesses.
- C) **Although both were related to the concept of a center, they were referring to different**

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centers.

- D) They were both correct, but they were applied in the wrong manner.

**The best answer is (C).**

The center in heliocentric theory is the sun, whereas the center in eccentric theory is “based on the idea that heavenly bodies following circular orbits revolved around a center that did not coincide with that of the observer on the earth.”

9

As used in line 78, “crystallized” most nearly means

- A) solidified  
B) concentrated  
C) clarified  
D) clear to understand

**The best answer is (D).**

We need to look at the flow of the context; A theory (“This theory of epicycles and eccentrics”) was crystallized for the next generation (people) (“posterity”).

(A), (B); The context is not related to any chemical reaction.

(C); There is no indication in the passage that the theory was confusing, at least in the centuries after it was formulated.

10

According to the passage, what would be the correct attitude of a modern astronomer toward the Almagest?

- A) absolutely inspiring  
B) mostly suspicious  
C) somewhat correct

- D) extremely doubtful

**The best answer is (C).**

For centuries after it was formulated it worked adequately well (“became the fundamental principle of the science until within the last three hundred years”), and it did explain some of the heavenly phenomena in question. (“That would explain why the sun appeared sometimes nearer the earth and sometimes farther away”)

(A), (B), (D); “became the fundamental principle of the science until within the last three hundred years.”

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He has **dissolved** Representative Houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused for a long time, after such  
5 dissolutions, to cause others to be elected; whereby the Legislative powers, incapable of Annihilation, have returned to the People at large for their exercise; the **State** remaining in the mean time exposed to all the dangers of invasion from

10 without, and convulsions within.

He has endeavoured to prevent the population of these States; for that purpose obstructing the Laws for Naturalization of Foreigners; refusing to pass others to encourage their migrations hither,  
15 and raising the conditions of new Appropriations of Lands.

He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary powers.

20 He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of New Offices, and sent hither swarms of Officers to harrass our  
25 people, and eat out their **substance**.

He has kept among us, in times of peace, Standing Armies without the Consent of our legislatures.

He has affected to render the Military  
30 independent of and superior to the Civil power.

He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws; giving his Assent to their Acts of pretended Legislation:

35 For Quartering large bodies of armed troops among us:

For protecting them, by a mock Trial, from punishment for any Murders which they should commit on the Inhabitants of these States:

40 For cutting off our Trade with all parts of the world:

For imposing Taxes on us without our Consent:

For depriving us in many cases, of the benefits  
45 of Trial by Jury:

For transporting us beyond Seas to be tried for pretended offences

For abolishing the free System of English

Laws in a neighbouring Province, establishing  
50 therein an Arbitrary government, and enlarging its Boundaries so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies:

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As used in line 1, “dissolved” most nearly means

- A) divided
- B) solved
- C) annihilated
- D) destroyed

**The best answer is (D).**

We need to know what The English King (“He”) would have done to the Colonial “Representative Houses repeatedly.”

- (A); contextually awkward
- (B); contextually impossible
- (C); too strong a magnitude

12

What can be said about Representative Houses?

- A) They resisted the power of the King but only in moderation.
- B) They could not resist as strongly as they had wanted to.
- C) They defied the King’s interference with determination.
- D) They tried to make a compromise.

**The best answer is (C).**

Representative Houses defied (“opposing”) King’s interference (“his invasions on the rights of the people.”) with determination (“with manly firmness”).

- (A), (B), (D); “opposing...with manly firmness”

13

Why is State mentioned in the passage?

- A) to show how the King perceives his power over it.
- B) to imply the importance of the absence of Representative Houses
- C) to speculate on the impact of the King’s enterprise against the population of the States
- D) to predict the future of the States without Representative Houses

**The best answer is (B).**

The passage says the English King (“he”) “has refused for a long time, after such dissolutions, to cause others to be elected” so “the state” means the state without “Representative Houses.”

(A), (C); Neither of these implies that the State has no Representative Houses

(D); The State refers to the current State without Representative Houses, not to a future expectation.

14

Which of the following provides the best evidence for the answer to the previous question?

- A) “Annihilation” (Line 6)
- B) “convulsions” (Line 10)
- C) “manly firmness” (Line 2)
- D) “at large” (Line 7)

**The best answer is (B).**

(B) is the only choice that shows what happens without Representative Houses.

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Which of the following is NOT what the King did to hamper a certain social phenomenon?

- A) hindered immigration
- B) created some new restrictions
- C) inhibited some legal institutions
- D) created a general sense of injustice

**The best answer is (D).**

The rest of the choices are all clearly mentioned in the passage.

(D); TOO BROAD to be from the passage

(A): “refusing to pass others to encourage their migrations hither”

(B): “raising the conditions of new Appropriations of Lands.”

(C): “to prevent the population of these States”, “obstructing the Laws for Naturalization of Foreigners”

16

Which of the following is the best interpretation of what the King did to obstruct the justice system of the States?

