

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.

If you've ever accidentally inhaled a bite of food, blown out a knee, or been called "four-eyes" for wearing glasses on the playground, you're already intimately familiar with the premise of human biologist Nathan H. Lents' new book, *Human Errors*, which came out earlier this month. Lents catalogues the panoply of problems that evolution has created within the human body, from the level of our DNA up to our very thought processes.

To paraphrase the author: if you're looking for a story about the miracle that is the human body, this isn't it. *Human Errors* is an exploration of the process of evolution by natural selection using our own flawed bodies, brains, and genes as the examples.

Lents begins his tour of our flaws with our skeleton (originally adapted for four-legged life in the trees, forced to make it work on two legs on the ground), works through diet (drink your orange juice or die of scurvy!), the human genome (basically a trashcan for viral DNA), the absurdity of our reproductive system (sperm can't turn left), and developmental defects and autoimmune disorders (cell division is the biological equivalent of playing whack-a-mole with a self-destruct button). He finishes with why our brains are illogical, and how they have simultaneously created the worst existential risks we currently face and might save us from them. *Human Errors* covers a lot of biological ground at a relatively rapid pace.

As an anthropologist who studies the pelvis (a distinctly ridiculous part of the skeleton, having been highly modified for both upright walking and giving birth to big-headed babies - goals that were often described by past researchers as being at odds with each other), I appreciated Lents' description of the human body as the culmination of a series of evolutionary compromises, made to maximize short-term gains. Lents plays variations on this theme throughout the book, with our flaws being attributed to incomplete adaptation, mismatches between the evolutionary environment and our current lifestyle, or the limitations of evolution itself.

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Another recurring theme is how often humans use scientific and technological innovations to get around our evolutionary flaws (and, perhaps inadvertently, to create new ones). For example, while the marvels of modern medicine have allowed us to decrease infant and childhood mortality (life stages that were fraught with risk in the past), these advances also contribute to the massive boom in population that we've experienced, causing global hunger to become a major concern. More children surviving childhood also means that classic pressures of natural selection (like childhood diseases) have been mitigated, leading Lents into part of his epilogue about whether or not our species is still evolving. Spoiler alert: there's more than one force that drives evolution, so yes, we still are.

Overall, *Human Errors* was an enjoyable read; ironic, considering its focus on our faults. His discussion of evolution by natural selection as ultimately about propagating whatever trait worked best for our ancestors at a particular historical moment places our foibles within a larger evolutionary context, and is sound. Perhaps the real miracle is that such a cobbled-together primate managed to take over the world in as thorough a fashion as we have.

Q1. According to the passage, scientific advancement has directly led to which of the following negative consequences?

- a) It helps circumvent evolutionary flaws stalling our evolution.
- b) **It has unintentionally paved way for novel defects in humans.** Your answer is correct
- c) It has led to global hunger turning into a major concern.
- d) It has led to the mitigation of the classic pressures of natural selection.

Time spent / Accuracy Analysis

Time taken by you to answer this question	505
Avg. time spent on this question by all students	434
Difficulty Level	D
Avg. time spent on this question by students who got this question right	440
% of students who attempted this question	55.34
% of students who got the question right of those who attempted	12.59

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Number of words and Explanatory notes for RC:

Number of words: 699

Another recurring theme is how often humans use scientific and technological innovations to get around our evolutionary flaws (and, perhaps inadvertently, to create new ones). While the marvels of modern medicine have allowed us to decrease infant and childhood mortality, these advances also contribute to the massive boom in population that we've experienced, causing global hunger to become a major concern. More children surviving childhood also means that classic pressures of natural selection have been mitigated, leading Lents into part of his epilogue about whether or not our species is still evolving.

Option A: From 'how often humans use scientific and technological innovations to get around our evolutionary flaws' clearly exhibits that scientific advancement does help us circumvent (get around) evolutionary flaws. However, there is no evidence to say that this is, indeed, a negative consequence of scientific advancement. Hence, Choice A is not the answer.

Option B: 'It has inadvertently created new ones' shows that scientific advancement has led to certain flaws, which can be considered as a negative consequence (since, 'new ones' explicitly refers to 'flaws' and not just evolutionary changes). Hence, Choice B could be the answer.

Option C: From 'these advances also contribute to the massive boom in population that we've experienced, causing global hunger to become a major concern' we can understand that global hunger is not a direct consequence of science advancements, but is a result of population boom which is a result of reduced mortality rates which is because of scientific advancement. Hence, Choice C is not the answer. (Side note: Assuming science led to global hunger and making a case against science is what is called Slippery Slope argument, a common fallacy often seen in critical reasoning arguments)

Option D: Classic pressures of childhood like childhood diseases have been eliminated by science. That doesn't necessarily mean it is a negative consequence. Hence, Choice D is not the answer.

Choice (B)

undefined

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Q2. Which of the following best summarises the author's criticism of *Human Errors*?

- a) It focuses only on faults in the human system.
- b) **It propagates the theory that natural selection was more about fixes that worked best in a historical context.**
- c) It doesn't delve sufficiently into septal defects.
- d) **It sacrificed insightful discussion for variety in examples offered.** Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	135
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	99
% of students who attempted this question	49.74
% of students who got the question right of those who attempted	27.64

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Number of words and Explanatory notes for RC:

Number of words: 699

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Option A: While the book is about human defects, the author seemed to agree with those defects to a large extent. Hence, Choice A cannot represent the criticism. If Choice A were right, the author of the passage wouldn't say, 'His discussion of evolution by natural selection as ultimately about propagating whatever trait worked best for our ancestors at a particular historical moment places our foibles within a larger evolutionary context, and is sound' Choice A is not the answer.

Option B: While the author of the passage did say, 'His discussion of evolution by natural selection as ultimately about propagating whatever trait worked best for our ancestors at a particular historical moment', it was not as criticism and was rather as a vote of confidence. This could be understood from 'places our foibles within a larger evolutionary context, is sound'. Hence, Choice B is not the answer.

Option C: This is quite literally what the author of the passage complains about. Nevertheless, it is not the general theme of the criticism, but an example. In other words, the author does complain about septal defects, but more with respect to the bigger picture which is that the book is at times superficial and doesn't burrow too deep. Hence, Choice C is close but not accurate.

Option D: 'Lents does a great job of illustrating how the process of natural selection has worked repeatedly in different steps and increments on all of our systems. But sometimes this breadth in Lents' examples comes at the expense of explaining them in depth.' In other words, the author wishes Lents picked a few more details instead of brushing them up in a hurry, picking insightful discussions (explaining them in depth) instead of variety in examples (breadth). Hence, Choice D is the answer.

Choice (D)

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Overall, Human Errors was an enjoyable read; ironic, considering its focus on our faults. His discussion of evolution by natural selection as ultimately about propagating whatever trait worked best for our ancestors at a particular historical moment places our foibles within a larger evolutionary context, and is sound. Perhaps the real miracle is that such a cobbled-together primate managed to take over the world in as thorough a fashion as we have.

Q3. Which of the following best explains the irony in the sentence, 'Human Errors was an enjoyable read'.?

- a) The book despite highlighting erratic developments in the process of human evolution is enjoyable to read. Your answer is correct
- b) The book focuses on traits that have helped the human civilization conquer the world and is hence, a pleasant offering.
- c) The book focuses on how scientific and technological innovations, which are supposedly good, have masked the blemishes of evolution.
- d) The book points to the shortcomings of the natural selection process.

Time spent / Accuracy Analysis

Time taken by you to answer this question	120
Avg. time spent on this question by all students	96
Difficulty Level	D
Avg. time spent on this question by students who got this question right	86
% of students who attempted this question	50.96
% of students who got the question right of those who attempted	50.5

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Number of words and Explanatory notes for RC:

Number of words: 699

Irony is spotted when there is obvious incongruity or mismatch between what's expected/intended and the eventual result.

Option A: This line gives us information about what one can expect from the book. The description fits the title of the book 'Human Errors'. Yet, the author finds this negative information enjoyable. Errors in human evolution being presented in an enjoyable way – that's the irony the author is referring to in the line 'ironic, considering its focus on our faults.' Choice A is the answer.

Option B: This is an incorrect depiction of what's in the book as it sends out the wrong message, that the book is all positive about human evolution. Hence, Choice B is not the answer.

Option C: This information is true and the author does talk about the cons of innovation. But, the option doesn't bring out the irony the author's talking about because the author doesn't talk about science masking evolution, when he refers to this irony. Hence, Choice C is not the answer.

Option D: The book is not about shortcomings of the generic natural selection process, but specifically about human evolution. Also, this option doesn't tell us what's the irony. Hence, Choice D is not the answer.

Choice (A)

undefined

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surviving childhood also means that classic pressures of natural selection (like childhood diseases) have been mitigated, leading Lents into part of his epilogue about whether or not our species is still evolving. Spoiler alert: there's more than one force that drives evolution, so yes, we still are.

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Q4. All of the following are examples of imperfect evolution as mentioned by the author of Human Errors, according to the passage, EXCEPT:

- a) **Developmental defects**
- b) **The human skeleton**
- c) **The pelvis** Your answer is correct
- d) **The human reproductive system**

Time spent / Accuracy Analysis

Time taken by you to answer this question	172
Avg. time spent on this question by all students	93
Difficulty Level	M
Avg. time spent on this question by students who got this question right	98
% of students who attempted this question	56.98
% of students who got the question right of those who attempted	61.66

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Option A: The author of Human Errors, Lents, talks about developmental defects (even though its not in detail) as underlined above. Hence, Choice A is not the answer.

Option B: The human skeleton has been clearly mentioned by the author as a sign of imperfect evolution, given that it is designed for a four-legged life in the trees, but is forced to adapt and work on two legs on the ground. Hence, Choice B is not the answer.

Option C: The pelvis was not mentioned by the author of the book, but by the author of the passage. We can understand this from 'As an anthropologist who studies the pelvis (a distinctly ridiculous part of the skeleton, having been highly modified for both upright walking and giving birth to big-headed babies - goals that were often described by past researchers as being at odds with each other), I appreciated Lents' description of the human body'. Hence, pelvis is not an example mentioned by the author for imperfect evolution. Choice C is the answer.

Option D: Lents did mention the human reproductive system (twice, once in the lines underlined above and again later when the fallopian tubes are discussed) as an example of flaws. Hence, Choice D is not the answer.

Choice (C)

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Q5. 'To paraphrase the author: if you're looking for a story about the miracle that is the human body, this isn't it'. Which of the following best explains why the author of the passage thinks "this isn't it"?

- a) It's a real miracle that such a cobbled-together primate as humans managed to take over the world in as thorough a fashion as we have.
- b) Natural selection hasn't helped us evolve from our own flawed bodies, brains, and genes.
- c) Humans use scientific and technological innovations to get around evolutionary flaws.
- d) The book is an exploration of the flawed nature of the human system. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	156
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	84

Time spent / Accuracy Analysis

% of students who attempted this question	48.79
% of students who got the question right of those who attempted	69.79

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Text Solution

Number of words and Explanatory notes for RC:

Number of words: 699

'This isn't it' means Human Errors is not a story about the miracle that is the human body. The author of the passage thinks so, because the book enumerates the flaws in the human mechanism. We need to look for an option that talks about the book rather than about the human body, because the discussion is not whether the human body is flawed or not. The question is pertinent to why the author of the passage has the above opinion about the book.

Option A: This line clearly states that the human species is a 'cobbled-together primate' and it is a miracle that with a system like this, humans still managed to dominate the world. The line is expressing surprise that humans dominated despite the 'general understanding about the human body' not being true. So, this line is ambivalent about the human body. However, it doesn't really explain why the book is not a story about the miracle that is the human body. This line merely agrees with the view that the human body is not a miracle. Hence, Choice A is not the answer.

Option B: This line speaks negatively about our evolution and is, therefore, refuting the understanding that the human body is a miracle. However, it doesn't involve the book, and doesn't explain why the author of the passage thinks the book is not a story of the miracle that is the human body. In other words, the choice misses out on a link between the book and natural selection that could explain the conclusion drawn about the book and not just about natural selection/human body/evolution. Choice B is not the answer.

Option C: This line, in a way, asserts that there are evolutionary flaws and it is science that helps us get around it. However, it doesn't explain why the book is not a story of the miracle. Hence, Choice C is not the answer.

Option D: This line talks about the book and states that it explores the flawed nature of the human system thereby leading the author of the passage to the conclusion that it isn't really a story of how the human body is a miracle. Hence, Choice D is the answer.

Choice (D)

undefined

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As an anthropologist who studies the pelvis (a distinctly ridiculous part of the skeleton, having been highly modified for both upright walking and giving birth to big-headed babies - goals that were often described by past researchers as being at odds with each other), I appreciated Lents' description of the human body as the culmination of a series of evolutionary compromises, made to maximize short-term gains. Lents plays variations on this theme throughout the book, with our flaws being attributed to incomplete adaptation, mismatches between the evolutionary environment and our current lifestyle, or the

limitations of evolution itself.

Lents does a great job of illustrating how the process of natural selection has worked repeatedly in different steps and increments on all of our systems. But sometimes this breadth in Lents' examples comes at the expense of explaining them in depth. This was especially prevalent in the chapters on developmental defects and the reproductive system - he pointed to our faulty mechanisms - like the fact that the fallopian tubes are not directly hooked into to their respective ovaries - for example. But he didn't explain what evolutionary pathways led us to things like having around 25,000 babies born in the United States each year with an actual hole (called a septal defect) between two of the chambers of their hearts, beyond saying that "the genes for the genesis of the heart are a little rusty." While the exact causes of septal defects aren't always clear, some of the underlying genetics are known, and a more general explanation of how these kinds of genetic developmental defects can persist would have made the book more complete.

Another recurring theme is how often humans use scientific and technological innovations to get around our evolutionary flaws (and, perhaps inadvertently, to create new ones). For example, while the marvels of modern medicine have allowed us to decrease infant and childhood mortality (life stages that were fraught with risk in the past), these advances also contribute to the massive boom in population that we've experienced, causing global hunger to become a major concern. More children surviving childhood also means that classic pressures of natural selection (like childhood diseases) have been mitigated, leading Lents into part of his epilogue about whether or not our species is still evolving. Spoiler alert: there's more than one force that drives evolution, so yes, we still are.

Overall, Human Errors was an enjoyable read; ironic, considering its focus on our faults. His discussion of evolution by natural selection as ultimately about propagating whatever trait worked best for our ancestors at a particular historical moment places our foibles within a larger evolutionary context, and is sound. Perhaps the real miracle is that such a cobbled-together primate managed to take over the world in as thorough a fashion as we have.

Q6. All of the following are reasons given for the flaws in the human body EXCEPT:

- a) **Adaptation that wasn't taken to its logical conclusion**
- b) **Mismatch between current lifestyle and particular historical moments** Your answer is correct
- c) **Shortcomings of the process of evolution**
- d) **Scientific and technological innovations**

Time spent / Accuracy Analysis

Time taken by you to answer this question	136
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	98
% of students who attempted this question	45.98
% of students who got the question right of those who attempted	24.54

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 699

Lents plays variations on this theme throughout the book, with our flaws being attributed to incomplete adaptation, mismatches between the evolutionary environment and our current lifestyle, or the limitations of evolution itself.

Option A: This option is the same as 'incomplete adaptation' which is one of the reasons attributed to the flaws. Hence, Choice A is not the answer.

Option B: His discussion of evolution by natural selection as ultimately about propagating whatever trait worked best for our ancestors at a particular historical moment. In the underlined parts above, it is stated that one of the reasons for evolutionary flaws is the mismatch between our current lifestyle and evolutionary environment. However, the 'evolutionary environment' is not the same as 'particular historical moment', which is what this option is trying to equate it to. Hence, Choice B is the answer.

Option C: This line has been mentioned as one of the reasons behind the flaws – 'limitations of evolution'. Hence, Choice C is not the answer.

Option D: In 'Another recurring theme is how often humans use scientific and technological innovations to get around our evolutionary flaws (and, perhaps inadvertently, to create new ones)', it is clearly suggested that some evolutionary flaws were inadvertently created by scientific and technological innovations. Hence, this line is one of the reasons that can be attributed to the flaws. Hence, Choice 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.

Christopher Nolan, director of high-concept blockbuster movies like The Dark Knight, Inception, and Interstellar, and famous defender of the old-school institutions of film, went on a bit of an anti-Netflix rant during an interview with IndieWire today.

"Netflix has a bizarre aversion to supporting theatrical films," he told IndieWire's Eric Kohn. "They have this mindless policy of every movie having to be simultaneously streamed and released, which is obviously an untenable model for theatrical presentation."

When Netflix does release its films in theatres, they usually get limited runs in select cities, and it makes all of its films available on its streaming platform on their release day. This strategy recently came under fire at the Cannes Film Festival, with members of the festival board and French film industry's governing body arguing that movies without serious runs in physical movie theatres shouldn't qualify in a film competition. But Netflix CEO, Reed Hastings has said repeatedly that Netflix doesn't envision a world where movie theatres don't exist, and that he believes that the future of film has room for plenty of different distribution strategies.

Director Bong Joon-ho, whose latest movie Okja was boycotted by South Korean movie chains because of its Netflix release, has said in several interviews that the release strategy doesn't bother him because a partnership with Netflix also comes with complete creative freedom and a generous budget: "The best way to watch a film is in the theatre. But for

directors who make weird films like mine, the digital studio platforms are a great creative opportunity. I do believe that the two modes can coexist."

Nolan brushed this argument off, saying, "I think the investment that Netflix is putting into interesting filmmakers and interesting projects would be more admirable if it weren't being used as some kind of bizarre leverage against shutting down theatres. It's so pointless. I don't really get it."

He then said, "The only platform I'm interested in talking about is theatrical exhibition," a comment which drew quick criticism from director Ava DuVernay. DuVernay's Netflix documentary *13th* was nominated for an Oscar this year and she's currently working on another about the Central Park Five. She's also a major studio director, midway through production for Disney's \$100 million adaptation of *A Wrinkle in Time*. On Twitter, she asked Nolan, "But, what if there's no movie theatre in your neighbourhood?"

DuVernay's point is a crucial one about the future of film. You can love and support movie theatres, and Nolan is free to personally care about theatrical releases, but it's ridiculous to argue that there's no value in Netflix releasing films for a truly global audience. Netflix's model gives its 100 million subscribers, in 190 countries, access to movies at the same time, rather than the traditional system of the US or UK getting films first, and other markets waiting months. And many people who might not be able to afford more than one monthly trip to the ever-more-expensive movie theatre can afford a monthly Netflix subscription. It also brings art films to areas that might have only one theatre. *Okja* may be better in a theatre, but that assumes it would have even screened in Springfield, Missouri, in the USA.

Stating that this strategy is "pointless" mostly just exposes Nolan as somebody who is unable to fathom common financial and geographic realities. Bong Joon-ho also pointed out in a June interview that Netflix subscribers are funding Netflix movies: "Okja is, after all, financed by Netflix users, and I don't think we should deprive them of their privileges." Nolan doesn't mention anything about the rights of the people paying for Netflix films to be made, but he does offer this advice: "If you can find a way to work in the system, it's a very powerful machine, with a lot of resources, and excellent distribution mechanisms."

So, as long as you are the most critically beloved blockbuster director in 40 years (and a man and white), you'll be fine!

Q7. Which of the following is the best depiction of the main themes of the passage?

- a) Simultaneous streaming and release of movies is eating into theatrical revenues and that isn't going down well with directors of blockbuster movies.
- b) There is space for multiple ideologies in the movie world and it is important for old-school movie-makers to empathise with the requirements of non-conventional movie-makers.
- c) Blockbuster directors generally speak from a position of privilege, not necessarily cognizant of the common financial and geographic realities of film distribution.
- d) Multiple distribution strategies could co-exist to cater to diverse audiences even though it may irk some movie-makers speaking from a position of privilege. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	245
Avg. time spent on this question by all students	389
Difficulty Level	D
Avg. time spent on this question by students who got this question right	380
% of students who attempted this question	51.11
% of students who got the question right of those who attempted	60.91

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 662

The passage starts with Nolan's argument that *Netflix's model of simultaneous streaming and release is not compatible with theatrical presentation*. It then moves on to the CEO's defence that *both models of distribution (theatrical and streaming) can exist simultaneously*. Director Bong Joon-ho continues this argument by saying that Netflix offers creative freedom and good budget for an experimental movie (for weird directors). Nolan thinks that budget is being used as leverage to bring down the theatrical distribution model and states that for him, only theatrical model matters. Ava DuVernay counters this by talking about neighbourhoods which do not have theatres. Finally, Bong Joon-ho argues that the rights of Netflix subscribers matter as well, to which Nolan's reply is not discussed. But, the author provides the concluding argument hinting that male, white, blockbuster directors have it easier!

Option A: While this option talks about the first half of the arguments, it doesn't address the counter-arguments, in the second half of the passage. The main theme should definitely involve the views of Netflix supporters. Hence, Choice A is not an apt representation.

Option B: This option misrepresents the information. It obviously doesn't talk about Nolan's displeasure, but more importantly, 'multiple ideologies in the movie world' doesn't necessarily represent or indicate multiple distribution strategies. Hence, Choice B is not an apt representation of the main theme of the passage.

Option C: This option more or less states the important sub-ideas. So, it cannot be eliminated. But, an important idea it has left out is the possible co-existence of distribution strategies and the moviegoers catered to by unconventional movie-makers. Choice C cannot be eliminated, but needs to be compared to the other close options.

Option D: *Multiple distribution strategies* could co-exist to cater to *diverse audiences* even though it may *irk some movie-makers* speaking from *a position of privilege*. This option highlights all the arguments in the passage, the most important being 'diverse audiences' which could mean movie-goers from different geographic and socio-economic backgrounds with different taste, movie-watching habits and budgets. Hence, Choice D is the answer.

Choice (D)

undefined

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"Netflix has a bizarre aversion to supporting theatrical films," he told IndieWire's Eric Kohn. "They have this mindless policy of every movie having to be simultaneously streamed and released, which is obviously an untenable model for theatrical presentation."

When Netflix does release its films in theatres, they usually get limited runs in select cities, and it makes all of its films available on its streaming platform on their release day. This strategy recently came under fire at the Cannes Film Festival, with members of the festival board and French film industry's governing body arguing that movies without serious runs in physical movie theatres shouldn't qualify in a film competition. But Netflix CEO, Reed Hastings has said repeatedly that Netflix doesn't envision a world where movie theatres don't exist, and that he believes that the future of film has room for plenty of different distribution strategies.

Director Bong Joon-ho, whose latest movie Okja was boycotted by South Korean movie chains because of its Netflix release, has said in several interviews that the release strategy doesn't bother him because a partnership with Netflix also comes with complete creative freedom and a generous budget: "The best way to watch a film is in the theatre. But for

directors who make weird films like mine, the digital studio platforms are a great creative opportunity. I do believe that the two modes can coexist."

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DuVernay's point is a crucial one about the future of film. You can love and support movie theatres, and Nolan is free to personally care about theatrical releases, but it's ridiculous to argue that there's no value in Netflix releasing films for a truly global audience. Netflix's model gives its 100 million subscribers, in 190 countries, access to movies at the same time, rather than the traditional system of the US or UK getting films first, and other markets waiting months. And many people who might not be able to afford more than one monthly trip to the ever-more-expensive movie theatre can afford a monthly Netflix subscription. It also brings art films to areas that might have only one theatre. *Okja* may be better in a theatre, but that assumes it would have even screened in Springfield, Missouri, in the USA.

Stating that this strategy is "pointless" mostly just exposes Nolan as somebody who is unable to fathom common financial and geographic realities. Bong Joon-ho also pointed out in a June interview that Netflix subscribers are funding Netflix movies: "Okja is, after all, financed by Netflix users, and I don't think we should deprive them of their privileges." Nolan doesn't mention anything about the rights of the people paying for Netflix films to be made, but he does offer this advice: "If you can find a way to work in the system, it's a very powerful machine, with a lot of resources, and excellent distribution mechanisms."

So, as long as you are the most critically beloved blockbuster director in 40 years (and a man and white), you'll be fine!

Q8. Which of the following statements contradicts the assumption made by the author in the line: 'It also brings art films to areas that might have only one theatre'?

- a) Those who streamed *Okja* using a Netflix subscription gave a more positive review than those who watched it in the theatre.
- b) *Okja* is a heavy-action film with no trace of popular art.
- c) Art films get priority in areas where movies tussle for screen space. Your answer is correct
- d) People who love art films, usually cannot afford the monthly trip to the movies as opposed to a monthly Netflix subscription.

Time spent / Accuracy Analysis

Time taken by you to answer this question	108
Avg. time spent on this question by all students	138
Difficulty Level	M
Avg. time spent on this question by students who got this question right	131
% of students who attempted this question	49.77
% of students who got the question right of those who attempted	57.8

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 662

The assumption in the statement is that art films don't generally get filmed when there is a shortage of theatres. They aren't highest on the priority list.

Option A: This sentence talks about the perception of a movie varying between the theatre-goers and those who streamed it probably, at home. The quality of the movie isn't being discussed here. Rather, the discussion is about whether art films get priority screening when there is only one theatre in the neighbourhood. Therefore, Choice A cannot contradict the assumption and hence, is not the answer.

Option B: The assumption is about art films. Hence, a statement about a heavy-action film, therefore, cannot really be applied to the assumption. Let's say the counter-argument is that the author used the example of Okja suggesting that Okja is an art film or something similar. Even in that case, this option would simply translate to saying, 'a heavy-action film didn't get the screening'. That still wouldn't attack the assumption because the assumption wasn't about what other genres are getting screened or not. It was about art films not getting screened. Hence, B is not the answer.

Option C: If art films get priority in areas where movies tussle for screen space, because of a shortage of theatres, it means they get the highest priority, thus contradicting the assumption made in the passage. Hence, Choice C is the answer.

Option D: People who love art-films not being able to afford watching movies in theatres is disconnected from the assumption which is that 'people who love art-films may not be able to watch it in theatre, not because they don't have money but because the movie isn't playing in the neighbourhood theatre.' Hence, Choice D is not the answer.

Choice (C)

undefined

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Director Bong Joon-ho, whose latest movie *Okja* was boycotted by South Korean movie chains because of its Netflix release, has said in several interviews that the release strategy doesn't bother him because a partnership with Netflix also comes with complete creative freedom and a generous budget: "The best way to watch a film is in the theatre. But for directors who make weird films like mine, the digital studio platforms are a great creative opportunity. I do believe that the two modes can coexist."

Nolan brushed this argument off, saying, "I think the investment that Netflix is putting into interesting filmmakers and interesting projects would be more admirable if it weren't being used as some kind of bizarre leverage against shutting down

theatres. It's so pointless. I don't really get it."

He then said, "The only platform I'm interested in talking about is theatrical exhibition," a comment which drew quick criticism from director Ava DuVernay. DuVernay's Netflix documentary *13th* was nominated for an Oscar this year and she's currently working on another about the Central Park Five. She's also a major studio director, midway through production for Disney's \$100 million adaptation of *A Wrinkle in Time*. On Twitter, she asked Nolan, "But, what if there's no movie theatre in your neighbourhood?"

DuVernay's point is a crucial one about the future of film. You can love and support movie theatres, and Nolan is free to personally care about theatrical releases, but it's ridiculous to argue that there's no value in Netflix releasing films for a truly global audience. Netflix's model gives its 100 million subscribers, in 190 countries, access to movies at the same time, rather than the traditional system of the US or UK getting films first, and other markets waiting months. And many people who might not be able to afford more than one monthly trip to the ever-more-expensive movie theatre can afford a monthly Netflix subscription. It also brings art films to areas that might have only one theatre. *Okja* may be better in a theatre, but that assumes it would have even screened in Springfield, Missouri, in the USA.

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So, as long as you are the most critically beloved blockbuster director in 40 years (and a man and white), you'll be fine!

Q9. All of the following can be inferred as shortcomings of Nolan's argument against Netflix according to the passage EXCEPT?

- a) Nolan's argument about movie business is probably from the perspective of a critically beloved blockbuster director.
- b) Nolan's argument doesn't consider neighbourhoods which either don't have movie theatres or have too few theatres to screen offbeat films.
- c) Nolan's argument does not consider the movie-watchers who find the one-time monthly experience of heading to the theatre more expensive than a monthly Netflix subscription.
- d) Nolan's argument is bullish about the reliability, longevity and resourcefulness of the theatre distribution mechanisms. **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	202
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	101
% of students who attempted this question	49.22
% of students who got the question right of those who attempted	58.67

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 662

Option A: This sarcastic statement made by the author 'So, as long as you are the most critically beloved blockbuster director in 40 years (and a man and white), you'll be fine' indicates that Nolan's argument (Netflix's model of simultaneous streaming and release aren't good for theatrical distribution) is myopic and flawed because it is from the perspective of a 'critically beloved blockbuster director'. Hence, Choice A has been presented by the author as a shortcoming of Nolan's argument. Choice A is not the answer.

