

DIRECTIONS for questions 1 to 6: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Immortality has gone secular. It's now the subject of serious investment - both intellectual and financial - by philosophers, scientists and the Silicon Valley. But if we treat death as a problem, what are the ethical implications of the highly speculative 'solutions' being mooted?

Of course, we don't currently have the means of achieving human immortality, nor is it clear that we ever will. But two hypothetical options have attracted the most attention: rejuvenation technology, and mind uploading.

Rejuvenation promises to remove and reverse the damage of ageing at the cellular level. Gerontologists argue that growing old is a disease that we can circumvent by having our cells replaced or repaired at regular intervals. Practically speaking, this might mean that every few years, you would visit a rejuvenation clinic. Doctors would not only remove infected, cancerous or otherwise unhealthy cells, but also induce healthy ones to regenerate more effectively and remove accumulated waste products. This deep makeover would 'turn back the clock' on your body, leaving you physiologically younger than your actual age. You would, however, remain just as vulnerable to death from acute trauma - that is, from injury and poisoning, whether accidental or not - as you were before.

The other option would be mind uploading, in which your brain is digitally scanned and copied onto a computer. This method presupposes that consciousness is akin to software running on some kind of organic hard-disk - that what makes you 'you' is the sum total of the information stored in the brain's operations, and therefore it should be possible to migrate the self onto a different physical substrate or platform. This remains a highly controversial stance. However, let's leave aside for now the question of where 'you' really reside, and play with the idea that it might be possible to replicate the brain in digital form one day.

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What if the whole process is so qualitatively different from biological existence as to make you utterly terrified or even catatonic? If so, what if you can't communicate to outsiders or switch yourself off? In this case, your immortality would amount to more of a curse than a blessing. Death might not be so bad after all, but unfortunately it might no longer be an option.

Which option is more ethically fraught? In our view, 'mere' rejuvenation would probably be a less problematic choice. Yes, vanquishing death for the entire human species would greatly exacerbate our existing problems of overpopulation and inequality - but the problems would at least be reasonably familiar. We can be pretty certain, for instance, that rejuvenation would widen the gap between the rich and poor, and would eventually force us to make decisive calls about resource use, whether to limit the rate of growth of the population, and so forth. On the other hand, mind uploading would open up a plethora of completely new and unfamiliar ethical quandaries.

Q1. The mind-uploading technique depends on the fundamental premise that

- a) the summation of a person is the software that makes the person who he/she is.
- b) it is possible to mimic the brain in digital form someday.
- c) **consciousness is like software in that it can be stored and migrated.** Your answer is correct
- d) it is impossible to understand where the real 'you' resides.

Time spent / Accuracy Analysis

Time taken by you to answer this question	209
Avg. time spent on this question by all students	339
Difficulty Level	D
Avg. time spent on this question by students who got this question right	328
% of students who attempted this question	55.48
% of students who got the question right of those who attempted	72.05

[Video Solution](#)

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 602

Option A: The summation of a person (the sum total) or the information stored in the brain's operations is what makes 'you' you. But mind-uploading doesn't work on this premise for two reasons – it is not software. Software is an analogy to explain the consciousness, an example provided. Secondly, the option circles around itself. Consider the two parts: summation of a person – makes the person who he/she is. This is stating the obvious. Or rather the definition of 'summation of a person'. Hence, Option A is not the answer.

Option B: The mind-uploading technology is based on the premise that if the brain can be mimicked and stored, it is possible to achieve immortality. But, the technique itself doesn't rely on the fundamental premise that 'it is possible someday'. We understand this from the sentence: 'Of course, we don't currently have the means of achieving human immortality, nor is it clear that we ever will.' Hence, Option B is not the answer.

Option C: From 'This method presupposes that consciousness is akin to software running on some kind of organic hard-disk – that what makes you 'you' is the sum total of the information stored in the brain's operations and therefore it should be possible to migrate the self onto a different physical substrate or platform' we can understand that mind-uploading theory depends on looking at consciousness as akin (similar) to software that can be migrated. Hence, Option C is an important premise for mind-uploading. Option C is the answer.

Option D: From 'that what makes you 'you' is the sum total of the information stored in the brain's operations, and therefore it should be possible to migrate the self onto a different physical substrate or platform' we can understand that if it were impossible to understand where the real 'you' resides, mind-uploading wouldn't even be considered as a possibility. Hence, Option D is not the answer.

Choice (C)

undefined

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Q2. The rejuvenation method of achieving immortality is based on the understanding that

- a) old age is a disease that is beyond curing.
- b) **unhealthy or cancerous cells accelerate the process of ageing.** Your answer is incorrect
- c) **senility can be evaded by replacing and repairing unhealthy cells.**
- d) removal of unhealthy cells is a feasible way of reversing old age.

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	134
Avg. time spent on this question by all students	101
Difficulty Level	M
Avg. time spent on this question by students who got this question right	99
% of students who attempted this question	55.37
% of students who got the question right of those who attempted	55.51

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Number of words and Explanatory notes for RC:

Number of words: 602

The key to the question is understanding why the author thinks rejuvenation is a future possibility – future, and not present.

Option A: If old age is a disease beyond curing, it would negate the rejuvenation technology which claims to be a possible way of curing old age. 'Beyond something' means not possible using that method. Hence, Option A cannot be a premise for rejuvenation technology.

Option B: This option is the reverse argument. While senility can be avoided by replacing or repairing unhealthy cells according to a hypothesis, we cannot extrapolate it to infer that unhealthy or cancerous cells accelerate the aging process. Hence, Option B is not the answer.

Option C: Consider the sentence: 'Gerontologists argue that growing old is a disease that we can circumvent by having our cells replaced or repaired at regular intervals'. Option C says we can avoid senility by replacing and repairing unhealthy cells which is the premise of rejuvenation technology. If it is possible to replace or repair the cells, which we cannot be sure of, it is possible to avoid senility. Option C tells you when rejuvenation technology will work (since it is mentioned clearly that it just a hypothesis). Option C is therefore, the answer.

Option D: We are not told whether 'removal of unhealthy cells is feasible' and the whole technology is still a hypothesis. Hence, Option D is not the answer.

Choice (C)

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Q3. The author feels that the rejuvenation method is a less problematic choice because

- a) rejuvenation would lead to ethical dilemmas which wouldn't be as unfamiliar as those of mind-uploading.
- Your answer is correct**
- b) mind-uploading is a more unfamiliar ethical quandary than rejuvenation is.
 - c) unlike rejuvenation, mind-uploading could actually offer something tantalisingly close to immortality.
 - d) it will force us to take strong decisions on proper use of resources.

Time spent / Accuracy Analysis

Time taken by you to answer this question	340
Avg. time spent on this question by all students	114
Difficulty Level	D
Avg. time spent on this question by students who got this question right	110
% of students who attempted this question	54.28

Time spent / Accuracy Analysis

% of students who got the question right of those who attempted

42.45

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Number of words and Explanatory notes for RC:

Number of words: 602

We are looking for an option that tells us why, even though it is a problem, we can handle it, unlike mind-uploading which comes with unfamiliar ethical quandaries (dilemmas/ difficult choices).

Option A: Consider the sentences: 'In our view, 'mere' rejuvenation would probably be a less problematic choice. Yes, vanquishing death for the entire human species would greatly exacerbate our existing problems of overpopulation and inequality – but the problems would at least be reasonably familiar.' From the underlined portion, we can understand that the author thinks rejuvenation is a less problematic choice, because the problems it leads to are familiar to us. Hence, Option A is the answer.

Option B: While this option seems close, it is a slight misrepresentation of data. Mind-uploading is not an ethical quandary; neither is rejuvenation technology. Each of them could lead to possible ethical quandaries. Hence, Option B is not the answer.

Option C: This option offers something positive about mind-uploading which further deepens the question – 'why then does the author prefer rejuvenation?' We are looking for an argument to the contrary – 'why is rejuvenation less problematic'. Hence, Option C is not the answer.

Option D: This doesn't tell us why rejuvenation technology is a less problematic choice. Forcing us to take some strong decisions has been mentioned as a possible solution to one of the problems (resource-crunch) caused by immortality. It doesn't tell us why rejuvenation in particular is not as troublesome as mind-uploading could be. Hence, Option D is not the answer.

Choice (A)

undefined

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Q4. All of the following are ethical issues presented by mind-uploading EXCEPT:

- a) The process could differ so much from biological existence that one is reduced to a comatose state.
- b) One could be functionally identical but bereft of conscious experience.
- c) It is possible that immortality can become a curse. Your answer is incorrect
- d) An individual is simply reduced to the processes and contents of the brain.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	184
Avg. time spent on this question by all students	113
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	111
% of students who attempted this question	49.71
% of students who got the question right of those who attempted	27.13

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 602

Option A: From this sentence, 'What if the whole process is so qualitatively different from biological existence as to make you utterly terrified or even catatonic?' we can understand that one of the ethical issues presented by mind-uploading is a scenario where things don't go as planned and the person is reduced to a catatonic (comatose) state with complete absence of cognitive skills. Hence, Option A is not the answer.

Option B: From the argument, 'Some philosophers think there is a possibility that your upload would appear functionally identical to your old self without having any conscious experience of the world' it can be understood that one of the issues presented by mind-uploading is the possibility that the clone is bereft of conscious experiences. Hence, Option B is not the answer.

Option C: According to the author, if the experience is not good and if one is unable to communicate the same, immortality can actually become a curse. So, one of the ethical issues presented in the argument is the possibility that one may not really like immortality and might fail to get rid of it after that. Immortality may become a curse. Hence, Option C is not the answer.

Option D: From 'Others have argued that since you are reducible to the processes and content of your brain, a functionally identical copy of it – no matter the substrate on which it runs – could not possibly yield anything other than you', we can understand that the possibility of an individual being reduced to processes and content has actually been given as an argument to support mind-uploading by proponents. It is not an ethical question against the process. Hence, Option D is the answer.

Choice (D)

undefined

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Q5.

Which of the following is not a negative consequence of rejuvenation technology?

- I. Those who undergo rejuvenation become vulnerable to injury, poisoning and trauma.
- II. Rejuvenation could widen the gap between the rich and the poor.
- III. Rejuvenation could increase the population burden.
- IV. Rejuvenation is still a hypothesis, and not practically feasible.

- a) I, II, III and IV
- b) I and IV Your answer is correct
- c) Only IV
- d) Only I

Time spent / Accuracy Analysis

Time taken by you to answer this question	118
Avg. time spent on this question by all students	89
Difficulty Level	D
Avg. time spent on this question by students who got this question right	85
% of students who attempted this question	51.63
% of students who got the question right of those who attempted	49.31

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 602

I – Consider the sentence, 'You would, however, remain just as vulnerable to death from acute trauma – that is, from injury and poisoning, whether accidental or not – as you were before'. This is one of the shortcomings of the rejuvenation technology – why it cannot offer a permanent solution to immortality. It is not a consequence. It is not that people who undergo rejuvenation become vulnerable to injury or poisoning. Hence, I cannot be counted as a negative consequence.

II – From 'We can be pretty certain, for instance, that rejuvenation would widen the gap between the rich and poor', we can understand that II is a consequence.

III – From 'In our view, 'mere' rejuvenation would probably be a less problematic choice. Yes, vanquishing death for the entire human species would greatly exacerbate our existing problems of overpopulation and inequality', we can understand that a population burst is a consequence (not just of rejuvenation, mind you, but of immortality in general).

IV – This is once again a caveat, a disclaimer that these technologies for achieving immortality are not available to us. This is not a consequence. Hence, IV can be counted out.

Hence, Option B is the answer.

Choice (B)

undefined

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Q6. Which of the following best summarises the nature of the content presented in the sixth para, "Despite this advantage...yield anything other than you"?

- a) The author offers a premise and then proves it wrong.
- b) The author argues against a previous conclusion by providing an alternate conclusion.
- c) The author presents two counter arguments to establish a conclusion.
- d) The author presents two sides of an argument leading from a foregone conclusion. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	199
Avg. time spent on this question by all students	108
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	105
% of students who attempted this question	42.67
% of students who got the question right of those who attempted	45.19

[Video Solution](#)

[Text Solution](#)

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Number of words: 602

Despite this advantage, mind uploading **presents some difficult ethical issues**. [Some philosophers think there is a possibility that your upload would appear functionally identical to your old self without having any conscious experience of the world. You'd be more of a zombie than a person, let alone you]. [**Others have argued that** since you are reducible to the processes and content of your brain, a functionally identical copy of it – no matter the substrate on which it runs – could not possibly yield anything other than you.]

One can notice that the para has three parts. It picks up from the previous para by saying there is an advantage to mind uploading. The next part talks about what some philosophers argue – that one would just be a zombie - against the advantage of mind-uploading. The second part talks about how others defend the advantage of mind-uploading by countering the argument of some philosophers. So, there is a benefit (from previous para), a counter-argument and a counter to the counter-argument.

Option A: There is no premise offered in this para. The author starts with a foregone conclusion that mind-uploading has advantages, carried over from a previous para. Hence, Option A is not the answer.

Option B: This option indicates that there are only two parts in the para and not three (the author arguing against a previous conclusion (1) by providing another). Hence, Option B is not the answer.

Option C: While there are two counter arguments, a conclusion hasn't been established at the end of it. Hence, Option C is not the answer.

Option D: The author presents two sides of an argument (what some philosophers argue and what others argue against it) to discuss the ethical implications of mind-uploading. The foregone conclusion is that there are advantages to mind-uploading ("Despite this advantage..."). Hence, Option D best represents the nature of the thought flow in the para.

Choice (D)

undefined

DIRECTIONS for questions 7 to 12: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Do art critics have a point anymore? Can they contribute anything to the development of art? For a long time, I've ducked this question. If you'd asked me any time over the past few years, I'd have replied that criticism does not seriously influence art. It has its own justification, however, as literature. If literature seems a pompous word, let's say entertainment. The appetite to read about art is almost as insatiable as the need to look at it; the critic provides a service that gives a chance to talk, think and tell stories about art and artists. Maybe it doesn't have any impact on art but it does occupy a place in the culture. That's what I would have said, until recently.

But that's a weak defence of criticism. The truth is that critics have been in retreat for a long time. In British art, they faced a cataclysmic loss of standing just before I came on the scene. When I was a student, the art critic whose books I bought was Peter Fuller, founder of the magazine Modern Painters and a savage critic of most trends in contemporary art. I enjoyed the provocative seriousness of his essays. I also loved the writing of Robert Hughes, another critic whose eloquence was - and is - very much at the expense of current art.

Not much newspaper criticism comes near their mark, but what critics did share, in the late 1980s, was a similar scepticism about new fashions, a "seriousness" defined by suspicion. And of course, history played a joke on these critics - even on Fuller and Hughes. While high moral disdain for shallow modern art was pouring from the printing presses, a generation of British artists led by Damien Hirst were getting away with anything they wanted - again and again and again. Words were crushed by images. Critics were reduced to the status of promoters. They had no other role.

Today I think there is an opportunity for critics again - and a need. The sheer volume and range of art that we're fed in a culture obsessed with galleries is so vast and confusing that a critic can get stuck in and make a difference. It really is time to stand up for what is good against what is meretricious. And it really is possible to find examples of excellence as well as stupidity. In other words, this is a great time to be a critic - to try to show people what really matters.

Yes, there's a staggering volume of mediocre art being talked up by fools. But there are real talents and real ideas too. The critic's task is to identify what is good and defend it come hell or high water - and to honestly denounce the bad. Art history can help in this task by enriching your perspective. Writing can give you a flexibility in how and when you want to engage. But engage we must. Engage we will.

Q7. The author justifies art criticism in the first para of the passage by saying that art criticism

- a) **is too pompous to be called literature.**
- b) **doesn't have a serious influence on art.**
- c) **serves as entertainment for insatiable readers.**
- d) **acts as a vent for discussions on art.** Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	216
Avg. time spent on this question by all students	262
Difficulty Level	D
Avg. time spent on this question by students who got this question right	257
% of students who attempted this question	54.15
% of students who got the question right of those who attempted	56.05

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 496

The answer can be understood from the following sentences: 'It has its own justification, however, as literature. If literature seems a pompous word, let's say entertainment. The appetite to read about art is almost as insatiable as the need to look at it; the critic provides a service that gives a chance to talk, think and tell stories about art and artists.'

Option A: The author doesn't say that art criticism is pompous. The author says, if the word 'literature' feels too pompous (or over the board) for art criticism, if we cannot call art criticism as literature, then we could call it 'entertainment.' Hence, Option A is not the answer.

Option B: While the statement may be true, it is negative in tone. The author was justifying art criticism by mentioning that even if it doesn't have a serious influence on art, it has a purpose. Hence, Option B can be eliminated.

Option C: The appetite to read about art is insatiable according to the passage. The author isn't speaking about insatiable readers (those who love reading a lot, not necessarily only about art). This is misrepresentation of information. Hence, Option C is not the answer.

Option D: From the sentence, 'the critic provides...gives a chance to talk...about art', we can understand that art criticism provides a channel (vent/ outlet/ medium) for art discussions. Hence, Option D is the answer.

Choice (D)

undefined

DIRECTIONS for questions 7 to 12: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Do art critics have a point anymore? Can they contribute anything to the development of art? For a long time, I've ducked this question. If you'd asked me any time over the past few years, I'd have replied that criticism does not seriously influence art. It has its own justification, however, as literature. If literature seems a pompous word, let's say entertainment. The appetite to read about art is almost as insatiable as the need to look at it; the critic provides a service that gives a chance to talk, think and tell stories about art and artists. Maybe it doesn't have any impact on art but it does occupy a place in the culture. That's what I would have said, until recently.

But that's a weak defence of criticism. The truth is that critics have been in retreat for a long time. In British art, they faced a cataclysmic loss of standing just before I came on the scene. When I was a student, the art critic whose books I bought was Peter Fuller, founder of the magazine Modern Painters and a savage critic of most trends in contemporary art. I enjoyed the provocative seriousness of his essays. I also loved the writing of Robert Hughes, another critic whose eloquence was - and is - very much at the expense of current art.

Not much newspaper criticism comes near their mark, but what critics did share, in the late 1980s, was a similar scepticism about new fashions, a "seriousness" defined by suspicion. And of course, history played a joke on these critics - even on

Fuller and Hughes. While high moral disdain for shallow modern art was pouring from the printing presses, a generation of British artists led by Damien Hirst were getting away with anything they wanted - again and again and again. Words were crushed by images. Critics were reduced to the status of promoters. They had no other role.

Today I think there is an opportunity for critics again - and a need. The sheer volume and range of art that we're fed in a culture obsessed with galleries is so vast and confusing that a critic can get stuck in and make a difference. It really is time to stand up for what is good against what is meretricious. And it really is possible to find examples of excellence as well as stupidity. In other words, this is a great time to be a critic - to try to show people what really matters.

Yes, there's a staggering volume of mediocre art being talked up by fools. But there are real talents and real ideas too. The critic's task is to identify what is good and defend it come hell or high water - and to honestly denounce the bad. Art history can help in this task by enriching your perspective. Writing can give you a flexibility in how and when you want to engage. But engage we must. Engage we will.

Q8. Why does the author think there is an opportunity and need for critics again?

- a) The volume and range of art that people are exposed to is perplexing. Your answer is correct
- b) Standing up for what is meritorious and against what is meretricious is a crucial aspect of art criticism.
- c) Too many art galleries have diluted the quality and range of art that is being produced.
- d) Without the critics, people cannot really comprehend what kind of art matters.

Time spent / Accuracy Analysis

Time taken by you to answer this question	227
Avg. time spent on this question by all students	134
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	123
% of students who attempted this question	51.59
% of students who got the question right of those who attempted	41.4

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 496

The para highlights several reasons for the authors to believe that critics are needed again (as underlined): 'Today I think there is an opportunity for critics again - and a need. The sheer volume and range of art that we're fed in a culture obsessed with galleries is so vast and confusing that a critic can get stuck in and make a difference. It really is time to stand up for what is good against what is meretricious. And it really is possible to find examples of excellence as well as stupidity. In other words, this is a great time to be a critic - to try to show people what really matters.'

Option A: Consider the sentence: 'Today I think there is an opportunity for critics again - and a need. The sheer volume and range of art that we're fed in a culture obsessed with galleries is so vast and confusing that a critic can get stuck in and make a difference.' This explains the option. Too much art is produced according to the author. The content is confusing (perplexing) not only in volume but also in range. That's why there is need for art criticism to separate out good from bad art. Hence, Option A is the answer.

Option B: The author says it is time to stand up for what is good (meritorious) and stand against what is meretricious (gaudy/cheap). This line is what may lead one to Option B but it should be noted, the question delves on why the author feels there is a need now more than ever. Option B merely talks about the role of an art critic, and it applies at all times and not just now. Hence, Option B is not the answer.

Option C: The author is of the opinion that in a culture obsessed with galleries there is a huge volume and range of art. This cannot lead to the inference that the galleries have diluted the quality of art. The range and volume is confusing. Its quality has not been mentioned in the passage. Hence, Option C is not the answer.

Option D: The author mentions that this is a good time for critics to try and show people what really matters. This cannot be extrapolated to assert that without critics people completely lack the comprehension about art. Further, option D is something that (apart from the phrase 'without the critic') is more a discussion of the benefit of criticism rather than the opportunity for criticism. Hence, Option D can be eliminated.

Choice (A)

undefined

DIRECTIONS for questions 7 to 12: The passage given below is accompanied by a set of six questions. Choose the best

answer to each question.

Do art critics have a point anymore? Can they contribute anything to the development of art? For a long time, I've ducked this question. If you'd asked me any time over the past few years, I'd have replied that criticism does not seriously influence art. It has its own justification, however, as literature. If literature seems a pompous word, let's say entertainment. The appetite to read about art is almost as insatiable as the need to look at it; the critic provides a service that gives a chance to talk, think and tell stories about art and artists. Maybe it doesn't have any impact on art but it does occupy a place in the culture. That's what I would have said, until recently.

But that's a weak defence of criticism. The truth is that critics have been in retreat for a long time. In British art, they faced a cataclysmic loss of standing just before I came on the scene. When I was a student, the art critic whose books I bought was Peter Fuller, founder of the magazine Modern Painters and a savage critic of most trends in contemporary art. I enjoyed the provocative seriousness of his essays. I also loved the writing of Robert Hughes, another critic whose eloquence was - and is - very much at the expense of current art.

Not much newspaper criticism comes near their mark, but what critics did share, in the late 1980s, was a similar scepticism about new fashions, a "seriousness" defined by suspicion. And of course, history played a joke on these critics - even on Fuller and Hughes. While high moral disdain for shallow modern art was pouring from the printing presses, a generation of British artists led by Damien Hirst were getting away with anything they wanted - again and again and again. Words were crushed by images. Critics were reduced to the status of promoters. They had no other role.

Today I think there is an opportunity for critics again - and a need. The sheer volume and range of art that we're fed in a culture obsessed with galleries is so vast and confusing that a critic can get stuck in and make a difference. It really is time to stand up for what is good against what is meretricious. And it really is possible to find examples of excellence as well as stupidity. In other words, this is a great time to be a critic - to try to show people what really matters.

Yes, there's a staggering volume of mediocre art being talked up by fools. But there are real talents and real ideas too. The critic's task is to identify what is good and defend it come hell or high water - and to honestly denounce the bad. Art history can help in this task by enriching your perspective. Writing can give you a flexibility in how and when you want to engage. But engage we must. Engage we will.

Q9. Which of the following has been dubbed as a weak defence of art criticism by the author in the first sentence of the second para?

- a) Art criticism need not contribute to art because it is art in itself.
- b) Art criticism is relevant to culture. Your answer is correct
- c) The relevance of art criticism in culture cannot be understated.
- d) Art criticism justifies its place in literature.

Time spent / Accuracy Analysis

Time taken by you to answer this question	203
Avg. time spent on this question by all students	104
Difficulty Level	M
Avg. time spent on this question by students who got this question right	100
% of students who attempted this question	45.7
% of students who got the question right of those who attempted	48.63

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 496

Option A: While the author defends art criticism by saying it doesn't have a purpose, it is in itself literature (art), the author doesn't mention that art criticism need not contribute to art. The line of reasoning was more akin to: Art criticism doesn't contribute to art. But it is important as literature/entertainment and has a place in culture. Hence, Option A is inaccurate.

Option B: Consider the sentence right before the line that points to a weak defence of criticism. 'Maybe it doesn't have any impact on art but it does occupy a place in the culture. That's what I would have said, until recently.' So, the weak defence the author is referring to is justifying art criticism as part of culture. Hence, Option B is the answer.

Option C: The expression 'cannot be understated' means it is already low. In other words, it is the opposite of 'cannot be emphasized enough' (used to convey that something is really important). Hence, Option C can be eliminated.

Option D: Art criticism probably has a place in literature, according to the author. But, the author moves on from this idea to talk about culture before making the statement about weak defence. While it can be argued that art as part of literature and art as part of culture are not separate ideas but a single, coherent idea, Option C would still be a better summation than Option D. So, while Option D is not entirely false, you may note how the author makes a concession, saying, 'fine, if you think saying art criticism is part of literature sounds a little pompous, let's make a concession and call it entertainment.' So, the author moves away from the idea of equating literature and culture. Hence, Option D is not the answer.

Choice (B)

undefined

DIRECTIONS for questions 7 to 12: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Do art critics have a point anymore? Can they contribute anything to the development of art? For a long time, I've ducked this question. If you'd asked me any time over the past few years, I'd have replied that criticism does not seriously influence art. It has its own justification, however, as literature. If literature seems a pompous word, let's say entertainment. The appetite to read about art is almost as insatiable as the need to look at it; the critic provides a service that gives a chance to talk, think and tell stories about art and artists. Maybe it doesn't have any impact on art but it does occupy a place in the culture. That's what I would have said, until recently.

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Not much newspaper criticism comes near their mark, but what critics did share, in the late 1980s, was a similar scepticism about new fashions, a "seriousness" defined by suspicion. And of course, history played a joke on these critics - even on Fuller and Hughes. While high moral disdain for shallow modern art was pouring from the printing presses, a generation of British artists led by Damien Hirst were getting away with anything they wanted - again and again and again. Words were crushed by images. Critics were reduced to the status of promoters. They had no other role.

Today I think there is an opportunity for critics again - and a need. The sheer volume and range of art that we're fed in a culture obsessed with galleries is so vast and confusing that a critic can get stuck in and make a difference. It really is time to stand up for what is good against what is meretricious. And it really is possible to find examples of excellence as well as stupidity. In other words, this is a great time to be a critic - to try to show people what really matters.

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Q10. The author uses the metaphorical expression 'words were crushed by images' to describe how

- a) art criticism doesn't matter when there is an enormous volume of art being produced.
- b) art criticism couldn't hold its ground against shallow modern art criticism.
- c) the popularity of certain artists superseded the popularity of art criticism. Your answer is correct
- d) art critics had to stop criticising art and instead had to start promoting it.

Time spent / Accuracy Analysis

Time taken by you to answer this question	98
Avg. time spent on this question by all students	117
Difficulty Level	M
Avg. time spent on this question by students who got this question right	109
% of students who attempted this question	44.83
% of students who got the question right of those who attempted	49

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 496

While [high moral disdain for shallow modern art was pouring from the printing presses] (**positive for art critics**), [a generation of British artists led by Damien Hirst were getting away with anything they wanted – again and again and again (negative for art critics)]. **Words were crushed by images. Critics were reduced to the status of promoters.** They had no other role.

The images reference has to be about the art of people like Damien Hirst which got away with shallow modern art.

Option A: The need for critics arising because of a staggering amount of art being produced, has been mentioned in a latter para, and not in this context. Also, the comparison is between art and words and there is nothing about quantity. Hence, Option A is not the answer.

Option B: Words (art criticism) were crushed by images (art, probably shallow modern art). That is the real conflict. The idiom 'couldn't hold its ground' means couldn't resist anymore/ crushed/ defeated. However, the conflict depicted here is art criticism versus shallow modern art **criticism**. Hence, Option B is not the answer.

Option C: The popularity of [**certain artists**] (images, specifically created by Hirst and a generation of British artists) superseded (defeated) the popularity of [**art criticism**] (words). They were able to get away with whatever they wanted despite art critics calling their art shallow. Hence, this option represents the conflict. Option C is the answer.

Option D: This was a consequence of words being crushed by images. After words were crushed by images, art critics were reduced to promoters of art. They couldn't criticise anymore, because the patrons of art criticism disappeared. Hence, Option D was not the purpose of the author to use the metaphor. Choice (C)

undefined

DIRECTIONS for questions 7 to 12: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Do art critics have a point anymore? Can they contribute anything to the development of art? For a long time, I've ducked

this question. If you'd asked me any time over the past few years, I'd have replied that criticism does not seriously influence art. It has its own justification, however, as literature. If literature seems a pompous word, let's say entertainment. The appetite to read about art is almost as insatiable as the need to look at it; the critic provides a service that gives a chance to talk, think and tell stories about art and artists. Maybe it doesn't have any impact on art but it does occupy a place in the culture. That's what I would have said, until recently.

But that's a weak defence of criticism. The truth is that critics have been in retreat for a long time. In British art, they faced a cataclysmic loss of standing just before I came on the scene. When I was a student, the art critic whose books I bought was Peter Fuller, founder of the magazine *Modern Painters* and a savage critic of most trends in contemporary art. I enjoyed the provocative seriousness of his essays. I also loved the writing of Robert Hughes, another critic whose eloquence was - and is - very much at the expense of current art.

Not much newspaper criticism comes near their mark, but what critics did share, in the late 1980s, was a similar scepticism about new fashions, a "seriousness" defined by suspicion. And of course, history played a joke on these critics - even on Fuller and Hughes. While high moral disdain for shallow modern art was pouring from the printing presses, a generation of British artists led by Damien Hirst were getting away with anything they wanted - again and again and again. Words were crushed by images. Critics were reduced to the status of promoters. They had no other role.

Today I think there is an opportunity for critics again - and a need. The sheer volume and range of art that we're fed in a culture obsessed with galleries is so vast and confusing that a critic can get stuck in and make a difference. It really is time to stand up for what is good against what is meretricious. And it really is possible to find examples of excellence as well as stupidity. In other words, this is a great time to be a critic - to try to show people what really matters.

Yes, there's a staggering volume of mediocre art being talked up by fools. But there are real talents and real ideas too. The critic's task is to identify what is good and defend it come hell or high water - and to honestly denounce the bad. Art history can help in this task by enriching your perspective. Writing can give you a flexibility in how and when you want to engage. But engage we must. Engage we will.

Q11. The joke history played on critics like Fuller and Hughes is that

- a) printing presses were full of disdain for shallow modern art.
- b) art criticism of modern art was replaced by moral criticism.
- c) the scepticism of art criticism towards contemporary art gave way to endorsement.
- d) the disdain of art critics towards modern art unwittingly contributed to the increase in its popularity. Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	119
Avg. time spent on this question by all students	103
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	108
% of students who attempted this question	37.17
% of students who got the question right of those who attempted	25.93

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 496

And of course, history played a joke on these critics – even on Fuller and Hughes. While high moral disdain for shallow modern art was pouring from the printing presses, a generation of British artists led by Damien Hirst were getting away with anything they wanted - again and again and again. Words were crushed by images. Critics were reduced to the status of promoters. They had no other role.

The joke could be explained in two parts: Despite the disdain for shallow art, some artists got away with anything they wanted (you only get away with something that is unacceptable usually, and not with something good). Secondly, art critics, once a powerful voice lost their role and were now just promoting art (to survive probably).

Option A: This is against the modern art and therefore, positive about art criticism. We are looking for something that is negative about art criticism. Hence, Option A is not the answer.

Option B: Morality isn't part of this discussion. We are discussing the conflict between words and images, art criticism and shallow modern art. 'Shallow' doesn't have a morality-related context either. Hence, Option B is not the answer.

Option C: This option indicates that the art critics once had a role. Now, all they do is promote the same art that critics probably fought against. Their scepticism (their reservations against modern art or new art or contemporary art) didn't have value. Instead, their only role now was promotion (endorsement). Hence, Option C is the answer.

Option D: This option somehow seems to indicate that the popularity of modern art is a consequence of art criticism. That is not true. It is a cause-effect relationship that has not been established in the passage. Art criticism and its importance waned as certain artists got away with whatever art they made. This may not have resulted from the disdain or criticism of the art. Hence, Option D is not the answer. Choice (C)

undefined

DIRECTIONS for questions 7 to 12: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Do art critics have a point anymore? Can they contribute anything to the development of art? For a long time, I've ducked this question. If you'd asked me any time over the past few years, I'd have replied that criticism does not seriously influence art. It has its own justification, however, as literature. If literature seems a pompous word, let's say entertainment. The appetite to read about art is almost as insatiable as the need to look at it; the critic provides a service that gives a chance to talk, think and tell stories about art and artists. Maybe it doesn't have any impact on art but it does occupy a place in the culture. That's what I would have said, until recently.

But that's a weak defence of criticism. The truth is that critics have been in retreat for a long time. In British art, they faced a cataclysmic loss of standing just before I came on the scene. When I was a student, the art critic whose books I bought was Peter Fuller, founder of the magazine Modern Painters and a savage critic of most trends in contemporary art. I enjoyed the provocative seriousness of his essays. I also loved the writing of Robert Hughes, another critic whose eloquence was - and is - very much at the expense of current art.

Not much newspaper criticism comes near their mark, but what critics did share, in the late 1980s, was a similar scepticism about new fashions, a "seriousness" defined by suspicion. And of course, history played a joke on these critics - even on Fuller and Hughes. While high moral disdain for shallow modern art was pouring from the printing presses, a generation of British artists led by Damien Hirst were getting away with anything they wanted - again and again and again. Words were crushed by images. Critics were reduced to the status of promoters. They had no other role.

Today I think there is an opportunity for critics again - and a need. The sheer volume and range of art that we're fed in a culture obsessed with galleries is so vast and confusing that a critic can get stuck in and make a difference. It really is time to stand up for what is good against what is meretricious. And it really is possible to find examples of excellence as well as stupidity. In other words, this is a great time to be a critic - to try to show people what really matters.

Yes, there's a staggering volume of mediocre art being talked up by fools. But there are real talents and real ideas too. The critic's task is to identify what is good and defend it come hell or high water - and to honestly denounce the bad. Art history can help in this task by enriching your perspective. Writing can give you a flexibility in how and when you want to engage. But engage we must. Engage we will.

Q12. The role of the art critic, according to the author, does not include

- a) **defending talented artists and denouncing the mediocre artists.** Your answer is correct
- b) **critiquing the quality of artistic ideas.**
- c) **passionately defending good art and censuring bad art.**
- d) **engaging in the discussion about art.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	108
Avg. time spent on this question by all students	82
Difficulty Level	D
Avg. time spent on this question by students who got this question right	82
% of students who attempted this question	47.1
% of students who got the question right of those who attempted	37.57

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 496

Option A: While there are real talents and ideas, the author urges art critics to defend good art and good talent and criticise bad art and bad talent (if such a thing exists). But, there is no evidence to state that the author thinks the criticism should be personal. It is about defending and criticising good and bad art, not artists. Hence, defending talented artists and criticising mediocre artists is not something the author ascribes to the art critic as his or her duty. Hence, Option A is the answer.

Option B: 'But there are **real talents and real ideas** too. The critic's task is to identify **what is good and defend it** come hell or high water – and to honestly **denounce the bad.**' From this sentence, we can understand that the author thinks art critics should take a stand on the quality of ideas related to art (artistic). Hence, Option B is not the answer.