- A) What he did was intentional from the beginning.
- B) His actions were not limited to a specific aspect of the system.
- C) Controlling the general population was his top priority.
- D) Manipulating judges’ incomes was the most effective measure he took to accomplish his goal.

**The best answer is (B).**

The author is talking about many ways that the English king is obstructing colonial justice system. (“He has dissolved Representative Houses

repeatedly,” “He has endeavoured to prevent the population of these States”, “He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary powers”, “He has kept among us, in times of peace, Standing Armies without the Consent of our legislatures.”, “He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws”, “For depriving us in many cases, of the benefits of Trial by Jury:”)

(A); Whether or not the King’s actions were intentional cannot be inferred from this passage alone: WRONG INFERENCE

(C), (D): TOO NARROW

17

Which of the following is what the author means by substance?

- A) privacy
- B) freedom
- C) economy
- D) history

**The best answer is (B).**

According to the passage, the English King was “eating out” what American people had. (“substance”) Whatever American people had at the time must be stated or implied in the passage; possibilities are freedom, peace, Representative Houses, a justice system and so on. (B) is the only possibility based on this reasoning.

18

According to the passage, what can be said about the military created by the King?

- A) It derived its power from the ordinary citizens.
- B) Its power surpasses that of citizens by a huge



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margin.

- C) The citizenry was probably not involved in establishing it.
- D) It was an obstacle to the conduct of normal civil life.

**The best answer is (C).**

The English king created a military that had no relationship with the citizens. ("He has affected to render the Military independent of and superior to the Civil power.")

(A), (D); Because (C) is the answer, these choices cannot be the answer.

(B); Its power obviously surpassed that of the citizens ("superior"); how large the margin of superiority was cannot be inferred from this passage alone: WRONG INFERENCE

19

The author describes King's attitude regarding the military as.

- A) hostile
- B) aggressive
- C) arrogant
- D) agitated

**The best answer is (C).**

The king arrogantly ("affected") made the Military "independent of and superior to the Civil power."

The only choice to reflect the King's "affected" behavior is (C).

20

Which of the following is the best evidence for the answer to the previous question?

- A) "affected" (Line 20)
- B) "render" (Line 20)
- C) "independent" (Line 21)
- D) "superior" (Line 21)

**The best answer is (A).**

Refer to the explanation for the answer to the previous question.



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Finally, to those nations who would make themselves our adversary, we offer not a pledge but a request: that both sides begin anew the quest for peace, before the dark powers of destruction  
5 unleashed by science engulf all humanity in planned or accidental self-destruction.

We dare not tempt them with weakness. For  
10 only when our arms are sufficient beyond doubt can we be certain beyond doubt that they will never be employed.

But neither can two great and powerful groups  
of nations take comfort from our present course—both sides overburdened by the cost of modern weapons, both rightly alarmed by the steady spread  
15 of the deadly atom, yet both racing to alter that uncertain balance of terror that stays the hand of mankind's final war.

So let us begin anew—remembering on both sides that civility is not a sign of weakness, and  
20 sincerity is always subject to proof. Let us never negotiate out of fear. But let us never fear to negotiate.

Let both sides explore what problems unite us instead of belaboring those problems which divide  
25 us.

Let both sides, for the first time, formulate serious and precise proposals for the inspection and control of arms—and bring the absolute power to destroy other nations under the absolute control of  
30 all nations.

Let both sides seek to invoke the wonders of science instead of its terrors. Together let us explore the stars, conquer the deserts, eradicate disease, tap the ocean depths, and encourage the arts and  
35 commerce.

Let both sides unite to heed in all corners of the earth the command of Isaiah—to “undo the heavy burdens . . . [and] let the oppressed go free.”

And if a beachhead of cooperation may push  
40 back the jungle of suspicion, let both sides join in creating a new endeavor, not a new balance of power, but a new world of law, where the strong are just and the weak secure and the peace preserved.

45 All this will not be finished in the first one hundred days. Nor will it be finished in the first one thousand days, nor in the life of this administration, nor even perhaps in our lifetime

on this planet. But let us begin.

50 In your hands, my fellow citizens, more than mine, will rest the final success or failure of our course. Since this country was founded each generation of Americans has been summoned to give testimony to its national loyalty. The graves of  
55 young Americans who answered the call to service surround the globe.

Now the trumpet summons us again—not as a call to bear arms, though arms we need—not as a call to battle, though embattled we are—but a  
60 call to bear the burden of a long twilight struggle, year in and year out, “rejoicing in hope, patient in tribulation”—a struggle against the common enemies of man: tyranny, poverty, disease, and war itself.

65 Can we forge against these enemies a grand and global alliance, North and South, East and West, that can assure a more fruitful life for all mankind? Will you join in that historic effort?

In the long history of the world, only a few  
70 generations have been granted the role of defending freedom in its hour of maximum danger. I do not shrink from this responsibility—I welcome it. I do not believe that any of us would exchange places with any other people or any other generation. The  
75 energy, the faith, the devotion which we bring to this endeavor will light our country and all who serve it—and the glow from that fire can truly light the world.