Option B: This counter 'On Twitter, she asked Nolan, "But, what if there's no movie theatre in your neighbourhood?"' made by Ava DuVernay indicates that Nolan hasn't considered the scenario where even though movie-lovers want to watch the movie in a theatre, they don't have easy access because their neighbourhood probably doesn't have a theatre or has a shortage of it because of which art films lose out. Hence, Choice B is not the answer.

Option C: 'And many people who might not be able to afford more than one monthly trip to the ever-more-expensive movie theatre can afford a monthly Netflix subscription.' From this line, we can understand that one of the shortcomings of Nolan's argument, in saying that watching movies in theatre is the ideal system, is that he is not considering those who don't have the budget for a monthly trip to the movies. Hence, Choice C is not the answer.

Option D: This option talks about the advantages of the theatre distribution system (all positive words, especially 'bullish') and is not an argument against Netflix. Hence, cannot be about the shortcomings of Nolan's argument. Hence, this Choice D is the answer.

Choice (D)

undefined

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DuVernay's point is a crucial one about the future of film. You can love and support movie theatres, and Nolan is free to personally care about theatrical releases, but it's ridiculous to argue that there's no value in Netflix releasing films for a truly global audience. Netflix's model gives its 100 million subscribers, in 190 countries, access to movies at the same time, rather than the traditional system of the US or UK getting films first, and other markets waiting months. And many people who might not be able to afford more than one monthly trip to the ever-more-expensive movie theatre can afford a monthly Netflix subscription. It also brings art films to areas that might have only one theatre. *Okja* may be better in a theatre, but that assumes it would have even screened in Springfield, Missouri, in the USA.

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Q10. Which of the following assumptions made by critics of Netflix's strategy is addressed by the conciliatory tone of Reed Hastings in the third para?

- a) Netflix's model of releasing films on its streaming platform and in theatres simultaneously will make theatres redundant.
- b) Netflix's plans leave no room for theatrical releases. Your answer is incorrect
- c) Film festivals are only for movies which have run for a serious amount of time in physical movie theatres.
- d) Movies which are made available on streaming platform shouldn't go beyond a limited run in theatres.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	276
Avg. time spent on this question by all students	134
Difficulty Level	M
Avg. time spent on this question by students who got this question right	130
% of students who attempted this question	50.7
% of students who got the question right of those who attempted	46.05

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 662

The critics of Netflix's strategy assume that Netflix is out to make theatrical releases redundant wiping them out from business. This is understood from the sentence, 'But Netflix CEO, Reed Hastings has said repeatedly that Netflix doesn't envision a world where movie theatres don't exist, and that he believes that the future of film has room for plenty of different distribution strategies.' The second underlined portion is the assumption and the third underlined portion is the reconciliatory message of Reed Hastings.

Option A: Nolan, who is the predominant voice of criticism against Netflix in the passage, says, 'They have this mindless policy of every movie having to be simultaneously streamed and released, which is obviously an untenable model for theatrical presentation.' The underlined portion summarises the assumption made by the critics of Netflix – the Netflix strategy is untenable for theatrical presentation. This choice depicts it correctly by saying, 'Netflix's model will make theatres redundant'. Hence, Choice A is the answer.

Option B: While this choice is close, one needs to understand the difference between 'theatres' and 'theatrical releases'. Netflix itself releases certain movies in theatres alongside making them available on the streaming platform. So, the criticism against them is not a Netflix v theatrical releases kind of criticism. It is more Netflix v Theatres kind of criticism, because when Netflix makes a movie available immediately on the streaming platform, critics think that it probably affects the revenues of the theatres. This can be understood from Nolan's comments: 'Nolan brushed this argument off, saying, "I think the investment that Netflix is putting into interesting filmmakers and interesting projects would be more admirable if it weren't being used as some kind of bizarre leverage against shutting down theatres.' Hence, Choice B is close but is not the answer.

Option C: The critics' uproar about Netflix is a much broader point than film festivals. While it is true that Netflix movies aren't popular at some film festivals because of the general belief that movies which don't get a theatrical run shouldn't make it to the film festivals, it is a smaller idea in the larger scheme of things. The bigger criticism of Netflix is around how its streaming platform clashes with the interests of theatres. Hence, Choice C is easy to eliminate.

Option D: This line clearly is not an assumption made by the critics. From 'When Netflix does release its films in theatres, they usually get limited runs in select cities, and it makes all of its films available on its streaming platform on their release day', we can understand that this choice is closer to the Netflix strategy than a criticism of Netflix. The 'shouldn't' takes it further away from accuracy because Netflix is already doing it and it hasn't been discussed in the passage whether those limited runs should continue or not. Hence, Choice D is not the answer.

Choice (A)

undefined

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When Netflix does release its films in theatres, they usually get limited runs in select cities, and it makes all of its films available on its streaming platform on their release day. This strategy recently came under fire at the Cannes Film Festival, with members of the festival board and French film industry's governing body arguing that movies without serious runs in physical movie theatres shouldn't qualify in a film competition. But Netflix CEO, Reed Hastings has said repeatedly that Netflix doesn't envision a world where movie theatres don't exist, and that he believes that the future of film has room for plenty of different distribution strategies.

Director Bong Joon-ho, whose latest movie *Okja* was boycotted by South Korean movie chains because of its Netflix release, has said in several interviews that the release strategy doesn't bother him because a partnership with Netflix also comes with complete creative freedom and a generous budget: "The best way to watch a film is in the theatre. But for directors who make weird films like mine, the digital studio platforms are a great creative opportunity. I do believe that the two modes can coexist."

Nolan brushed this argument off, saying, "I think the investment that Netflix is putting into interesting filmmakers and interesting projects would be more admirable if it weren't being used as some kind of bizarre leverage against shutting down theatres. It's so pointless. I don't really get it."

He then said, "The only platform I'm interested in talking about is theatrical exhibition," a comment which drew quick criticism from director Ava DuVernay. DuVernay's Netflix documentary *13th* was nominated for an Oscar this year and she's currently working on another about the Central Park Five. She's also a major studio director, midway through production for Disney's \$100 million adaptation of *A Wrinkle in Time*. On Twitter, she asked Nolan, "But, what if there's no movie theatre in your neighbourhood?"

DuVernay's point is a crucial one about the future of film. You can love and support movie theatres, and Nolan is free to personally care about theatrical releases, but it's ridiculous to argue that there's no value in Netflix releasing films for a truly global audience. Netflix's model gives its 100 million subscribers, in 190 countries, access to movies at the same time, rather than the traditional system of the US or UK getting films first, and other markets waiting months. And many people who might not be able to afford more than one monthly trip to the ever-more-expensive movie theatre can afford a monthly Netflix subscription. It also brings art films to areas that might have only one theatre. *Okja* may be better in a theatre, but that assumes it would have even screened in Springfield, Missouri, in the USA.

Stating that this strategy is "pointless" mostly just exposes Nolan as somebody who is unable to fathom common financial and geographic realities. Bong Joon-ho also pointed out in a June interview that Netflix subscribers are funding Netflix movies: "Okja is, after all, financed by Netflix users, and I don't think we should deprive them of their privileges." Nolan doesn't mention anything about the rights of the people paying for Netflix films to be made, but he does offer this advice: "If you can find a way to work in the system, it's a very powerful machine, with a lot of resources, and excellent distribution mechanisms."

So, as long as you are the most critically beloved blockbuster director in 40 years (and a man and white), you'll be fine!

Q11. Which of the following best captures director Bong Joon-ho's stance with respect to the criticism against Netflix's strategy to diversify distribution systems?

- a) Streaming medium provides generous budget for directors who have a reputation for making weird films.
- b) Watching a movie in theatre undoubtedly offers the kind of enriching experience digital studio platforms won't offer for weird films with extreme creativity.
- c) Neither theatrical nor digital platforms can provide creative freedom to artists all on their own in the long run and the best solution is for both systems to co-exist.
- d) Generous budgets and creative license are more important than release strategies. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	230
Avg. time spent on this question by all students	122
Difficulty Level	M
Avg. time spent on this question by students who got this question right	126
% of students who attempted this question	50.69
% of students who got the question right of those who attempted	37.53

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 662

Director Bong Joon-ho, whose latest movie Okja was boycotted by South Korean movie chains because of its Netflix release, has said in several interviews that the release strategy doesn't bother him because a partnership with Netflix also comes with complete creative freedom and a generous budget. "The best way to watch a film is in the theatre. But for directors who make weird films like mine, the digital studio platforms are a great creative opportunity. I do believe that the two modes can coexist."

From this, we can understand that the director doesn't really have anything against theatre but feels that the digital studio platforms offer creative license and generous budgets.

Option A: Streaming medium can provide a director with the creative license required to deliver a good movie. While this is true, this option doesn't completely illustrate Bong Joon-ho's stance, as it leaves out his opinions on generous budget and the possible coexistence of multiple strategies. Hence, Choice A is not the answer.

Option B: In essence this is not false considering the director clearly says watching a movie in the theatre offers the best experience. However, this option doesn't represent his stance because he speaks positively about digital platforms when it comes to unconventional (weird) films, whereas this option paints a negative picture. Hence, Choice B is not the answer.

Option C: 'Neither theatrical nor digital platforms can provide creative freedom to artists all on their own in the long run' clearly paints a negative picture. While it is true that both mediums can coexist according to the director, it is not because neither of them is good enough, which this option seems to suggest. The director indicates both mediums have their pros. This option seems to indicate both mediums (theatre and streaming) have their cons. Hence, Choice C is not the answer.

Option D: From 'release strategy doesn't bother him because a partnership with Netflix also comes with complete creative freedom and a generous budget.' we can understand that for a director what matters more is the freedom and the budget for his project, because release strategies can coexist (I do believe that the two modes can coexist.)" Hence, Choice D is the best depiction of his stance and therefore, 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.

Christopher Nolan, director of high-concept blockbuster movies like The Dark Knight, Inception, and Interstellar, and famous defender of the old-school institutions of film, went on a bit of an anti-Netflix rant during an interview with IndieWire today.

"Netflix has a bizarre aversion to supporting theatrical films," he told IndieWire's Eric Kohn. "They have this mindless policy of every movie having to be simultaneously streamed and released, which is obviously an untenable model for theatrical presentation."

When Netflix does release its films in theatres, they usually get limited runs in select cities, and it makes all of its films available on its streaming platform on their release day. This strategy recently came under fire at the Cannes Film Festival, with members of the festival board and French film industry's governing body arguing that movies without serious runs in physical movie theatres shouldn't qualify in a film competition. But Netflix CEO, Reed Hastings has said repeatedly that Netflix doesn't envision a world where movie theatres don't exist, and that he believes that the future of film has room for plenty of different distribution strategies.

Director Bong Joon-ho, whose latest movie Okja was boycotted by South Korean movie chains because of its Netflix release, has said in several interviews that the release strategy doesn't bother him because a partnership with Netflix also comes with complete creative freedom and a generous budget: "The best way to watch a film is in the theatre. But for directors who make weird films like mine, the digital studio platforms are a great creative opportunity. I do believe that the

two modes can coexist."

Nolan brushed this argument off, saying, "I think the investment that Netflix is putting into interesting filmmakers and interesting projects would be more admirable if it weren't being used as some kind of bizarre leverage against shutting down theatres. It's so pointless. I don't really get it."

He then said, "The only platform I'm interested in talking about is theatrical exhibition," a comment which drew quick criticism from director Ava DuVernay. DuVernay's Netflix documentary *13th* was nominated for an Oscar this year and she's currently working on another about the Central Park Five. She's also a major studio director, midway through production for Disney's \$100 million adaptation of *A Wrinkle in Time*. On Twitter, she asked Nolan, "But, what if there's no movie theatre in your neighbourhood?"

DuVernay's point is a crucial one about the future of film. You can love and support movie theatres, and Nolan is free to personally care about theatrical releases, but it's ridiculous to argue that there's no value in Netflix releasing films for a truly global audience. Netflix's model gives its 100 million subscribers, in 190 countries, access to movies at the same time, rather than the traditional system of the US or UK getting films first, and other markets waiting months. And many people who might not be able to afford more than one monthly trip to the ever-more-expensive movie theatre can afford a monthly Netflix subscription. It also brings art films to areas that might have only one theatre. *Okja* may be better in a theatre, but that assumes it would have even screened in Springfield, Missouri, in the USA.

Stating that this strategy is "pointless" mostly just exposes Nolan as somebody who is unable to fathom common financial and geographic realities. Bong Joon-ho also pointed out in a June interview that Netflix subscribers are funding Netflix movies: "Okja is, after all, financed by Netflix users, and I don't think we should deprive them of their privileges." Nolan doesn't mention anything about the rights of the people paying for Netflix films to be made, but he does offer this advice: "If you can find a way to work in the system, it's a very powerful machine, with a lot of resources, and excellent distribution mechanisms."

So, as long as you are the most critically beloved blockbuster director in 40 years (and a man and white), you'll be fine!

Q12. Which of the following statements must be proven to be true to vindicate Ava DuVernay's quick criticism of Nolan's statement?

- a) Every neighbourhood in the world has a theatre to let movie lovers enjoy theatrical presentation.
- b) Not all theatres are affordable for movie lovers who are much more comfortable with a monthly Netflix subscription.
- c) Not every moviegoer has easy access to theatres where they can experience a movie. Your answer is correct
- d) Not every person needs to love and support movie theatres.

Time spent / Accuracy Analysis

Time taken by you to answer this question	377
Avg. time spent on this question by all students	98
Difficulty Level	E
Avg. time spent on this question by students who got this question right	97
% of students who attempted this question	49.4
% of students who got the question right of those who attempted	35.15

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 662

Ava DuVernay's quick criticism of Nolan stems from her question, 'But, what if there's no movie theatre in your neighbourhood?' So, to vindicate (prove her right) her criticism, we need an option that does prove that some neighbourhoods don't have theatres, in which case, Netflix's model is the ideal distribution system.

Option A: This weakens DuVernay's argument because it directly contradicts her rhetorical question (which suggested that not every neighbourhood has a movie theatre). Hence, Choice A is not the answer.

Option B: DuVernay's criticism has more to do with geographic location and access of movie theatres rather than their affordability. Hence, Choice B is not the answer.

Option C: If this statement is proven to be true, it means DuVernay's questioning Nolan's support for the theatrical distribution is valid. If a moviegoer, doesn't have easy access to theatres, but still wants to watch the movie on the day of release, Netflix's simultaneous streaming and release model would make a lot more sense. Hence, Choice C is the answer.

Option D: This option talks about popularity of movie theatres rather than access to movie theatres and hence is talking about an altogether different point of view. Hence, Choice D is not the answer.

Choice (C)

undefined

DIRECTIONS for questions 13 to 15: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

It sounds like a scene from "The Big Short", a film about financial speculation. Light aircraft fly photographers close to America's oil-storage facilities, using infra-red imaging and photographs to gauge the rise and fall of levels of crude in 2,100 storage tanks, in an attempt to work out whether oil futures are overvalued or not.

In fact, it is less mischievous than that. The intelligence-gatherers work for a company, Genscape, that sells the information to traders everywhere, giving them a few days' jump before storage surveys are published by the government.

These data are particularly useful at a time when near-record levels of oil inventories in America are weighing on oil prices and frustrating attempts by OPEC, the producers' cartel, to prop up the market. The high level of inventories is vital to an understanding of why crude prices suddenly plummeted this month, according to the International Energy Agency (IEA), a forecaster. West Texas Intermediate is back below \$50 a barrel, its level before OPEC in November agreed to cut output.

Why are the tanks so full? Firstly, OPEC's agreement with non-members such as Russia to cut production from January 1st set off a flurry of hedge-fund buying, pushing oil prices higher. American shale producers were quick to take advantage of higher prices by pumping more oil. The number of American oil rigs has risen to 617 from 386 a year ago, producing 400,000 barrels a day more than at the lows in September. Much of that has gone to storage terminals like Cushing, Oklahoma.

Second, OPEC has been hoisted by its own petard. In the months before it started cutting output, it sharply raised production and exports. After weeks of trans-Atlantic travel, this oil is showing up in higher American imports, put into storage when refineries were idled for maintenance.

The third factor is the shape of the curve of futures prices, which is closely related to the level of inventories. When OPEC orchestrated the January cut, it hoped to rebalance supply and demand by mid-year, and push the futures market into "backwardation", meaning prices in the long term were at a discount to short-term prices. Backwardation reflects the market's willingness to buy oil and use it rather than buy oil and store it. The strategy worked for a while.

But since the release of bearish American inventory data on March 8th, the market slipped back into "contango", the name for the discount at which near-term prices trade to longer-term ones. Hillary Stevenson of Genscape notes that the storage costs in tanks in Cushing are about 41 cents per barrel of oil per month, compared with a one-month contango of about 65 cents.

Contango can be a self-fulfilling prophecy, because the more oil is stored, the lower short-term prices go. So OPEC's challenge is to try and break the loop, possibly by promising to extend its output cuts beyond June. But in that case, the shale drillers are likely to add yet more wells. And so the merry-go-round will continue.

Q13. ".....OPEC has been hoisted by its own petard" (para 5). What is the meaning of the expression: To be hoisted by one's own petard?

- a) To gain in the long term because of some intelligent steps taken in the short term.
- b) To be unjustly disadvantaged by someone else's action.
- c) To be destroyed unintentionally by someone else's treachery directed against a third party.
- d) To have fallen victim to one's own trap or schemes.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	14
Avg. time spent on this question by all students	265
Difficulty Level	M
Avg. time spent on this question by students who got this question right	263
% of students who attempted this question	30.68
% of students who got the question right of those who attempted	72.93

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 501

The meaning of the idiom "To be hoisted by one's own petard" is to be hurt or destroyed by one's own plot or device intended for another; to be "blown up by one's own bomb". This makes choice D the correct answer. Near-record levels of oil inventories in America are weighing on oil prices and frustrating attempts by OPEC, the producers' cartel, to prop up the market (to stop the prices from falling). OPEC has been hoisted by its own petard. In the months **before** it started cutting output, it sharply raised production and exports. After weeks of trans-Atlantic travel, this oil is showing up in higher American imports, put into storage when refineries were idled for maintenance.

Option A: "hoisted by one's own petard" is an idiom with a negative connotation. It does not have a positive tone to it. When the passage mentions "Near-record levels of oil inventories in America are weighing on oil prices and frustrating attempts by OPEC", we can infer that OPEC is at a disadvantage in that its efforts have not borne fruit. Hence "gain in the long term due to intelligent steps taken in the short term" which is positive cannot be the answer.

Option B: We can infer that OPEC was at a disadvantage because of the American shale producers but there is nothing in the passage which hints at any unjust means adopted by these shale producers targeting OPEC. So to be unjustly disadvantaged by someone else's action is incorrect. "one's own petard" indicates that one's own action affects one. Hence "someone else's action" as given in choice B does not gel with this idea.

Option C: As given in the explanation for choice B, "someone else's" can be ruled out. Also "treachery" is a very strong word here. The passage does not give any indication of treacherous activities directed against a third party. Choice C is completely far-fetched.

Since choices A, B and C have been eliminated, we are left with choice D. This choice correctly reflects the "one's own" bit in the expression.

Hence the correct answer is choice D.

Choice (D)

undefined

DIRECTIONS for questions 13 to 15: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

It sounds like a scene from “The Big Short”, a film about financial speculation. Light aircraft fly photographers close to America’s oil-storage facilities, using infra-red imaging and photographs to gauge the rise and fall of levels of crude in 2,100 storage tanks, in an attempt to work out whether oil futures are overvalued or not.

In fact, it is less mischievous than that. The intelligence-gatherers work for a company, Genscape, that sells the information to traders everywhere, giving them a few days’ jump before storage surveys are published by the government.

These data are particularly useful at a time when near-record levels of oil inventories in America are weighing on oil prices and frustrating attempts by OPEC, the producers’ cartel, to prop up the market. The high level of inventories is vital to an understanding of why crude prices suddenly plummeted this month, according to the International Energy Agency (IEA), a forecaster. West Texas Intermediate is back below \$50 a barrel, its level before OPEC in November agreed to cut output.

Why are the tanks so full? Firstly, OPEC’s agreement with non-members such as Russia to cut production from January 1st set off a flurry of hedge-fund buying, pushing oil prices higher. American shale producers were quick to take advantage of higher prices by pumping more oil. The number of American oil rigs has risen to 617 from 386 a year ago, producing 400,000 barrels a day more than at the lows in September. Much of that has gone to storage terminals like Cushing, Oklahoma.

Second, OPEC has been hoisted by its own petard. In the months before it started cutting output, it sharply raised production and exports. After weeks of trans-Atlantic travel, this oil is showing up in higher American imports, put into storage when refineries were idled for maintenance.

The third factor is the shape of the curve of futures prices, which is closely related to the level of inventories. When OPEC orchestrated the January cut, it hoped to rebalance supply and demand by mid-year, and push the futures market into “backwardation”, meaning prices in the long term were at a discount to short-term prices. Backwardation reflects the market’s willingness to buy oil and use it rather than buy oil and store it. The strategy worked for a while.

But since the release of bearish American inventory data on March 8th, the market slipped back into “contango”, the name for the discount at which near-term prices trade to longer-term ones. Hillary Stevenson of Genscape notes that the storage costs in tanks in Cushing are about 41 cents per barrel of oil per month, compared with a one-month contango of about 65 cents.

Contango can be a self-fulfilling prophecy, because the more oil is stored, the lower short-term prices go. So OPEC’s challenge is to try and break the loop, possibly by promising to extend its output cuts beyond June. But in that case, the shale drillers are likely to add yet more wells. And so the merry-go-round will continue.

Q14. What can be understood about “backwardation” and “contango” from the passage?

- a) Backwardation refers to the state of the futures market where prices of oil in the long term were at a discount to short-term prices, while contango refers to the state of the futures market where short-term prices of oil can be equated to longer-term prices.
- b) Backwardation reflects the market's willingness to buy oil and store it, while contango makes it worthwhile to buy oil and use it.
- c) Backwardation reflects the market's willingness to buy oil and use it, while contango makes it worthwhile to buy oil and store it.
- d) Backwardation is a phenomenon that occurs when the OPEC cuts oil production and when production from some of the world's biggest oil fields matures, while Contango is the outcome of American shale producers drilling for more oil.

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	150
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	154

Time spent / Accuracy Analysis

% of students who attempted this question	28.92
% of students who got the question right of those who attempted	54.94

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 501

Option A: "backwardation", means oil prices in the long term were at a discount to short-term prices. Backwardation reflects the market's willingness to buy oil and use it rather than buy oil and store it. So the first part of choice A is correct. The second part (short-term prices of oil can be equated to longer-term prices) is incorrect as "contango" is the name for the discount at which near-term prices of oil trade to longer-term ones. Hence choice A is not correct.

Option B: "backwardation", means oil prices in the long term were at a discount to short-term prices. Backwardation reflects the market's willingness to buy oil and use it rather than storing it. "contango", the name for the discount at which near-term prices trade to longer-term ones. Contango can be a self-fulfilling prophecy, because the more oil is stored, the lower short-term prices go. So choice B is inverted and is not the answer.

Option C: When OPEC orchestrated the January cut, it hoped to rebalance supply and demand by mid-year, and push the futures market into "backwardation", meaning prices in the long term were at a discount to short-term prices. Backwardation reflects the market's willingness to buy oil and use it rather than storing it. But since the release of bearish American inventory data on March 8th, the market slipped back into "contango", the name for the discount at which near-term prices trade to longer-term ones. Contango can be a self-fulfilling prophecy, because the more oil is stored, the lower short-term prices go. This makes choice C the correct answer.

Option D: While the first part of choice D may be inferred to be true, the second part about contango cannot be inferred from the passage. There are more important and specific aspects of "backwardation" and "contango" than what has been provided in choice D.

Choice (C)

undefined

DIRECTIONS for questions 13 to 15: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

It sounds like a scene from "The Big Short", a film about financial speculation. Light aircraft fly photographers close to America's oil-storage facilities, using infra-red imaging and photographs to gauge the rise and fall of levels of crude in 2,100 storage tanks, in an attempt to work out whether oil futures are overvalued or not.

In fact, it is less mischievous than that. The intelligence-gatherers work for a company, Genscape, that sells the information to traders everywhere, giving them a few days' jump before storage surveys are published by the government.

These data are particularly useful at a time when near-record levels of oil inventories in America are weighing on oil prices and frustrating attempts by OPEC, the producers' cartel, to prop up the market. The high level of inventories is vital to an understanding of why crude prices suddenly plummeted this month, according to the International Energy Agency (IEA), a forecaster. West Texas Intermediate is back below \$50 a barrel, its level before OPEC in November agreed to cut output.

Why are the tanks so full? Firstly, OPEC's agreement with non-members such as Russia to cut production from January 1st set off a flurry of hedge-fund buying, pushing oil prices higher. American shale producers were quick to take advantage of higher prices by pumping more oil. The number of American oil rigs has risen to 617 from 386 a year ago, producing 400,000 barrels a day more than at the lows in September. Much of that has gone to storage terminals like Cushing, Oklahoma.

Second, OPEC has been hoisted by its own petard. In the months before it started cutting output, it sharply raised production and exports. After weeks of trans-Atlantic travel, this oil is showing up in higher American imports, put into storage when refineries were idled for maintenance.

The third factor is the shape of the curve of futures prices, which is closely related to the level of inventories. When OPEC

orchestrated the January cut, it hoped to rebalance supply and demand by mid-year, and push the futures market into "backwardation", meaning prices in the long term were at a discount to short-term prices. Backwardation reflects the market's willingness to buy oil and use it rather than buy oil and store it. The strategy worked for a while.

But since the release of bearish American inventory data on March 8th, the market slipped back into "contango", the name for the discount at which near-term prices trade to longer-term ones. Hillary Stevenson of Genscape notes that the storage costs in tanks in Cushing are about 41 cents per barrel of oil per month, compared with a one-month contango of about 65 cents.

Contango can be a self-fulfilling prophecy, because the more oil is stored, the lower short-term prices go. So OPEC's challenge is to try and break the loop, possibly by promising to extend its output cuts beyond June. But in that case, the shale drillers are likely to add yet more wells. And so the merry-go-round will continue.

Q15. "So OPEC's challenge is to try and break the loop, possibly by promising to extend its output cuts beyond June." Which of the following is the most probable outcome after OPEC extends its output cuts beyond June?

- a) The short-term price of oil will be lower than the contango value in the recent past in the region.
- b) The short-term price of oil will increase if American shale producers add more oil wells.
- c) Workers of Oil and Gas Companies will get a higher wage and economic recession will not hit this sector.
- d) The short-term price of oil will increase provided that American shale producers do not drill, construct and maintain more oil wells.

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	116
Difficulty Level	D
Avg. time spent on this question by students who got this question right	108
% of students who attempted this question	19.33
% of students who got the question right of those who attempted	53.6

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 501

Option A: Why are the tanks so full? Firstly, OPEC's agreement with non-members such as Russia to cut production from January 1st set off a flurry of hedge-fund buying, pushing oil prices higher. Contango can be a self-fulfilling prophecy, because the more oil is stored, the lower short-term prices go. So OPEC's challenge is to try and break the loop, possibly by promising to extend its output cuts beyond June. If this happens then the price of oil will increase. So "lower than the contango value" in choice A is incorrect.

Option B: Contango can be a self-fulfilling prophecy, because the more oil is stored, the lower short-term prices go. So OPEC's challenge is to try and break the loop, possibly by promising to extend its output cuts beyond June. Now, if American shale producers add more oil wells, then there would be more oil in storage as also indicated in para 4 (American shale producers were quick to take advantage of higher prices by pumping more oil). This situation will become similar to what happened because of the January cuts of oil output by OPEC. Hence the oil prices are not likely to increase. Choice B cannot be the answer.

Option C: Choice C is far-fetched and is out of scope of the given passage.

Option D: The first part of choice D is true. When OPEC implements an output cut, it is possible that OPEC can "break the loop" and short-term oil prices may increase. However, as given in the last two sentences of the passage, if the shale drillers are likely to add yet more wells, then the merry-go-round will continue. This implies that the increase in price of oil in the short-term is subject to the American shale producers not adding more oil wells. This can "break the (existing) loop" and is the answer to the question.

