

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.

The Outer Space Treaty – written in 1967 and signed by all the major world powers – is the closest thing we have to a constitution for space. For a document conceived before the moon landing, it's remarkably forward-looking: it declares "celestial bodies" like the moon and asteroids off-limits for private development and requires countries to authorize and continually supervise companies' activities in space. It also says that space exploration should be carried out for the benefit of all peoples.

But even with that impressive scope of vision, the treaty's authors could never have imagined where we'd be now. Currently there are 1,738 man-made satellites in orbit around our planet. As they become more affordable to build and launch, they'll no doubt proliferate and vie for valuable real estate there with space stations, space tourists, space colonists, space miners, military spacecraft, and thousands of derelict satellites and other immobile debris.

So far no one has any idea how to deal with the scientific and engineering challenges – let alone the political, legal, and business ones – involved in sustainably managing orbital debris and mining celestial objects. That's why Aaron Boley and at least six other space scientists, policy experts, and legal scholars are putting together the world's first Institute for the Sustainable Development of Space – essentially a space-focused think tank. The experts aim to find long-term solutions so that future generations of space explorers can continue where today's leaves off.

With their focus on sustainable development, Boley and his team come across as a band of space environmentalists who want to treat space like a global common, something that can be used but also must be protected, so that today's space activities don't compromise future ones. Earthly analogues include conflicts over forests or oceans, where people or even nations on their own might think they're having a minimal impact – but their combined extractions of resources or pollution result in overfished or threatened species. Sustainably-fished species can survive indefinitely, while some practices, like fish trawling or proposed seafloor mining, could cause more lasting damage.

Space activities that threaten to fill up low Earth orbit could be similarly scrutinized. Boley and his colleagues believe that orbital debris is the most pressing and formidable problem facing space development today. It will only worsen as we witness the commercialization of low Earth orbit in the next decade or two, they say. If one day a collision begets another and another, it could produce an impenetrable ring of debris that effectively prevents future space activities for everyone else. Until unproven technologies for vacuuming, netting, or harpooning debris become viable, temporary solutions are needed.

Currently each satellite has to have its own debris mitigation plan, which usually means falling back to Earth within 25 years or boosting up higher into a "graveyard orbit" (where there's still a risk of collision, albeit a much smaller one).

Constant monitoring of so many objects seems a daunting task, with swarms of small satellites now more affordable to send up into space than their larger, traditional counterparts.

For example, at any one time, San Francisco-based Planet Labs, a private Earth imaging company, has some 200 orbiting satellites between the size of a shoe box and a washing machine. They generally fly at altitudes of 500 kilometers, which is below the densest regions and makes it easier for the satellites' orbits to naturally decay over a few years' time, upon which they fall and burn up in re-entry.

But what if not everyone acts in everyone's best interest? No one has taken responsibility for a plethora of unidentified and unmaneuverable debris already polluting the atmosphere. There's no overarching authority. What we can do is get together around a table.

Q1. Which of the following is the main theme of the passage?

- a) To discuss the importance of the Outer Space Treaty.
- b) To highlight the menace created by too many man-made satellites in orbit and the consequent orbital debris. Your answer is correct
- c) To address the scientific and engineering challenges around managing the proliferation of man-made satellites in orbit.
- d) To make a case for the Institute for the Sustainable Development of Space.

Time spent / Accuracy Analysis

Time taken by you to answer this question	215
Avg. time spent on this question by all students	379
Difficulty Level	M
Avg. time spent on this question by students who got this question right	378
% of students who attempted this question	52.09
% of students who got the question right of those who attempted	45.2

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Number of words and Explanatory notes for RC:

Number of words: 613

The passage starts with discussing *how the Outer Space Treaty is a good step* in the right direction and then proceeds to discuss the *proliferation of satellites* leading us to the problem, which is *the management of debris in space*. The passage then proceeds to discuss the *responsibility of every nation* and ends with a subtle imploration to countries to get to the drawing board to chalk out a solution. A good way of understanding the main theme of the passage is to structurally divide the passage into several parts and asking yourself, which idea is relevant to all the parts and is not just limited to one segment.

Option A: While the Outer Space Treaty is an important feature of the discussion, the reader must notice that it was a 'document made before moon-landing'. The writer is clearly focussed on the future and how we could sustain space exploration without making it more and more difficult for the future generations. So, it doesn't just stop at the Treaty and uses it as an introduction to the whole thought process that maintaining hygiene in space is our best interest. Hence, discussing the importance of the Outer Space Treaty is an introductory idea and not the main idea of the passage. A is not the answer.

Option B: 'But even with that impressive scope of vision, the treaty's authors could never have imagined where we'd be now.' This is how the second para starts – with a 'but'. That means the author is not complacent about the Outer Space Treaty and implores everyone to look at how far we have come and how much bigger the magnitude of this problem is. From here on, till the end of the para the author talks about issues related to the problem of an increasing number of satellites and space debris resulting from the celestial mining as indicated by – 'So far no one has any idea how to deal with the scientific and engineering challenges – let alone the political, legal, and business ones – involved in *sustainably managing orbital debris and mining celestial objects*'. B raises all the relevant issues spoken about in the passage. B is the answer.

Option C: To address the scientific and engineering challenges around managing the proliferation of man-made satellites in orbit. The author talks about the fact that no one has an idea about the challenges involved in cleaning up the space debris. However, this is part of a bigger idea, a bigger discussion about how to deal with space debris caused by our celestial mining. The passage doesn't dive into discussing those engineering or scientific challenges specifically (indicated by the absence of a discussion on *scientific and engineering facts* relevant to satellites, their debris, etc.). While there is a solution offered through the discussion of San Francisco-based Planet Labs, that is only one of the ideas touched up, but not a thorough discussion on addressing the challenges. Hence, C while being relevant isn't the main idea of the passage. C is not the answer.

Option D: Institute for the Sustainable Development of Space is one of the initiatives taken up by a band of space environmentalists. It is one of the solutions explained as part of the bigger problem – 'Space activities that threaten to fill up low Earth orbit or pulverize a unique asteroid could be similarly scrutinized'. However, this Institute is not the soul focus of the passage (indicated by the fact that this discussion is only limited to the paras in the middle and doesn't extend until the end of the passage). Hence, D is not the answer.

Choice (B)

undefined

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doubt proliferate and vie for valuable real estate there with space stations, space tourists, space colonists, space miners, military spacecraft, and thousands of derelict satellites and other immobile debris.

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Q2. Which of the following is least likely to be an objective of the Institute for the Sustainable Development of Space, as can be understood from the passage?

- a) A space-focused think tank is needed to discuss the potential solutions to the ever-increasing menace of space debris.
- b) **A common platform is needed to bring together several parties which may have an opinion on how we deal with the problem of space debris.**
- c) **Too many man-made satellites shouldn't be allowed to crowd the low Earth orbit.** Your answer is correct
- d) Space exploration should be a viable option in the future and not be jeopardized because of a ring of unattended debris.

Time spent / Accuracy Analysis

Time taken by you to answer this question	319
Avg. time spent on this question by all students	136
Difficulty Level	D
Avg. time spent on this question by students who got this question right	124
% of students who attempted this question	49.82
% of students who got the question right of those who attempted	46.15

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Number of words and Explanatory notes for RC:

Number of words: 613

So far no one has any idea how to deal with the scientific and engineering challenges – let alone the political, legal, and business ones – involved in sustainably managing orbital debris and mining celestial objects. That's why Aaron Boley, a planetary physicist at the University of British Columbia., and at least six other space scientists, policy experts, and legal scholars from Canada, the U.S., the UK, and China are putting together the world's first Institute for the Sustainable Development of Space – essentially a space-focused think tank. With their focus on sustainable development, Boley and his team come across as a band of space environmentalists who want to treat space like a global common, something that can be used but also must be protected, so that today's space activities don't compromise future ones.

Option A: From the underlined portions above, no one has an idea how to deal with the challenge and that's why Aaron's team was formed. Hence, one of the goals of the Institute for the Sustainable Development of Space was to focus on sustainable development and also protect space while treating it as a global common. Also, this para follows the para which discusses the proliferation of man-made satellites increasing the space debris. Hence, A is not the answer.

Option B: The underlined portions show that the team comprised of policy experts, legal scholars and space scientists. Hence, one of the missions of the Institute was to provide a common platform for experts from various fields to discuss various angles of the space debris problem. Hence, B is not the answer.

Option C: This line indicates a problem that wasn't directly mentioned in the scope of this passage. The problem discussed in the passage is that of too many man-made satellites making it a daunting task to keep track of the orbiting debris and space. In other words, it's not the number of satellites but the management of the debris that is the problem discussed. The number is therefore, least likely to be the objective. Hence, Option C is the answer.

Option D: From the line 'today's space activities don't compromise future ones', we can understand that the Institute wants to secure the future of space exploration as well, which is in danger (jeopardy) if the debris is left unmanaged. This can further be understood from the line 'If one day a collision begets another and another, like in the 2013 movie Gravity, it could produce an impenetrable ring of debris that effectively prevents future space activities for everyone else'. Hence, D is not the answer.

Choice (C)

undefined

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result in overfished or threatened species. Sustainably-fished species can survive indefinitely, while some practices, like fish trawling or proposed seafloor mining, could cause more lasting damage.

Space activities that threaten to fill up low Earth orbit could be similarly scrutinized. Boley and his colleagues believe that orbital debris is the most pressing and formidable problem facing space development today. It will only worsen as we witness the commercialization of low Earth orbit in the next decade or two, they say. If one day a collision begets another and another, it could produce an impenetrable ring of debris that effectively prevents future space activities for everyone else. Until unproven technologies for vacuuming, netting, or harpooning debris become viable, temporary solutions are needed.

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For example, at any one time, San Francisco-based Planet Labs, a private Earth imaging company, has some 200 orbiting satellites between the size of a shoe box and a washing machine. They generally fly at altitudes of 500 kilometers, which is below the densest regions and makes it easier for the satellites’ orbits to naturally decay over a few years’ time, upon which they fall and burn up in re-entry.

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Q3. Which of the following is the likely cause behind the author’s warning in *but their combined extractions of resources or pollution result in overfished or threatened species?*

- a) Fish species are disappearing because of unrestrained fishing and trawling.
- b) **The ‘Bystander Effect’ leads all countries to think someone else will clean up the forests or oceans.**
- c) **Countries underestimate the cumulative effect and focus only on the individual effects of their activities impacting the environment.** Your answer is correct
- d) The same rules that pertain to forests and oceans must apply to space.

Time spent / Accuracy Analysis

Time taken by you to answer this question	150
Avg. time spent on this question by all students	114
Difficulty Level	M
Avg. time spent on this question by students who got this question right	106
% of students who attempted this question	49.74
% of students who got the question right of those who attempted	72.11

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Number of words and Explanatory notes for RC:

Number of words: 613

'Something that can be used but also must be protected, so that today's space activities don't compromise future ones. Earthly analogues include conflicts over forests or oceans, where people or even nations on their own might think they're having a minimal impact – but their combined extractions of resources or pollution result in overfished or threatened species. Sustainably-fished species can survive indefinitely, while some practices, like fish trawling or proposed seafloor mining, could cause more lasting damage'. The author calls the whole fishing example an analogy. So, it can be understood that the author is drawing a parallel saying, just like no individual country thinks it is doing enough damage with its fishing activities but all the countries combined together maybe causing a lot of damage, space debris too is not a problem that any country thinks it is individually responsible for, but the cumulative effect may be disastrous. It is therefore, important to understand that the author isn't really talking about fishing or the oceans but using the analogy to discuss the space debris problem as a whole, and is imploring for a combined resolution.

Option A: This option 'literally' focuses on fish and the oceans and therefore, cannot be the reason why the author mentioned this line. A is not the answer.

Option B: The 'Bystander Effect' leads all countries to think someone else will clean up the forests or oceans. This option seems to suggest a passive problem. Countries aren't doing anything thinking other countries will take care of it. The problem in the passage is not that countries aren't doing anything believing other countries will take care. The problem in the passage is that countries are spreading debris without realising that the cumulative effect of all those space activities could result in a serious problem. So, it is their action and not their inaction, which is the problem according to the passage. Also, it is not just about cleaning up of forests or oceans. Hence, B is not the answer.

Option C: 'Countries underestimate the cumulative effect and focus only on the individual effects of their activities impacting the environment.' The author's argument is that countries are probably not aware of the scope and scale of the combined effects of their activities. From 'where people or even nations on their own might think they're having a minimal impact – but their combined extractions of resources or pollution result in overfished or threatened species' we can understand that each country may think that its impact is low but, they do not realise how the effects of their individual impact combine to create a much bigger problem. Hence, Option C is the answer.

Option D: 'The same rules that pertain to forests and oceans must apply to space'. This line suggests the author didn't use forests or oceans as an analogy but directly to talk about what applies to forests and oceans and hence, must apply to oceans. But that is not the case. The author clearly states it is an analogy. In other words, it is a comparison. Also, there are no concrete rules discussed in the passage for forests or oceans. Option D is not the answer.

Choice (C)

undefined

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Q4. The author mentions the example of San Francisco-based Planet Labs to demonstrate which of the following points?

- a) It is not just governments but also private companies which own orbiting satellites.
- b) **It is possible to find a feasible way of using satellites without hurting anyone's interests.** Your answer is correct
- c) **Satellites cannot be designed to be self-destructive once they serve their purpose to ensure that they don't contribute to space debris.**
- d) It is possible to send small satellites into space replacing larger, traditional counterparts.

Time spent / Accuracy Analysis

Time taken by you to answer this question	143
Avg. time spent on this question by all students	111
Difficulty Level	D
Avg. time spent on this question by students who got this question right	103
% of students who attempted this question	51.34
% of students who got the question right of those who attempted	44.5

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 613

San Francisco-based Planet Labs, a private Earth imaging company, has some 200 orbiting satellites between the size of a shoe box and a washing machine. They generally fly at altitudes of 500 kilometers, which is below the densest regions and makes it easier for the satellites' orbits to naturally decay over a few years' time, upon which they fall and burn up in re-entry. **But what if not everyone acts in everyone's best interest?**

The answer to this question has been summarised well in the last line of the passage. Planet Labs has been mentioned as an example of a company that owns many orbiting satellites which self-destroy themselves after the expiration date spreading no debris. When the author asks about those who don't act in everyone's interest, the thought following the word 'but', he suggests that Planet Labs is indeed acting in a way that is in everyone's best interest.

Option A: The para doesn't talk focus on the ownership of satellites. Yes, the word 'private' suggests it is not government-owned but if that were the main idea of the example, the decay of the orbits and burn up in re-entry wouldn't be discussed. Hence, Option A is not the answer.

Option B: The para is a solution to the main problem discussed in the passage – how to deal with space debris. This line summarises the idea of the example, that one can use many satellites while ensuring they are not left out in orbit as space debris. That ensures everyone's interests are protected (future explorations shouldn't be harmed or disturbed). Hence, Option B is the answer.

Option C: From 'makes it easier for the satellites' orbits to naturally decay over a few years' time, upon which they fall and burn up in re-entry' we can understand that satellites can be designed to be self-destructive. Hence, Option C is not the answer.

Option D: Small satellites can be sent, but there is no evidence to believe that they can replace larger, traditional satellites. Hence, Option D is not the answer.

Choice (B)

undefined

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Q5. From the evidence in the first para, which assumption is the author making in the line, 'For a document conceived before the moon-landing, it's remarkably forward-looking'?

- a) Not much was understood about space before the moon-landing which was the watershed moment in space exploration. Your answer is incorrect
- b) Taking responsibility of space was a particularly progressive thought before the era of moon-landing.
- c) The need to worry about space debris only arose after the moon-landing.
- d) Moon-landing made us rethink our responsibility towards space and keeping it clean.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	119
Avg. time spent on this question by all students	103
Difficulty Level	D
Avg. time spent on this question by students who got this question right	101
% of students who attempted this question	45.48
% of students who got the question right of those who attempted	63.29

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Number of words and Explanatory notes for RC:

Number of words: 613

An assumption can be understood by looking at the premise statement and the conclusion statement and by spotting the jump in between them. That gives us the unsaid premise. Here, the conclusion statement is that the document was conceived before the moon-landing (Data). The conclusion statement is that it is forward-looking. So, the assumption here is that the document is too progressive for the moon-landing era. Hence, the ideas mentioned therein – “celestial bodies” like the moon and asteroids off-limits for private development and requires countries authorize and continually supervise companies’ activities in space. It also says that space exploration should be carried out for the benefit of all peoples, and it explicitly prohibits weapons of mass destruction in space – are too progressive for the moon-landing era.

Option A: The document was more about how to take positive ownership of space and how it shouldn’t be mined for personal profit. The assumption was therefore not about ‘how much knowledge’ we have about space but how to take care of space and protect it. Hence, A is not the answer.

Option B: This line puts the progressive idea of taking responsibility of space in perspective, explaining how it was not a thought expected before the moon-landing era. In other words, around the time when we had just landed on moon, a thought about how to treat celestial exploration was way ahead of its time. Hence, B is the answer.

Option C: This line focuses on the need to protect space. The assumption was about the quality of the document and its ideas and not about the need for the ideas in that document (space to be protected), Hence, C is not the answer.