And so, my fellow Americans: ask not what  
80 your country can do for you—ask what you can do for your country.

My fellow citizens of the world: ask not what America will do for you, but what together we can do for the freedom of man.

85 Finally, whether you are citizens of America or citizens of the world, ask of us here the same high standards of strength and sacrifice which we ask of you. With a good conscience our only sure reward, with history the final judge of our deeds, let us go  
90 forth to lead the land we love, asking His blessing and His help, but knowing that here on earth God's work must truly be our own.

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What is the author's attitude toward negotiations related to the control of deadly weapons?

- A) Beyond doubt he is totally against them.
- B) Everything depends on certain conditions being met in advance.
- C) He welcomes them wholeheartedly, but with certain conditions.
- D) He is not fearful of them for his own unique reasons.

**The best answer is (C).**

The author welcomes such negotiations throughout the passage ("a request: that both sides begin anew the quest for peace", "never negotiate out of fear. But let us never fear to negotiate", "let both sides join in creating a new endeavor, not a new balance of power, but a new world of law", "Can we forge against these enemies a grand and global alliance, North and South, East and West, that can assure a more fruitful life for all mankind? Will you join in that historic effort?"), but he sets certain general conditions. ("never ... out of fear")

(A); Since the author states his enthusiastic support for such negotiations at several points in the passage, this choice is absurd.

(B); As explained for (C), even though the author is a little cautious about negotiating, he does not indicate that his willingness to negotiate depends on some preset conditions.

(D); It is true that the author is not fearful about negotiating ("Let us never negotiate out of fear. But let us never fear to negotiate"), but this is not due to any unique or personal reasons.

22

According to the passage, what is the role of science in the author's argument?

- A) It is an obstacle that stands in the way of negotiating controls on weapons.
- B) It provides a unique opportunity to start peace talks and negotiations on arms control.
- C) It is something that must be balanced for the sake of world peace.
- D) It is a field in which many positive advances can be made.

**The best answer is (D).**

The author knows that science played a leading role creating deadly weapons ("before the dark powers of destruction unleashed by science engulf all humanity in planned or accidental self-destruction."), so the author obviously believes that science has some negative aspects, but that does not mean it is an obstacle (A) or something that needs to be balanced (C), and many positive advances are possible in science. ("Let both sides seek to invoke the wonders of science instead of its terrors. Together let us explore the stars, conquer the deserts, eradicate disease, tap the ocean depths, and encourage the arts and commerce.")

(B); POSITIVE

(C); The concept of balance in the field of science is very vague and cannot be inferred from the passage.

23

Why does the author want to deal with deadly weapons from a position of confidence?

- A) because the author is afraid of them
- B) because war would be inevitable without it
- C) because dealing with them without it would be too expensive
- D) because dealing with them without it might

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be uncomfortable

**The answer is (B).**

The author believes it is necessary to deal with deadly weapons from a position of strength (“We dare not tempt them with weakness”) because (“For”) war would be inevitable (“can we be certain ... that they will never be employed.”) without it (=confidence). (“only when our arms are sufficient beyond doubt”)

(A); The author doesn’t want to deal with them from a position of “weakness”.

(C); The author doesn’t want to use the weapons (“can we be certain ... that they will never be employed.”). Money is irrelevant.

(D); “That they will never be employed.” has nothing to do with comfort.

24

Which of the following is the most direct evidence for the answer to the previous question?

- A) “But neither can two great and powerful groups of nations take comfort from our present course” (Lines 11-12)
- B) “Let both sides unite to heed in all corners of the earth the command of Isaiah—to “undo the heavy burdens . . . [and] let the oppressed go free.” (Lines 36-38)
- C) “the strong are just and the weak secure and the peace preserved.” (Lines 42-44)
- D) “For only when our arms are sufficient beyond doubt can we be certain beyond doubt that they will never be employed.” (Lines 7-10)

**The best answer is (D).**

Refer to the explanation for the answer to the previous question.

25

In the context of the passage what is the most probable role of beachhead?

- A) extreme criticism
- B) genuine hope
- C) irony
- D) playfulness

**The best answer is (C).**

Since the author needs the cooperation of the two sides, America and the Soviet Union, the beachhead is something very good and important, but in context it can create a jungle of suspicion.

(A), (B), (D); None of these can show the duality explained in (C).

26

According to the passage, what is the most significant difference between “a new balance of power” and “a new world of law”? (Lines 41-42)

- A) Combining the two is a solution to many of the world’s problems.
- B) Only one of the two can guarantee what the author is aiming for.
- C) The former might be a by-product of the old world.
- D) One of them might not be easy to achieve because of the jungle of suspicion.

**The best answer is (B).**

The author wants “not a new balance of power, but a new world of law” because only the latter can provide an opportunity for the author to achieve his goals. (“where the strong are just and the weak secure and the peace preserved.”)