The best answer is choice D.

Choice (D)

undefined

DIRECTIONS for questions 16 to 21: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Charter schools are controversial. But are they good for education?

Rigorous research suggests that the answer is yes for an important, underserved group: low-income, nonwhite students in urban areas. These children tend to do better if enrolled in charter schools instead of traditional public schools.

There are exceptions, of course. We can't predict with certainty that a particular child will do better in a specific charter or traditional public school. Social scientists can confirm only whether, on average, a given treatment is beneficial for a given population. Not all charter schools are outstanding: In the suburbs, for example, the evidence is that they do no better than traditional public schools. But they have been shown to improve the education of disadvantaged children at scale, in multiple cities, over many years.

Charter schools are publicly funded but not bound by many of the rules that constrain traditional public schools. Charters, for example, can easily try new curriculums or teaching strategies, or choose to have a longer school day. They have more autonomy than traditional public schools in hiring and firing teachers, who have voted to form unions at only a handful of charters. Perhaps as a result, teachers' unions have often opposed charter schools. They say that these schools compete unfairly with traditional public schools and are not held to the same standards.

Measuring the effectiveness of any school is challenging. Parents choose their children's schools, either by living in a certain school district or by applying to a private or charter school. Some schools are filled with students who would perform well in almost any setting. This could mislead us into thinking these schools provide an exemplary education, when the truth is they attract strong students.

This is called selection bias, the greatest challenge in evaluating the effectiveness of schools. Stuyvesant High School in New York City, to which entry is granted through a competitive exam, is filled with smart students who might succeed anywhere. When those students do well, is it because of the school or the students or both?

In the case of charter schools, researchers have found an innovative way to overcome selection bias: analyzing the admission lotteries that charters are required to run when they have more applicants than seats. Each lottery serves as a randomized trial... Random assignment lets us compare apples to apples: Lottery winners and losers are identical, on average, when they apply. Any differences that emerge after the lottery can safely be attributed to charter attendance.

One concern with this approach is that charters might push out difficult students after the lottery. News accounts indicate that some schools have engaged in this practice, including a high-performing charter school in New York City.

That's one reason the lottery studies don't compare students who are and are not enrolled in charter schools, but instead compare students who win and lose the lotteries. If a student wins a lottery but declines to attend, or transfers out, her test scores are still assigned to the charter for the analysis. This means that the estimates are not biased by transfers after the lottery takes place....

A consistent pattern has emerged from this research. In urban areas, where students are overwhelmingly low-achieving, poor and nonwhite, charter schools tend to do better than other public schools in improving student achievement. By contrast, outside of urban areas, where students tend to be white and middle class, charters do no better and sometimes do worse than public schools.

This pattern holds in lottery studies in Massachusetts as well in a national study of charter schools funded by the Education Department. Boston's charters also do a better job at preparing students for college...

Not all charters are successful, of course, but we should not expect them to be. Charters are a place for educators to try out new methods... It's the job of government to distinguish between the successful charters and the failures, and to shut down the failures.

Q16. According to the passage, which of the following is not a difference between charter schools and public schools?

- a) Charter schools provide better education to students from poor families, while public schools provide better education to students from middle class families.
- b) It is easier to hire or fire teachers in charter schools as compared to public schools.
- c) Charter schools are more open to trying innovative methods in teaching as compared to public schools.
- d) Charter schools are governed by fewer rules as compared to public schools.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	66
Avg. time spent on this question by all students	328
Difficulty Level	E
Avg. time spent on this question by students who got this question right	323
% of students who attempted this question	53.11
% of students who got the question right of those who attempted	77.78

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 657

The passage provides various features of charter schools throughout the passage: "not bound by many of the rules", "can easily try new curriculums or teaching strategies", "more autonomy than traditional public schools" and so on.

Option A: Charter schools "tend to do better than other public schools in improving student achievement" in urban areas, "where students are overwhelmingly low-achieving, poor and non-white". However, this option seems to indicate that charter schools discriminate between students from poor families and others ("provide better education to students from poor families"). The passage does not indicate any such discrimination in charter schools. Hence, this is not a difference between charter schools and public schools and is the correct answer.

Option B: According to the passage, charter schools have "more autonomy than traditional public schools in hiring and firing teachers". Hence, we can infer that it is easier to hire and fire teachers in charter schools as compared to public schools.

Option C: According to the author, "Charters, for example, can easily try new curriculums or teaching strategies" and "Charters are a place for educators to try out new methods" (in the last para). From this, we can infer that charter schools are more open to trying new strategies.

Option D: "Charter schools are publicly funded but not bound by many of the rules that constrain traditional public schools". Hence, this option is also correct and is not an answer.

Choice (A)

undefined

DIRECTIONS for questions 16 to 21: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

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There are exceptions, of course. We can't predict with certainty that a particular child will do better in a specific charter or traditional public school. Social scientists can confirm only whether, on average, a given treatment is beneficial for a given population. Not all charter schools are outstanding: In the suburbs, for example, the evidence is that they do no better than traditional public schools. But they have been shown to improve the education of disadvantaged children at scale, in multiple cities, over many years.

Charter schools are publicly funded but not bound by many of the rules that constrain traditional public schools. Charters, for example, can easily try new curriculums or teaching strategies, or choose to have a longer school day. They have more autonomy than traditional public schools in hiring and firing teachers, who have voted to form unions at only a handful of charters. Perhaps as a result, teachers' unions have often opposed charter schools. They say that these schools compete unfairly with traditional public schools and are not held to the same standards.

Measuring the effectiveness of any school is challenging. Parents choose their children's schools, either by living in a certain school district or by applying to a private or charter school. Some schools are filled with students who would perform well in almost any setting. This could mislead us into thinking these schools provide an exemplary education, when the truth is they attract strong students.

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One concern with this approach is that charters might push out difficult students after the lottery. News accounts indicate that some schools have engaged in this practice, including a high-performing charter school in New York City.

That's one reason the lottery studies don't compare students who are and are not enrolled in charter schools, but instead compare students who win and lose the lotteries. If a student wins a lottery but declines to attend, or transfers out, her test scores are still assigned to the charter for the analysis. This means that the estimates are not biased by transfers after the lottery takes place....

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Q17. The author ascribes the reason for teacher's unions to oppose charter schools to

- a) the autonomy of charter schools in hiring and firing teachers.
- b) the absence of teachers' unions in all but a few charter schools.
- c) the unfair nature of competition between charter schools and public schools.
- d) All of the above.

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	83
Difficulty Level	D
Avg. time spent on this question by students who got this question right	82
% of students who attempted this question	54.32
% of students who got the question right of those who attempted	23.02

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 657

In the fourth paragraph of the passage, the author talks about how charter schools are different from traditional public schools. One of the reasons that he mentions is that they have "more autonomy than traditional public schools in hiring and firing teachers". Option A: Charter schools "have more autonomy than traditional public schools in hiring and firing teachers, who have voted to form unions at only a handful of charters". In the next sentence, the author mentions that "perhaps, as a result, teachers' unions have often opposed charter schools". From this we can infer that the author ascribes the reason for this opposition to the autonomy in hiring and firing teachers.

Option B: The author mentions that the teachers "have voted to form unions at only a handful of charters". However, this is mentioned as an additional piece of information. Further, we cannot infer from the passage that there exists some hindrance for the teachers to form unions. Since there is nothing stopping them from forming unions, this cannot be a reason for them to oppose charters. Hence, this option is incorrect.

Option C: The teachers unions oppose charter school saying that "they compete unfairly with traditional public schools and are not held to the same standards". However, the author points to a different reason, which can be inferred from "Perhaps, as a result, ...". Hence, this is a reason that the teachers' unions state but not a reason that the author ascribes. Therefore, this option is incorrect.

Option D: Option B and Option C are incorrect, and hence, this option is easy to eliminate.

Hence, choice A is the correct answer.

Choice (A)

undefined

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Charter schools are publicly funded but not bound by many of the rules that constrain traditional public schools. Charters, for example, can easily try new curriculums or teaching strategies, or choose to have a longer school day. They have more autonomy than traditional public schools in hiring and firing teachers, who have voted to form unions at only a handful of charters. Perhaps as a result, teachers' unions have often opposed charter schools. They say that these schools compete unfairly with traditional public schools and are not held to the same standards.

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school district or by applying to a private or charter school. Some schools are filled with students who would perform well in almost any setting. This could mislead us into thinking these schools provide an exemplary education, when the truth is they attract strong students.

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That's one reason the lottery studies don't compare students who are and are not enrolled in charter schools, but instead compare students who win and lose the lotteries. If a student wins a lottery but declines to attend, or transfers out, her test scores are still assigned to the charter for the analysis. This means that the estimates are not biased by transfers after the lottery takes place....

A consistent pattern has emerged from this research. In urban areas, where students are overwhelmingly low-achieving, poor and nonwhite, charter schools tend to do better than other public schools in improving student achievement. By contrast, outside of urban areas, where students tend to be white and middle class, charters do no better and sometimes do worse than public schools.

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Q18. Which of the following probable scenarios in a charter school highlights a possible shortcoming in the mechanism of the lottery studies in determining the effectiveness of that school?

- a) Most of the students who won the lottery and attended the school are from white and rich families.
- b) Few students who won the lottery attended that school.
- c) All the students who won the lottery live in urban areas.
- d) The students who won the lottery were asked to attend school for longer hours.

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	148
Difficulty Level	D
Avg. time spent on this question by students who got this question right	141
% of students who attempted this question	37.31
% of students who got the question right of those who attempted	65.09

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 657

The passage describes how the lottery studies were conducted to measure the effectiveness of schools. These studies compare the students who win and lose lotteries, irrespective of whether the students that won the lottery eventually attend the school.

Option A: The studies compare schools from various areas with different demographics (urban areas where majority are from poor and non-white background; non urban areas where majority are from white and middle class background). There is no reason for lottery studies to provide an incorrect indication if most of the students in the school are from white and rich background. Hence, this is not the correct answer.

Option B: If no student who won the lottery attended that school, the lottery studies will still assign the test scores of the students who won the lottery to that school. However, as no student attended that school, it will not be a correct indication of the effectiveness of that school. Hence, this will result in the lottery studies providing an incorrect indication of the effectiveness of the school.

(Note that this is probably a highly unlikely event, which is why the study was conducted considering the students who won the lottery and not just the students who attended the school.)

Option C: As explained in option A, lottery study is not limited to any specific area and this cannot skew the results of the study. Choice C is not the answer.

Option D: The author considers different charter schools, which need not have the same number of hours or teaching strategies. Hence, schools with longer hours can also be a part of the lottery studies and hence, this is not the correct answer.

Therefore, the correct answer is option B.

Choice (B)

undefined

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Q19. Which of the following can be inferred from the antepenultimate paragraph of the passage?

- a) Urbanization improves the effectiveness of charter schools.
- b) Students from poor and nonwhite families tend to do better than students from white and middle-class families in charter schools.
- c) The number of poor students who show an improvement in charter schools is more than that in public schools.
- d) The extent to which charter schools outperform or underperform public schools is related to whether the schools are in urban areas or not.

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	104
Difficulty Level	M
Avg. time spent on this question by students who got this question right	104
% of students who attempted this question	42.45
% of students who got the question right of those who attempted	47.18

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 657

In the antepenultimate paragraph, the author provides the results of the lottery studies. He talks about a "consistent pattern" – in urban areas, "charter schools tend to do better than other public schools" and outside of urban areas, "charters do no better and sometimes do worse than public schools".

Option A: While charter schools tend to outperform public schools in urban areas, we cannot infer that urbanization is the reason for this. The author does not mention any reason why charter schools do better in urban areas. Hence, this cannot be inferred from the para.

Option B: The students in urban areas are low-achieving, poor and non-white. In urban areas, charter school tend to do better than public schools. However, ***within charter schools***, we do not have enough information to compare the performance of students of different backgrounds. It is possible that even in urban areas, white students perform better than non-white students as the passage does not talk about the performance of students and only talks about the performance of schools. Further, the study compares the improvement in "student achievement" where one of the possibilities could be that improvement in non-white students was more than that in white students because they were, probably, initially "low achieving". Hence, the absolute performance of the students from different backgrounds cannot be compared from the passage.

Option C: The passage does not mention the number of students in each type of school. Hence, we cannot compare the number of students of any background in charter schools with that in public schools.

Option D: In urban areas, charter schools tend to do better than public schools and in non-urban areas, they do "no better or worse" than public schools. Hence, the extent to which they outperform or underperform is related to whether the schools are in urban areas or non-urban areas. (however, we cannot comment on how they are related or what is causing this correlation between the two). Hence, this can be inferred from the antepenultimate paragraph of the passage.

Therefore, option D is the correct answer.

Choice (D)

undefined

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Q20. For which of the following schools is it possible that lottery studies are not applicable for that school?

- a) A charter school that conducts a lottery to provide admission to the students.
- b) A charter school in which the seats outnumber the applicants.
- c) A charter school that conducts a competitive exam after the lottery and provides admission only to the students who clear the exam.
- d) A charter school in which the number of students who applied was more than double the number of seats.

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	79
Difficulty Level	M
Avg. time spent on this question by students who got this question right	78
% of students who attempted this question	43.53
% of students who got the question right of those who attempted	47.78

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 657

Option A: The lottery studies are used to compare the effectiveness of charter schools and traditional public schools. Hence, they will be effective in charter school which runs admission lottery.

Option B: According to the passage, charters are **required to run admission lotteries** "when they have more applicants than seats". If there are more number of seats than applicants, the school need not run the lottery. If the school does not run the lottery, then lottery studies cannot be applicable as, by nature, the randomization inherent in lottery is central to lottery studies. Hence, it is possible that lottery study is not applicable in this case.

Option C: Even though a school conducts a competitive exam after the lottery, the lottery studies will consider all the students who won the lottery (as the studies "compare students who win and lose the lotteries"). Hence, lottery studies will be applicable in this case as well.

Option D: Irrespective of the extent to which the applicants outnumber the seats, as long as they outnumber the seats, charter schools are required to run admission lotteries. Hence, lottery studies will be applicable in this case as well.

Hence, option B is the correct answer.

Choice (B)

undefined

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Q21. The author has discussed all of the following questions in the passage EXCEPT?

- a) How can selection bias be overcome for measuring the effectiveness of schools?
- b) How do charter schools perform as compared to traditional public schools?
- c) Why are charter schools controversial?
- d) What should be the role of government in regulating the charter schools?

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	68
Difficulty Level	M
Avg. time spent on this question by students who got this question right	83
% of students who attempted this question	47.94
% of students who got the question right of those who attempted	31.44

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 657

Option A: The author provides lottery studies as a reason for overcoming selection bias. Hence, this question has been discussed in the passage.

Option B: The results of the lottery studies try to answer this question and finding the effectiveness of charter schools is one of the primary concerns of this passage. Hence, this has been discussed and is not the answer.

Option C: The author states that charter schools are controversial at the beginning of the passage. However, he does not elaborate on this anywhere in the passage. One probable controversy that can be inferred from the passage is the complaint that teachers unions have against charter schools. However, the author does not mention this to be a reason for the charter schools being controversial. Hence, this question has not been discussed by the author.

Option D: In the last line of the passage, the author talks about the "job of the government". Hence, this question has also been discussed in the passage.

Therefore, the correct answer is option C.

Choice (C)

Q22. DIRECTIONS for questions 22 to 24: In each of the following questions, the word in capitals is used in six different sentences. Identify the option(s) in which the usage of the word is INCORRECT or INAPPROPRIATE and enter the number corresponding to the sentence(s) (in which the usage is INCORRECT or INAPPROPRIATE) in the input box provided below each question. [Note: Enter your answer in increasing order only. For example, if you think that sentences (1) and (3) have an inappropriate usage of the capitalized word, then enter 13 (but not 31) in the input box].

BREAK

1. A ten-year old named Clark Kent broke a record that Michael Phelps held for 23 years when he competed at the Far West International Championships in California and won the 100-meter butterfly in 1:09:38.
2. Sandy was breaking off with emotion as she pleaded with the police to release her son who was caught driving under the influence.
3. It's wonderful to own a horse, but you wouldn't be able to ride him until you break him in.
4. Their decision to not name the boy after his father was a break from family tradition.
5. His invention broke new grounds in the field of nanotechnology.
6. The spectators who came to watch India take on Pakistan in the ICC World Cup 2017 on June 18 quickly broke away after the game.

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	163
Difficulty Level	M
Avg. time spent on this question by students who got this question right	174
% of students who attempted this question	43.46
% of students who got the question right of those who attempted	3.21

[Video Solution](#)

[Text Solution](#)

The usage of the word 'break' is incorrect in sentences 2, 4 and 6.
In sentence 2, "breaking off with emotion" is incorrect. The correct usage should be "breaking with emotion". This refers to the change in voice because of strong emotions.
In sentence 4, "break from tradition" is incorrect. We need to say "break with family tradition" which means "to do something different".
In sentence 6, "broke away after the game" is incorrect. The correct usage is "broke after the game" which means "to scatter or disperse."
The remaining sentences 1, 3 and 5 have the appropriate usage of the word 'break'.
In sentence 1, "break a record" is an idiom which means "to do something that is better, faster etc than anything that has been done before".
In sentence 3, the idiom "break him in" means "to train or adapt for use".
In sentence 5, "break new ground" is an idiom which means to do something completely different, innovative and beneficial.
So, the required answers are 2, 4 and 6.

Ans: (246)

undefined

Q23. DIRECTIONS for questions 22 to 24: In each of the following questions, the word in capitals is used in six different sentences. Identify the option(s) in which the usage of the word is INCORRECT or INAPPROPRIATE and enter the number corresponding to the sentence(s) (in which the usage is INCORRECT or INAPPROPRIATE) in the input box provided below each question. [Note: Enter your answer in increasing order only. For example, if you think that sentences (1) and (3) have an inappropriate usage of the capitalized word, then enter 13 (but not 31) in the input box].

FIX

1. You need to have a good fix on Algebra fundamentals before you attempt these problems.
2. The brooch was fixed in place with a pin.
3. His rash decision got all of us on a fix.
4. The principal decided to fix the student's wagon once and for all.
5. The elections seem, in retrospect, to be fixed up from the beginning.
6. The company fixed the hotel room for the delegates well in advance.

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	82
Difficulty Level	D
Avg. time spent on this question by students who got this question right	76
% of students who attempted this question	43.21
% of students who got the question right of those who attempted	8.31

[Video Solution](#)

[Text Solution](#)

The usage of the word 'fix' is incorrect in sentences 3 and 5.

In (3), we need to say "in a fix". "In a fix" is an idiom which means "in a difficult or embarrassing situation, in a dilemma".

In (5), "fixed up" is incorrect usage. It would suffice to say "fixed from the beginning". "fixed" here means "rigged" i.e. to make unfair or illegal arrangements or to use deception to affect the result.

The remaining sentences have the correct usage of the word "fix".

In sentence (1), "to have a good fix on" means to understand clearly what something is like or to evaluate something correctly.

In sentence (2), "fixed in place" means to fasten something in position so that it cannot move or fall.

In sentence (4), "fix someone's wagon" means to get even with or punish someone or take revenge.

In sentence (6), "fixed the room" means "to make ready for a specific purpose".

So, the required answers are (3) and (5).

Ans: (35)

undefined

Q24. DIRECTIONS for questions 22 to 24: In each of the following questions, the word in capitals is used in six different sentences. Identify the option(s) in which the usage of the word is INCORRECT or INAPPROPRIATE and enter the number corresponding to the sentence(s) (in which the usage is INCORRECT or INAPPROPRIATE) in the input box provided below each question. [Note: Enter your answer in increasing order only. For example, if you think that sentences (1) and (3) have an inappropriate usage of the capitalized word, then enter 13 (but not 31) in the input box].

BUCKLE

1. The young colt took us by surprise and broke into a buckle.
2. My father does not start the car unless we buckle up our seat belts.
3. The old man's knees and legs buckled after the long walk and yet he buckled down and got on with the election work.
4. The immature person buckles by the mental baggage of indecisiveness.
5. The wheels of my motorcycle were badly buckled after the very long dusty ride in the desert.
6. The innocent man did not buckle under the false corruption charges framed against him by his opponents.

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

89

Time spent / Accuracy Analysis

Difficulty Level	D
Avg. time spent on this question by students who got this question right	68
% of students who attempted this question	29.8
% of students who got the question right of those who attempted	0.16

Video Solution

Text Solution

The usage of the word 'buckle' is incorrect in sentences 1, 2 and 4.

In sentence 1, we need to say "The young colt broke into a trot." The colt may buck or even break into someone's garden. "broke into a buckle" is incorrect.

In sentence 2, the reference is "to fasten one's seat belt". "buckle up your seat belt" would be wrong. It should be either 'Buckle up' (which means to buckle a seat belt) or 'Buckle your seat belt'. So the correct sentence is either: My father does not start the car unless we buckle up. OR My father does not start the car unless we buckle our seat belts.

In sentence 4, "buckles by" is incorrect. We need to say "buckles under". "Buckles under" is a phrasal verb which means "to be defeated by".

The remaining sentences have the correct usage of the word "buckle".

In sentence 3, 'buckled' is used to refer to the fact that the old man was tired, and his knees were ready to collapse. 'bucked down' is a phrasal verb which means "exert oneself or get busy".

In sentence 5, "buckled" means "to bend or collapse" or "to be distorted or contorted".

In sentence 6, "buckle under" means "yield, collapse or surrender".

Hence, the required answers are 1, 2 and 4.

Ans: (124)

undefined

Q25. DIRECTIONS for question 25: The sentences given in the following question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. The sentence labelled 6 is highlighted and is in its correct place. Decide on the proper order for the first five sentences and key in the sequence of five numbers as your answer, in the input box given below the question.

1. After the top brass boarded the available lifeboats, the remaining crew hastily constructed a raft, tying it to the boats.
2. Sustained by only a few casks of water and wine, they resorted to suicide, murder and cannibalism and only about ten survived.
3. Hans Werner Henze's oratorio "Das Floss der Medusa" was inspired by Theodore Gericault's painting of 1819, "The Raft of the Medusa".
4. Making no headway, the commanding officer ordered the towlines to be cut; more than 150 men and one woman on the raft were set adrift.
5. That depicts a calamity of three years earlier, when the Meduse, a French naval frigate, ran aground off the West African coast.
6. **Gericault's painting portrays a moment when an African crewman, Jean-Charles, raises a red flag to signal to a distant ship.**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	16
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	217
% of students who attempted this question	34.26
% of students who got the question right of those who attempted	42.09

[Video Solution](#)

[Text Solution](#)

The last sentence of the paragraph (sentence 6 which is in its correct place) talks about what Gericault's painting depicts.

On a careful reading of the sentences, it can be observed that sentence 3 is a general sentence that begins the paragraph. It has some proper nouns and introduces the topic of discussion: Theodore Gericault's painting of 1819, "The Raft of the Medusa". The remaining sentences among 1, 2, 4 and 5 would need a precedent and more substantiation. Sentence 3 is followed by sentence 5. The demonstrative pronoun "that" in sentence 5 refers to the painting "The Raft of the Medusa" in sentence 3. Also "Meduse, a French naval frigate" in sentence 5 links with "The Raft of the Medusa" in sentence 3. Sentence 5 also mentions the location of the mishap. Sentence 5 is best followed by sentence 1 as the next course of action. "ran aground off the West African coast" in sentence 5 is followed by "the top brass boarded the available lifeboats" in sentence 1. Sentences 1 and 4 form a mandatory pair. "constructed a raft, tying it to the boats" in sentence 1 is followed by "the commanding officer ordered the towlines to be cut on the raft" in sentence 4. So sentence 4 follows sentence 1. "more than 150 men and one woman on the raft were set adrift" in sentence 4 links with "sustained by only a few casks of water and wine, they resorted to suicide, murder and cannibalism" in sentence 2. Sentence 2 follows sentence 4. Sentence 6 concludes the para. "Gericault's painting portrays a moment" in sentence 6 mirrors "inspired by Theodore Gericault's painting of 1819, "The Raft of the Medusa"" in the introduction sentence 1. So, 35142.

Ans: (35142)

undefined

Q26. DIRECTIONS for question 26: Five sentences related to a topic are given in the question 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. On July 18th, Britain will decide whether it wants to remain in that club, when its members of parliament (MPs) debate whether to renew the country's Trident nuclear deterrent.
2. Perhaps 150 of Labour's 230 MPs will vote in favour of the plan, rebelling against their leader, Jeremy Corbyn.
3. The vote is also linked to Britain's image of itself.
4. Nine countries are believed to have nuclear weapons.
5. Theresa May has said it would be "sheer madness" to give it up, and the vote is expected to pass easily.

Your Answer:4123 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	107
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	116
% of students who attempted this question	54.23
% of students who got the question right of those who attempted	13.14

[Video Solution](#)

[Text Solution](#)

On a careful reading of the sentences, it can be observed that sentence 4 is a general sentence that begins the paragraph. It introduces the topic of discussion: countries which have nuclear weapons. Sentences 4 and 1 form a mandatory pair. "Britain will decide whether it wants to remain in that club" in sentence 1 links with "Nine countries are believed to have nuclear weapons" in sentence 4. So sentence 1 follows sentence 4. Sentence 1 is followed by sentence 5. "Theresa May has said it would be "sheer madness" to give it up" in sentence 5 links with "Britain will decide whether it wants to remain in that club" in sentence 1. Sentence 5 is followed by sentence 2. "the vote is expected to pass easily" in sentence 5 links with "will vote in favour of the plan" in sentence 2. "Theresa May has said it would be "sheer madness" to give it up" in sentence 5 means "Britain wants to remain in that club (sentence 1), the club of nine countries believed to have nuclear weapons (sentence 4). So, 4152. Sentence 3 is the odd sentence out as it will need further elaboration and substantiation. It also needs a precedent as it starts a new line of thought "vote is also linked to Britain's image of itself." So sentence 3 can be a part of another para much later in the flow.

Ans: (3)

undefined

Q27. DIRECTIONS for question 27: The sentences given in the following question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. The sentence labelled 6 is highlighted and is in its correct place. Decide on the proper order for the first five sentences and key in the sequence of five numbers as your answer, in the input box given below the question.

1. These psychologists, sociologists, economists and political scientists would determine, to the best of their ability, the probable strength of its social impact at different points in time.
2. At the level of social consequences, a new technology might be submitted for clearance to panels of behavioural scientists.
3. Where an innovation appears likely to entail seriously disruptive consequences, or to generate unrestrained accelerative pressures, these facts need to be weighed in a social cost-benefit accounting procedure.
4. In other cases, such innovations might still be released for diffusion - provided ample steps were taken in advance to offset their negative consequences.
5. In the case of some high-impact innovations, the technological appraisal agency might be empowered to seek restraining legislation, or to obtain an injunction forcing delay until full public discussion and study is completed.

6.

In this way, the society would not need to wait for disaster before dealing with its technology-induced problems.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	21
Avg. time spent on this question by all students	186
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	190
% of students who attempted this question	23.17
% of students who got the question right of those who attempted	12.79

[Video Solution](#)

[Text Solution](#)

The last sentence of the paragraph (sentence 6 which is in its correct place) has the keywords "technology-induced problems (of society)".

On a careful reading of the sentences, it can be observed that sentence 2 is the only general sentence that begins the paragraph. The remaining sentences viz sentence 1 (These psychologists ...), sentence 3 (these facts), sentence 4 (in other cases, such innovations), and sentence 5 (the technological appraisal agency) need a precedent and cannot begin the para. So sentence 2 introduces the topic of discussion: a new technology might be submitted for clearance to panels of behavioural scientists. Sentence 2 is followed by sentence 1. "These psychologists, sociologists, economists and political scientists" in sentence 1 points to "behavioural scientists" in sentence 2. Also "would determine the probable strength of its social impact at different points in time" in sentence 1 links with "a new technology might be submitted for clearance to panels of behavioural scientists" in sentence 2. Sentence 1 is followed by sentence 3. "would determine the probable strength" in sentence 1 links with "these facts need to be weighed in a social cost-benefit accounting procedure" in sentence 3. " its social impact" in sentence 1 links with "an innovation appears likely to entail seriously disruptive consequences" in sentence 3. Sentence 3 is followed by sentence 5. "In the case of some high-impact innovations" in sentence 5 runs parallel to "Where an innovation appears likely to entail seriously disruptive consequences" in sentence 3 and "its social impact" in sentence 1. "technological appraisal agency" in sentence 5 links with "panels of behavioural scientists" in sentence 2. Sentence 5 is followed by sentence 4. "In other cases" in sentence 4 contrasts "In the case of some high-impact innovations" in sentence 5. "such innovations might still be released for diffusion" in sentence 4 contrasts "seek restraining legislation, or to obtain an injunction forcing delay" in sentence 5. Also "until full public discussion and study is completed" in sentence 5 links with "provided ample steps were taken in advance to offset their negative consequences" in sentence 4. Sentence 6 concludes the paragraph. "not need to wait for disaster before dealing with its technology-induced problems" in sentence 6 follows from the points mentioned in sentences 5 and 4. So, 21354.