Option D: This line seems to indicate that something significant happened during moon-landing that made us think about our responsibility towards space and its hygiene. However, that is not true. Nothing significant necessarily had to happen for a document to talk about our awareness of keeping the space free of debris. The assumption was about the progressiveness of a document older than moon-landing. Hence, D is not the answer.

Choice (B)

undefined

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.

The Outer Space Treaty – written in 1967 and signed by all the major world powers – is the closest thing we have to a constitution for space. For a document conceived before the moon landing, it’s remarkably forward-looking: it declares “celestial bodies” like the moon and asteroids off-limits for private development and requires countries authorize and continually supervise companies’ activities in space. It also says that space exploration should be carried out for the benefit of all peoples.

But even with that impressive scope of vision, the treaty’s authors could never have imagined where we’d be now. Currently there are 1,738 man-made satellites in orbit around our planet. As they become more affordable to build and launch they’ll no doubt proliferate and vie for valuable real estate there with space stations, space tourists, space colonists, space miners, military spacecraft, and thousands of derelict satellites and other immobile debris.

So far no one has any idea how to deal with the scientific and engineering challenges – let alone the political, legal, and business ones – involved in sustainably managing orbital debris and mining celestial objects. That’s why Aaron Boley and at least six other space scientists, policy experts, and legal scholars are putting together the world’s first Institute for the Sustainable Development of Space – essentially a space-focused think tank. The experts aim to find long-term solutions so that future generations of space explorers can continue where today’s leaves off.

With their focus on sustainable development, Boley and his team come across as a band of space environmentalists who want to treat space like a global common, something that can be used but also must be protected, so that today’s space activities don’t compromise future ones. Earthly analogues include conflicts over forests or oceans, where people or even nations on their own might think they’re having a minimal impact – but their combined extractions of resources or pollution result in overfished or threatened species. Sustainably-fished species can survive indefinitely, while some practices, like fish trawling or proposed seafloor mining, could cause more lasting damage.

Space activities that threaten to fill up low Earth orbit could be similarly scrutinized. Boley and his colleagues believe that orbital debris is the most pressing and formidable problem facing space development today. It will only worsen as we witness the commercialization of low Earth orbit in the next decade or two, they say. If one day a collision begets another and another, it could produce an impenetrable ring of debris that effectively prevents future space activities for everyone else. Until unproven technologies for vacuuming, netting, or harpooning debris become viable, temporary solutions are needed.

Currently each satellite has to have its own debris mitigation plan, which usually means falling back to Earth within 25 years or boosting up higher into a “graveyard orbit” (where there’s still a risk of collision, albeit a much smaller one).

Constant monitoring of so many objects seems a daunting task, with swarms of small satellites now more affordable to send up into space than their larger, traditional counterparts.

For example, at any one time, San Francisco-based Planet Labs, a private Earth imaging company, has some 200 orbiting satellites between the size of a shoe box and a washing machine. They generally fly at altitudes of 500 kilometers, which is below the densest regions and makes it easier for the satellites’ orbits to naturally decay over a few years’ time, upon which they fall and burn up in re-entry.

But what if not everyone acts in everyone’s best interest? No one has taken responsibility for a plethora of unidentified and unmaneuverable debris already polluting the atmosphere. There’s no overarching authority. What we can do is get together around a table.

Q6. Which of the following, if proven false, will negate the author’s conclusion in the line, ‘It will only worsen as we witness the commercialization of low Earth orbit in the next decade or two, they say’?

1. No solution to permanently clean up the space debris will be implemented in the next decade or two.
2. Currently, we don’t have any solution for cleaning up the space debris.
3. Commercialization of low earth orbit could contribute to a lot of space debris.
4. Debris not in the low Earth orbit doesn’t pose much of a challenge.

- a) 3, 4
- b) 2, 3, 4
- c) 1, 4
- d) 1, 2, 3 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	171
Avg. time spent on this question by all students	144
Difficulty Level	D
Avg. time spent on this question by students who got this question right	144
% of students who attempted this question	30.16
% of students who got the question right of those who attempted	63.16

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 613

'Boley and his colleagues believe that orbital debris is the most pressing and formidable problem facing space development today. It will only worsen as we witness the commercialization of low Earth orbit in the next decade or two, they say'. From these lines, it can be understood that the author thinks 'it' (orbital debris, the most pressing and formidable problem) will only worsen as there is more commercialization of low Earth orbit in the next two days. This could mean two things. That commercialisation will add to the debris and there will be no way of getting rid of that debris – in the next decade or two.

If (1) is false, it means, we will implement a solution in the next decade or two to get rid of the debris. In that case, commercialization will not pose the problem it does currently. Hence, (1) is one of the answers.

If (2) is false, it means we do have a solution to clean up the space debris. In that case, commercialisation will not pose the problem it does currently. This will negate the conclusion. So (2) is one of the answers.

If (3) is false, it means commercialisation will not contribute to the space debris. In that case, the problem may not worsen. This will negate the conclusion. Hence (3) is one of the answers.

If (4) is false, it means debris in the low Earth orbit will pose much of a challenge. This will not negate the conclusion about things get worse. Hence, (4) is not one of the answer.

Option A: This leaves out 1 and 2 and includes 3. Hence, false.

Option B: This leaves out 1 and includes 4. Hence false.

Option C: This leaves out 2 and 3 and includes 4. Hence false.

Option D: This includes 1, 2 and 3. Hence, this is the answer.

Choice (D)

undefined

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

Gastronomy is the science of pain. Professional cooks belong to a secret society whose ancient rituals derive from the principles of stoicism in the face of humiliation, injury, fatigue, and the threat of illness, while being confined for most of their waking hours in hot, airless spaces, and ruled by despotic leaders.

A good deal has changed since Orwell's memoir of the months he spent as a dishwasher. Gas ranges and exhaust fans have gone a long way toward increasing the life span of the working culinarian. Nowadays, most aspiring cooks come into the business because they want to: they have chosen this life, studied for it. Today's top chefs are like star athletes. They bounce from kitchen to kitchen – free agents in search of more money, more acclaim.

I love the sheer weirdness of the kitchen life: the dreamers, the crackpots, the refugees, and the sociopaths with whom I continue to work; the ever-present smells of roasting bones, searing fish, and simmering liquids; the noise and clatter, the hiss and spray, the flames, the smoke, and the steam. Admittedly, it's a life that grinds you down. Most of us who live and operate in the culinary underworld are in some fundamental way dysfunctional. We've all chosen to turn our backs on the nine-to-five, on ever having a Friday or Saturday night off, on ever having a normal relationship with a non-cook.

Being a chef is a lot like being an air-traffic controller: you are constantly dealing with the threat of disaster. You've got to be Mom and Dad, drill sergeant, detective, psychiatrist, and priest to a crew of opportunistic, mercenary hooligans, whom you must protect from the nefarious and often foolish strategies of owners. Year after year, cooks contend with bouncing paychecks, irate purveyors, desperate owners looking for the masterstroke that will cure their restaurant's ills.

In America, the professional kitchen is the last refuge of the misfit. It's a place for people with bad pasts to find a new family. It's a haven for foreigners – Ecuadorians, Mexicans, Chinese, Senegalese, Egyptians, Poles. I've been a chef in New York for more than ten years, and, for the decade before that, a dishwasher, a prep drone, a line cook, and a sous-chef. I came into the business when cooks still smoked on the line and wore headbands. A few years ago, I wasn't surprised to hear rumours of

a study of the nation's prison population which reportedly found that the leading civilian occupation among inmates before they were put behind bars was "cook." As most of us in the restaurant business know, there is a powerful strain of criminality in the industry, ranging from the dope-dealing busboy with beeper and cell phone to the restaurant owner who has two sets of accounting books. In fact, it was the unsavoury side of professional cooking that attracted me to it in the first place. In the early seventies, I dropped out of college and transferred to the Culinary Institute of America. I wanted it all: the cuts and burns on hands and wrists, the ghoulish kitchen humour, the free food, the pilfered booze, the camaraderie that flourished within rigid order and nerve-shattering chaos. I would climb the chain of command from mal carne (meaning "bad meat," or "new guy") to chefdom – doing whatever it took until I ran my own kitchen and had my own crew of cutthroats, the culinary equivalent of "The Wild Bunch."

Q7. Which of the following can be understood from the passage?

- a) Orwell spent some of his time as a dishwasher to complete his memoir.
- b) Professional chefs only work on Fridays and Saturdays.
- c) Professional kitchens in America have a preponderance for foreigners.
- d) Some top chefs today look for money and fame. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	257
Avg. time spent on this question by all students	341
Difficulty Level	M
Avg. time spent on this question by students who got this question right	336
% of students who attempted this question	47.84
% of students who got the question right of those who attempted	44.2

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 573

Option A: From 'A good deal has changed since Orwell's memoir of the months he spent as a dishwasher', we can understand that Orwell wrote a memoir about the time he spent as a dishwasher. However, it cannot be understood why he spent that time as a dishwasher. So, we cannot say Orwell spent that time as a dishwasher to write his memoir. It is a cause-effect fallacy, where his writing a memoir is more an effect rather than the cause. Hence, Option A is not the answer.

Option B: 'We've all chosen to turn our backs on the nine-to-five, on ever having a Friday or Saturday night off'. From this, we can understand that chefs have to work on Fridays and Saturday nights. But, it cannot be understood whether they work on other days. So, saying that chefs work only on Fridays and Saturdays is not justified. Option B is not the answer.

Option C: From 'It's a haven for foreigners' – Ecuadoreans, Mexicans, Chinese, Senegalese, Egyptians, Poles', we can understand that the professional kitchen offers a haven (a sanctuary/refuge) for foreigners. It doesn't necessarily mean that professional kitchens are inclined (preponderance) towards foreigners. This is a false generalisation. Hence, Option C is not the answer.

Option D: From 'Today's top chefs are like star athletes. They bounce from kitchen to kitchen – free agents in search of more money, more acclaim'. From this we can understand that at least some top chefs bounce around for more fame and money. Hence, Option D can be understood from the passage. 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.

Gastronomy is the science of pain. Professional cooks belong to a secret society whose ancient rituals derive from the principles of stoicism in the face of humiliation, injury, fatigue, and the threat of illness, while being confined for most of their waking hours in hot, airless spaces, and ruled by despotic leaders.

A good deal has changed since Orwell's memoir of the months he spent as a dishwasher. Gas ranges and exhaust fans have gone a long way toward increasing the life span of the working culinarian. Nowadays, most aspiring cooks come into the business because they want to: they have chosen this life, studied for it. Today's top chefs are like star athletes. They bounce from kitchen to kitchen – free agents in search of more money, more acclaim.

I love the sheer weirdness of the kitchen life: the dreamers, the crackpots, the refugees, and the sociopaths with whom I continue to work; the ever-present smells of roasting bones, searing fish, and simmering liquids; the noise and clatter, the hiss and spray, the flames, the smoke, and the steam. Admittedly, it's a life that grinds you down. Most of us who live and operate in the culinary underworld are in some fundamental way dysfunctional. We've all chosen to turn our backs on the nine-to-five, on ever having a Friday or Saturday night off, on ever having a normal relationship with a non-cook.

Being a chef is a lot like being an air-traffic controller: you are constantly dealing with the threat of disaster. You've got to be Mom and Dad, drill sergeant, detective, psychiatrist, and priest to a crew of opportunistic, mercenary hooligans, whom you must protect from the nefarious and often foolish strategies of owners. Year after year, cooks contend with bouncing paychecks, irate purveyors, desperate owners looking for the masterstroke that will cure their restaurant's ills.

In America, the professional kitchen is the last refuge of the misfit. It's a place for people with bad pasts to find a new family. It's a haven for foreigners – Ecuadorians, Mexicans, Chinese, Senegalese, Egyptians, Poles. I've been a chef in New York for more than ten years, and, for the decade before that, a dishwasher, a prep drone, a line cook, and a sous-chef. I came into the business when cooks still smoked on the line and wore headbands. A few years ago, I wasn't surprised to hear rumours of a study of the nation's prison population which reportedly found that the leading civilian occupation among inmates before they were put behind bars was "cook." As most of us in the restaurant business know, there is a powerful strain of criminality in the industry, ranging from the dope-dealing busboy with beeper and cell phone to the restaurant owner who has two sets of accounting books. In fact, it was the unsavoury side of professional cooking that attracted me to it in the first place. In the early seventies, I dropped out of college and transferred to the Culinary Institute of America. I wanted it all: the cuts and burns on hands and wrists, the ghoulish kitchen humour, the free food, the pilfered booze, the camaraderie that flourished within rigid order and nerve-shattering chaos. I would climb the chain of command from mal carne (meaning "bad meat," or "new guy") to chefdom – doing whatever it took until I ran my own kitchen and had my own crew of cutthroats, the culinary equivalent of "The Wild Bunch."

Q7. Which of the following can be understood from the passage?

- a) Orwell spent some of his time as a dishwasher to complete his memoir.
- b) Professional chefs only work on Fridays and Saturdays.
- c) Professional kitchens in America have a preponderance for foreigners.
- d) Some top chefs today look for money and fame. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	257
Avg. time spent on this question by all students	341
Difficulty Level	M
Avg. time spent on this question by students who got this question right	336
% of students who attempted this question	47.84
% of students who got the question right of those who attempted	44.2

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 573

Option A: From 'A good deal has changed since Orwell's memoir of the months he spent as a dishwasher', we can understand that Orwell wrote a memoir about the time he spent as a dishwasher. However, it cannot be understood why he spent that time as a dishwasher. So, we cannot say Orwell spent that time as a dishwasher to write his memoir. It is a cause-effect fallacy, where his writing a memoir is more an effect rather than the cause. Hence, Option A is not the answer.

Option B: 'We've all chosen to turn our backs on the nine-to-five, on ever having a Friday or Saturday night off'. From this, we can understand that chefs have to work on Fridays and Saturday nights. But, it cannot be understood whether they work on other days. So, saying that chefs work only on Fridays and Saturdays is not justified. Option B is not the answer.

Option C: From 'It's a haven for foreigners' – Ecuadoreans, Mexicans, Chinese, Senegalese, Egyptians, Poles', we can understand that the professional kitchen offers a haven (a sanctuary/refuge) for foreigners. It doesn't necessarily mean that professional kitchens are inclined (preponderance) towards foreigners. This is a false generalisation. Hence, Option C is not the answer.

Option D: From 'Today's top chefs are like star athletes. They bounce from kitchen to kitchen – free agents in search of more money, more acclaim'. From this we can understand that at least some top chefs bounce around for more fame and money. Hence, Option D can be understood from the passage.

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.

Gastronomy is the science of pain. Professional cooks belong to a secret society whose ancient rituals derive from the principles of stoicism in the face of humiliation, injury, fatigue, and the threat of illness, while being confined for most of their waking hours in hot, airless spaces, and ruled by despotic leaders.

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equivalent of "The Wild Bunch."

Q8. Which of the following explains the author's purpose in mentioning *rumours of a study of the nation's prison population which reportedly found that the leading civilian occupation among inmates before they were put behind bars was "cook"*?

- a) To demonstrate how being a cook is an extremely stressful profession driving one to the edge.
- b) To demonstrate how there is a streak of criminality associated with people in the professional cooking industry.
- c) To show that the professional cooking industry is unsavoury where only those who have criminality can thrive.
- d) To show that the professional kitchen is the last refuge of misfits. □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	122
Avg. time spent on this question by all students	112
Difficulty Level	M
Avg. time spent on this question by students who got this question right	108
% of students who attempted this question	47.78
% of students who got the question right of those who attempted	61.07

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 573

The author alludes to the rumours to demonstrate that (he says, he is not surprised) there is a strain of criminality and the 'unsavoriness' amongst those in the chef business.

Option A: The author hints at the fact that '*the professional kitchen is the last refuge of the misfit*'. In other words, it is those with a *strain of criminality* who probably get attracted towards the cooking business. There is no evidence to say that the criminality originates in them due to their association with the cooking industry, much less because of the stress. Hence, Option A is not the answer.

Option B: The author mentions a rumour and says he is not surprised by it. In other words, he can empathize as to why the most common profession among prison inmates is 'cook'. In other words, it makes sense to the author that many criminals were cooks. He is trying to demonstrate how there is a streak of criminality associated with people in the professional cooking industry. Hence Option B is the answer.

Option C: While the 'unsavoriness' of the cooking industry has been discussed, the author never mentions whether those with criminality 'thrive' or flourish more than others. In fact, the tone of the author in the passage is such that he doesn't mention the strain of criminality in a negative tone. The author doesn't talk about how to achieve success in the professional cooking industry. Hence, Option C is not the answer.

Option D: While the statement is true, it is not connected to the rumour the author cites. Being a misfit doesn't necessarily mean being a criminal and the author doesn't establish that relationship either. So, the rumour wasn't mentioned to prove that cooks/chefs are misfits. Hence, Option D is not the answer.

Choice (B)

undefined

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

Gastronomy is the science of pain. Professional cooks belong to a secret society whose ancient rituals derive from the

principles of stoicism in the face of humiliation, injury, fatigue, and the threat of illness, while being confined for most of their waking hours in hot, airless spaces, and ruled by despotic leaders.