(A); The author clearly states “not a new balance of power, but a new world of law.”

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(C); The author made a distinction between “a new balance of power” and “a new world of law” not between “a new balance of power” and any old balance of power.  
(D); According to the passage, the jungle of suspicion has nothing to do with whether or not either of the two is hard to achieve.

In context, what does **the first one hundred days** signify?

- A) a period of time during the author’s administration
- B) the first half of the duration of any significant change
- C) a period shorter than one thousand days
- D) **a relatively short period of time**

**The best answer is (D).**

The author’s attitude is to take time (“patient in tribulation”); he does not want the audience, Americans, to be in a hurry or impatient.

(A); As explained for (D), the point is to be patient; it is not about the author’s time in power: **WRONG PERSPECTIVE.**

(B); As explained for (D), the point is to be patient; it is not about any change: **WRONG PERSPECTIVE.**

(C); As explained for (D), the point is to be patient; it is not about comparing specific lengths of time: **WRONG PERSPECTIVE.**

28

Why did the author say “**more than mine**” (Lines 50-51)?

- A) **because what the author wants to accomplish is not a job for one person**
- B) because the author knows he is not strong enough to do the job required
- C) because the author needs the collaboration of his fellow citizens
- D) because the achievement of the author’s goal do not depend on just old Americans

**The best answer is (A).**

The author needs more than one person (“each generation of Americans has been summoned to give testimony to its national loyalty.”) to achieve his stated goals.

(B); It is not clear why the author mentions “each generation”, whether he needs ‘the strength of the generation’ or not.

(C); This is a tricky choice because normally if we need a generation to do anything, it will be because we need some form of collaboration among the generations of people, but the author gave no clue about this collaboration. This is a typical case of taking advantage of wrong **COMMON SENSE.**

(D); Whether the “generation” is old or new is not the point: **WRONG PERSPECTIVE.**

29

Which of the following is the best evidence for the answer to the previous question?

- A) “The graves of young Americans who answered the call to service surround the globe.” (Lines 54-56)
- B) “a beachhead of cooperation may push back the jungle of suspicion,” (Lines 39-40)
- C) **“Since this country was founded each generation of Americans has been summoned**

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- to give testimony to its national loyalty.”  
(Lines 52-54)
- D) “nor in the life of this administration, nor even perhaps in our lifetime on this planet. But let us begin.” (Lines 47-49)

**The best answer is (C).**

Refer to the explanation for the answer to the previous question.

30

Which of the following is the main goal of the passage?

- A) to achieve world peace in order to maintain civilization as it is
- B) to encourage a certain group of people to become part of an attempt to maintain something of consequence
- C) to defend freedom around the world at all cost
- D) to secure world peace by using only peaceful means

**The best answer is (B).**

The goal of the passage is to maintain freedom and peace (“My fellow citizens of the world: ask not what America will do for you, but what together we can do for the freedom of man.”, “in creating a new endeavor, not a new balance of power, but a new world of law, where the strong are just and the weak secure and the peace preserved.”) by encouraging two sides, America and the Soviet Union, (“both sides”) to cooperate.

- (A); According to the passage, world peace is the main goal as explained in (B), but not because we need to maintain civilization as it is.
- (C); Freedom is to be defended, but not at all cost.
- (D); World Peace is to be secured, but not only using peaceful means.

31

Which of the following is the best evidence for the answer to the previous question?

- A) “only a few generations have been granted the role of defending freedom in its hour of maximum danger.” (Lines 69-71)
- B) “My fellow citizens of the world: ask not what America will do for you, but what together we can do for the freedom of man.” (Lines 82-84)
- C) “knowing that here on earth God’s work must truly be our own.” (Lines 91-92)
- D) “Let us never negotiate out of fear. But let us never fear to negotiate.” (Lines 20-22)

**The best answer is (B).**

Refer to the explanation for the answer to the previous question.

## Test 4

## Answer Keys

## Explanations

As everybody knows nowadays, the knowledge we possess of life before the beginnings of human memory and tradition is derived from the markings and fossils of living things in the stratified rocks, 5 We find preserved in shale and slate, limestone, and sandstone, bones, shells, fibres, stems, fruits, footmarks, scratchings and the like, side by side with the ripple marks of the earliest tides and the pittings of the earliest rain-falls. It is by the 10 **sedulous** examination of this Record of the Rocks that the past history of the earth's life has been pieced together. That much nearly everybody knows to-day. The sedimentary rocks do not lie neatly stratum above stratum; they have been 15 crumpled, bent, thrust about, distorted and mixed together like the leaves of a library that has been repeatedly looted and burnt, and it is only as a result of many devoted lifetimes of work that the record has been put into order and read. The whole 20 compass of time represented by the record of the rocks is now estimated as 1,600,000,000 years. The earliest rocks in the record are called by geologists the Azoic rocks, because they show no traces of life. Great areas of these Azoic rocks lie uncovered 25 in North America, and they are of such a thickness that geologists consider that they represent a period of at least half of the 1,600,000,000 which they assign to the whole geological record. Let me repeat this profoundly significant fact. Half the 30 great interval of time since land and sea were first distinguishable on earth has left us no traces of life. There are rippings and rain marks still to be found in these rocks, but no marks nor **vestiges** of any living thing. Then, as we come up the record, signs 35 of past life appear and increase. The age of the world's history in which we find these past traces is called by geologists the Lower Palæozoic age. The first indications that life was astir are vestiges of comparatively simple and lowly things: the shells 40 of small shellfish, the stems and flowerlike heads of zoophytes, seaweeds and the tracks and remains of sea worms and crustacea. Very early appear certain creatures rather like plant-lice, crawling creatures which could roll themselves up into balls as the 45 plant-lice do, the trilobites. Later by a few million years or so come certain sea scorpions, more mobile and powerful creatures than the world had ever seen before. None of these creatures were of very great size. Among the largest were certain of