Ans: (21354)

undefined

Q28. DIRECTIONS for question 28: The question given below has a paragraph which is followed by four alternative summaries. Choose the alternative that best captures the essence of the paragraph.

The fortunes of Japan's large trading houses have tended to fluctuate with those of the country as a whole, from its opening-up in the 19th century, through the disaster of war in the 1940s, to the highs and lows of the bubble era. But lately the traders have decoupled. While much of Japan is stagnant, the likes of Mitsubishi and Mitsui have become prime movers in the world's natural-resources boom. This is surprising. In an age of land-grabbing state capitalism, the sogo shosha, as they are collectively known, could easily have been trampled underfoot by Chinese energy giants or sovereign-wealth funds. Instead they have recently pulled off a string of huge deals involving North American shale gas, vast (and disputed) Chilean copper mines, and Australian liquefied natural gas (LNG).

- a) Unlike those of the country, the fortunes of large Japanese trading houses have tended to fluctuate since the 19th century. But lately companies like Mitsubishi and Mitsui have become prime movers in the natural-resources boom and have bagged a string of prestigious deals. This is surprising considering today's land grabbing state capitalism.
- b) With the fortunes of the country, those of large Japanese trading houses have fluctuated but, of late, companies like Mitsubishi and Mitsui have become prime movers in the natural-resources boom and have secured prestigious deals. This comes as a surprise in today's land grabbing state capitalism.
- c) The fortunes of large Japanese trading houses and those of the country have been fluctuating since the 19th century but, of late, companies like Mitsubishi and Mitsui have become important players in the natural-resources boom and have bagged prestigious deals like North American shale gas, vast (and disputed) Chilean copper mines, and Australian liquefied natural gas (LNG).
- d) The fortunes of Japan's trading houses, like those of the country, have been fluctuating since the 19th century. But lately the trading houses have become prime players and have secured prestigious deals. This is surprising considering today's land grabbing capitalism. Your answer is incorrect

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	164
Avg. time spent on this question by all students	187
Difficulty Level	D
Avg. time spent on this question by students who got this question right	190
% of students who attempted this question	29.41
% of students who got the question right of those who attempted	35.07

[Video Solution](#)

[Text Solution](#)

The following are the main points of the paragraph:

- (a) The fortunes of Japan's trading houses like those of the country have been fluctuating since the 19th century.
- (b) Lately the trading houses have become prime players and have secured prestigious deals.
- (c) This is surprising in today's age of land grabbing state capitalism.

Option A: Choice A cannot be called the best summary because it distorts the original by saying that the fortunes of Japanese large trading houses unlike those of the country have tended to fluctuate whereas the passage says that the fortunes of the trading houses with those of the country have tended to fluctuate.

Option B: Choice B is the best summary.

Option C: Choice C is not the best summary because it mentions trivial details like examples and fails to mention point (c).

Option D: Choice D is incorrect as it says 'capitalism' instead of state capitalism and does not say in what the trading houses have become prime players (natural resources). Choice (B)

undefined

Q29. DIRECTIONS for question 29: Five sentences related to a topic are given in the question 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. She is likely to star in "The Woman King" alongside Viola Davis, a fellow Oscar winner.

2. In their exploration of myth, superstition, dreams, power, fear and magical realism, these historical novels draw from the tradition of storytelling across Africa.

3. Even before "Black Panther" became the highest-grossing superhero movie of all time in America, Hollywood film-makers were casting around for stories to hitch to the Africa bandwagon.

4. Set in West Africa and based on historical events surrounding an all-female military unit that fought to protect the Kingdom of Dahomey from the French in the 18th and 19th centuries, the film has a potent mix of clear plot, black heroes and as many gorgeous warrior women as you can shake a stick at.

5. Lupita Nyong'o, one of the stars of "Black Panther", set in the fictional African kingdom of Wakanda, is an increasingly powerful Hollywood producer, and looks set to be one of the first out of the blocks.

Your Answer:1 □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	169
Avg. time spent on this question by all students	122
Difficulty Level	D
Avg. time spent on this question by students who got this question right	119
% of students who attempted this question	45.82
% of students who got the question right of those who attempted	50.86

[Video Solution](#)

[Text Solution](#)

On a careful reading of the sentences, it can be observed that sentence 3 is a general sentence that can begin the para. It introduces the topic of discussion: "Hollywood film-makers were casting around for stories". It also makes a mention of the movie "Black Panther". Sentence 3 is linked with sentence 5. Sentence 5 provides more details about the movie "Black Panther". It introduces Lupita Nyong'o, one of the stars of "Black Panther" as an increasingly powerful Hollywood producer. "Before Black Panther casting around for stories to hitch to the Africa bandwagon" in sentence 3 links with "stars of "Black Panther", set in the fictional African kingdom of Wakanda, looks set to be one of the first out of the blocks" in sentence 5. "out of the blocks" is an idiom which means "at or from the starting position, as in a race or contest". Sentence 5 is followed by sentence 1. "Lupita Nyong'o looks set to be one of the first out of the blocks" in sentence 5 links with "She is likely to star in "The Woman King" alongside Viola Davis, a fellow Oscar winner" in sentence 1. Sentence 4 concludes the para with more details about the film "the Woman King". Since the "Black Panther" movie is set in the fictional African kingdom of Wakanda, it can be inferred that "Set in West Africa and based on historical events surrounding" can only be attributed to the other film "The Woman King". Hence sentence 4 succeeds sentence 1. So, 3514. Sentence 2 talks about historical novels drawing from the tradition of storytelling across Africa. It is the odd sentence out as the other sentences refer to African movies.

Ans: (2)

undefined

Q30. DIRECTIONS for question 30: In the question, there are five sentences, with each sentence having a pair of words, numbered 1 and 2, that are italicized and highlighted. In each sentence, from the pairs of italicized and highlighted words, select the appropriate word to form the correct sentence. Then enter (in the input box provided below the question) the correct sequence of numbers corresponding to the appropriate words in each of the sentences, in the same order that the

sentences appear in the question. For example, if you think that the appropriate words for the sentences are 1, 2, 1, 2 and 2 respectively, then enter your answer as 12122.

- i. McKinsey and Company has made a **discreet** (1) / **discrete** (2) foray into environmental consulting and energy economics.
- ii. After years of disagreement, the two warring tribes came to an **amicable** (1) / **amiable** (2) settlement.
- iii. His **complaisant** (1) / **complacent** (2) behaviour led to his underestimating the extent to which the war would impact his business.
- iv. He continued the long distance on foot until he reached a **pellucid** (1) / **placid** (2) lake in the middle of the forest.
- v. **Corporal** (1) / **corporeal** (2) is a military rank in use in some form by many militaries and by some police forces or other uniformed organizations in the world.

Your Answer:11221 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	198
Avg. time spent on this question by all students	116
Difficulty Level	M
Avg. time spent on this question by students who got this question right	104
% of students who attempted this question	44.17
% of students who got the question right of those who attempted	13.72

[Video Solution](#)

[Text Solution](#)

Discreet means intentionally unobtrusive, careful, circumspect in order to keep something confidential. Discrete means individually separate and distinct, disconnected, discontinuous. Discreet is the answer in the first sentence. The answer is (1).

Amicable is the right word in the second sentence given the hints 'disagreement' and 'warring tribes'. Amicable means characterized by friendliness and absence of discord. Amiable means cordial and having or displaying a friendly and pleasant manner. The answer is (1).

Complacent means self-satisfied and hence unconcerned; complaisant means inclined to please or oblige. Here the context requires the use of 'complacent'. Hence (2) is the answer.

Placid here means calm, tranquil and peaceful, with little movement or activity. Pellucid means translucently clear; easily understood or lucid. Here (2) is the correct answer. Corporal is a rank of non-commissioned officer in the army and is the answer here. Corporeal relates to the body. Here (1) is appropriate.

The correct answer is 11221.

Ans: (11221)

undefined

Q31. DIRECTIONS for question 31: The question given below has a paragraph which is followed by four alternative summaries. Choose the alternative that best captures the essence of the paragraph.

Origination is very important to bring about a communication. People with low imagination communicate mainly regarding

subjects that are handed to them by external sources. They wait for an exterior circumstance to bring about an interaction; otherwise they do not engage by 'creating' a communication. They either have a compulsively irresistible urge towards doing something, or are inhibited and behave awkwardly and unnaturally in communicating. If they manage to engage, they often turn sharply towards derailment of the dialogue, and bring about a good degree of resentment, ill will and unwanted conclusions. As a result, we can conclude, that a pleasant and engaging conversation requires the participation of two imaginative minds, with similar or balanced endowment of creative impulses, to mutually create the art of communication.

- a) The people having difficulties with initiating a conversation are generally accustomed to pre-packaged amusements. They find it difficult to originate a thought on their own or to be inspired by their own imagination; and they become somewhat vexed when faced with an 'imaginative conversationalist' with whom they cannot really interact.
- b) The people who do not originate a conversation, or do not engage imaginatively, are inherently dependent upon others to give them primal reasons to engage in a conversation; this is due to being endowed with very little imagination. We can say that communication is the mirror of one's upbringing.
- c) People with low imagination depend on external sources for creating a communicative interaction. More often than not, they may behave awkwardly while communicating but sometimes, they may derail the dialogue leading to negative emotions. Communication needs the right balance of imagination and creativity.
- d) People with low imagination depend on external sources for bringing about a communicative interaction. They may behave compulsively or awkwardly while communicating or may derail the dialogue leading to ill will and unnecessary interpretations. The art of communication requires the participation of imaginative minds with a balanced measure of creative impulses.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	10
Avg. time spent on this question by all students	160
Difficulty Level	M
Avg. time spent on this question by students who got this question right	160
% of students who attempted this question	26.19
% of students who got the question right of those who attempted	78.84

[Video Solution](#)

[Text Solution](#)

The main points of the para are:

- (a) People with low imagination wait for an exterior circumstance to bring about an interaction; otherwise they do not engage by 'creating' a communication.
- (b) They either have a compulsively irresistible urge towards doing something, or behave awkwardly in communicating. If they manage to engage, they often turn sharply towards derailment of the dialogue, and bring about a good degree of resentment.
- (c) Two imaginative minds, with similar or balanced endowment of creative impulses, are required to mutually create the art of communication.

Option A: Choice A has information which is out of scope. Terms like "prepackaged amusements" and "imaginative conversationalist" have not been mentioned in the para. Choice A is also incomplete as a summary.

Option B: The first sentence of choice B is a summary of point (b) mentioned above. But "communication is the mirror of one's upbringing" is unsubstantiated in the para.

Option C: Choice C is a close answer. But "depend on external sources for creating a communicative interaction" is incorrect. "more often than not" and "sometimes" given in the second sentence of choice C cannot be deduced from the para.

Option D: Choice D is an apt summary as it concisely mentions all the main points of the para.

Choice (D)

Q32. DIRECTIONS for question 32: In the question, there are four sentences, with each sentence having a pair/ pairs of words, numbered 1 and 2, that are italicized and highlighted. In each sentence, from the pairs of italicized and highlighted words, select the appropriate word to form the correct sentence. Then enter, in the input box provided below the question, the correct sequence of numbers corresponding to the appropriate words in each of the sentences, in the same order that the sentences appear in the question. For example, if you think that the appropriate words for the sentences are 1, 2, 1, 2 and 2 respectively, then enter your answer as 1212.

- i. There is ***credible*** (1) / ***creditable*** (2) evidence of the politician's involvement in the crime.
- ii. When his doctor recommended chemotherapy to treat his cancer, Ram was ***ambiguous*** (1) / ***ambivalent*** (2) about participating in the chemo sessions because he was fully aware of the side-effects of the same.
- iii. The Delhi police has passed an ***ordinance*** (1) / ***ordnance*** (2) disallowing people from mimicking the risky Kiki challenge on Indian roads.
- iv. In the first half of 2015, India attracted ***astaggering*** (1) / ***whooping*** (2) foreign-direct investment of \$42 billion ***far-reaching*** (1) / ***outpacing*** (2) the \$28 billion and \$27 billion of China and the US respectively.

Your Answer:12122 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	110
Avg. time spent on this question by all students	105
Difficulty Level	M
Avg. time spent on this question by students who got this question right	128
% of students who attempted this question	43.99
% of students who got the question right of those who attempted	11.68

[Video Solution](#)

[Text Solution](#)

Credible means believable, reliable and *creditable* means deserving credit or praise; *credible* fits into the first sentence since it is used as believable or reliable. So (1).

Ambiguous means vague or unclear; but *ambivalent*, which means having opposing views or feelings about the same thing, is the appropriate word for the second sentence. Hence (2).

Ordinance means an authoritative order or decree. *Ordnance* means weapons, guns, cannons etc and does not fit the context of the third sentence. So (1).

In the fourth sentence, in the first case, '*staggering*' is the correct choice, as it is used to show the astoundingly large amount of FDI. '*Whooping*' means a loud cry or scream or yelp or shriek and is inappropriate here. So (1). In the second case, '*outpacing*', which means surpassing, is the correct answer. '*Far-reaching*' means having important and widely applicable effects or implications and is incorrect. So, (2).

The correct answer is 12112.

Ans: (12112)

undefined

Q33. DIRECTIONS for question 33: Five sentences related to a topic are given in the question 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. Aida Edemariam's "The Wife's Tale" savours her grandmother's life which is a life scented with ginger and garlic, cardamom and basil, which spans emperors, revolutions, invasions, conquests and liberation.
2. It extends beyond the warm flavours of ginger and cardamom that spice the languidly served stews.
3. Best of all is the whiff of green coffee beans roasted in a cast-iron skillet, which is carried around the table to give each guest a full measure of its aroma.
4. There is also the tactile joy of tearing and rolling injera, a spongy and bubbly flat bread, before using it to mop up sauces.
5. A home-cooked Ethiopian meal is a sensual journey.

Your Answer:5 □ Your answer is incorrect

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	99
Difficulty Level	D
Avg. time spent on this question by students who got this question right	95
% of students who attempted this question	40.86
% of students who got the question right of those who attempted	41.54

[Video Solution](#)

[Text Solution](#)

On a careful reading of the sentences, it can be observed that sentence 5 is a general sentence that begins the paragraph. It introduces the topic of discussion: a sensual home-cooked Ethiopian meal. Sentence 5 is followed by sentence 2. Sentence 2 mentions the first reason for terming a home-cooked Ethiopian meal as a sensual journey (sentence 5). "warm flavours of ginger and cardamom that spice the languidly served stews" in sentence 2 points to "sensual journey" in sentence 5. Sentence 4 follows sentence 2 as sentence 4 mentions another reason for terming a home-cooked Ethiopian meal as a sensual journey (sentence 5). "There is also the tactile joy of tearing and rolling injera" in sentence 4 also links with the main point given in the introduction sentence 5. Sentence 3 gives us another reason: Best of all is the whiff of green coffee beans roasted ... Sentences 2, 4 and 3, in that order, substantiate and exemplify "Ethiopian meal is a sensual journey" given earlier in sentence 5. So, 5243. Sentence 1 shifts the discussion from "Ethiopian meal" to written work, "Aida Edemariam's "The Wife's Tale", which, we understand, discusses a person's life, not just food.

Ans: (1)

undefined

Q34. DIRECTIONS for question 34: The sentences given in the following question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. The sentence labelled 6 is highlighted and is in its correct place. Decide on the proper order for the first five sentences and key in the sequence of five numbers as your answer, in the input box given below the question.

1. Diverting water from the south of China to the north is not the country's only crazily ambitious drought-alleviation scheme.
2. When the water-laden air of the monsoon hits the particles, ice crystals are supposed to form and later fall as rain or snow.
3. It has built 500 burners on Himalayan ridges in the path of the monsoon and has lofted particles of silver iodide from the burners into the atmosphere.
4. The government is also thinking about setting up what would be the world's largest cloud-seeding operation in Tibet.
5. China already uses the cloud-seeding technique more than most.
6. **The hope is to build tens of thousands of these burners and increase rainfall by up to 10bn cubic metres a year in an area the size of Iran that feeds the Yangzi and Yellow rivers as well as others upon which China's neighbours depend.**

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	208
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	193
% of students who attempted this question	27.91
% of students who got the question right of those who attempted	21.45

[Video Solution](#)

[Text Solution](#)

On a careful reading of the sentences, it can be observed that sentence 1 is a general sentence that begins the paragraph. It introduces the topic of discussion: Diverting water from the south of China to the north, the country's crazily ambitious drought-alleviation scheme. The word 'also' in sentence 4 links with "not.... only...." In sentence 1. The word 'already' in sentence 5 cannot follow "not only...." In sentence 1. Hence, sentences 1 and 4 form a mandatory pair. "not the country's only crazily ambitious" in sentence 1 links with "also thinking about setting up" in sentence 4. And "country's crazily ambitious drought-alleviation scheme" in sentence 1 links with "world's largest cloud-seeding operation in Tibet" in sentence 4. So sentence 1 is followed by sentence 4. Sentence 4 is followed by sentence 5. "China already uses the cloud-seeding technique more than most" in sentence 5 attempts to correct "thinking about setting up what would be the world's largest cloud-seeding operation in Tibet" in sentence 4. Sentence 5 is followed by sentence 3. "China already uses the cloud-seeding technique more" in sentence 5 links with "It has built 500 burners on Himalayan ridges in the path of the monsoon into the atmosphere" in sentence 3. Sentence 3 is followed sequentially by sentence 2. "water-laden air of the monsoon hits the particles, ice crystals are supposed to form and later fall as rain or snow" in sentence 2 links with "system that involves lofting particles of silver iodide from the machines into the atmosphere" in sentence 3. Sentence 2 is then followed by sentence 6 which concludes the para. "ice crystals are supposed to form and later fall as rain or snow" in sentence 2 links with "increase rainfall by up to 10bn cubic metres a year in an area the size of Iran" in sentence 6. "The hope is to build tens of thousands of these burners" in sentence 6 links with "built 500 burners on Himalayan ridges in the path of the monsoon" mentioned earlier in sentence 5. "area the size of Iran that feeds the Yangzi and Yellow rivers as well as others upon which China's neighbours depend" in the conclusion sentence 6 points to "not the country's only crazily ambitious drought-alleviation scheme" in sentence 1 and "world's largest cloud-seeding operation in Tibet" in sentence 4. So, 14532.

Ans: (14532)

undefined

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

In a factory, there are exactly five machines - Machine A through Machine E - which manufacture hinges. Each machine can manufacture hinges either at full efficiency or at half efficiency. The number of hinges that a machine working at half efficiency will manufacture in a certain time is half that of the machine working at full efficiency will manufacture in the same time.

The number of hinges manufactured in an hour by Machine A through Machine E, when working at full efficiency, is 20, 26, 18, 28 and 14 respectively.

The following graph provides, during a certain year, the number of hours that each machine worked at full efficiency and the number of hours that each machine worked at half efficiency:

All the questions that follow pertain only to the hinges manufactured in that year.

Q1. DIRECTIONS for questions 1 and 2: Type in your answer in the input box provided below the question.

What is the total number of hinges manufactured by the five machines?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	34
Avg. time spent on this question by all students	412
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	414
% of students who attempted this question	52.05
% of students who got the question right of those who attempted	55.81

[Video Solution](#)

[Text Solution](#)

Number of hinges manufactured by Machine A = $20 \times (250 + 90) = 6800$
Number of hinges manufactured by Machine B = 7410
Number of hinges manufactured by Machine C = $18 \times (160 + 95) = 4590$
Number of hinges manufactured by Machine D = 10360
Number of hinges manufactured by Machine E = $14 \times (240 + 185) = 5950$
Total number of hinges manufactured = 35110 Ans: (35110)

undefined

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

In a factory, there are exactly five machines - Machine A through Machine E - which manufacture hinges. Each machine can manufacture hinges either at full efficiency or at half efficiency. The number of hinges that a machine working at half efficiency will manufacture in a certain time is half that of the machine working at full efficiency will manufacture in the same time.

The number of hinges manufactured in an hour by Machine A through Machine E, when working at full efficiency, is 20, 26, 18, 28 and 14 respectively.

The following graph provides, during a certain year, the number of hours that each machine worked at full efficiency and the number of hours that each machine worked at half efficiency:

All the questions that follow pertain only to the hinges manufactured in that year.

Q2. DIRECTIONS for questions 1 and 2: Type in your answer in the input box provided below the question.

When working at half efficiency, the number of defective hinges that any machine manufactures is 20% of the total number of hinges manufactured; when working at full efficiency, the number of defective hinges that any machine manufactures is 40% of the total number of hinges manufactured.

What is the total number of defective hinges manufactured by Machine A and Machine B?

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	205
Difficulty Level	E
Avg. time spent on this question by students who got this question right	188
% of students who attempted this question	47
% of students who got the question right of those who attempted	53.23

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned} \text{Total number of defective hinges manufactured by A} &= 250 \times 20 \times 0.4 + 180 \times \frac{20}{2} \times \\ 0.2 &= 2360 \\ \text{Total number of defective hinges manufactured by B} &= 150 \times 26 \times 0.4 + 270 \times 13 \times \\ 0.2 &= 2262 \\ \text{Required sum} &= 4622 \end{aligned} \quad \text{Ans: (4622)}$$

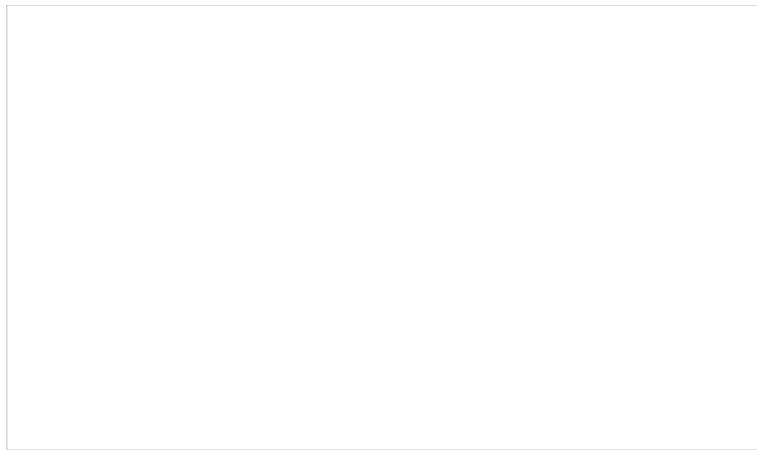
undefined

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

In a factory, there are exactly five machines - Machine A through Machine E - which manufacture hinges. Each machine can manufacture hinges either at full efficiency or at half efficiency. The number of hinges that a machine working at half efficiency will manufacture in a certain time is half that of the machine working at full efficiency will manufacture in the same time.

The number of hinges manufactured in an hour by Machine A through Machine E, when working at full efficiency, is 20, 26, 18, 28 and 14 respectively.

The following graph provides, during a certain year, the number of hours that each machine worked at full efficiency and the number of hours that each machine worked at half efficiency:



All the questions that follow pertain only to the hinges manufactured in that year.

Q3. DIRECTIONS for questions 3 and 4: Select the correct alternative from the given choices.

When working at half efficiency, the number of defective hinges that any machine manufactures is 20% of the total number of hinges manufactured; when working at full efficiency, the number of defective hinges that any machine manufactures is 40% of the total number of hinges manufactured.

Which machine manufactured the highest number of defective hinges?

- a) **Machine E**
- b) **Machine B**
- c) **Machine A**
- d) **Machine D**

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	131
Difficulty Level	E
Avg. time spent on this question by students who got this question right	130
% of students who attempted this question	45.73
% of students who got the question right of those who attempted	85.02

[Video Solution](#)

[Text Solution](#)

Total number of defective hinges manufactured by A = 2360

Total number of defective hinges manufactured by B = 2262

Total number of defective hinges manufactured by C = $160 \times 18 \times 0.4 + 190 \times 9 \times 0.2 = 1494$

Total number of defective hinges manufactured by D = $210 \times 28 \times 0.4 + 320 \times 14 \times 0.2 = 3248$

Total number of defective hinges manufactured by E = $240 \times 14 \times 0.4 + 370 \times 7 \times 0.2 = 1862$

Hence, the highest number of defective hinges were manufactured by D.

Choice (D)

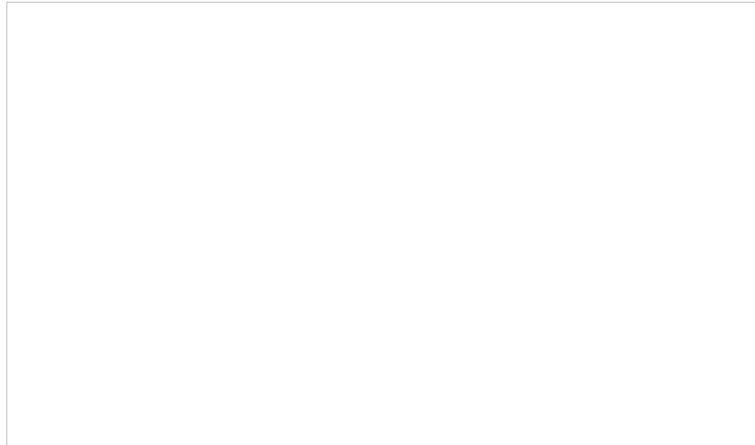
undefined

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

In a factory, there are exactly five machines - Machine A through Machine E - which manufacture hinges. Each machine can manufacture hinges either at full efficiency or at half efficiency. The number of hinges that a machine working at half efficiency will manufacture in a certain time is half that of the machine working at full efficiency will manufacture in the same time.

The number of hinges manufactured in an hour by Machine A through Machine E, when working at full efficiency, is 20, 26, 18, 28 and 14 respectively.

The following graph provides, during a certain year, the number of hours that each machine worked at full efficiency and the number of hours that each machine worked at half efficiency:



All the questions that follow pertain only to the hinges manufactured in that year.

Q4. DIRECTIONS for questions 3 and 4: Select the correct alternative from the given choices.

When working at half efficiency, the number of defective hinges that any machine manufactures is 20% of the total number of hinges manufactured; when working at full efficiency, the number of defective hinges that any machine manufactures is 40% of the total number of hinges manufactured.

The difference between the number of defective hinges manufactured by Machine D and the non-defective hinges manufactured by Machine E is

- a) **820.**
- b) **840.**
- c) **860.**
- d) **880.**

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	164
Difficulty Level	E
Avg. time spent on this question by students who got this question right	159
% of students who attempted this question	32.2
% of students who got the question right of those who attempted	87.52

[Video Solution](#)

[Text Solution](#)

Number of defective hinges manufactured by D = 3248

Number of non-defective hinges manufactured by E = 5950 – 1862 = 4088

Required difference = 4088 – 3248 = 840

Choice (B)

undefined

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

Six persons, Amit, Kiran, Neeraj, Dinesh, Venkat and Chirag, were sitting in six equally spaced chairs around a circular table. Of the six, two persons were Doctors, two were Lawyers, one was an Accountant and one was a Manager.

It is also known that

- i. Neeraj, who was neither a Doctor nor sitting to the left of one, was sitting opposite a Lawyer.
- ii. Dinesh was sitting next to a Lawyer, while Chirag was not adjacent to the Accountant.
- iii. the two Doctors were sitting next to each other and one of them was Amit.
- iv. the Manager, who was not Neeraj, was sitting opposite Kiran, who, in turn, was sitting adjacent to the Accountant.

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

Who is the Accountant?

- a) **Dinesh**
- b) **Chirag**
- c) **Neeraj** Your answer is correct
- d) **Cannot be determined**

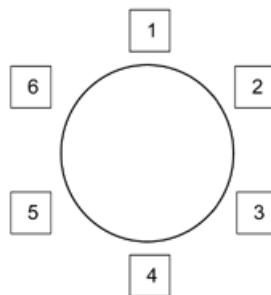
Time spent / Accuracy Analysis

Time taken by you to answer this question	959
Avg. time spent on this question by all students	562
Difficulty Level	E
Avg. time spent on this question by students who got this question right	550
% of students who attempted this question	54.73
% of students who got the question right of those who attempted	75.35

[Video Solution](#)

[Text Solution](#)

Let 1 to 6 represent the positions of the chair around the circular table as shown in the figure below.