Option C: From this sentence, 'The critic's task is to identify **what is good and defend it** come hell or high water – and to honestly **denounce the bad**' we can clearly say that the author thinks art critics should defend good art and criticise/censure/denounce bad art. Hence, Option C is not the answer.

Option D: Consider the sentences: 'Writing can give you a flexibility in how and when you want to engage. But **engage we must. Engage we will.**' The author urges art critics to engage (discuss art). Hence, Option D is not the answer. Choice (A)

undefined

DIRECTIONS for questions 13 to 18: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Western politics has, it is argued, become more tribal. Tribes are distinguished from other human groups by their relatively clear social boundaries, often defined by kinship and demarcated territory. It's clear that our political groups are increasingly

based on single aspects of common identity with unambiguous boundaries, such as race and educational status.

Equally undeniable, however, is that most commentators vastly misunderstand the nature of tribes. The mistaken view of tribes as primitive, violent, and insular is already having pernicious effects on our response to this new era of politics. If we hope to live productively in this new political era, it helps to understand what tribes actually are - and how, rather than simply being the cause of our political problems, tribalism can also contribute to the solution.

Our colloquial evocation of tribalism mostly reflects outmoded anthropology. Scientists once believed that tribes were defined by their rigid social structures which were coercive; tribes were thought to be able to integrate their individual members only through the stultifying and imposed repetition of social customs.

But, years of empirical studies of actual tribes show that even as they are defined by relatively narrow identities, they are also characterized by porous boundaries. Tribes continually sample one another's practices and social forms. Speaking about American Indians, James Boon, a Princeton anthropologist, noted that "each tribal population appears almost to toy with patterns that are fundamental to its neighbours."

Tribes also frequently adopt outsiders. Among certain tribes in North Africa, members could voluntarily leave their own tribe and join another. Reciprocity, too, is a central part of traditional tribal life. Moral or material indebtedness, they know, can serve as the foundation of a strong relationship. It is common amongst the Berbers of North Africa, for example - for leaders to be chosen or ratified by the group's opponents on the theory that one's current enemy may later be an ally.

Many tribes - among them the Mae Enga of Papua New Guinea and the Lozi of Central Africa - also share the common practice of marrying members of enemy tribes to reduce the likelihood of internecine warfare. As a result of intermarriage and trading relations, a high proportion of tribes are multilingual.

Nor are tribes inherently authoritarian. Tribes often do not like too much power in too few hands for too long a period of time, and hence, employ a wide variety of practices that redistribute power.

This might sound quite distant from the partisan tribes of our present politics, which seem mostly to be characterized by their pugnaciousness. But the point is that, anthropologically, narrow identity groups such as tribes aren't defined by exclusionary traits. The existence of narrow group identities doesn't imply hostility among such groups.

Indeed, there is a reason that tribes historically have not embraced the rigid structural identities and institutions evident in our politics today. Excluding immigrants or cultural outsiders in the name of social solidarity comes at a price. Actual tribes know that social isolation limits their flexibility. But, we can only sustainably avoid paying such costs when we understand that resorting to defensive boundaries, even when we have gone "tribal," is not our natural default position.

If politicians and ordinary citizens insist on using tribal metaphors to define our present identity politics, we need a more apt metaphor to understand tribes themselves. We could do worse than to think of tribes as amoebas, entities whose very shape adapts to fit changing circumstances.

Q13. Which fundamental distinction between tribalism and present politics does the author allude to in the first sentence of the eighth para: 'This might sound ... present politics'?

- a) **Tribes don't demonstrate the greed for power evident in political hostilities.**
- b) **Tribes are more pugnacious compared to present politics.**
- c) **Narrow group identities in politics doesn't imply hostility as it does in tribalism.**
- d) **Tribes are fundamentally inclined towards the centralization of power.**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	47
Avg. time spent on this question by all students	361
Difficulty Level	D
Avg. time spent on this question by students who got this question right	359
% of students who attempted this question	40.99
% of students who got the question right of those who attempted	76.08

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 571

Consider the sentences preceding the given statement: 'Nor are tribes inherently authoritarian. Tribes often do not like too much power in too few hands for too long a period of time, and hence, employ a wide variety of practices that redistribute power.' The fundamental distinction the author alludes to (indirectly remarks, implies) is that tribes are not greedy for power and in fact, have mechanisms to make sure power is redistributed.

Option A: Tribes redistribute power and do not like power being concentrated in a few hands. Hence, it is possible to infer that (please note, it is a possibility, not a concrete fact) tribes don't demonstrate the greed for power evident in political hostilities. Hence, Option A is the answer.

Option B: Tribes are less pugnacious (belligerent, aggressive, ready for a fight) than present politics, as inferred from the passage as understood from the sentence 'This might sound quite distant from the partisan tribes of our present politics, which seem mostly to be characterized by their pugnaciousness.' Hence, Option B can be eliminated.

Option C: Narrow group identities in politics doesn't imply hostility as it does in tribalism – this suggests that in tribalism narrow group identities imply hostility and not so in politics. That is the opposite of what the author intends to convey. This can be understood from the statements: 'But the point is that, anthropologically, narrow identity groups such as tribes aren't defined by exclusionary traits. The existence of narrow group identities doesn't imply hostility among such groups.' Hence, Option C is not the answer.

Option D: Tribes being fundamentally inclined to centralise power, contradicts the idea expressed by the author. Tribes loved decentralisation of power – employed a wide variety of practices that redistribute power. Hence, Option D is not the answer.

Choice (A)

undefined

DIRECTIONS for questions 13 to 18: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Western politics has, it is argued, become more tribal. Tribes are distinguished from other human groups by their relatively clear social boundaries, often defined by kinship and demarcated territory. It's clear that our political groups are increasingly based on single aspects of common identity with unambiguous boundaries, such as race and educational status.

Equally undeniable, however, is that most commentators vastly misunderstand the nature of tribes. The mistaken view of tribes as primitive, violent, and insular is already having pernicious effects on our response to this new era of politics. If we hope to live productively in this new political era, it helps to understand what tribes actually are - and how, rather than simply being the cause of our political problems, tribalism can also contribute to the solution.

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Indeed, there is a reason that tribes historically have not embraced the rigid structural identities and institutions evident in our politics today. Excluding immigrants or cultural outsiders in the name of social solidarity comes at a price. Actual tribes know that social isolation limits their flexibility. But, we can only sustainably avoid paying such costs when we understand that resorting to defensive boundaries, even when we have gone "tribal," is not our natural default position.

If politicians and ordinary citizens insist on using tribal metaphors to define our present identity politics, we need a more apt metaphor to understand tribes themselves. We could do worse than to think of tribes as amoebas, entities whose very shape adapts to fit changing circumstances.

Q14. The author has a bone to pick against 'our colloquial evocation of tribalism'. Which of the following best captures it?

- a) It is based on anthropological methods that are irrelevant for present political era.
- b) Tribes are not rigid in the modern-day society unlike in the past.
- c) Our colloquial evocation of tribalism is laced with misconceptions.
- d) Tribalism involves imposed repetition of social customs, inapt for liberal societies.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	17
Avg. time spent on this question by all students	108
Difficulty Level	D
Avg. time spent on this question by students who got this question right	97
% of students who attempted this question	32.76
% of students who got the question right of those who attempted	64.44

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 571

'Bone to pick' is a grievance/complaint/something that needs to be sorted out. Consider the sentences: 'If we hope to live productively in this new political era, it helps to understand what tribes actually are — and how, rather than simply being the cause of our political problems, tribalism can also contribute to the solution. Our colloquial evocation of tribalism mostly reflects outmoded anthropology.' So, the author calls colloquial evocation of tribalism incorrect because it is based on anthropology that is outmoded/obsolete/inaccurate – probably hinting at a misunderstanding of tribes.

Option A: 'Anthropological methods irrelevant with the present political era' seems to suggest that the methods are right, just that they don't match the present situation. The author clearly mentions in the passage that our view of tribes is mistaken (not just irrelevant). Also, outmoded anthropology suggests 'an obsolete, primitive, probably inaccurate way of looking at tribes' and doesn't necessarily mean 'methods' existed to study tribes. Hence, Option A is not the answer.

Option B: This option seems to suggest that the habits/customs/practices of tribes now is different from tribes in the past. That is not true according to the passage because the author didn't make that distinction between tribes now and tribes then. Hence, Option B is not the answer.

Option C: Our colloquial evocation of tribalism is laced with misconceptions. Misconception means a mistaken view of something, a misunderstanding. This option represents the author's criticism of the way tribalism is spoken about in colloquial (contemporary casual language) usage. Hence, Option C is the answer.

Option D: This option is in itself a mistaken view about tribes, which the author seems to correct in the passage. This option therefore, cannot represent the criticism the author has for colloquial evocation of the word 'tribalism'. Hence, Option D is not the answer.

Choice (C)

undefined

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pugnaciousness. But the point is that, anthropologically, narrow identity groups such as tribes aren't defined by exclusionary traits. The existence of narrow group identities doesn't imply hostility among such groups.

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If politicians and ordinary citizens insist on using tribal metaphors to define our present identity politics, we need a more apt metaphor to understand tribes themselves. We could do worse than to think of tribes as amoebas, entities whose very shape adapts to fit changing circumstances.

Q15. The attribute about tribalism that the author demonstrates by citing James Boon is

- a) **their strong rejection of the fundamental principles of their neighbours.**
- b) **their boycott of one another's practices and social patterns.**
- c) **their relatively narrow identities.**
- d) **their willingness to try extrinsic principles and patterns.**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	74
Difficulty Level	D
Avg. time spent on this question by students who got this question right	67
% of students who attempted this question	41.84
% of students who got the question right of those who attempted	84.24

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 571

Consider the sentence: 'Speaking about American Indians, James Boon, a Princeton anthropologist, noted that "each tribal population appears almost to toy with patterns that are fundamental to its neighbours". Boon seems to suggest that tribal populations were open to trying out (toy/experiment/try) the patterns and principles of their neighbours.

Option A: According to Boon, tribes were open to toying or indulging or trying out their neighbours' fundamental principles. This option contradicts that idea (strong rejection, the option says). Hence, Option A is not the answer.

Option B: Boycott is a negative word. Option B contradicts the idea mentioned in the statement that tribes were open to learning from each other or adopting each other's ideas. Hence, Option B is not the answer.

Option C: Demonstrating the narrow identity is akin to proving that tribes were very particular and rigid about their customs/rituals and practices. Once again, it is contrary to the opinion of Boon who felt tribes toyed with each other's principles. Option C is not the answer.

Option D: The tribes were willing to adopt other principles and patterns, according to Boon, as suggested by the practice of toying with other tribes' patterns. This option is also the only positive option, and hence, can be picked on tone, since Boon's statement was to show that tribes had porous boundaries and that 'Tribes continually sample one another's practices and social forms.' Hence, Option D is the answer.

Choice (D)

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Q16. The author mentions the Berbers of North Africa to highlight that

- a) tribes believed in adopting outsiders harmoniously.
- b) primitivism and insularity are characteristic traits of ancient tribes and not the modern ones.
- c) tribes value a two-way relationship with their opponents.
- d) tribes avoided internecine conflict as much as possible.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	97
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	95
% of students who attempted this question	39.51
% of students who got the question right of those who attempted	60.62

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 571

Consider the sentences: '**Reciprocity, too, is a central part of traditional tribal life.**'

Moral or material indebtedness, they know, can serve as the foundation of a strong relationship. It is common amongst the Berbers of North Africa, for example — for leaders to be chosen or ratified by the group's opponents on the theory that one's current enemy may later be an ally.¹ The author mentions Berbers of North Africa as an example to show how tribal groups often rely on each other for advice (ratification of leaders, a highly sensitive issue), believing today's enemies could be tomorrow's allies.

Option A: The Berbers were mentioned not to highlight '**adopting outsiders**' but to demonstrate **collaboration/reciprocity**. Berbers didn't adopt any outsiders as per the passage. Hence, Option A can be eliminated.

Option B: No distinction was made by the author between ancient and modern tribes. Right through the passage, tribalism was spoken about as one entity with certain characteristic traits. Hence, Option B can be eliminated.

Option C: The Berbers were a good example of how tribes were open to reciprocating, and were receptive to each other, giving even their enemies importance. Hence, this option can be justified. Option C is the answer.

Option D: Internecine (wars within each other) conflict was mentioned in the passage, but the Berbers were not the example provided for the same. Berbers were mentioned to show how they considered one other's opinions. Internecine conflict was avoided through marriage and trade within tribes, but that is far-removed from the example of Berbers. Option D is not the answer.

Choice (C)

undefined

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If politicians and ordinary citizens insist on using tribal metaphors to define our present identity politics, we need a more apt metaphor to understand tribes themselves. We could do worse than to think of tribes as amoebas, entities whose very shape adapts to fit changing circumstances.

Q17. Which of the following best captures the essence of the author's exhortation in the last para of the passage, 'We could do worse ... circumstances'?

- a) **We should stop thinking of tribes as trivial entities.**
- b) **Amoebas are an apt metaphor for tribes.**
- c) **The present identity politics should avoid using tribal metaphors.**
- d) **The social adaptability of tribes is questionable, a trap present politics must avoid.**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	101
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	97
% of students who attempted this question	33.03
% of students who got the question right of those who attempted	19.67

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 571

Consider the sentences: 'If politicians and ordinary citizens insist on using tribal metaphors to define our present identity politics, we need a more apt metaphor to understand tribes themselves. We could do worse than to think of tribes as amoebas, entities whose very shape adapts to fit changing circumstances.' From the sentence 'whose very shape adapts to fit changing circumstances', we can understand that the author mentions amoebas and other such entities in a positive light, for flexibility and porous boundaries have been discussed positively in the passage and tribalism has been defended as something that doesn't subscribe to rigid boundaries as commonly misunderstood. In short, the author suggests there are worse things to do than to think of tribes as shape-shifting amoebas – it is fine to think of tribes as shape-shifting amoebas.

Option A: The term 'trivial entities' means entities which are insignificant. The passage doesn't discuss tribes as insignificant entities. Rather it argues against thinking of tribalism as a negative word. Hence, Option A is off the mark.

Option B: The author suggests that we need a good metaphor for tribes if we intend to use tribalism as a metaphor for present-day politics. The author then goes on to say how 'amoeba' is a good option (we can do worse than this...so this is not so bad). Hence, Option B captures the essence of the author's exhortation (advice) in the last para well. Option B is the answer.

Option C: Two things are wrong with this option. 'Tribal metaphors' distorts the meaning of what the author wanted to say, completely. Tribal metaphors could mean metaphors picked out of the daily life/customs of tribes. The author is talking about using tribe itself as a metaphor for politics. Secondly, the author doesn't want us to avoid using tribe as a metaphor. The author says, if we want to use tribe as a metaphor we should find a better metaphor for tribe itself – we should understand tribalism better, firstly.

Option D: This particular option casts tribalism in a negative light in strong contrast to the essence of the passage, where tribalism was defended and shown in a positive light. Hence, Option D is easy to eliminate.

Choice (B)

undefined

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Q18. What does the author recommend for those who hope to live productively in this new political era?

- a) To comprehend how tribalism can solve the same political problems it causes.
- b) To dispel the pernicious effects of our mistaken view of tribes.
- c) To understand how tribalism is not the cause of our political problems.
- d) To stop denying what commentators feel is the true nature of tribalism.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	15
Avg. time spent on this question by all students	98
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	100
% of students who attempted this question	30.6
% of students who got the question right of those who attempted	57.59

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 571

Consider the sentences: 'Equally undeniable, however, is that most commentators vastly misunderstand the nature of tribes. The mistaken view of tribes as primitive, violent, and insular is already having pernicious effects on our response to this new era of politics. If [we hope to live productively in this new political era], it helps to understand - [what tribes actually are] — and [how], rather than simply being the cause of our political problems, [tribalism can also contribute to the solution].'

From the underlined portions we can understand that the author's recommendation to live productively is to a. understand what tribes are b. understand how tribalism can contribute to the solution.

Option A: This is a restatement of 'how rather than simply being the cause of our political problems, tribalism can also contribute to the solution. So, the author doesn't absolve tribalism of all its negative connotations. We can see that the author says there are similarities between our political problems and tribalism. But it is also important to understand that the same 'tribalism' can be followed to solve problems as well. Hence, Option A is the answer.

Option B: 'Pernicious' means 'harmful'. The author says that the mistaken view about tribalism has pernicious effects. As a result, the author recommends the mistaken view to be dispelled, not the pernicious effects (since we didn't discuss what the pernicious effects actually are). Hence, Option B is not the answer.

Option C: The author's suggestion is not for people to understand that tribalism is the cause of political problems. The author's suggestion is for people to understand that while tribalism may be the cause of political problems, tribalism could also offer a solution to political problems. Hence, Option C is not the answer.

Option D: According to the sentence, 'Equally undeniable, however, is that most commentators vastly misunderstand the nature of tribes', the commentators have misunderstood tribalism. So, the author's recommendation is definitely not for us to stop denying what the commentators feel. The author has censured the opinion of the commentators here. Hence, Option D is not the answer.

Choice (A)

undefined

DIRECTIONS for questions 13 to 18: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Western politics has, it is argued, become more tribal. Tribes are distinguished from other human groups by their relatively clear social boundaries, often defined by kinship and demarcated territory. It's clear that our political groups are increasingly based on single aspects of common identity with unambiguous boundaries, such as race and educational status.

Equally undeniable, however, is that most commentators vastly misunderstand the nature of tribes. The mistaken view of tribes as primitive, violent, and insular is already having pernicious effects on our response to this new era of politics. If we hope to live productively in this new political era, it helps to understand what tribes actually are - and how, rather than simply being the cause of our political problems, tribalism can also contribute to the solution.

Our colloquial evocation of tribalism mostly reflects outmoded anthropology. Scientists once believed that tribes were defined by their rigid social structures which were coercive; tribes were thought to be able to integrate their individual members only through the stultifying and imposed repetition of social customs.

But, years of empirical studies of actual tribes show that even as they are defined by relatively narrow identities, they are also characterized by porous boundaries. Tribes continually sample one another's practices and social forms. Speaking about American Indians, James Boon, a Princeton anthropologist, noted that "each tribal population appears almost to toy with patterns that are fundamental to its neighbours."

Tribes also frequently adopt outsiders. Among certain tribes in North Africa, members could voluntarily leave their own tribe and join another. Reciprocity, too, is a central part of traditional tribal life. Moral or material indebtedness, they know, can serve as the foundation of a strong relationship. It is common amongst the Berbers of North Africa, for example - for leaders to be chosen or ratified by the group's opponents on the theory that one's current enemy may later be an ally.

Many tribes - among them the Mae Enga of Papua New Guinea and the Lozi of Central Africa - also share the common practice of marrying members of enemy tribes to reduce the likelihood of internecine warfare. As a result of intermarriage and trading relations, a high proportion of tribes are multilingual.

Nor are tribes inherently authoritarian. Tribes often do not like too much power in too few hands for too long a period of time, and hence, employ a wide variety of practices that redistribute power.

This might sound quite distant from the partisan tribes of our present politics, which seem mostly to be characterized by their pugnaciousness. But the point is that, anthropologically, narrow identity groups such as tribes aren't defined by exclusionary traits. The existence of narrow group identities doesn't imply hostility among such groups.

Indeed, there is a reason that tribes historically have not embraced the rigid structural identities and institutions evident in our politics today. Excluding immigrants or cultural outsiders in the name of social solidarity comes at a price. Actual tribes know that social isolation limits their flexibility. But, we can only sustainably avoid paying such costs when we understand that resorting to defensive boundaries, even when we have gone "tribal," is not our natural default position.

If politicians and ordinary citizens insist on using tribal metaphors to define our present identity politics, we need a more apt metaphor to understand tribes themselves. We could do worse than to think of tribes as amoebas, entities whose very shape adapts to fit changing circumstances.

Q18. What does the author recommend for those who hope to live productively in this new political era?

- a) To comprehend how tribalism can solve the same political problems it causes.
- b) To dispel the pernicious effects of our mistaken view of tribes.
- c) To understand how tribalism is not the cause of our political problems.
- d) To stop denying what commentators feel is the true nature of tribalism.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	15
Avg. time spent on this question by all students	98
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	100
% of students who attempted this question	30.6
% of students who got the question right of those who attempted	57.59

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 571

Consider the sentences: 'Equally undeniable, however, is that most commentators vastly misunderstand the nature of tribes. The mistaken view of tribes as primitive, violent, and insular is already having pernicious effects on our response to this new era of politics. If [we hope to live productively in this new political era], it helps to understand — [what tribes actually are] — and [how], rather than simply being the cause of our political problems, [tribalism can also contribute to the solution].'

From the underlined portions we can understand that the author's recommendation to live productively is to a. understand what tribes are b. understand how tribalism can contribute to the solution.

Option A: This is a restatement of 'how rather than simply being the cause of our political problems, tribalism can also contribute to the solution. So, the author doesn't absolve tribalism of all its negative connotations. We can see that the author says there are similarities between our political problems and tribalism. But it is also important to understand that the same 'tribalism' can be followed to solve problems as well. Hence, Option A is the answer.

Option B: 'Pernicious' means 'harmful'. The author says that the mistaken view about tribalism has pernicious effects. As a result, the author recommends the mistaken view to be dispelled, not the pernicious effects (since we didn't discuss what the pernicious effects actually are). Hence, Option B is not the answer.

Option C: The author's suggestion is not for people to understand that tribalism is the cause of political problems. The author's suggestion is for people to understand that while tribalism may be the cause of political problems, tribalism could also offer a solution to political problems. Hence, Option C is not the answer.

Option D: According to the sentence, 'Equally undeniable, however, is that most commentators vastly misunderstand the nature of tribes', the commentators have misunderstood tribalism. So, the author's recommendation is definitely not for us to stop denying what the commentators feel. The author has censured the opinion of the commentators here. Hence, Option D is not the answer.

Choice (A)

undefined

DIRECTIONS for questions 19 to 21: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

More than 7,000 years ago, people living in the Middle East discovered that they could ferment grapes to make wine. As with wine, the processing of coffee beans and cacao, used to make chocolate, also requires some fermentation. Cacao originated in the Amazon and was widely cultivated in Central America before Hernán Cortés brought it to the Old World in 1530. From Ethiopia, coffee was disseminated throughout the Middle East by Arab traders during the 6th century and it ultimately arrived in the New World during the 17th century. Over the next three centuries, other trading nations completed coffee's worldwide dissemination and set it up as a mainstay crop of many of the world's poorest economies. Cacao was treated in much the same way and is now grown in 33 tropical countries.

Given this history, Aimée Dudley and Justin Fay of the University of Washington wondered if the yeasts associated with cacao and coffee followed these plants from their places of origin just as yeasts had followed wine from the Middle East. They collected unroasted cacao beans from 13 countries, including Haiti, Colombia, Ghana, Madagascar and Papua New Guinea, and unroasted coffee beans from 14 locations, including Ethiopia, Hawaii, Honduras, Indonesia and Yemen. They then set about studying the yeast found on the beans. As a control, the team also studied the yeasts on grapes from diverse locations.

As they report in *Current Biology*, although all vineyard-yeast strains are extremely similar genetically, there is tremendous diversity among the yeast strains associated with cacao and coffee. Further, all cacao beans collected from Venezuela carried closely related strains of yeast that were distinct from those found on Nigerian and Ecuadorean beans. The same was true for the yeasts found on coffee. The use of starter yeast culture is very rare in the processing of cacao and coffee, where growers tend to rely upon the species of yeast found locally.

This greater diversity of cacao and coffee yeasts means there is the potential to create new flavours by using a strain from one location in another. No one knows what the resulting coffee and chocolate might taste like, but if Dr Dudley and her colleagues are correct in their hunch, there will be many new flavours for coffee lovers and chocoholics to savour.

Q19. Which of the following, if true, would strengthen the researchers' finding that "all vineyard-yeast strains are extremely similar genetically"?

- a) Oak barrels were exported from an established winemaking region to an area of new cultivation, and these served as reservoirs of yeasts native to the original location. Your answer is incorrect
- b) Winemakers have a long history of using starter cultures of yeast from the region that has traditionally produced wines, which makes it nearly impossible for local species of yeast to compete.
- c) Yeasts native to the original location are favoured over the yeasts found in new locations due to their predictable and vigorous fermentation capabilities.
- d) All of the above.

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	328
Avg. time spent on this question by all students	258
Difficulty Level	M
Avg. time spent on this question by students who got this question right	245
% of students who attempted this question	31.98
% of students who got the question right of those who attempted	56.95

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 379

All vineyard-yeast strains are extremely similar genetically.

Option A: If oak barrels exported from an established winemaking region serve as reservoirs of yeasts native to the original location (in an area of new cultivation), then the yeasts will get introduced in the new location. This will re-inforce the view that all vineyard-yeast strains are extremely similar genetically. Choice A is correct.

Option B: The use of starter yeast culture is very rare in the processing of cacao and coffee, where growers tend to rely upon the species of yeast found locally. If winemakers have used starter cultures of yeast from places that have traditionally produced wines, then it will strengthen the author's assertion that "all vineyard-yeast strains are extremely similar genetically". Choice B is correct.

Option C: The advantages mentioned in choice C will make yeasts native to the original location superior and if they are favoured in new vineyards of the world, then all vineyard-yeast strains will be extremely similar genetically. Choice C is also correct.

Choice (D)

undefined

DIRECTIONS for questions 19 to 21: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

More than 7,000 years ago, people living in the Middle East discovered that they could ferment grapes to make wine. As with wine, the processing of coffee beans and cacao, used to make chocolate, also requires some fermentation. Cacao originated in the Amazon and was widely cultivated in Central America before Hernán Cortés brought it to the Old World in 1530. From Ethiopia, coffee was disseminated throughout the Middle East by Arab traders during the 6th century and it ultimately arrived in the New World during the 17th century. Over the next three centuries, other trading nations completed coffee's worldwide dissemination and set it up as a mainstay crop of many of the world's poorest economies. Cacao was treated in much the same way and is now grown in 33 tropical countries.

Given this history, Aimée Dudley and Justin Fay of the University of Washington wondered if the yeasts associated with cacao and coffee followed these plants from their places of origin just as yeasts had followed wine from the Middle East. They collected unroasted cacao beans from 13 countries, including Haiti, Colombia, Ghana, Madagascar and Papua New Guinea, and unroasted coffee beans from 14 locations, including Ethiopia, Hawaii, Honduras, Indonesia and Yemen. They then set about studying the yeast found on the beans. As a control, the team also studied the yeasts on grapes from diverse locations.

As they report in *Current Biology*, although all vineyard-yeast strains are extremely similar genetically, there is tremendous diversity among the yeast strains associated with cacao and coffee. Further, all cacao beans collected from Venezuela carried closely related strains of yeast that were distinct from those found on Nigerian and Ecuadorean beans. The same was true for the yeasts found on coffee. The use of starter yeast culture is very rare in the processing of cacao and coffee, where growers tend to rely upon the species of yeast found locally.

This greater diversity of cacao and coffee yeasts means there is the potential to create new flavours by using a strain from one location in another. No one knows what the resulting coffee and chocolate might taste like, but if Dr Dudley and her colleagues are correct in their hunch, there will be many new flavours for coffee lovers and chocoholics to savour.

Q20. Which of the following best summarises the content of the passage?

- a) New research shows that coffee and cacao yeasts are genetically inferior than those found on grapes but by

mixing together the diverse yeast strains present on coffee and cacao beans from different locations, one can still create exotic flavours of coffee and chocolate.

- b) The genetic diversity of yeasts could produce novel wine flavours.
- c) New research shows that coffee and cacao yeasts from different locations are far more genetically diverse than wine strains and this opens up the intriguing possibility of imparting entirely new tastes to coffee and chocolate. **Your answer is correct**
- d) New research shows that coffee and cacao yeasts are far more genetically similar than wine strains but vintage red wine is as well-appreciated as the local white wines.

Time spent / Accuracy Analysis

Time taken by you to answer this question	207
Avg. time spent on this question by all students	69
Difficulty Level	M
Avg. time spent on this question by students who got this question right	66
% of students who attempted this question	39.03
% of students who got the question right of those who attempted	91.64

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 379

Option A: The research findings do not point to the fact that coffee and cacao yeasts are genetically inferior than those found on grapes. Choice A is a distortion of facts.

Option B: All vineyard-yeast strains are extremely similar genetically but there is tremendous diversity among the yeast strains associated with cacao and coffee. This greater diversity of cacao and coffee yeasts means there is the potential to create new flavours by using a strain from one location in another. So the genetic diversity of yeasts could produce novel flavours in coffee and chocolate, not in wine. Choice B is incorrect.

Option C: There is tremendous diversity among the yeast strains associated with cacao and coffee. Also refer to the last para of the passage. Choice C is the correct summary of the passage.

Option D: Coffee and cacao yeasts are far more genetically diverse than wine strains. Choice D is incorrect. The second part of choice D is out of scope. Choice (C)

undefined

DIRECTIONS for questions 19 to 21: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

More than 7,000 years ago, people living in the Middle East discovered that they could ferment grapes to make wine. As with wine, the processing of coffee beans and cacao, used to make chocolate, also requires some fermentation. Cacao originated in the Amazon and was widely cultivated in Central America before Hernán Cortés brought it to the Old World in 1530. From Ethiopia, coffee was disseminated throughout the Middle East by Arab traders during the 6th century and it ultimately arrived in the New World during the 17th century. Over the next three centuries, other trading nations completed coffee's worldwide dissemination and set it up as a mainstay crop of many of the world's poorest economies. Cacao was treated in much the same way and is now grown in 33 tropical countries.

Given this history, Aimée Dudley and Justin Fay of the University of Washington wondered if the yeasts associated with cacao and coffee followed these plants from their places of origin just as yeasts had followed wine from the Middle East. They collected unroasted cacao beans from 13 countries, including Haiti, Colombia, Ghana, Madagascar and Papua New Guinea, and unroasted coffee beans from 14 locations, including Ethiopia, Hawaii, Honduras, Indonesia and Yemen. They then set about studying the yeast found on the beans. As a control, the team also studied the yeasts on grapes from diverse locations.

As they report in *Current Biology*, although all vineyard-yeast strains are extremely similar genetically, there is tremendous diversity among the yeast strains associated with cacao and coffee. Further, all cacao beans collected from Venezuela carried closely related strains of yeast that were distinct from those found on Nigerian and Ecuadorean beans. The same was true for the yeasts found on coffee. The use of starter yeast culture is very rare in the processing of cacao and coffee, where growers tend to rely upon the species of yeast found locally.

This greater diversity of cacao and coffee yeasts means there is the potential to create new flavours by using a strain from one location in another. No one knows what the resulting coffee and chocolate might taste like, but if Dr Dudley and her colleagues are correct in their hunch, there will be many new flavours for coffee lovers and chocoholics to savour.

Q21. Which of the following cannot be understood from the passage?

- a) The yeasts of a Hawaiian coffee bean could be used to ferment coffee beans being grown in Yemen; or the yeasts from Haitian cacao beans could be used with cacao grown in Ghana.
- b) The differences in the yeast found on unroasted coffee beans and cacao beans were so great that the researchers were able to use DNA sequences of the yeast strains alone to determine which country a sample of cacao or coffee came from. **Your answer is correct**
- c) The yeast that the people of the Middle East harnessed for the process of fermenting grapes to make wine is similar to the yeasts found in every vineyard on the planet.
- d) The research team discovered that the yeast strains found on cacao and coffee beans were closely associated with geography.

Time spent / Accuracy Analysis

Time taken by you to answer this question	175
Avg. time spent on this question by all students	111
Difficulty Level	D
Avg. time spent on this question by students who got this question right	109
% of students who attempted this question	29.94
% of students who got the question right of those who attempted	55.87

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 379

Option A: They collected unroasted cacao beans from 13 countries, including Haiti, Colombia, Ghana, Madagascar and Papua New Guinea, and unroasted coffee beans from 14 locations, including Ethiopia, Hawaii, Honduras, Indonesia and Yemen. This greater diversity of cacao and coffee yeasts means there is the potential to create new flavours by using a strain from one location in another. Choice A is true and is not the answer.

Option B: There is tremendous diversity among the yeast strains associated with cacao and coffee. Further, all cacao beans collected from Venezuela carried closely related strains of yeast that were distinct from those found on Nigerian and Ecuadorean beans. The same was true for the yeasts found on coffee. But the second part of choice B cannot be deduced from the passage. Choice B is out of scope and is the answer.

Option C: More than 7,000 years ago, people living in the Middle East discovered that they could ferment grapes to make wine. Aimée Dudley and Justin Fay of the University of Washington wondered if the yeasts associated with cacao and coffee followed these plants from their places of origin just as yeasts had followed wine from the Middle East. All vineyard-yeast strains are extremely similar genetically. Hence choice C is correct and is not the answer.

Option D: Further, all cacao beans collected from Venezuela carried closely related strains of yeast that were distinct from those found on Nigerian and Ecuadorean beans. The same was true for the yeasts found on coffee. We can say that choice D can also be understood to be true and is not the answer.

Choice (B)

undefined

DIRECTIONS for questions 22 to 24: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

Biotechnology proponents have argued repeatedly that GM seeds are crucial to feed the world, using the same flawed reasoning that was advanced for decades by the proponents of the Green Revolution. Conventional food production, they maintain, will not keep pace with the growing world population. Monsanto's ads proclaimed in 1998: "Worrying about starving future generations won't feed them. Food biotechnology will." As agroecologists Miguel Altieri and Peter Rosset point out, this argument is based on two erroneous assumptions. The first is that world hunger is caused by a global shortage of food; the second is that genetic engineering is the only way to increase food production.

In their classic study, *World Hunger: Twelve Myths*, development specialists Frances Moore Lappé and her colleagues at the Institute for Food and Development Policy gave a detailed account of world food production that surprised many readers. They showed that abundance, not scarcity, best describes the food supply in today's world. During the past three decades, increases in global food production have outstripped world population growth by 16 per cent. During that time, mountains of surplus grain have pushed prices strongly downward on world markets. Increases in food supplies have kept ahead of population growth in every region except Africa during the past fifty years. A 1997 study found that in the developing world, 78 percent of all malnourished children under five live in countries with food surpluses. Many of these countries, in which hunger is rampant, export more agricultural goods than they import.

The root causes of hunger around the world are unrelated to food production. They are poverty, inequality and lack of access to food and land. People go hungry because the means to produce and distribute food are controlled by the rich and powerful: world hunger is not a technological but a political problem. Miguel Altieri points out that we cannot ignore the social and political realities. 'If the root causes are not addressed,' he retorts, 'hunger will persist no matter what technologies are used.'

Q22. Which of the following best represents the flaws in the argument that food biotechnology will feed the starving future generations?

- a) Only genetic engineering can address food shortage, which is the real cause of world hunger.
- b) Food shortage should be avoided through genetic engineering to sidestep world hunger.
- c) Genetic engineering is the only way to make sure food production exceeds food shortage.
- d) Only genetic engineering can alleviate world hunger.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	19
Avg. time spent on this question by all students	218
Difficulty Level	M
Avg. time spent on this question by students who got this question right	206
% of students who attempted this question	39.79
% of students who got the question right of those who attempted	61.28

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 333

The answer to this question can be found in the lines: "Worrying about starving future generations won't feed them. Food biotechnology will." As agroecologists Miguel Altieri and Peter Rosset point out, this argument is based on two erroneous assumptions. The first is that world hunger is caused by a global shortage of food; the second is that genetic engineering is the only way to increase food production.