50 the sea scorpions, which measured nine feet in length. There are no signs whatever of land life of any sort, plant or animal; there are no fishes nor any vertebrated creatures in this part of the record. Essentially all the plants and creatures which have 55 left us their traces from this period of the earth's history are shallow-water and intertidal beings. If we wished to parallel the flora and fauna of the Lower Palæozoic rocks on the earth today, we should do it best, except in the matter of size, by 60 taking a drop of water from a rock pool or scummy ditch and examining it under a microscope. The little crustacea, the small shellfish, the zoophytes and algæ we should find there would display a quite striking resemblance to these clumsier, larger 65 prototypes that once were the crown of life upon our planet. It is well, however, to bear in mind that the Lower Palæozoic rocks probably do not give us anything at all representative of the first beginnings of life on our planet. Unless a creature has bones 70 or other hard parts, unless it wears a shell or is big enough and heavy enough to make characteristic footprints and trails in mud, it is unlikely to leave any fossilized traces of its existence behind. Today there are hundreds of thousands of species of small 75 soft-bodied creatures in our world which it is inconceivable can ever leave any mark for future geologists to discover. In the world's past, millions of millions of species of such creatures may have lived and multiplied and flourished and passed 80 away without a trace remaining. The waters of the warm and shallow lakes and seas of the so-called Azoic period may have teemed with an infinite variety of lowly, jelly-like, shell-less and boneless creatures, and a multitude of green scummy plants 85 may have spread over the sunlit intertidal rocks and beaches. The Record of the Rocks is no more a complete record of life in the past than the books of a bank are a record of the existence of everybody in the neighbourhood. It is only when a species 90 begins to secrete a shell or a spicule or a carapace or a lime-supported stem, and so put by something for the future, that it goes upon the Record. But in rocks of an age prior to those which bear any fossil traces, graphite, a form of uncombined 95 carbon, is sometimes found, and some authorities consider that it may have been separated out from combination through the vital activities of unknown living things.



## Test 4

32

What could be the best title of the passage?

- A) The varieties of life on earth
- B) Fossils as the primary source for tracing the history of life on earth
- C) Life on earth
- D) Evolution of life on earth

**The best answer is (C).**

The author is talking about how we know about past life (“the knowledge we possess of life before the beginnings of human memory and tradition is derived from the markings and fossils of living things in the stratified rocks”), the origin of the markings of life (“The first indications that life was astir are vestiges of comparatively simple and lowly things: the shells of small shellfish, the stems and flowerlike heads of zoophytes, seaweeds and the tracks and remains of sea worms and crustacea.”), and some speculation about certain aspects of early life.

(A): a typical case of TOO NARROW

(B): Fossils are constantly used as a source of information, but there is no evidence that they are the primary source.

(D): a typical case of TOO NARROW

33

As used in line 10, “sedulous” most nearly means

- A) cautious
- B) meticulous
- C) diligent
- D) analytical

**The best answer is (C).**

“and it is only as a result of many devoted lifetimes of work that the record has been put into order and read.” So we are looking for something that is

compatible with “many devoted lifetimes of work”, but we simply don’t have that in our choices. In other words, no contextual approach is possible in this case.

34

According to the passage, which of the following is true about the traces left by past life forms?

- A) They are haphazard all through the history of the earth.
- B) They continue to be discovered and at an increasing rate.
- C) They seem to be concentrated in a certain time period.
- D) They are very accurate indications of how long ago life came into being on Earth.

**The best answer is (C).**

There was no sign of life for a while (“Half the great interval of time since land and sea were first distinguishable on earth has left us no traces of life...no marks nor vestiges of any living thing”), but at a certain point, evidence of life appeared and it became limited to a period. (“Then, as we come up the record, signs of past life appear and increase. The age of the world’s history in which we find these past traces is called by geologists the Lower Palæozoic age.”)

35

Which choice gives the best evidence for the answer to the previous question?