A good deal has changed since Orwell's memoir of the months he spent as a dishwasher. Gas ranges and exhaust fans have gone a long way toward increasing the life span of the working culinarian. Nowadays, most aspiring cooks come into the business because they want to: they have chosen this life, studied for it. Today's top chefs are like star athletes. They bounce from kitchen to kitchen – free agents in search of more money, more acclaim.

I love the sheer weirdness of the kitchen life: the dreamers, the crackpots, the refugees, and the sociopaths with whom I continue to work; the ever-present smells of roasting bones, searing fish, and simmering liquids; the noise and clatter, the hiss and spray, the flames, the smoke, and the steam. Admittedly, it's a life that grinds you down. Most of us who live and operate in the culinary underworld are in some fundamental way dysfunctional. We've all chosen to turn our backs on the nine-to-five, on ever having a Friday or Saturday night off, on ever having a normal relationship with a non-cook.

Being a chef is a lot like being an air-traffic controller: you are constantly dealing with the threat of disaster. You've got to be Mom and Dad, drill sergeant, detective, psychiatrist, and priest to a crew of opportunistic, mercenary hooligans, whom you must protect from the nefarious and often foolish strategies of owners. Year after year, cooks contend with bouncing paychecks, irate purveyors, desperate owners looking for the masterstroke that will cure their restaurant's ills.

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Q9. Which of the following can be inferred as a difference between chefs of the present age and chefs when the author had just entered the profession?

- a) Today's chefs value money more than acclaim.
- b) Today's chefs aren't forced to work in conditions as difficult as they were in the past. Your answer is correct
- c) Today's chefs didn't study to become chefs.
- d) Today's chefs do not have a streak of criminality as they did in the past.

Time spent / Accuracy Analysis

Time taken by you to answer this question	289
Avg. time spent on this question by all students	89
Difficulty Level	M
Avg. time spent on this question by students who got this question right	83
% of students who attempted this question	49.83
% of students who got the question right of those who attempted	71.76

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 573

Option A: From 'Today's top chefs are like star athletes. They bounce from kitchen to kitchen – free agents in search of more money, more acclaim' it can be understood that modern chefs, according to the author, can hope to find fame and money. However, it cannot be inferred what they value more, money or acclaim, compared to earlier chefs. Hence, Option A is not the answer.

Option B: From the line 'Gas ranges and exhaust fans have gone a long way toward increasing the life span of the working culinarian', we can understand that modern day chefs get much better working conditions, which wasn't the case in the past. This definitely represents a difference between modern day chefs and chefs of the past. Hence, Option B is the answer.

Option C: From the line 'Nowadays, most aspiring cooks come into the business because they want to: they have chosen this life, studied for it' we can understand that modern-day chefs aspired to become chefs, studied for it and planned for it. In other words, they have chosen this profession. Hence, Option C is not the answer.

Option D: The author clearly mentions in the passage 'As most of us in the restaurant business know, there is a powerful strain of criminality in the industry'. In other words, the author doesn't say that the present chefs do not have that strain of criminality. The author asserts that a hint of criminality can always be associated with those in the cooking business. Hence, Option D is not the answer.

Choice (B)

undefined

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

Gastronomy is the science of pain. Professional cooks belong to a secret society whose ancient rituals derive from the principles of stoicism in the face of humiliation, injury, fatigue, and the threat of illness, while being confined for most of their waking hours in hot, airless spaces, and ruled by despotic leaders.

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I love the sheer weirdness of the kitchen life: the dreamers, the crackpots, the refugees, and the sociopaths with whom I continue to work; the ever-present smells of roasting bones, searing fish, and simmering liquids; the noise and clatter, the hiss and spray, the flames, the smoke, and the steam. Admittedly, it's a life that grinds you down. Most of us who live and operate in the culinary underworld are in some fundamental way dysfunctional. We've all chosen to turn our backs on the nine-to-five, on ever having a Friday or Saturday night off, on ever having a normal relationship with a non-cook.

Being a chef is a lot like being an air-traffic controller: you are constantly dealing with the threat of disaster. You've got to be Mom and Dad, drill sergeant, detective, psychiatrist, and priest to a crew of opportunistic, mercenary hooligans, whom you must protect from the nefarious and often foolish strategies of owners. Year after year, cooks contend with bouncing paychecks, irate purveyors, desperate owners looking for the masterstroke that will cure their restaurant's ills.

In America, the professional kitchen is the last refuge of the misfit. It's a place for people with bad pasts to find a new family. It's a haven for foreigners – Ecuadorians, Mexicans, Chinese, Senegalese, Egyptians, Poles. I've been a chef in New York for more than ten years, and, for the decade before that, a dishwasher, a prep drone, a line cook, and a sous-chef. I came into the business when cooks still smoked on the line and wore headbands. A few years ago, I wasn't surprised to hear rumours of a study of the nation's prison population which reportedly found that the leading civilian occupation among inmates before they were put behind bars was "cook." As most of us in the restaurant business know, there is a powerful strain of criminality in the industry, ranging from the dope-dealing busboy with beeper and cell phone to the restaurant owner who has two sets of accounting books. In fact, it was the unsavoury side of professional cooking that attracted me to it in the first place. In the early seventies, I dropped out of college and transferred to the Culinary Institute of America. I wanted it all: the cuts and burns on hands and wrists, the ghoulish kitchen humour, the free food, the pilfered booze, the camaraderie that flourished within rigid order and nerve-shattering chaos. I would climb the chain of command from mal carne (meaning "bad meat," or "new guy") to chefdom – doing whatever it took until I ran my own kitchen and had my own crew of cutthroats, the culinary equivalent of "The Wild Bunch."

Q10. Which of the following possibly explains the relationship the author seemed to have shared with 'his crew'?

- a) Cutthroat hostility
- b) Unflinching stoicism
- c) Protective mentorship
- d) Professional indifference Your answer is incorrect

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	184
Avg. time spent on this question by all students	74
Difficulty Level	D
Avg. time spent on this question by students who got this question right	75
% of students who attempted this question	35.49
% of students who got the question right of those who attempted	39.17

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 573

From this, 'I wanted it all: the cuts and burns on hands and wrists, the ghoulish kitchen humour, the free food, the pilfered booze, the camaraderie that flourished within rigid order and nerve-shattering chaos. I would climb the chain of command from mal carne (meaning "bad meat," or "new guy") to chefdom – doing whatever it took until I ran my own kitchen and had my own crew of cutthroats, the culinary equivalent of "The Wild Bunch"' it is obvious that the author had a '**positive**' relationship with his crew. 'Camaraderie' is a positive word and the same can be inferred from 'my own crew'. Also, 'Mom and Dad, drill sergeant, detective, psychiatrist, and priest to a crew of opportunistic, mercenary hooligans, whom you must protect from the nefarious and often foolish strategies of owners' we can understand that there was mentorship and protectiveness, positive.

Option A: 'Cutthroat hostility' or enmity or antagonism are negative terms. The author used the word 'cutthroat' as a noun, a reference to a band of pirates that operated together with great loyalty and pride in their own team. 'Cutthroat' in the option has been used as an adjective, thus changing the context and meaning completely. Hence, Option A is not the answer.

Option B: From 'Professional cooks belong to a secret society whose ancient rituals derive from the principles of stoicism in the face of humiliation, injury, fatigue, and the threat of illness', it can be understood that the author hints that one needs stoicism in the profession of being a cook/chef. Stoicism is the ability to remain unaffected in both positive and negative situations. However, this doesn't reflect the relationship between the author and his crew. The author is not neutral towards his crew. He enjoys their company ('camaraderie'). Stoicism doesn't explain his attitude towards the crew. Hence, Option B is not the answer.

Option C: As explained above, the author protected his crew and also had a good spirit of camaraderie with 'his team'. So, the words 'protective' and 'mentorship' are justified. Hence, Option C is the answer.

Option D: Given the strong positive feelings the author shared with his team, a negative word like 'indifference' (the absence of any emotional bond) cannot be justified. Hence, Option D is not the answer.

Choice (C)

undefined

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

Gastronomy is the science of pain. Professional cooks belong to a secret society whose ancient rituals derive from the

principles of stoicism in the face of humiliation, injury, fatigue, and the threat of illness, while being confined for most of their waking hours in hot, airless spaces, and ruled by despotic leaders.

A good deal has changed since Orwell's memoir of the months he spent as a dishwasher. Gas ranges and exhaust fans have gone a long way toward increasing the life span of the working culinarian. Nowadays, most aspiring cooks come into the business because they want to: they have chosen this life, studied for it. Today's top chefs are like star athletes. They bounce from kitchen to kitchen – free agents in search of more money, more acclaim.

I love the sheer weirdness of the kitchen life: the dreamers, the crackpots, the refugees, and the sociopaths with whom I continue to work; the ever-present smells of roasting bones, searing fish, and simmering liquids; the noise and clatter, the hiss and spray, the flames, the smoke, and the steam. Admittedly, it's a life that grinds you down. Most of us who live and operate in the culinary underworld are in some fundamental way dysfunctional. We've all chosen to turn our backs on the nine-to-five, on ever having a Friday or Saturday night off, on ever having a normal relationship with a non-cook.

Being a chef is a lot like being an air-traffic controller: you are constantly dealing with the threat of disaster. You've got to be Mom and Dad, drill sergeant, detective, psychiatrist, and priest to a crew of opportunistic, mercenary hooligans, whom you must protect from the nefarious and often foolish strategies of owners. Year after year, cooks contend with bouncing paychecks, irate purveyors, desperate owners looking for the masterstroke that will cure their restaurant's ills.

In America, the professional kitchen is the last refuge of the misfit. It's a place for people with bad pasts to find a new family. It's a haven for foreigners – Ecuadoreans, Mexicans, Chinese, Senegalese, Egyptians, Poles. I've been a chef in New York for more than ten years, and, for the decade before that, a dishwasher, a prep drone, a line cook, and a sous-chef. I came into the business when cooks still smoked on the line and wore headbands. A few years ago, I wasn't surprised to hear rumours of a study of the nation's prison population which reportedly found that the leading civilian occupation among inmates before they were put behind bars was "cook." As most of us in the restaurant business know, there is a powerful strain of criminality in the industry, ranging from the dope-dealing busboy with beeper and cell phone to the restaurant owner who has two sets of accounting books. In fact, it was the unsavoury side of professional cooking that attracted me to it in the first place. In the early seventies, I dropped out of college and transferred to the Culinary Institute of America. I wanted it all: the cuts and burns on hands and wrists, the ghoulish kitchen humour, the free food, the pilfered booze, the camaraderie that flourished within rigid order and nerve-shattering chaos. I would climb the chain of command from mal carne (meaning "bad meat," or "new guy") to chefdom – doing whatever it took until I ran my own kitchen and had my own crew of cutthroats, the culinary equivalent of "The Wild Bunch."

Q11. Which of the following best summarises the usage of the analogy by the author: 'Being a chef is a lot like being an air-traffic controller'?

- a) You have to don several hats at the same time.
- b) You have to be responsible for the actions of your crew as parents usually are.
- c) You have to deal with a wide array of problems brought by people you deal with. Your answer is incorrect
- d) You have to plot constantly on how to avoid unexpectedly bad results.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	86
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	74
% of students who attempted this question	49.5
% of students who got the question right of those who attempted	37.28

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 573

'Being a chef is a lot like being an air-traffic controller: **you are constantly dealing with the threat of disaster.**' The second part of the line explains the analogy. An air-traffic controller is constantly dealing with the threat of disaster.

Option A: The author does talk about donning several hats after this analogy but not before he talks about averting disaster. An air-traffic controller wouldn't don several hats and is only responsible for thinking constantly about and preventing disaster. After that, the author goes on to elaborate how the chef is responsible for his crew. Hence, A is not the answer.

Option B: As explained for the previous option, the author does talk about a chef being responsible for his crew, protecting his crew. However, that was after he talks about the analogy. Hence, B is not the answer.

Option C: This line refers to demanding hotel owners, angry purveyors, and inconsistent paymasters. It is not related to the analogy of air-traffic controller used to discuss a different angle – that of the chef being on top of the situation. Hence, C is not the answer.

Option D: This line is a rephrasing of 'constantly dealing with the threat of disaster' explaining the real reason why the author used the analogy of the air-traffic controller. Hence, D is the answer.

Choice (D)

undefined

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

Gastronomy is the science of pain. Professional cooks belong to a secret society whose ancient rituals derive from the principles of stoicism in the face of humiliation, injury, fatigue, and the threat of illness, while being confined for most of their waking hours in hot, airless spaces, and ruled by despotic leaders.

A good deal has changed since Orwell's memoir of the months he spent as a dishwasher. Gas ranges and exhaust fans have gone a long way toward increasing the life span of the working culinarian. Nowadays, most aspiring cooks come into the business because they want to: they have chosen this life, studied for it. Today's top chefs are like star athletes. They bounce from kitchen to kitchen – free agents in search of more money, more acclaim.

I love the sheer weirdness of the kitchen life: the dreamers, the crackpots, the refugees, and the sociopaths with whom I continue to work; the ever-present smells of roasting bones, searing fish, and simmering liquids; the noise and clatter, the hiss and spray, the flames, the smoke, and the steam. Admittedly, it's a life that grinds you down. Most of us who live and operate in the culinary underworld are in some fundamental way dysfunctional. We've all chosen to turn our backs on the nine-to-five, on ever having a Friday or Saturday night off, on ever having a normal relationship with a non-cook.

Being a chef is a lot like being an air-traffic controller: you are constantly dealing with the threat of disaster. You've got to be Mom and Dad, drill sergeant, detective, psychiatrist, and priest to a crew of opportunistic, mercenary hooligans, whom you must protect from the nefarious and often foolish strategies of owners. Year after year, cooks contend with bouncing paychecks, irate purveyors, desperate owners looking for the masterstroke that will cure their restaurant's ills.

In America, the professional kitchen is the last refuge of the misfit. It's a place for people with bad pasts to find a new family. It's a haven for foreigners – Ecuadorians, Mexicans, Chinese, Senegalese, Egyptians, Poles. I've been a chef in New York for more than ten years, and, for the decade before that, a dishwasher, a prep drone, a line cook, and a sous-chef. I came into the business when cooks still smoked on the line and wore headbands. A few years ago, I wasn't surprised to hear rumours of a study of the nation's prison population which reportedly found that the leading civilian occupation among inmates before they were put behind bars was "cook." As most of us in the restaurant business know, there is a powerful strain of criminality in the industry, ranging from the dope-dealing busboy with beeper and cell phone to the restaurant owner who has two sets of accounting books. In fact, it was the unsavoury side of professional cooking that attracted me to it in the first place. In the early seventies, I dropped out of college and transferred to the Culinary Institute of America. I wanted it all: the cuts and burns on hands and wrists, the ghoulish kitchen humour, the free food, the pilfered booze, the camaraderie that flourished within rigid order and nerve-shattering chaos. I would climb the chain of command from mal carne (meaning "bad meat," or "new

guy") to chefdom – doing whatever it took until I ran my own kitchen and had my own crew of cutthroats, the culinary equivalent of "The Wild Bunch."

Q12. Which of the following is the author least likely to agree with about the professional cooking industry?

- a) The path to becoming a top-notch chef is laced with difficulties caused by demanding employers and purveyors.
- b) There is an unsavoury side to the cooking business.
- c) The professional kitchen offers misfits, with a bad history, a chance to gain solace.
- d) Crackpots, refugees, dreamers and sociopaths are too weird for a professional kitchen. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	85
Avg. time spent on this question by all students	82
Difficulty Level	M
Avg. time spent on this question by students who got this question right	71
% of students who attempted this question	42.44
% of students who got the question right of those who attempted	72.01

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Number of words and Explanatory notes for RC:

Number of words: 573

Option A: From 'Admittedly, it's a life that grinds you down' and 'Year after year, cooks contend with bouncing pay-checks, irate purveyors, desperate owners', we can understand that the life of a chef is never easy and involves plenty of troubles. Hence, the author is likely to agree with this statement. A is not the answer.

Option B: From 'there is a powerful strain of criminality in the industry, ranging from the dope-dealing busboy with beeper and cell phone to the restaurant owner who has two sets of accounting books. In fact, it was the unsavoury side of professional cooking that attracted me to it in the first place', we can understand that not all is white and legal in the cooking business. Hence, B is not the answer.

Option C: From 'the professional kitchen is the last refuge of the misfit. It's a place for people with bad pasts to find a new family', we can understand that misfits do find solace in the cooking industry. 'New family' means those who have a bad history can look for new affections (solace). Hence, the author is likely to agree with this statement. C is not the answer.

Option D: The author clearly mentions that the cooking business is the 'last refuge for misfits' and that he loves 'the sheer weirdness of the kitchen life: the dreamers, the crackpots, the refugees, and the sociopaths with whom I continue to work'. Hence, he will not likely agree to the statement that 'Crackpots, refugees, dreamers and sociopaths' are too weird for the business. (meaning so weird they are not fit for the industry) Hence, choice D is the answer.