Option A: Only genetic engineering can address food shortage (since it is the only way to increase food production) – that checks the second assumption. Please note that the passage doesn't say genetic engineering will completely resolve the issue (it will feed the starving, but to what extent?). Food shortage is the real cause of world hunger (the second part of the option) addresses the first assumption. Hence, Option A is the answer.

Option B: Food shortage should be avoided through genetic engineering to sidestep world hunger – as the underlined portions suggest, the option treats world hunger as a future problem. That is not true. World hunger is already a problem. Hence, Option B is not the answer.

Option C: The part 'food production exceeds food shortage' makes a fallacious comparison between production quantity and shortage quantity. The amount of food produced should be compared with the food consumption to get an idea of the amount of food shortage. Should genetic engineering target to produce food only as much as the shortage amount? Hence, Option C is not the answer.

Option D: This option short-changes the two assumptions by saying genetic engineering balm/reduces the problem of (alleviate) world hunger. It hasn't been indicated that the other false assumption is that world hunger itself is caused by food shortage. Hence, Option D is not the answer.

Choice (A)

undefined

DIRECTIONS for questions 22 to 24: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

Biotechnology proponents have argued repeatedly that GM seeds are crucial to feed the world, using the same flawed reasoning that was advanced for decades by the proponents of the Green Revolution. Conventional food production, they maintain, will not keep pace with the growing world population. Monsanto's ads proclaimed in 1998: "Worrying about starving future generations won't feed them. Food biotechnology will." As agroecologists Miguel Altieri and Peter Rosset point out, this argument is based on two erroneous assumptions. The first is that world hunger is caused by a global shortage of food; the second is that genetic engineering is the only way to increase food production.

In their classic study, *World Hunger: Twelve Myths*, development specialists Frances Moore Lappé and her colleagues at the Institute for Food and Development Policy gave a detailed account of world food production that surprised many readers. They showed that abundance, not scarcity, best describes the food supply in today's world. During the past three decades, increases in global food production have outstripped world population growth by 16 per cent. During that time, mountains of surplus grain have pushed prices strongly downward on world markets. Increases in food supplies have kept ahead of population growth in every region except Africa during the past fifty years. A 1997 study found that in the developing world, 78 percent of all malnourished children under five live in countries with food surpluses. Many of these countries, in which hunger is rampant, export more agricultural goods than they import.

The root causes of hunger around the world are unrelated to food production. They are poverty, inequality and lack of access to food and land. People go hungry because the means to produce and distribute food are controlled by the rich and powerful: world hunger is not a technological but a political problem. Miguel Altieri points out that we cannot ignore the social

and political realities. 'If the root causes are not addressed,' he retorts, 'hunger will persist no matter what technologies are used.'

Q23. The argument that world hunger is caused by food shortage is weakened by which of the following?

- a) Global food production has exceeded world population by 16% in the past three decades.
- b) Food-supply growth exceeds population-growth in all the regions.
- c) Export of agricultural goods outstrips their import in most countries susceptible to hunger.
- d) Countries with food excess account for 78% of all malnourished children under five in the world.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	98
Difficulty Level	D
Avg. time spent on this question by students who got this question right	119
% of students who attempted this question	41.85
% of students who got the question right of those who attempted	13.93

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 333

All but one option above has been misrepresented in some form or the other.

Option A: During the past three decades, increases in global food production have outstripped world population growth by 16 per cent. According to the given line, the comparison is between increase in food production and increase in population. The option compares the absolute numbers – food production versus world population. Hence, Option A is not the answer.

Option B: Increases in food supplies have kept ahead of population growth in every region except Africa during the past fifty years. This cannot be extrapolated to all regions. Hence, Option B is very easy to eliminate.

Option C: Many of these countries, in which hunger is rampant, export more agricultural goods than they import. So, this can be equated to 'most countries susceptible to hunger' having more exports than imports. This confirms that food shortage is not the reason for hunger. If it were food shortage, then export won't exceed import. Option C is the answer.

Option D: A 1997 study found that in the developing world, 78 percent of all malnourished children under five live in countries with food surpluses. So, we are only looking at malnourished children under five, in the developing world, not in the entire world as the option suggests. Hence, Option D can be eliminated easily.

Choice (C)

undefined

DIRECTIONS for questions 22 to 24: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

Biotechnology proponents have argued repeatedly that GM seeds are crucial to feed the world, using the same flawed reasoning that was advanced for decades by the proponents of the Green Revolution. Conventional food production, they maintain, will not keep pace with the growing world population. Monsanto's ads proclaimed in 1998: "Worrying about starving future generations won't feed them. Food biotechnology will." As agroecologists Miguel Altieri and Peter Rosset point out, this argument is based on two erroneous assumptions. The first is that world hunger is caused by a global shortage of food; the second is that genetic engineering is the only way to increase food production.

In their classic study, *World Hunger: Twelve Myths*, development specialists Frances Moore Lappé and her colleagues at the Institute for Food and Development Policy gave a detailed account of world food production that surprised many readers. They showed that abundance, not scarcity, best describes the food supply in today's world. During the past three decades, increases in global food production have outstripped world population growth by 16 per cent. During that time, mountains of surplus grain have pushed prices strongly downward on world markets. Increases in food supplies have kept ahead of population growth in every region except Africa during the past fifty years. A 1997 study found that in the developing world, 78 percent of all malnourished children under five live in countries with food surpluses. Many of these countries, in which hunger is rampant, export more agricultural goods than they import.

The root causes of hunger around the world are unrelated to food production. They are poverty, inequality and lack of access to food and land. People go hungry because the means to produce and distribute food are controlled by the rich and powerful: world hunger is not a technological but a political problem. Miguel Altieri points out that we cannot ignore the social and political realities. 'If the root causes are not addressed,' he retorts, 'hunger will persist no matter what technologies are used.'

Q24. Which of the following has not been suggested by the author in the third para of the passage?

- a) **The rich and powerful are disinclined to solve the hunger problem of the world.**
- b) **Technology cannot mitigate the hunger problem of the world.**
- c) **Resources to grow and distribute food are accessible only to the rich and powerful.**
- d) **World hunger is a consequence of social inequality.**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	87
Difficulty Level	M
Avg. time spent on this question by students who got this question right	85
% of students who attempted this question	43.94
% of students who got the question right of those who attempted	16.2

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 333

The root causes of hunger around the world are unrelated to food production. They are poverty, inequality and lack of access to food and land. People go hungry because the means to produce and distribute food are controlled by the rich and powerful: world hunger is not a technical but a political problem. Miguel Altieri points out that we cannot ignore the social and political realities. 'If the root causes are not addressed,' he retorts, 'hunger will persist no matter what technologies are used.'

Option A: People go hungry because the means to produce and distribute food are controlled by the rich and powerful. From this, we can understand that the rich control the means and that results in people going hungry – a voluntary decision on the part of the rich and powerful. So, it can be inferred that the author suggests the rich and powerful aren't keen to solve the hunger problem. Option A is therefore, not the answer.

Option B: That technology cannot solve the hunger problem doesn't necessarily mean it cannot mitigate the hunger problem. The author only suggests 'hunger will persist'. Whether technology is absolutely useless or whether it can reduce world hunger at least to some extent is not a discussion that was taken up in the last para of the passage. Hence, Option B is the answer.

Option C: The author says that the means to produce and distribute food are controlled by the rich and powerful. So, the author seems to suggest that the resources are accessible only to these people, reasoning that this is the reason there will always be world hunger. Hence, Option C is not the answer.

Option D: Consider the sentences: The root causes of hunger around the world are unrelated to food production. They are poverty, inequality and lack of access to food and land. From this we can understand that the author suggests inequality is a root cause of the hunger problem. Hence, Option D is not the answer.

Choice (B)

undefined

Q25. DIRECTIONS for questions 25 and 26: The sentences given in each of the following questions, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the proper order for the five sentences and key in the sequence of five numbers as your answer, in the input box given below the question.

1. It was not like pistons and wheels and gears all moving at once, massive and coordinated.

2. General illumination of that target he hit seems to be left for me.
3. Phaedrus did not try to use his brilliance for general illumination but he sought one specific distant target and aimed for it and hit it, and that was all.
4. Phaedrus was systematic as an individual, but to say that he thought and acted like a machine would be to misunderstand the nature of his thought.
5. The image of a laser beam comes to mind instead; a single pencil of light of such terrific energy in such concentration that it can be shot at the moon and its reflection seen back on earth.

Your Answer:43251 □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	149
Avg. time spent on this question by all students	178
Difficulty Level	D
Avg. time spent on this question by students who got this question right	180
% of students who attempted this question	28.79
% of students who got the question right of those who attempted	16

[Video Solution](#)

[Text Solution](#)

Sentence 1: "It was not like" in sentence 1 is a description which needs a precedent. Sentence 2: Sentence 2 brings in a reference to "me" in relation to what he (Phaedrus) did.

Sentence 3: Sentence 3 speaks about Phaedrus using his brilliance for general illumination and hitting a distant target.

Sentence 4: Sentence 4 looks like a general opening sentence. It has a reference to Phaedrus. It clarifies a point of view about Phaedrus.

Sentence 5: The presence of the contrast word 'instead' in sentence 5 indicates that sentence 5 corrects a point of view that has been mentioned earlier.

So, sentence 4 is a general sentence that can begin the paragraph. The remaining sentences need a precedent and more substantiation. Though sentence 3 can also be a general opening sentence, on a closer examination, we can understand that its contents can only be placed later in sequence after the general idea "to say that he thought and acted like a machine would be to misunderstand the nature of his thought" in sentence 4. So sentence 4 is the first or opening sentence of the para.

Sentences 4 and 1 form a logical block. "to say that he thought and acted like a machine would be to misunderstand the nature of his thought" in sentence 4 links with "it was not like pistons and wheels and gears all moving at once" in sentence 1. So sentence 1 follows sentence 4.

Sentences 1 and 5 form another logical block. "not like pistons and wheels and gears all moving at once" in sentence 1 is contrasted by "The image of a laser beam comes to mind instead" in sentence 5. So 5 follows 1.

Sentence 3 continues the train of thought. "Phaedrus did not try to use his brilliance for general illumination" in sentence 3 is another description of Phaedrus in addition to "but to say that he thought and acted like a machine would be to misunderstand the nature of his thought" mentioned in sentence 4. "sought one specific distant target and aimed for it and hit it, and that was all" in sentence 3 links with "laser beam can be shot at the moon and its reflection seen back on earth" in sentence 5. Sentence 3 follows sentence 5.

Sentences 3 and 2 form a logical block. "Phaedrus did not try to use his brilliance for general illumination" in sentence 3 links with "General illumination of that target he hit" in sentence 2. So sentence 2 concludes the para. Hence 41532. Ans: (41532)

undefined

Q26. DIRECTIONS for questions 25 and 26: The sentences given in each of the following questions, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the proper order for the five sentences and key in the sequence of five numbers as your answer, in the input box given below the question.

1. They believed it was a place where hero-spirits lived in a happiness unknown to the rest of the earth.
2. That is what the Greeks called Atlantis, thousands of years ago.
3. The Isles of the Blessed.
4. Though Atlantis was lost to mankind even then, they knew that it had always existed.
5. A place which only the spirits of heroes could enter, and they reached it without dying, because they carried the secret of life within them.

Your Answer:32154 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	257
Avg. time spent on this question by all students	124
Difficulty Level	D
Avg. time spent on this question by students who got this question right	117
% of students who attempted this question	38.32
% of students who got the question right of those who attempted	25.97

[Video Solution](#)

[Text Solution](#)

Sentence 1: The subjective pronoun "they" indicates that another sentence has to come before it. This sentence also has described the place "Atlantis".

Sentence 2: The pronoun "that" in this sentence indicates that another sentence has to come before it.

Sentence 3: Sentence 3 has the name of an 'isle': The Isles of the Blessed. This sentence can be taken to be a dramatic opening line of a topic.

Sentence 4: Sentence 4 has a reference to 'they' who knew Atlantis existed.

Sentence 5: Sentence 5 again has a description of the place (A place) and a reference to "they".

So, sentence 3 introduces the name of a place 'The Isle of the Blessed'. The pronoun 'that' in sentence 2 refers to the place mentioned in sentence 3. Hence, sentence 3 and sentence 2 form a logical block. In sentence 2, the actual name of the place is mentioned as 'Atlantis'. Sentence 4 mentions that Atlantis was lost to mankind **even then**. "Even then" refers to "thousands of years ago" mentioned in sentence 2. Hence, sentence 4 links with sentence 2. 'They' in sentence 4 refers to "the Greeks" introduced in sentence 2. So, 324.

Sentence 1 also mentions Atlantis and the belief of the Greeks related to it. However, before talking about their belief regarding (the description of) Atlantis, the knowledge of the Greeks about its existence must be established. Hence, Sentence 1 cannot come before Sentence 4.

After sentence 4, we can introduce the idea of what the Greeks believed to have happened in Atlantis. Hence, Sentence 1 comes after Sentence 4.

Sentences 1 and 5 form another logical block. "They said Atlantis was a place where hero-spirits lived" in sentence 1 links with "A place which only the spirits of heroes could enter" in sentence 5. "unknown to the rest of the earth" in sentence 1 is parallel to "they carried the secret of life within them" in sentence 5.

Hence, the correct order of the sentences is 32415.

Ans: (32415)

undefined

Q27. DIRECTIONS for questions 27 and 28: Five sentences related to a topic are given in each of the questions below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out. Choose its number as your answer and key it in.

1. In the first era of globalization, the solution to this problem was brutally simple but effective: to impose European rule.
2. The key problem with overseas investment, then as now, is that it is hard for investors in London or New York to see what a foreign government or an overseas manager is up to when they are an ocean or more away.
3. If a foreign trading partner decided to default on its debts, there was little that an investor situated on the other side of the world could do.
4. Moreover, most non-western countries had, until quite recently, highly unreliable legal systems and differing accounting rules.

5.

It used to be said that emerging markets were the places where they had emergencies.

Your Answer:4 □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	77
Avg. time spent on this question by all students	119
Difficulty Level	D
Avg. time spent on this question by students who got this question right	118
% of students who attempted this question	44.32
% of students who got the question right of those who attempted	50.53

[Video Solution](#)

[Text Solution](#)

Sentence 1 talks about a solution to a particular problem.

Sentence 2 talks about a key problem with overseas investment, then (not sure which time-period) and now.

In Sentence 3, 'Investor' situated on the 'other side of the world' alludes to the problem mentioned in Sentence 2 – 'ocean or more away'.

Sentence 4 has a positive connector 'moreover' followed by something negative – highly unreliable legal systems in non-western countries.

Sentence 5 talks about emerging markets and emergencies.

1 and 2 form a logical pair (not necessarily successive sentences but a connected idea) – problem and solution. 3 is a specific detail, elaborating the problem further in a specific case. 4 is a logical elaboration of the problem by adding that there is another issue besides investors not being able to monitor what is happening in the overseas investment.

So, 2341 is the order. 2 is followed by 3 and not 4 because both 2 and 3 speak from the perspective of investors. 5 is the odd-one out because we are not sure overseas investment can be equated to 'emerging markets'. Ans: (5)

undefined

Q28. DIRECTIONS for questions 27 and 28: Five sentences related to a topic are given in each of the questions below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out. Choose its number as your answer and key it in.

1. By the time the Spanish explorer Vasco Núñez de Balboa 'found' the Pacific Ocean in 1513, General Sherman had been growing for more than 1,500 years.
2. The Giant Forest, located in Sequoia National Park, is where General Sherman, the largest tree in the world, stands.
3. The Giant Forest is connected by the Generals Highway to Kings Canyon National Park's General Grant Grove, home to the General Grant tree among other giant sequoias.
4. It is estimated to be 2,300 to 2,700 years old - a silent witness to both natural and human histories.

5.

Sequoia National Park, situated in California, United States, was founded on September 25, 1890, and while the park's 128 years is nothing to sneeze at, some trees in the giant sequoia grove had called this home for thousands of years before they were given the protection of a national park.

Your Answer:5 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	101
Avg. time spent on this question by all students	109
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	113
% of students who attempted this question	44.03
% of students who got the question right of those who attempted	34.45

[Video Solution](#)

[Text Solution](#)

Sentence 1: Sentence 1 refers to the past period and tells us that the General Sherman had been around for more than 1,500 years.

Sentence 2: Sentence 2 introduces the tallest tree in the world to us.

Sentence 3: Sentence 3 provides some additional information about the Giant Forest.

Sentence 4: Sentence 4 has the pronoun "it" which means that there needs to be a sentence prior to this sentence.

Sentence 5: Sentence 5 has many specific details about the Sequoia National Park in the US.

On a careful reading of the sentences, it can be observed that sentence 5 is a general sentence that can begin the paragraph. It gives us the location of the Sequoia National Park and the date when the park was founded.

Sentences 5 and 2 form a logical block. Sentence 2 tells us about the General Sherman, the largest tree in the world being an integral part of the Giant Forest which in turn exists in Sequoia National Park.

Sentence 2 is followed by sentence 4. The pronoun "it" in sentence 4 refers to the General Sherman which has been introduced to us in sentence 2.

Sentence 1 concludes the para and it tells us the period or duration of the General Sherman being in existence.

So, 5241.

Sentence 3 is the odd sentence out as it gives us unnecessarily details about the Giant Forest being connected to a specific area of another National Park. This sentence has no bearing on the remaining sentences. It runs tangent to the given paragraph and can be a part of another para. It needs a precedent and also more sentences after it.

Ans: (3)

undefined

Q29. DIRECTIONS for questions 29 to 31: Each of the following questions has a paragraph from which the last sentence has been left incomplete. From the five numbered options given below the paragraph, choose the one that completes the paragraph in the most appropriate way and enter its number in the input box given below the question.

Opponents of genetically modified crops often complain that moving genes between species is unnatural. Leaving aside the fact that the whole of agriculture is unnatural, this is still an odd worry. It has been known for a while that some genes move from one species to another given the chance, in a process called horizontal gene transfer. Genes for antibiotic resistance, for example, swap freely between species of bacteria. Only recently, though, it has become clear just how wide-spread such natural transgenics is. _____

1.

Flies and worms are among geneticists' favourite animals, so lots of data have been collected on them.

2. The natural technology can help feed people in developing countries, keep our food costs as low as possible and aid the environment by reducing our carbon footprint and reducing soil erosion.

3. What was once regarded as a peculiarity of lesser organisms has now been found to be true in human beings, too.

4. But it might surprise many people that they are even to a small degree part bacterium, part fungus and part alga.

5. That has led to debates over whether genetically modified organisms should be labelled or tightly regulated.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	5
Avg. time spent on this question by all students	135
Difficulty Level	D
Avg. time spent on this question by students who got this question right	128
% of students who attempted this question	44.92
% of students who got the question right of those who attempted	35.69

[Video Solution](#)

Text Solution

The main point of discussion in the given para is "genes moving from one species to another".

- (1): The penultimate sentence of the para talks about natural transgenics (a field) being wide-spread but there is a shift of focus from this point to the experimental animals used by geneticists. So choice (1) would be abrupt and it cannot complete the para.
 - (2): (2) points to the manifold uses or benefits of 'natural transgenics'. But it does not help explain how wide-spread natural transgenics is. So choice (2) cannot complete the para.
 - (3): "peculiarity of lesser organisms has now been found to be true in human beings" in choice (3) links with "become clear just how wide-spread such natural transgenics is" as mentioned in the penultimate sentence of the para. Choice (3) is the best choice to complete the para.
 - (4): "they are even to a small degree part bacterium, part fungus and part alga" in choice (4) seems to link with the penultimate sentence but there is no justification for the use of the contrast word 'but' as given in choice (4). So choice (4) cannot complete the para.
 - (5): (5) sounds an alarm about genetically modified organisms. It is out of scope of the discussion of the given para. It does not further the point about how natural transgenics has become wide-spread.
- Ans: (3)

undefined

Q30. DIRECTIONS for questions 29 to 31: Each of the following questions has a paragraph from which the last sentence has been left incomplete. From the five numbered options given below the paragraph, choose the one that completes the paragraph in the most appropriate way and enter its number in the input box given below the question.

In the early 1920s, Einstein became aware of increasing anti-Semitism as nationalism continued to soar after the defeat of

Germany during the war. Signs of anti-Jewish bias were emerging in Berlin against Jews in general and against Einstein, the new celebrity, in particular. Part of the prejudice appeared in the form of outrageous criticisms against relativity theory - which anti-Semites, particularly German physicists Philipp Lenard and Johannes Stark, both of whom had won the Nobel Prize, referred to as "Jewish science". At first, Einstein tried to ignore their remarks and dismissed them, preferring to involve himself with the concerns of reconstruction after the war.

1. All the while, Germany was continuing to experience economic hardship and depression, and Communism was rearing its head in the east, and Jews seemed a good scapegoat to many for both of these situations.
2. Later, Einstein strongly felt that war could be abolished only if a worldwide resistance against military service was organized internationally.
3. But soon after, Einstein felt it was time to repudiate the attacks made on his theory in 1918 by those he called "the Anti-Relativity Company."
4. Later, with the rise of Nazism, as the state of affairs turned more serious, he chose to become much more vocal.
5. But it was to Einstein that Zionist leaders turned in the summer of 1947 in the hope that he might work a miracle and persuade India to support the establishment of a Jewish state.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	117
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	123
% of students who attempted this question	41.55
% of students who got the question right of those who attempted	31.41

[Video Solution](#)

[Text Solution](#)

The para is about Einstein's reaction to increasing anti-Semitism in the 1920s. Note that the penultimate sentence has the sequence indicator "At first".

- (1): Choice (1) reflects the situation prevalent at that time in Germany and elsewhere but fails to capture Einstein's reaction towards the criticism against his theory of relativity. Choice (1) runs tangent to the given para and does not complete the thought flow.
- (2): Choice (2) again cannot complete the para. Choice (2) would lead to a complete distortion of facts if placed after the penultimate sentence of the para. "concerns of reconstruction after the war" (which implies that the war would take place) does not gel with "strongly felt that war could be abolished" as mentioned in choice B. So choice B cannot end the given para.
- (3): The para specifically refers to the "early 1920s". "Repudiate the attacks made on his theory in 1918 by what he called "the Anti-Relativity Company"" - The year in which the attacks were made was not mentioned in the para and we cannot pinpoint it to 1918 in the concluding sentence of the para. Further, no reason has been given as to why Einstein changed his mind, from ignoring and dismissing their remarks to repudiating them. Choice (3), though containing the starter "But soon after", cannot complete the para.
- (4): Choice (4) connects very well to the penultimate sentence of the para. First Einstein ignored then he became more vocal. "the state of affairs turned more serious" in choice D points to "outrageous criticisms against relativity theory – which anti-Semites, particularly German physicists Philipp Lenard and Johannes Stark". Further, this choice provides a reason for Einstein's changed stance along with the reason for it. Choice (4) is the correct answer.
- (5): Now, choice (5) has the contrast conjunction 'but' and at first sight, it seems to provide a contrasting point of view to the view mentioned in the penultimate sentence. However, choice 5 brings in a totally irrelevant point which does not specifically refer to Einstein's reactions against the criticisms levelled against his relativity theory. Choice (5) can be a part of another para.

Ans: (4)

undefined

Q31. DIRECTIONS for questions 29 to 31: Each of the following questions has a paragraph from which the last sentence has been left incomplete. From the five numbered options given below the paragraph, choose the one that completes the paragraph in the most appropriate way and enter its number in the input box given below the question.

The earliest writing systems evolved independently and at roughly the same time in Egypt and Mesopotamia, but current scholarship suggests that Mesopotamia's writing appeared first. That writing system, invented by the Sumerians, emerged in Mesopotamia around 3500 BCE. At first, this writing was representational: a bull might be represented by a picture of a bull, and a pictograph of barley signified the word barley. Though writing began as pictures, this system was inconvenient for conveying anything other than simple nouns, and it became increasingly abstract as it evolved to encompass more abstract concepts, eventually taking form in the world's earliest writing: cuneiform. An increasingly complex civilization encouraged the development of an increasingly sophisticated form of writing. _____

1. The ability to decipher these symbols and signs was seen as an extraordinary accomplishment.
2. Egyptian hieroglyphics were thought to possess magical powers and, to this day, many readers regard these sources as media for gaining cultural and spiritual experiences.
3. Writing has always been a marker of character, which is why people throughout history have invested considerable cultural and emotional resources in cultivating identities as lovers of books.
4. Since the invention of the cuneiform system of writing in Mesopotamia and of hieroglyphics in Egypt, the serious reader of texts has enjoyed cultural acclamation.
5. Cuneiform came to function both phonetically (representing a sound) and semantically (representing a meaning such as an object or concept) rather than only representing objects directly as a picture.

Your Answer:3 □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	38
Avg. time spent on this question by all students	111
Difficulty Level	D
Avg. time spent on this question by students who got this question right	122
% of students who attempted this question	37.35
% of students who got the question right of those who attempted	57.37

[Video Solution](#)

Text Solution

- (1): "these symbols and signs" in choice A would need a precedent and more substantiation. Choice (1) cannot complete the para.
- (2): The para discusses the evolution of the writing system in Mesopotamia (only). Choice 2 with a focus on "Egyptian hieroglyphics" (which has not been introduced in the para) runs tangent to the discussion. Choice (2) is not the answer.
- (3): The penultimate sentence of the para has the keywords "an increasingly sophisticated form of writing". But choice (3) talks only about writing in general and does not refer to any form of writing. Choice (3) also has a shift of tense. The para is written in the simple past tense while choice (3) is in the present perfect tense (Writing has always been). The penultimate sentence refers to a specific period of time when a sophisticated form of writing developed while choice (3) refers to "throughout history". "cultivating identities as lovers of books" is a new idea. Choice (3) is not the answer.
- (4): Choice (4) jumps the gun as it does not continue the discussion of how cuneiform became a "sophisticated form of writing". It has a reference to Mesopotamia's writing and Egyptian writing but the para is dedicated to the birth of the world's earliest writing: cuneiform and the evolution of the writing system in Mesopotamia (only). Choice (4) is not the answer.
- (5): At first, this writing was representational but later it became more abstract (*more sophisticated form of writing*) as it evolved to encompass more abstract concepts, eventually taking form in the world's earliest writing: cuneiform. So choice (5) best completes the discussion of the evolution of cuneiform. "rather than only representing objects directly as a picture" in choice (5) links with "a bull might be represented by a picture of a bull, and a pictograph of barley signified the word barley. Though writing began as pictures, this system was inconvenient" given in the para. Hence choice (5) is the correct answer.

Ans: (5)

undefined

Q31. DIRECTIONS for questions 29 to 31: Each of the following questions has a paragraph from which the last sentence has been left incomplete. From the five numbered options given below the paragraph, choose the one that completes the paragraph in the most appropriate way and enter its number in the input box given below the question.

The earliest writing systems evolved independently and at roughly the same time in Egypt and Mesopotamia, but current scholarship suggests that Mesopotamia's writing appeared first. That writing system, invented by the Sumerians, emerged in Mesopotamia around 3500 BCE. At first, this writing was representational: a bull might be represented by a picture of a bull, and a pictograph of barley signified the word barley. Though writing began as pictures, this system was inconvenient for conveying anything other than simple nouns, and it became increasingly abstract as it evolved to encompass more abstract concepts, eventually taking form in the world's earliest writing: cuneiform. An increasingly complex civilization encouraged the development of an increasingly sophisticated form of writing. _____

1. The ability to decipher these symbols and signs was seen as an extraordinary accomplishment.
2. Egyptian hieroglyphics were thought to possess magical powers and, to this day, many readers regard these sources as media for gaining cultural and spiritual experiences.
3. Writing has always been a marker of character, which is why people throughout history have invested considerable cultural and emotional resources in cultivating identities as lovers of books.
4. Since the invention of the cuneiform system of writing in Mesopotamia and of hieroglyphics in Egypt, the serious reader of texts has enjoyed cultural acclamation.
5. Cuneiform came to function both phonetically (representing a sound) and semantically (representing a meaning such as an object or concept) rather than only representing objects directly as a picture.

Your Answer:3 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	38
Avg. time spent on this question by all students	111
Difficulty Level	D
Avg. time spent on this question by students who got this question right	122
% of students who attempted this question	37.35
% of students who got the question right of those who attempted	57.37

[Video Solution](#)

[Text Solution](#)

- (1): "these symbols and signs" in choice A would need a precedent and more substantiation. Choice (1) cannot complete the para.
- (2): The para discusses the evolution of the writing system in Mesopotamia (only). Choice 2 with a focus on "Egyptian hieroglyphics" (which has not been introduced in the para) runs tangent to the discussion. Choice (2) is not the answer.
- (3): The penultimate sentence of the para has the keywords "an increasingly sophisticated form of writing". But choice (3) talks only about writing in general and does not refer to any form of writing. Choice (3) also has a shift of tense. The para is written in the simple past tense while choice (3) is in the present perfect tense (Writing has always been). The penultimate sentence refers to a specific period of time when a sophisticated form of writing developed while choice (3) refers to "throughout history". "cultivating identities as lovers of books" is a new idea. Choice (3) is not the answer.
- (4): Choice (4) jumps the gun as it does not continue the discussion of how cuneiform became a "sophisticated form of writing". It has a reference to Mesopotamia's writing and Egyptian writing but the para is dedicated to the birth of the world's earliest writing: cuneiform and the evolution of the writing system in Mesopotamia (only). Choice (4) is not the answer.
- (5): At first, this writing was representational but later it became more abstract (*more sophisticated form of writing*) as it evolved to encompass more abstract concepts, eventually taking form in the world's earliest writing: cuneiform. So choice (5) best completes the discussion of the evolution of cuneiform. "rather than only representing objects directly as a picture" in choice (5) links with "a bull might be represented by a picture of a bull, and a pictograph of barley signified the word barley. Though writing began as pictures, this system was inconvenient" given in the para. Hence choice (5) is the correct answer.

Ans: (5)

undefined

Q32. DIRECTIONS for questions 32 to 34: Each of the following questions presents a sentence, part or all of which is underlined. Beneath the sentence, five different ways of phrasing the sentence, numbered 1 to 5, are given. Choose the answer choice that produces the most effective sentence in terms of word choice and sentence construction and enter the number corresponding to the answer choice as your answer in the input box provided. Your answer should make the sentence clear, exact and free of grammatical error. It should also minimize awkwardness, ambiguity and redundancy.

Except for a concert performance that the Italian-American composer himself staged in 1911, Gian Carlo Menotti's radio opera *The Old Maid and the Thief* was not produced until 1941, thirty years after its completion.

1. Besides for a concert performance being staged by the Italian-American composer himself
2. Excepting a concert performance which the Italian-American composer staged himself
3. Except for a concert performance that the Italian-American composer himself staged
4. With the exception of a concert performance with the staging done by the Italian-American composer

5.

- Beside a concert performance with the Italian-American composer himself staging it

Your Answer:3 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	8
Avg. time spent on this question by all students	102
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	99
% of students who attempted this question	39.79
% of students who got the question right of those who attempted	41.91

[Video Solution](#)

[**Text Solution**](#)

The sentence has errors related to idiomatic usage and rhetorical construction.

- (1): "being staged" suggests ongoing rather than completed action. Also "besides for" is incorrect usage. "Besides" should suffice. (1) is incorrect.
- (2): "Excepting" usually appears in negative constructions. The non-restrictive or generalized pronoun 'which' needs to be replaced with the restrictive pronoun 'that' in the beginning of the clause. "himself staged" is correct and not "staged himself" as the former mentions the emphasis better than the latter. (2) is not the answer.
- (3): 'Except for' is correct usage in this case and is correctly followed by a noun "concert performance". The part after "1911" has the composer's name. So "that the Italian-American composer himself staged" is a clause that clearly and concisely describes the performance. (3) is grammatically correct.
- (4): (4) has awkward and wordy construction (With With....). It has also unnecessarily omitted the emphatic pronoun 'himself'. (4) is not the answer.
- (5): "Beside" is a preposition and means "next to". "Besides" would mean "In addition to". Here we are not referring to the idea of "an addition". We are referring to an exception. Hence "Except for" should be used in place of "beside". "With the composer himself...." is a wordy construction. "Staging" refers to the present rather than the past. It suggests ongoing action rather than action completed in 1911.

Ans: (3)

undefined

Q33. DIRECTIONS for questions 32 to 34: Each of the following questions presents a sentence, part or all of which is underlined. Beneath the sentence, five different ways of phrasing the sentence, numbered 1 to 5, are given. Choose the answer choice that produces the most effective sentence in terms of word choice and sentence construction and enter the number corresponding to the answer choice as your answer in the input box provided. Your answer should make the sentence clear, exact and free of grammatical error. It should also minimize awkwardness, ambiguity and redundancy.

Many regions in the world has decent infrastructure for handling vaccines like cold chains but this is not always so, especially in certain parts of the tropics, where vaccines are often needed most.

1. has decent infrastructure for handling vaccines like cold chains
2. have decent infrastructure for handling vaccines such as cold chains
3. have decent infrastructure, for example, cold chains, for handling vaccines,

4. have decent infrastructure like cold chains, for handling vaccines,

5. have decent infrastructure, such as cold chains, for handling vaccines,

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	79
Difficulty Level	D
Avg. time spent on this question by students who got this question right	86
% of students who attempted this question	39.82
% of students who got the question right of those who attempted	33.17

[Video Solution](#)

[Text Solution](#)

The given sentence has errors related to subject verb agreement, punctuation, modifiers and word usage.

- (1): The singular verb 'has' is incorrect here. We need the plural verb 'have' which will agree with the plural subject 'regions'. Also 'like' is a preposition and means 'similar in quality'. Here, one is using 'cold chains' as an example of 'infrastructure'. Using 'such as' would be a better way to indicate an example. Hence 'like' needs to be replaced with 'such as'. Also 'such as cold chains' qualifies 'decent infrastructure' and should be placed close to it. The part should read 'infrastructure, such as cold chains, for handling vaccines,' Hence (1) is not the answer.
- (2): As explained in (1), the part 'such as cold chains' should come close to "infrastructure". (2) is not the answer. There should be commas placed before and after the insertion "such as cold chains".
- (3): The usage of the phrase 'for example' in the middle of the sentence is not appropriate and leads to an awkward sentence structure. 'For example' generally starts a sentence. Hence, (3) is not the answer.
- (4): As explained in (1), 'like' is incorrect and needs to be replaced with 'such as'. The insertion "such as cold chains" should be placed within commas on both sides.
- (5): (5) is the grammatically correct answer option. Ans: (5)

undefined

Q34. DIRECTIONS for questions 32 to 34: Each of the following questions presents a sentence, part or all of which is underlined. Beneath the sentence, five different ways of phrasing the sentence, numbered 1 to 5, are given. Choose the answer choice that produces the most effective sentence in terms of word choice and sentence construction and enter the number corresponding to the answer choice as your answer in the input box provided. Your answer should make the sentence clear, exact and free of grammatical error. It should also minimize awkwardness, ambiguity and redundancy.

Peering through Mars's thin atmosphere from an orbiting satellite iseasy than to peer at thousands of metres of water from across a equivalent satellite in orbit around earth.