- A) “As everybody knows nowadays, the knowledge we possess of life before the beginnings of human memory and tradition is derived from the markings and fossils of living things in the stratified rocks,” (Lines 1-4)
- B) “Very early appear certain creatures rather



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## Answer Keys

like plant-lice, crawling creatures which could roll themselves up into balls as the plant-lice do, the trilobites.” (Lines 42-45)

- C) “Then, as we come up the record, signs of past life appear and increase.” (Lines 34-35)
- D) “The age of the world’s history in which we find these past traces is called by geologists the Lower Palæozoic age.” (Lines 35-37)

**The best answer is (D).**

Refer to the explanation for the answer to the previous question.

36

As used in line 33, “**vestiges**” most nearly means

- A) image
- B) amount
- C) number
- D) **trace**

**The best answer is (D).**

All we have to do is read a couple of sentences before the word in question. “Half the great interval of time since land and sea were first distinguishable on earth has left us no traces of life. There are ripples and rain marks still to be found in these rocks, but no marks nor **vestiges** of any living thing” If we carefully compare the two sentences, we can tell that no traces of life mean the same as “nor vestiges of any living thing”.

37

According to the passage, what can be learned from shells of small shellfish?

- A) that life on Earth has existed for a very long time.
- B) **that fossils are the first sign of life on Earth**

- C) that fossils are very useful
- D) that there are a wide varieties of fossils

**The best answer is (B).**

“The first indications that life was astir are vestiges of comparatively simple and lowly things: the shells of small shellfish” Thus, shells of small shellfish worked as the first sign (“indication”) of life activities. (“life was astir”)

(A); No matter how long life may have existed on Earth, “first indication” gives no indication of how long life has existed.

(C); No matter how useful the fossils of small shellfish might be, “first indication” cannot tell us anything about the usefulness of these fossils.

(D); The fossils of small shellfish were not compared with those of any other species.

38

Which choice gives the best evidence for the answer to the previous question?

- A) **“The first indications that life was astir are vestiges of comparatively simple and lowly things:” (Lines 37-39)**
- B) “We find preserved in shale and slate, limestone, and sandstone, bones, shells, fibres, stems, fruits, footmarks, scratchings and the like,” (Lines 5-7)
- C) “it wears a shell or is big enough and heavy enough to make characteristic footprints and trails in mud,” (Lines 70-72)
- D) “The little crustacea, the small shellfish, the zoophytes and algæ we should find there would display a quite striking resemblance to these clumsier,” (Lines 61-64)

**The best answer is (A).**

Refer to the explanation for the answer to the previous question.

## Explanations

## Test 4

39

Which of the following might be the best interpretation of the author's attitude?

- A) authoritative
- B) mainly speculative
- C) detached
- D) emotional

**The best answer is (A).**

The evidence for this is scattered throughout the passage. "Essentially all the plants and creatures which have left us their traces from this period of the earth's history are shallow-water and intertidal beings." The author makes this argument as if it needs no additional proof and as if the reader already understands the points being made; the author is maintaining a "Don't question me" attitude.

"As everybody knows nowadays, the knowledge we possess of life before the beginnings of human memory and tradition is derived from the markings and fossils of living things in the stratified rocks" "That much nearly everybody knows to-day." By saying "everybody", the author ensures that it is not possible to debate the argument.)

40

Which choice gives the best evidence for the answer to the previous question?

- A) "We find preserved in shale and slate, limestone, and sandstone, bones, shells, fibres, stems, fruits," (Lines 5-7)
- B) "There are rippings and rain marks still to be found in these rocks, but no marks nor vestiges of any living thing." (Lines 32-34)
- C) "The first indications that life was astir are vestiges of comparatively simple and lowly things:" (Lines 37-39)
- D) "Essentially all the plants and creatures which have left us their traces from this period of

the earth's history are shallow-water and intertidal beings." (Lines 54-56)

**The best answer is (D).**

Refer to the explanation for the answer to the previous question.

41

What is the general organization of the passage?

- A) presenting a misconception followed by a number of examples to be refuted later in the passage
- B) proving a general statement by supporting it with a fair amount of elaboration and providing an interesting conclusion
- C) proposing a theory supported by a substantial amount of detail which eventually leads to a new topic
- D) supplying unclear information to be clarified by facts as the passage progresses

**The best answer is (B).**

At the very beginning of the passage, the author makes a general statement ("As everybody knows nowadays, the knowledge we possess of life before the beginnings of human memory and tradition is derived from the markings and fossils of living things in the stratified rocks,"), and then talks in detail about the various kinds of fossils. ("We find preserved in shale and slate, limestone, and sandstone, bones, shells, fibres, stems, fruits, footmarks, scratchings and the like, side by side with the ripple marks of the earliest tides and the pittings of the earliest rain-falls") The author then makes a few other arguments, but throughout the passage sticks mostly to elaborating on the main point. ("they have been crumpled, bent, thrust about, distorted and mixed together like the leaves of a library", "The whole compass of time represented by the record of the rocks is now estimated as 1,600,000,000 years", "the shells of small shellfish, the stems and flowerlike heads of

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zoophytes, seaweeds and the tracks and remains of sea worms and crustacea", "The little crustacea, the small shellfish, the zoophytes and algæ we should find there would display a quite striking resemblance to these clumsier, larger prototypes that once were the crown of life upon our planet", "The waters of the warm and shallow lakes and seas of the so-called Azoic period may have teemed with an infinite variety of lowly, jelly-like, shell-less and boneless creatures, and a multitude of green scummy plants may have spread over the sunlit intertidal rocks and beaches.")