Choice (D)

undefined

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

This is going to be awkward, but someone has to tell you, so it may as well be me: you're kind of a loser. You know that feeling you sometimes have that your friends have more friends than you? You're right. They do. And you know how almost everyone at the gym seems in better shape than you, and how everyone at your book club seems better read? Well, they are. If you're single, it's probably a while since you dated – what with you being such a loser – but when you did, do you recall thinking the other person was more romantically experienced than you? I'm afraid it was probably true.

The only consolation in all this is that it's nothing personal: it's a bizarre statistical fact that almost all of us have fewer friends

than our friends, more flab than our fellow gym-goers, and so on. In other words, you're a loser, but it's not your fault: it's just maths. (I mean, it's probably just maths. You might be a catastrophic failure as a human being, for all I know. But let's focus on the maths.)

To anyone not steeped in statistics, this seems crazy. Friendship is a two-way street, so you'd assume things would average out: any given person would be as likely to be more popular than their friends as less. But as the sociologist Scott Feld showed, in a 1991 paper bluntly entitled Why Your Friends Have More Friends Than You Do, this isn't true. If you list all your friends, and then ask them all how many friends they have, their average is very likely to be higher than your friend count.

The reason is bewilderingly simple: "You are more likely to be friends with someone who has more friends than with someone who has fewer friends," as the psychologist Satoshi Kanazawa puts it. You're more likely to know more popular people, and less likely to know less popular ones. Some people may be completely friendless, but you're not friends with any of them.

Researchers have since observed the so-called 'Friendship Paradox' in a wide variety of situations. The implications of this seeming paradox cascade through daily life. People at your gym tend to be fitter than you because you tend not to encounter the ones who rarely go; "If your lover only had one lover," Kanazawa writes, "you are probably not him or her." This is also why people think of certain beaches or museums or airports as usually busier than they actually are: by definition, most people aren't there when they're less crowded. So, if you're an active Facebook user feeling inadequate and unhappy because your friends seem to be doing better than you are, remember that almost everybody else on the network is in a similar position.

This takes some mental gymnastics to appreciate, but it's deeply reassuring. We're often told that comparing yourself with others is a fast track to misery; but the usual explanation is that we choose to compare ourselves with the wrong people: we pick the happiest, wealthiest, most talented people, and ignore how much better off we are than most.

Feld's work, though, suggests that this is only half of the problem. When it comes to those people we know well, the field from which we're choosing our comparisons is statistically skewed against us to begin with. So next time you catch yourself feeling self-pityingly inferior to almost everyone you know, take heart: you're right, but then, it's the same for them, too.

Q13. Which of the following best explains why the author feels that the result of the 'mental gymnastics' is reassuring?

- a) It is more reassuring when your friends don't do well than when they are doing well.
- b) The feeling of self-pity and inferiority that comparisons lead to are not exclusive to you alone.
- c) The feeling of self-pity and inferiority may result in skewed comparisons.
- d) Feeling inadequate and unhappy because your friends seem to be doing better than you are, is natural. Your answer is incorrect

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	207
Avg. time spent on this question by all students	338
Difficulty Level	D
Avg. time spent on this question by students who got this question right	326
% of students who attempted this question	47.98
% of students who got the question right of those who attempted	68.93

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 586

'So, if you're an active Facebook user feeling inadequate and unhappy because your friends seem to be doing better than you are, remember that almost everybody else on the network is in a similar position. This takes some mental gymnastics to appreciate, but it's deeply reassuring.' According to these lines, we can infer that what the author finds deeply reassuring is that everybody is in a position where they feel inadequate and unhappy, and that is more because of skewed perception rather than the actual truth.

Option A: We are not talking about just one's friends not doing well. We are not even looking at who is not doing well. We are feeling inadequate because we are looking at others doing better than us. Hence, this option doesn't explain the author's opinion. Choice A is not the answer.

Option B: The feelings of self-pity and inferiority are not exclusive to you and are felt by everyone. The author feels reassured because these feelings are not exclusive to one person but the reassurance is not from a sadistic realisation that everyone is equally sad but rather from the happy realisation that the comparisons leading to these feelings are not apt. This can be understood from the last line of the antepenultimate para – 'remember that almost everybody else on the network is in a similar position'. Hence, Choice B is the answer.

Option C: As per the last para in the passage, the feeling of self-pity is because of skewed comparisons, because we choose people from the wrong set to compare ourselves with. The skewed comparisons may result in self-pity and it is not the other way around. Hence, Choice C is not the answer.

Option D: The basic difference between this option and the actual reason is that the former justifies the sadness as natural. The actual reason for being reassured is that this feeling is misguided (not natural as this option points out). Hence, Choice D is not the answer.

Choice (B)

undefined

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

This is going to be awkward, but someone has to tell you, so it may as well be me: you're kind of a loser. You know that feeling you sometimes have that your friends have more friends than you? You're right. They do. And you know how almost everyone at the gym seems in better shape than you, and how everyone at your book club seems better read? Well, they are. If you're single, it's probably a while since you dated – what with you being such a loser – but when you did, do you recall thinking the other person was more romantically experienced than you? I'm afraid it was probably true.

The only consolation in all this is that it's nothing personal: it's a bizarre statistical fact that almost all of us have fewer friends than our friends, more flab than our fellow gym-goers, and so on. In other words, you're a loser, but it's not your fault: it's just maths. (I mean, it's probably just maths. You might be a catastrophic failure as a human being, for all I know. But let's focus on the maths.)

To anyone not steeped in statistics, this seems crazy. Friendship is a two-way street, so you'd assume things would average out: any given person would be as likely to be more popular than their friends as less. But as the sociologist Scott Feld showed, in a 1991 paper bluntly entitled Why Your Friends Have More Friends Than You Do, this isn't true. If you list all your friends, and then ask them all how many friends they have, their average is very likely to be higher than your friend count.

The reason is bewilderingly simple: "You are more likely to be friends with someone who has more friends than with someone who has fewer friends," as the psychologist Satoshi Kanazawa puts it. You're more likely to know more popular people, and less likely to know less popular ones. Some people may be completely friendless, but you're not friends with any of them.

Researchers have since observed the so-called 'Friendship Paradox' in a wide variety of situations. The implications of this seeming paradox cascade through daily life. People at your gym tend to be fitter than you because you tend not to encounter the ones who rarely go; "If your lover only had one lover," Kanazawa writes, "you are probably not him or her." This is also why people think of certain beaches or museums or airports as usually busier than they actually are: by definition, most people aren't there when they're less crowded. So, if you're an active Facebook user feeling inadequate and unhappy because your friends seem to be doing better than you are, remember that almost everybody else on the network is in a similar position.

This takes some mental gymnastics to appreciate, but it's deeply reassuring. We're often told that comparing yourself with others is a fast track to misery; but the usual explanation is that we choose to compare ourselves with the wrong people: we pick the happiest, wealthiest, most talented people, and ignore how much better off we are than most.

Feld's work, though, suggests that this is only half of the problem. When it comes to those people we know well, the field from which we're choosing our comparisons is statistically skewed against us to begin with. So next time you catch yourself feeling self-pityingly inferior to almost everyone you know, take heart: you're right, but then, it's the same for them, too.

Q14. Which of the following is the author's primary point of view in the passage?

- a) Friendship paradox has a wide variety of applications in the study of social networks. Your answer is incorrect
- b) Comparisons with others which breed dissatisfaction are not a universal phenomenon.
- c) Each one of us is likely to be the least connected member of the network groups we are a part of.
- d) Maths can prove that our comparisons are based on a statistically skewed field.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	259
Avg. time spent on this question by all students	86
Difficulty Level	M
Avg. time spent on this question by students who got this question right	83
% of students who attempted this question	45.3
% of students who got the question right of those who attempted	41.69

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 586

The author's primary point of view in the passage is that comparisons with others which generally leave us with the feeling of inferiority may not be accurate given that the field from which we pick our samples are skewed in the first place.

Option A: While the passage discusses 'Friendship Paradox', it doesn't focus on the applications of the paradox, that too, in the study of social networks, another aspect not discussed at length but mentioned as a passing example. Hence, Choice A is not the answer.

Option B: Comparisons with others leading to dissatisfaction, according to the passage, are indeed, a universal phenomenon, as the passage asserts that it is quite likely everyone experiences the feeling of self-pity. Hence, Choice B is misrepresentation of the idea of the passage.

Option C: While this line alludes to something reasonably true, the passage is not about one's network connections alone, but about every kind of topology where comparisons with a similar group of peers is possible. Hence, Choice C doesn't represent the idea of the passage well.

Option D: The idea of the passage is two-fold: that everyone is feeling inadequate because of a similar set of comparisons with peers, and that everyone's field of comparison is skewed. This option points to that flaw in everyone's comparisons - statistically skewed field. Hence, Choice D is the answer. Choice (D)

undefined

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

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Q15. Which of the following reiterates the assumption in the line 'Friendship is a two-way street, so you'd assume things would average out'?

- a) A could be friends with just B, but B in turn, could be friends with several others.
- b) Groups of friends most probably will have connectors, those who are friends with both groups.
- c) The number of people who have more friends than the average number of friends anyone has, is never the same as those who have fewer.
- d) The chances of your friends having more friends than you do are similar to your having more friends than they do. **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	133
Avg. time spent on this question by all students	114
Difficulty Level	D
Avg. time spent on this question by students who got this question right	106
% of students who attempted this question	39.25
% of students who got the question right of those who attempted	66.8

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 586

The assumption made by the author while saying this has actually been elaborated in the following line: any given person would be as likely to be more popular than their friends as less. In other words, the assumption is people are connected both ways and there is no pattern behind who is more popular and who isn't (an idea the passage contradicts). In other words, if we compare the number of friends every individual has(X) with the average of the number of friends the individuals' friends have (Y), the author's initial assumption is that it will cancel out. In other words, the probability of X being more or less than Y is the same. A simple way of looking at this question is identifying whether an option strengthens the Friendship Paradox or goes against it. Since, the author's initial assumption here was contradicting the Friendship Paradox, one can identify whether a particular option demonstrates the assumption or contradicts it.

Option A: This contradicts the above-explained principle because this option clearly shows that one's friends might have other friends thereby increasing the possibility of Friendship Paradox being true. The option strengthens the Friendship Paradox, thereby weakening the author's assumption, rather than demonstrating it. Hence, Choice A is not the answer.

Option B: This line proves the possibility of people being friends with people who have a lot more friends, thereby increasing the average of the friends one's friends have. Thereby, the Friendship Paradox is strengthened by this option. In other words, it will contradict the author's assumption. Hence, Choice B is not the answer.

Option C: This line once again seems to strengthen the Friendship Paradox by showing that clearly that the statement 'any given person would be as likely to be more popular than their friends as less' is false. So, it contradicts the assumption of the author. Hence, Choice C is not the answer.

Option D: This line clearly negates the Friendship Paradox by stating that in any given network or group the probability of one being more or less popular (in terms of number of friends) that the average of the group is similar. Hence, it strengthens/demonstrates the assumption made by the author. Choice D is the answer.

Choice (D)

undefined

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

This is going to be awkward, but someone has to tell you, so it may as well be me: you're kind of a loser. You know that feeling you sometimes have that your friends have more friends than you? You're right. They do. And you know how almost everyone at the gym seems in better shape than you, and how everyone at your book club seems better read? Well, they are. If you're single, it's probably a while since you dated – what with you being such a loser – but when you did, do you recall thinking the other person was more romantically experienced than you? I'm afraid it was probably true.

The only consolation in all this is that it's nothing personal: it's a bizarre statistical fact that almost all of us have fewer friends than our friends, more flab than our fellow gym-goers, and so on. In other words, you're a loser, but it's not your fault: it's just maths. (I mean, it's probably just maths. You might be a catastrophic failure as a human being, for all I know. But let's focus on the maths.)

To anyone not steeped in statistics, this seems crazy. Friendship is a two-way street, so you'd assume things would average out: any given person would be as likely to be more popular than their friends as less. But as the sociologist Scott Feld showed, in a 1991 paper bluntly entitled Why Your Friends Have More Friends Than You Do, this isn't true. If you list all your friends, and then ask them all how many friends they have, their average is very likely to be higher than your friend count.

The reason is bewilderingly simple: "You are more likely to be friends with someone who has more friends than with someone who has fewer friends," as the psychologist Satoshi Kanazawa puts it. You're more likely to know more popular people, and less likely to know less popular ones. Some people may be completely friendless, but you're not friends with any of them.

Researchers have since observed the so-called 'Friendship Paradox' in a wide variety of situations. The implications of this seeming paradox cascade through daily life. People at your gym tend to be fitter than you because you tend not to encounter the ones who rarely go; "If your lover only had one lover," Kanazawa writes, "you are probably not him or her." This is also why people think of certain beaches or museums or airports as usually busier than they actually are: by definition, most

people aren't there when they're less crowded. So, if you're an active Facebook user feeling inadequate and unhappy because your friends seem to be doing better than you are, remember that almost everybody else on the network is in a similar position.

This takes some mental gymnastics to appreciate, but it's deeply reassuring. We're often told that comparing yourself with others is a fast track to misery; but the usual explanation is that we choose to compare ourselves with the wrong people: we pick the happiest, wealthiest, most talented people, and ignore how much better off we are than most.

Feld's work, though, suggests that this is only half of the problem. When it comes to those people we know well, the field from which we're choosing our comparisons is statistically skewed against us to begin with. So next time you catch yourself feeling self-pityingly inferior to almost everyone you know, take heart: you're right, but then, it's the same for them, too.

Q16. Which of the following needs to be proven wrong to weaken the author's opinion in 'You're more likely to know more popular people...but you're not friends with any of them'?

- a) Popular people are popular only because they have more friends than the average individual. Your answer is correct
- b) Fame is never an indicator of the popularity of a person.
- c) The popularity of a person doesn't reflect how many friends they actually have.
- d) Popular people could be completely friendless.

Time spent / Accuracy Analysis

Time taken by you to answer this question	148
Avg. time spent on this question by all students	108
Difficulty Level	D
Avg. time spent on this question by students who got this question right	113
% of students who attempted this question	42.21
% of students who got the question right of those who attempted	52.06

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Number of words and Explanatory notes for RC:

Number of words: 586

In the lines considered for the question, the author's assumption is that popularity number of friends are proportional (debatable, but we stick to the author's assumption).

Option A: If A is proven wrong, it means that popular people may not have more friends than the average individual. The author's opinion that one is more likely to be friends with popular people than 'friendless people' will be weakened by the same.

Option B: This option compares 'fame' and 'popularity' and totally ignores the important parameter of 'number of friends'. Hence, Choice B is easy to eliminate.

Option C: This when proven false, indicates that popularity of a person and the friends-count are connected. This strengthens the author's opinion rather than weaken it. Hence, Choice C can be eliminated.

Option D: This option, as it stands, weakens the author's opinion(which says popular people are the ones who have a lot of friends). Hence, if proven false, it will strengthen the author's opinion.

Choice (A)

undefined

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

This is going to be awkward, but someone has to tell you, so it may as well be me: you're kind of a loser. You know that feeling you sometimes have that your friends have more friends than you? You're right. They do. And you know how almost everyone at the gym seems in better shape than you, and how everyone at your book club seems better read? Well, they are. If you're single, it's probably a while since you dated – what with you being such a loser – but when you did, do you recall thinking the other person was more romantically experienced than you? I'm afraid it was probably true.

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Researchers have since observed the so-called 'Friendship Paradox' in a wide variety of situations. The implications of this seeming paradox cascade through daily life. People at your gym tend to be fitter than you because you tend not to encounter the ones who rarely go; "If your lover only had one lover," Kanazawa writes, "you are probably not him or her." This is also

why people think of certain beaches or museums or airports as usually busier than they actually are: by definition, most people aren't there when they're less crowded. So, if you're an active Facebook user feeling inadequate and unhappy because your friends seem to be doing better than you are, remember that almost everybody else on the network is in a similar position.

This takes some mental gymnastics to appreciate, but it's deeply reassuring. We're often told that comparing yourself with others is a fast track to misery; but the usual explanation is that we choose to compare ourselves with the wrong people: we pick the happiest, wealthiest, most talented people, and ignore how much better off we are than most.

Feld's work, though, suggests that this is only half of the problem. When it comes to those people we know well, the field from which we're choosing our comparisons is statistically skewed against us to begin with. So next time you catch yourself feeling self-pityingly inferior to almost everyone you know, take heart: you're right, but then, it's the same for them, too.

Q17. Consider the sentence, 'Feld's work, though, suggests that this is only half of the problem' in the last para of the passage. Which of the following best illustrates the other half of the problem?

- a) As basis for comparison, we choose those who have done better in life than we have.
- b) Our choices are driven more by self-pity and a sense of inferiority than by a sense of competitiveness.
- c) Talented, happy and wealthy people may not really be having the kind of amazing life we attribute to them during our comparisons.
- d) We are myopic when it comes to picking the pool from which we select people for our comparisons. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	209
Avg. time spent on this question by all students	109
Difficulty Level	D
Avg. time spent on this question by students who got this question right	106
% of students who attempted this question	39.46
% of students who got the question right of those who attempted	38.09

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Number of words and Explanatory notes for RC:

Number of words: 586

There are two problems according to the passage. The first half (let's call it A) is that we compare ourselves only to the cream: the richest, the wealthiest, etc. The second half (let's call it B) of the problem is that while picking the people to compare with (the cream), the field we have to pick them from, is in itself, skewed. This is demonstrated by 'When it comes to those people we know well, the field from which we're choosing our comparisons is statistically skewed against us to begin with.'