1. easy than to peer at thousands of metres of water from across a

2. easier than to peer through thousands of metres of water from an
3. easier than peering across thousand of metres of water from an
4. easier than peering through thousands of metres of water from an
5. easier than peering through thousands of metres of water from

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	107
Difficulty Level	M
Avg. time spent on this question by students who got this question right	109
% of students who attempted this question	37.18
% of students who got the question right of those who attempted	60.1

[Video Solution](#)

[Text Solution](#)

The given sentence has errors in parallelism, comparisons, and parts of speech.

- (1): "Peering through" in the first part of the sentence should be followed by "peering through" in the second half of the sentence (one needs to follow the rule of parallelism). So 'to peer at' is incorrect in (1). One must use the 'ing' form of the verb and not the infinitive form (to). Also since one is using the comparative degree with the use of 'than', one needs to say 'easier than' ('easy than' is incorrect). Also we do not need to say "from across (an equivalent satellite)". "from" should suffice (from an orbiting satellite from an equivalent satellite). We need to replace the article 'a' with 'an'. (1) is not the answer because of multiple errors.
- (2): "than to peer through" is incorrect in (2). As explained in (1), "than to peer through" needs to be replaced with "than peering through". (2) is not the answer.
- (3): In (3), 'thousand' should be pluralised (thousands). 'peering across' is also wrong. We need to say 'peering through' in both parts of the sentence. (3) is not the answer.
- (4): (4) is grammatically correct and is the answer.
- (5): The lack of the indefinite article 'an' at the end of the underlined phrase makes (5) incorrect.

Ans: (4)

undefined

DIRECTIONS for questions 1 to 4: Answer the questions on the basis of the information given below.

A building, which has 200 floors, has exactly three elevators - Elevator A, Elevator B and Elevator C. Only Elevator A stops at the ground floor (i.e., floor 0). Elevator A stops additionally at floors 5, 10, 15 and so on; Elevator B stops only at floors 4, 8, 12 and so on; Elevator C stops only at floors 6, 12, 18, 24 and so on. Further, all the floors are connected by a staircase and any floor can be reached from any other floor using this staircase.

Tarun, a network engineer who visits various offices in this building everyday, always tries to reach the desired floor by

taking the elevators so that he minimizes the number of floors that he has to walk using the staircase.

Q1. DIRECTIONS for questions 1 and 2: Select the correct alternative from the given choices.

Tarun got into Elevator A at the ground floor. He got down from Elevator A at the p^{th} floor. He got into Elevator B at this floor and got down at the q^{th} floor such that $q > p$. He got into Elevator C at this floor and got down at the r^{th} floor such that $r > q$.

If the number of floors that he travelled in Elevator A is the same as the number of floors that he travelled in Elevator B, which of the following can be a possible value of r ?

- a) 60
- b) 90
- c) 108
- d) 168

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	37
Avg. time spent on this question by all students	408
Difficulty Level	M
Avg. time spent on this question by students who got this question right	392
% of students who attempted this question	31.62
% of students who got the question right of those who attempted	73.12

[Video Solution](#)

[Text Solution](#)

Given that Tarun travelled for the same number of floors in Elevator A and Elevator B. However, the number of floors that he can travel by Elevator A is a multiple of 5 and the number of floors that he can travel by Elevator B is a multiple of 4. Hence, the number of floors that he travelled by each of the two elevators must be a multiple of 20. Therefore, Tarun could have got down Elevator B at 40th or 80th or 120th or 160th floor.

Further, Tarun took Elevator C from the floor in which he got down Elevator B. For Elevator C to stop at any floor, the floor number must be a multiple of 6. This is possible only if he got down at the 120th floor. Hence, r must be greater than 120. Among the given options, the value of r can only be 168. Choice (D)

undefined

DIRECTIONS for questions 1 to 4: Answer the questions on the basis of the information given below.

A building, which has 200 floors, has exactly three elevators - Elevator A, Elevator B and Elevator C. Only Elevator A stops at the ground floor (i.e., floor 0). Elevator A stops additionally at floors 5, 10, 15 and so on; Elevator B stops only at floors 4, 8, 12 and so on; Elevator C stops only at floors 6, 12, 18, 24 and so on. Further, all the floors are connected by a staircase and any floor can be reached from any other floor using this staircase.

Tarun, a network engineer who visits various offices in this building everyday, always tries to reach the desired floor by taking the elevators so that he minimizes the number of floors that he has to walk using the staircase.

Q2. DIRECTIONS for questions 1 and 2: Select the correct alternative from the given choices.

Tarun got into Elevator A at the ground floor. He got down from Elevator A at the p^{th} floor. He got into Elevator B at this floor and got down at the q^{th} floor such that $q > p$. He got into Elevator C at this floor and got down at the r^{th} floor such that $r > q$.

If the number of floors that he travelled in Elevator C is the same as the number of floors that he travelled in Elevator A, what is the minimum possible value of r?

- a) 90
- b) 144
- c) 132
- d) 150

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	214
Difficulty Level	M
Avg. time spent on this question by students who got this question right	220
% of students who attempted this question	24.05
% of students who got the question right of those who attempted	69.29

[Video Solution](#)

[Text Solution](#)

Given that Tarun travelled for the same number of floors in Elevator A and Elevator C. However, the number of floors that he can travel by Elevator A is a multiple of 5 and the number of floors that he can travel by Elevator C is a multiple of 6. Hence, the number of floors that he travelled by each of the two elevators must be a multiple of 30.

Further, Tarun must have got into Elevator B in the same floor that he got down from Elevator A. Tarun could have got down from Elevator A in any floor which is a multiple of 30. The least possible floor on which Tarun could have got down Elevator A is 60. Hence, Tarun must have travelled a minimum of 60 floors using each of Elevator A and Elevator C. However, to minimize the value of r, we need to minimize the number of floors Tarun would have travelled in Elevator B. Since Tarun got into Elevator B in the 60th floor, he must have travelled for a minimum of 12 floors to get into Elevator C. Hence, Tarun would have got into Elevator C in the 72nd floor and he would have got down Elevator C in the 132nd floor.

Choice (C)

undefined

DIRECTIONS for questions 1 to 4: Answer the questions on the basis of the information given below.

A building, which has 200 floors, has exactly three elevators - Elevator A, Elevator B and Elevator C. Only Elevator A stops at the ground floor (i.e., floor 0). Elevator A stops additionally at floors 5, 10, 15 and so on; Elevator B stops only at floors 4, 8, 12 and so on; Elevator C stops only at floors 6, 12, 18, 24 and so on. Further, all the floors are connected by a staircase and any floor can be reached from any other floor using this staircase.

Tarun, a network engineer who visits various offices in this building everyday, always tries to reach the desired floor by taking the elevators so that he minimizes the number of floors that he has to walk using the staircase.

Q3. DIRECTIONS for questions 3 and 4: Type your answer in the text box provided below the question.

Tarun got into Elevator A at the ground floor. He got down from Elevator A at the i^{th} floor. He got into Elevator B at this floor and got down at the j^{th} floor such that $j > i$. He got into Elevator C at this floor and got down at the k^{th} floor such that $k < j$.

If the number of floors that he travelled in Elevator C is the same as the number of floors that he travelled in Elevator A, what is the maximum number of floors that he could have travelled using Elevator C?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	190
Difficulty Level	M
Avg. time spent on this question by students who got this question right	202
% of students who attempted this question	19.84
% of students who got the question right of those who attempted	41.58

[Video Solution](#)

[Text Solution](#)

We need to maximize the number of floors that Tarun went down using Elevator C. This is possible if Tarun reaches the highest possible floor before getting into Elevator C.

Since he got down from Elevator B and got into Elevator C at the j^{th} floor, j must be the maximum possible multiple of 4 and 6 less than 200 (since the building has 200 floors). Hence, the maximum value of j can be 192.

Also, the number of floors that he travelled using Elevator A is the same as that using Elevator C. To maximize these two values, we need to minimize the number of floors that he travelled using Elevator B. Tarun could have got down from Elevator A and got into Elevator B at any floor which is a multiple of 20.

Since Tarun has to get into Elevator B before the 192nd floor, he must have got into Elevator B at floor 180. Hence, Tarun could have travelled in Elevator A until floor 180. He could have got into Elevator B at this floor and got down from Elevator B at floor 192. He could have got into Elevator C at floor 192 and travelled for 180 floors and got down Elevator C at floor 12.

Hence, the maximum number of floors that he could have travelled using Elevator C is 180. Ans: (180)

undefined

DIRECTIONS for questions 1 to 4: Answer the questions on the basis of the information given below.

A building, which has 200 floors, has exactly three elevators - Elevator A, Elevator B and Elevator C. Only Elevator A stops at the ground floor (i.e., floor 0). Elevator A stops additionally at floors 5, 10, 15 and so on; Elevator B stops only at floors 4, 8, 12 and so on; Elevator C stops only at floors 6, 12, 18, 24 and so on. Further, all the floors are connected by a staircase and any floor can be reached from any other floor using this staircase.

Tarun, a network engineer who visits various offices in this building everyday, always tries to reach the desired floor by taking the elevators so that he minimizes the number of floors that he has to walk using the staircase.

Q4. DIRECTIONS for questions 3 and 4: Type your answer in the text box provided below the question.

Tarun got into Elevator A at the ground floor. He got down from Elevator A at the i^{th} floor. He got into Elevator B at this floor and got down at the j^{th} floor such that $j > i$. He got into Elevator C at this floor and got down at the k^{th} floor such that $k < j$.

If the number of floors that he travelled in Elevator C is the same as the number of floors that he travelled in Elevator A, what is the maximum possible value of k ?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	99
Difficulty Level	D
Avg. time spent on this question by students who got this question right	124

Time spent / Accuracy Analysis

% of students who attempted this question	16.85
% of students who got the question right of those who attempted	19.23

[Video Solution](#)

Text Solution

We need to maximize the value of k , i.e., we need to minimize the number of floors that he got down using Elevator C. Also, the number of floors that he travelled in Elevator C is the same as the number of floors that he travelled in Elevator A. For these two to be equal, the number of floors that he travelled using Elevator A or Elevator C must be at least 30. However, he also has to get into Elevator B after getting down from Elevator A. Hence, he must get down from Elevator A at the 60th floor. In Elevator B he must have travelled the maximum number of floors, provided he can enter Elevator C at the floor that he gets down from Elevator B. He could have got down at 192nd floor and got into Elevator C. Using Elevator C he must have got down 60 floors, getting down at 132nd floor. Hence, the maximum possible value of k is 132.

Ans: (132)

undefined

DIRECTIONS for questions 5 to 8: Answer the questions on the basis of the information given below.

Seven persons, Ankur, Bhargav, Chirag, Dheeraj, Farhan, Gaurav and Harish, were invited to speak at a conference, which comprised only the speeches of these seven persons. When the persons reached the venue of the conference, they realized that they were asked to sit around a circular table which had only six uniformly spaced seats. The seven of them came to an agreement such that, at the beginning of the conference, while the first person to speak gives his speech at the podium, the remaining six persons will sit around the table. Once the first person finishes his speech, the second person to speak will stand at the podium and make his speech, offering his seat to the person who spoke just before him. This process of sharing the seats will continue until all the seven persons had finished their speeches, at the end of which all the seven persons will leave the venue. The following information is known about their seating arrangement during the conference:

- i. The two seats which Harish occupied during the conference were exactly opposite each other.
- ii. Farhan, who was sitting opposite Bhargav at the beginning of the conference, did not occupy any other seat throughout the conference, while both Bhargav and Farhan occupied the same seat at different times during the conference.
- iii. Dheeraj, who was sitting to the left of Ankur at the beginning of the conference, gave his speech immediately after Ankur.
- iv. Gaurav sat in two different seats, neither of which was opposite any seat in which Bhargav sat.
- v. Ankur sat to the left of Farhan at the beginning of the conference.

Q5. DIRECTIONS for questions 5 to 8: Select the correct alternative from the given choices.

Who was sitting opposite Gaurav at the beginning of the conference?

- a) Ankur

b) **Farhan**

c) **Harish**

d) **Dheeraj**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	124
Avg. time spent on this question by all students	537
Difficulty Level	D
Avg. time spent on this question by students who got this question right	556
% of students who attempted this question	30.28
% of students who got the question right of those who attempted	74.44

[Video Solution](#)

[Text Solution](#)

Each of the speakers, except for the first and the last speaker, occupied two seats during the conference. Any speaker who occupied two seats, sat in the position of the speaker who made his speech immediately afterwards. From (i), Harish occupied two seats opposite each other. Hence, Harish was neither the first nor the last speaker and at the beginning of the conference, he was sitting opposite to the person who made his speech immediately after Harish.

From (ii), Farhan did not occupy any other seat during the conference. This implies that Farhan is either the first speaker or the last speaker. However since Farhan is sitting opposite Bhargav at the beginning of the conference, he cannot be the first. Hence, Farhan must be the last speaker. Also, Bhargav must have been the speaker immediately before Farhan (since they shared a seat).

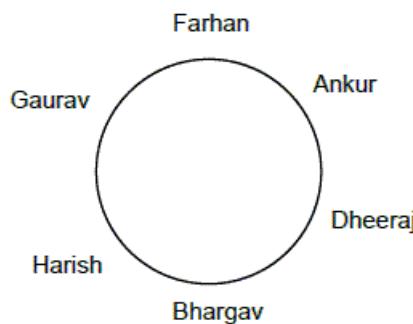
From (iii), Dheeraj was sitting to the left of Ankur at the beginning of the conference. Hence, neither of them were the first speaker (since they were seated at the beginning of the conference). Also, Dheeraj gave his speech immediately after Ankur. From (i), Harish must have made his speech immediately before Ankur or Dheeraj. This is because, Harish could have sat opposite only these two speakers at the beginning of the conference. Harish could not have made his speech immediately before Dheeraj (since Dheeraj gave his speech immediately after Ankur). Hence, Harish must have made his speech immediately before Ankur. From this, it follows that Harish must have been sitting opposite Ankur at the beginning of the conference.

Hence, at the beginning of the conference, Ankur must have been sitting to Farhan's left (from (v)). Dheeraj must have been sitting to Ankur's left.

Since Farhan, Gaurav, Bhargav, Ankur, Dheeraj or Harish cannot be the first speaker, the first speaker has to be Chirag.

Also, Gaurav could have made his speech before Harish (second) or before Bhargav (fifth). If Gaurav made his speech before Bhargav, Gaurav would have occupied Bhargav's seat after his speech. Bhargav would have occupied Farhan's seat after Bhargav's speech. At this point, Gaurav and Bhargav will be opposite each other. Hence, this is not possible. Hence, Farhan must have made his speech before Harish. The initial seating arrangement of the speakers and the order in which they gave their speeches are given below:

Order of Speaking
1. Chirag
2. Gaurav
3. Harish
4. Ankur
5. Dheeraj
6. Bhargav
7. Farhan



Dheeraj was sitting opposite Gaurav at the beginning of the conference.

Choice (D)

undefined

DIRECTIONS for questions 5 to 8: Answer the questions on the basis of the information given below.

Seven persons, Ankur, Bhargav, Chirag, Dheeraj, Farhan, Gaurav and Harish, were invited to speak at a conference, which comprised only the speeches of these seven persons. When the persons reached the venue of the conference, they realized that they were asked to sit around a circular table which had only six uniformly spaced seats. The seven of them

came to an agreement such that, at the beginning of the conference, while the first person to speak gives his speech at the podium, the remaining six persons will sit around the table. Once the first person finishes his speech, the second person to speak will stand at the podium and make his speech, offering his seat to the person who spoke just before him. This process of sharing the seats will continue until all the seven persons had finished their speeches, at the end of which all the seven persons will leave the venue. The following information is known about their seating arrangement during the conference:

- i. The two seats which Harish occupied during the conference were exactly opposite each other.
- ii. Farhan, who was sitting opposite Bhargav at the beginning of the conference, did not occupy any other seat throughout the conference, while both Bhargav and Farhan occupied the same seat at different times during the conference.
- iii. Dheeraj, who was sitting to the left of Ankur at the beginning of the conference, gave his speech immediately after Ankur.
- iv. Gaurav sat in two different seats, neither of which was opposite any seat in which Bhargav sat.
- v. Ankur sat to the left of Farhan at the beginning of the conference.

Q6. DIRECTIONS for questions 5 to 8: Select the correct alternative from the given choices.

Who among the following was not sitting opposite Ankur at any point during the conference?

- a) **Harish**
- b) **Gaurav**
- c) **Dheeraj**
- d) **Chirag**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	3
Avg. time spent on this question by all students	143
Difficulty Level	D
Avg. time spent on this question by students who got this question right	145
% of students who attempted this question	25.91
% of students who got the question right of those who attempted	72.28

[Video Solution](#)

[Text Solution](#)

Each of the speakers, except for the first and the last speaker, occupied two seats during the conference. Any speaker who occupied two seats, sat in the position of the speaker who made his speech immediately afterwards. From (i), Harish occupied two seats opposite each other. Hence, Harish was neither the first nor the last speaker and at the beginning of the conference, he was sitting opposite to the person who made his speech immediately after Harish.

From (ii), Farhan did not occupy any other seat during the conference. This implies that Farhan is either the first speaker or the last speaker. However since Farhan is sitting opposite Bhargav at the beginning of the conference, he cannot be the first. Hence, Farhan must be the last speaker. Also, Bhargav must have been the speaker immediately before Farhan (since they shared a seat).

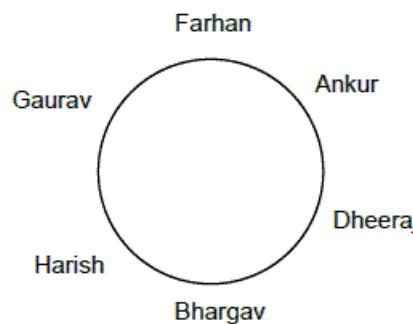
From (iii), Dheeraj was sitting to the left of Ankur at the beginning of the conference. Hence, neither of them were the first speaker (since they were seated at the beginning of the conference). Also, Dheeraj gave his speech immediately after Ankur. From (i), Harish must have made his speech immediately before Ankur or Dheeraj. This is because, Harish could have sat opposite only these two speakers at the beginning of the conference. Harish could not have made his speech immediately before Dheeraj (since Dheeraj gave his speech immediately after Ankur). Hence, Harish must have made his speech immediately before Ankur. From this, it follows that Harish must have been sitting opposite Ankur at the beginning of the conference.

Hence, at the beginning of the conference, Ankur must have been sitting to Farhan's left (from (v)). Dheeraj must have been sitting to Ankur's left.

Since Farhan, Gaurav, Bhargav, Ankur, Dheeraj or Harish cannot be the first speaker, the first speaker has to be Chirag.

Also, Gaurav could have made his speech before Harish (second) or before Bhargav (fifth). If Gaurav made his speech before Bhargav, Gaurav would have occupied Bhargav's seat after his speech. Bhargav would have occupied Farhan's seat after Bhargav's speech. At this point, Gaurav and Bhargav will be opposite each other. Hence, this is not possible. Hence, Farhan must have made his speech before Harish. The initial seating arrangement of the speakers and the order in which they gave their speeches are given below:

Order of Speaking
1. Chirag
2. Gaurav
3. Harish
4. Ankur
5. Dheeraj
6. Bhargav
7. Farhan



Gaurav, Chirag and Harish were sitting opposite Ankur at some point during the conference. Only Dheeraj was not sitting opposite Ankur during the conference.

Choice (C)

undefined

DIRECTIONS for questions 5 to 8: Answer the questions on the basis of the information given below.

Seven persons, Ankur, Bhargav, Chirag, Dheeraj, Farhan, Gaurav and Harish, were invited to speak at a conference, which comprised only the speeches of these seven persons. When the persons reached the venue of the conference, they realized that they were asked to sit around a circular table which had only six uniformly spaced seats. The seven of them came to an agreement such that, at the beginning of the conference, while the first person to speak gives his speech at the podium, the remaining six persons will sit around the table. Once the first person finishes his speech, the second person to speak will stand at the podium and make his speech, offering his seat to the person who spoke just before him. This process of sharing the seats will continue until all the seven persons had finished their speeches, at the end of which all the seven persons will leave the venue. The following information is known about their seating arrangement during the conference:

- i. The two seats which Harish occupied during the conference were exactly opposite each other.
- ii. Farhan, who was sitting opposite Bhargav at the beginning of the conference, did not occupy any other seat throughout the conference, while both Bhargav and Farhan occupied the same seat at different times during the conference.
- iii. Dheeraj, who was sitting to the left of Ankur at the beginning of the conference, gave his speech immediately after Ankur.
- iv. Gaurav sat in two different seats, neither of which was opposite any seat in which Bhargav sat.
- v. Ankur sat to the left of Farhan at the beginning of the conference.

Q7. DIRECTIONS for questions 5 to 8: Select the correct alternative from the given choices.

Who was sitting opposite Harish when Dheeraj was giving his speech?

a)

Farhan

b) **Gaurav**

c) **Ankur**

d) **Bhargav**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	81
Difficulty Level	D
Avg. time spent on this question by students who got this question right	82
% of students who attempted this question	23.13
% of students who got the question right of those who attempted	74.15

[Video Solution](#)

Text Solution

Each of the speakers, except for the first and the last speaker, occupied two seats during the conference. Any speaker who occupied two seats, sat in the position of the speaker who made his speech immediately afterwards. From (i), Harish occupied two seats opposite each other. Hence, Harish was neither the first nor the last speaker and at the beginning of the conference, he was sitting opposite to the person who made his speech immediately after Harish.

From (ii), Farhan did not occupy any other seat during the conference. This implies that Farhan is either the first speaker or the last speaker. However since Farhan is sitting opposite Bhargav at the beginning of the conference, he cannot be the first. Hence, Farhan must be the last speaker. Also, Bhargav must have been the speaker immediately before Farhan (since they shared a seat).

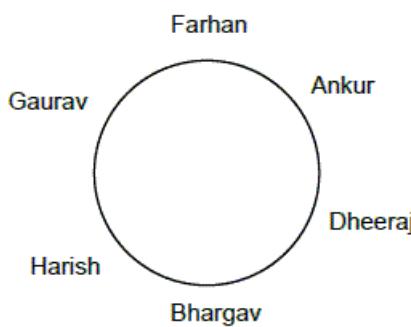
From (iii), Dheeraj was sitting to the left of Ankur at the beginning of the conference. Hence, neither of them were the first speaker (since they were seated at the beginning of the conference). Also, Dheeraj gave his speech immediately after Ankur. From (i), Harish must have made his speech immediately before Ankur or Dheeraj. This is because, Harish could have sat opposite only these two speakers at the beginning of the conference. Harish could not have made his speech immediately before Dheeraj (since Dheeraj gave his speech immediately after Ankur). Hence, Harish must have made his speech immediately before Ankur. From this, it follows that Harish must have been sitting opposite Ankur at the beginning of the conference.

Hence, at the beginning of the conference, Ankur must have been sitting to Farhan's left (from (v)). Dheeraj must have been sitting to Ankur's left.

Since Farhan, Gaurav, Bhargav, Ankur, Dheeraj or Harish cannot be the first speaker, the first speaker has to be Chirag.

Also, Gaurav could have made his speech before Harish (second) or before Bhargav (fifth). If Gaurav made his speech before Bhargav, Gaurav would have occupied Bhargav's seat after his speech. Bhargav would have occupied Farhan's seat after Bhargav's speech. At this point, Gaurav and Bhargav will be opposite each other. Hence, this is not possible. Hence, Farhan must have made his speech before Harish. The initial seating arrangement of the speakers and the order in which they gave their speeches are given below:

Order of Speaking
1. Chirag
2. Gaurav
3. Harish
4. Ankur
5. Dheeraj
6. Bhargav
7. Farhan



When Dheeraj was giving his speech, Gaurav was sitting opposite Harish.

Choice (B)

undefined

DIRECTIONS for questions 5 to 8: Answer the questions on the basis of the information given below.

Seven persons, Ankur, Bhargav, Chirag, Dheeraj, Farhan, Gaurav and Harish, were invited to speak at a conference, which comprised only the speeches of these seven persons. When the persons reached the venue of the conference, they realized that they were asked to sit around a circular table which had only six uniformly spaced seats. The seven of them

came to an agreement such that, at the beginning of the conference, while the first person to speak gives his speech at the podium, the remaining six persons will sit around the table. Once the first person finishes his speech, the second person to speak will stand at the podium and make his speech, offering his seat to the person who spoke just before him. This process of sharing the seats will continue until all the seven persons had finished their speeches, at the end of which all the seven persons will leave the venue. The following information is known about their seating arrangement during the conference:

- i. The two seats which Harish occupied during the conference were exactly opposite each other.
- ii. Farhan, who was sitting opposite Bhargav at the beginning of the conference, did not occupy any other seat throughout the conference, while both Bhargav and Farhan occupied the same seat at different times during the conference.
- iii. Dheeraj, who was sitting to the left of Ankur at the beginning of the conference, gave his speech immediately after Ankur.
- iv. Gaurav sat in two different seats, neither of which was opposite any seat in which Bhargav sat.
- v. Ankur sat to the left of Farhan at the beginning of the conference.

Q7. DIRECTIONS for questions 5 to 8: Select the correct alternative from the given choices.

Who was sitting opposite Harish when Dheeraj was giving his speech?

a)

Farhan

b) **Gaurav**

c) **Ankur**

d) **Bhargav**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	81
Difficulty Level	D
Avg. time spent on this question by students who got this question right	82
% of students who attempted this question	23.13
% of students who got the question right of those who attempted	74.15

[Video Solution](#)

[Text Solution](#)

Each of the speakers, except for the first and the last speaker, occupied two seats during the conference. Any speaker who occupied two seats, sat in the position of the speaker who made his speech immediately afterwards. From (i), Harish occupied two seats opposite each other. Hence, Harish was neither the first nor the last speaker and at the beginning of the conference, he was sitting opposite to the person who made his speech immediately after Harish.

From (ii), Farhan did not occupy any other seat during the conference. This implies that Farhan is either the first speaker or the last speaker. However since Farhan is sitting opposite Bhargav at the beginning of the conference, he cannot be the first. Hence, Farhan must be the last speaker. Also, Bhargav must have been the speaker immediately before Farhan (since they shared a seat).

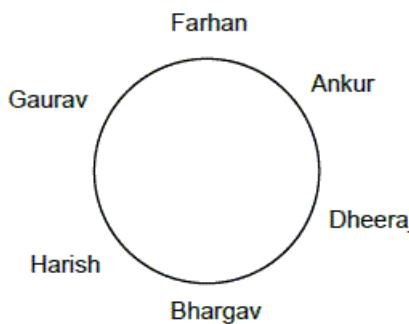
From (iii), Dheeraj was sitting to the left of Ankur at the beginning of the conference. Hence, neither of them were the first speaker (since they were seated at the beginning of the conference). Also, Dheeraj gave his speech immediately after Ankur. From (i), Harish must have made his speech immediately before Ankur or Dheeraj. This is because, Harish could have sat opposite only these two speakers at the beginning of the conference. Harish could not have made his speech immediately before Dheeraj (since Dheeraj gave his speech immediately after Ankur). Hence, Harish must have made his speech immediately before Ankur. From this, it follows that Harish must have been sitting opposite Ankur at the beginning of the conference.

Hence, at the beginning of the conference, Ankur must have been sitting to Farhan's left (from (v)). Dheeraj must have been sitting to Ankur's left.

Since Farhan, Gaurav, Bhargav, Ankur, Dheeraj or Harish cannot be the first speaker, the first speaker has to be Chirag.

Also, Gaurav could have made his speech before Harish (second) or before Bhargav (fifth). If Gaurav made his speech before Bhargav, Gaurav would have occupied Bhargav's seat after his speech. Bhargav would have occupied Farhan's seat after Bhargav's speech. At this point, Gaurav and Bhargav will be opposite each other. Hence, this is not possible. Hence, Farhan must have made his speech before Harish. The initial seating arrangement of the speakers and the order in which they gave their speeches are given below:

Order of Speaking
1. Chirag
2. Gaurav
3. Harish
4. Ankur
5. Dheeraj
6. Bhargav
7. Farhan



When Dheeraj was giving his speech, Gaurav was sitting opposite Harish.

Choice (B)

DIRECTIONS for questions 5 to 8: Answer the questions on the basis of the information given below.

Seven persons, Ankur, Bhargav, Chirag, Dheeraj, Farhan, Gaurav and Harish, were invited to speak at a conference, which comprised only the speeches of these seven persons. When the persons reached the venue of the conference, they realized that they were asked to sit around a circular table which had only six uniformly spaced seats. The seven of them came to an agreement such that, at the beginning of the conference, while the first person to speak gives his speech at the podium, the remaining six persons will sit around the table. Once the first person finishes his speech, the second person to speak will stand at the podium and make his speech, offering his seat to the person who spoke just before him. This process of sharing the seats will continue until all the seven persons had finished their speeches, at the end of which all the seven persons will leave the venue. The following information is known about their seating arrangement during the conference:

- i. The two seats which Harish occupied during the conference were exactly opposite each other.
- ii. Farhan, who was sitting opposite Bhargav at the beginning of the conference, did not occupy any other seat throughout the conference, while both Bhargav and Farhan occupied the same seat at different times during the conference.
- iii. Dheeraj, who was sitting to the left of Ankur at the beginning of the conference, gave his speech immediately after Ankur.
- iv. Gaurav sat in two different seats, neither of which was opposite any seat in which Bhargav sat.
- v. Ankur sat to the left of Farhan at the beginning of the conference.

Q8. DIRECTIONS for questions 5 to 8: Select the correct alternative from the given choices.

Who was sitting to the left of Bhargav when the last person was giving his speech?

- a) **Harish**
- b) **Ankur**
- c) **Chirag**
- d) **Farhan**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	2
Avg. time spent on this question by all students	55
Difficulty Level	D
Avg. time spent on this question by students who got this question right	50
% of students who attempted this question	21.3
% of students who got the question right of those who attempted	73.59

[Video Solution](#)

[Text Solution](#)

Each of the speakers, except for the first and the last speaker, occupied two seats during the conference. Any speaker who occupied two seats, sat in the position of the speaker who made his speech immediately afterwards. From (i), Harish occupied two seats opposite each other. Hence, Harish was neither the first nor the last speaker and at the beginning of the conference, he was sitting opposite to the person who made his speech immediately after Harish.

From (ii), Farhan did not occupy any other seat during the conference. This implies that Farhan is either the first speaker or the last speaker. However since Farhan is sitting opposite Bhargav at the beginning of the conference, he cannot be the first. Hence, Farhan must be the last speaker. Also, Bhargav must have been the speaker immediately before Farhan (since they shared a seat).

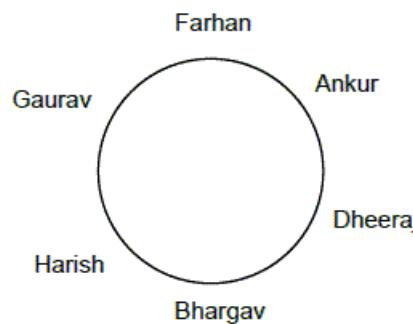
From (iii), Dheeraj was sitting to the left of Ankur at the beginning of the conference. Hence, neither of them were the first speaker (since they were seated at the beginning of the conference). Also, Dheeraj gave his speech immediately after Ankur. From (i), Harish must have made his speech immediately before Ankur or Dheeraj. This is because, Harish could have sat opposite only these two speakers at the beginning of the conference. Harish could not have made his speech immediately before Dheeraj (since Dheeraj gave his speech immediately after Ankur). Hence, Harish must have made his speech immediately before Ankur. From this, it follows that Harish must have been sitting opposite Ankur at the beginning of the conference.

Hence, at the beginning of the conference, Ankur must have been sitting to Farhan's left (from (v)). Dheeraj must have been sitting to Ankur's left.

Since Farhan, Gaurav, Bhargav, Ankur, Dheeraj or Harish cannot be the first speaker, the first speaker has to be Chirag.

Also, Gaurav could have made his speech before Harish (second) or before Bhargav (fifth). If Gaurav made his speech before Bhargav, Gaurav would have occupied Bhargav's seat after his speech. Bhargav would have occupied Farhan's seat after Bhargav's speech. At this point, Gaurav and Bhargav will be opposite each other. Hence, this is not possible. Hence, Farhan must have made his speech before Harish. The initial seating arrangement of the speakers and the order in which they gave their speeches are given below:

Order of Speaking
1. Chirag
2. Gaurav
3. Harish
4. Ankur
5. Dheeraj
6. Bhargav
7. Farhan



When the last person (Farhan) was giving his speech, Harish was sitting to the left of Bhargav.
Choice (A)

undefined

DIRECTIONS for questions 5 to 8: Answer the questions on the basis of the information given below.

Seven persons, Ankur, Bhargav, Chirag, Dheeraj, Farhan, Gaurav and Harish, were invited to speak at a conference, which comprised only the speeches of these seven persons. When the persons reached the venue of the conference, they realized that they were asked to sit around a circular table which had only six uniformly spaced seats. The seven of them came to an agreement such that, at the beginning of the conference, while the first person to speak gives his speech at the podium, the remaining six persons will sit around the table. Once the first person finishes his speech, the second person to speak will stand at the podium and make his speech, offering his seat to the person who spoke just before him. This process of sharing the seats will continue until all the seven persons had finished their speeches, at the end of which all the seven persons will leave the venue. The following information is known about their seating arrangement during the conference:

- i. The two seats which Harish occupied during the conference were exactly opposite each other.
- ii. Farhan, who was sitting opposite Bhargav at the beginning of the conference, did not occupy any other seat throughout the conference, while both Bhargav and Farhan occupied the same seat at different times during the conference.
- iii. Dheeraj, who was sitting to the left of Ankur at the beginning of the conference, gave his speech immediately after Ankur.
- iv. Gaurav sat in two different seats, neither of which was opposite any seat in which Bhargav sat.
- v. Ankur sat to the left of Farhan at the beginning of the conference.

Q8. DIRECTIONS for questions 5 to 8: Select the correct alternative from the given choices.

Who was sitting to the left of Bhargav when the last person was giving his speech?

- a) **Harish**
- b) **Ankur**
- c) **Chirag**
- d) **Farhan**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	2
Avg. time spent on this question by all students	55
Difficulty Level	D
Avg. time spent on this question by students who got this question right	50
% of students who attempted this question	21.3
% of students who got the question right of those who attempted	73.59

[Video Solution](#)

[Text Solution](#)

Each of the speakers, except for the first and the last speaker, occupied two seats during the conference. Any speaker who occupied two seats, sat in the position of the speaker who made his speech immediately afterwards. From (i), Harish occupied two seats opposite each other. Hence, Harish was neither the first nor the last speaker and at the beginning of the conference, he was sitting opposite to the person who made his speech immediately after Harish.

From (ii), Farhan did not occupy any other seat during the conference. This implies that Farhan is either the first speaker or the last speaker. However since Farhan is sitting opposite Bhargav at the beginning of the conference, he cannot be the first. Hence, Farhan must be the last speaker. Also, Bhargav must have been the speaker immediately before Farhan (since they shared a seat).