The history of European civilization is the history of a certain political institution which united and expressed Europe, and was governed from Rome. This institution was informed at its  
5 very origin by the growing influence of a certain definite and organized religion: this religion it ultimately accepted and, finally, was merged in. The institution— having accepted the religion, having made of that religion its official expression,  
10 and having breathed that religion in through every part until it became the spirit of the whole— was slowly modified, spiritually illumined and physically degraded by age. But it did not die. It was revived by the religion which had become its  
15 new soul. It re-rose and still lives. This institution was first known among men as Republica; we call it today "The Roman Empire." The Religion which informed and saved it was then called, still is called, and will always be called "The Catholic Church." Europe is the Church, and the Church  
20 is Europe. It is immaterial to the historical value of this historical truth whether it be presented to a man who utterly rejects Catholic dogma or to a man who believes everything the Church may teach. A man remote in distance, in time,  
25 or in mental state from the thing we are about to examine would perceive the reality of this truth just as clearly as would a man who was steeped in its spirit from within and who formed an  
30 intimate part of Christian Europe. The Oriental pagan, the contemporary atheist, some supposed student in some remote future, reading history in some place from which the Catholic Faith shall have utterly departed, and to which the habits  
35 and traditions of our civilization will therefore be wholly alien, would each, in proportion to his science, grasp as clearly as it is grasped today by the Catholic student who is of European birth, the truth that Europe and the Catholic Church  
40 were and are one thing. The only people who do not grasp it (or do not admit it) are those writers of history whose special, local, and temporary business it is to oppose the Catholic Church, or who have a traditional bias against it. These men  
45 are numerous, they have formed, in the Protestant and other anti-Catholic universities, a whole school of hypothetical and unreal history in which, though the original workers are few, their copyists

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are innumerable: and that school of unreal history  
 50 is still dogmatically taught in the anti-Catholic  
 centres of Europe and of the world. Now our  
 quarrel with this school should be, not that it is  
 anti-Catholic—that concerns another sphere of  
 thought— but that it is **unhistorical**. To neglect the  
 55 truth that the Roman Empire with its institutions  
 and its spirit was the sole origin of European  
 civilization; to forget or to diminish the truth  
 that the Empire accepted in its maturity a certain  
 religion; to conceal the fact that this religion was  
 60 not a vague mood, but a determinate and highly  
 organized corporation; to present in the first  
 centuries some non-existent “Christianity” in place  
 of the existent Church; to suggest that the Faith  
 was a vague agreement among individual holders  
 65 of opinions instead of what it historically was, the  
 doctrine of a fixed authoritative institution; to fail  
 to identify that institution with the institution still  
 here today and still called the Catholic Church;  
 to exaggerate the insignificant barbaric influences  
 70 which came from outside the Empire and did  
 nothing to modify its spirit; to pretend that the  
 Empire or its religion have at any time ceased to  
 be— that is, to pretend that there has ever been  
 a solution of continuity between the past and the  
 75 present of Europe— all these pretensions are parts  
 of one historical falsehood. In all by which we  
 Europeans differ from the rest of mankind there is  
 nothing which was not originally peculiar to the  
 Roman Empire, or is not demonstrably derived  
 80 from something peculiar to it.

42

What would be the best title of the passage?

- A) Religion in Europe
- B) The significance of the Roman Empire in the history of Europe
- C) Several factors necessary for processing the history of Europe and Roman Empire
- D) History, religion and the Roman Empire in Europe

**The best answer is (B).**

The passage is about the Roman Empire so (A) is out. Since from the first sentence another focus of the passage is history (“The history of European civilization is the history of a certain political institution which united and expressed Europe, and was governed from Rome”, “It is **immaterial** to the historical value of this historical truth whether it be presented to a man who utterly rejects Catholic dogma or to a man who believes everything the Church may teach”), so (D) is a case of TOO BROAD.

As shown in “**Europe is the Church, and the Church is Europe. It is immaterial to the historical value of this historical truth whether it be presented to a man who utterly rejects Catholic dogma or to a man who believes everything the Church may teach.**” this passage is about “the historical value of this historical truth”. Also, this historical truth is directly related to Catholic Church and this church is closely related to the Roman Empire. (“The Religion which informed and saved it (=“Roman Empire”) was then called, still is called, and will always be called “The Catholic Church.”)

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## Answer Keys

43

According to the passage, what is the connection between the Church and the Roman Empire in Europe?