Option A: There are two problems with this option. Firstly, there is an assumption that people in 'we pick the happiest, wealthiest, most talented people' is the same as 'those who have done better in life than we have'. Secondly, this still refers to the group A. The other half is group B. Hence, Choice A can be eliminated.

Option B: This option talks about why we compare in the first place. The question is not so much about why we compare, but whom we compare with. Hence, Choice B can be eliminated.

Option C: Once again, this option is about the ethos of comparison and why we shouldn't be comparing. That is not the idea of that problem. We are discussing whom we compare with and the field from which we pick the sample of whom to compare with. Choice C is not the answer.

Option D: This option points that we do not look at the bigger picture when selecting the pool (the field that is skewed against us) from which we pick people to compare. Hence, this line best suggests the second half of the problem indicated in the para. Hence, Choice D is the answer.

Choice (D)

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

This is going to be awkward, but someone has to tell you, so it may as well be me: you're kind of a loser. You know that feeling you sometimes have that your friends have more friends than you? You're right. They do. And you know how almost everyone at the gym seems in better shape than you, and how everyone at your book club seems better read? Well, they are. If you're single, it's probably a while since you dated – what with you being such a loser – but when you did, do you recall thinking the other person was more romantically experienced than you? I'm afraid it was probably true.

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Feld's work, though, suggests that this is only half of the problem. When it comes to those people we know well, the field from which we're choosing our comparisons is statistically skewed against us to begin with. So next time you catch yourself feeling self-pityingly inferior to almost everyone you know, take heart: you're right, but then, it's the same for them, too.

Q18. Which of the following, if true, does not demonstrate 'Friendship Paradox' as explained in the passage?

- a) Those who share your library always seem to be reading more books than you do.
- b) All your relatives seem to be earning more than you do.
- c) Members of your trekking group seem to trek on more occasions than you do.
- d) Members of an NGO teaching underprivileged kids often feel they aren't as involved as others are in the NGO activities. □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	180
Avg. time spent on this question by all students	91
Difficulty Level	D
Avg. time spent on this question by students who got this question right	90
% of students who attempted this question	41.2
% of students who got the question right of those who attempted	35.1

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Number of words and Explanatory notes for RC:

Number of words: 586

Friendship Paradox as explained in the paradox comes from, 'If you list all your friends, and then ask them all how many friends they have, their average is very likely to be higher than your friend count.' The paradox is demonstrated when you compare yourself with those in your particular network who are already there for a specific reason. (We don't compare ourselves with non-gym-goers but only with gym-regulars, who in turn, are likely to be more chiselled than us. We are comparing ourselves with those picked from a skewed sample.)

Option A: Everyone in the library seems to be reading more books than you do, because your comparison is with only those who come to the library in the first place and not with those who never read. Choice A fits the 'Friendship Paradox' perfectly. Choice A is not the answer.

Option B: The option mentions **all the relatives** and not a select, skewed group that we pick based on those in a network we have formed. Hence, this particular set doesn't conform to the criteria discussed in the passage. Hence, this option doesn't demonstrate the topology vulnerable to Friendship Paradox. Choice B is the answer.

Option C: Only those who are interested in trekking would join the trekking group and hence, our comparison is only with those who like trekking. We never encounter those who don't like trekking or those we never trek. This example, fits with the criteria discussed in the passage (similar to library example). Hence, Choice C demonstrates Friendship Paradox and is therefore, not the answer.

Option D: If you compare yourself with other NGO activists, they seem to be more involved because we are only comparing ourselves with others in the group, who are precisely in the group because of their commitment. Choice D demonstrates Friendship Paradox. Hence, Choice D is not the answer.

Choice (B)

undefined

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

A 'Blue Ocean', is an uncontested market space that makes competition irrelevant, sometimes a previously unknown market space. In Blue Oceans, demand is created rather than fought over. There is ample opportunity for growth that is both profitable and rapid. In Red Oceans – that is, in all the industries already existing – companies compete by grabbing for a greater share of limited demand. As the market space gets more crowded, prospects for profits and growth decline. Products turn into commodities, and increasing competition turns the water bloody.

There are two ways to create Blue Oceans. One is to launch completely new industries, as eBay did with online auctions. But it's much more common for a Blue Ocean to be created from within a Red Ocean when a company expands the boundaries of an existing industry.

As market power has moved from companies to consumers, and global competition has intensified, managers in almost all industries have come to face steep performance challenges. To turn things around, they need to be more creative in developing and executing their competitive strategies. But long-term success will not be achieved through competitiveness alone. Increasingly, it will depend on the ability to generate new demand and create and capture new markets.

The payoffs of market creation are huge. Just compare the experiences of Apple and Microsoft. Over the past 15 years, Apple has made a series of successful market-creating moves, introducing the iPod, iTunes, the iPhone, the App Store, and the iPad. From the launch of the iPod in 2001 to the end of its 2014 fiscal year, Apple's market cap surged more than 75-fold as its sales and profits exploded. Over the same period, Microsoft's market cap crept up by a mere 3% while its revenue went from nearly five times larger than Apple's to nearly half of Apple's. With close to 80% of profits coming from two old businesses – Windows and Office – and no compelling market-creating move, Microsoft has paid a steep price.

Q19. Which of the following can be understood from the passage?

- I.
Apple's market cap surge is because of the new market-creating moves.

- II.
Companies cannot register high growth in market cap indefinitely by relying on old businesses.

III.

Market-creating moves always lead to growth and increase in profits.

- a) I, II and III
- b) I and II
- c) I and III
- d) Only II

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	15
Avg. time spent on this question by all students	236
Difficulty Level	D
Avg. time spent on this question by students who got this question right	227
% of students who attempted this question	45.81
% of students who got the question right of those who attempted	46.83

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Text Solution

Number of words and Explanatory notes for RC:

Number of words: 328

From the third para:

The payoffs of market creation are huge. Just compare the experiences of Apple and Microsoft. Over the past 15 years, Apple has made a series of successful market-creating moves, introducing the iPod, iTunes, the iPhone, the App Store, and the iPad. From the launch of the iPod in 2001 to the end of its 2014 fiscal year, Apple's market cap surged more than 75-fold as its sales and profits exploded. Over the same period, Microsoft's market cap crept up by a mere 3% while its revenue went from nearly five times larger than Apple's to nearly half of Apple's. With close to 80% of profits coming from two old businesses – Windows and Office – and no compelling market-creating move, Microsoft has paid a steep price.

It can be understood that the author ascribes the success of Apple (payoffs) to their market creation.

I - The author starts the last para by saying market creation payoffs are huge and gives Apple as an example. The author then states that Apple has made several market-creating moves and goes on to mention that the market cap surged more than 75-fold. So, the payoff is correlated to the surge in market cap. Hence, I can be understood.

II – From the Microsoft example, it can be understood that according to the author relying on old businesses will lead to a company paying a steep price – market cap creeping at a low rate (in this case, a mere 3%). So, it can be understood that companies cannot keep on milking the same businesses indefinitely for growth (yes, profits may continue, but at a very low rate). Hence, II can be understood.

III – The author correlates market growth with market-creating moves, but doesn't conclude anywhere in the passage that all market-creating moves payoff or succeed. There is a difference between saying 'market-creating moves lead to growth and profits' and 'market-creating moves always lead to growth and profits.' Hence, it cannot be understood from the passage.

Hence, Option B is the answer.

Choice (B)

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

A 'Blue Ocean', is an uncontested market space that makes competition irrelevant, sometimes a previously unknown market space. In Blue Oceans, demand is created rather than fought over. There is ample opportunity for growth that is both profitable and rapid. In Red Oceans – that is, in all the industries already existing – companies compete by grabbing for a greater share of limited demand. As the market space gets more crowded, prospects for profits and growth decline. Products turn into commodities, and increasing competition turns the water bloody.

There are two ways to create Blue Oceans. One is to launch completely new industries, as eBay did with online auctions. But it's much more common for a Blue Ocean to be created from within a Red Ocean when a company expands the boundaries of an existing industry.

As market power has moved from companies to consumers, and global competition has intensified, managers in almost all industries have come to face steep performance challenges. To turn things around, they need to be more creative in developing and executing their competitive strategies. But long-term success will not be achieved through competitiveness alone. Increasingly, it will depend on the ability to generate new demand and create and capture new markets.

The payoffs of market creation are huge. Just compare the experiences of Apple and Microsoft. Over the past 15 years, Apple has made a series of successful market-creating moves, introducing the iPod, iTunes, the iPhone, the App Store, and the iPad. From the launch of the iPod in 2001 to the end of its 2014 fiscal year, Apple's market cap surged more than 75-fold as its sales and profits exploded. Over the same period, Microsoft's market cap crept up by a mere 3% while its revenue went from nearly five times larger than Apple's to nearly half of Apple's. With close to 80% of profits coming from two old businesses – Windows and Office – and no compelling market-creating move, Microsoft has paid a steep price.

Q20. All of the following are differences between Blue Oceans and Red Oceans EXCEPT?

- a) Blue Oceans are uncontested whereas Red Oceans teem with competition.
- b) Blue Oceans create demand whereas Red Oceans lead to tussle over limited demand.
- c) Blue Oceans offer rapid growth and profits whereas Red Oceans witness declining profits.
- d) In Blue Oceans companies may push the boundaries of an existing industry whereas in Red Oceans companies squeeze more out of existing industries.

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	103
Difficulty Level	M
Avg. time spent on this question by students who got this question right	89
% of students who attempted this question	46.38
% of students who got the question right of those who attempted	28.4

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Number of words and Explanatory notes for RC:

Number of words: 328

Option A: A 'Blue Ocean', is an uncontested market space that makes competition irrelevant. Hence, the first half is justified. 'In Red Oceans – that is, in all the industries already existing – companies compete by grabbing for a greater share of limited demand. As the market space gets more crowded...' Hence, 'teeming (crowded) with competition' in the answer choice is justified. Option A is a valid difference and not the answer.

Option B: From 'In Blue Oceans, demand is created rather than fought over' and 'In Red Oceans – that is, in all the industries already existing – companies compete by grabbing for a greater share of limited demand'. Hence, the difference stated in Option B is justified. Option B is not the answer.

Option C: From 'As the market space gets more crowded, prospects for profits and growth decline', we can understand that in Red Oceans, it is the prospect for profit that declines. One cannot ascertain that actual profits decline as well. Hence, the second half of the option cannot be justified. Option C is the answer.

Option D: From 'But it's much more common for a Blue Ocean to be created from within a Red Ocean when a company expands the boundaries of an existing industry' we can understand that Blue Oceans push the boundaries. From 'In Red Oceans – that is, in all the industries already existing' we can understand that 'increasing competition turns the water bloody'. Hence, Option D is a valid difference and not the answer.

Choice (C)

undefined

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

A 'Blue Ocean', is an uncontested market space that makes competition irrelevant, sometimes a previously unknown market space. In Blue Oceans, demand is created rather than fought over. There is ample opportunity for growth that is both profitable and rapid. In Red Oceans – that is, in all the industries already existing – companies compete by grabbing for a greater share of limited demand. As the market space gets more crowded, prospects for profits and growth decline. Products turn into commodities, and increasing competition turns the water bloody.

There are two ways to create Blue Oceans. One is to launch completely new industries, as eBay did with online auctions. But it's much more common for a Blue Ocean to be created from within a Red Ocean when a company expands the boundaries of an existing industry.

As market power has moved from companies to consumers, and global competition has intensified, managers in almost all industries have come to face steep performance challenges. To turn things around, they need to be more creative in developing and executing their competitive strategies. But long-term success will not be achieved through competitiveness alone. Increasingly, it will depend on the ability to generate new demand and create and capture new markets.

The payoffs of market creation are huge. Just compare the experiences of Apple and Microsoft. Over the past 15 years, Apple has made a series of successful market-creating moves, introducing the iPod, iTunes, the iPhone, the App Store, and the iPad. From the launch of the iPod in 2001 to the end of its 2014 fiscal year, Apple's market cap surged more than 75-fold as its sales and profits exploded. Over the same period, Microsoft's market cap crept up by a mere 3% while its revenue went from nearly five times larger than Apple's to nearly half of Apple's. With close to 80% of profits coming from two old businesses – Windows and Office – and no compelling market-creating move, Microsoft has paid a steep price.

Q21. Which of the following explains the author's purpose in using the example of Apple and Microsoft?

- a) To highlight the advantages of creating new markets.
- b) To show how Apple's Blue Ocean strategies are better than those of Microsoft.
- c) To demonstrate that brand building is a direct consequence of an increasing market cap.
- d) To prove that Microsoft's brand value is lower than that of Apple because of lack of innovation.

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	M
Avg. time spent on this question by students who got this question right	63
% of students who attempted this question	47.12
% of students who got the question right of those who attempted	72.63

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Number of words and Explanatory notes for RC:

Number of words: 328

But long-term success will not be achieved through competitiveness alone. Increasingly, it will depend on the ability to generate new demand and create and capture new markets. The payoffs of market creation are huge. Just compare the experiences of Apple and Microsoft.

Option A: From the underlined portion above, it can be understood that the author attributes Apple's success (payoff) to market creation and generating demand. Hence, Option A is the answer.

Option B: We cannot compare Apple's Blue Ocean strategies with those of Microsoft, because none of Microsoft's market-creating moves have been discussed. Instead, it has been stated that Microsoft didn't come up with any market-creating moves. Hence, the Apple example isn't to show that its strategies are better. Option B is not the answer.

Option C: Brand building is a consequence of Blue Ocean strategies which may also lead to increase in market cap. Market cap doesn't lead to brand building. Hence, Option C is not the answer.

Option D: 'Over the same period, Microsoft's market cap crept up by a mere 3% while its revenue went from nearly five times larger than Apple's to nearly half of Apple's'. The revenue of the two companies has been compared but not their brand value. Hence, Option D is not the answer.

Choice (A)

undefined

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

The wheel forms the basic component of any mechanized system today, be it a watch or a jet engine. The world moves on wheels today and the inception of this technology can be traced back to 3500 BC in Mesopotamia (Sumerian civilization). The Sumerian wheel was invented by joining planks of wood together. However, it is still a mystery as to who actually made the first wheel. The first wheel ever made was not used for any kind of transportation. Rather, it was used by potters to spin clay for making articles like vessels. The first wooden wheel in the world was found in Slovenia and it is more than 5000 years old.

Mesopotamians started using the wheel for transferring goods at a much later period, between 3700 and 3200 BCE. They used it in their chariots and wagons, where four wheels and two axles were included. The Egyptians improvised the wheel further. They made spokes in them and used them in chariots around 2000 BC. During this time, the wheel made its way into Europe where the Greeks ideated to improve the Egyptian wheel. Researchers opine that the wheelbarrow – a hand drawn vehicle with one wheel – was first invented in Greece between the 6th and 4th century BC. It then found its way to China 400 years later, from where it moved to medieval Europe. ... The Romans made a large variety of wheels for chariots, carts, heavy freight wagons, passenger coaches.

In earlier days, circular stones or tree trunks were used as rollers for moving heavy objects. Then people started placing runners below the heavy object and started dragging it like a sledge. Then they combined the sledge and the roller, enabling the arrangement to cover larger distances. Next, the rollers were changed into wheels by cutting out the wood in between the two grooves of the rollers and an axle-like structure was created. Special wooden pegs were used on both sides to keep the runners fastened to the axle. Thus, as the wheel turned, the axle could also turn with it. This was how the first hand-cart was made.

Q22. All of the following can be inferred from the passage EXCEPT?

1. The Greeks adopted the idea of wheel-making from the Egyptians and further developed it.
2. The first ever wheel was used for manufacturing purpose, and not for transportation.
3. The earliest wheel was either made of stone or wood.
4. The first hand-cart had only one wheel, allowing transportation of heavy objects quickly and over long distances.

- a) **2 and 3**
- b) **1 and 4**
- c) **3 and 4**
- d) **Only 2**

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	278
Difficulty Level	M
Avg. time spent on this question by students who got this question right	276
% of students who attempted this question	43.15
% of students who got the question right of those who attempted	64.4

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 352

Statement (1): Around 2000 BC, the wheel made its way into Europe where the Greeks ideated to improve the Egyptian wheel. Hence (1) is true and is not the answer.

Statement (2): The first wheel ever made was not used for any kind of transportation. Rather, it was used by potters to spin clay for making articles like vessels. Statement (2) is correct and is not the answer.

Statement (3): In earlier days, circular stones or tree trunks were used as rollers for moving heavy objects. Then people started placing runners below the heavy object and started dragging it like a sledge. From these lines, the material used in the earliest wheel cannot be inferred since the lines just mention "earlier days". {The first wheel ever made was not used for any kind of transportation.}

The first wooden wheel in the world was found in Slovenia and it is more than 5000 years old. But we cannot infer that this was the first or earliest wheel ever. So (3) is not true and is the answer.

Statement (4): The wheelbarrow was a hand drawn vehicle with one wheel. We cannot say that the first hand-cart had only one wheel. The last paragraph talks about how the first hand-cart was made. Rollers were changed into wheels by cutting out the wood in between the two grooves of the rollers and an axle-like structure was created. Special wooden pegs were used on both sides to keep the runners fastened to the axle. (4) is false as it does not cover the features of the first hand-cart and is the answer.