Let Neeraj be at 1. From (i), the person at 4 must be a Lawyer. From (iii), the two Doctors must be can be at 5 and 6 OR 2 and 3. However, from (i), the two Doctors cannot be at 5 and 6 (since Neeraj was not to the left of the Doctor).

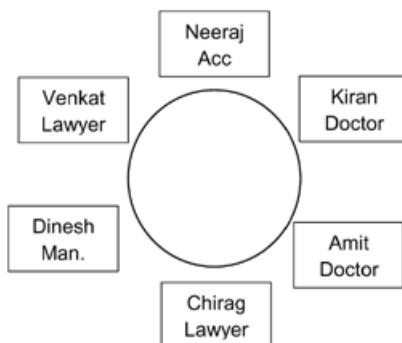
Hence, the two Doctors must be at 2 and 3.

From (iv), the Manager must be at 5 or 6. If the Manager is at 6, Kiran must be at 3. Also, Kiran must be sitting adjacent to an Accountant , which is not possible.

Hence, the Manager must be at 5. Kiran must be at 2. Neeraj must be the Accountant. The person at 6 must be a Lawyer.

From (iii), Amit must be at 3. From (ii), Dinesh must be at 5 (the only place adjacent to any lawyer which is not occupied). From (ii), Chirag must be 4 and Venkat must be at 6.

The following diagram provides their positions:



Neeraj is the Accountant.

Choice (C)

undefined

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

Six persons, Amit, Kiran, Neeraj, Dinesh, Venkat and Chirag, were sitting in six equally spaced chairs around a circular table. Of the six, two persons were Doctors, two were Lawyers, one was an Accountant and one was a Manager.

It is also known that

- i.
Neeraj, who was neither a Doctor nor sitting to the left of one, was sitting opposite a Lawyer.
- ii.
Dinesh was sitting next to a Lawyer, while Chirag was not adjacent to the Accountant.

- iii. the two Doctors were sitting next to each other and one of them was Amit.
- iv. the Manager, who was not Neeraj, was sitting opposite Kiran, who, in turn, was sitting adjacent to the Accountant.

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

What is the occupation of the person sitting opposite the Manager?

a) Doctor Your answer is correct

b) Lawyer

c) Accountant

d) Cannot be determined

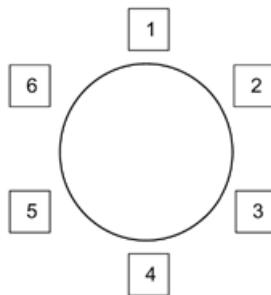
Time spent / Accuracy Analysis

Time taken by you to answer this question	21
Avg. time spent on this question by all students	45
Difficulty Level	E
Avg. time spent on this question by students who got this question right	40
% of students who attempted this question	53.83
% of students who got the question right of those who attempted	81.22

[Video Solution](#)

[Text Solution](#)

Let 1 to 6 represent the positions of the chair around the circular table as shown in the figure below.



Let Neeraj be at 1. From (i), the person at 4 must be a Lawyer. From (iii), the two Doctors must be can be at 5 and 6 OR 2 and 3. However, from (i), the two Doctors cannot be at 5 and 6 (since Neeraj was not to the left of the Doctor).

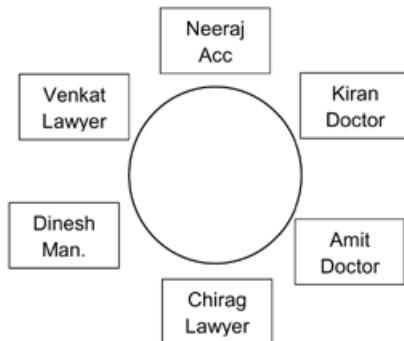
Hence, the two Doctors must be at 2 and 3.

From (iv), the Manager must be at 5 or 6. If the Manager is at 6, Kiran must be at 3. Also, Kiran must be sitting adjacent to an Accountant , which is not possible.

Hence, the Manager must be at 5. Kiran must be at 2. Neeraj must be the Accountant. The person at 6 must be a Lawyer.

From (iii), Amit must be at 3. From (ii), Dinesh must be at 5 (the only place adjacent to any lawyer which is not occupied). From (ii), Chirag must be 4 and Venkat must be at 6.

The following diagram provides their positions:



The person sitting opposite the Manager is a Doctor.

Choice (A)

undefined

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

Six persons, Amit, Kiran, Neeraj, Dinesh, Venkat and Chirag, were sitting in six equally spaced chairs around a circular table. Of the six, two persons were Doctors, two were Lawyers, one was an Accountant and one was a Manager.

It is also known that

- i. Neeraj, who was neither a Doctor nor sitting to the left of one, was sitting opposite a Lawyer.
- ii. Dinesh was sitting next to a Lawyer, while Chirag was not adjacent to the Accountant.
- iii. the two Doctors were sitting next to each other and one of them was Amit.
- iv. the Manager, who was not Neeraj, was sitting opposite Kiran, who, in turn, was sitting adjacent to the Accountant.

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

Who is sitting to the left of Chirag?

- a) **Venkat**
- b) **Amit**
- c) **Dinesh** Your answer is correct
- d) **Kiran**

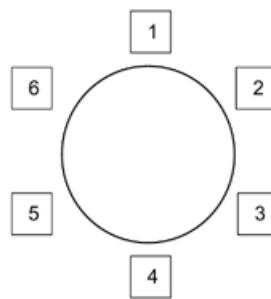
Time spent / Accuracy Analysis

Time taken by you to answer this question	11
Avg. time spent on this question by all students	46
Difficulty Level	E
Avg. time spent on this question by students who got this question right	39
% of students who attempted this question	49.48
% of students who got the question right of those who attempted	69.04

[Video Solution](#)

[Text Solution](#)

Let 1 to 6 represent the positions of the chair around the circular table as shown in the figure below.



Let Neeraj be at 1. From (i), the person at 4 must be a Lawyer. From (iii), the two Doctors must be can be at 5 and 6 OR 2 and 3. However, from (i), the two Doctors cannot be at 5 and 6 (since Neeraj was not to the left of the Doctor).

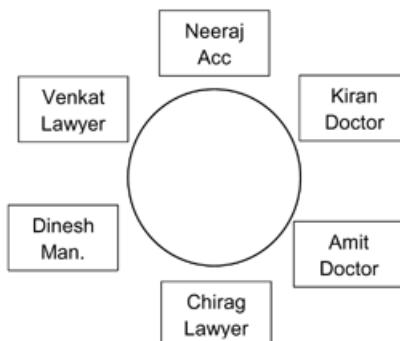
Hence, the two Doctors must be at 2 and 3.

From (iv), the Manager must be at 5 or 6. If the Manager is at 6, Kiran must be at 3. Also, Kiran must be sitting adjacent to an Accountant, which is not possible.

Hence, the Manager must be at 5. Kiran must be at 2. Neeraj must be the Accountant. The person at 6 must be a Lawyer.

From (iii), Amit must be at 3. From (ii), Dinesh must be at 5 (the only place adjacent to any lawyer which is not occupied). From (ii), Chirag must be 4 and Venkat must be at 6.

The following diagram provides their positions:



Dinesh is sitting to the left of Chirag.

Choice (C)

undefined

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

Six persons, Amit, Kiran, Neeraj, Dinesh, Venkat and Chirag, were sitting in six equally spaced chairs around a circular table. Of the six, two persons were Doctors, two were Lawyers, one was an Accountant and one was a Manager.

It is also known that

- i.
Neeraj, who was neither a Doctor nor sitting to the left of one, was sitting opposite a Lawyer.
- ii.
Dinesh was sitting next to a Lawyer, while Chirag was not adjacent to the Accountant.

- iii. the two Doctors were sitting next to each other and one of them was Amit.
- iv. the Manager, who was not Neeraj, was sitting opposite Kiran, who, in turn, was sitting adjacent to the Accountant.

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

Who is a Lawyer who is sitting adjacent to a Doctor?

- a) **Venkat**
- b) **Chirag** Your answer is correct
- c) **Dinesh**
- d) **None of the six persons**

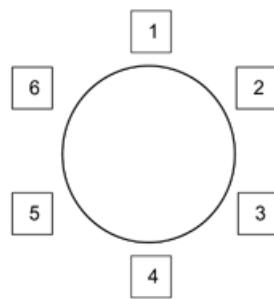
Time spent / Accuracy Analysis

Time taken by you to answer this question	17
Avg. time spent on this question by all students	43
Difficulty Level	E
Avg. time spent on this question by students who got this question right	35
% of students who attempted this question	47.19
% of students who got the question right of those who attempted	78.21

[Video Solution](#)

[Text Solution](#)

Let 1 to 6 represent the positions of the chair around the circular table as shown in the figure below.



Let Neeraj be at 1. From (i), the person at 4 must be a Lawyer. From (iii), the two Doctors must be can be at 5 and 6 OR 2 and 3. However, from (i), the two Doctors cannot be at 5 and 6 (since Neeraj was not to the left of the Doctor).

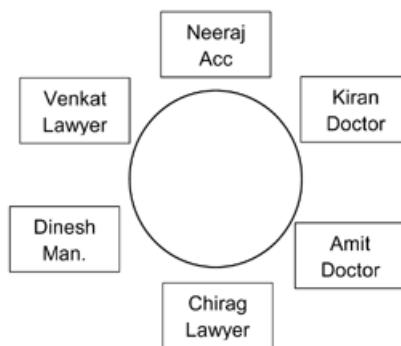
Hence, the two Doctors must be at 2 and 3.

From (iv), the Manager must be at 5 or 6. If the Manager is at 6, Kiran must be at 3. Also, Kiran must be sitting adjacent to an Accountant , which is not possible.

Hence, the Manager must be at 5. Kiran must be at 2. Neeraj must be the Accountant. The person at 6 must be a Lawyer.

From (iii), Amit must be at 3. From (ii), Dinesh must be at 5 (the only place adjacent to any lawyer which is not occupied). From (ii), Chirag must be 4 and Venkat must be at 6.

The following diagram provides their positions:



Chirag is the only Lawyer sitting adjacent to a Doctor.

Choice (B)

undefined

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

The table below provides the prices of a movie ticket and the total number of seats in six different theatres - Horroplex, Complex, Cineplex, Docuplex, Actiplex and Dramplex. If, for any show of a movie, the number of tickets sold by a theatre equals the number of seats in the theatre, the theatre is said to have earned its Peak Revenue for that show.

Theatre	Price per ticket (in Rs.)	Number of Seats
Horroplex	125	180
Complex	115	150
Cineplex	135	195
Docuplex	150	105
Actiplex	165	125
Dramplex	140	135

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

The Peak Revenue of Docuplex as a percentage of the Peak Revenue of Complex is

- a) **88.7%**.
- b) **90.7%**.
- c) **91.3%**. Your answer is correct
- d) **92.1%**.

Time spent / Accuracy Analysis

Time taken by you to answer this question	172
Avg. time spent on this question by all students	170
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	163
% of students who attempted this question	56.84
% of students who got the question right of those who attempted	92.34

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}\text{Peak Revenue of Docuplex} &= 150 \times 105 \\ \text{Peak Revenue of Complex} &= 115 \times 150 \\ \text{Required percentage} &= 105/115 = 91.3\%\end{aligned}$$

Choice (C)

undefined

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

The table below provides the prices of a movie ticket and the total number of seats in six different theatres - Horroplex, Complex, Cineplex, Docuplex, Actiplex and Dramplex. If, for any show of a movie, the number of tickets sold by a theatre equals the number of seats in the theatre, the theatre is said to have earned its Peak Revenue for that show.

Theatre	Price per ticket (in Rs.)	Number of Seats
Horroplex	125	180
Complex	115	150
Cineplex	135	195
Docuplex	150	105
Actiplex	165	125
Dramplex	140	135

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

If each theatre ran a show with an equal number of empty seats, which theatre would have had the highest revenue?

- a) Cineplex Your answer is correct
- b) Actiplex
- c) Docuplex
- d) Cannot be determined

Time spent / Accuracy Analysis

Time taken by you to answer this question	200
Avg. time spent on this question by all students	139
Difficulty Level	M
Avg. time spent on this question by students who got this question right	154
% of students who attempted this question	53.89
% of students who got the question right of those who attempted	72.14

[Video Solution](#)

[Text Solution](#)

Consider the case when no seats are empty.
 In this case, Cineplex will have the highest revenue.
 Consider the case when a maximum number of seats are empty.
 The maximum number of seats that can be empty is 105 (as Docuplex cannot have more number of empty seats).
 If there are 105 empty seats, the revenue of the six theatres will be 9375, 5175, 12150, 0, 3300 and 4200 respectively.
 In this case also, Cineplex will have the highest revenue.
 Hence, irrespective of the number of seats empty, for the given condition, Cineplex will have the highest revenue.

Choice (A)

undefined

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

The table below provides the prices of a movie ticket and the total number of seats in six different theatres - Horroplex, Complex, Cineplex, Docuplex, Actiplex and Dramplex. If, for any show of a movie, the number of tickets sold by a theatre equals the number of seats in the theatre, the theatre is said to have earned its Peak Revenue for that show.

Theatre	Price per ticket (in Rs.)	Number of Seats
Horroplex	125	180
Complex	115	150
Cineplex	135	195
Docuplex	150	105
Actiplex	165	125
Dramplex	140	135

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

Yesterday, Ramu watched two movies, along with some friends, in two different theatres. He watched the second movie in **Horroplex**.

If the number of friends with whom he watched the first movie was **five less** than the number of friends with whom he watched the second movie and the total amount they paid for tickets was the same in each theatre, how many friends watched the first movie, including Ramu?

- a) **20**
- b) **25**
- c) **30**
- d) **Cannot be determined** □ **Your answer is incorrect**

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	363
Avg. time spent on this question by all students	245
Difficulty Level	D
Avg. time spent on this question by students who got this question right	262
% of students who attempted this question	41.32
% of students who got the question right of those who attempted	47.37

[Video Solution](#)

Text Solution

Let the number of persons that went to the first movie be x .
The number of persons that went to the second movie = $x + 5$.
Amount paid at the second movie = $125 \times (x + 5)$
Let the price per ticket at the first theatre be P .
Hence, $Px = 125 \times (x + 5) \Rightarrow x = \frac{125 \times 5}{P - 125}$
Since x must be a positive integer, the difference between P and 125 must divide 125×5 (and P must be greater than 125).
By observing the values in the table, we can see that P must be 150.
Hence, $x = 25$.
The number of persons that went to the movies on the first day = 25. Choice (B)

undefined

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

The table below provides the prices of a movie ticket and the total number of seats in six different theatres - Horroplex, Complex, Cineplex, Docuplex, Actiplex and Dramplex. If, for any show of a movie, the number of tickets sold by a theatre equals the number of seats in the theatre, the theatre is said to have earned its Peak Revenue for that show.

Theatre	Price per ticket (in Rs.)	Number of Seats
Horroplex	125	180
Complex	115	150
Cineplex	135	195
Docuplex	150	105
Actiplex	165	125
Dramplex	140	135

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

Yesterday, Ramu watched two movies, along with some friends, in two different theatres. He watched the second movie in **Dramplex**.

If the number of friends with whom he watched the first movie was **ten more** than the number of friends with whom he watched the second movie and the total amount they paid for tickets was the same in each theatre, which of the following can be the first theatre that Ramu went to?

- a) **Cineplex**
- b) **Complex** Your answer is correct
- c) **Horroplex**
- d) **More than one of the above**

Time spent / Accuracy Analysis

Time taken by you to answer this question	376
Avg. time spent on this question by all students	180
Difficulty Level	D
Avg. time spent on this question by students who got this question right	205
% of students who attempted this question	30.42
% of students who got the question right of those who attempted	24.39

[Video Solution](#)

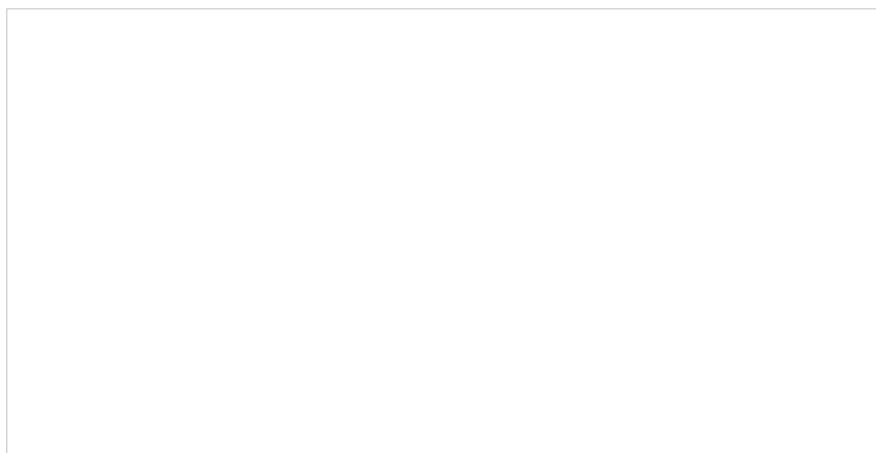
[Text Solution](#)

Let the number of persons that went to the first movie be x .
The number of persons that went to the second movie = $x - 10$.
Amount paid at the second movie = $140 \times (x - 10)$
Let the price per ticket at the first theatre be P .
Hence, $Px = 140 \times (x - 10) \Rightarrow x = \frac{140 \times 10}{140 - P}$
Since x must be a positive integer, the difference between 140 and P must divide 140 $\times 10$ (and 140 must be greater than P).
By observing the values in the table we can see that for $P = 135$ and 115 the given condition is satisfied.
For $P = 135$, $x = 280$.
However, this is not possible as the number of seats in Cineplex and Dramplex is less than 280.
For $P = 115$, $x = 56$.
Hence, this is the only possibility and the first theatre that they went to must be Complex. Choice (B)

undefined

DIRECTIONS for questions 13 to 16: Answer the questions on the basis of the information given below.

Rahul was selected to play for the Indian National Cricket Team for the first time in the year 2017. He played exactly 20 matches, Match 1 through Match 20, during the year. The line chart below provides the number of runs scored by Rahul in each match that he played in 2017.



The '*' mark next to the number of runs in the chart indicates that the player remained not out in that match.

The Average of a player is defined as the total number of runs scored by the player in all the matches that he played divided by the number of matches in which he got out. The Average of a player can change only at the end of every match that he plays.

Q13. DIRECTIONS for questions 13 and 14: Type in your answer in the input box provided below the question.

In any match, from Match 2 onwards, each time that Rahul scored more than what he did in the previous match, he donated to charity an amount, in USD, which is equal to the difference between the number of runs that he scored in that match and that in the previous match. Assuming that Rahul does not donate any other amounts, how much (in USD) would Rahul have donated to charity?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	14
Avg. time spent on this question by all students	219
Difficulty Level	E
Avg. time spent on this question by students who got this question right	213
% of students who attempted this question	35.18
% of students who got the question right of those who attempted	34.61

[Video Solution](#)

[Text Solution](#)

Rahul scored more than what he did in the previous match in Matches 2, 3, 5, 7, 8, 10, 11, 16 and 17.

Amount donated to charity = $13 + 16 + 39 + 15 + 42 + 25 + 14 + 78 + 1$ = USD 243

Ans: (243)

undefined

DIRECTIONS for questions 13 to 16: Answer the questions on the basis of the information given below.

Rahul was selected to play for the Indian National Cricket Team for the first time in the year 2017. He played exactly 20 matches, Match 1 through Match 20, during the year. The line chart below provides the number of runs scored by Rahul in each match that he played in 2017.

The '*' mark next to the number of runs in the chart indicates that the player remained not out in that match.

The Average of a player is defined as the total number of runs scored by the player in all the matches that he played divided by the number of matches in which he got out. The Average of a player can change only at the end of every match that he plays.

Q14. DIRECTIONS for questions 13 and 14: Type in your answer in the input box provided below the question.

In any match, from Match 2 onwards, each time that Rahul scored less than what he did in the previous match, he spent a certain number of minutes in the gym, equal to the difference between the number of runs that he scored in that match and that in the previous match. Assuming that Rahul does not spend any other time in the gym, how many minutes would Rahul have spent in the gym?

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	130
Difficulty Level	E
Avg. time spent on this question by students who got this question right	131
% of students who attempted this question	33.97
% of students who got the question right of those who attempted	73.46

[Video Solution](#)

Text Solution

Rahul scored less than what he did in the previous match in Matches 4, 6, 9, 13, 14, 15, 18, 19 and 20.

Total amount spent in the gym = $54 + 9 + 77 + 29 + 9 + 6 + 39 + 13 + 5 = 241$ minutes
Ans: (241)

undefined

DIRECTIONS for questions 13 to 16: Answer the questions on the basis of the information given below.

Rahul was selected to play for the Indian National Cricket Team for the first time in the year 2017. He played exactly 20 matches, Match 1 through Match 20, during the year. The line chart below provides the number of runs scored by Rahul in each match that he played in 2017.

The '*' mark next to the number of runs in the chart indicates that the player remained not out in that match.

The Average of a player is defined as the total number of runs scored by the player in all the matches that he played divided by the number of matches in which he got out. The Average of a player can change only at the end of every match that he plays.

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

What is the difference in the Average of Rahul before Match 16 and after Match 16?

- a) **5.53**
- b) **5.87**
- c) **6.14**
- d) **6.92**

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	223
Difficulty Level	E
Avg. time spent on this question by students who got this question right	216
% of students who attempted this question	19.87
% of students who got the question right of those who attempted	73.97

[Video Solution](#)

[Text Solution](#)

Since Rahul was not out in Match 16, we need not calculate the total runs scored by Rahul till Match 15.

Let x be the number of runs scored by Rahul till Match 15.

$$\text{Average Runs of Rahul before Match 16} = \frac{x}{12}$$

$$\text{Average Runs of Rahul after Match 16} = \frac{x+83}{12}$$

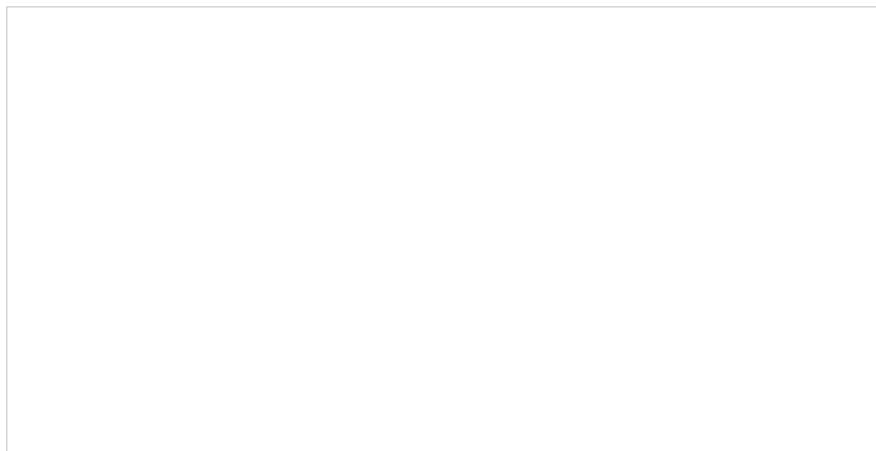
$$\text{Required difference} = 83/12 = 6.92$$

Choice (D)

undefined

DIRECTIONS for questions 13 to 16: Answer the questions on the basis of the information given below.

Rahul was selected to play for the Indian National Cricket Team for the first time in the year 2017. He played exactly 20 matches, Match 1 through Match 20, during the year. The line chart below provides the number of runs scored by Rahul in each match that he played in 2017.



The '*' mark next to the number of runs in the chart indicates that the player remained not out in that match.

The Average of a player is defined as the total number of runs scored by the player in all the matches that he played divided by the number of matches in which he got out. The Average of a player can change only at the end of every match that he plays.

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

If after the n^{th} match, the Average of Rahul was the same as the runs scored by Rahul in the $\frac{1}{n}^{\text{th}}$ match, how many values can n assume, where $n < 11$?

- a) 0
- b) 1
- c) 2
- d) 3

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	166
Difficulty Level	M
Avg. time spent on this question by students who got this question right	172
% of students who attempted this question	13.2
% of students who got the question right of those who attempted	42

[Video Solution](#)

[Text Solution](#)

For the Average runs to be the same as the runs scored by Rahul in a match, the sum of the runs scored by Rahul until that match must be divisible by the number of matches in which he was out.

The cumulative number of runs that he scored after every match for the first 10 matches = 25, 63, 117, 117, 156, 186, 231, 318, 328, 363.

Only when these numbers are divisible by 1, 1, 2, 3, 4, 4, 5, 6, 6 and 7 respectively (the number of innings) can the given condition be satisfied.

We can see that the cumulative runs can be divisible by these numbers only for Match 1, 2, 4, 5 and 8.

The average at the end of each of these matches are 25, 63, 39, 39 and 53.

Of these averages, we can see that for Match 1 and Match 5 the given condition is satisfied.

Hence, n can take two values.

Choice (C)

undefined

DIRECTIONS for questions 17 to 20: Answer the questions on the basis of the information given below.

Each of five persons, Amit, Karan, Manan, Gaurav and Lalit, live in a house of a different colour among Red, Blue, Yellow, Green and Brown. Each person works in a different company among Alpha, Beta, Omega, Delta and Epsilon.

A, B, C and D were four common friends of the above five persons. Each of these four friends were asked to separately list the five persons in the order of their individual preference. The following tables provide the orders of preference that A, B, C and D gave:

A
The person who lives in the Yellow house
The person who works in Beta
Karan
Lalit
The person who lives in the Brown house

B
The person who lives in the Red house
The person who works in Delta
Karan
Manan
The person who lives in the Blue house

C
The person who lives in the Brown house
The person who works in Epsilon
The person who works in Alpha
Manan
The person who lives in the Red house

D
The person who lives in the Green house
The person who works in Alpha
Amit
The person who lives in the Yellow house
The person who works in Delta

Q17. DIRECTIONS for questions 17 to 20: Select the correct alternative from the given choices.

Who lives in the Red house?

a) Amit Your answer is correct

b) Lalit

c) Gaurav

d) Manan

Time spent / Accuracy Analysis

Time taken by you to answer this question **929**

Avg. time spent on this question by all students **586**

Difficulty Level **M**

Avg. time spent on this question by students who got this question right **658**

% of students who attempted this question **26.44**

% of students who got the question right of those who attempted **65.67**

[Video Solution](#)[Text Solution](#)

From (i), we know one characteristic of each of the five persons. The following table provides the information:

Name	Company	Colour
		Yellow
	Beta	
Karan		
Lalit		
		Brown

From (ii), Karan and the person in the Red house and Blue house are all different. Hence, Karan is must be in Green house.

From (iii), the person who lives in the Brown house does not work in Epsilon or Alpha. Hence, the person in the Brown house must work in either Omega or Delta.

From (ii), Manan does not live in Red house or Blue house. From (iii), Manan does not live in Blue house.

Hence Manan must be in Yellow house (since Karan is in Green house).

From (ii), Manan does not work in Delta. From (iii), Manan does not work in Epsilon or Alpha.

Hence, Manan must be working in Omega. The person in the Brown house must work in Delta.

From (iv), the person in the Green house, i.e., Karan does not work in Alpha. Also, Amit does not work in Delta. Hence, Amit must be working in Beta and Gaurav must be working in Delta.

Hence, Karan must be working in Epsilon and Lalit must be working in Alpha. From (iii), the person working in Alpha does not live in the Red house. Hence, the person working in Alpha, i.e., Lalit, must be in Blue house. Amit must be in the Red house.

The following table provides this information:

Name	Company	Colour
Manan	Omega	Yellow
Amit	Beta	Red
Karan	Epsilon	Green
Lalit	Alpha	Blue
Gaurav	Delta	Brown

Amit lives in the Red house.

Choice (A)

undefined

DIRECTIONS for questions 17 to 20: Answer the questions on the basis of the information given below.

Each of five persons, Amit, Karan, Manan, Gaurav and Lalit, live in a house of a different colour among Red, Blue, Yellow, Green and Brown. Each person works in a different company among Alpha, Beta, Omega, Delta and Epsilon.