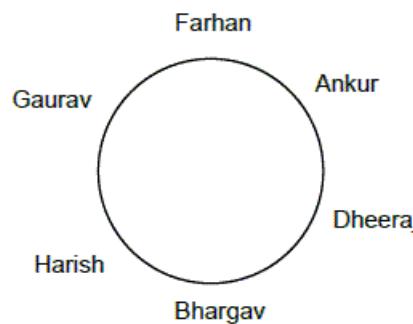
From (iii), Dheeraj was sitting to the left of Ankur at the beginning of the conference. Hence, neither of them were the first speaker (since they were seated at the beginning of the conference). Also, Dheeraj gave his speech immediately after Ankur. From (i), Harish must have made his speech immediately before Ankur or Dheeraj. This is because, Harish could have sat opposite only these two speakers at the beginning of the conference. Harish could not have made his speech immediately before Dheeraj (since Dheeraj gave his speech immediately after Ankur). Hence, Harish must have made his speech immediately before Ankur. From this, it follows that Harish must have been sitting opposite Ankur at the beginning of the conference.

Hence, at the beginning of the conference, Ankur must have been sitting to Farhan's left (from (v)). Dheeraj must have been sitting to Ankur's left.

Since Farhan, Gaurav, Bhargav, Ankur, Dheeraj or Harish cannot be the first speaker, the first speaker has to be Chirag.

Also, Gaurav could have made his speech before Harish (second) or before Bhargav (fifth). If Gaurav made his speech before Bhargav, Gaurav would have occupied Bhargav's seat after his speech. Bhargav would have occupied Farhan's seat after Bhargav's speech. At this point, Gaurav and Bhargav will be opposite each other. Hence, this is not possible. Hence, Farhan must have made his speech before Harish. The initial seating arrangement of the speakers and the order in which they gave their speeches are given below:

Order of Speaking
1. Chirag
2. Gaurav
3. Harish
4. Ankur
5. Dheeraj
6. Bhargav
7. Farhan



When the last person (Farhan) was giving his speech, Harish was sitting to the left of Bhargav.
Choice (A)

DIRECTIONS for questions 9 to 12: Answer the questions on the basis of the information given below.

Ramu, who works in a factory, has to complete four tasks - Task A, Task B, Task C and Task D - every day, in any order. To complete each of the four tasks, it takes him exactly 120 minutes, 160 minutes, 100 minutes and 140 minutes respectively. At the beginning of each day, he decides the order in which he wants to complete the tasks on that day, and starts working on the first task at exactly 9:00 AM. Since Ramu does not prefer to leave any task unfinished when leaving for his lunch, he does not start any task unless he can finish the task before he leaves for his lunch. Further, he must leave for his lunch every day at or after 12:00 noon but before 1:00 PM (not at 1:00 PM). Exactly one hour after leaving for his lunch, he starts working again. After the four tasks are completed, he will leave for the day.

Any time before lunch during which Ramu is not working on any task qualifies as his idle time for the day and he does not remain idle for any amount of time after lunch.

Q9. DIRECTIONS for questions 9 to 12: Select the correct alternative from the given choices.

If, on a particular day, Ramu left for his lunch at exactly 12 noon, what is the earliest that he can leave for the day?

- a) 6:40 PM
- b) 7:00 PM
- c) 7:20 PM Your answer is incorrect
- d) 7:40 PM

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	588
Avg. time spent on this question by all students	244
Difficulty Level	E
Avg. time spent on this question by students who got this question right	236
% of students who attempted this question	45.34
% of students who got the question right of those who attempted	89.54

[Video Solution](#)

[Text Solution](#)

Given that Ramu left for lunch at exactly 12 noon. Ramu has exactly 180 minutes to finish any task. It is not possible to finish two tasks in this time.

To minimize the time that he remains idle, Ramu must have finished Task B first. He would have finished Task B at 11:40 AM and would have remained idle from 11:40 AM till 12 noon.

Starting at 1:00 PM, he can finish the remaining tasks in any order.

In this case he will leave $120 + 100 + 140 = 360$ minutes after 1:00 PM, i.e., at 7:00 PM. Choice (B)

undefined

DIRECTIONS for questions 9 to 12: Answer the questions on the basis of the information given below.

Ramu, who works in a factory, has to complete four tasks - Task A, Task B, Task C and Task D - every day, in any order. To complete each of the four tasks, it takes him exactly 120 minutes, 160 minutes, 100 minutes and 140 minutes respectively. At the beginning of each day, he decides the order in which he wants to complete the tasks on that day, and starts working on the first task at exactly 9:00 AM. Since Ramu does not prefer to leave any task unfinished when leaving for his lunch, he does not start any task unless he can finish the task before he leaves for his lunch. Further, he must leave for his lunch every day at or after 12:00 noon but before 1:00 PM (not at 1:00 PM). Exactly one hour after leaving for his lunch, he starts working again. After the four tasks are completed, he will leave for the day.

Any time before lunch during which Ramu is not working on any task qualifies as his idle time for the day and he does not remain idle for any amount of time after lunch.

Q10. DIRECTIONS for questions 9 to 12: Select the correct alternative from the given choices.

If, on a particular day, Ramu left for the day at exactly 7:00 PM, what is the first task that he would have completed?

- a) Task C
- b) Task D
- c) Task A Your answer is incorrect
- d) Task B

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	301
Avg. time spent on this question by all students	57
Difficulty Level	E
Avg. time spent on this question by students who got this question right	53
% of students who attempted this question	44.35
% of students who got the question right of those who attempted	93.4

[Video Solution](#)

[Text Solution](#)

Given that he left at 7:00 PM.

If he was not idle at all during the day, he must have left $120 + 160 + 100 + 140 + 60 = 580$ minutes (the time taken for the four tasks and his lunch) after 9:00 AM, i.e., at 6:40 PM.

If he left at 7:00 PM, he must have been idle for 20 minutes. Hence, the first task that he chose must be of 160 minutes, i.e., he must have finished Task B first.

Choice (D)

undefined

DIRECTIONS for questions 9 to 12: Answer the questions on the basis of the information given below.

Ramu, who works in a factory, has to complete four tasks - Task A, Task B, Task C and Task D - every day, in any order. To complete each of the four tasks, it takes him exactly 120 minutes, 160 minutes, 100 minutes and 140 minutes respectively. At the beginning of each day, he decides the order in which he wants to complete the tasks on that day, and starts working on the first task at exactly 9:00 AM. Since Ramu does not prefer to leave any task unfinished when leaving for his lunch, he does not start any task unless he can finish the task before he leaves for his lunch. Further, he must leave for his lunch every day at or after 12:00 noon but before 1:00 PM (not at 1:00 PM). Exactly one hour after leaving for his lunch, he starts working again. After the four tasks are completed, he will leave for the day.

Any time before lunch during which Ramu is not working on any task qualifies as his idle time for the day and he does not remain idle for any amount of time after lunch.

Q11. DIRECTIONS for questions 9 to 12: Select the correct alternative from the given choices.

If, on a particular day, Ramu remained idle for the minimum amount of time, at what time will he leave for lunch?

- a) 12 noon
- b) 12:20 PM

c) 12:40 PM

d) 12:50 PM Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	37
Avg. time spent on this question by all students	95
Difficulty Level	E
Avg. time spent on this question by students who got this question right	100
% of students who attempted this question	44.09
% of students who got the question right of those who attempted	77.79

[Video Solution](#)

[Text Solution](#)

Ramu has between 180 and 239 minutes to finish any number of tasks before lunch. The only way in which he need not remain idle is if he finishes Task A and Task C before lunch in any order. In this case, he need not remain idle and will leave for lunch at 12:40 PM.

Any other combination of tasks before lunch is either not possible or will result in him being idle.

Hence, Ramu must have left for lunch at 12:40 PM.

Choice (C)

undefined

DIRECTIONS for questions 9 to 12: Answer the questions on the basis of the information given below.

Ramu, who works in a factory, has to complete four tasks - Task A, Task B, Task C and Task D - every day, in any order. To complete each of the four tasks, it takes him exactly 120 minutes, 160 minutes, 100 minutes and 140 minutes respectively. At the beginning of each day, he decides the order in which he wants to complete the tasks on that day, and starts working on the first task at exactly 9:00 AM. Since Ramu does not prefer to leave any task unfinished when leaving for his lunch, he does not start any task unless he can finish the task before he leaves for his lunch. Further, he must leave for his lunch every day at or after 12:00 noon but before 1:00 PM (not at 1:00 PM). Exactly one hour after leaving for his lunch, he starts working again. After the four tasks are completed, he will leave for the day.

Any time before lunch during which Ramu is not working on any task qualifies as his idle time for the day and he does not remain idle for any amount of time after lunch.

Q12. DIRECTIONS for questions 9 to 12: Select the correct alternative from the given choices.

If, on a particular day, Ramu does not want to start either Task B or Task C before lunch, what is the earliest that he can leave for the day?

a) 7:20 PM

b) 7:00 PM Your answer is incorrect

c) 7:40 PM

d) 6:40 PM

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	153
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Time spent / Accuracy Analysis

Avg. time spent on this question by all students	87
Difficulty Level	E
Avg. time spent on this question by students who got this question right	84
% of students who attempted this question	43.41
% of students who got the question right of those who attempted	87.18

[Video Solution](#)

Text Solution

If Ramu does not want to start either Task B or Task C before lunch, he must start either Task A or Task D before lunch (it is not possible to finish both before lunch).

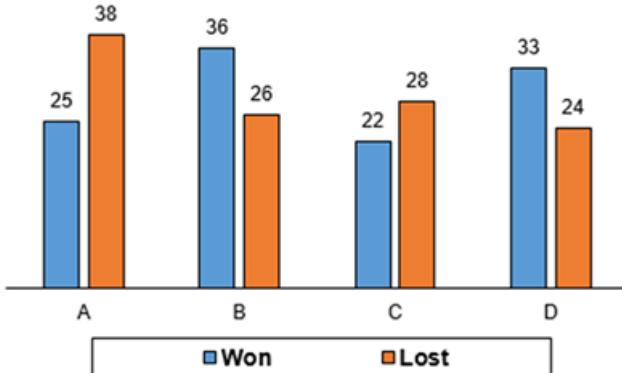
To minimize the time that Ramu is idle, he must start Task D before lunch. If he starts Task D first, he will remain idle from 11:20 AM to 12 noon. He will start working at 1:00 PM and finish the remaining tasks 380 minutes after 1:00 PM, i.e., at 7:20 PM.

Choice (A)

undefined

DIRECTIONS for questions 13 and 14: Answer the questions on the basis of the information given below.

The bar graph below provides the number of wars won and lost by four countries - A through D - during the 18th and the 19th centuries. It is known that, during the 18th and 19th centuries, the four countries waged wars only against each other.



Q13. DIRECTIONS for question 13: Select the correct alternative from the given choices.

If D won 16 wars against each of B and C, what is the maximum number of wars that B won against D?

- a) 21
- b) 22
- c) 23
- d) 24

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	410
Avg. time spent on this question by all students	266
Difficulty Level	D
Avg. time spent on this question by students who got this question right	321
% of students who attempted this question	27.92

Time spent / Accuracy Analysis

% of students who got the question right of those who attempted **29.86**

[Video Solution](#)

[Text Solution](#)

Given that D won 16 wars against each of B and C. Hence, D has to win 1 war against A.

Also, A must lose 38 wars in total.

D lost a total of 24 wars and B won a total of 36 wars.

Consider that B won 24 wars against D. This implies that B has to win 12 wars against the other countries, C has to win 22 wars and D has to win 1 war. The sum of this is 35 but A has to lose 38 wars against these countries. Hence, B cannot win 24 wars against D.

B can win 21 wars against D. In this case, B has to win 15 wars against the other countries, C has to win 22 wars and D has to win 1 war. The sum of this is 38 and A can lose the 38 wars against these three countries.

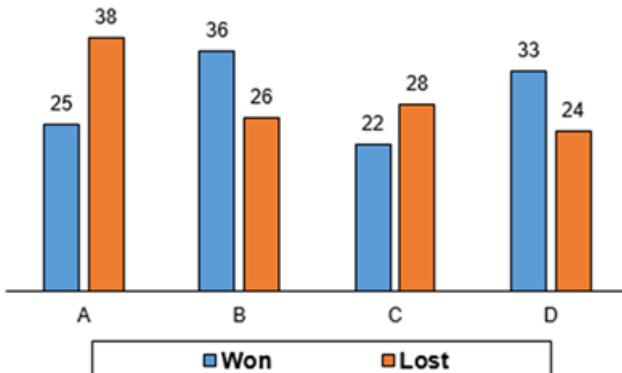
Hence, the maximum number of wars that B can win against D is 21.

Choice (A)

undefined

DIRECTIONS for questions 13 and 14: Answer the questions on the basis of the information given below.

The bar graph below provides the number of wars won and lost by four countries - A through D - during the 18th and the 19th centuries. It is known that, during the 18th and 19th centuries, the four countries waged wars only against each other.



Q14. DIRECTIONS for question 14: Type your answer in the text box provided below the question.

If B won an equal number of wars against each of A, C and D, what is the maximum number of wars that D could have won against A?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question **2**

Avg. time spent on this question by all students **125**

Difficulty Level **M**

Avg. time spent on this question by students who got this question right **126**

% of students who attempted this question **28.68**

% of students who got the question right of those who attempted **63.55**

[Video Solution](#)

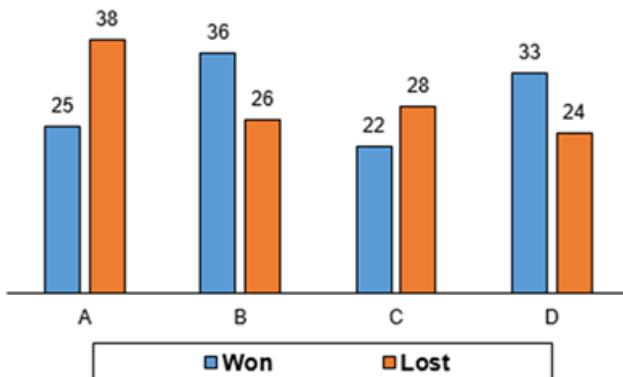
[Text Solution](#)

Given that B won 12 wars against each of A, C and D.
Hence, A must have lost 26 wars against C and D.
To maximize the number of wars that A lost against D, we can consider that A lost all 26 wars against D.
D must have won 7 more wars, C must have won 22 wars and A must have won 25 wars.
One of the ways in which this is possible is if A lost 4 wars against B, 9 wars against C and 12 wars against D.
D won 7 wars against C and C won 22 wars against B. Hence, the maximum number of wars that D could have won against A was 26. Ans: (26)

undefined

DIRECTIONS for questions 13 and 14: Answer the questions on the basis of the information given below.

The bar graph below provides the number of wars won and lost by four countries - A through D - during the 18th and the 19th centuries. It is known that, during the 18th and 19th centuries, the four countries waged wars only against each other.



Q14. DIRECTIONS for question 14: Type your answer in the text box provided below the question.

If B won an equal number of wars against each of A, C and D, what is the maximum number of wars that D could have won against A?

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	2
Avg. time spent on this question by all students	125
Difficulty Level	M
Avg. time spent on this question by students who got this question right	126
% of students who attempted this question	28.68
% of students who got the question right of those who attempted	63.55

[Video Solution](#)

[Text Solution](#)

Given that B won 12 wars against each of A, C and D.

Hence, A must have lost 26 wars against C and D.

To maximize the number of wars that A lost against D, we can consider that A lost all 26 wars against D.

D must have won 7 more wars, C must have won 22 wars and A must have won 25 wars.

One of the ways in which this is possible is if A lost 4 wars against B, 9 wars against C and 12 wars against D.

D won 7 wars against C and C won 22 wars against B. Hence, the maximum number of wars that D could have won against A was 26. Ans: (26)

undefined

DIRECTIONS for questions 15 to 18: Answer the questions on the basis of the information given below.

Exactly sixty-four players participated in a tennis knockout tournament in which each player was seeded from 1 to 64. The player seeded 1 is referred to as the highest seeded player, while the player seeded 64 is referred to as the lowest seeded player.

The tournament has a unique format such that, in any match in the tournament, if a higher seeded player wins against a lower seeded player, the lower seeded player is eliminated and the higher seeded player goes through to the next round. However, in any match, if a lower seeded player wins against a higher seeded player, the match is played one more time. If the lower seeded player wins the second time, he goes through to the next round, while the higher seeded player is eliminated. Otherwise, the higher seeded player goes through to the next round with the lower seeded player being eliminated.

Q15. DIRECTIONS for questions 15 and 16: Select the correct alternative from the given choices.

If, in the finals of the tournament, the player seeded 36 and the player seeded 45 played against each other, what is the minimum number of matches in the tournament?

- a) 66
- b) 68
- c) 67
- d) 70

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	4
Avg. time spent on this question by all students	337
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	330
% of students who attempted this question	12.84
% of students who got the question right of those who attempted	14.41

[Video Solution](#)

Text Solution

Consider the player seeded 45. We can try to maximize his progress by playing one match in each round.

The following table provides the matches that he played in each round. Each grey cell represents a player seeded lower than him:

For this player to reach the fourth round without playing any match twice, he needs to have 7 players seeded lower than him.

For him to play against a player seeded lower than him even in the fourth round, there must be an additional 8 players seeded lower than him.

Hence, there must be 15 players seeded lower than him for him to go through to the fifth round.

There are 19 players in the tournament seeded lower than him. We can see that he can go to the fifth round without playing any match twice but it is not possible for him to go through to the sixth round without playing in any round twice.

Similarly for the player seeded 36, there are 8 players seeded between 37 and 44 and 4 more players seeded lower than him (since of the 19 players seeded lower than the player seeded 45, he would have played against and eliminated 15 players to reach the fifth round).

The player seeded 36 also requires 15 players to reach the fifth round. But there are only 12 players available who are seeded lower than him. Hence, this player will reach the fourth round without playing twice in any round.

Hence, the player seeded 36 will play twice in fourth and fifth rounds and reach the finals (i.e., the sixth round).

The player seeded 45 will play twice in the fifth round and reach the finals.

In the finals, to minimize the number of matches, we can consider that the player seeded 36 wins the tournament. Hence, there will be a total of $63 + 3 = 66$ matches in the tournament.

undefined

DIRECTIONS for questions 15 to 18: Answer the questions on the basis of the information given below.

Exactly sixty-four players participated in a tennis knockout tournament in which each player was seeded from 1 to 64. The player seeded 1 is referred to as the highest seeded player, while the player seeded 64 is referred to as the lowest seeded player.

The tournament has a unique format such that, in any match in the tournament, if a higher seeded player wins against a lower seeded player, the lower seeded player is eliminated and the higher seeded player goes through to the next round. However, in any match, if a lower seeded player wins against a higher seeded player, the match is played one more time. If the lower seeded player wins the second time, he goes through to the next round, while the higher seeded player is eliminated. Otherwise, the higher seeded player goes through to the next round with the lower seeded player being eliminated.

Q15. DIRECTIONS for questions 15 and 16: Select the correct alternative from the given choices.

If, in the finals of the tournament, the player seeded 36 and the player seeded 45 played against each other, what is the minimum number of matches in the tournament?

- a) **66**
- b) **68**
- c) **67**
- d) **70**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

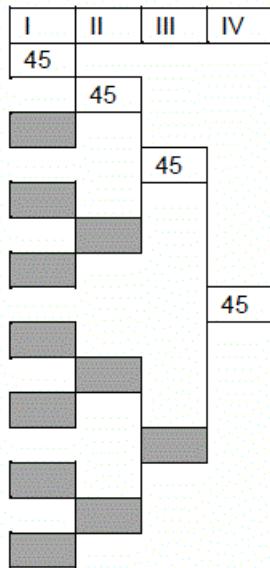
Time taken by you to answer this question	4
Avg. time spent on this question by all students	337
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	330
% of students who attempted this question	12.84
% of students who got the question right of those who attempted	14.41

[Video Solution](#)

[Text Solution](#)

Consider the player seeded 45. We can try to maximize his progress by playing one match in each round.

The following table provides the matches that he played in each round. Each grey cell represents a player seeded lower than him:



For this player to reach the fourth round without playing any match twice, he needs to have 7 players seeded lower than him.

For him to play against a player seeded lower than him even in the fourth round, there must be an additional 8 players seeded lower than him.

Hence, there must be 15 players seeded lower than him for him to go through to the fifth round.

There are 19 players in the tournament seeded lower than him. We can see that he can go to the fifth round without playing any match twice but it is not possible for him to go through to the sixth round without playing in any round twice.

Similarly for the player seeded 36, there are 8 players seeded between 37 and 44 and 4 more players seeded lower than him (since of the 19 players seeded lower than the player seeded 45, he would have played against and eliminated 15 players to reach the fifth round).

The player seeded 36 also requires 15 players to reach the fifth round. But there are only 12 players available who are seeded lower than him. Hence, this player will reach the fourth round without playing twice in any round.

Hence, the player seeded 36 will play twice in fourth and fifth rounds and reach the finals (i.e., the sixth round).

The player seeded 45 will play twice in the fifth round and reach the finals.

In the finals, to minimize the number of matches, we can consider that the player seeded 36 wins the tournament. Hence, there will be a total of $63 + 3 = 66$ matches in the tournament.

Choice (A)

undefined

DIRECTIONS for questions 15 to 18: Answer the questions on the basis of the information given below.

Exactly sixty-four players participated in a tennis knockout tournament in which each player was seeded from 1 to 64. The player seeded 1 is referred to as the highest seeded player, while the player seeded 64 is referred to as the lowest seeded player.

The tournament has a unique format such that, in any match in the tournament, if a higher seeded player wins against a lower seeded player, the lower seeded player is eliminated and the higher seeded player goes through to the next round. However, in any match, if a lower seeded player wins against a higher seeded player, the match is played one more time. If the lower seeded player wins the second time, he goes through to the next round, while the higher seeded player is eliminated. Otherwise, the higher seeded player goes through to the next round with the lower seeded player being eliminated.

Q16. DIRECTIONS for questions 15 and 16: Select the correct alternative from the given choices.

If a total of 123 matches were played in the tournament, what is the furthest round to which the player seeded 2 would have progressed?

- a) Second Round
- b) Third round
- c) Fifth round
- d) Winner of the tournament

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	3
Avg. time spent on this question by all students	134
Difficulty Level	D
Avg. time spent on this question by students who got this question right	128
% of students who attempted this question	10.19
% of students who got the question right of those who attempted	37.99

[Video Solution](#)

[Text Solution](#)

Given that there are exactly 123 matches played in the tournament. In each round that the player seeded 2 played against a lower seeded player, he could have played two matches – losing the first and winning the second. If in every other match, the lower seeded player won, then the number of matches will be 126.

If in exactly three of the matches that were played the higher seeded player won against a lower seeded player in the first try, then there will be only 123 matches played in the tournament. Note that it is not necessary that a lower seeded player progress to the next round whenever two matches are played. The higher seeded player can progress by winning the second match. In any case, the player seeded 2 can be the winner of the tournament.

Choice (D)

undefined

DIRECTIONS for questions 15 to 18: Answer the questions on the basis of the information given below.

Exactly sixty-four players participated in a tennis knockout tournament in which each player was seeded from 1 to 64. The player seeded 1 is referred to as the highest seeded player, while the player seeded 64 is referred to as the lowest seeded player.

The tournament has a unique format such that, in any match in the tournament, if a higher seeded player wins against a lower seeded player, the lower seeded player is eliminated and the higher seeded player goes through to the next round. However, in any match, if a lower seeded player wins against a higher seeded player, the match is played one more time. If the lower seeded player wins the second time, he goes through to the next round, while the higher seeded player is eliminated. Otherwise, the higher seeded player goes through to the next round with the lower seeded player being eliminated.

Q17. DIRECTIONS for questions 17 and 18: Type your answer in the text box provided below the question.

If the player seeded six won the tournament, what is the maximum number of matches in which a lower seeded player won against a higher seeded player?

You did not answer this question

Show Correct Answer

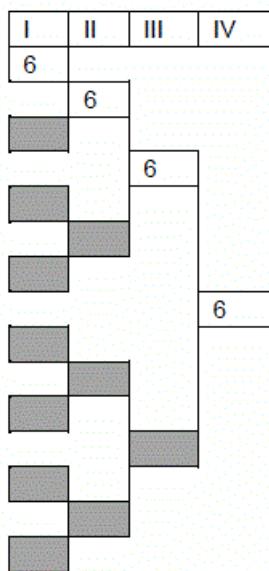
Time spent / Accuracy Analysis

Time taken by you to answer this question	9
Avg. time spent on this question by all students	172
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	237
% of students who attempted this question	13.61
% of students who got the question right of those who attempted	1.5

[Video Solution](#)

[Text Solution](#)

We need to maximize the number of matches in this case. We can consider the case where in each round, each match was played twice.



For the sixth seeded player to reach the second round by playing two matches in that round, there must be one player seeded higher than him.

For him to reach the third round for all the matches to be played twice, there must be 3 players seeded higher than him.

For him to reach the fourth round, there must be 7 players seeded higher than him.

For him to reach the fourth round, there must be 7 players seeded higher than him. But this is not possible as there are only 5 players seeded higher than him.

Hence, in the first and second rounds, he will play against higher seeded players.

For example, in the first round, 6 won against 5; 4 won against 3 and 2 won against 1. Hence, in the first round, in all the matches a lower seeded player won against a higher seeded player.

In the second round, 6 could have won against 4. Also, in the second round, 2 could have played two matches against another lower seeded player and could have lost the first match and won the second match. This does not reduce the number of matches played and the player seeded 2 could have progressed to the third round. Hence, 2 can play against 6 in the third round and 6 would have won.

Hence, till the third round, there can be only 1 match in which a higher seeded player won against a lower seeded player (the second match that the player seeded 2 played in the second round).

Hence, from the 4th round, the player seeded 6 has to play against lower seeded players and win. Hence, in each of the fourth, fifth and sixth rounds, the player seeded 6 played two matches against lower seeded players, lost the first and won the second. In all the other matches in all the other rounds, we can consider that the lower seeded player won against the higher seeded player.

Hence, of the 126 matches that were played in the tournament, the following are the matches in which a higher seeded player won against a lower seeded player:

- One match in the second round (with player seeded 2).
 - One match in the fourth round with player seeded 6 (the second match against a lower seeded player)
 - One match in the fifth round with player seeded 6
 - One match in the sixth round with player seeded 6

Hence, except for these four matches, in all the other matches, a lower seeded player would have won against a higher seeded player.

Total number of matches = 126

Exceptions = 4

Hence, the maximum number of matches possible = $126 - 4 = 122$

Ans: (122)

undefined

DIRECTIONS for questions 15 to 18: Answer the questions on the basis of the information given below.

Exactly sixty-four players participated in a tennis knockout tournament in which each player was seeded from 1 to 64. The

player seeded 1 is referred to as the highest seeded player, while the player seeded 64 is referred to as the lowest seeded player.

The tournament has a unique format such that, in any match in the tournament, if a higher seeded player wins against a lower seeded player, the lower seeded player is eliminated and the higher seeded player goes through to the next round. However, in any match, if a lower seeded player wins against a higher seeded player, the match is played one more time. If the lower seeded player wins the second time, he goes through to the next round, while the higher seeded player is eliminated. Otherwise, the higher seeded player goes through to the next round with the lower seeded player being eliminated.

Q18. DIRECTIONS for questions 17 and 18: Type your answer in the text box provided below the question.

If the winner of the tournament played exactly one match in each round of the tournament, what is the lowest possible seed of this player?

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	4
Avg. time spent on this question by all students	75
Difficulty Level	D
Avg. time spent on this question by students who got this question right	121
% of students who attempted this question	16.89
% of students who got the question right of those who attempted	4.27

[Video Solution](#)

[Text Solution](#)

The winner of the tournament has to play in 6 rounds to win the tournament. In each of these rounds, if he has to play only one match, he must play against a lower seeded player.

The winner could have played against the players seeded 64, 63, 62, 61, 60 and 59. Hence, the lowest of the player could be 58. (In this case, we need not maximize/minimize the total number of matches.)

Ans: (58)

undefined

DIRECTIONS for questions 15 to 18: Answer the questions on the basis of the information given below.

Exactly sixty-four players participated in a tennis knockout tournament in which each player was seeded from 1 to 64. The player seeded 1 is referred to as the highest seeded player, while the player seeded 64 is referred to as the lowest seeded player.

The tournament has a unique format such that, in any match in the tournament, if a higher seeded player wins against a lower seeded player, the lower seeded player is eliminated and the higher seeded player goes through to the next round. However, in any match, if a lower seeded player wins against a higher seeded player, the match is played one more time. If the lower seeded player wins the second time, he goes through to the next round, while the higher seeded player is eliminated. Otherwise, the higher seeded player goes through to the next round with the lower seeded player being eliminated.

Q18. DIRECTIONS for questions 17 and 18: Type your answer in the text box provided below the question.

If the winner of the tournament played exactly one match in each round of the tournament, what is the lowest possible seed of this player?

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	4
Avg. time spent on this question by all students	75
Difficulty Level	D
Avg. time spent on this question by students who got this question right	121
% of students who attempted this question	16.89
% of students who got the question right of those who attempted	4.27

[Video Solution](#)

Text Solution

The winner of the tournament has to play in 6 rounds to win the tournament. In each of these rounds, if he has to play only one match, he must play against a lower seeded player.

The winner could have played against the players seeded 64, 63, 62, 61, 60 and 59. Hence, the lowest of the player could be 58. (In this case, we need not maximize/minimize the total number of matches.)

Ans: (58)

undefined

DIRECTIONS for questions 19 to 22: Answer the questions on the basis of the information given below.

Raghu commutes between his home and office every day using four different modes of transport - train, bus, cab and auto. While commuting from home to office, he takes either a cab or a train. While commuting from office to home, he takes either a bus or an auto. His train fare from home to office on any day was the same as his bus fare from office to home on any day and both the fares remained constant throughout. Further, his auto fare on any day varied between Rs.20 and Rs.40, while his cab fare on any day varied between Rs.60 and Rs.90.

On each of eight consecutive days, Day 1 to Day 8, it is also known that

- i. he travelled by bus on at least three days and he travelled by train on at least four days.
- ii. the fare that he paid for any mode of transport is an integral multiple of 10.

The following table provides the total fare (in Rs.) paid by Raghu on each day for the eight days:

Day	1	2	3	4	5	6	7	8
Fare	110	70	100	120	110	90	140	70

Q19. DIRECTIONS for questions 19 to 22: Select the correct alternative from the given choices.

On how many days did Raghu travel from home to office by train and from office to home by auto?

- a) 2
- b) 3
- c) 4
- d) 0

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	2
Avg. time spent on this question by all students	463
Difficulty Level	D
Avg. time spent on this question by students who got this question right	487
% of students who attempted this question	21.07
% of students who got the question right of those who attempted	69.6

[Video Solution](#)

[Text Solution](#)

Given that the train fare and bus fare are equal and a multiple of 10.

On Day 2, he spent ₹70. On any day that he went by Cab and came back by Auto, he would have spent a minimum of ₹80. Hence, he must have travelled by either Bus or Train on Day 2. The maximum fare of Bus/Train will be ₹50 (since he has to spend at least ₹20 for Auto).

On Day 7, he spent ₹140. If he used the Cab and Auto, the maximum that he would have spent is ₹130. Hence, on Day 7, he must have travelled by train or bus.

The maximum amount that he could have spent on Train or Bus is ₹50. Hence, he must have spent at least ₹90 on one of the ways. However, the maximum amount that he can spend one way is ₹90. Hence, he spent ₹90 for a Cab and ₹50 for Train.

Raghu could have travelled by train on Day 2, Day 3 (by travelling on bus the other way), Day 6 and Day 8. Hence, this is possible.

Since Raghu travelled by train on at least four days, he must have travelled by train on Day 2, Day 3, Day 6 and Day 8.

All the remaining days, he must have travelled by cab. Further, on Day 3, Raghu must have travelled by bus when returning home from office. On Day 2, Day 6 and Day 8, he must have travelled by auto.

Further, on Day 7, he could not have travelled by auto when returning home from office (since he can spend a maximum of ₹40 for auto which means he must have paid ₹100 to the cab which is not possible). Hence, on Day 7, he must have returned home by bus.

The following table presents this information and the possible amounts that he could have paid:

Day	Home to Office		Office to Home	
	Mode	Fare	Mode	Fare
1	Cab	60/70/80/90	Auto/Bus	50/40/30/20
2	Train	50	Auto	20
3	Train	50	Bus	50
4	Cab	70/80/90	Auto/Bus	50/40/30
5	Cab	60/70/80/90	Auto/Bus	50/40/30/20
6	Train	50	Auto	40
7	Cab	90	Bus	50
8	Train	50	Auto	20

On three days (Day 2, Day 6 and Day 8), Raghu travelled from Home to Office by Train and Office to Home by Auto.

Choice (B)

undefined

DIRECTIONS for questions 19 to 22: Answer the questions on the basis of the information given below.

Raghu commutes between his home and office every day using four different modes of transport - train, bus, cab and auto. While commuting from home to office, he takes either a cab or a train. While commuting from office to home, he takes either a bus or an auto. His train fare from home to office on any day was the same as his bus fare from office to home on any day and both the fares remained constant throughout. Further, his auto fare on any day varied between Rs.20 and Rs.40, while his cab fare on any day varied between Rs.60 and Rs.90.

On each of eight consecutive days, Day 1 to Day 8, it is also known that

i.

- he travelled by bus on at least three days and he travelled by train on at least four days.

ii.

- the fare that he paid for any mode of transport is an integral multiple of 10.

The following table provides the total fare (in Rs.) paid by Raghu on each day for the eight days:

Day	1	2	3	4	5	6	7	8
Fare	110	70	100	120	110	90	140	70

Q20. DIRECTIONS for questions 19 to 22: Select the correct alternative from the given choices.

Which of the following statements will be sufficient to determine the mode of transport that Raghu used on each day and the fare that he paid for each mode of transport on each day?

- a) Raghu paid a total of Rs.200 for travelling by bus during the eight days.
- b) Raghu paid a total of Rs.300 for travelling by cab during the eight days.
- c) Raghu paid a total of Rs.80 for travelling by auto during the eight days.
- d) Raghu paid a total of Rs.100 for travelling by auto during the eight days.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	115
Difficulty Level	D
Avg. time spent on this question by students who got this question right	129
% of students who attempted this question	13.66
% of students who got the question right of those who attempted	34.47

[Video Solution](#)

[Text Solution](#)

Given that the train fare and bus fare are equal and a multiple of 10. On Day 2, he spent ₹70. On any day that he went by Cab and came back by Auto, he would have spent a minimum of ₹80. Hence, he must have travelled by either Bus or Train on Day 2. The maximum fare of Bus/Train will be ₹50 (since he has to spend at least ₹20 for Auto).

On Day 7, he spent ₹140. If he used the Cab and Auto, the maximum that he would have spent is ₹130. Hence, on Day 7, he must have travelled by train or bus.

The maximum amount that he could have spent on Train or Bus is ₹50. Hence, he must have spent at least ₹90 on one of the ways. However, the maximum amount that he can spend one way is ₹90. Hence, he spent ₹90 for a Cab and ₹50 for Train.

Raghu could have travelled by train on Day 2, Day 3 (by travelling on bus the other way), Day 6 and Day 8. Hence, this is possible.

Since Raghu travelled by train on at least four days, he must have travelled by train on Day 2, Day 3, Day 6 and Day 8.

All the remaining days, he must have travelled by cab. Further, on Day 3, Raghu must have travelled by bus when returning home from office. On Day 2, Day 6 and Day 8, he must have travelled by auto.