So, both (3) and (4) cannot be inferred from the passage and are the answers.

Choice (C)

undefined

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

The wheel forms the basic component of any mechanized system today, be it a watch or a jet engine. The world moves on wheels today and the inception of this technology can be traced back to 3500 BC in Mesopotamia (Sumerian civilization). The Sumerian wheel was invented by joining planks of wood together. However, it is still a mystery as to who actually made the first wheel. The first wheel ever made was not used for any kind of transportation. Rather, it was used by potters to spin clay for making articles like vessels. The first wooden wheel in the world was found in Slovenia and it is more than 5000 years old.

Mesopotamians started using the wheel for transferring goods at a much later period, between 3700 and 3200 BCE. They used it in their chariots and wagons, where four wheels and two axles were included. The Egyptians improvised the wheel further. They made spokes in them and used them in chariots around 2000 BC. During this time, the wheel made its way into Europe where the Greeks ideated to improve the Egyptian wheel. Researchers opine that the wheelbarrow – a hand drawn vehicle with one wheel – was first invented in Greece between the 6th and 4th century BC. It then found its way to China 400 years later, from where it moved to medieval Europe. ... The Romans made a large variety of wheels for chariots, carts, heavy freight wagons, passenger coaches.

In earlier days, circular stones or tree trunks were used as rollers for moving heavy objects. Then people started placing runners below the heavy object and started dragging it like a sledge. Then they combined the sledge and the roller, enabling the arrangement to cover larger distances. Next, the rollers were changed into wheels by cutting out the wood in between the two grooves of the rollers and an axle-like structure was created. Special wooden pegs were used on both sides to keep the runners fastened to the axle. Thus, as the wheel turned, the axle could also turn with it. This was how the first hand-cart was made.

Q23. The first wheel in the world was invented in?

- a) Slovenia
- b) Mesopotamia
- c) Egypt
- d) No nation has ever been accredited for the invention of the wheel.

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	60
Difficulty Level	E
Avg. time spent on this question by students who got this question right	59
% of students who attempted this question	49.62
% of students who got the question right of those who attempted	69.36

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 352

Option A: The first wooden wheel in the world was found in Slovenia and it is more than 5000 years old. But choice A is not the answer as it has been mentioned in the passage that it is still a mystery as to who actually made the first wheel. So choice A is not true.

Option B: The inception of the wheel technology can be traced back to 3500 BC in Mesopotamia – the Sumerian wheel was invented by joining planks of wood together. However, it is still a mystery as to who actually made the first wheel. Hence choice B is not the answer.

Option C: The Egyptians only improvised the wheel further. They made spokes in them and used them in chariots around 2000 BC. We cannot say that the first wheel of the world was invented in Egypt. Therefore choice C is not the answer.

Option D: However, it is still a mystery as to who actually made the first wheel. Hence the correct answer is choice D.

[Choice \(D\)](#)

undefined

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

The wheel forms the basic component of any mechanized system today, be it a watch or a jet engine. The world moves on wheels today and the inception of this technology can be traced back to 3500 BC in Mesopotamia (Sumerian civilization). The Sumerian wheel was invented by joining planks of wood together. However, it is still a mystery as to who actually made the first wheel. The first wheel ever made was not used for any kind of transportation. Rather, it was used by potters to spin clay for making articles like vessels. The first wooden wheel in the world was found in Slovenia and it is more than 5000 years old.

Mesopotamians started using the wheel for transferring goods at a much later period, between 3700 and 3200 BCE. They used it in their chariots and wagons, where four wheels and two axles were included. The Egyptians improvised the wheel further. They made spokes in them and used them in chariots around 2000 BC. During this time, the wheel made its way into Europe where the Greeks ideated to improve the Egyptian wheel. Researchers opine that the wheelbarrow – a hand drawn vehicle with one wheel – was first invented in Greece between the 6th and 4th century BC. It then found its way to China 400 years later, from where it moved to medieval Europe. ... The Romans made a large variety of wheels for chariots, carts, heavy freight wagons, passenger coaches.

In earlier days, circular stones or tree trunks were used as rollers for moving heavy objects. Then people started placing runners below the heavy object and started dragging it like a sledge. Then they combined the sledge and the roller, enabling the arrangement to cover larger distances. Next, the rollers were changed into wheels by cutting out the wood in between the two grooves of the rollers and an axle-like structure was created. Special wooden pegs were used on both sides to keep the

runners fastened to the axle. Thus, as the wheel turned, the axle could also turn with it. This was how the first hand-cart was made.

Q24. According to the passage, which of the following is true about the earliest wheels produced in Mesopotamia and Egypt?

- a) The Sumerians used the wheel for multiple purposes while the Egyptians used it only in their chariots.
- b) The Sumerians in Mesopotamia made wheels by joining together planks of wood while the Egyptians created wheels with spokes.
- c) The Sumerians made wheels with spokes while the Egyptians produced wheels by joining together planks of wood.
- d) The Sumerians used axles for their wheels and the Egyptians used wheels for their chariots for the first time.

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	111
Difficulty Level	M
Avg. time spent on this question by students who got this question right	106
% of students who attempted this question	44.76
% of students who got the question right of those who attempted	84.46

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 352

Option A: We know from the passage that the Romans made a large variety of wheels for chariots, carts, heavy freight wagons, passenger coaches. The Egyptians improvised the wheel further. They made spokes in them and used them in chariots around 2000 BC. The first part of choice A is incorrect.

Option B: The world moves on wheels today and the inception of this technology can be traced back to 3500 BC in Mesopotamia – the Sumerian wheel was invented by joining planks of wood together. The Egyptians improvised the wheel further. They made spokes in them and used them in chariots around 2000 BC. Hence choice B is the correct answer.

Option C: As explained for choice B, the converse of choice C is true. Choice C is not the answer.

Option D: Mesopotamians (Sumerian civilization) started using the wheel for transferring goods at a much later period, between 3700 and 3200 BCE. They used it in their chariots and wagons, where four wheels and **two axles** were included. The first part of choice D is correct. The second part of choice D cannot be inferred from the passage. So choice D is not the answer.

Choice (B)

undefined

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

1. Texting has habituated us to receiving a much quicker response.

2. An appropriate time frame varies from person to person, but it can be anywhere from 10 minutes to an hour to even immediately, depending on the previous communication.
3. Texting is a medium that conditions our minds in a distinctive way, and we expect our exchanges to work differently with messages than they did with phone calls.
4. Before everyone had a cell phone, people could usually wait a while – up to a few days, even – to call back before reaching the point where the other person would get concerned.
5. When we don't get the quick response, our mind freaks out.

Your Answer:41325 □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	95
Avg. time spent on this question by all students	199
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	181
% of students who attempted this question	43.99
% of students who got the question right of those who attempted	14.13

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[Text Solution](#)

Sentence 1 is an independent sentence, without pronouns or conjunctive adverbs (e.g. However, otherwise, meanwhile, as such, therefore, etc. which connect two different sentences).

Sentence 2 should lead to the question 'time frame for what'.

Sentence 3 is again an independent sentence similar to Sentence 1. Between Sentence 1 and Sentence 3, Sentence 3 comes first in the order because it is upstream to Sentence 1. It is upstream because Sentence 3 answers 'what is texting' whereas 1 answers 'what is the effect of texting'. We can talk about what it has habituated us to, only after talking about what it is and when we use it. (Works differently from phone calls). But, Sentence 3 and Sentence 1 need not be part of a mandatory pair/logical block.

Sentence 4 is downstream to Sentence 3 but upstream to Sentence 1. It is downstream to Sentence 3 because it explains what people did when they were more used to calling rather than texting, which is an elaboration of the second half of Sentence 3 ('work differently with messages than they did with phone calls'). But, Sentence 4 is upstream to Sentence 1 because Sentence 4 is still talking about a pre-texting world. Sentence 1 talks about a texting world. So, from 41 the idea moves from what they did when they could call (wait) to when they could text (expect a quicker response). The tense will also help us here. 4 has words like 'before', 'could', etc. Sentence 1 is in present perfect tense – effect valid in the present of an action that started in the past. So, 341 is a logical block.

On a side note, how do we learn that Sentence 2 talks about the time frame of texting and not of phone calls? Because the time-frame of phone calls is given – we wait for a few days. So, this time frame in Sentence 2 (the quicker one) should be of texting.

Sentence 5 has a connector word 'the'. The definite article tells us something has been already discussed. 'The quick response' should make the student ask 'did I read about quick response elsewhere'? Yes. In sentence 1.

There could be some confusion around whether Sentence 2 should be placed first or Sentence 5. Sentence 2 talks about what is a good time frame for a response, an elaboration of Sentence 1. Sentence 5 on the other hand talks about the effect of not getting a quick response. In the absence of grammar connections, cause is always an upstream argument to effect. So, 125 is a logical block. Similarly, 341 was a logical block as established above. Hence, the right order would be 34125.

Ans: (34125)

undefined

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

1. The ability to improvise requires cognitive flexibility, divergent thinking and discipline-specific skills, and it improves with training.
2. Improvisation is a highly complex form of creative behaviour that justly inspires our awe and admiration.
3. A great example of flow state is found in many improvised art forms, from music to acting to comedy to poetry, also known as "spontaneous creativity."
4. It's a transportive and pleasurable experience that people seek to achieve, and that neuroscience is now seeking to understand.

5. During what psychologists call "flow states," where one is completely immersed and absorbed in a mental or physical act, people often report an altered sense of time, place, and self.

Your Answer:53214 □ 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	154
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	159
% of students who attempted this question	37.23
% of students who got the question right of those who attempted	8.25

[Video Solution](#)

[Text Solution](#)

Sentence 1 is an independent sentence without conjunctive adverbs or pronouns that connect it to a different sentence.

Sentence 2 defines 'improvisation' and is again an independent sentence. But, it should be identified that Sentence 2 is upstream to Sentence 1 because the former talks about 'what is improvisation' whereas the latter (1) talks about how to gain that ability to improvise. (Generic sentence or bigger idea comes before specific sentence/smaller idea or elaboration of an idea.)

Sentence 3 connects two terms 'flow state' and 'improvisation'. It is otherwise, an independent sentence.

Sentence 4 talks about something being a transportive and pleasurable experience, something neuroscience is seeking to understand. What is that something? Here, students should be careful not to make assumptions. 'It' has several possibilities.

Sentence 5 introduces the term 'flow states', which should make the student realise Sentence 5 is upstream to Sentence 3 (Theory before example).

Sentences 1, 2 and 3 talk about improvisation and hence, Sentence 3 should be the first of those sentences. Why? Because when the same concept is repeated in multiple sentences, that sentence comes first where it is introduced.

Improvisation is introduced in Sentence 3 as an example of a flow state.

That gives us the approximate skeleton of the para – 5321 because Sentence 5 introduces 'flow states'. The million dollar question is about the placement of Sentence 4 and to interpret the 'it'. Is the 'transportive and pleasurable experience' a description of 'flow state', 'spontaneous creativity', or 'improvisation'?

In Sentence 5, we see the usage of the term 'immersed and absorbed' which indicates that the pleasurable experience has to be the flow state. Improvisation is an example of a flow state anyway. Hence, the order is 54321. Ans: (54321)

undefined

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

1. Synthetics have been around for more than 150 years and are responsible for modern perfume as we know it, but the perfume industry tends to be tight-lipped about the matter.
2. Yet low-quality naturals can smell bad, and it can be difficult to ensure the consistency of higher-grade ingredients.

3. Most perfumers acknowledge that synthetics, far from being inferior to natural ingredients, enable them to achieve an olfactory complexity and staying power not possible with naturals alone.

4. In our age of 'green' values, consumers, beguiled by advertising images of sunlit fields and flower-decked maidens, might think that their favourite perfume is 'all-natural' or at least composed from a high proportion of natural ingredients.

5. Yet nearly all modern perfumes, even if they use some natural materials, contain a large proportion of synthetic ingredients, probably about 80 per cent in most instances.

Your Answer:2 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	39
Avg. time spent on this question by all students	129
Difficulty Level	M
Avg. time spent on this question by students who got this question right	124
% of students who attempted this question	47.24
% of students who got the question right of those who attempted	61.61

[Video Solution](#)

[Text Solution](#)

Essence of the first line: Synthetics are important but not spoken about.
 Essence of the second line: Low-quality naturals are not desirable.
 Essence of the third line: Synthetics lend something positive to perfumes.
 Essence of the fourth line: Consumers 'think' they are using all-natural perfumes.
 Essence of the fifth line: Most perfumes contain synthetics.
 From the above, it can be understood that 1, 3 and 5 represent one idea – synthetics (positively spoken). Between 2 and 4, the former is negative about natural ingredients while 4 is negative about the industry (consumers beguiled by advertising). 4 is more likely to fit with 1, 3, and 5 because it explains why the industry is 'tight-lipped' about synthetics. 2 on the other hand, leads to the question, why the sentence starts with 'yet' followed by something bad about natural ingredients. This sentence can only follow a sentence that says something positive about natural ingredients and none of the given sentences do so. Hence, Sentence 2 is the odd one out.

Ans: (2)

undefined

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

1. We all need time to unplug and recharge.

2. And yet, many of us are often hesitant to take the first step – putting up an appropriate Out of Office message that sets clear boundaries for our time off.

3. Using these autoresponders – whether during vacation, a conference, or the big moments in our lives like the birth of a child – can create social connection with recipients including colleagues, clients, and vendors.

4. Research shows that disconnecting – especially from email – can make us significantly less stressed and more productive.

5. I've personally always battled a fear that an Out of Office message could have unintended consequences, including being perceived as a "slacker," or leading to missed opportunities.

Your Answer:5 **Your answer is incorrect**

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	105
Difficulty Level	D
Avg. time spent on this question by students who got this question right	99
% of students who attempted this question	47.47
% of students who got the question right of those who attempted	42.7

[Video Solution](#)

[Text Solution](#)

Essence of Sentence 1: Unplugging is important.
 Essence of Sentence 2: We don't take the first step for time-off (connects to 'unplug')
 Essence of Sentence 3: 'These' autoresponders create a social connection.
 Essence of Sentence 4: Disconnection lowers stress.
 Essence of Sentence 5: My reluctance with using Out of Office message.
 2 and 5 are connected – why we are reluctant to use out of office messages.
 1 and 2 are connected – Unplugging and what we should do to unplug.
 1 and 4 are connected – Disconnection and unplugging are important.
 So, we can understand that 3 is the odd one out. 3 makes you assume autoresponders and out of office messages are the same. Even if you do, the idea of 3 is how they help make a social connection, whereas the idea of the rest of the four lines is how they help you unplug and de-stress. Ans: (3)

undefined

Q29. DIRECTIONS for questions 29 and 30: Five sentences (labelled 1, 2, 3, 4, 5) are given in each of the following questions. Four of them can be put together to form a meaningful and coherent short paragraph and **one sentence is the odd one out**. Decide on the proper logical order for the sentences and key in the sequence of four numbers as your answer, even as you **omit the contextually unrelated sentence**.

1. In 2008, at the age of 40, he returned to his homeland and he was one of the most famous Chinese scholars to do so; an emblem for the government's attempts to match its academic achievements to its economic ones.

2. Little about his ornamentation hints at Mr. Shi's 18 years in America, where, like thousands of Chinese students, he decamped for graduate study in the early 1990s.

3. To lure experts to Chinese universities, the government has launched a series of schemes since the mid-1990s.

4. Fine porcelain, Chinese-landscape scrolls and calligraphy adorn the office of Shi Yigong, dean of the School of Life Sciences at Tsinghua University in Beijing.

5.

- Mr Shi eventually became a professor at Princeton University but he began to feel like a "bystander" as his native country started to prosper.

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	D
Avg. time spent on this question by students who got this question right	161
% of students who attempted this question	27.56
% of students who got the question right of those who attempted	31.85

[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 mentions the name and designation of the person concerned and the location (School of Life Sciences at Tsinghua University in Beijing). Sentences 4 and 2 form a mandatory pair. "Fine porcelain, Chinese-landscape scrolls and calligraphy" in sentence 4 links with "ornamentation" in sentence 2. "Little about his ornamentation hints at Mr. Shi's 18 years in America" in sentence 2 links with "Chinese-landscape scrolls and calligraphy adorn the office of Shi Yigong" in sentence 4. So sentence 2 follows sentence 4. Sentence 2 is followed by sentence 5. "he decamped for graduate study in the early 1990s (to America)" in sentence 2 is followed by "Mr Shi eventually became a professor at Princeton University (in America)" in sentence 5. Sentence 5 is followed by sentence 1. "but he began to feel like a "bystander" as his native country started to prosper" in sentence 5 is followed by "he returned to his homeland and he was one of the most famous Chinese scholars to do so" in sentence 1. Sentence 1 concludes the para. So, 4251. Sentence 3 is the odd sentence out as it does not specifically refer to "Shi Yigong". Sentence 3 refers to the Chinese government's efforts to lure experts to Chinese universities. Sentence 3 needs a precedent. Also "launched a series of schemes" in sentence 3 needs further elaboration and substantiation. The required answer is 4251.