- A) They were intertwined with each other so strongly that they dictated every major aspect of European history.
- B) One of them was inconceivable without the other.
- C) The Church survived in Europe with the help of Roman Empire.
- D) The Roman Empire had a strong faith in the Catholic Church.

**The best answer is (B).**

That "It was revived by the religion which had become its new soul." shows how closely the Roman Empire and the Catholic Church were related.

- (A); The perspective of the Roman Empire is missing.
- (C); 'Survived' alone does not suggest a strong relationship in keeping with "revived" and "new soul".
- (D); This needs further elaboration, and that elaboration is (B).

44

Which of the following provides the best evidence for the answer to the previous question?

- A) "Europe is the Church, and the Church is Europe." (Lines 20-21)
- B) "It was revived by the religion which had become its new soul." (Lines 13-15) its new soul." (Lines 13-15)
- C) "The Religion which informed and saved it was then called, still is called, and will always be called "The Catholic Church." (Lines 17-19)

- D) "But it did not die." (Line 13)

**The best answer is (B).**

Refer to the explanation for the answer to the previous question.

45

As used in line 21, "immaterial" most nearly means

- A) spiritual
- B) metaphysical
- C) unsubstantial
- D) priceless

**The best answer is (C).**

The author claims that two totally different kinds of men could not help but see "this truth" ("a man who utterly rejects Catholic dogma") ("A man remote in distance, in time, or in mental state from the thing we are about to examine") "would perceive the reality of this truth just as clearly as would" "a man who was steeped in its spirit from within and who formed an intimate part of Christian Europe" ("a man who believes everything the Church may teach."); there is no difference at all. Both would "clearly" see that "Europe is the Church, and the Church is Europe".

- (A); an obvious eye-catcher: dictionary meaning
- (B), (D); Neither of these can mean 'meaningless' or 'nothing'.

46

In talking about the historical value of the true connection between Europe and Church, why were two very different men mentioned?

- A) to illustrate how people's opinions might differ depending on their historical era
- B) to create an extreme contrast
- C) to emphasize the universal importance of the

## Explanations

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historical value

- D) to show the difference between the genuine historical value and people's perception of it

**The best answer is (C).**

This question is an extension of the two previous questions. The author uses these two men to demonstrate that “this truth” is not dependent on one's background or point of view. (“A man remote in distance, in time, or in mental state from the thing we are about to examine would perceive the reality of this truth just as clearly as would a man who was steeped in its spirit from within and who formed an intimate part of Christian Europe.”); in other words, the author is saying that every (rational) person will accept the truth.

47

As used in line 54, “unhistorical” most nearly means

- A) not historically organized
- B) not famous
- C) false
- D) not imaginative

**The best answer is (C).**

We need to find the clues which indicate what the author means by unhistorical: “a traditional bias”, “a whole school of hypothetical and unreal history”. The closest choice will be wrong or false.

(A), (B), (D); None of these can be understood as wrong or false.

48

How does the author view those who deny that the Roman Empire with its institutions and its spirit was the sole origin of European civilization?

- A) immature
- B) liars
- C) vague
- D) not authoritative

**The best answer is (B).**

This question is also an extension from the previous question; those with unhistorical views are those who do not accept “this truth” and anybody who contradicts the truth and gives ‘false’ information is a liar. (“those writers of history whose special, local, and temporary business it is to oppose the Catholic Church, or who have a traditional bias against it. These men are numerous, they have formed, in the Protestant and other anti-Catholic universities, a whole school of hypothetical and unreal history”, “to neglect the truth that the Roman Empire with its institutions and its spirit was the sole origin of European civilization”)

49

Which of the following provides the best evidence for the answer to the previous question?

- A) “neglect the truth” “diminish the truth” “conceal the fact” (Lines 54-59)
- B) “the Empire accepted in its maturity a certain religion;” (Lines 58-59)
- C) “pretend that there has ever been a solution of continuity between the past and the present of Europe” (Lines 73-75)
- D) “a determinate and highly organized corporation” (Lines 60-61)

**The best answer is (A).**

Refer to the explanation for the answer to the

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## Answer Keys

previous question.

50

In context, which of the following could work against the author by using the same strategy employed by the author?

- A) “a traditional bias against it” (Line 44)
- B) “in proportion to his science” (Lines 36-37)
- C) “that school of unreal history is still dogmatically taught” (Lines 49-50)
- D) “the Catholic Faith shall have utterly departed” (Lines 33-34)

**The best answer is (A).**

The author claims that those who have opinions that are not in keeping with those set out in the passage are biased, but those who oppose the author can claim that it is the author who is biased; this is possible because the author failed to provide any evidence for the bias supposedly present in others.

51

Which of the following could be the best interpretation of the author’s attitude?

- A) perceptive
- B) qualified
- C) authoritative
- D) scientific

**The best answer is (C).**

The author criticizes those who do not accept “this truth” without providing any reason why this criticism is justified. Thus, the author is very subjective, and not analytical at all.

## Explanations