Further, on Day 7, he could not have travelled by auto when returning home from office (since he can spend a maximum of ₹40 for auto which means he must have paid ₹100 to the cab which is not possible). Hence, on Day 7, he must have returned home by bus.

The following table presents this information and the possible amounts that he could have paid:

Day	Home to Office		Office to Home	
	Mode	Fare	Mode	Fare
1	Cab	60/70/80/90	Auto/Bus	50/40/30/20
2	Train	50	Auto	20
3	Train	50	Bus	50
4	Cab	70/80/90	Auto/Bus	50/40/30
5	Cab	60/70/80/90	Auto/Bus	50/40/30/20
6	Train	50	Auto	40
7	Cab	90	Bus	50
8	Train	50	Auto	20

Option A: If Raghu paid ₹200 for travelling by Bus, he must have travelled by Bus on 4 days. However, we cannot determine which four of the possible five days he could have travelled by Bus.

Option B: Raghu paid ₹90 on Day 7. On the other days that he travelled by Cab, he has to pay a minimum of $60 + 70 + 60 = ₹190$. Hence, he must have spent a minimum of ₹280 for travelling by Cab. Similarly, he would have spent a maximum of ₹360 for this. However, with the given information, we cannot determine the exact distribution.

Option C: The minimum that he paid for travelling by Auto is ₹80 (for Day 2, Day 6 and Day 8). Since it is given that this is the amount that he spent on travelling by Autos, he must have travelled by Bus and spent ₹50 on each of Day 1, Day 4 and Day 5. From this, we can determine the mode of transport and the amount that he spent on each day.

Option D: If Raghu spent ₹00 on Autos, we cannot determine the exact distribution. Hence, with option C, we can get the exact information. Choice (C)

undefined

DIRECTIONS for questions 19 to 22: Answer the questions on the basis of the information given below.

Raghu commutes between his home and office every day using four different modes of transport - train, bus, cab and auto. While commuting from home to office, he takes either a cab or a train. While commuting from office to home, he takes either a bus or an auto. His train fare from home to office on any day was the same as his bus fare from office to home on any day and both the fares remained constant throughout. Further, his auto fare on any day varied between Rs.20 and Rs.40, while his cab fare on any day varied between Rs.60 and Rs.90.

On each of eight consecutive days, Day 1 to Day 8, it is also known that

i.

he travelled by bus on at least three days and he travelled by train on at least four days.

ii.

- the fare that he paid for any mode of transport is an integral multiple of 10.

The following table provides the total fare (in Rs.) paid by Raghu on each day for the eight days:

Day	1	2	3	4	5	6	7	8
Fare	110	70	100	120	110	90	140	70

Q20. DIRECTIONS for questions 19 to 22: Select the correct alternative from the given choices.

Which of the following statements will be sufficient to determine the mode of transport that Raghu used on each day and the fare that he paid for each mode of transport on each day?

- a) Raghu paid a total of Rs.200 for travelling by bus during the eight days.
- b) Raghu paid a total of Rs.300 for travelling by cab during the eight days.
- c) Raghu paid a total of Rs.80 for travelling by auto during the eight days.
- d) Raghu paid a total of Rs.100 for travelling by auto during the eight days.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	115
Difficulty Level	D
Avg. time spent on this question by students who got this question right	129
% of students who attempted this question	13.66
% of students who got the question right of those who attempted	34.47

[Video Solution](#)

[Text Solution](#)

Given that the train fare and bus fare are equal and a multiple of 10. On Day 2, he spent ₹70. On any day that he went by Cab and came back by Auto, he would have spent a minimum of ₹80. Hence, he must have travelled by either Bus or Train on Day 2. The maximum fare of Bus/Train will be ₹50 (since he has to spend at least ₹20 for Auto).

On Day 7, he spent ₹140. If he used the Cab and Auto, the maximum that he would have spent is ₹130. Hence, on Day 7, he must have travelled by train or bus.

The maximum amount that he could have spent on Train or Bus is ₹50. Hence, he must have spent at least ₹90 on one of the ways. However, the maximum amount that he can spend one way is ₹90. Hence, he spent ₹90 for a Cab and ₹50 for Train.

Raghu could have travelled by train on Day 2, Day 3 (by travelling on bus the other way), Day 6 and Day 8. Hence, this is possible.

Since Raghu travelled by train on at least four days, he must have travelled by train on Day 2, Day 3, Day 6 and Day 8.

All the remaining days, he must have travelled by cab. Further, on Day 3, Raghu must have travelled by bus when returning home from office. On Day 2, Day 6 and Day 8, he must have travelled by auto.

Further, on Day 7, he could not have travelled by auto when returning home from office (since he can spend a maximum of ₹40 for auto which means he must have paid ₹100 to the cab which is not possible). Hence, on Day 7, he must have returned home by bus.

The following table presents this information and the possible amounts that he could have paid:

Day	Home to Office		Office to Home	
	Mode	Fare	Mode	Fare
1	Cab	60/70/80/90	Auto/Bus	50/40/30/20
2	Train	50	Auto	20
3	Train	50	Bus	50
4	Cab	70/80/90	Auto/Bus	50/40/30
5	Cab	60/70/80/90	Auto/Bus	50/40/30/20
6	Train	50	Auto	40
7	Cab	90	Bus	50
8	Train	50	Auto	20

Option A: If Raghu paid ₹200 for travelling by Bus, he must have travelled by Bus on 4 days. However, we cannot determine which four of the possible five days he could have travelled by Bus.

Option B: Raghu paid ₹90 on Day 7. On the other days that he travelled by Cab, he has to pay a minimum of $60 + 70 + 60 = ₹190$. Hence, he must have spent a minimum of ₹280 for travelling by Cab. Similarly, he would have spent a maximum of ₹360 for this. However, with the given information, we cannot determine the exact distribution.

Option C: The minimum that he paid for travelling by Auto is ₹80 (for Day 2, Day 6 and Day 8). Since it is given that this is the amount that he spent on travelling by Autos, he must have travelled by Bus and spent ₹50 on each of Day 1, Day 4 and Day 5. From this, we can determine the mode of transport and the amount that he spent on each day.

Option D: If Raghu spent ₹00 on Autos, we cannot determine the exact distribution. Hence, with option C, we can get the exact information. Choice (C)

undefined

DIRECTIONS for questions 19 to 22: Answer the questions on the basis of the information given below.

Raghu commutes between his home and office every day using four different modes of transport - train, bus, cab and auto. While commuting from home to office, he takes either a cab or a train. While commuting from office to home, he takes either a bus or an auto. His train fare from home to office on any day was the same as his bus fare from office to home on any day and both the fares remained constant throughout. Further, his auto fare on any day varied between Rs.20 and Rs.40, while his cab fare on any day varied between Rs.60 and Rs.90.

On each of eight consecutive days, Day 1 to Day 8, it is also known that

i.

he travelled by bus on at least three days and he travelled by train on at least four days.

ii.

- the fare that he paid for any mode of transport is an integral multiple of 10.

The following table provides the total fare (in Rs.) paid by Raghu on each day for the eight days:

Day	1	2	3	4	5	6	7	8
Fare	110	70	100	120	110	90	140	70

Q21. DIRECTIONS for questions 19 to 22: Select the correct alternative from the given choices.

If Raghu travelled by an Auto on three consecutive days, how much did he spend for travelling by Cab on Day 1?

- a) **Rs.60**
- b) **Rs.70**
- c) **Rs.80**
- d) **Rs.90**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	375
Avg. time spent on this question by all students	199
Difficulty Level	D
Avg. time spent on this question by students who got this question right	199
% of students who attempted this question	16.07
% of students who got the question right of those who attempted	54.2

[Video Solution](#)

[Text Solution](#)

Given that the train fare and bus fare are equal and a multiple of 10.

On Day 2, he spent ₹70. On any day that he went by Cab and came back by Auto, he would have spent a minimum of ₹80. Hence, he must have travelled by either Bus or Train on Day 2. The maximum fare of Bus/Train will be ₹50 (since he has to spend at least ₹20 for Auto).

On Day 7, he spent ₹140. If he used the Cab and Auto, the maximum that he would have spent is ₹130. Hence, on Day 7, he must have travelled by train or bus.

The maximum amount that he could have spent on Train or Bus is ₹50. Hence, he must have spent at least ₹90 on one of the ways. However, the maximum amount that he can spend one way is ₹90. Hence, he spent ₹90 for a Cab and ₹50 for Train.

Raghu could have travelled by train on Day 2, Day 3 (by travelling on bus the other way), Day 6 and Day 8. Hence, this is possible.

Since Raghu travelled by train on at least four days, he must have travelled by train on Day 2, Day 3, Day 6 and Day 8.

All the remaining days, he must have travelled by cab. Further, on Day 3, Raghu must have travelled by bus when returning home from office. On Day 2, Day 6 and Day 8, he must have travelled by auto.

Further, on Day 7, he could not have travelled by auto when returning home from office (since he can spend a maximum of ₹40 for auto which means he must have paid ₹100 to the cab which is not possible). Hence, on Day 7, he must have returned home by bus.

The following table presents this information and the possible amounts that he could have paid:

Day	Home to Office		Office to Home	
	Mode	Fare	Mode	Fare
1	Cab	60/70/80/90	Auto/Bus	50/40/30/20
2	Train	50	Auto	20
3	Train	50	Bus	50
4	Cab	70/80/90	Auto/Bus	50/40/30
5	Cab	60/70/80/90	Auto/Bus	50/40/30/20
6	Train	50	Auto	40
7	Cab	90	Bus	50
8	Train	50	Auto	20

For Raghu to travel by Auto on three days, he must have travelled by Auto on Day 4, Day 5 and Day 6. Since he travelled by Bus on three days, he must have travelled by Bus on Day 1. Hence, on Day 1 he must have spent ₹60 for travelling by Cab.

Choice (A)

Raghu commutes between his home and office every day using four different modes of transport - train, bus, cab and auto. While commuting from home to office, he takes either a cab or a train. While commuting from office to home, he takes either a bus or an auto. His train fare from home to office on any day was the same as his bus fare from office to home on any day and both the fares remained constant throughout. Further, his auto fare on any day varied between Rs.20 and Rs.40, while his cab fare on any day varied between Rs.60 and Rs.90.

On each of eight consecutive days, Day 1 to Day 8, it is also known that

- i. he travelled by bus on at least three days and he travelled by train on at least four days.
- ii. the fare that he paid for any mode of transport is an integral multiple of 10.

The following table provides the total fare (in Rs.) paid by Raghu on each day for the eight days:

Day	1	2	3	4	5	6	7	8
Fare	110	70	100	120	110	90	140	70

Q22. DIRECTIONS for questions 19 to 22: Select the correct alternative from the given choices.

What is the maximum number of days Raghu could have travelled by an Auto and paid only Rs 20 for it?

- a) 5
- b) 2
- c) 3
- d) 4

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	3
Avg. time spent on this question by all students	91
Difficulty Level	D
Avg. time spent on this question by students who got this question right	101
% of students who attempted this question	17.43
% of students who got the question right of those who attempted	34.93

[Video Solution](#)

[Text Solution](#)

Given that the train fare and bus fare are equal and a multiple of 10.
 On Day 2, he spent ₹70. On any day that he went by Cab and came back by Auto, he would have spent a minimum of ₹80. Hence, he must have travelled by either Bus or Train on Day 2. The maximum fare of Bus/Train will be ₹50 (since he has to spend at least ₹20 for Auto).

On Day 7, he spent ₹140. If he used the Cab and Auto, the maximum that he would have spent is ₹130. Hence, on Day 7, he must have travelled by train or bus.

The maximum amount that he could have spent on Train or Bus is ₹50. Hence, he must have spent at least ₹90 on one of the ways. However, the maximum amount that he can spend one way is ₹90. Hence, he spent ₹90 for a Cab and ₹50 for Train.

Raghu could have travelled by train on Day 2, Day 3 (by travelling on bus the other way), Day 6 and Day 8. Hence, this is possible.

Since Raghu travelled by train on at least four days, he must have travelled by train on Day 2, Day 3, Day 6 and Day 8.

All the remaining days, he must have travelled by cab. Further, on Day 3, Raghu must have travelled by bus when returning home from office. On Day 2, Day 6 and Day 8, he must have travelled by auto.

Further, on Day 7, he could not have travelled by auto when returning home from office (since he can spend a maximum of ₹40 for auto which means he must have paid ₹100 to the cab which is not possible). Hence, on Day 7, he must have returned home by bus.

The following table presents this information and the possible amounts that he could have paid:

Day	Home to Office		Office to Home	
	Mode	Fare	Mode	Fare
1	Cab	60/70/80/90	Auto/Bus	50/40/30/20
2	Train	50	Auto	20
3	Train	50	Bus	50
4	Cab	70/80/90	Auto/Bus	50/40/30
5	Cab	60/70/80/90	Auto/Bus	50/40/30/20
6	Train	50	Auto	40
7	Cab	90	Bus	50
8	Train	50	Auto	20

On four days (Day 1, Day 2, Day 5 and Day 8), the given condition is satisfied.

Choice (D)

undefined

DIRECTIONS for questions 23 to 26: Answer the questions on the basis of the information given below.

A large cube is painted Red on all its faces. It is cut vertically into two equal cuboids and all the unpainted faces of each cuboid are then painted Blue. Each of the two cuboids are further cut into four equal cubes and all the unpainted faces of each cube are then painted Green. Each of the eight cubes are cut vertically, parallel to the first vertical cut, into two equal cuboids and all the unpainted faces of each cuboid are then painted Yellow. Each of the 16 cuboids are cut into four equal cubes and all the unpainted faces of each cube are then painted Blue. After each cut and subsequent painting, all the pieces are placed back in their original position (forming a large cube) before making the next cut.

Q23. DIRECTIONS for questions 23 and 24: Select the correct alternative from the given choices.

How many cubes have at least one face painted Yellow and at least one face painted Green?

- a) 16
- b) 32
- c) 48
- d) 56

You did not answer this question

[Show Correct Answer](#)

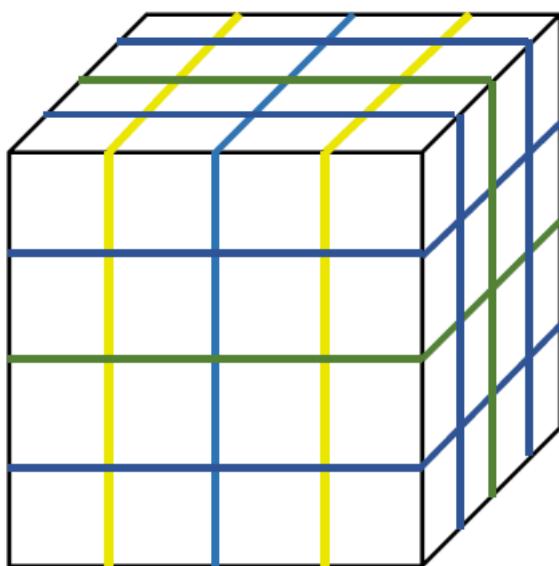
Time spent / Accuracy Analysis

Time taken by you to answer this question	58
Avg. time spent on this question by all students	366
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	401
% of students who attempted this question	5.31
% of students who got the question right of those who attempted	30.24

[Video Solution](#)

[Text Solution](#)

The diagram below provides the large cube with the cuts in different colours drawn along the faces. We can imagine the lines drawn on the cubes to slice the cube and paint the sliced faces in the colour of the lines.



All the cubes will have at least one face painted Yellow.

All the cubes on either side of the vertical green cuts will have one face painted Green.
This is 32 cubes.

All the cubes on either side of the horizontal green cuts will also have one face painted Green. This is a total of 32 cubes. However, of these 32 cubes, 16 cubes are already counted.

Hence, a total of $32 + 16 = 48$ cubes satisfy the given condition.

Choice (C)

undefined

DIRECTIONS for questions 23 to 26: Answer the questions on the basis of the information given below.

A large cube is painted Red on all its faces. It is cut vertically into two equal cuboids and all the unpainted faces of each cuboid are then painted Blue. Each of the two cuboids are further cut into four equal cubes and all the unpainted faces of

each cube are then painted Green. Each of the eight cubes are cut vertically, parallel to the first vertical cut, into two equal cuboids and all the unpainted faces of each cuboid are then painted Yellow. Each of the 16 cuboids are cut into four equal cubes and all the unpainted faces of each cube are then painted Blue. After each cut and subsequent painting, all the pieces are placed back in their original position (forming a large cube) before making the next cut.

Q24. DIRECTIONS for questions 23 and 24: Select the correct alternative from the given choices.

How many cubes have at least two faces painted Red and at least three faces painted Blue?

- a) 8
- b) 12
- c) 16
- d) 20

You did not answer this question

Show Correct Answer

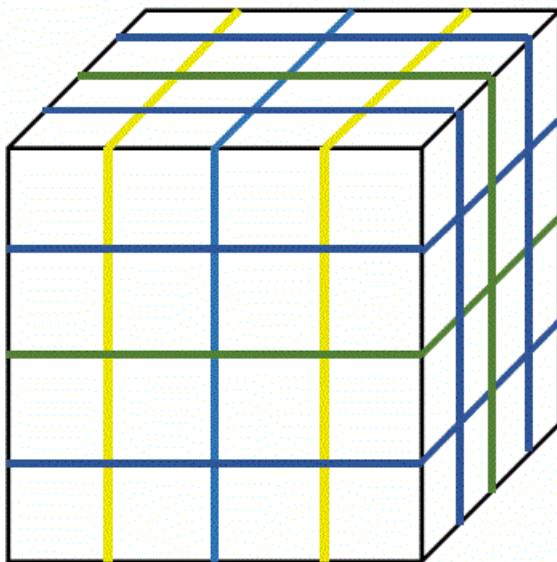
Time spent / Accuracy Analysis

Time taken by you to answer this question	1
Avg. time spent on this question by all students	101
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	114
% of students who attempted this question	3.22
% of students who got the question right of those who attempted	46.91

[Video Solution](#)

[Text Solution](#)

The diagram below provides the large cube with the cuts in different colours drawn along the faces. We can imagine the lines drawn on the cubes to slice the cube and paint the sliced faces in the colour of the lines.



The cubes that have at least two faces painted Red lie along the edge.

Hence, there are 32 cubes that have at least two faces painted Red.

The ones at the corners will have only two faces painted Blue. Hence, these 8 cubes do not satisfy the condition.

We can split the cube shown above into four vertical layers, with each layer having 16 cubes.

The cubes along the top and bottom edges but not on the corners in the front most layer of the cube will have three blue faces. However, the cubes along the side edges will not satisfy the condition. Similarly, the cubes in the top and bottom edges of the backmost layer of the cube will also have three blue faces.

Hence, there will be $4 + 4 = 8$ cubes along these layers.

However, the cubes along the edges but not on the corners in the second and third layers will not have three blue faces. Instead, these cubes will have a green face.

Therefore, the total number of cubes will be 8.

Choice (A)

undefined

DIRECTIONS for questions 23 to 26: Answer the questions on the basis of the information given below.

A large cube is painted Red on all its faces. It is cut vertically into two equal cuboids and all the unpainted faces of each cuboid are then painted Blue. Each of the two cuboids are further cut into four equal cubes and all the unpainted faces of each cube are then painted Green. Each of the eight cubes are cut vertically, parallel to the first vertical cut, into two equal cuboids and all the unpainted faces of each cuboid are then painted Yellow. Each of the 16 cuboids are cut into four equal cubes and all the unpainted faces of each cube are then painted Blue. After each cut and subsequent painting, all the pieces are placed back in their original position (forming a large cube) before making the next cut.

Q25. DIRECTIONS for questions 25 and 26: Type your answer in the text box provided below the question.

How many cubes are painted with four different colours?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

4

Avg. time spent on this question by all students

118

Time spent / Accuracy Analysis

Difficulty Level

VD

Avg. time spent on this question by students who got this question right 205

% of students who attempted this question

6.67

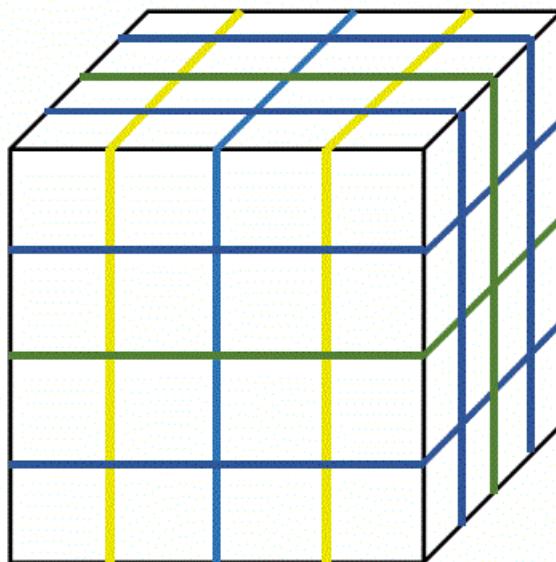
% of students who got the question right of those who attempted

3.4

[Video Solution](#)

[Text Solution](#)

The diagram below provides the large cube with the cuts in different colours drawn along the faces. We can imagine the lines drawn on the cubes to slice the cube and paint the sliced faces in the colour of the lines.



From the figure, we can observe that all the cubes have at least one face painted yellow. All the cubes have at least one face painted Blue. Further, if we consider only the cubes on the surface, all the cubes have at least one face painted Red. Hence, all the cubes on the surface are painted three different colours. We need to find, among the cubes on the surface, how many are painted Green. This will give us the cubes painted four different colours. We can split the cube shown above into four vertical layers, with each layer having 16 cubes.

In the front layer, except for the cubes on the top and bottom edges, the other cubes will be painted Green on one face. Hence, there will be 8 cubes painted with four different colours.

In the second and third layers, all the cubes along the edges will be painted Green on at least one face.

In the fourth layer, there will be 8 more cubes with 4 different colours.

Hence, there will be a total of $8 + 12 + 12 + 8 = 40$ cubes painted with four different colours.

Ans: (40)

undefined

DIRECTIONS for questions 23 to 26: Answer the questions on the basis of the information given below.

A large cube is painted Red on all its faces. It is cut vertically into two equal cuboids and all the unpainted faces of each cuboid are then painted Blue. Each of the two cuboids are further cut into four equal cubes and all the unpainted faces of each cube are then painted Green. Each of the eight cubes are cut vertically, parallel to the first vertical cut, into two equal cuboids and all the unpainted faces of each cuboid are then painted Yellow. Each of the 16 cuboids are cut into four equal cubes and all the unpainted faces of each cube are then painted Blue. After each cut and subsequent painting, all the pieces are placed back in their original position (forming a large cube) before making the next cut.

Q26. DIRECTIONS for questions 25 and 26: Type your answer in the text box provided below the question.

How many cubes are painted Yellow on one face and Green on the opposite face?

You did not answer this question

Show Correct Answer

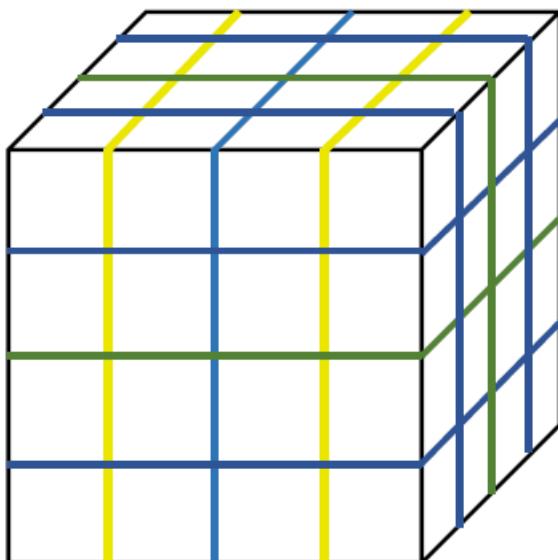
Time spent / Accuracy Analysis

Time taken by you to answer this question	6
Avg. time spent on this question by all students	45
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	65
% of students who attempted this question	5.94
% of students who got the question right of those who attempted	31.64

[Video Solution](#)

[Text Solution](#)

The diagram below provides the large cube with the cuts in different colours drawn along the faces. We can imagine the lines drawn on the cubes to slice the cube and paint the sliced faces in the colour of the lines.



By observing the figure above, the direction of the yellow and green cuts are not parallel to each other. Hence, the yellow and green faces will not be opposite each other for any cube.

Ans: (0)

undefined

DIRECTIONS for questions 27 to 30: Answer the questions on the basis of the information given below.

Eight persons, A through H, were sitting in eight chairs placed around a rectangular table, with four chairs along each of the longer sides of the table. Among the eight persons, three persons are from England, three are from France and two are from Belgium.

It is also known that

- i.
B, who is from England, was sitting to the immediate right F, who is not from France, and neither of them were sitting at any end.

- ii. on each side of the table, the two persons sitting at the extreme ends are from the same country.
- iii. two persons from France, one from Belgium and one from England were sitting on the same side of the table.
- iv. no two persons from the same country were sitting opposite each other.
- v. H, who is from France, was sitting to the immediate right of A, while G is not from the same country as H.
- vi. D, who is not from England, and E were sitting opposite each other and neither of them were sitting adjacent to B.

Q27. DIRECTIONS for questions 27 to 30: Select the correct alternative from the given choices.

Who among the following was sitting opposite B?

- a) **A** Your answer is correct
- b) **C**
- c) **H**
- d) **G**

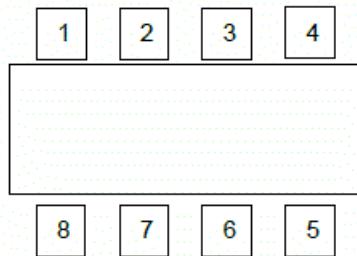
Time spent / Accuracy Analysis

Time taken by you to answer this question	9
Avg. time spent on this question by all students	379
Difficulty Level	E
Avg. time spent on this question by students who got this question right	364
% of students who attempted this question	46.92
% of students who got the question right of those who attempted	87.24

[Video Solution](#)

[Text Solution](#)

Let the following diagram represent the seats around the rectangular table:



From (iii), two persons from France, one from Belgium and one from England are sitting on the same side of the table. Hence, two persons from England, one from Belgium and one from France must be sitting on the other side of the table. Let the first set of four persons occupy seats 1, 2, 3 and 4, in any order and the second set of four persons occupy the seats 5, 6, 7 and 8, in any order.

From (ii), the persons at 1 and 4 must both be from France and the persons at 5 and 8 must both be from England.

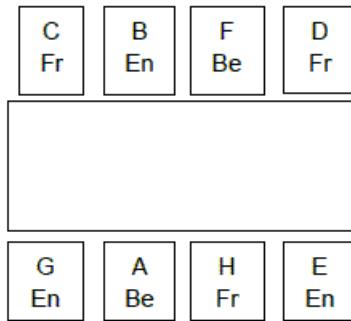
From (i), B is from England and he is not sitting at extreme end. Hence, B must at 2 or 3. Also B is sitting to the immediate right of F, who is not from France. Hence, F must be at 3 and B must be at 2. F must be from Belgium.

From (iv), the person at 6 must be from France and the person at 7 must be from Belgium.

From (vi), D and E are sitting opposite each other and they are not adjacent to B. Hence, they must be at 4 and 5. Since D is not from England, D must be at 4 and E must be at 5.

From (v), H is from France and is to the immediate right of A. Hence, H must be at 6 and A must be at 7. From (v), since G is not from the same country as H, G must be from England and must be at 8. C must be at 1.

The following is their arrangement around the table:



A is sitting opposite B.

Choice (A)

DIRECTIONS for questions 27 to 30: Answer the questions on the basis of the information given below.

Eight persons, A through H, were sitting in eight chairs placed around a rectangular table, with four chairs along each of the longer sides of the table. Among the eight persons, three persons are from England, three are from France and two are from Belgium.

It is also known that

- i. B, who is from England, was sitting to the immediate right F, who is not from France, and neither of them were sitting at any end.
- ii. on each side of the table, the two persons sitting at the extreme ends are from the same country.
- iii. two persons from France, one from Belgium and one from England were sitting on the same side of the table.
- iv. no two persons from the same country were sitting opposite each other.
- v. H, who is from France, was sitting to the immediate right of A, while G is not from the same country as H.
- vi. D, who is not from England, and E were sitting opposite each other and neither of them were sitting adjacent to B.

Q28. DIRECTIONS for questions 27 to 30: Select the correct alternative from the given choices.

Who among the following was sitting to the immediate right of a person from France?

- a) **G**
- b) **C**
- c) **D**
- d) **E** Your answer is correct

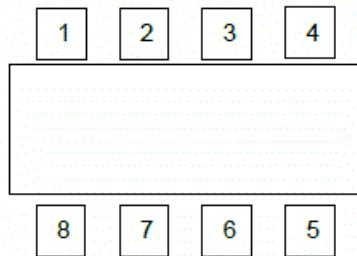
Time spent / Accuracy Analysis

Time taken by you to answer this question	68
Avg. time spent on this question by all students	53
Difficulty Level	E
Avg. time spent on this question by students who got this question right	47
% of students who attempted this question	45
% of students who got the question right of those who attempted	84.3

[Video Solution](#)

[Text Solution](#)

Let the following diagram represent the seats around the rectangular table:



From (iii), two persons from France, one from Belgium and one from England are sitting on the same side of the table. Hence, two persons from England, one from Belgium and one from France must be sitting on the other side of the table. Let the first set of four persons occupy seats 1, 2, 3 and 4, in any order and the second set of four persons occupy the seats 5, 6, 7 and 8, in any order.

From (ii), the persons at 1 and 4 must both be from France and the persons at 5 and 8 must both be from England.

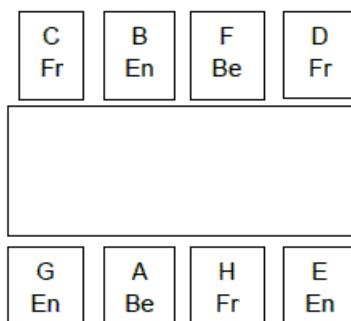
From (i), B is from England and he is not sitting at extreme end. Hence, B must at 2 or 3. Also B is sitting to the immediate right of F, who is not from France. Hence, F must be at 3 and B must be at 2. F must be from Belgium.

From (iv), the person at 6 must be from France and the person at 7 must be from Belgium.

From (vi), D and E are sitting opposite each other and they are not adjacent to B. Hence, they must be at 4 and 5. Since D is not from England, D must be at 4 and E must be at 5.

From (v), H is from France and is to the immediate right of A. Hence, H must be at 6 and A must be at 7. From (v), since G is not from the same country as H, G must be from England and must be at 8. C must be at 1.

The following is their arrangement around the table:



E is to the immediate right of a person from France.

Choice (D)

undefined

DIRECTIONS for questions 27 to 30: Answer the questions on the basis of the information given below.

Eight persons, A through H, were sitting in eight chairs placed around a rectangular table, with four chairs along each of the longer sides of the table. Among the eight persons, three persons are from England, three are from France and two are from Belgium.

It is also known that

i.

B, who is from England, was sitting to the immediate right F, who is not from France, and neither of them were sitting at any end.

- ii. on each side of the table, the two persons sitting at the extreme ends are from the same country.
- iii. two persons from France, one from Belgium and one from England were sitting on the same side of the table.
- iv. no two persons from the same country were sitting opposite each other.
- v. H, who is from France, was sitting to the immediate right of A, while G is not from the same country as H.
- vi. D, who is not from England, and E were sitting opposite each other and neither of them were sitting adjacent to B.

Q29. DIRECTIONS for questions 27 to 30: Select the correct alternative from the given choices.

Who among the following was sitting opposite a person from England and adjacent to a person from Belgium?

- a) D Your answer is correct
- b) G
- c) C
- d) More than one of the above

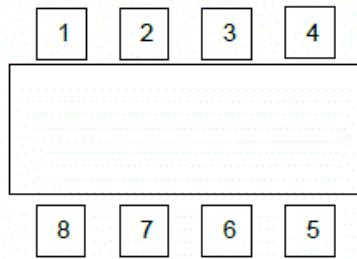
Time spent / Accuracy Analysis

Time taken by you to answer this question	519
Avg. time spent on this question by all students	298
Difficulty Level	E
Avg. time spent on this question by students who got this question right	293
% of students who attempted this question	44.62
% of students who got the question right of those who attempted	81.83

[Video Solution](#)

[Text Solution](#)

Let the following diagram represent the seats around the rectangular table:



From (iii), two persons from France, one from Belgium and one from England are sitting on the same side of the table. Hence, two persons from England, one from Belgium and one from France must be sitting on the other side of the table. Let the first set of four persons occupy seats 1, 2, 3 and 4, in any order and the second set of four persons occupy the seats 5, 6, 7 and 8, in any order.

From (ii), the persons at 1 and 4 must both be from France and the persons at 5 and 8 must both be from England.

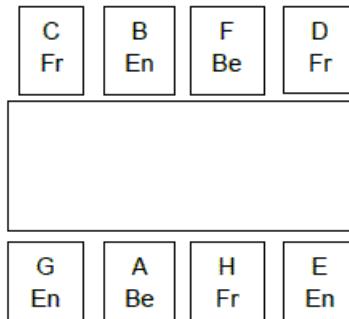
From (i), B is from England and he is not sitting at extreme end. Hence, B must at 2 or 3. Also B is sitting to the immediate right of F, who is not from France. Hence, F must be at 3 and B must be at 2. F must be from Belgium.

From (iv), the person at 6 must be from France and the person at 7 must be from Belgium.

From (vi), D and E are sitting opposite each other and they are not adjacent to B. Hence, they must be at 4 and 5. Since D is not from England, D must be at 4 and E must be at 5.

From (v), H is from France and is to the immediate right of A. Hence, H must be at 6 and A must be at 7. From (v), since G is not from the same country as H, G must be from England and must be at 8. C must be at 1.

The following is their arrangement around the table:



D is sitting opposite a person from England and adjacent to a person from Belgium.
Choice (A)

DIRECTIONS for questions 27 to 30: Answer the questions on the basis of the information given below.

Eight persons, A through H, were sitting in eight chairs placed around a rectangular table, with four chairs along each of the longer sides of the table. Among the eight persons, three persons are from England, three are from France and two are from Belgium.

It is also known that

- i. B, who is from England, was sitting to the immediate right F, who is not from France, and neither of them were sitting at any end.
- ii. on each side of the table, the two persons sitting at the extreme ends are from the same country.
- iii. two persons from France, one from Belgium and one from England were sitting on the same side of the table.
- iv. no two persons from the same country were sitting opposite each other.
- v. H, who is from France, was sitting to the immediate right of A, while G is not from the same country as H.
- vi. D, who is not from England, and E were sitting opposite each other and neither of them were sitting adjacent to B.

Q30. DIRECTIONS for questions 27 to 30: Select the correct alternative from the given choices.

Who among the following is from Belgium?

- a) C
- b) D
- c) A Your answer is correct
- d) More than one of the above

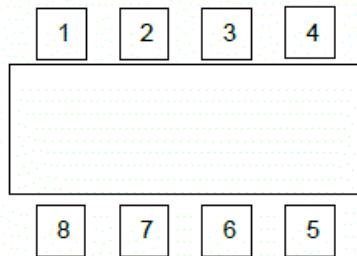
Time spent / Accuracy Analysis

Time taken by you to answer this question	14
Avg. time spent on this question by all students	39
Difficulty Level	E
Avg. time spent on this question by students who got this question right	36
% of students who attempted this question	44.7
% of students who got the question right of those who attempted	92.19

[Video Solution](#)

[Text Solution](#)

Let the following diagram represent the seats around the rectangular table:



From (iii), two persons from France, one from Belgium and one from England are sitting on the same side of the table. Hence, two persons from England, one from Belgium and one from France must be sitting on the other side of the table. Let the first set of four persons occupy seats 1, 2, 3 and 4, in any order and the second set of four persons occupy the seats 5, 6, 7 and 8, in any order.