Ans: (4251)

undefined

Q30. DIRECTIONS for questions 29 and 30: Five sentences (labelled 1, 2, 3, 4, 5) are given in each of the following questions. Four of them can be put together to form a meaningful and coherent short paragraph and **one sentence is the odd one out**. Decide on the proper logical order for the sentences and key in the sequence of **four** numbers as your answer, even as you **omit the contextually unrelated sentence**.

1. The captive breeding of glass frogs depends on the conditions of the enclosure and the specimens.
2. The internal viscera, including the heart, liver, and gastrointestinal tract, are visible through the skin on the frog's underside, as the frog jumps, hence the name 'glass frog'.
3. Glass frogs are frogs of the amphibian family Centrolenidae and are found in the rainforests of Costa Rica, Panama, Ecuador and Columbia.

4. Glass frogs are arboreal, meaning they mainly live in trees, and only come out during the mating season.
5. While the general background coloration of most glass frogs is primarily lime green, the abdominal skin of some members of this family is transparent.

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	126
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	136
% of students who attempted this question	26.85
% of students who got the question right of those who attempted	12.23

[Video Solution](#)

[Text Solution](#)

On a cursory reading of the paragraph, it can be understood that the sentences in the paragraph refer to the glass frog. On a careful reading of the sentences, it can be noted that sentence 3 introduces the topic of 'glass frogs'. It tells us the family name of glass frogs and where they are found. Sentence 3 is followed by sentence 5 which tells us the general skin colour and the abdominal skin colour of glass frogs. 'glass frogs' in sentence 3 links with "the abdominal skin of some members of this family is transparent" in sentence 5. Sentence 5 is followed by sentence 2. "the abdominal skin of some members of this family is transparent" in sentence 5 runs parallel to "the heart, liver, and gastrointestinal tract, are visible through the skin on the frog's underside, hence the name 'glass frog'" in sentence 2. Sentence 4 provides another detail about tree frogs and sums up the paragraph. So, 3524. Sentence 1 talks about another topic – the captive breeding of glass frogs. This particular point runs tangent to the general introductory features of the glass frog. Sentence 1 can be a part of another para, much later in the thought flow. The required answer is 3524. Ans: (3524)

undefined

Q31. DIRECTIONS for Questions 31 and 32: Each of the questions given below has a paragraph which is followed by four alternative summaries. Choose the alternative that best captures the essence of the paragraph.

The term 'popular culture' holds different meanings depending on who's defining it and the context of use. It is generally recognized as the vernacular or people's culture that predominates in a society at a point in time. As Brummett explains in Rhetorical Dimensions of Popular Culture, pop culture involves the aspects of social life most actively involved in by the public. As the 'culture of the people', popular culture is determined by the interactions between people in their everyday activities: styles of dress, the use of slang, greeting rituals and the foods that people eat are all examples of popular culture.

- a) Brummett defines pop culture as an amalgamation of various cultural aspects of society.
- b) Pop culture is understood as the predominant vernacular of society at a given point of time .
- c) Pop culture represents the everyday activities of people such as dress, slang, rituals and foods.
- d) Pop culture has several contextual meanings that change from person to person.

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	133
Difficulty Level	D
Avg. time spent on this question by students who got this question right	129
% of students who attempted this question	39.88
% of students who got the question right of those who attempted	34.74

[Video Solution](#)

[Text Solution](#)

The structure of the para can be divided into three segments: Unity (introduction of an idea), order (the way elaboration and supporting statements are organised, and completion (the conclusion of the idea). If we apply that to this para, we have the term 'popular culture' whose definition is contextual. This is followed by first definition (Sentence 2), 'vernacular(characteristic of a period, place, or group) of people's culture at a given point of time', then the second definition (Sentence 3), 'pop culture involves the aspects of social life most actively involved in by the public', and then the third definition, 'popular culture is determined by the interactions between people in their everyday activities', followed by examples of the third definition.

Option A: This option provides Brummett's definition of pop culture alone and hence, cannot be considered a good summary.

Option B: This option offers the generally recognised definition of pop culture and hence, aptly represents the essence of the para, without too many unnecessary details. Choice B is the correct answer.

Option C: This option provides the third definition, but with examples. Examples are avoided in a good summary and hence, this option can be eliminated. (Mind you, sometimes, we pick a summary with details and examples when we don't have any choice, if every other choice has a factual discrepancy).

Option D: This option gives us the unity statement but not the elaboration (definitions). Hence, Option D can be eliminated.

Choice (B)

undefined

Q32. DIRECTIONS for Questions 31 and 32: Each of the questions given below has a paragraph which is followed by four alternative summaries. Choose the alternative that best captures the essence of the paragraph.

During the last century science has been transformed by several simultaneous revolutions. In physics, relativity and quantum theory have utterly changed our understanding of nature. Yet these twin revolutions initiated by Einstein are mutually discordant, which tells us that they are not yet complete. Biology has also been doubly transformed by twin revolutions, each the legacy of Darwin. The most powerful has been the neo-Darwinian synthesis, which, through molecular biology, gives a detailed microscopic understanding of the processes of life. At the same time an ecological, systems-oriented perspective has developed in biology, whose vanguard has been the study of complex systems. Today, systems biology attempts, with some success, to combine the two strands. Interweaving these developments in physics and biology we have the general study of information and computation.

- a) Einstein's twin revolutions in Physics combined with Darwin's twin revolutions in Biology have transformed science during the last century.
- b) The general study of information and computation combines the two strands of science, physics and biology.
- c) Several revolutions in physics and biology have transformed science, allowing interweaving of developments into the general study of information and computation.
- d) Several simultaneous revolutions in physics and biology have transformed science into a general study of information and computation.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	149
Difficulty Level	D
Avg. time spent on this question by students who got this question right	143
% of students who attempted this question	31.44
% of students who got the question right of those who attempted	62.4

[Video Solution](#)

[Text Solution](#)

The structure of the paragraph can be divided as:

1. Unity/introduction sentence – simultaneous revolutions in science
2. Order/elaboration – Revolutions in physics/ Revolutions in biology (Sentence 2/3 (physics) and 4/5/6/7 (biology))
3. Conclusion (7/8) – Interweaving of the streams of development to give us general study of information and computation.

Option A: Mentions 1 (unity) and 2 (elaboration) but not 3 (conclusion). Also, goes into the details (Einstein's twin revolutions) which are generally avoided in summaries.

Option B: Starts with 3 (conclusion) and adds that it is a combination of the two strands of science but ignores mentioning the part that there have been revolutions in physics and biology which have transformed science.

Option C: Mentions 1 and 2, revolutions and transformation in science, (elaboration about physics and biology has been avoided) leading into the general study of information and computation, 3, the conclusion. We need to understand that the revolutions in physics and biology have brought about transformations in physics and biology, which have been interwoven into the general study. Note that the option actually says that it is the transformation of science which has been interwoven. That may seem confusing if one misses the essence of the para which is that revolutions -> transformation of physics and biology -> transformations in science. So transformation in science is just a summation of twin transformations of physics and biology.

Option D: Mentions 1 and 2, but in 3, there is misrepresentation. Science has been transformed. But, science has not necessarily been transformed into a general study of information and computation. The developments have led into the general study.

Option C, therefore, best represents the essence of the para.

Choice (C)

undefined

Q33. DIRECTIONS for questions 33 and 34: Each of the following questions has a set of five sequentially ordered statements. Classify the statements into Facts, Inferences and Judgements based on the following criteria:

- Facts, which deal with pieces of information that one has seen, heard or read; which are known matters of direct observation or existing reality; which are open to discovery or verification (You need to represent such a statement with the number '1')
- Inferences, which are logical conclusions or deductions drawn about the unknown, on the basis of the known i.e. based on the knowledge of facts (You need to represent such a statement with the number '2')
- Judgments, which are opinions, or recommendations or estimates or anticipations of common sense or intention that imply approval or disapproval of persons, objects, situations and occurrences in the past, the present or the future (You need to represent such a statement with the number '3')

Key in your final answer in the input box given below the question, with the correct numbers for each sentence as indicated above and in the correct sequential order.

- i.
New, highly capable 3-D printers might replace highly skilled workers, shifting entire companies and even manufacturing-based countries into people-less production.
- ii.
Once companies put a toe in the blue ocean of 3-D printing technology and experience the advantages of greater manufacturing flexibility and as material science creates more printable substances, the companies will dive in deep, and more manufacturers and products will follow.

- iii. Local Motors recently demonstrated that it can print a good-looking roadster, including wheels, chassis, body, roof, interior seats and dashboard, from bottom to top in 48 hours.
- iv. The fact remains that additive manufacturing developments will change the way products are designed, made, bought, and delivered.
- v. CEOs of companies are redesigning manufacturing systems and are making the many layers of decisions to gain advantage in a new world of 3-D printing.

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	173
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	176
% of students who attempted this question	24.09
% of students who got the question right of those who attempted	8.87

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[Text Solution](#)

Statement (i) would classify as a prediction and is hence a judgement – J.
 Statement (ii) is a cause-effect sequence and can be classified as an inference. The first part of the sentence is a fact. The second part of the sentence (the companies will dive in deep, and more manufacturers and products will follow) is an inference drawn, what the author considers a likely consequence – I.
 Statement (iii) is a fact. The information given here is verifiable – F.
 In statement (iv), we're not to be distracted by the use of 'the fact remains'. What the author is offering is a statement about the future in the manner of a conclusion. So, either I or J. Considering that he says 'will change' he's sticking his neck out a bit with respect to his personal opinion. So, this statement is a Judgement – J.
 Statement (v) is a report of the situation and can be verified. Like statement (iii), this is a fact – F.
 Since the five sentences are as JIFJF, we represent the answer as 32131.
 Ans: (32131)

undefined

Q34. DIRECTIONS for questions 33 and 34: Each of the following questions has a set of five sequentially ordered statements. Classify the statements into Facts, Inferences and Judgements based on the following criteria:

- Facts, which deal with pieces of information that one has seen, heard or read; which are known matters of direct observation or existing reality; which are open to discovery or verification (You need to represent such a statement with the number '1')
- Inferences, which are logical conclusions or deductions drawn about the unknown, on the basis of the known i.e. based on the knowledge of facts (You need to represent such a statement with the number '2')
- Judgments, which are opinions, or recommendations or estimates or anticipations of common sense or intention that imply approval or disapproval of persons, objects, situations and occurrences in the past, the present or the future (You need to represent such a statement with the number '3')

Key in your final answer in the input box given below the question, with the correct numbers for each sentence as indicated above and in the correct sequential order.

- i. Every year, America spends a higher amount per person on health care than other rich countries do.
- ii. Yet its people are not any healthier.
- iii. One explanation given by critics is that patients wolf down too many pills and administrators churn out red tape.
- iv. Ironically, there is also the cost of services that may be popular and legitimate but do nothing to improve medical outcomes.
- v. Manhattan's hospitals, with their swish reception desks and menus, can be likened to hotels compared with London's bleached Victorian structures.

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	145
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	112
% of students who attempted this question	23.33
% of students who got the question right of those who attempted	0.91

[Video Solution](#)

[Text Solution](#)

. Statement (i) is a fact and not an opinion. The intention of the sentence is to inform. So, Fact – F.

Again in statement (ii), 'yet' only bring in the idea that the information is in contradiction to something stated earlier. This doesn't change the nature of the statement. It's still information. So, Fact – F.

Statement (iii) is a fact, a reported statement about what one explanation is. So, Fact – F.

In statement (iv), 'ironically' is an adverb used and 'there is also the cost of services that may be popular and legitimate but do nothing to improve medical outcomes' indicates that this is an additional factor to be taken into consideration. So, this statement indicates how the writer interprets the situation. Statement (iv) is also 'opinion' or 'judgment' – J.

In statement (v), 'can be likened to' would mean that from the appearance, one can liken them to.... So this is more in terms of what people would understand, than a personal opinion. So, Inference – I.

Since the five sentences are classified as FFFJI, we represent the answer as 11132.

Ans: (11132)

Additional explanation for question 34:

Learner's Notes on Facts, Inferences and Judgments

- Information and ideas used, by an author, as Premises in an argument **are the author's Facts**. (The author presents these as statements or pieces of information that one has seen, heard or read and which are open to discovery and verification).

eg. 1) The sky is heavily overcast today. (**Fact**)

eg. 2) It can't get closer than this – A desperate farm worker, standing on the track and waving his towel frantically, managed to help avert a major disaster this morning when, thanks to his signals, the GT express screeched to a halt a mere 6 feet from a spot where the rails had been removed from the tracks. (**Fact**)

- All Inferences (incl. Conclusions) ie. what the author understands will follow, or can be expected to follow, from the Premises in an argument **are the author's Inferences**. However, such statements present understanding (logical derivation) only, and do not indicate opinion. They are conclusions drawn about the unknown on the basis of the known.

eg. 1) It's likely to rain. (**Inference** – Understanding or belief based on prior knowledge)

eg. 2) There's a sudden cool and moist breeze, cloud over soon. (**Inference** – Understanding drawn from the knowledge that a cool and moist breeze is usually followed by the gathering of clouds)

eg. 3) The rain should bring the smiles back to the faces of our drought stricken farmers. (**Inference** – Expected rain would ease the suffering of farmers who face drought.)

- When an author makes statements that go beyond presentation of understanding, and offer opinions, these **are the author's Judgments**. Statements indicating opinions, decisions, plans, strategies, recommendations, approval/disapproval, proverbs and so on would fall in this category.

eg. 1) You would do well to carry your raincoat (**Judgment** – Recommendation made)

eg. 2) Our nation is yet to develop in certain social aspects but, as even rural folk can sometimes demonstrate, sincere concern on the part of the common man is not one of them. (**Judgment** – While the words used may not seem to convey strong opinion, it is clear that the author is expressing approval of the outlook of the common man – a personal opinion.)

undefined

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

In an exam, the performance of each student who wrote the exam was evaluated independently by four professors, P, Q, R and S. Each professor gives a score from 0 to 100 to each student based on his evaluation of the performance of the student.

After each student receives a score from each professor, the average (A) of the four scores given to him by the four professors, the minimum difference (X) between any two scores given to him by the professors and the maximum difference (Y) between any two scores given to him by the professors are calculated.

The final score of the student is provided as $A + (Y - X)$.

Q1. DIRECTIONS for questions 1 to 4: Type in your answer in the input box provided below the question.

If the final score of a student is 40, which is the same as his average score, what is the maximum score given by any professor for this student?

Your Answer:40 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	218
Avg. time spent on this question by all students	263
Difficulty Level	D
Avg. time spent on this question by students who got this question right	251
% of students who attempted this question	38.58
% of students who got the question right of those who attempted	63.48

[Video Solution](#)

[Text Solution](#)

Given that the final score is the same as his average score. This implies that the minimum difference is the same as the maximum difference (i.e., $X = Y$). This is possible only if all the four values are equal. Hence, all the four professors must have given a score of 40 to the student.
Ans: (40)

undefined

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

In an exam, the performance of each student who wrote the exam was evaluated independently by four professors, P, Q, R and S. Each professor gives a score from 0 to 100 to each student based on his evaluation of the performance of the student.

After each student receives a score from each professor, the average (A) of the four scores given to him by the four professors, the minimum difference (X) between any two scores given to him by the professors and the maximum difference (Y) between any two scores given to him by the professors are calculated.

The final score of the student is provided as $A + (Y - X)$.

Q2. DIRECTIONS for questions 1 to 4: Type in your answer in the input box provided below the question.

If the scores given by three of the four professors are 45, 49 and 52 for each of two students, Amar and Kiran, what is the minimum possible final score of any student?

Your Answer:0 **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	193
Avg. time spent on this question by all students	251
Difficulty Level	D
Avg. time spent on this question by students who got this question right	344
% of students who attempted this question	26.69
% of students who got the question right of those who attempted	4.71

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The final score of the student comprises two parts – the average of the four scores and the difference between the maximum and minimum differences.

Further, the score of a student cannot be less than the average of the four scores. This is because the second part (i.e., the difference between maximum and minimum differences) cannot be negative.

Given that three scores are 45, 49 and 52. Considering only these three scores, the maximum and minimum differences are 7 and 3 respectively. Hence, $Y - X = 4$. The value of $Y - X$ cannot become less than this. If the fourth score is extremely high or extremely low, the value of Y will increase. The value of X can only become less than 3 but cannot become greater than 3.

However, for any value of the fourth score which lies between 45 and 52 (which keeps the maximum difference at 7), the minimum difference cannot be 3. The minimum difference can be a maximum of 2 if the fourth score is 47. In this case, the final score will be $\frac{49+45+47+52}{4} + 7 - 2 = 53.25$. This is the minimum possible final score.

Ans: (53.25)

undefined

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

In an exam, the performance of each student who wrote the exam was evaluated independently by four professors, P, Q, R and S. Each professor gives a score from 0 to 100 to each student based on his evaluation of the performance of the student.

After each student receives a score from each professor, the average (A) of the four scores given to him by the four professors, the minimum difference (X) between any two scores given to him by the professors and the maximum difference (Y) between any two scores given to him by the professors are calculated.

The final score of the student is provided as $A + (Y - X)$.