A, B, C and D were four common friends of the above five persons. Each of these four friends were asked to separately list the five persons in the order of their individual preference. The following tables provide the orders of preference that A, B, C and D gave:

A
The person who lives in the Yellow house
The person who works in Beta
Karan
Lalit
The person who lives in the Brown house

B
The person who lives in the Red house
The person who works in Delta
Karan
Manan
The person who lives in the Blue house

C
The person who lives in the Brown house
The person who works in Epsilon
The person who works in Alpha
Manan
The person who lives in the Red house

D
The person who lives in the Green house
The person who works in Alpha
Amit
The person who lives in the Yellow house
The person who works in Delta

Q18. DIRECTIONS for questions 17 to 20: Select the correct alternative from the given choices.

Who lives in the Green house?

- a) Manan
- b) Lalit
- c) Gaurav
- d) Karan Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	14
Avg. time spent on this question by all students	27
Difficulty Level	M
Avg. time spent on this question by students who got this question right	21
% of students who attempted this question	31.38
% of students who got the question right of those who attempted	90.28

[Video Solution](#)

[Text Solution](#)

From (i), we know one characteristic of each of the five persons. The following table provides the information:

Name	Company	Colour
		Yellow
	Beta	
Karan		
Lalit		
		Brown

From (ii), Karan and the person in the Red house and Blue house are all different. Hence, Karan is must be in Green house.

From (iii), the person who lives in the Brown house does not work in Epsilon or Alpha. Hence, the person in the Brown house must work in either Omega or Delta.

From (ii), Manan does not live in Red house or Blue house. From (iii), Manan does not live in Blue house.

Hence Manan must be in Yellow house (since Karan is in Green house).

From (ii), Manan does not work in Delta. From (iii), Manan does not work in Epsilon or Alpha.

Hence, Manan must be working in Omega. The person in the Brown house must work in Delta.

From (iv), the person in the Green house, i.e., Karan does not work in Alpha. Also, Amit does not work in Delta. Hence, Amit must be working in Beta and Gaurav must be working in Delta.

Hence, Karan must be working in Epsilon and Lalit must be working in Alpha. From (iii), the person working in Alpha does not live in the Red house. Hence, the person working in Alpha, i.e., Lalit, must be in Blue house. Amit must be in the Red house.

The following table provides this information:

Name	Company	Colour
Manan	Omega	Yellow
Amit	Beta	Red
Karan	Epsilon	Green
Lalit	Alpha	Blue
Gaurav	Delta	Brown

Karan lives in the Green house.

Choice (D)

undefined

DIRECTIONS for questions 17 to 20: Answer the questions on the basis of the information given below.

Each of five persons, Amit, Karan, Manan, Gaurav and Lalit, live in a house of a different colour among Red, Blue, Yellow, Green and Brown. Each person works in a different company among Alpha, Beta, Omega, Delta and Epsilon.

A, B, C and D were four common friends of the above five persons. Each of these four friends were asked to separately list the five persons in the order of their individual preference. The following tables provide the orders of preference that A, B, C and D gave:

A
The person who lives in the Yellow house
The person who works in Beta
Karan
Lalit
The person who lives in the Brown house

B
The person who lives in the Red house
The person who works in Delta
Karan
Manan
The person who lives in the Blue house

C
The person who lives in the Brown house
The person who works in Epsilon
The person who works in Alpha
Manan
The person who lives in the Red house

D
The person who lives in the Green house
The person who works in Alpha
Amit
The person who lives in the Yellow house
The person who works in Delta

Q19. DIRECTIONS for questions 17 to 20: Select the correct alternative from the given choices.

In which company does the person living in the Yellow house work?

- a) **Epsilon**
- b) **Omega** Your answer is correct
- c) **Delta**
- d) **Cannot be determined**

Time spent / Accuracy Analysis

Time taken by you to answer this question	9
Avg. time spent on this question by all students	42
Difficulty Level	M
Avg. time spent on this question by students who got this question right	37
% of students who attempted this question	28.46
% of students who got the question right of those who attempted	77.3

[Video Solution](#)

[Text Solution](#)

From (i), we know one characteristic of each of the five persons. The following table provides the information:

Name	Company	Colour
		Yellow
	Beta	
Karan		
Lalit		
		Brown

From (ii), Karan and the person in the Red house and Blue house are all different. Hence, Karan is must be in Green house.

From (iii), the person who lives in the Brown house does not work in Epsilon or Alpha. Hence, the person in the Brown house must work in either Omega or Delta.

From (ii), Manan does not live in Red house or Blue house. From (iii), Manan does not live in Blue house.

Hence Manan must be in Yellow house (since Karan is in Green house).

From (ii), Manan does not work in Delta. From (iii), Manan does not work in Epsilon or Alpha.

Hence, Manan must be working in Omega. The person in the Brown house must work in Delta.

From (iv), the person in the Green house, i.e., Karan does not work in Alpha. Also, Amit does not work in Delta. Hence, Amit must be working in Beta and Gaurav must be working in Delta.

Hence, Karan must be working in Epsilon and Lalit must be working in Alpha. From (iii), the person working in Alpha does not live in the Red house. Hence, the person working in Alpha, i.e., Lalit, must be in Blue house. Amit must be in the Red house.

The following table provides this information:

Name	Company	Colour
Manan	Omega	Yellow
Amit	Beta	Red
Karan	Epsilon	Green
Lalit	Alpha	Blue
Gaurav	Delta	Brown

The person living in the Yellow house works in Omega.

Choice (B)

undefined

DIRECTIONS for questions 17 to 20: Answer the questions on the basis of the information given below.

Each of five persons, Amit, Karan, Manan, Gaurav and Lalit, live in a house of a different colour among Red, Blue, Yellow, Green and Brown. Each person works in a different company among Alpha, Beta, Omega, Delta and Epsilon.

A, B, C and D were four common friends of the above five persons. Each of these four friends were asked to separately list the five persons in the order of their individual preference. The following tables provide the orders of preference that A, B, C and D gave:

A
The person who lives in the Yellow house
The person who works in Beta
Karan
Lalit
The person who lives in the Brown house

B
The person who lives in the Red house
The person who works in Delta
Karan
Manan
The person who lives in the Blue house

C
The person who lives in the Brown house
The person who works in Epsilon
The person who works in Alpha
Manan
The person who lives in the Red house

D
The person who lives in the Green house
The person who works in Alpha
Amit
The person who lives in the Yellow house
The person who works in Delta

Q20. DIRECTIONS for questions 17 to 20: Select the correct alternative from the given choices.

What is the colour of the house in which Gaurav lives?

- a) **Blue**
- b) **Yellow**
- c) **Brown** Your answer is correct
- d) **Red**

Time spent / Accuracy Analysis

Time taken by you to answer this question	23
Avg. time spent on this question by all students	53
Difficulty Level	M
Avg. time spent on this question by students who got this question right	51
% of students who attempted this question	23.62
% of students who got the question right of those who attempted	81.68

[Video Solution](#)

[Text Solution](#)

From (i), we know one characteristic of each of the five persons. The following table provides the information:

Name	Company	Colour
		Yellow
	Beta	
Karan		
Lalit		
		Brown

From (ii), Karan and the person in the Red house and Blue house are all different. Hence, Karan is must be in Green house.

From (iii), the person who lives in the Brown house does not work in Epsilon or Alpha. Hence, the person in the Brown house must work in either Omega or Delta.

From (ii), Manan does not live in Red house or Blue house. From (iii), Manan does not live in Blue house.

Hence Manan must be in Yellow house (since Karan is in Green house).

From (ii), Manan does not work in Delta. From (iii), Manan does not work in Epsilon or Alpha.

Hence, Manan must be working in Omega. The person in the Brown house must work in Delta.

From (iv), the person in the Green house, i.e., Karan does not work in Alpha. Also, Amit does not work in Delta. Hence, Amit must be working in Beta and Gaurav must be working in Delta.

Hence, Karan must be working in Epsilon and Lalit must be working in Alpha. From (iii), the person working in Alpha does not live in the Red house. Hence, the person working in Alpha, i.e., Lalit, must be in Blue house. Amit must be in the Red house.

The following table provides this information:

Name	Company	Colour
Manan	Omega	Yellow
Amit	Beta	Red
Karan	Epsilon	Green
Lalit	Alpha	Blue
Gaurav	Delta	Brown

. Gaurav lives in the Brown house.

Choice (C)

undefined

DIRECTIONS for questions 21 to 24: Answer the questions on the basis of the information given below.

Jayanth, a mathematics teacher, had thirty students in his class and they sit in chairs arranged in five columns and six rows. He wanted to distribute some chocolates to the students in his class. However, he wanted to give more number of chocolates to the students that he liked most and less number of chocolates to the students that he liked least. But to

conceal this discrimination, he devised the following method to distribute the chocolates:

Counting from left to right in each row and from front to back, he gives chocolates to every seventh student. After reaching the last student (i.e., the student in the rightmost column and the last row), he continues counting from the first (i.e., from the leftmost column and the first row) but does not count any student who had already received a chocolate. He keeps giving chocolates to every seventh student that he counts in this way. Further, to the first five students that he gives chocolates to, he gives 2 chocolates each; to the next five, he gives 3 chocolates each; to the next five, he gives 4 chocolates each and so on till he gives 7 chocolates each to the last five students.

Q21. DIRECTIONS for questions 21 to 24: Select the correct alternative from the given choices.

What is the maximum number of students sitting consecutively next to each other, in the same row, who received the same number of chocolates?

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

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	153
Avg. time spent on this question by all students	429
Difficulty Level	M
Avg. time spent on this question by students who got this question right	452
% of students who attempted this question	8.7
% of students who got the question right of those who attempted	40.82

[Video Solution](#)

[Text Solution](#)

Given that every seventh student gets a chocolate. The first five students to get a chocolate get 2 chocolates each. The table below represents the positions of the students who received 2 chocolates among the students in the classroom. Given in parenthesis is the order in which he gave the chocolates.

				2 (5)
2 (1)				
		2 (2)		
2 (3)				
	2 (4)			

After this, these five students are not counted (as they have already received chocolates). The next five students get 3 chocolates each.

				2 (5)
2 (1)			3 (9)	
		3 (6)	2 (2)	
		3 (10)		
2 (3)	3 (7)			
		2 (4)		3 (8)

Similarly, we can populate the entire table (in batches of 5). We get the following arrangement after populating all the cells:

4 (14)	6 (24)	6 (23)	6 (25)	2 (5)
6 (22)	2 (1)	4 (12)	3 (9)	5 (17)
5 (19)	4 (15)	3 (6)	2 (2)	7 (28)
7 (26)	6 (21)	3 (10)	4 (13)	7 (29)
2 (3)	3 (7)	7 (30)	5 (18)	5 (16)
7 (27)	4 (11)	2 (4)	5 (20)	3 (8)

- . In the first row, three students received the same number of chocolates and are sitting next to each other. Choice (B)

undefined

DIRECTIONS for questions 21 to 24: Answer the questions on the basis of the information given below.

Jayanth, a mathematics teacher, had thirty students in his class and they sit in chairs arranged in five columns and six rows. He wanted to distribute some chocolates to the students in his class. However, he wanted to give more number of chocolates to the students that he liked most and less number of chocolates to the students that he liked least. But to conceal this discrimination, he devised the following method to distribute the chocolates:

Counting from left to right in each row and from front to back, he gives chocolates to every seventh student. After reaching the last student (i.e., the student in the rightmost column and the last row), he continues counting from the first (i.e., from the leftmost column and the first row) but does not count any student who had already received a chocolate. He keeps giving chocolates to every seventh student that he counts in this way. Further, to the first five students that he gives chocolates to, he gives 2 chocolates each; to the next five, he gives 3 chocolates each; to the next five, he gives 4 chocolates each and so on till he gives 7 chocolates each to the last five students.

Q22. DIRECTIONS for questions 21 to 24: Select the correct alternative from the given choices.

What is the total number of chocolates received by all the students sitting in the fourth column from the right?

- b) 22
- c) 23
- d) 25

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	83
Difficulty Level	M
Avg. time spent on this question by students who got this question right	87
% of students who attempted this question	6.6
% of students who got the question right of those who attempted	57.57

[Video Solution](#)

Text Solution

Given that every seventh student gets a chocolate. The first five students to get a chocolate get 2 chocolates each. The table below represents the positions of the students who received 2 chocolates among the students in the classroom. Given in parenthesis is the order in which he gave the chocolates.

				2 (5)
	2 (1)			
			2 (2)	
2 (3)				
		2 (4)		

After this, these five students are not counted (as they have already received chocolates). The next five students get 3 chocolates each.

				2 (5)
	2 (1)			3 (9)
		3 (6)	2 (2)	
		3 (10)		
2 (3)	3 (7)			
		2 (4)		3 (8)

Similarly, we can populate the entire table (in batches of 5). We get the following arrangement after populating all the cells:

4 (14)	6 (24)	6 (23)	6 (25)	2 (5)
6 (22)	2 (1)	4 (12)	3 (9)	5 (17)
5 (19)	4 (15)	3 (6)	2 (2)	7 (28)
7 (26)	6 (21)	3 (10)	4 (13)	7 (29)
2 (3)	3 (7)	7 (30)	5 (18)	5 (16)
7 (27)	4 (11)	2 (4)	5 (20)	3 (8)

The students in the fourth column from the right received 6, 2, 4, 6, 3 and 4 chocolates. Required sum is 25.
Choice (D)

undefined

DIRECTIONS for questions 21 to 24: Answer the questions on the basis of the information given below.

Jayanth, a mathematics teacher, had thirty students in his class and they sit in chairs arranged in five columns and six rows. He wanted to distribute some chocolates to the students in his class. However, he wanted to give more number of chocolates to the students that he liked most and less number of chocolates to the students that he liked least. But to conceal this discrimination, he devised the following method to distribute the chocolates:

Counting from left to right in each row and from front to back, he gives chocolates to every seventh student. After reaching the last student (i.e., the student in the rightmost column and the last row), he continues counting from the first (i.e., from the leftmost column and the first row) but does not count any student who had already received a chocolate. He keeps giving chocolates to every seventh student that he counts in this way. Further, to the first five students that he gives chocolates to, he gives 2 chocolates each; to the next five, he gives 3 chocolates each; to the next five, he gives 4 chocolates each and so on till he gives 7 chocolates each to the last five students.

Q23. DIRECTIONS for questions 21 to 24: Select the correct alternative from the given choices.

How many pairs of students sitting immediately next to each other in the same row or the same column received chocolates one immediately after the other?

- a) 0
- b) 1
- c) 2
- d) 3

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	72
Difficulty Level	M
Avg. time spent on this question by students who got this question right	75
% of students who attempted this question	4.45
% of students who got the question right of those who attempted	37.68

[Video Solution](#)

[Text Solution](#)

Given that every seventh student gets a chocolate. The first five students to get a chocolate get 2 chocolates each. The table below represents the positions of the students who received 2 chocolates among the students in the classroom. Given in parenthesis is the order in which he gave the chocolates.

				2 (5)
	2 (1)			
			2 (2)	
2 (3)				
		2 (4)		

After this, these five students are not counted (as they have already received chocolates). The next five students get 3 chocolates each.

				2 (5)
	2 (1)		3 (9)	
		3 (6)	2 (2)	
		3 (10)		
2 (3)	3 (7)			
		2 (4)		3 (8)

Similarly, we can populate the entire table (in batches of 5). We get the following arrangement after populating all the cells:

4 (14)	6 (24)	6 (23)	6 (25)	2 (5)
6 (22)	2 (1)	4 (12)	3 (9)	5 (17)
5 (19)	4 (15)	3 (6)	2 (2)	7 (28)
7 (26)	6 (21)	3 (10)	4 (13)	7 (29)
2 (3)	3 (7)	7 (30)	5 (18)	5 (16)
7 (27)	4 (11)	2 (4)	5 (20)	3 (8)

- . The given condition is satisfied for the following students:
 - (i) Students in the second column and third columns in the first row.
 - (ii) Students in the third and fourth rows of the fifth column.
- Hence, there are two pairs of students satisfying the given condition.

Choice (C)

DIRECTIONS for questions 21 to 24: Answer the questions on the basis of the information given below.

Jayanth, a mathematics teacher, had thirty students in his class and they sit in chairs arranged in five columns and six rows. He wanted to distribute some chocolates to the students in his class. However, he wanted to give more number of chocolates to the students that he liked most and less number of chocolates to the students that he liked least. But to conceal this discrimination, he devised the following method to distribute the chocolates:

Counting from left to right in each row and from front to back, he gives chocolates to every seventh student. After reaching the last student (i.e., the student in the rightmost column and the last row), he continues counting from the first (i.e., from the leftmost column and the first row) but does not count any student who had already received a chocolate. He keeps giving chocolates to every seventh student that he counts in this way. Further, to the first five students that he gives chocolates to, he gives 2 chocolates each; to the next five, he gives 3 chocolates each; to the next five, he gives 4 chocolates each and so on till he gives 7 chocolates each to the last five students.

Q24. DIRECTIONS for questions 21 to 24: Select the correct alternative from the given choices.

How many pairs of students who received chocolates one immediately after the other were also sitting in the same column?

- a) 0
- b) 1
- c) 2
- d) 3

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	54
Difficulty Level	M
Avg. time spent on this question by students who got this question right	51
% of students who attempted this question	3.67
% of students who got the question right of those who attempted	18.46

[Video Solution](#)

[Text Solution](#)

Given that every seventh student gets a chocolate. The first five students to get a chocolate get 2 chocolates each. The table below represents the positions of the students who received 2 chocolates among the students in the classroom. Given in parenthesis is the order in which he gave the chocolates.

			2 (5)
2 (1)			
		2 (2)	
2 (3)			
	2 (4)		

After this, these five students are not counted (as they have already received chocolates). The next five students get 3 chocolates each.

			2 (5)
2 (1)		3 (9)	
	3 (6)	2 (2)	
	3 (10)		
2 (3)	3 (7)		
	2 (4)		3 (8)

Similarly, we can populate the entire table (in batches of 5). We get the following arrangement after populating all the cells:

4 (14)	6 (24)	6 (23)	6 (25)	2 (5)
6 (22)	2 (1)	4 (12)	3 (9)	5 (17)
5 (19)	4 (15)	3 (6)	2 (2)	7 (28)
7 (26)	6 (21)	3 (10)	4 (13)	7 (29)
2 (3)	3 (7)	7 (30)	5 (18)	5 (16)
7 (27)	4 (11)	2 (4)	5 (20)	3 (8)

The given condition is satisfied for the following pairs of students:

- (i) Students in the fourth and sixth rows of first column.
 - (ii) Students in the second and fifth rows of fifth column.
 - (iii) Students in the third and fourth rows of the fifth column.
- Hence, there are three pairs of students satisfying the given condition.

Choice (D)

undefined

DIRECTIONS for questions 25 to 28: Answer the questions on the basis of the information given below.

Jitesh wanted to select a team of five persons from four men - A, B, C and D - and four women - E, F, G and H subject to the following conditions:

- i. If E is selected, C must be selected.
- ii. D can be selected if and only if both H and C are selected.
- iii. C and G cannot be in the team together, while H and A cannot be in the team together.
- iv. Between B and D, exactly one person must be selected.
- v. If B is selected, E must be selected.
- vi. If G is selected, at least two other women must be selected.

Q25. DIRECTIONS for questions 25 and 26: Type in your answer in the input box provided below the question.

In how many ways can Jitesh select the team?

You did not answer this question [Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	69
Avg. time spent on this question by all students	308
Difficulty Level	E
Avg. time spent on this question by students who got this question right	324
% of students who attempted this question	25.72
% of students who got the question right of those who attempted	19.88

[Video Solution](#)

[Text Solution](#)

From (iv), one of B and D must be selected.
Let B be selected.
From (v), E must be selected and from (i), C must also be selected.
From (iii), G cannot be selected. Since D cannot be selected and C is selected, from (ii), H cannot be selected (if H is selected, since both H and C are selected, D must also be selected).
The remaining two persons who can be selected are A and F.
Hence, one possible team is A, **B, C, E, F**.
Let D be selected. From (ii), both H and C must be selected.
From (iii), A and G cannot be selected. Also, B cannot be selected.
Hence, E and F must be selected.
The other possible team is **C, D, E, F and H**.
These are the only two possible teams as one of B and D must be selected.

Jitesh can select the team in 2 ways.

Ans: (2)

undefined

DIRECTIONS for questions 25 to 28: Answer the questions on the basis of the information given below.

Jitesh wanted to select a team of five persons from four men - A, B, C and D - and four women - E, F, G and H subject to the following conditions:

- i. If E is selected, C must be selected.
- ii. D can be selected if and only if both H and C are selected.
- iii. C and G cannot be in the team together, while H and A cannot be in the team together.
- iv. Between B and D, exactly one person must be selected.
- v. If B is selected, E must be selected.
- vi. If G is selected, at least two other women must be selected.

Q26. DIRECTIONS for questions 25 and 26: Type in your answer in the input box provided below the question.

What is the maximum number of women that Jitesh can select?

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	76
Difficulty Level	E
Avg. time spent on this question by students who got this question right	75
% of students who attempted this question	36.25
% of students who got the question right of those who attempted	68.41

[Video Solution](#)

Text Solution

From (iv), one of B and D must be selected.

Let B be selected.

From (v), E must be selected and from (i), C must also be selected.

From (iii), G cannot be selected. Since D cannot be selected and C is selected, from (ii), H cannot be selected (if H is selected, since both H and C are selected, D must also be selected).

The remaining two persons who can be selected are A and F.

Hence, one possible team is **A, B, C, E, F**.

Let D be selected. From (ii), both H and C must be selected.

From (iii), A and G cannot be selected. Also, B cannot be selected.

Hence, E and F must be selected.

The other possible team is **C, D, E, F and H**.

These are the only two possible teams as one of B and D must be selected.

The maximum number of women that Jitesh can select is 3 (in the second case).

Ans: (3)

undefined

DIRECTIONS for questions 25 to 28: Answer the questions on the basis of the information given below.

Jitesh wanted to select a team of five persons from four men - A, B, C and D - and four women - E, F, G and H subject to the following conditions:

- i. If E is selected, C must be selected.
- ii. D can be selected if and only if both H and C are selected.
- iii. C and G cannot be in the team together, while H and A cannot be in the team together.
- iv. Between B and D, exactly one person must be selected.
- v. If B is selected, E must be selected.
- vi. If G is selected, at least two other women must be selected.

Q27. DIRECTIONS for questions 27 and 28: Select the correct alternative from the given choices.

Who among the following will definitely not be selected?

- a) **A**
- b) **G**
- c) **D**
- d) **B**

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	85
Difficulty Level	E
Avg. time spent on this question by students who got this question right	82
% of students who attempted this question	31.44
% of students who got the question right of those who attempted	63.32

[Video Solution](#)

[Text Solution](#)

From (iv), one of B and D must be selected.

Let B be selected.

From (v), E must be selected and from (i), C must also be selected.

From (iii), G cannot be selected. Since D cannot be selected and C is selected, from (ii), H cannot be selected (if H is selected, since both H and C are selected, D must also be selected).

The remaining two persons who can be selected are A and F.

Hence, one possible team is A, B, C, E, F.

Let D be selected. From (ii), both H and C must be selected.

From (iii), A and G cannot be selected. Also, B cannot be selected.

Hence, E and F must be selected.

The other possible team is C, D, E, F and H.

These are the only two possible teams as one of B and D must be selected.

G will definitely not be selected.

Choice (B)

undefined

DIRECTIONS for questions 25 to 28: Answer the questions on the basis of the information given below.

Jitesh wanted to select a team of five persons from four men - A, B, C and D - and four women - E, F, G and H subject to the following conditions:

- i. If E is selected, C must be selected.
- ii. D can be selected if and only if both H and C are selected.
- iii. C and G cannot be in the team together, while H and A cannot be in the team together.
- iv. Between B and D, exactly one person must be selected.
- v. If B is selected, E must be selected.
- vi. If G is selected, at least two other women must be selected.

Q28. DIRECTIONS for questions 27 and 28: Select the correct alternative from the given choices.

How many of the eight persons will definitely be selected?

a) 5

b) 1

c) 2

d) 3

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	70
Difficulty Level	E
Avg. time spent on this question by students who got this question right	73
% of students who attempted this question	25.49
% of students who got the question right of those who attempted	48.88

[Video Solution](#)

Text Solution

From (iv), one of B and D must be selected.

Let B be selected.

From (v), E must be selected and from (i), C must also be selected.

From (iii), G cannot be selected. Since D cannot be selected and C is selected, from (ii), H cannot be selected (if H is selected, since both H and C are selected, D must also be selected).

The remaining two persons who can be selected are A and F.

Hence, one possible team is A, B, C, E, F.

Let D be selected. From (ii), both H and C must be selected.

From (iii), A and G cannot be selected. Also, B cannot be selected.

Hence, E and F must be selected.

The other possible team is C, D, E, F and H.

These are the only two possible teams as one of B and D must be selected.

Three of the eight persons will definitely be selected (C, E and F).

Choice (D)

undefined

DIRECTIONS for questions 29 to 32: Answer these questions on the basis of the information given below.

Each of six persons, Amit, Karthik, Pran, Lalit, Bhim and Farooq, has a bag of a different colour among Red, Blue, Yellow, Green, Orange and White. Inside each bag is a distinct number of books and the total number of books in the six bags is 60.

It is also known that

- i.
the number of books in Amit's bag is twice the number of books in Pran's bag, which is Blue in colour.
- ii.
the number of books in the Orange bag is two more than the number of books in Lalit's bag, which has the least number of books.
- iii.
Karthik's bag, which is Yellow in colour, has four books more than the number of books in Bhim's bag.
- iv.
the number of books in the Green bag is five more than the number of books in Farooq's bag.

v.

the highest number of books are in the White bag, while the number of books in Karthik's bag is one less than the number of books in the White bag.

Q29. DIRECTIONS for question 29: Select the correct alternative from the given choices.

What is the colour of the bag in which there are the third highest number of books?

- a) **Yellow**
- b) **Green**
- c) **Red**
- d) **Orange**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	228
Avg. time spent on this question by all students	553
Difficulty Level	D
Avg. time spent on this question by students who got this question right	579
% of students who attempted this question	24.11
% of students who got the question right of those who attempted	82.5

[Video Solution](#)

Text Solution

Let the number of books in Pran's bag (which is blue) be x . From (i), the number of books in Amit's bag must be $2x$.

Let the number of books in Lalit's bag be y . From (ii), the number of books in Orange bag must be $y + 2$.

Let the number of books in Bhim's bag be z . From (iii), the number of books in Karthik's bag must be $z + 4$.

Lalit's bag has the least number of books. Hence, it cannot be Orange (from (ii)), Green (from iv)) or White (from (v)). It also cannot be Blue or Yellow (as they are Pran's and Karthik's bag respectively).

Therefore, Lalit's bag must be Red.

Also, Farooq's bag cannot be White in colour (as Farooq's bag cannot have the highest number of books from (iv)). Bhim's bag also cannot be White in colour (for the same reason from (iii)). Hence, Amit's bag must be White.

From (iv), Farooq's bag cannot be Green. Hence, Bhim's bag must be Green and Farooq's must be Orange.

Since Farooq's bag is Orange, from (ii), the number of books in Farooq's bag must be $y + 2$.

From (iv), the number of books in Bhim's bag, which is Green, must be $y + 7$. Hence, the number of books in Karthik's bag must be $y + 11$.

From (v), the number of books in Amit's bag, which is White, must be $y + 12$.

From (i), the number of books in Pran's bag must be $y/2 + 6$.

The total number of bags in the six bags = $y + 12 + y + 11 + \frac{y}{2} + 6 + y + y + 7 + y + 2 = \frac{11y}{2} + 38$

Given that $\frac{11y}{2} + 38 = 60 \Rightarrow y = 4$

The following table provides the colour of the bag with each person and the number of books in each bag:

Person	Bag Colour	Number of Books
Amit	White	16
Karthik	Yellow	15
Pran	Blue	8
Lalit	Red	4
Bhim	Green	11
Farooq	Orange	6

The Green bag has the third highest number of books.

Choice (B)

undefined

DIRECTIONS for questions 29 to 32: Answer these questions on the basis of the information given below.

Each of six persons, Amit, Karthik, Pran, Lalit, Bhim and Farooq, has a bag of a different colour among Red, Blue, Yellow, Green, Orange and White. Inside each bag is a distinct number of books and the total number of books in the six bags is 60.

It is also known that

- i. the number of books in Amit's bag is twice the number of books in Pran's bag, which is Blue in colour.
- ii. the number of books in the Orange bag is two more than the number of books in Lalit's bag, which has the least number of books.
- iii. Karthik's bag, which is Yellow in colour, has four books more than the number of books in Bhim's bag.
- iv. the number of books in the Green bag is five more than the number of books in Farooq's bag.
- v. the highest number of books are in the White bag, while the number of books in Karthik's bag is one less than the number of books in the White bag.