From (ii), the persons at 1 and 4 must both be from France and the persons at 5 and 8 must both be from England.

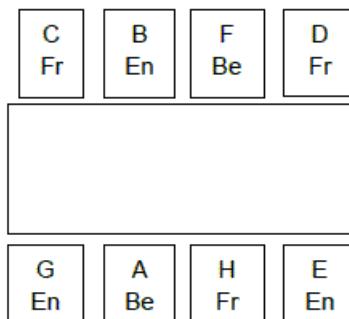
From (i), B is from England and he is not sitting at extreme end. Hence, B must at 2 or 3. Also B is sitting to the immediate right of F, who is not from France. Hence, F must be at 3 and B must be at 2. F must be from Belgium.

From (iv), the person at 6 must be from France and the person at 7 must be from Belgium.

From (vi), D and E are sitting opposite each other and they are not adjacent to B. Hence, they must be at 4 and 5. Since D is not from England, D must be at 4 and E must be at 5.

From (v), H is from France and is to the immediate right of A. Hence, H must be at 6 and A must be at 7. From (v), since G is not from the same country as H, G must be from England and must be at 8. C must be at 1.

The following is their arrangement around the table:



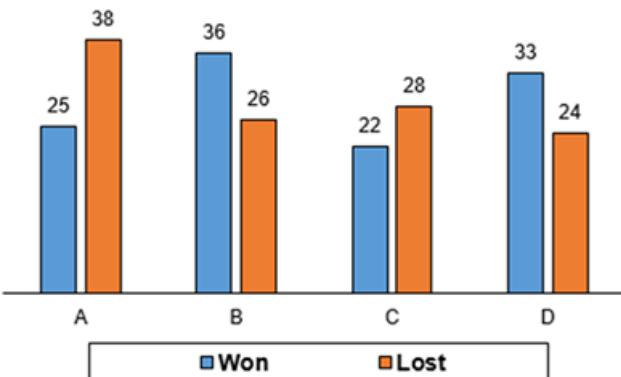
A is from Belgium.

Choice (C)

undefined

DIRECTIONS for questions 31 and 32: Answer the questions on the basis of the information given below.

The bar graph below provides the number of wars won and lost by four countries - A through D - during the 18th and the 19th centuries. It is known that, during the 18th and 19th centuries, the four countries waged wars only against each other.



Q31. DIRECTIONS for question 31: Select the correct alternative from the given choices.

Among the four countries, it so happened that a pair of countries (X, Y) were such that all the wars that X waged were only against Y.

How many possibilities exist for (X, Y)?

- a) 1
- b) 2
- c) 3 Your answer is correct
- d) 4

Time spent / Accuracy Analysis

Time taken by you to answer this question	693
Avg. time spent on this question by all students	193
Difficulty Level	M
Avg. time spent on this question by students who got this question right	210
% of students who attempted this question	15.79
% of students who got the question right of those who attempted	49.39

[Video Solution](#)

[Text Solution](#)

For the given condition to be satisfied, the following must be satisfied:

- The number of wars won by X must be less than or equal to the number of wars lost by Y
- The number of wars lost by X must be less than or equal to the number of war won by Y.

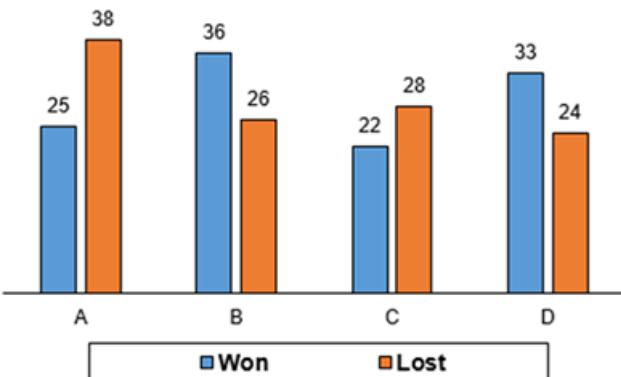
We can observe that these conditions are satisfied for three pairs of countries: (C, B); (C, D) and (D, A).

Choice (C)

undefined

DIRECTIONS for questions 31 and 32: Answer the questions on the basis of the information given below.

The bar graph below provides the number of wars won and lost by four countries - A through D - during the 18th and the 19th centuries. It is known that, during the 18th and 19th centuries, the four countries waged wars only against each other.



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- a) 1
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Time spent / Accuracy Analysis

Time taken by you to answer this question	693
Avg. time spent on this question by all students	193
Difficulty Level	M
Avg. time spent on this question by students who got this question right	210
% of students who attempted this question	15.79
% of students who got the question right of those who attempted	49.39

[Video Solution](#)

[Text Solution](#)

For the given condition to be satisfied, the following must be satisfied:

- The number of wars won by X must be less than or equal to the number of wars lost by Y
- The number of wars lost by X must be less than or equal to the number of war won by Y.

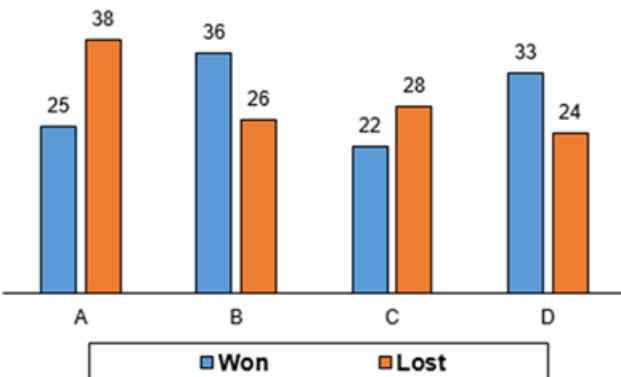
We can observe that these conditions are satisfied for three pairs of countries: (C, B); (C, D) and (D, A).

Choice (C)

undefined

DIRECTIONS for questions 31 and 32: Answer the questions on the basis of the information given below.

The bar graph below provides the number of wars won and lost by four countries - A through D - during the 18th and the 19th centuries. It is known that, during the 18th and 19th centuries, the four countries waged wars only against each other.



Q32. DIRECTIONS for question 32: Type your answer in the text box provided below the question.

Among the four countries, it so happened that a pair of countries (X, Y) were such that all the wars that X waged were only against Y.

What is the maximum number of wars that D won against B?

Your Answer: 26 □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	166
Avg. time spent on this question by all students	109
Difficulty Level	D
Avg. time spent on this question by students who got this question right	173
% of students who attempted this question	18.7
% of students who got the question right of those who attempted	1.85

[Video Solution](#)

Text Solution

From the above solutions, the given condition is satisfied for three pairs of countries: (C, B); (C, D) and (A, D).

Consider that C won all its wars against B.

In this case B won 8 wars and lost 4 wars against the other countries.

If B lost all 4 wars against D, D must have won 29 more wars which can only be against A. Hence, A must have lost 9 wars but among B has won only 8 more wars. Hence, this case is not possible.

If B lost 3 wars against D, D could have lost 30 wars against A, B could have won 8 wars against A, A could have won 24 wars against D and 1 war against B. This case is possible and the number of wars that B won against D is 3.

Consider the case that C won all its wars against D.

D won 5 wars and lost 2 wars against the remaining countries.

If D won 5 wars against B, B must have lost the remaining 21 wars against A. In this case A must win 4 wars but D lost only 2 wars.

Following a similar logic, if D won 4 wars, A must win 3 wars against D which is not possible.

Hence, D must have won a maximum of 3 wars against B in this case.

Consider the case that D lost all its wars against A. In this case, D cannot win any wars against B. hence, the maximum number of wars that D can win against B is 3.

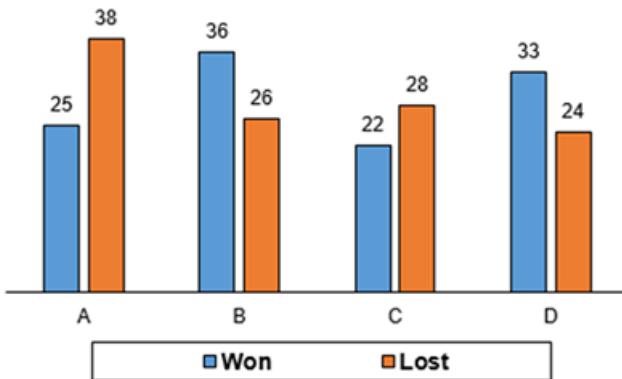
Ans: (3)

undefined

DIRECTIONS for questions 31 and 32: Answer the questions on the basis of the information given below.

The bar graph below provides the number of wars won and lost by four countries - A through D - during the 18th and the 19th

centuries. It is known that, during the 18th and 19th centuries, the four countries waged wars only against each other.



Q32. DIRECTIONS for question 32: Type your answer in the text box provided below the question.

Among the four countries, it so happened that a pair of countries (X, Y) were such that all the wars that X waged were only against Y.

What is the maximum number of wars that D won against B?

Your Answer:26 **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	166
Avg. time spent on this question by all students	109
Difficulty Level	D
Avg. time spent on this question by students who got this question right	173
% of students who attempted this question	18.7
% of students who got the question right of those who attempted	1.85

[Video Solution](#)

[Text Solution](#)

From the above solutions, the given condition is satisfied for three pairs of countries: (C, B); (C, D) and (A, D).

Consider that C won all its wars against B.

In this case B won 8 wars and lost 4 wars against the other countries.

If B lost all 4 wars against D, D must have won 29 more wars which can only be against A. Hence, A must have lost 9 wars but among B has won only 8 more wars. Hence, this case is not possible.

If B lost 3 wars against D, D could have lost 30 wars against A, B could have won 8 wars against A, A could have won 24 wars against D and 1 war against B. This case is possible and the number of wars that B won against D is 3.

Consider the case that C won all its wars against D.

D won 5 wars and lost 2 wars against the remaining countries.

If D won 5 wars against B, B must have lost the remaining 21 wars against A. In this case A must win 4 wars but D lost only 2 wars.

Following a similar logic, if D won 4 wars, A must win 3 wars against D which is not possible.

Hence, D must have won a maximum of 3 wars against B in this case.

Consider the case that D lost all its wars against A. In this case, D cannot win any wars against B. hence, the maximum number of wars that D can win against B is 3.

Ans: (3)

undefined

Q1. DIRECTIONS for question 1: Type in your answer in the input box provided below the question.

A sum of money was lent for two years at 20% p.a. compound interest, compounded annually. If the interest accrued for the second year was Rs.1440, find the sum (in Rs.).

Your Answer:6000 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	337
Avg. time spent on this question by all students	152
Difficulty Level	E
Avg. time spent on this question by students who got this question right	140
% of students who attempted this question	48.64
% of students who got the question right of those who attempted	65.92

[Video Solution](#)

[Text Solution](#)

Let the sum be ₹P

$$\text{Amount at the end of the first year} = P + \frac{20}{100} P = 1.2P$$

$$\text{Interest for the second year} = \frac{20}{100} (1.2P) = 0.24P$$

$$\Rightarrow 0.24P = 1440$$

$$P = 6000$$

Ans: (6000)

undefined

Q2. DIRECTIONS for questions 2 and 3: Select the correct alternative from the given choices.

A trader marks his goods up by 75% and then offers a discount of 20%. Further, he weighs 10% less than what he claims to while selling those goods. What is the net profit percentage of the trader?

a) $55\frac{5}{9}\%$ **Your answer is correct**

b) $44\frac{4}{9}\%$

c) 45%

d) None of these

Time spent / Accuracy Analysis

Time taken by you to answer this question	169
Avg. time spent on this question by all students	139
Difficulty Level	E
Avg. time spent on this question by students who got this question right	128
% of students who attempted this question	45.76
% of students who got the question right of those who attempted	76.59

[Video Solution](#)

[Text Solution](#)

Let the CP of 1gm be ₹1.
 Let the total weight be 1000 gm.
 Since the trader weights 10% less, he sells goods of
 900 gm as 1000 gm
 i.e., Actual CP of goods = ₹900
 MP of the goods = 175% of 1000 = ₹1750
 SP at 20% discount = 80% of 1750 = ₹1400

$$\text{Net profit \%} = \left(\frac{1400 - 900}{900} \times 100 \right) \%$$

$$= \frac{500}{9} \% = 55\frac{5}{9} \%$$

Choice (A)

undefined

Q3. DIRECTIONS for questions 2 and 3: Select the correct alternative from the given choices.

Milk solution A contains 10% milk and milk solution B contains 9 litres of milk. When the two solutions are mixed, the resultant mixture contains 12% milk. If the volume of solution B is one-third the volume of solution A, what is the combined volume of the resultant mixture?

- a) 180 litres
- b) $\frac{400}{3}$ litres
- c) 200 litres Your answer is correct
- d) $\frac{200}{3}$ litres

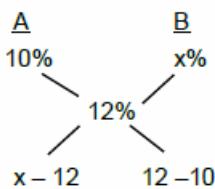
Time spent / Accuracy Analysis

Time taken by you to answer this question	159
Avg. time spent on this question by all students	196
Difficulty Level	E
Avg. time spent on this question by students who got this question right	189
% of students who attempted this question	28.48
% of students who got the question right of those who attempted	84.1

[Video Solution](#)

[Text Solution](#)

Let the solution B contain $x\%$ milk. Let a and b be the volumes of A and B (in litres) respectively.



But $a : b = 3 : 1$

$$\Rightarrow \frac{x-12}{12-10} = \frac{3}{1} \Rightarrow x-12 = 6 \Rightarrow x = 18$$

$$\frac{18b}{100} = 9 \Rightarrow b = 50 \text{ litres} \Rightarrow a = 150 \text{ litres}$$

\therefore Total volume = 200 litres.

Choice (C)

undefined

Q3. DIRECTIONS for questions 2 and 3: Select the correct alternative from the given choices.

Milk solution A contains 10% milk and milk solution B contains 9 litres of milk. When the two solutions are mixed, the resultant mixture contains 12% milk. If the volume of solution B is one-third the volume of solution A, what is the combined volume of the resultant mixture?

- a) 180 litres
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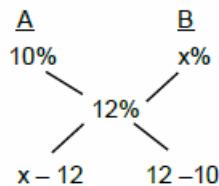
Time spent / Accuracy Analysis

Time taken by you to answer this question	159
Avg. time spent on this question by all students	196
Difficulty Level	E
Avg. time spent on this question by students who got this question right	189
% of students who attempted this question	28.48
% of students who got the question right of those who attempted	84.1

[Video Solution](#)

Text Solution

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$$\Rightarrow \frac{x-12}{12-10} = \frac{3}{1} \Rightarrow x-12 = 6 \Rightarrow x = 18$$

$$\frac{18b}{100} = 9 \Rightarrow b = 50 \text{ litres} \Rightarrow a = 150 \text{ litres}$$

\therefore Total volume = 200 litres.

Choice (C)

undefined

Q4. DIRECTIONS for question 4: Type in your answer in the input box provided below the question.

Find the first non-zero digit from the right in the product $(2^4)(3^7)(4^3)(5^{11})(7^2)(9^3)(10^4)$.

Your Answer:5 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	155
Avg. time spent on this question by all students	110
Difficulty Level	M
Avg. time spent on this question by students who got this question right	99
% of students who attempted this question	43.51
% of students who got the question right of those who attempted	56.21

[Video Solution](#)

Text Solution

The product of 5 and 2 and powers of 10 give zeros at the end.

As there are 10 twos in $(2^4)(4^3)$, these along with 10 fives give 10 zeros. We get 4 more zeros from 10^4 .

The first non-zero digit from the right is the units digit of $(3)^7(5)(7)^2(9)^2$.
Here, five is multiplied with an odd number. Therefore, the first non-zero digit from the right is 5. Ans: (5)

undefined

undefined

Q4. DIRECTIONS for question 4: Type in your answer in the input box provided below the question.

Find the first non-zero digit from the right in the product $(2^4)(3^7)(4^3)(5^{11})(7^2)(9^3)(10^4)$.

Your Answer:5 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	155
Avg. time spent on this question by all students	110
Difficulty Level	M
Avg. time spent on this question by students who got this question right	99
% of students who attempted this question	43.51
% of students who got the question right of those who attempted	56.21

[Video Solution](#)

[**Text Solution**](#)

The product of 5 and 2 and powers of 10 give zeros at the end.
As there are 10 twos in $(2^4)(4^3)$, these along with 10 fives give 10 zeros. We get 4 more zeros from 10^4 .
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Your Answer:5 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	155
Avg. time spent on this question by all students	110
Difficulty Level	M
Avg. time spent on this question by students who got this question right	99
% of students who attempted this question	43.51
% of students who got the question right of those who attempted	56.21

[Video Solution](#)

[**Text Solution**](#)

The product of 5 and 2 and powers of 10 give zeros at the end.
As there are 10 twos in $(2^4)(4^3)$, these along with 10 fives give 10 zeros. We get 4 more zeros from 10^4 .
The first non-zero digit from the right is the units digit of $(3)^7(5)(7)^2(9)^2$
Here, five is multiplied with an odd number. Therefore, the first non-zero digit from the right is 5. Ans: (5)

undefined

Q5. DIRECTIONS for question 5: Select the correct alternative from the given choices.

A man rowing upstream in a river accidentally dropped his hat into the river. After travelling a distance of $3x$, he noticed his loss and immediately turned back to retrieve his hat. He caught up with his hat after it had covered a distance of $2x$. The speed of the stream was what percent of the speed at which he rows in still water?

- a) **25%**
- b) **50%**
- c) **$66\frac{2}{3}\%$**
- d) **None of these**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	167
Avg. time spent on this question by all students	191
Difficulty Level	D
Avg. time spent on this question by students who got this question right	205
% of students who attempted this question	22.14
% of students who got the question right of those who attempted	42.04

[Video Solution](#)

[Text Solution](#)

This question is best solved using the concept of relative speeds. The speed of the boat in still water is its speed relative to the water. This relative speed remains the same, whether the boat is travelling upstream or downstream. Also, when the hat floats along with the water, its speed with respect to the water will be zero. Hence, the situation can be thought of as the boat moving away from the stationary hat at a certain speed (i.e., the speed of the boat relative to the water) for some time and then returning to the hat at the same speed, and hence taking the same amount of time. Hence, the boat have turned back when the hat had drifted a distance of exactly $\frac{2x}{2} = x$ (with respect to the ground). Therefore the hat drifted a distance x downstream in the same time that the man rowed the boat a distance of $3x$ upstream (both with respect to the ground). Hence $\frac{u-v}{v} = \frac{3}{1}$, where u and v are the speeds of the boat with respect to water and the speed of the water respectively. Hence $\frac{v}{u} = \frac{1}{4}$ i.e., v is 25% of u .

Alternative Solution:

Let the distance travelled upstream after dropping the hat be m and the distance the hat travels downstream till he retrieves it be n (i.e., $m = 3x$ and $n = 2x$). Considering his rowing speed and the speed of the stream to be u and v respectively, we get

$$\begin{aligned}\frac{m}{u-v} + \frac{m+n}{u+v} &= \frac{n}{v} \\ \Rightarrow (mu + mv + mu - mv + mu - nv)v &= n(u^2 - v^2) \\ \Rightarrow uv(2m + n) &= nu^2 \\ \because u \neq 0 \\ \therefore nu - v(2m + n) &= 0 \\ \Rightarrow nu &= v(2m + n) \\ \Rightarrow \frac{u}{v} &= \frac{2m+n}{n}\end{aligned}$$

It is given that $n = \frac{2}{3}m \Rightarrow m = \frac{3}{2}n$

$$\begin{aligned}\therefore \frac{u}{v} &= \frac{2\left(\frac{3}{2}n\right)n}{n} \\ \Rightarrow \frac{u}{v} &= 4 \text{ i.e., } v = \frac{1}{4}u \\ \therefore \frac{u}{v} \times 100\% &= \frac{1}{4} \times 100\% = 25\%\end{aligned}$$

Thus, the speed of the stream was 25% of the speed at which he was rowing the boat.
Choice (A)

undefined

Q6. DIRECTIONS for questions 6 to 8: Type in your answer in the input box provided below the question.

How many arrangements are possible with the letters of the word "PROFILE", if no two consonants are to come together?

Your Answer:1440 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	147
Avg. time spent on this question by all students	98
Difficulty Level	E

Time spent / Accuracy Analysis

Avg. time spent on this question by students who got this question right **87**

% of students who attempted this question **48.57**

% of students who got the question right of those who attempted **68.58**

[Video Solution](#)

[Text Solution](#)

First fix the vowels _ O _ I _ E _.

This can be done in $3!$ ways.

There are 4 places left for 4 consonants. This can be filled in $4!$ ways.

Thus, $3! \cdot (4!) = 144$.

Ans: (144)

undefined

Q7. DIRECTIONS for questions 6 to 8: Type in your answer in the input box provided below the question.

How many ratios of the form p/q do not form an integer, where p and q are distinct and belong to the set $\{1, 2, 3, 4, 5, 6, 7, 8, 9\}$?

Your Answer:58 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question **215**

Avg. time spent on this question by all students **162**

Difficulty Level **M**

Avg. time spent on this question by students who got this question right **166**

% of students who attempted this question **43.62**

% of students who got the question right of those who attempted **45.75**

[Video Solution](#)

[Text Solution](#)

First let us count the total number ratios of the form p/q . p can be any of the 9 integers and q can be any of the remaining 8. Thus, there are $(9) (8) = 72$ possible ratios.

The ratios that simplify to an integer are

(i) all the 8 ratios with one as the denominator

(ii) 3 of the ratios $\left(\text{i.e., } \frac{4}{2}, \frac{6}{2}, \frac{8}{2}\right)$ with 2 as the denominator.

(iii) 2 of the ratios $\left(\text{i.e., } \frac{6}{3}, \frac{9}{3}\right)$ with 3 as the denominator and

(iv) one of the ratios $\left(\text{i.e., } \frac{8}{4}\right)$ with 4 as the denominator

\Rightarrow Total of $8 + 3 + 2 + 1 = 14$ ratios are integers

$\Rightarrow 72 - 14 = 58$ ratios are not integers.

Ans: (58)

undefined

Q7. DIRECTIONS for questions 6 to 8: Type in your answer in the input box provided below the question.

How many ratios of the form p/q do not form an integer, where p and q are distinct and belong to the set {1, 2, 3, 4, 5, 6, 7, 8, 9}?

Your Answer:58 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	215
Avg. time spent on this question by all students	162
Difficulty Level	M
Avg. time spent on this question by students who got this question right	166
% of students who attempted this question	43.62
% of students who got the question right of those who attempted	45.75

[Video Solution](#)

Text Solution

First let us count the total number ratios of the form p/q . p can be any of the 9 integers and q can be any of the remaining 8. Thus, there are $(9)(8) = 72$ possible ratios.

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(i) all the 8 ratios with one as the denominator

(ii) 3 of the ratios (i.e., $\frac{4}{2}, \frac{6}{2}, \frac{8}{2}$) with 2 as the denominator.

(iii) 2 of the ratios (i.e., $\frac{6}{3}, \frac{9}{3}$) with 3 as the denominator and

(iv) one of the ratios (i.e., $\frac{8}{4}$) with 4 as the denominator

\Rightarrow Total of $8 + 3 + 2 + 1 = 14$ ratios are integers

$\Rightarrow 72 - 14 = 58$ ratios are not integers.

Ans: (58)

undefined

undefined

Q8. DIRECTIONS for questions 6 to 8: Type in your answer in the input box provided below the question.

A large tank of height 10 m is fitted with an inlet pipe which can fill the tank in 60 minutes. The tank has three emptying outlets pipes fitted at the heights of 5 m, 8 m and 9.5 m respectively from the bottom. All the pipes are opened simultaneously with the tank being empty initially. In how much time (in minutes) will 95% of the tank be filled, if the lowest outlet pipe alone can empty half the tank in one and a half hour; the outlet pipe in the middle alone can empty 20% of the tank in 1 hour 12 minutes and the outlet pipe at the top alone can empty 5% of the tank in 18 minutes?

You did not answer this question

[Show Correct Answer](#)

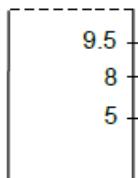
Time spent / Accuracy Analysis

Time taken by you to answer this question	11
Avg. time spent on this question by all students	290
Difficulty Level	M
Avg. time spent on this question by students who got this question right	314
% of students who attempted this question	10.85
% of students who got the question right of those who attempted	28.09

[Video Solution](#)

Text Solution

The tank and the positions of the holes are shown in the figure below.



The time taken (in min) and the rates of the inlet and the 3 holes are tabulated below.

	Inlet	Hole 1	Hole 2	Hole 3
Rate	6	2	1	1
Time	60	180	360	360

At the rate of 6 units, it takes 60 minutes to fill up 10 m. The different parts of the tank, the effective rate and the time taken to fill that part and the volume of that part are tabulated below.

Part of tank	Rate	Time	Volume
8 – 9.5	3	15	1.5A
5 – 8	4	27	3A
0 – 5	6	30	5A

∴ The total time required to fill up 95% of the tank is $30 + 27 + 18$ or 75 minutes.

Ans: (75)

Q8. DIRECTIONS for questions 6 to 8: Type in your answer in the input box provided below the question.

A large tank of height 10 m is fitted with an inlet pipe which can fill the tank in 60 minutes. The tank has three emptying outlets pipes fitted at the heights of 5 m, 8 m and 9.5 m respectively from the bottom. All the pipes are opened simultaneously with the tank being empty initially. In how much time (in minutes) will 95% of the tank be filled, if the lowest outlet pipe alone can empty half the tank in one and a half hour; the outlet pipe in the middle alone can empty 20% of the tank in 1 hour 12 minutes and the outlet pipe at the top alone can empty 5% of the tank in 18 minutes?

You did not answer this question

Show Correct Answer

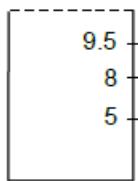
Time spent / Accuracy Analysis

Time taken by you to answer this question	11
Avg. time spent on this question by all students	290
Difficulty Level	M
Avg. time spent on this question by students who got this question right	314
% of students who attempted this question	10.85
% of students who got the question right of those who attempted	28.09

[Video Solution](#)

[Text Solution](#)

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0 – 5	6	30	5A

∴ The total time required to fill up 95% of the tank is $30 + 27 + 18$ or 75 minutes.

Ans: (75)

undefined

Q9. DIRECTIONS for question 9: Select the correct alternative from the given choices.

One root of the quadratic equation $ax^2 + bx + c = 0$ is 2 and one root of the quadratic equation $cx^2 + bx + a = 0$ is $-\frac{1}{3}$. What is sum of the roots of the first equation?

a) -1 Your answer is correct

b) -2

c) -3

d) $\frac{5}{3}$

Time spent / Accuracy Analysis

Time taken by you to answer this question 203

Avg. time spent on this question by all students 131

Difficulty Level M

Avg. time spent on this question by students who got this question right 120

% of students who attempted this question 35.62

% of students who got the question right of those who attempted 80.38

[Video Solution](#)

[Text Solution](#)

Since 2 is a root of $ax^2 + bx + c = 0$

$$4a + 2b + c = 0 \quad \dots \dots (1)$$

Again since $-\frac{1}{3}$ is a root of $cx^2 + bx + a = 0$

$$\frac{c}{9} - \frac{b}{3} + a = 0 \text{ or, } c - 3b + 9a = 0 \quad \dots \dots (2)$$

Multiplying (1) by 3 and (2) by 2 and adding the two equations, we get

$$12a + 6b + 3c = 0$$

$$2c - 6b + 18a = 0$$

$$30a + 5c = 0$$

$$5c = -30a \Rightarrow \frac{c}{a} = -6$$

Therefore the product of the roots is -6 , Thus the second root of the first equation

$$\text{is } -\frac{6}{2} = -3.$$

\therefore Sum of roots is $2 - 3 = -1$.

Alternative solution:

Replacing x with $\frac{1}{x}$ in $ax^2 + bx + c = 0$ gives $a\left(\frac{1}{x}\right)^2 + b\left(\frac{1}{x}\right) + c = 0$

$$\Rightarrow cx^2 + bx + a = 0$$

This suggests that the roots of $cx^2 + bx + a = 0$ are reciprocals of the roots of $ax^2 + bx + c = 0$

Therefore, one can conclude that the roots of the first and the second quadratic

equations are $(2, -3)$ and $\left(\frac{1}{2}, \frac{-1}{3}\right)$ respectively.

\therefore Sum of roots is $2 - 3 = -1$.

Choice (A)

undefined

Q9. DIRECTIONS for question 9: Select the correct alternative from the given choices.

One root of the quadratic equation $ax^2 + bx + c = 0$ is 2 and one root of the quadratic equation $cx^2 + bx + a = 0$ is $-\frac{1}{3}$. What is sum of the roots of the first equation?

a) -1 Your answer is correct

b) -2

c) -3

d) $\frac{5}{3}$

Time spent / Accuracy Analysis

Time taken by you to answer this question 203

Avg. time spent on this question by all students 131

Difficulty Level M

Avg. time spent on this question by students who got this question right 120

% of students who attempted this question 35.62

% of students who got the question right of those who attempted 80.38

[Video Solution](#)

[Text Solution](#)

Since 2 is a root of $ax^2 + bx + c = 0$

$$4a + 2b + c = 0 \text{ ---- (1)}$$

Again since $-\frac{1}{3}$ is a root of $cx^2 + bx + a = 0$

$$\frac{c}{9} - \frac{b}{3} + a = 0 \text{ or, } c - 3b + 9a = 0 \text{ ---- (2)}$$

Multiplying (1) by 3 and (2) by 2 and adding the two equations, we get

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$$5c = -30a \Rightarrow \frac{c}{a} = -6$$

Therefore the product of the roots is -6 , Thus the second root of the first equation

$$\text{is } -\frac{6}{2} = -3.$$

\therefore Sum of roots is $2 - 3 = -1$.

Alternative solution:

Replacing x with $\frac{1}{x}$ in $ax^2 + bx + c = 0$ gives $a\left(\frac{1}{x}\right)^2 + b\left(\frac{1}{x}\right) + c = 0$

$$\Rightarrow cx^2 + bx + a = 0$$

This suggests that the roots of $cx^2 + bx + a = 0$ are reciprocals of the roots of $ax^2 + bx + c = 0$

Therefore, one can conclude that the roots of the first and the second quadratic

equations are $(2, -3)$ and $\left(\frac{1}{2}, \frac{-1}{3}\right)$ respectively.

\therefore Sum of roots is $2 - 3 = -1$.

Choice (A)

undefined

Q9. DIRECTIONS for question 9: Select the correct alternative from the given choices.

One root of the quadratic equation $ax^2 + bx + c = 0$ is 2 and one root of the quadratic equation $cx^2 + bx + a = 0$ is $-\frac{1}{3}$. What is sum of the roots of the first equation?

a) -1 Your answer is correct

b) -2

c) -3

d) $\frac{5}{3}$

Time spent / Accuracy Analysis

Time taken by you to answer this question 203

Avg. time spent on this question by all students 131

Difficulty Level M

Avg. time spent on this question by students who got this question right 120

% of students who attempted this question 35.62

% of students who got the question right of those who attempted 80.38

[Video Solution](#)

[Text Solution](#)

Since 2 is a root of $ax^2 + bx + c = 0$

$$4a + 2b + c = 0 \text{ ---- (1)}$$

Again since $-\frac{1}{3}$ is a root of $cx^2 + bx + a = 0$

$$\frac{c}{9} - \frac{b}{3} + a = 0 \text{ or, } c - 3b + 9a = 0 \text{ ---- (2)}$$

Multiplying (1) by 3 and (2) by 2 and adding the two equations, we get

$$12a + 6b + 3c = 0$$

$$2c - 6b + 18a = 0$$

$$30a + 5c = 0$$

$$5c = -30a \Rightarrow \frac{c}{a} = -6$$

Therefore the product of the roots is -6 , Thus the second root of the first equation

$$\text{is } -\frac{6}{2} = -3.$$

\therefore Sum of roots is $2 - 3 = -1$.

Alternative solution:

Replacing x with $\frac{1}{x}$ in $ax^2 + bx + c = 0$ gives $a\left(\frac{1}{x}\right)^2 + b\left(\frac{1}{x}\right) + c = 0$

$$\Rightarrow cx^2 + bx + a = 0$$

This suggests that the roots of $cx^2 + bx + a = 0$ are reciprocals of the roots of $ax^2 + bx + c = 0$

Therefore, one can conclude that the roots of the first and the second quadratic

equations are $(2, -3)$ and $\left(\frac{1}{2}, \frac{-1}{3}\right)$ respectively.

\therefore Sum of roots is $2 - 3 = -1$.

Choice (A)

undefined

Q10. DIRECTIONS for questions 10 and 11: Type in your answer in the input box provided below the question.

Find the number of zeros at the end of $1050!$.

Your Answer:261 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	62
Avg. time spent on this question by all students	83
Difficulty Level	E
Avg. time spent on this question by students who got this question right	76
% of students who attempted this question	41.47
% of students who got the question right of those who attempted	71.67

[Video Solution](#)

[Text Solution](#)

The number of zeros at the end of $N!$ is the index of the largest power of 5 in $N!$. This is obtained by successive division by 5 as shown below.

Divided / Quotient	1050	210	42	8	1
Remainder	0	0	2	3	

The index of the largest power of 5 in $1050! = 210 + 42 + 8 + 1 = 261$. The number of zeros at the end of $1050!$ is 261.
Ans: (261)

undefined

Q11. DIRECTIONS for questions 10 and 11: Type in your answer in the input box provided below the question.

ABC is an isosceles triangle with $AB = AC = 73$ cm. From vertex A, a straight line is drawn such that it meets side BC at D and $AD = 71$. If $CD = 9$ cm, find the length of BD (in cm).

You did not answer this question

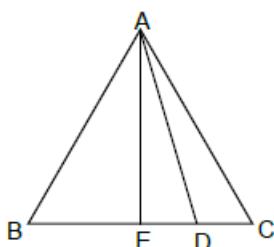
Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	104
Avg. time spent on this question by all students	181
Difficulty Level	D
Avg. time spent on this question by students who got this question right	254
% of students who attempted this question	23.88
% of students who got the question right of those who attempted	11.86

[Video Solution](#)

[Text Solution](#)



$$AB = AC = 73 \text{ cm}$$

$$AD = 71 \text{ cm}$$

Drop the perpendicular AE to BC.

Since $\triangle ABC$ is an isosceles triangle, $BE = EC$

$$\text{In } \triangle AEB, AB^2 = AE^2 + BE^2 \quad \dots \quad (1)$$

$$\text{In } \triangle AED, AD^2 = AE^2 + ED^2 \quad \dots \quad (2)$$

Subtracting (2) from (1), we get

$$AB^2 - AD^2 = BE^2 - ED^2$$

$$73^2 - 71^2 = (BE + ED)(BE - ED) \text{ Since } BE = CE$$

$$73^2 - 71^2 = (BE + ED)(CE - ED)$$

$$73^2 - 71^2 = (BD)(CD)$$

$$2(144) = BD(9)$$

$$\text{Therefore, } BD = 32 \text{ cm.}$$

Ans: (32)

undefined

Q12. DIRECTIONS for questions 12 to 16: Select the correct alternative from the given choices.

Car A travelled from town P towards town Q at a speed of 50 km/hr. Car B travelled from Q towards P at a speed of 75 km/hr. What is the ratio of the distances travelled by car A and car B by the time they met?

- a) 2 : 3 Your answer is incorrect
- b) 3 : 2
- c) 3 : 4
- d) Cannot be determined

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	42
Avg. time spent on this question by all students	89
Difficulty Level	E
Avg. time spent on this question by students who got this question right	86
% of students who attempted this question	50.43
% of students who got the question right of those who attempted	18.32

[Video Solution](#)

[Text Solution](#)

Let the time taken by the cars A and B to reach their meeting point be a and b respectively

Ratio of the distance travelled by car A and car B when they met = $50a : 75b = \frac{2a}{3b}$

If the cars started simultaneously, $a = b$

i.e. $\frac{a}{b} = 1$. Otherwise $\frac{a}{b} > 1$ or $\frac{a}{b} < 1$.

Since it is not mentioned as to whether the cars started simultaneously or not, the required ratio cannot be determined.

Choice (D)

undefined

Q13. DIRECTIONS for questions 12 to 16: Select the correct alternative from the given choices.

What is the value of the continued fraction

$$1 + \cfrac{2}{3 + \cfrac{4}{1 + \cfrac{2}{3 + \cfrac{4}{\dots}}}}$$

- a) $\frac{3}{2}$

- b) $\frac{5}{4}$
- c) $\frac{6}{5}$
- d) $\frac{4}{3}$ Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	159
Avg. time spent on this question by all students	129
Difficulty Level	E
Avg. time spent on this question by students who got this question right	127
% of students who attempted this question	36
% of students who got the question right of those who attempted	88.92

[Video Solution](#)

[Text Solution](#)

If we set the entire fraction equal to x , (which we take as the LHS), we find that as we write down the different terms on the RHS, x appears again. (In short, the whole is part of the whole. This feature appears in all infinite expressions.)

$$\text{Thus, } x = 1 + \frac{2}{3 + \frac{4}{x}} = 1 + \frac{2x}{3x+4} = \frac{5x+4}{3x+4}$$

$$\begin{aligned} \text{Or } 3x^2 + 4x &= 5x + 4 \\ \Rightarrow 3x^2 - x - 4 &= 0 \Rightarrow (3x - 4)(x + 1) = 0 \\ \Rightarrow x &= \frac{4}{3} \quad (\because x > 0) \end{aligned}$$

Choice (D)

undefined

Q14. DIRECTIONS for questions 12 to 16: Select the correct alternative from the given choices.

Find the area of the quadrilateral formed by joining the mid-points of the adjacent sides of a square, if the length of the diagonal of the square is 20 cm.

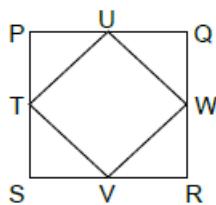
- a) **100 sq.cm** Your answer is correct
- b) **60 sq.cm**
- c) **200 sq.cm**
- d) **125 sq.cm**

Time spent / Accuracy Analysis

Time taken by you to answer this question	155
Avg. time spent on this question by all students	104
Difficulty Level	E
Avg. time spent on this question by students who got this question right	102
% of students who attempted this question	46.63
% of students who got the question right of those who attempted	89.42

[Video Solution](#)

Text Solution



Let PQRS be the square and T, U, V, W be the midpoints of the sides of the square. When midpoints of a square are joined to form new quadrilateral, the quadrilateral will again be a square.

$$PR = 20 \text{ cm}$$

$$\Rightarrow PQ = 10\sqrt{2} \text{ cm} = 2PU$$

$$PU = \frac{10\sqrt{2}}{2} = 5\sqrt{2}, PT = 5\sqrt{2}$$

$$\therefore TU = \sqrt{(5\sqrt{2})^2 + (5\sqrt{2})^2} = 10$$

The area of square TUWV = $10^2 = 100$ sq. cm.

Alternative Solution:

By observation, the area of the inner quadrilateral will be exactly half that of the square. Given, diagonal of square = 20 cm, the area of the square $\frac{(20)^2}{2} = 200$ sq. cm.

$$\text{Hence, required area} = \frac{200}{2} = 100 \text{ sq. cm}$$

Choice (A)

undefined

Q15. DIRECTIONS for questions 12 to 16: Select the correct alternative from the given choices.

If the point $(a + 1, 3a - 1)$ lies on the line passing through the points $(3, 5)$ and $(2, 2)$, then how many values of a are possible?

- a) **Zero**
- b) **Exactly one**
- c) **Exactly two**
- d) **More than two** Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	165
Avg. time spent on this question by all students	118
Difficulty Level	M
Avg. time spent on this question by students who got this question right	120
% of students who attempted this question	36.15
% of students who got the question right of those who attempted	52.55

Video Solution

Text Solution

The equation of the line passing through $(3, 5)$ and $(2, 2)$ is $y - 2 = \frac{5-2}{3-2}(x - 2)$ or $y - 2$
 $= 3(x - 2)$ or $3x - y = 4$
Now since the point $(a + 1, 3a - 1)$ satisfies the above equation i.e. $3(a + 1) - (3a - 1) = 4$. So any real value of 'a' will satisfy the above equation. Choice (D)

undefined

Q16. DIRECTIONS for questions 12 to 16: Select the correct alternative from the given choices.

The function $f(x)$ is the least integer greater than $\frac{x}{3}$. How many of the following functions are equal to $f(x)$?

$g(x)$ is one-third the least multiple of 3 greater than x .

$h(x)$ is 1 more than one-third the greatest multiple of 3 less than x .

$i(x)$ is 1 more than one-third the greatest multiple of 3 less than or equal to x .

$j(x)$ is 1 less than one-third the least multiple of 3 greater than x .

a) 1

b) 2

c) 3

d) 4

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	8
Avg. time spent on this question by all students	172
Difficulty Level	D
Avg. time spent on this question by students who got this question right	178
% of students who attempted this question	9.83
% of students who got the question right of those who attempted	56.76

[Video Solution](#)

[Text Solution](#)

The values of the 4 functions for 2 values of x and the intermediate range of values are tabulated below.

	$x = 3$	$3 < x < 6$	$x = 6$
$f(x)$	2	2	3
$g(x)$	2	2	3
	0	1	1
$h(x)$	1	2	2
	1	1	2
$i(x)$	2	2	3
	2	2	3
$j(x)$	1	1	2

For the sake of convenience $i(x)$ and $j(x)$ have been evaluated in 2 steps. We see that $g(x)$ and $i(x)$ are identical with $f(x)$.

\therefore Two of the functions are equal to $f(x)$.

Choice (B)

undefined

Q17. DIRECTIONS for question 17: Type in your answer in the input box provided below the question.

Sujith looked at the six-digit number on his CAT admit card and said "If I multiply the number formed by the first two digits, taken in that order, with three, I get all ones. If I multiply the number formed by the next two digits, taken in that order, with six, I get all twos. If I multiply the number formed by the last two digits, taken in that order, by 9, I get all threes". What is the sum of the digits of the number on Sujith's admit card?

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	9
Avg. time spent on this question by all students	137
Difficulty Level	E
Avg. time spent on this question by students who got this question right	134
% of students who attempted this question	30.3
% of students who got the question right of those who attempted	83.6

[Video Solution](#)

[Text Solution](#)

$$111/3 = 37$$

$$222/6 = 37$$

$$333/9 = 37$$

Hence the number is 373737. Adding up all digits, we get 30.

Ans: (30)

undefined

Q18. DIRECTIONS for questions 18 and 19: Select the correct alternative from the given choices.

If $\log_7(x + 8) < \log_7x + \log_7(1.05)$, then which of the following is best representative of x ?

- a) $x > 120$
- b) $x > 200$
- c) $x > 100$
- d) $x > 160$

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	2
Avg. time spent on this question by all students	81
Difficulty Level	E
Avg. time spent on this question by students who got this question right	78
% of students who attempted this question	35.39
% of students who got the question right of those who attempted	92.29

[Video Solution](#)

Text Solution

$$\log_7(x + 8) < \log_7(x) + \log_7(1.05) = \log 1.05x$$

As the base is strong (i.e. 7 > 1)

$$x + 8 < 1.05x \Rightarrow 8 < 0.05x \Rightarrow x > 160$$

Choice (D)

undefined

Q19. DIRECTIONS for questions 18 and 19: Select the correct alternative from the given choices.

In a circle, two perpendicular chords, AB of length 5.1 cm and CD of length 6.8 cm, intersect at a point P. Find the maximum possible distance from the center of the circle to P.

- a) 4.25 cm
- b) 5.95 cm
- c) 3.40 cm
- d) 8.5 cm

You did not answer this question

Show Correct Answer

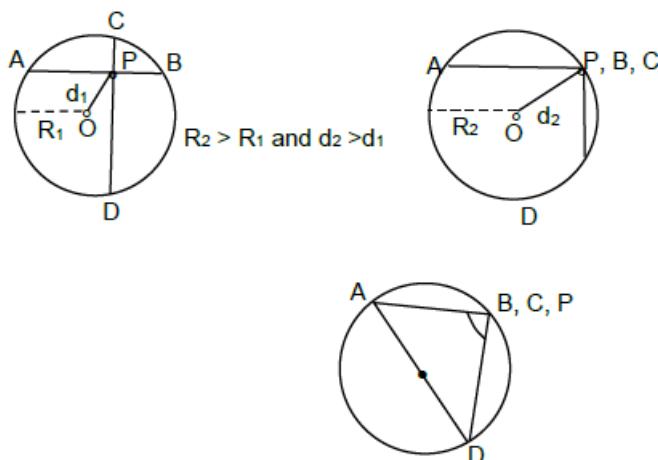
Time spent / Accuracy Analysis

Time taken by you to answer this question	3
Avg. time spent on this question by all students	149
Difficulty Level	D
Avg. time spent on this question by students who got this question right	151
% of students who attempted this question	13.81
% of students who got the question right of those who attempted	67.82

[Video Solution](#)

[Text Solution](#)

First observe the radius of the circle is not given, hence the two perpendicular chords can be drawn in a circle of different possible radii. The distance from the center of the circle to the point of intersection P is maximum when P lies on the circle.



In this case, B, C, P coincide. Now ABD is a right - angled triangle.

\therefore AD must be the diameter.

Given AB = 5.1 cm and CD = 6.8 cm

$$\therefore AD = \sqrt{5.1^2 + 6.8^2} = 8.5 \text{ cm}$$

\therefore Radius = 4.25 cm, which is the maximum distance from the centre to the point of intersection. Choice (A)

undefined

Q20. DIRECTIONS for questions 20 and 21: Type in your answer in the input box provided below the question.

The 19th and 182nd terms of an arithmetic progression are 261 and 103 respectively. What is the sum of the first 200 terms of the progression?

Your Answer:36400 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	243
Avg. time spent on this question by all students	153
Difficulty Level	E
Avg. time spent on this question by students who got this question right	123
% of students who attempted this question	36.9
% of students who got the question right of those who attempted	70.44

[Video Solution](#)

[Text Solution](#)

Consider the first 200 terms of the progression. The 182nd term is the 19th term from last. Hence the average of all 200 terms will be same as the average of 19th term from first and 19th term from last.

Hence required sum

$$= \frac{(261 + 103)}{2} \times 200 = 36400$$

Ans: (36400)

undefined

Q20. DIRECTIONS for questions 20 and 21: Type in your answer in the input box provided below the question.

The 19th and 182nd terms of an arithmetic progression are 261 and 103 respectively. What is the sum of the first 200 terms of the progression?

Your Answer:36400 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	243
Avg. time spent on this question by all students	153
Difficulty Level	E
Avg. time spent on this question by students who got this question right	123
% of students who attempted this question	36.9
% of students who got the question right of those who attempted	70.44

[Video Solution](#)

[Text Solution](#)

Consider the first 200 terms of the progression. The 182nd term is the 19th term from last. Hence the average of all 200 terms will be same as the average of 19th term from first and 19th term from last.

Hence required sum

$$= \frac{(261 + 103)}{2} \times 200 = 36400$$

Ans: (36400)

undefined

Q21. DIRECTIONS for questions 20 and 21: Type in your answer in the input box provided below the question.

If $L(x) = \left(\frac{1}{2}\right) \max(6 - x, x + 2)$, the smallest possible value of $L(x)$ is

Your Answer:4 **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	137
Avg. time spent on this question by all students	80

Time spent / Accuracy Analysis

Difficulty Level

M

Avg. time spent on this question by students who got this question right **80**

% of students who attempted this question **35.29**

% of students who got the question right of those who attempted **78.31**

[Video Solution](#)

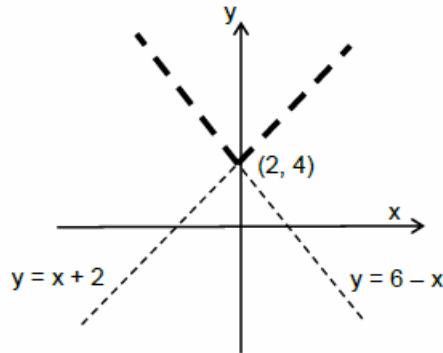
[Text Solution](#)

$L(x) = (1/2) \max(6 - x, x + 2)$
 If $x < 2$, $x + 2 < 6 - x$ and $L(x) = (1/2)(6 - x)$
 If $x = 2$, $x + 2 = 6 - x$ and $L(x) = (1/2)(6 - 2) = 2$
 If $x > 2$, $x + 2 > 6 - x$ and $L(x) = (1/2)(x + 2)$
 For $x \leq 2$, $L(x)$ decreases when x is increased.
 For $x > 2$, $L(x)$ increases when x is increased.
 $\therefore L(x)$ has its minimum value when $x = 2$ and its value is 2.

Alternative Solution:

The two expressions can be thought of as two straight lines $y = 6 - x$ and $y = x + 2$, which intersect at $x = 2$.

By plotting the lines on the x - y plane, the behavior of the maximum / minimum can easily be understood.



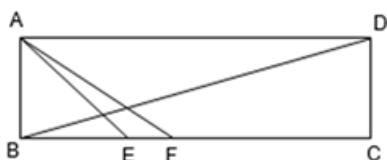
The bold part of the graph above is $\max(6 - x, x + 2)$.
 This attains its least value at $x = 2$, i.e., of $(6 - x) = (x + 2) = 4$.

Hence, $\left(\frac{1}{2}\right) \max(6 - x, x + 2)$ attains a least value of $\frac{4}{2} = 2$. Ans: (2)

undefined

Q22. DIRECTIONS for questions 22 to 28: Select the correct alternative from the given choices.

In the rectangle ABCD below, $AB : BE : EF : FC = 1 : 3 : 1 : 9$. Find $\sin \angle EAF : \sin \angle ADB$.



- a) 2 : 1
- b) 3 : 2
- c) 4 : 3

d) None of these

You did not answer this question

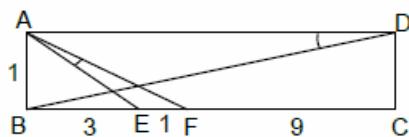
Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	3
Avg. time spent on this question by all students	202
Difficulty Level	D
Avg. time spent on this question by students who got this question right	216
% of students who attempted this question	8.99
% of students who got the question right of those who attempted	80.74

[Video Solution](#)

[Text Solution](#)



$$\text{In } \triangle AEF, \frac{\sin A}{EF} = \frac{\sin E}{AF} \text{ and from } \triangle ABE, \sin E = \frac{1}{\sqrt{10}}$$

(The two angles $\angle AEB$ and $\angle AEF$ are supplementary $\therefore \sin \angle AEB = \sin \angle AEF$).

$$\sin A = \frac{EF}{AF} (\sin E) = \frac{1}{\sqrt{17}} \frac{1}{\sqrt{10}} = \frac{1}{\sqrt{170}} \text{ and from } \triangle BAD, \sin D = \frac{1}{\sqrt{170}}.$$

The required ratio is 1 : 1.

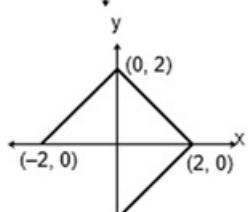
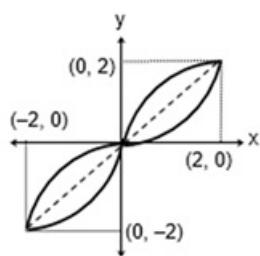
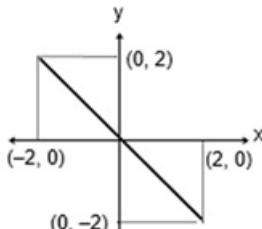
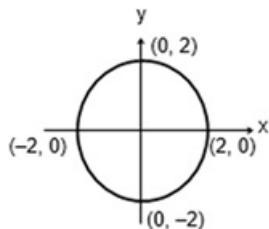
Choice (D)

undefined

Q23. DIRECTIONS for questions 22 to 28: Select the correct alternative from the given choices.

Given the graph of $f(x, y) = 0$, the graph of $f(y, x) = 0$ can be obtained by reflecting the graph of $f(x, y) = 0$ in the line $y = x$. In other words, for each point (a, b) in the graph of $f(x, y) = 0$, there exists a corresponding point (b, a) in the graph of $f(y, x) = 0$.

For how many of the graphs given below is $f(x, y) = f(y, x)$, for $-2 \leq x \leq 2$ and $-2 \leq y \leq 2$?



a) 1

b) 2

c) 3

d) 4

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	2
Avg. time spent on this question by all students	101
Difficulty Level	M
Avg. time spent on this question by students who got this question right	102
% of students who attempted this question	19.76
% of students who got the question right of those who attempted	47.63

[Video Solution](#)

[Text Solution](#)

Since all the graphs are symmetrical about the line $y = x$, for all the graphs $f(x, y) = f(y, x)$.
Choice (D)

undefined

Q24. DIRECTIONS for questions 22 to 28: Select the correct alternative from the given choices.

The radii of the front and the rear wheels of a tractor are 30 cm and 50 cm respectively. In covering a certain distance, if the front wheel of the tractor made 600 more revolutions than the rear wheel, find the distance covered (in m).

a) 450π

b) 900π

c) 300π

d) 1800π

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	156
Avg. time spent on this question by all students	170
Difficulty Level	E
Avg. time spent on this question by students who got this question right	168
% of students who attempted this question	31.39
% of students who got the question right of those who attempted	85.16

[Video Solution](#)

Text Solution

The circumference of the front and the rear wheels is $2\pi(30)$ cm and $2\pi(50)$ cm respectively.

Let the number of revolutions made by the rear wheel be N.

The distance covered

$$= 2\pi(30)(N + 600) = 2\pi(50)N$$

$$\Rightarrow N = 900$$

$$\text{Distance covered} = 2\pi(30)(1500) = 90000\pi \text{ cm} = 900\pi \text{ m}$$

Choice (B)

undefined

Q25. DIRECTIONS for questions 22 to 28: Select the correct alternative from the given choices.

Find the total number of ways in which 35 identical marbles can be distributed among 5 boys, such that each boy gets an odd number of marbles.

a) $^{39}C_4$

b) $^{19}C_4$

c) $^{15}C_4$

d) $^{20}C_4$

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question 13

Avg. time spent on this question by all students 95

Difficulty Level D

Avg. time spent on this question by students who got this question right 93

% of students who attempted this question 14.33

% of students who got the question right of those who attempted 66.65

Video Solution

Text Solution

Given that

$$x_1 + x_2 + x_3 + x_4 + x_5 = 35$$

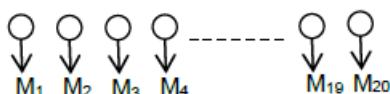
Also x_n is odd say $x_n = 2K_n - 1$ [$K_n \geq 1$]

$$\Rightarrow 2K_1 - 1 + 2K_2 - 1 + 2K_3 - 1 + 2K_4 - 1 + 2K_5 - 1 = 35$$

$$\Rightarrow 2[K_1 + K_2 + K_3 + K_4 + K_5] = 40$$

$$\therefore K_1 + K_2 + K_3 + K_4 + K_5 = 20$$

Imagine 20 marbles placed one beside the other



Now there will be 19 gaps between the marbles, out of which, if we select any 4 gaps, that will divide the marbles into 5 parts, corresponding to each boy.

Hence, the number of ways in which this can be is $^{19}C_4$.

Choice (B)

(Choice (A) can be eliminated as $^{39}C_4$ would be the number of ways, if there is no condition that each boy gets an odd number of marbles.)

undefined

Q26. DIRECTIONS for questions 22 to 28: Select the correct alternative from the given choices.

Find the roots of the quadratic equation, in which the constant term is 18, and the sum of the roots is 9.

a) 3 and 6 Your answer is incorrect

b) 2 and 7

c) $\frac{9+\sqrt{45}}{2}$ and $\frac{9-\sqrt{45}}{2}$

d) Cannot be determined

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	173
Avg. time spent on this question by all students	103
Difficulty Level	E
Avg. time spent on this question by students who got this question right	113
% of students who attempted this question	39.74
% of students who got the question right of those who attempted	35.71

[Video Solution](#)

Text Solution

Let the equation be $ax^2 + bx + c = 0$

Given $-b/a = 9$ and $c = 18$

As we don't know the value of c/a , we cannot find the required quadratic equation.

Hence, we cannot find the roots.

Choice (D)

undefined

Q27. DIRECTIONS for questions 22 to 28: Select the correct alternative from the given choices.

Basu sets off on his bike from Pune towards Mumbai, at a certain speed, intending to reach Mumbai by 11:00 a.m. After covering a certain distance, he realises that he would be able to cover only four-fifths of the intended distance by 11:00 a.m. He, therefore, increases his speed by 50% and reaches Mumbai at 11:00 a.m. What fraction of the total distance did he cover at his initial speed?

a) $\frac{1}{3}$

b) $\frac{3}{8}$

c) $\frac{2}{5}$

d) $\frac{1}{2}$

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	73
Avg. time spent on this question by all students	189
Difficulty Level	M
Avg. time spent on this question by students who got this question right	194
% of students who attempted this question	15.03
% of students who got the question right of those who attempted	77.57

[Video Solution](#)

[Text Solution](#)

Let the total distance between Pune (P) and Mumbai (M) be $5x$.

Let Basu's initial speed be $2u$.

\therefore His increased speed is $3u$.

Let the point where he changed his speed be A and let B be the point on PM such that $PB = (4/5) PM$.



If he had travelled at $2u$, beyond A, he would be at B, by 11:00 a.m. He actually travels at $3u$ and reaches M.

$$\therefore \frac{AB}{AM} = \frac{2}{3} = \frac{2x}{3x}$$

As $BM = AM - AB = x$ (i.e., the difference of the denominator and numerator on the LHS is equal to the difference on the RHS, the numerator on the LHS is equal to that on the RHS and denominator is equal to that on the RHS), $AB = 2x$ and $AM = 3x$.

$$\therefore PA = 2x$$

\therefore By the time he changed his speed he had covered $2x$ or $2/5$ of the total distance.

Choice (C)

undefined

Q27. DIRECTIONS for questions 22 to 28: Select the correct alternative from the given choices.

Basu sets off on his bike from Pune towards Mumbai, at a certain speed, intending to reach Mumbai by 11:00 a.m. After covering a certain distance, he realises that he would be able to cover only four-fifths of the intended distance by 11:00 a.m. He, therefore, increases his speed by 50% and reaches Mumbai at 11:00 a.m. What fraction of the total distance did he cover at his initial speed?

a) $\frac{1}{3}$

b) $\frac{3}{8}$

c) $\frac{2}{5}$

d) $\frac{1}{2}$

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

73

Time spent / Accuracy Analysis

Avg. time spent on this question by all students	189
Difficulty Level	M
Avg. time spent on this question by students who got this question right	194
% of students who attempted this question	15.03
% of students who got the question right of those who attempted	77.57

[Video Solution](#)

Text Solution

Let the total distance between Pune (P) and Mumbai (M) be $5x$.

Let Basu's initial speed be $2u$.

\therefore His increased speed is $3u$.

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$$\therefore \frac{AB}{AM} = \frac{2}{3} = \frac{2x}{3x}$$

As $BM = AM - AB = x$ (i.e., the difference of the denominator and numerator on the LHS is equal to the difference on the RHS, the numerator on the LHS is equal to that on the RHS and denominator is equal to that on the RHS), $AB = 2x$ and $AM = 3x$.

$$\therefore PA = 2x$$

\therefore By the time he changed his speed he had covered $2x$ or $2/5$ of the total distance.

Choice (C)

undefined

Q28. DIRECTIONS for questions 22 to 28: Select the correct alternative from the given choices.

A thin wooden stick is 110 cm long. It is cut into three pieces such that the longest piece is three times as long as the shortest piece and the third piece is 30 cm shorter than the longest piece. The ends of the three pieces are now joined to form a triangle. Find the area (in sq.cm) of the triangle formed.

- a) 100
- b) 200
- c) Data inconsistent Your answer is correct
- d) None of the above

Time spent / Accuracy Analysis

Time taken by you to answer this question	129
Avg. time spent on this question by all students	145
Difficulty Level	M
Avg. time spent on this question by students who got this question right	133
% of students who attempted this question	36.71
% of students who got the question right of those who attempted	72.18

[Video Solution](#)

[Text Solution](#)

Let the lengths of the longest, the shortest and the third pieces be l , s and m respectively.

$$110 = l + m + s$$

$$l = 3s.$$

$$m = l - 30.$$

$$\Rightarrow 110 = s + 3s + 3s - 30 \Rightarrow s = 20$$

$$\therefore \left. \begin{array}{l} l = 60 \\ m = 30 \\ s = 20 \end{array} \right\} \text{Triangle can't be formed as } (m + s) < (l)$$

Hence, given data is inconsistent.

Choice (C)

undefined

Q29. DIRECTIONS for questions 29 and 30: Type in your answer in the input box provided below the question.

Ajay was walking along a straight and narrow road. He stopped at a point and looked ahead and noticed that there were three stones, in a straight line, along the road, situated at a distance of 5 m, 6.6 m and 7.8 m from him. How much further should Ajay walk (in m) in order to minimise the sum of the distances of the three of stones from him?

Enter your answer as a decimal value, rounded off to two decimal places.

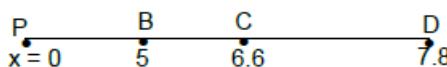
Your Answer:6.60 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	64
Avg. time spent on this question by all students	131
Difficulty Level	M
Avg. time spent on this question by students who got this question right	130
% of students who attempted this question	25.18
% of students who got the question right of those who attempted	49.74

[Video Solution](#)

[Text Solution](#)



Let Ajay's initial position be chosen as the origin.

Let x represent the distance of Ajay's new position from the origin at P.

Then, the distance between Ajay and the three stones can be represented as $|x - 5|$, $|x - 6.6|$ and $|x - 7.8|$.

\therefore To minimize the sum of distances, the following should be minimized.

$$|x - 5| + |x - 6.6| + |x - 7.8|$$

Distance of Ajay from the three stones could be minimum only when he is located at the location of the 2nd stone, which is 6.6 m away from Ajay's initial position.

\therefore Ajay should walk a further 6.6 m. Ans: (6.6)

undefined

Q30. DIRECTIONS for questions 29 and 30: Type in your answer in the input box provided below the question.

A man would have made a profit of 20%, if he had sold 35 identical articles for a sum of Rs.52.50. But he had to sell n

articles for a sum of Rs.90 and thereby incurred a loss of 20%. Find n.

Your Answer:110250 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	182
Avg. time spent on this question by all students	172
Difficulty Level	E
Avg. time spent on this question by students who got this question right	163
% of students who attempted this question	30.48
% of students who got the question right of those who attempted	69.01

[Video Solution](#)

[Text Solution](#)

Given that 120% of the CP of 35 articles = 52.50

If these 35 articles are sold at 20% loss i.e., at 80% of their CP they must be sold at ₹35.

∴ If 35 articles are sold for ₹35 there will be a loss of 20%. Hence for ₹90, 90 articles must be sold.
Ans: (90)

undefined

Q31. DIRECTIONS for question 31: Select the correct alternative from the given choices.

David is taking a CBT (Computer Based Test). The automated program at each stage selects a question at random from a pool of questions containing questions of three difficulty levels viz. Easy, Moderate and Difficult. Further it is found that the probabilities of the program selecting an Easy, Moderate and Difficult question are 0.5, 0.2 and 0.3 respectively. If David can answer Easy, Moderate and Difficult questions with an accuracy rate of 100%, 90% and 40% respectively, find the probability that a random question chosen by the program is answered correctly by David.

- a) **0.275**
- b) **0.43**
- c) **0.8**
- d) **None of the above**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	7
Avg. time spent on this question by all students	90
Difficulty Level	M
Avg. time spent on this question by students who got this question right	88
% of students who attempted this question	16.1
% of students who got the question right of those who attempted	89.85

[Video Solution](#)

[Text Solution](#)

Let the number of questions be 100.

⇒ Number of easy, moderate and difficult questions are 50, 20 and 30 respectively.

⇒ Number of questions for which David would give correct answers

$$\begin{aligned} &= \frac{100}{100}(50) + \frac{90}{100}(20) + \frac{40}{100}(30) \\ &= 50 + 18 + 12 \\ &= 80 \end{aligned}$$

$$\therefore \text{Required probability} = \frac{80}{100} = 0.8$$

Alternative solution:

$$\text{Probability of answering the question correctly} = (0.5)(1) + (0.2)(0.9) + (0.3)(0.4)$$

$$= 0.5 + 0.18 + 0.12$$

$$= 0.8$$

Choice (C)

undefined

Q31. DIRECTIONS for question 31: Select the correct alternative from the given choices.

David is taking a CBT (Computer Based Test). The automated program at each stage selects a question at random from a pool of questions containing questions of three difficulty levels viz. Easy, Moderate and Difficult. Further it is found that the probabilities of the program selecting an Easy, Moderate and Difficult question are 0.5, 0.2 and 0.3 respectively. If David can answer Easy, Moderate and Difficult questions with an accuracy rate of 100%, 90% and 40% respectively, find the probability that a random question chosen by the program is answered correctly by David.

- a) **0.275**
- b) **0.43**
- c) **0.8**
- d) **None of the above**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	7
Avg. time spent on this question by all students	90
Difficulty Level	M
Avg. time spent on this question by students who got this question right	88
% of students who attempted this question	16.1
% of students who got the question right of those who attempted	89.85

[Video Solution](#)

[Text Solution](#)

Let the number of questions be 100.

⇒ Number of easy, moderate and difficult questions are 50, 20 and 30 respectively.

⇒ Number of questions for which David would give correct answers

$$\begin{aligned} &= \frac{100}{100}(50) + \frac{90}{100}(20) + \frac{40}{100}(30) \\ &= 50 + 18 + 12 \\ &= 80 \end{aligned}$$

$$\therefore \text{Required probability} = \frac{80}{100} = 0.8$$

Alternative solution:

Probability of answering the question correctly = $(0.5)1 + (0.2)(0.9) + (0.3)(0.4)$

$$= 0.5 + 0.18 + 0.12$$

$$= 0.8$$

Choice (C)

undefined

Q32. DIRECTIONS for question 32: Type in your answer in the input box provided below the question.

What is the remainder when 376^{2547} is divided by 100?

Your Answer:76 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	66
Avg. time spent on this question by all students	88
Difficulty Level	M
Avg. time spent on this question by students who got this question right	80
% of students who attempted this question	30.49
% of students who got the question right of those who attempted	63.3

[Video Solution](#)

[Text Solution](#)

376^{2547} leaves the last two digits as the remainder when divided by 100.

Last two digits of 376^{2547} are same as the last two digits of 76^{2547} .

76×76 ends in 76, that means any higher power of 76 also ends in 76.

∴ The last two digits of 76^{2547} are 76.

Hence, the required remainder is 76.

Ans: (76)

undefined

Q33. DIRECTIONS for questions 33 and 34: Select the correct alternative from the given choices.

Find the total number of ways in which a student can attempt an exam, such that he answers at least two questions out of a total of 150 questions in the exam, given that each question has four multiple answers choices.

- a) $4^{150} - 151$
- b) $5^{150} - 601$
- c) $4^{150} - 601$
- d) $5^{150} - 151$ Your answer is incorrect

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	59
Avg. time spent on this question by all students	101
Difficulty Level	M
Avg. time spent on this question by students who got this question right	109
% of students who attempted this question	18.32
% of students who got the question right of those who attempted	29.68

[Video Solution](#)

[Text Solution](#)

Each question can be dealt with in 5 ways, i.e., marking any one of the four choices or leaving the question unanswered.
So the total number of ways of dealing with the 150 questions is 5^{150} .
But he cannot leave out all the questions, which can be done in only 1 way.
And also, he cannot answer exactly one of them which can be done in ${}^{150}C_1 \times 4 = 600$ ways.
So answering at least two questions can be done in $5^{150} - (600 + 1) = 5^{150} - 601$ ways.
Choice (B)

(Choices (1) and (3) can be eliminated, since each question can be dealt with in 5 ways and not 4).

undefined

Q33. DIRECTIONS for questions 33 and 34: Select the correct alternative from the given choices.

Find the total number of ways in which a student can attempt an exam, such that he answers at least two questions out of a total of 150 questions in the exam, given that each question has four multiple answers choices.

- a) $4^{150} - 151$
- b) $5^{150} - 601$
- c) $4^{150} - 601$
- d) $5^{150} - 151$ Your answer is incorrect

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Time taken by you to answer this question	59
Avg. time spent on this question by all students	101
Difficulty Level	M
Avg. time spent on this question by students who got this question right	109
% of students who attempted this question	18.32
% of students who got the question right of those who attempted	29.68

[Video Solution](#)

[Text Solution](#)

Each question can be dealt with in 5 ways, i.e., marking any one of the four choices or leaving the question unanswered.

So the total number of ways of dealing with the 150 questions is 5^{150} .

But he cannot leave out all the questions, which can be done in only 1 way.

And also, he cannot answer exactly one of them which can be done in ${}^{150}C_1 \times 4 = 600$ ways.

So answering at least two questions can be done in $5^{150} - (600 + 1) = 5^{150} - 601$ ways.
Choice (B)

(Choices (1) and (3) can be eliminated, since each question can be dealt with in 5 ways and not 4).

undefined

Q34. DIRECTIONS for questions 33 and 34: Select the correct alternative from the given choices.

X, Y and Z together can complete a job in 10 days. The rate of work of X is three times that of Y, which, in turn, is twice that of Z. Find the time taken by Z alone to complete the job.

- a) **60 days**
- b) **120 days**
- c) **90 days** Your answer is correct
- d) **180 days**

Time spent / Accuracy Analysis

Time taken by you to answer this question	21
Avg. time spent on this question by all students	121
Difficulty Level	E
Avg. time spent on this question by students who got this question right	111
% of students who attempted this question	32.99
% of students who got the question right of those who attempted	85.86

[Video Solution](#)

[Text Solution](#)

Y is twice as efficient as Z, and X is thrice as efficient as Y. Hence, the efficiencies of X, Y and Z are in the ratio 6 : 2 : 1 respectively.

Hence, together they are (6 + 2 + 1), i.e., nine times as efficient as Z alone. Hence, Z alone will take 9×10 days = 90 days.
Choice (C)