Q30. DIRECTIONS for questions 30 to 32: Type in your answer in the input box provided below the question.

What is the number of books in the Orange bag?

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	70
Difficulty Level	D
Avg. time spent on this question by students who got this question right	61
% of students who attempted this question	19.09
% of students who got the question right of those who attempted	66.29

[Video Solution](#)

[Text Solution](#)

Let the number of books in Pran's bag (which is blue) be x . From (i), the number of books in Amit's bag must be $2x$.

Let the number of books in Lalit's bag be y . From (ii), the number of books in Orange bag must be $y + 2$.

Let the number of books in Bhim's bag be z . From (iii), the number of books in Karthik's bag must be $z + 4$.

Lalit's bag has the least number of books. Hence, it cannot be Orange (from (ii)), Green (from iv)) or White (from (v)). It also cannot be Blue or Yellow (as they are Pran's and Karthik's bag respectively).

Therefore, Lalit's bag must be Red.

Also, Farooq's bag cannot be White in colour (as Farooq's bag cannot have the highest number of books from (iv)). Bhim's bag also cannot be White in colour (for the same reason from (iii)). Hence, Amit's bag must be White.

From (iv), Farooq's bag cannot be Green. Hence, Bhim's bag must be Green and Farooq's must be Orange.

Since Farooq's bag is Orange, from (ii), the number of books in Farooq's bag must be $y + 2$.

From (iv), the number of books in Bhim's bag, which is Green, must be $y + 7$. Hence, the number of books in Karthik's bag must be $y + 11$.

From (v), the number of books in Amit's bag, which is White, must be $y + 12$.

From (i), the number of books in Pran's bag must be $y/2 + 6$.

The total number of bags in the six bags = $y + 12 + y + 11 + \frac{y}{2} + 6 + y + y + 7 + y + 2 = \frac{11y}{2} + 38$

Given that $\frac{11y}{2} + 38 = 60 \Rightarrow y = 4$

The following table provides the colour of the bag with each person and the number of books in each bag:

Person	Bag Colour	Number of Books
Amit	White	16
Karthik	Yellow	15
Pran	Blue	8
Lalit	Red	4
Bhim	Green	11
Farooq	Orange	6

There are 6 books in the Orange bag.

Ans: (6)

undefined

DIRECTIONS for questions 29 to 32: Answer these questions on the basis of the information given below.

Each of six persons, Amit, Karthik, Pran, Lalit, Bhim and Farooq, has a bag of a different colour among Red, Blue, Yellow, Green, Orange and White. Inside each bag is a distinct number of books and the total number of books in the six bags is 60.

It is also known that

i. the number of books in Amit's bag is twice the number of books in Pran's bag, which is Blue in colour.

ii. the number of books in the Orange bag is two more than the number of books in Lalit's bag, which has the least number of books.

iii.

Karthik's bag, which is Yellow in colour, has four books more than the number of books in Bhim's bag.

iv.

the number of books in the Green bag is five more than the number of books in Farooq's bag.

v.

the highest number of books are in the White bag, while the number of books in Karthik's bag is one less than the number of books in the White bag.

Q31. DIRECTIONS for questions 30 to 32: Type in your answer in the input box provided below the question.

What is the highest number of books in any bag?

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	24
Difficulty Level	D
Avg. time spent on this question by students who got this question right	17
% of students who attempted this question	19.41
% of students who got the question right of those who attempted	65.56

[Video Solution](#)

[Text Solution](#)

Let the number of books in Pran's bag (which is blue) be x . From (i), the number of books in Amit's bag must be $2x$.

Let the number of books in Lalit's bag be y . From (ii), the number of books in Orange bag must be $y + 2$.

Let the number of books in Bhim's bag be z . From (iii), the number of books in Karthik's bag must be $z + 4$.

Lalit's bag has the least number of books. Hence, it cannot be Orange (from (ii)), Green (from iv)) or White (from (v)). It also cannot be Blue or Yellow (as they are Pran's and Karthik's bag respectively).

Therefore, Lalit's bag must be Red.

Also, Farooq's bag cannot be White in colour (as Farooq's bag cannot have the highest number of books from (iv)). Bhim's bag also cannot be White in colour (for the same reason from (iii)). Hence, Amit's bag must be White.

From (iv), Farooq's bag cannot be Green. Hence, Bhim's bag must be Green and Farooq's must be Orange.

Since Farooq's bag is Orange, from (ii), the number of books in Farooq's bag must be $y + 2$.

From (iv), the number of books in Bhim's bag, which is Green, must be $y + 7$. Hence, the number of books in Karthik's bag must be $y + 11$.

From (v), the number of books in Amit's bag, which is White, must be $y + 12$.

From (i), the number of books in Pran's bag must be $y/2 + 6$.

The total number of bags in the six bags = $y + 12 + y + 11 + \frac{y}{2} + 6 + y + y + 7 + y + 2 = \frac{11y}{2} + 38$

Given that $\frac{11y}{2} + 38 = 60 \Rightarrow y = 4$

The following table provides the colour of the bag with each person and the number of books in each bag:

Person	Bag Colour	Number of Books
Amit	White	16
Karthik	Yellow	15
Pran	Blue	8
Lalit	Red	4
Bhim	Green	11
Farooq	Orange	6

The highest number of books in any bag is 16.

Ans: (16)

undefined

DIRECTIONS for questions 29 to 32: Answer these questions on the basis of the information given below.

Each of six persons, Amit, Karthik, Pran, Lalit, Bhim and Farooq, has a bag of a different colour among Red, Blue, Yellow, Green, Orange and White. Inside each bag is a distinct number of books and the total number of books in the six bags is 60.

It is also known that

- i. the number of books in Amit's bag is twice the number of books in Pran's bag, which is Blue in colour.
- ii. the number of books in the Orange bag is two more than the number of books in Lalit's bag, which has the least number of books.
- iii. Karthik's bag, which is Yellow in colour, has four books more than the number of books in Bhim's bag.
- iv. the number of books in the Green bag is five more than the number of books in Farooq's bag.
- v. the highest number of books are in the White bag, while the number of books in Karthik's bag is one less than the number of books in the White bag.

Q32. DIRECTIONS for questions 30 to 32: Type in your answer in the input box provided below the question.

What is the difference between the number of books in Amit's bag and that in the Red bag?

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	69
Difficulty Level	D
Avg. time spent on this question by students who got this question right	46
% of students who attempted this question	17.94
% of students who got the question right of those who attempted	68.67

[Video Solution](#)

[Text Solution](#)

Let the number of books in Pran's bag (which is blue) be x . From (i), the number of books in Amit's bag must be $2x$.

Let the number of books in Lalit's bag be y . From (ii), the number of books in Orange bag must be $y + 2$.

Let the number of books in Bhim's bag be z . From (iii), the number of books in Karthik's bag must be $z + 4$.

Lalit's bag has the least number of books. Hence, it cannot be Orange (from (ii)), Green (from iv)) or White (from (v)). It also cannot be Blue or Yellow (as they are Pran's and Karthik's bag respectively).

Therefore, Lalit's bag must be Red.

Also, Farooq's bag cannot be White in colour (as Farooq's bag cannot have the highest number of books from (iv)). Bhim's bag also cannot be White in colour (for the same reason from (iii)). Hence, Amit's bag must be White.

From (iv), Farooq's bag cannot be Green. Hence, Bhim's bag must be Green and Farooq's must be Orange.

Since Farooq's bag is Orange, from (ii), the number of books in Farooq's bag must be $y + 2$.

From (iv), the number of books in Bhim's bag, which is Green, must be $y + 7$. Hence, the number of books in Karthik's bag must be $y + 11$.

From (v), the number of books in Amit's bag, which is White, must be $y + 12$.

From (i), the number of books in Pran's bag must be $y/2 + 6$.

The total number of bags in the six bags = $y + 12 + y + 11 + \frac{y}{2} + 6 + y + y + 7 + y + 2 = \frac{11y}{2} + 38$

Given that $\frac{11y}{2} + 38 = 60 \Rightarrow y = 4$

The following table provides the colour of the bag with each person and the number of books in each bag:

Person	Bag Colour	Number of Books
Amit	White	16
Karthik	Yellow	15
Pran	Blue	8
Lalit	Red	4
Bhim	Green	11
Farooq	Orange	6

- . The difference between the number of books in Amit's bag and that in the Red bag = 12
Ans: (12)

undefined

DIRECTIONS for questions 13 to 16: Answer the questions on the basis of the information given below.

Rahul was selected to play for the Indian National Cricket Team for the first time in the year 2017. He played exactly 20 matches, Match 1 through Match 20, during the year. The line chart below provides the number of runs scored by Rahul in each match that he played in 2017.

The '*' mark next to the number of runs in the chart indicates that the player remained not out in that match.

The Average of a player is defined as the total number of runs scored by the player in all the matches that he played divided by the number of matches in which he got out. The Average of a player can change only at the end of every match that he plays.

Q13. DIRECTIONS for questions 13 and 14: Type in your answer in the input box provided below the question.

In any match, from Match 2 onwards, each time that Rahul scored more than what he did in the previous match, he donated to charity an amount, in USD, which is equal to the difference between the number of runs that he scored in that match and that in the previous match. Assuming that Rahul does not donate any other amounts, how much (in USD) would Rahul have donated to charity?

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	14
Avg. time spent on this question by all students	219
Difficulty Level	E
Avg. time spent on this question by students who got this question right	213
% of students who attempted this question	35.18
% of students who got the question right of those who attempted	34.61

[Video Solution](#)

Text Solution

Rahul scored more than what he did in the previous match in Matches 2, 3, 5, 7, 8, 10, 11, 16 and 17.

Amount donated to charity = $13 + 16 + 39 + 15 + 42 + 25 + 14 + 78 + 1$ = USD 243

Ans: (243)

undefined

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

In a factory, there are exactly five machines - Machine A through Machine E - which manufacture hinges. Each machine can manufacture hinges either at full efficiency or at half efficiency. The number of hinges that a machine working at half efficiency will manufacture in a certain time is half that of the machine working at full efficiency will manufacture in the same time.

The number of hinges manufactured in an hour by Machine A through Machine E, when working at full efficiency, is 20, 26, 18, 28 and 14 respectively.

The following graph provides, during a certain year, the number of hours that each machine worked at full efficiency and the

number of hours that each machine worked at half efficiency:

All the questions that follow pertain only to the hinges manufactured in that year.

Q2. DIRECTIONS for questions 1 and 2: Type in your answer in the input box provided below the question.

When working at half efficiency, the number of defective hinges that any machine manufactures is 20% of the total number of hinges manufactured; when working at full efficiency, the number of defective hinges that any machine manufactures is 40% of the total number of hinges manufactured.

What is the total number of defective hinges manufactured by Machine A and Machine B?

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	205
Difficulty Level	E
Avg. time spent on this question by students who got this question right	188
% of students who attempted this question	47
% of students who got the question right of those who attempted	53.23

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned} \text{Total number of defective hinges manufactured by A} &= 250 \times 20 \times 0.4 + 180 \times \frac{20}{2} \times \\ 0.2 &= 2360 \\ \text{Total number of defective hinges manufactured by B} &= 150 \times 26 \times 0.4 + 270 \times 13 \times \\ 0.2 &= 2262 \\ \text{Required sum} &= 4622 \end{aligned}$$

Ans: (4622)

undefined

Q1. DIRECTIONS for question 1: Select the correct alternative from the given choices.

Let m and n be the roots of the quadratic equation $x^2 + (\alpha - 3)x - 4\alpha - 3 = 0$. What is the minimum possible value of $m^2 + n^2$?

- a) 6
- b) 8

c) 12

d) 14

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	327
Avg. time spent on this question by all students	181
Difficulty Level	M
Avg. time spent on this question by students who got this question right	170
% of students who attempted this question	24.33
% of students who got the question right of those who attempted	66.98

[Video Solution](#)

[Text Solution](#)

$x^2 + (\alpha - 3)x - 4\alpha - 3 = 0$. The roots of this equation are m and n. $\Rightarrow m + n = -(\alpha - 3)$ and $mn = -4\alpha - 3$

$$\begin{aligned}\therefore m^2 + n^2 &= (m + n)^2 - 2mn = [-(\alpha - 3)]^2 - 2(-4\alpha - 3) \\ &= \alpha^2 - 6\alpha + 9 + 8\alpha + 6 \\ &\therefore m^2 + n^2 = \alpha^2 + 2\alpha + 15\end{aligned}$$

The minimum value of $\alpha^2 + 2\alpha + 15$ is

$$\frac{4(1)(15) - 2^2}{4(1)} = \frac{60 - 4}{4} = 14.$$

Choice (D)

undefined

Q2. DIRECTIONS for question 2: Type in your answer in the input box provided below the question.

How many natural numbers divide 2500, 4250 and 6700 leaving the same remainder in each case?

Your Answer: 6 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	154
Avg. time spent on this question by all students	159
Difficulty Level	D
Avg. time spent on this question by students who got this question right	160
% of students who attempted this question	16.09
% of students who got the question right of those who attempted	11.72

[Video Solution](#)

[Text Solution](#)

The required number will be equal to the number of factors of the maximum possible number which divides 2500, 4250 and 6700 leaving the same remainder.

The maximum number which divides 2500, 4250 and 6700 leaving the same remainder = H.C.F (4250 - 2500, 6700 - 1250) = H.C.F (1750, 2450) = 350

\therefore The required value is the number of factors of 350

$$(2 \times 5^2 \times 7) = (1 + 1)(2 + 1)(1 + 1) = 12$$

Ans: (12)

undefined

Q3. DIRECTIONS for questions 3 and 4: Select the correct alternative from the given choices.

A test comprises 200 questions, wherein each correct answer, each wrong answer and each unanswered question carry 1 mark, $-\frac{1}{3}$ mark and $-\frac{1}{6}$ mark respectively. Find the minimum number of questions that a candidate could have answered correctly in the test, if he scored 70 marks in it.

- a) **85**
- b) **89**
- c) **92**
- d) **98**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	223
Avg. time spent on this question by all students	249
Difficulty Level	M
Avg. time spent on this question by students who got this question right	238
% of students who attempted this question	28.57
% of students who got the question right of those who attempted	56.56

[Video Solution](#)

[Text Solution](#)

Let the number of correct answers, wrong answers and unanswered questions be a , b and c respectively.

$$\Rightarrow a + b + c = 200 \quad (1)$$

$$(1) a + \left(\frac{-1}{3}\right)b + \left(\frac{-1}{6}\right)c = 70$$

$$6a - 2b - c = 420 \quad (2)$$

From (1) and (2) we get

$$7a - b = 520$$

$$\Rightarrow a = \frac{620 + b}{7} = 88 + \left(\frac{4 + b}{7}\right)$$

The value of a will be minimum when b is minimum

\therefore The minimum value of $a = 89$ (when the number of wrongly answered questions (b) is 3). Choice (B)

undefined

Q4. DIRECTIONS for questions 3 and 4: Select the correct alternative from the given choices.

- a) **(4, ∞)**

- b) **(-3, 4)**

c) $(3, \infty) - \{4\}$ Your answer is correct

d) $(-3, \infty) - \{4\}$

Time spent / Accuracy Analysis

Time taken by you to answer this question	250
Avg. time spent on this question by all students	74
Difficulty Level	E
Avg. time spent on this question by students who got this question right	71
% of students who attempted this question	29.92
% of students who got the question right of those who attempted	83.7

[Video Solution](#)

[Text Solution](#)

log function is defined only for positive values.

$$\Rightarrow x^3 > 27 \Rightarrow x > 3$$

$\frac{1}{|x-4|}$ is not defined when $|x-4| = 0$, and $|x-4| = 0$ when $x = 4$.

\therefore The domain of the given function is $(3, \infty) - \{4\}$.

Choice (C)

undefined

Q5. DIRECTIONS for question 5: Type in your answer in the input box provided below the question.

Laxman was asked to add a certain number of consecutive natural numbers, starting from 1. By mistake, he forgot to add one number and obtained the sum as 1350. Find the number he forgot to add.

Your Answer: 28 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	180
Avg. time spent on this question by all students	186
Difficulty Level	M
Avg. time spent on this question by students who got this question right	182
% of students who attempted this question	36.5
% of students who got the question right of those who attempted	69.32

[Video Solution](#)

[Text Solution](#)

Let the number of consecutive numbers which Laxman added be N.

$$\Rightarrow \frac{N(N+1)}{2} \text{ is close to } 1350$$

$$\Rightarrow N(N + 1) \text{ is close to } 2700$$

$$\Rightarrow N^2 + N \text{ is close to } 2700$$

$$\Rightarrow N = 52$$

$$\text{The number he forgot to add} = \frac{(52)(53)}{2} - 1350$$

$$= (26)(53) - 1350$$

$$= 1378 - 1350 = 28$$

Ans: (28)

undefined

Q6. DIRECTIONS for questions 6 to 11: Select the correct alternative from the given choices.

A thin copper wire is wound, uniformly and spirally, in a single layer, from the bottom to the top, around a cylindrical iron rod. The circumference of the iron rod is 2 cm. and its height is 56 cm. If the number of turns in the spirally wound copper wire is exactly 45, what is the length of the copper wire used?

- a) **96 cm**
- b) **102 cm**
- c) **106 cm**
- d) **116 cm**

You did not answer this question

[Show Correct Answer](#)

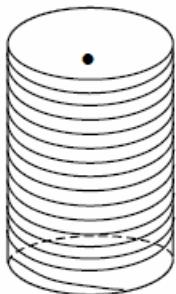
Time spent / Accuracy Analysis

Time taken by you to answer this question	273
Avg. time spent on this question by all students	191
Difficulty Level	M
Avg. time spent on this question by students who got this question right	195
% of students who attempted this question	11.84
% of students who got the question right of those who attempted	22.52

[Video Solution](#)

[Text Solution](#)

The copper wire is wound as shown.



As the circumference of the base is 2 cm and a total of 45 turns are wound around the cylindrical rod, total horizontal displacement is $45(2) = 90$ cm. Also as the height is 56 cm, the vertical displacement is 56 cm. So, the length of copper wire is equal to the hypotenuse of the triangle formed by the horizontal and vertical displacements.

$$\therefore \text{Length of the wire} = \sqrt{56^2 + 90^2} = \sqrt{11236} = 106 \text{ cm}$$

Choice (C)

undefined

Q7. DIRECTIONS for questions 6 to 11: Select the correct alternative from the given choices.

If $A = 2^{15}3^{17}$ and X represents the sum of the factors of A, then find the last digit of X.

- a) **2**

b) 4 Your answer is incorrect

c) 5

d) 0

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	359
Avg. time spent on this question by all students	136
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	154
% of students who attempted this question	28.44
% of students who got the question right of those who attempted	33.75

[Video Solution](#)

Text Solution

The sum of factors of $2^{15}3^{17} = X$

$$\begin{aligned}&= \left(\frac{2^{15+1}-1}{2-1} \right) \left(\frac{3^{17+1}-1}{3-1} \right) \\&= (2^{16}-1) \left(\frac{3^{18}-1}{2} \right).\end{aligned}$$

Last digit of $2^{16} = 6$ and last digit of $3^{18} = 9$.

\therefore Required last digit = $(6-1) \left(\frac{9-1}{2} \right) = 5 \times 4 = 20$ or $5 \times 9 = 45$ i.e., the last digit is 0 or 5.

Now, since 5 is also present among the choices, we can further observe that since A is not a perfect square, it will have an even number of factors, of which an even number of factors will be odd (since the power of 3 is odd). Hence, sum of all factors will be even. Hence, 5 is not possible.

Choice (D)

undefined

Q8. DIRECTIONS for questions 6 to 11: Select the correct alternative from the given choices.

If $f(x) = x^2$ and $g(x) = 2^x$, then for how many non-negative integer values of x is $f(x) \geq g(x)$?

a) 0

b) 1

c) 3 Your answer is correct

d) greater than 3

Time spent / Accuracy Analysis

Time taken by you to answer this question	139
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	115
% of students who attempted this question	42.99
% of students who got the question right of those who attempted	65.28

[Video Solution](#)

[Text Solution](#)

$$f(x) = x^2$$

$$g(x) = 2^x$$

Listing out values of $f(x)$ and $g(x)$ for the first ten whole numbers, we get

x	$f(x) = x^2$	$g(x) = 2^x$
0	0	1
1	1	2
2	4	4
3	9	8
4	16	16
5	25	32
6	36	64

For $x > 6$, $g(x) > f(x)$.

∴ For three values of x , i.e., 2, 3, 4, $f(x) \geq g(x)$.

Choice (C)

undefined

Q9. DIRECTIONS for questions 6 to 11: Select the correct alternative from the given choices.

Ajay and Amar inherited a rectangular field of area 1000 sq.m. If they decide to split the land into two halves by dividing it with a single straight line, then find the approximate minimum cost that Ajay would have to incur to fence his half of the land at the rate of Rs.1 per metre. Assume that Ajay bears the complete cost of fencing the common boundary.

- a) **Rs.67**
- b) **Rs.90**
- c) **Rs.95**
- d) **Rs.112**

You did not answer this question

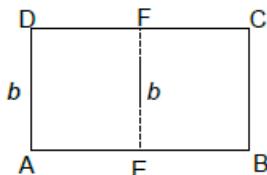
[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	20
Avg. time spent on this question by all students	206
Difficulty Level	D
Avg. time spent on this question by students who got this question right	206
% of students who attempted this question	24.26
% of students who got the question right of those who attempted	70.88

[Video Solution](#)

[Text Solution](#)



The dividing line EF for the field ABCD should be along the breadth. If $AB = l$ and $BC = b$

\therefore fencing length $= l/2 + l/2 + 2b = l + 2b$
 $l + 2b$ has to be minimum and $l \times b = 1000$,
it will be when $l = 2b$ and

$$\therefore 2b^2 = 1000 \Rightarrow b = \sqrt{500}$$

$$\text{and } l + 2b = 4\sqrt{500} \approx 90 \text{ m}$$

$$\therefore \text{Minimum cost} = ₹90$$

Choice (B)

undefined

Q10. DIRECTIONS for questions 6 to 11: Select the correct alternative from the given choices.

A, B and C are three sets such that $n(A) = n(B) = n(C) = 10$, $n(A \cap B) = 4$, $n(B \cap C) = 5$, $n(A \cap C) = 3$. If $n(A \cup B \cup C) = 20$, find the value of $n(A \cap B \cap C)$.

- a) 0
- b) 1
- c) 2
- d) Cannot be determined

You did not answer this question Show Correct Answer

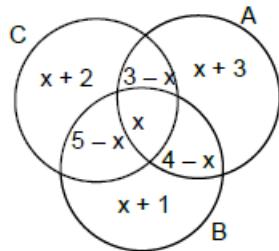
Time spent / Accuracy Analysis

Time taken by you to answer this question	79
Avg. time spent on this question by all students	137
Difficulty Level	M
Avg. time spent on this question by students who got this question right	129
% of students who attempted this question	37.76
% of students who got the question right of those who attempted	71.09

[Video Solution](#)

[Text Solution](#)

Let the value of $n(A \cap B \cap C)$ be x .
 If we represent the given information in a venn diagram, we get



$$\begin{aligned} \text{Given, } n(A \cup B \cup C) &= (x+1 + x+2 + x+3) + (3-x + 4-x + 5-x) + x \\ &= (x+1 + x+2 + x+3) + (3-x + 4-x + 5-x) + x \\ &\Rightarrow 20 = 18 + x \\ &\Rightarrow x = 2. \\ \therefore \text{The value of } n(A \cap B \cap C) &\text{ is 2.} \end{aligned}$$

Alternative Solution:

The standard result for $n(A \cup B \cup C)$ is
 $n(A \cup B \cup C) = n(A) + n(B) + n(C) - n(A \cap B) - n(A \cap C) - n(B \cap C) + n(A \cap B \cap C)$
 Using this result,
 we get $n(A \cap B \cap C) = 20 - (10 + 10 + 10 - 4 - 5 - 3) = 2$ Choice (C)

undefined

Q11. DIRECTIONS for questions 6 to 11: Select the correct alternative from the given choices.

If $p : q = 2 : 5, r : s = 3 : 2$, and $p : r = 1 : 3$, then find the value of $\frac{p^2q + r^2s}{pq^2 + rs^2}$.

- a) $\frac{51}{57}$
- b) $\frac{63}{56}$
- c) $\frac{82}{73}$
- d) Cannot be determined Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	186
Avg. time spent on this question by all students	198
Difficulty Level	E
Avg. time spent on this question by students who got this question right	196
% of students who attempted this question	43.06
% of students who got the question right of those who attempted	78.17

[Video Solution](#)

Text Solution

From given $p : q : r : s = 2 : 5 : 6 : 4$

Let $p = 2 \Rightarrow q = 5, r = 6$ and $s = 4$

$$\frac{p^2q+r^2s}{pq^2+rs^2} = \frac{(2)^2(5)+(6)^2(4)}{(2)(5)^2+(6)(4)^2}$$

$$= \frac{20+144}{50+96} = \frac{164}{146} = \frac{82}{73}$$

Choice (C)

undefined

Q12. DIRECTIONS for question 12: Type in your answer in the input box provided below the question.

Find the remainder when $[(7!)^{6!}]^{17777}$ is divided by 17.

Your Answer:1 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	88
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	18.34
% of students who got the question right of those who attempted	43.77

[Video Solution](#)

Text Solution

$7! = 5040$, which when divided by 17, leaves a remainder 8. The remainder when the given expression is divided by 17 is the same as the remainder when $(8)^{720(17777)}$ is divided by 17.

Now $(8)^{720(17777)} = (16)^{540(17777)} = (17 - 1)^{\text{even number}}$
 $= 17k + 1$.

So the remainder when $(16)^{540 \times 17777}$ is divided by 17 is 1.

Alternative solution:

By Fermat's theorem $\frac{a^{p-1}}{p}$, where p is a prime number and a is not a multiple of p , leaves a remainder 1.

$\frac{a^{(p-1)k}}{p}$ also leaves a remainder 1.

Now $6! = 720 = 16(45)$

$$\therefore \frac{[(7!)^{6!}]^{17777}}{17} = \frac{5040^{(17-1)(45)(17777)}}{17} \text{ leaves a remainder of 1.} \quad \text{Ans: (1)}$$

undefined

Q13. DIRECTIONS for questions 13 to 16: Select the correct alternative from the given choices.

Arrange the following in the descending order of their values:

$$P = \frac{7^3 + 9^3}{16^3};$$

$$Q = \frac{6^3 + 10^3}{16^3};$$

$$R = \frac{5^3 + 12^3}{17^3};$$

$$S = \frac{8^3 + 9^3}{17^3}.$$

a) Q R P S Your answer is incorrect

b) R Q P S

c) Q R S P

d) R Q S P

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	197
Avg. time spent on this question by all students	239
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	249
% of students who attempted this question	45.43
% of students who got the question right of those who attempted	65.88

[Video Solution](#)

Text Solution

We can use the onscreen calculator to find the values of P, Q, R and S.

P = 0.2617; Q = 0.2969; R = 0.3772; S = 0.2526;
Hence, R > Q > P > S.

Alternative Solution:

$$P = \frac{7^3 + 9^3}{16^3} = \frac{(7+9)^3 - (3)(7)(9)(7+9)}{16^3}$$
$$= 1 - \frac{189}{16^2}.$$

$$Q = \frac{6^3 + 10^3}{16^3} = \frac{(6+10)^3 - (3)(6)(10)(6+10)}{16^3}$$
$$= 1 - \frac{180}{16^2}.$$

$$R = \frac{5^3 + 12^3}{17^3} = \frac{(5+12)^3 - (3)(5)(12)(5+12)}{17^3}$$
$$= 1 - \frac{180}{17^2}.$$

$$S = \frac{8^3 + 9^3}{17^3} = \frac{(8+9)^3 - (3)(8)(9)(8+9)}{17^3}$$
$$= 1 - \frac{216}{17^2}.$$

Clearly R > Q > P

If we compare P and S, P is greater than S.

∴ The descending order with respective to their values is RQPS.

Choice (B)

undefined

Q14. DIRECTIONS for questions 13 to 16: Select the correct alternative from the given choices.

Mr. Khan, a political leader, gathered exactly 100 attendees for one of his meetings. He never allows girls to attend his meetings, while women are allowed to attend his meetings, only if they are married and come to the meeting with their husbands. Also, at least half of the men who come to his meetings, come along with their wives. If each man is paid Rs.5, each woman is paid Rs.4 and each boy is paid Rs.1 for attending the meeting and Mr. Khan paid Rs.200, on the whole, to the attendees, find the difference between the number of men and the number of women attending the meeting.

- a) **12**
- b) **8**
- c) **4**
- d) **10**

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	256
Difficulty Level	D
Avg. time spent on this question by students who got this question right	275
% of students who attempted this question	12.3
% of students who got the question right of those who attempted	33.67

[Video Solution](#)

[Text Solution](#)

Let the number of men, women and boys who attended the meeting be M, W and C respectively.

Given,

$$M + W + C = 100 \quad (1)$$

$$5M + 4W + C = 200 \quad (2)$$

$$(1) \times (4) - (2)$$

$$\Rightarrow M = 3C - 200 \quad (3)$$

$$(1) \times 5 - (2)$$

$$\Rightarrow W = 300 - 4C \quad (4)$$

Since every woman has come with her husband and at least half of the men came with

their wives, the value of W must be between M and $\frac{M}{2}$

If $W = M$,

$$3C - 200 = 300 - 4C \text{ [from (3) & (4)]} \quad (6)$$

$$\Rightarrow C = \frac{500}{7} = 71.42$$

$$\text{If } W = \frac{M}{2}$$

$$3C - 200 = 600 - 8C \text{ [from (3) & (4)]}$$

$$\Rightarrow C = \frac{800}{11} = 72.72$$

Since 'C' is a natural number and $\frac{M}{2} \leq W \leq M$

$$C = 72$$

$$\Rightarrow M = 16 \text{ (from (3))}$$

$$W = 12 \text{ (from (4))}$$

$$\therefore M - W = 4$$

Alternative solution:

In the equations (1) and (2), (2) – (1) gives $4M + 3W = 100$

Now, the only possible solution of this equations is $M = 16$ and $W = 12$.

$$\text{Hence } M - W = 4$$

Choice (C)

undefined

Q15. DIRECTIONS for questions 13 to 16: Select the correct alternative from the given choices.

If α , β and γ are the roots of the equation $x^3 + 20x^2 + 10x + 5 = 0$, find the value of $\frac{1}{\alpha} + \frac{1}{\beta} + \frac{1}{\gamma}$.

- a) -4 Your answer is incorrect
- b) -2
- c) +2
- d) +4

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	72
Difficulty Level	M
Avg. time spent on this question by students who got this question right	68
% of students who attempted this question	27.17
% of students who got the question right of those who attempted	79.59

[Video Solution](#)

Text Solution

$$\begin{aligned}x^3 + 20x^2 + 10x + 5 &= 0 \\ \alpha, \beta, \gamma \text{ are roots of above equation, so } \alpha + \beta + \gamma &= -20 \\ \alpha\beta + \beta\gamma + \gamma\alpha &= 10 \\ \alpha\beta\gamma &= -5 \\ \frac{1}{\alpha} + \frac{1}{\beta} + \frac{1}{\gamma} &= \frac{\alpha\beta + \beta\gamma + \gamma\alpha}{\alpha\beta\gamma} \\ &= \frac{10}{-5} = -2\end{aligned}$$

Choice (B)

undefined

Q16. DIRECTIONS for questions 13 to 16: Select the correct alternative from the given choices.

Mr. Vincent's family consists of six members, himself, his wife and their four children. It is known that the average age of the family immediately after the birth of the first, second, third and fourth child was 16, 15, 16 and 15 years respectively. Find the age of Mr. Vincent's eldest son, if the present average age of the entire family is 16 years.

- a) 8 years
- b) 15 years
- c) 12 years
- d) 16 years

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	230
Difficulty Level	D
Avg. time spent on this question by students who got this question right	237
% of students who attempted this question	18.89
% of students who got the question right of those who attempted	62

[Video Solution](#)

[Text Solution](#)

When first child is born the total age of family

$$= T = 3 \times 16 = 48 \text{ years}$$

Now when second child was born, n_1 years later

$$T = 4 \times 15 = 60 \text{ years}$$

$$\Rightarrow n_1 = \frac{60 - 48}{3} = 4 \text{ years}$$

Similarly, third child was born after another

$$n_2 = \frac{16 \times 5 - 15 \times 4}{4} = 5 \text{ years}$$

$$n_3 = \frac{15 \times 6 - 16 \times 5}{5} = 2 \text{ years}$$

$$\text{finally } n_4 = \frac{16 \times 6 - 15 \times 6}{6} = 1 \text{ year}$$

\therefore Age of eldest son = 12 years.

Choice (C)

undefined

Q17. DIRECTIONS for question 17: Type in your answer in the input box provided below the question.

Arun and Varun can complete a piece of work in 50 days and earn Rs.28,000 in total. If Varun is thrice as efficient as Arun but leaves after the first 30 days of work, what is the amount (in Rs.) that Arun earns for the work?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	188
Avg. time spent on this question by all students	183
Difficulty Level	E
Avg. time spent on this question by students who got this question right	194
% of students who attempted this question	36.32
% of students who got the question right of those who attempted	33.66

[Video Solution](#)

[Text Solution](#)

Let Arun do x part of work in a day.
 Work done by Varun in a day = $3x$ parts
 Total work = $(x + 3x) \times 50 = 200x$ parts
 Amount of work done by Varun = $3x \times 30 = 90x$
 The remaining work is done by Arun,
 i.e., $110x$ parts of work.

$$\therefore \text{Total amount received by Arun} = \frac{110x}{200x} \times 28,000$$

$$= \frac{11}{20} \times 28000 = 15,400$$

Ans: (15400)

undefined

Q18. DIRECTIONS for questions 18 to 20: Select the correct alternative from the given choices.

If $x + y + z = 36$, where x, y and z are positive real numbers, find the maximum value of xy^2z^3 .

- a) $2^7 3^8$.
- b) $2^8 3^8$.
- c) $2^9 3^9$.
- d) $2^8 3^9$. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	276
Avg. time spent on this question by all students	142
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	135
% of students who attempted this question	17.79
% of students who got the question right of those who attempted	68.93

[Video Solution](#)

[Text Solution](#)

Given $x + y + z = 36$

Consider the product $(x \left(\frac{y}{2}\right)^2 \left(\frac{z}{3}\right)^3)$

$$= x \cdot \frac{y}{2} \cdot \frac{y}{2} \cdot \frac{z}{3} \cdot \frac{z}{3} \cdot \frac{z}{3}$$

The sum of the above factors is $x + 2 \cdot \frac{y}{2} + 3 \cdot \frac{z}{3}$

$$= x + y + z = 36$$

\therefore The product is maximum, when all the factors are equal (and hence equal to 6).

$$x = \frac{y}{2} = \frac{z}{3} = 6$$

$$\Rightarrow x = 6; y = 12; z = 18$$

$$\therefore \text{The value of } xy^2z^3 \text{ is } (6)(12^2)(18^3) \\ = (2 \cdot 3)(2^4 \cdot 3^2)(2^3 \cdot 3^6) = 2^8 \cdot 3^9$$

Choice (D)

undefined

Q19. DIRECTIONS for questions 18 to 20: Select the correct alternative from the given choices.

Find the number of ways in which 14 identical and indistinguishable balls can be divided into three groups.

- a) 17
- b) 16
- c) 18
- d) 19

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	66
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	150
% of students who attempted this question	13.12
% of students who got the question right of those who attempted	45.56

[Video Solution](#)

[Text Solution](#)

Let us say the first group contains a balls and the remaining $14 - a$ balls are divided into two groups in b ways. We have the following values of b for various values of a

a	b
1	6
2	5
3	3
4	2

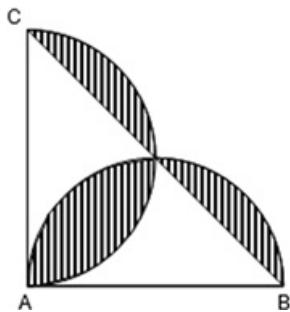
$$\text{Total number of ways} = 6 + 5 + 3 + 2 = 16$$

Choice (B)

undefined

Q20. DIRECTIONS for questions 18 to 20: Select the correct alternative from the given choices.

In the figure given below, ABC is an isosceles rightangled triangle, with AB = AC. Two semicircles are drawn, one each with AB and AC as diameters respectively. Find the ratio between the shaded region and the unshaded region in the figure.



- a) $\pi - 2 : 2$
- b) $2\pi - 4 : 3 - \pi$
- c) $2\pi - 4 : 6 - \pi$
- d) Data Insufficient

You did not answer this question

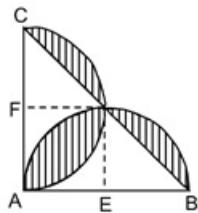
Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	72
Avg. time spent on this question by all students	158
Difficulty Level	D
Avg. time spent on this question by students who got this question right	218
% of students who attempted this question	10.78
% of students who got the question right of those who attempted	21.75

[Video Solution](#)

[Text Solution](#)



Given,
 $\triangle ABC$ is an isosceles and rightangled triangle, i.e.,
 $\angle CAB = 90^\circ$, and $\angle ACB = \angle ABC = 45^\circ$
 AB, AC are diameters of the semicircles.
 $\Rightarrow \angle ADB = \angle ADC = 90^\circ$
Let the length of $AB = AC = 2r$
From $\triangle ADB$
 $\angle DAB = 45^\circ$ and $AD = BD$
From triangle ADC
 $\angle DAC = 45^\circ$ and $AD = CD$
Also $\triangle DEB, \triangle AED, \triangle ADF, \triangle CDF$ are all isosceles rightangled triangles.
Area of shaded Region
 $= 4 [\text{Area of Quarter of a circle (DEB)} - \text{Area of } \triangle DEB]$
(Considering each of triangles DEB, AED, ADF and CFD)
 $= 4 \left(\frac{1}{4} \times \pi r^2 - \frac{1}{2} r^2 \right) = \pi r^2 - 2r^2 = r^2 (\pi - 2)$
Area of unshaded region
 $= \text{Area of } \triangle ABC - \frac{1}{2} (\text{Area of shaded region})$
(shaded area comprises four symmetrical regions (each in the shape of a segment of a circle), out of which two are inside the triangle)
 $= \frac{1}{2} (2r) (2r) - \frac{1}{2} (\pi - 2) r^2$
 $= 2r^2 - \frac{1}{2} \pi r^2 + r^2 = \left(3 - \frac{\pi}{2} \right) r^2$
Ratio is $(\pi - 2) r^2 : \left(\frac{6 - \pi}{2} \right) r^2 = 2\pi - 4 : 6 - \pi$ Choice (C)

undefined

Q21. DIRECTIONS for questions 21 and 22: Type in your answer in the input box provided below the question.

If the area of a rhombus is 260 sq. units and the length of one of its diagonals is 104 units, then what is the length (in units) of the other diagonal?

Your Answer:5 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	25
Avg. time spent on this question by all students	76
Difficulty Level	E
Avg. time spent on this question by students who got this question right	73
% of students who attempted this question	41.19
% of students who got the question right of those who attempted	81.14

[Video Solution](#)

[Text Solution](#)

Area of rhombus = $\frac{1}{2} * (\text{Product of diagonals})$
Therefore, length of the other diagonal = $260 \times 2 / 104$
= 5 units

Ans: (5)

undefined

Q22. DIRECTIONS for questions 21 and 22: Type in your answer in the input box provided below the question.

In a race of 2000 m, P beats Q by 200 seconds and R by 500 m. If Q beats R by 125 m, find the speed (in m/s) of R.

Enter your answer as a decimal value, rounded off to three decimal places.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	171
Avg. time spent on this question by all students	221
Difficulty Level	M
Avg. time spent on this question by students who got this question right	210
% of students who attempted this question	17.31
% of students who got the question right of those who attempted	45.63

[Video Solution](#)

[Text Solution](#)

The ratio of speeds of P and R = $2000 : (2000 - 500)$
 $= 4 : 3$.

The ratio of speeds of Q and R = $2000 : (2000 - 125)$
 $= 16 : 15$.

\Rightarrow The ratio of speeds of P, Q and R = $20 : 16 : 15$.
Let the time taken by P to complete the race be t .

\Rightarrow the time taken by Q to complete the race be $\frac{5}{4}t$

Given, $\frac{5}{4}t - t = 200$

$\Rightarrow t = 800$ seconds.

\therefore The speed of R = $\frac{3}{4}$ the speed of P

$$= \frac{3}{4} \times \frac{2000}{800}$$

$$= \frac{3}{4} \times \frac{5}{2} \times \frac{15}{8} = 1.875 \text{ m/s.}$$

Ans: (1.875)

undefined

Q23. DIRECTIONS for question 23: Select the correct alternative from the given choices.

If $f(x) = |x + 1| + 2|x + 2| + 3|x + 3|$, what is the least value of $f(x)$?

a) $3\frac{2}{3}$

b) 4

c) $4\frac{1}{3}$

d) $4\frac{2}{3}$

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	98
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	92
% of students who attempted this question	25.23
% of students who got the question right of those who attempted	77.76

[Video Solution](#)

[Text Solution](#)

$$F(x) = |x + 1| + 2|x + 2| + 3|x + 3|$$

This is the sum of 3 quantities, which are:

A = the distance of x from -1

B = twice the distance of x from -2

C = three times the distance of x from -3

The minimum value of f(x) occurs for $-3 \leq x \leq -2$

For these values of x, $|x + 1| = -1 - x$, $|x + 2| = -2 - x$ and $|x + 3| = x + 3$ and $f(x) = (-1 - x) + 2(-2 - x) + 3(x + 3) = 4$

For $x < -3$, all 3 quantities will increase.

For $-2 < x < -1$, C and B increase. This increase dominates over the slight decrease in A.

For $-1 > x$, all 3 quantities will increase.

\therefore the minimum value of f(x) is 4.

Choice (B)

undefined

Q24. DIRECTIONS for question 24: Type in your answer in the input box provided below the question.

Pavan and Naveen started a business investing Rs.80,000 each. At the end of six months, Naveen started withdrawing Rs.10,000 from his share of the investment every month. What profit (in Rs.) should Naveen receive at the end of the year, if the total profit at the end of the year is Rs.57,000?

Your Answer:25000 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	131
Avg. time spent on this question by all students	186
Difficulty Level	E
Avg. time spent on this question by students who got this question right	179
% of students who attempted this question	25.02
% of students who got the question right of those who attempted	45.19

[Video Solution](#)

Text Solution

$$\begin{aligned} \text{Working only with tens of thousands, the ratio of investments} &= \\ \frac{(8 \times 12)}{(8 \times 6 + 7 + 6 + 5 + 4 + 3 + 2)} &= 96 : 75 \\ \therefore \text{Naveen's share of profit} &= ₹57,000 \times \frac{75}{(96 + 75)} \\ &= 57 \times \frac{75}{171} = 25,000 \quad \text{Ans: (25000)} \end{aligned}$$

undefined

Q25. DIRECTIONS for questions 25 and 26: Select the correct alternative from the given choices.

If the absolute difference between the mean and the median of the distribution 3, 6, 8, 12 and x is 0.8, then how many positive integer values can x assume?

- a) 0
- b) 1
- c) 2
- d) 3

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	125
Difficulty Level	D
Avg. time spent on this question by students who got this question right	126
% of students who attempted this question	17.39
% of students who got the question right of those who attempted	38.25

[Video Solution](#)

Text Solution

Rekha drew a circle of radius 2 cm on a paper containing a grid of unit-squares formed by several horizontal and vertical straight lines. The distance between any two adjacent horizontal lines or any two adjacent vertical lines is 1 cm . Rekha then calculated the approximate area of the circle by adding up only the number of full unit-squares that fell within the perimeter of the circle. If the value of the area that Rekha obtained was d sq.cm. less than the actual value, then find the maximum possible value of d .

- a) **6.28**
- b) **7.28**
- c) **7.56**
- d) **8.56**

You did not answer this question Show Correct Answer

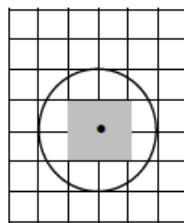
Time spent / Accuracy Analysis

Time taken by you to answer this question	2
Avg. time spent on this question by all students	132
Difficulty Level	D
Avg. time spent on this question by students who got this question right	150
% of students who attempted this question	6.23
% of students who got the question right of those who attempted	66.24

[Video Solution](#)

[Text Solution](#)

For the value of d to be the maximum, the number of full unit-squares that Rekha counts must be the minimum, which is 4 unit-squares. (i.e., 4 full unit-squares will always fall within the circle as shown in the figure)



$$\begin{aligned}\therefore d &= \pi r^2 - 4 = 4\pi - 4 = 4(\pi - 1) \\ &= 4(3.142 - 1) = 4(2.142) \approx 8.56.\end{aligned}$$

Choice (D)

undefined

Q27. DIRECTIONS for questions 27 and 28: Type in your answer in the input box provided below the question.

How many numbers between 6000 and 9000 are co-prime to 9000?

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	97
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	115

Time spent / Accuracy Analysis

% of students who attempted this question	12.64
% of students who got the question right of those who attempted	42.82

[Video Solution](#)

[Text Solution](#)

$$9000 = 2^3 3^2 5^3 \text{ and } 6000 = 2^4 3 5^3$$

The numbers coprime to 9000 are the numbers coprime to 2, 3, and 5.

Similarly, the numbers coprime to 6000 are the numbers coprime to 2, 3 and 5.

If n is a natural number, the number of numbers less than or equal to n and coprime to n is denoted as $\phi(n)$.

[Only for $n = 1$, n is coprime to n . For $n > 1$, n is not coprime to n]

$$\phi(n) = n \left(1 - \frac{1}{a}\right) \left(1 - \frac{1}{b}\right) \left(1 - \frac{1}{c}\right)$$

Where $n = a^p b^q c^r \dots$

Number of coprimes to 6000 less than 6000

$$= 6000 \times \frac{1}{2} \times \frac{2}{3} \times \frac{4}{5} = 1600.$$

All these 1600 numbers (and only these 1600 numbers which are less than 6000) are coprime to 9000 as well.

Number of coprimes to 9000 less than 9000

$$= 9000 \times \frac{1}{2} \times \frac{2}{3} \times \frac{4}{5} = 2400$$

Hence, no. of coprimes between 6000 and 9000 co-prime to 9000 = Number of coprimes to 9000 less than 9000 – Number of coprimes to 9000 less than 6000 = 2400 – 1600 = 800

Ans: (800)

undefined

Q28. DIRECTIONS for questions 27 and 28: Type in your answer in the input box provided below the question.

Given, $a + b + c + d = 138$, $a + b + c + e = 140$, $a + b + d + e = 144$, $a + c + d + e = 150$ and $b + c + d + e = 152$. Find the value of c .

Your Answer:37 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	55
Avg. time spent on this question by all students	172
Difficulty Level	M
Avg. time spent on this question by students who got this question right	152
% of students who attempted this question	25.59
% of students who got the question right of those who attempted	65.15

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}
 a + b + c + d &= \dots \dots \dots (1) \\
 a + b + c + e &= \dots \dots \dots (2) \\
 a + b + d + e &= \dots \dots \dots (3) \\
 a + c + d + e &= \dots \dots \dots (4) \\
 b + c + d + e &= \dots \dots \dots (5)
 \end{aligned}$$

Comparing each of the 4 pairs of equations (1, 2; 2, 3; 3, 4 and 4, 5)
we see that $e = d + 2$, $d = c + 4$, $c = b + 6$ and $b = a + 2$

$\therefore b = a + 2$, $c = a + 8$, $d = a + 12$ and $e = a + 14$

Substituting in (1), we get $4a + 2 + 8 + 12 = 138$

$\Rightarrow a = 29 \quad \therefore b = 31, c = 37$ (also $d = 41, e = 43$)

Alternative Solution:

On adding equations 1, 2, 3, 4 and 5, we get

$$4(a + b + c + d + e) = 724$$

$$\Rightarrow a + b + c + d + e = 181 \dots \dots \dots (6)$$

$$\text{The value of } c = (6) - (3) = 181 - 144 = 37.$$

Ans: (37)

undefined

Q29. DIRECTIONS for questions 29 to 33: Select the correct alternative from the given choices.

PQRS is a trapezium, with the lengths of the parallel sides PQ and RS being 9 cm and 27 cm respectively. If the measures of the angles $\angle PSR$ and $\angle QRS$ are 60° and 45° respectively, what is the area (in sq.cm.) of the trapezium PQRS?

- a) $162(3 - \sqrt{3})$
- b) $8(3 + \sqrt{3})$
- c) $8(3 - \sqrt{3})$
- d) $162(3 + \sqrt{3})$

You did not answer this question

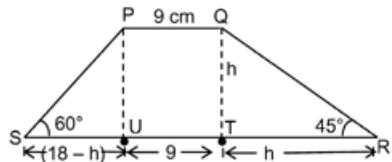
Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	9
Avg. time spent on this question by all students	196
Difficulty Level	M
Avg. time spent on this question by students who got this question right	211
% of students who attempted this question	11.43
% of students who got the question right of those who attempted	61.97

[Video Solution](#)

Text Solution



Let the foot of the perpendicular drawn from P and Q to SR be U and T respectively.

In triangle QTR, $\angle QTR = 45^\circ \Rightarrow QT = TR$.

Let $QT = h$ cm $\Rightarrow TR = h$ cm.

$$UT = PQ = 9 \text{ cm}$$

$$\Rightarrow US = 27 - UR = 27 - (9 + h) = 18 - h$$

In triangle PSU, $\angle PSU = 60^\circ$

$$\Rightarrow PU = \sqrt{3} SU = \sqrt{3}(18-h)$$

Since PQ//SR, $PU = QT$

$$\text{i.e., } \sqrt{3}(18-h) = h$$

$$\Rightarrow h = \frac{18\sqrt{3}}{\sqrt{3} + 1}$$

$$\therefore \text{The area of the trapezium PQRS} = \frac{1}{2}(PQ + SR)(QT)$$

$$= \left(\frac{18\sqrt{3}}{\sqrt{3} + 1} \right) \left(\frac{9 + 27}{2} \right)$$

$$= \frac{324\sqrt{3}}{\sqrt{3} + 1} \times \frac{\sqrt{3} - 1}{\sqrt{3} - 1}$$

$$= \frac{324\sqrt{3}}{2} (\sqrt{3} - 1)$$

$$= 162(3 - \sqrt{3}) \text{ sq.cm.}$$

Choice (A)

undefined

Q30. DIRECTIONS for questions 29 to 33: Select the correct alternative from the given choices.

This summer, my mother made raw mango syrup and gave it to me in a two litre bottle, filled upto its brim. On the first day, I drank 50 ml of its contents and replenished it with water. From the second day onwards, I drank 30 ml more than the previous day and replenished it with water. This continued till the bottle became empty. What is the total quantity of water I used for replenishing in the entire process?

- a) 64.65 ℥
- b) 65.65 ℥
- c) 66.65 ℥
- d) 67.65 ℥

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	152
Difficulty Level	M
Avg. time spent on this question by students who got this question right	147
% of students who attempted this question	5.33
% of students who got the question right of those who attempted	32.43

[Video Solution](#)

[Text Solution](#)

The days and the quantities consumed on those day (Q_i) (in ml) are listed below.

Day	1	2	3	66
Q_i	50	80	110	2000

The total quantity of fluids consumed (in ml)

$$= \frac{(50 + 2000)(66)}{2} = 67650$$

The quantity of mango syrup (in ml) = 2000

∴ The quantity of water used = 65650 ml = 65.65 l

Choice (B)

undefined

Q31. DIRECTIONS for questions 29 to 33: Select the correct alternative from the given choices.

Two apples, three mangoes and six bananas all cost the same. If the price of an apple increases by 25% and that of a mango by 40%, find the approximate percentage increase in total cost of four apples, five mangoes and six bananas.

- a) **25%**
- b) **28%**
- c) **30%**
- d) **34%**

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	193
Difficulty Level	E
Avg. time spent on this question by students who got this question right	196
% of students who attempted this question	26.75
% of students who got the question right of those who attempted	75.72

[Video Solution](#)

[Text Solution](#)

Let A, M, B be the price of each apple, mango and Banana respectively

Given,

$$2A = 3M = 6B$$

$$\text{Let } 2A = 3M = 6B = 12$$

$$A = 6, M = 4, B = 2$$

$$4A + 5M + 6B = 24 + 20 + 12 = 56$$

New prices

$$A = 6 \times 1.25 = 7.5$$

$$M = 4 \times 1.4 = 5.6$$

$$B = 2$$

$$4A + 5M + 6B = 30 + 28 + 12 = 70$$

$$\% \text{ Increase} = \frac{70 - 56}{56} \times 100$$

$$= \frac{14}{56} \times 100 = 25\%$$

Choice (A)

undefined

Q31. DIRECTIONS for questions 29 to 33: Select the correct alternative from the given choices.

Two apples, three mangoes and six bananas all cost the same. If the price of an apple increases by 25% and that of a mango by 40%, find the approximate percentage increase in total cost of four apples, five mangoes and six bananas.

- a) 25%
- b) 28%
- c) 30%
- d) 34%

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	193
Difficulty Level	E
Avg. time spent on this question by students who got this question right	196
% of students who attempted this question	26.75
% of students who got the question right of those who attempted	75.72

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The number of numbers less than 500 which are divisible by 5 = $\left[\frac{495-5}{5} \right] + 1 = 99$.

The number of numbers less than 500 which are divisible by 7 = $\left[\frac{497-7}{7} \right] + 1 = 71$.

The number of numbers less than 500 which are divisible by both 5 and 7 = $\left[\frac{490-35}{35} \right] + 1 = 14$.

∴ The required number = 499 - (99 + 71 - 14) = 343. Choice (B)

undefined

Q33. DIRECTIONS for questions 29 to 33: Select the correct alternative from the given choices.

Mohan bought an article and marked it up by 50%. He gave a discount of $d\%$ and got a profit of $d\%$. Had he bought the article for $d\%$ less, increased its marked price by $d\%$ and given a discount of $2d\%$, what would his profit percentage have been?

- a) **40%**
- b) **45%**
- c) **35%**
- d) **48%**

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	200
Difficulty Level	M
Avg. time spent on this question by students who got this question right	212
% of students who attempted this question	9.02
% of students who got the question right of those who attempted	65.53

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Let the CP be 100.

\therefore The MP is 150 and $100(1 + d) = 150(1 - d)$

$$\frac{1+d}{1-d} = \frac{3}{2} \Rightarrow d = \frac{3-2}{3+2} = \frac{1}{5} = 20\%$$

If Mohan had bought the article for 20% less, the CP would be 80.

If the MP was increased by 20%, it would be 180.

If Mohan offers a discount of $2d\%$ (or 40%), the SP would be 108.

$$\text{The profit percentage would be } \frac{108 - 80}{80} = \frac{28}{80}$$

$$= \frac{7}{20} = 35\%$$

Choice (C)

undefined

Q34. DIRECTIONS for question 34: Type in your answer in the input box provided below the question.

If $x^2 + \frac{1}{x^2} = 1$, find the value of $x^{42} + x^{48} + x^{54} + x^{60} + x^{66}$.

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	109
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	126

Time spent / Accuracy Analysis% of students who attempted this question **10.06**% of students who got the question right of those who attempted **5.77**[Video Solution](#)[Text Solution](#)

$$\begin{aligned}x^2 + \frac{1}{x^2} = 1 &\Rightarrow x^4 = x^2 - 1 \\&\Rightarrow x^6 = x^4 - x^2 = (x^2 - 1) - x^2 = -1 \\&\therefore x^{42} = x^{54} = x^{66} = -1 \text{ and } x^{48} = x^{60} = 1\end{aligned}$$

The given expression is -1 .

Ans: (-1)

undefined

Q32. DIRECTIONS for questions 29 to 33: Select the correct alternative from the given choices.

How many natural numbers less than 500 are divisible neither by 5 nor by 7?

- a) 333
- b) 343
- c) 347
- d) 357

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 **M**Avg. time spent on this question by students who got this question right **139**% of students who attempted this question **23.68**% of students who got the question right of those who attempted **76.32**[Video Solution](#)[Text Solution](#)

The number of numbers less than 500 which are divisible by 5 = $\left[\frac{495-5}{5} \right] + 1 = 99$.

The number of numbers less than 500 which are divisible by 7 = $\left[\frac{497-7}{7} \right] + 1 = 71$.

The number of numbers less than 500 which are divisible by both 5 and 7 = $\left[\frac{490-35}{35} \right] + 1 = 14$.

\therefore The required number = $499 - (99 + 71 - 14) = 343$. Choice (B)