Q3. DIRECTIONS for questions 1 to 4: Type in your answer in the input box provided below the question.

If the scores given by three of the four professors are 45, 49 and 52 for each of two students, Amar and Kiran, what is the maximum difference between the final scores of Amar and Kiran?

Your Answer:0 □ Your answer is incorrect

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	122
Difficulty Level	D
Avg. time spent on this question by students who got this question right	156
% of students who attempted this question	18.95
% of students who got the question right of those who attempted	2.6

[Video Solution](#)

[Text Solution](#)

Continuing from the above solution, the maximum possible final score can happen for any of two cases – fourth score is 0 (in which case it is possible that the value of $Y - X$ becomes high) or if the fourth score is 100 (in which case it is possible that both $Y - X$ and average are high).

If fourth score is 0, final score

$$= \frac{45+49+52}{4} + (52 - 0) - 3 = 85.5$$

If fourth score is 100, final score

$$= \frac{45+49+52+100}{4} + (100 - 45) - 3 = 113.5$$

Hence, the highest possible final score is 113.5.

Required difference = $113.5 - 53.25 = 60.25$

Ans: (60.25)

undefined

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

In an exam, the performance of each student who wrote the exam was evaluated independently by four professors, P, Q, R and S. Each professor gives a score from 0 to 100 to each student based on his evaluation of the performance of the student.

After each student receives a score from each professor, the average (A) of the four scores given to him by the four professors, the minimum difference (X) between any two scores given to him by the professors and the maximum difference (Y) between any two scores given to him by the professors are calculated.

The final score of the student is provided as $A + (Y - X)$.

Q4. DIRECTIONS for questions 1 to 4: Type in your answer in the input box provided below the question.

What is the maximum final score that any candidate can receive?

Your Answer:100 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	127
Avg. time spent on this question by all students	77
Difficulty Level	D
Avg. time spent on this question by students who got this question right	111
% of students who attempted this question	27.23
% of students who got the question right of those who attempted	22.58

[Video Solution](#)

[Text Solution](#)

The average score can range between 0 and 100.
The value of $Y - X$ can range between 0 and 100.
If the average score is 100, the final score must also be 100 as all the four professors must have given 100 each.
If the value of $Y - X$ is 100, the maximum difference between two scores must be 100. This implies that there must be one 0 and one 100 in the four scores. The minimum difference must be 0. This implies that there must be two equal values. We can take the third score to be 100 (instead of 0 as it will increase the average as well).
For these three scores, we can take the fourth score to be 100 to increase the average. Hence, the four scores can be 0, 100, 100, 100. In this case, the final score will be $300/4 + 100 = 175$.
If we try to increase the 0 to 1, the average will increase by 0.25 but the value of $Y - X$ will decrease by 1. Hence, the final score will definitely reduce. Ans: (175)

undefined

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

Five friends, A through E, has a certain number of pens with them. The five persons have pens of two different colours – Black and Red. It is known that the number of Red pens with C is equal to the average of the number of Black pens with the five persons, while the number of Black pens with A is equal to the average number of Red pens with the five persons. The total number of pens with the five persons was 60 and each person has at least two black pens. The difference in the number of Red pens between any two persons was at least 3 and the difference in the number of Black pens between any two persons was at least 2.

Further, D has more number of Red pens than that with C and also has more number of Black pens than Red pens. Each of A, B and C has more number of Red pens than Black pens.

Q5. DIRECTIONS for questions 5 to 8: Type in your answer in the input box provided below the question.

What is the difference between the number of Red pens with D and the number of Black pens with B?

Your Answer:11 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	68
Avg. time spent on this question by all students	509
Difficulty Level	M
Avg. time spent on this question by students who got this question right	574
% of students who attempted this question	12.78
% of students who got the question right of those who attempted	48.83

[Video Solution](#)

[Text Solution](#)

Given that the total number of pens is 60.
 Also, the difference in the number of Red pens between any two persons was at least 3. Hence, the minimum number of Red pens with the five of them must be 0, 3, 6, 9 and 12, a total of 30.
 Since the difference in the number of Black pens between any two persons was at least 2 and each person has at least 2 Black pens, the minimum number of Black pens with the five of them must be 2, 4, 6, 8, 10, a total of 30.
 The minimum total number of pens with the five of them must be 60. Since the total number of pens is 60, the number of Red and Black pens with the five of them must be the ones mentioned above.
 Average number of Black pens = 6
 Average number of Red pens = 6
 Hence, C has 6 Red pens and A has 6 Black pens.
 Since D has more Red pens than C, D must have 9 or 12 Red pens. However, D has more number of Black pens than Red pens. Hence, D must have 9 Red pens and 10 Black pens.
 A has 6 Black pens. Since A has more number of Red pens than Black pens, A must have 12 Red Pens (since D has 9 Red pens).
 B and C have more number of Red pens than Black pens. Hence, neither of them can have 0 Red pens. E must have 0 Red pens.
 B must have 3 Red pens and, since B has lesser number of Black pens, B must have 2 Black pens. C must have 4 Black pens. E must have 8 Black pens.
 The following table provides the number of Red pens and Black pens with each person:

Person	Red pens	Black pens	Total
A	12	6	18
B	3	2	5
C	6	4	10
D	9	10	19
E	0	8	8

The difference between the number of Red pens with D and the number of Black pens with B = 7
 Ans: (7)

undefined

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

Five friends, A through E, has a certain number of pens with them. The five persons have pens of two different colours – Black and Red. It is known that the number of Red pens with C is equal to the average of the number of Black pens with the five persons, while the number of Black pens with A is equal to the average number of Red pens with the five persons. The total number of pens with the five persons was 60 and each person has at least two black pens. The difference in the number of Red pens between any two persons was at least 3 and the difference in the number of Black pens between any two persons was at least 2.

Further, D has more number of Red pens than that with C and also has more number of Black pens than Red pens. Each of A, B and C has more number of Red pens than Black pens.

Q6. DIRECTIONS for questions 5 to 8: Type in your answer in the input box provided below the question.

The difference between the total number of pens with any pair of persons is at most

Your Answer:13 **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	23
Avg. time spent on this question by all students	45
Difficulty Level	M
Avg. time spent on this question by students who got this question right	45
% of students who attempted this question	12.8

Time spent / Accuracy Analysis

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

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

Given that the total number of pens is 60.

Also, the difference in the number of Red pens between any two persons was at least 3. Hence, the minimum number of Red pens with the five of them must be 0, 3, 6, 9 and 12, a total of 30.

Since the difference in the number of Black pens between any two persons was at least 2 and each person has at least 2 Black pens, the minimum number of Black pens with the five of them must be 2, 4, 6, 8, 10, a total of 30.

The minimum total number of pens with the five of them must be 60. Since the total number of pens is 60, the number of Red and Black pens with the five of them must be the ones mentioned above.

Average number of Black pens = 6

Average number of Red pens = 6

Hence, C has 6 Red pens and A has 6 Black pens.

Since D has more Red pens than C, D must have 9 or 12 Red pens. However, D has more number of Black pens than Red pens. Hence, D must have 9 Red pens and 10 Black pens.

A has 6 Black pens. Since A has more number of Red pens than Black pens, A must have 12 Red Pens (since D has 9 Red pens).

B and C have more number of Red pens than Black pens. Hence, neither of them can have 0 Red pens. E must have 0 Red pens.

B must have 3 Red pens and, since B has lesser number of Black pens, B must have 2 Black pens. C must have 4 Black pens. E must have 8 Black pens.

The following table provides the number of Red pens and Black pens with each person:

Person	Red pens	Black pens	Total
A	12	6	18
B	3	2	5
C	6	4	10
D	9	10	19
E	0	8	8

The highest possible difference between the total number of pens with any pair of persons = $19 - 5 = 14$

Ans: (14)

undefined

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

Five friends, A through E, has a certain number of pens with them. The five persons have pens of two different colours – Black and Red. It is known that the number of Red pens with C is equal to the average of the number of Black pens with the five persons, while the number of Black pens with A is equal to the average number of Red pens with the five persons. The total number of pens with the five persons was 60 and each person has at least two black pens. The difference in the number of Red pens between any two persons was at least 3 and the difference in the number of Black pens between any two persons was at least 2.

Further, D has more number of Red pens than that with C and also has more number of Black pens than Red pens. Each of A, B and C has more number of Red pens than Black pens.

Q6. DIRECTIONS for questions 5 to 8: Type in your answer in the input box provided below the question.

The difference between the total number of pens with any pair of persons is at most

Your Answer:13 **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy AnalysisTime taken by you to answer this question **23**Avg. time spent on this question by all students **45**Difficulty Level **M**Avg. time spent on this question by students who got this question right **45**

Time spent / Accuracy Analysis

% of students who attempted this question	12.8
% of students who got the question right of those who attempted	30.17

[Video Solution](#)

[Text Solution](#)

Given that the total number of pens is 60.
Also, the difference in the number of Red pens between any two persons was at least 3. Hence, the minimum number of Red pens with the five of them must be 0, 3, 6, 9 and 12, a total of 30.
Since the difference in the number of Black pens between any two persons was at least 2 and each person has at least 2 Black pens, the minimum number of Black pens with the five of them must be 2, 4, 6, 8, 10, a total of 30.
The minimum total number of pens with the five of them must be 60. Since the total number of pens is 60, the number of Red and Black pens with the five of them must be the ones mentioned above.
Average number of Black pens = 6
Average number of Red pens = 6
Hence, C has 6 Red pens and A has 6 Black pens.
Since D has more Red pens than C, D must have 9 or 12 Red pens. However, D has more number of Black pens than Red pens. Hence, D must have 9 Red pens and 10 Black pens.
A has 6 Black pens. Since A has more number of Red pens than Black pens, A must have 12 Red Pens (since D has 9 Red pens).
B and C have more number of Red pens than Black pens. Hence, neither of them can have 0 Red pens. E must have 0 Red pens.
B must have 3 Red pens and, since B has lesser number of Black pens, B must have 2 Black pens. C must have 4 Black pens. E must have 8 Black pens.
The following table provides the number of Red pens and Black pens with each person:

Person	Red pens	Black pens	Total
A	12	6	18
B	3	2	5
C	6	4	10
D	9	10	19
E	0	8	8

The highest possible difference between the total number of pens with any pair of persons = $19 - 5 = 14$
Ans: (14)

undefined

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

Five friends, A through E, has a certain number of pens with them. The five persons have pens of two different colours – Black and Red. It is known that the number of Red pens with C is equal to the average of the number of Black pens with the five persons, while the number of Black pens with A is equal to the average number of Red pens with the five persons. The total number of pens with the five persons was 60 and each person has at least two black pens. The difference in the number of Red pens between any two persons was at least 3 and the difference in the number of Black pens between any two persons was at least 2.

Further, D has more number of Red pens than that with C and also has more number of Black pens than Red pens. Each of A, B and C has more number of Red pens than Black pens.

Q7. DIRECTIONS for questions 5 to 8: Type in your answer in the input box provided below the question.

One of the five persons gave a certain number of pens of exactly one colour to another of the five persons. After this, the person who gave the pens had an equal number of Red and Black pens with him; and the same was the case with the person who received the pens.

What is the total number of pens with these two persons?

Your Answer:24 Your answer is correct

Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Time taken by you to answer this question	94
Avg. time spent on this question by all students	89
Difficulty Level	M
Avg. time spent on this question by students who got this question right	105
% of students who attempted this question	9.62
% of students who got the question right of those who attempted	57.91

[Video Solution](#)

[Text Solution](#)

Given that the total number of pens is 60.

Also, the difference in the number of Red pens between any two persons was at least 3. Hence, the minimum number of Red pens with the five of them must be 0, 3, 6, 9 and 12, a total of 30.

Since the difference in the number of Black pens between any two persons was at least 2 and each person has at least 2 Black pens, the minimum number of Black pens with the five of them must be 2, 4, 6, 8, 10, a total of 30.

The minimum total number of pens with the five of them must be 60. Since the total number of pens is 60, the number of Red and Black pens with the five of them must be the ones mentioned above.

Average number of Black pens = 6

Average number of Red pens = 6

Hence, C has 6 Red pens and A has 6 Black pens.

Since D has more Red pens than C, D must have 9 or 12 Red pens. However, D has more number of Black pens than Red pens. Hence, D must have 9 Red pens and 10 Black pens.

A has 6 Black pens. Since A has more number of Red pens than Black pens, A must have 12 Red Pens (since D has 9 Red pens).

B and C have more number of Red pens than Black pens. Hence, neither of them can have 0 Red pens. E must have 0 Red pens.

B must have 3 Red pens and, since B has lesser number of Black pens, B must have 2 Black pens. C must have 4 Black pens. E must have 8 Black pens.

The following table provides the number of Red pens and Black pens with each person:

Person	Red pens	Black pens	Total
A	12	6	18
B	3	2	5
C	6	4	10
D	9	10	19
E	0	8	8

The given condition is possible only if B and D exchange one pen each (either Black or Red depending on who gave the pen). The total number of pens with the two of them = 24

Ans: (24)

undefined

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

Five friends, A through E, has a certain number of pens with them. The five persons have pens of two different colours – Black and Red. It is known that the number of Red pens with C is equal to the average of the number of Black pens with the five persons, while the number of Black pens with A is equal to the average number of Red pens with the five persons. The total number of pens with the five persons was 60 and each person has at least two black pens. The difference in the number of Red pens between any two persons was at least 3 and the difference in the number of Black pens between any two persons was at least 2.

Further, D has more number of Red pens than that with C and also has more number of Black pens than Red pens. Each of A, B and C has more number of Red pens than Black pens.

Q8. DIRECTIONS for questions 5 to 8: Type in your answer in the input box provided below the question.

One of the five persons gave a certain number of pens of exactly one colour to one other person. After this, the person who gave the pens had an equal number of Red and Black pens with him; and the same was the case with the person who received the pens.

What is the maximum possible number of pens with any of the two persons after this?

Your Answer:20 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	39
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	42
% of students who attempted this question	9.1
% of students who got the question right of those who attempted	35.07

[Video Solution](#)

[Text Solution](#)

Given that the total number of pens is 60.

Also, the difference in the number of Red pens between any two persons was at least 3. Hence, the minimum number of Red pens with the five of them must be 0, 3, 6, 9 and 12, a total of 30.

Since the difference in the number of Black pens between any two persons was at least 2 and each person has at least 2 Black pens, the minimum number of Black pens with the five of them must be 2, 4, 6, 8, 10, a total of 30.

The minimum total number of pens with the five of them must be 60. Since the total number of pens is 60, the number of Red and Black pens with the five of them must be the ones mentioned above.

Average number of Black pens = 6

Average number of Red pens = 6

Hence, C has 6 Red pens and A has 6 Black pens.

Since D has more Red pens than C, D must have 9 or 12 Red pens. However, D has more number of Black pens than Red pens. Hence, D must have 9 Red pens and 10 Black pens.

A has 6 Black pens. Since A has more number of Red pens than Black pens, A must have 12 Red Pens (since D has 9 Red pens).

B and C have more number of Red pens than Black pens. Hence, neither of them can have 0 Red pens. E must have 0 Red pens.

B must have 3 Red pens and, since B has lesser number of Black pens, B must have 2 Black pens. C must have 4 Black pens. E must have 8 Black pens.

The following table provides the number of Red pens and Black pens with each person:

Person	Red pens	Black pens	Total
A	12	6	18
B	3	2	5
C	6	4	10
D	9	10	19
E	0	8	8

The maximum possible number of pens with any person
= 20 (if B gave D a Red pen).

Ans: (20)

undefined

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

Farhan purchased a machine which can identify fake currency notes and genuine currency notes. Farhan can feed any number of notes into the machine. However, the machine is not completely accurate. It sometimes misclassifies the notes as fake even though they are genuine and sometimes misclassifies the notes as genuine even though they are fake. The machine classifies 20% of the fake notes as genuine and 30% of the genuine notes as fake.

Q9. DIRECTIONS for questions 9 and 10: Select the correct alternative from the given choices.

If Farhan fed into the machine 300 notes, of which 100 were genuine and 200 were fake, how many notes will the machine identify as genuine?

a) **70**

b) **110** Your answer is correct

c) 40

d) 30

Time spent / Accuracy Analysis

Time taken by you to answer this question	111
Avg. time spent on this question by all students	144
Difficulty Level	E
Avg. time spent on this question by students who got this question right	138
% of students who attempted this question	59.86
% of students who got the question right of those who attempted	91.72

[Video Solution](#)

[Text Solution](#)

Given that out of every 100 genuine notes, the machine identifies 30 notes as fake; out of every 100 fake notes, the machine identifies 20 notes as genuine.

Among 100 genuine notes, the machine will label 70 notes as genuine and 30 as fake.
Among the 200 fake notes, the machine will label 160 notes as fake and 40 as genuine.

Hence, the machine will label 110 notes as genuine.

Choice (B)

undefined

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

Farhan purchased a machine which can identify fake currency notes and genuine currency notes. Farhan can feed any number of notes into the machine. However, the machine is not completely accurate. It sometimes misclassifies the notes as fake even though they are genuine and sometimes misclassifies the notes as genuine even though they are fake. The machine classifies 20% of the fake notes as genuine and 30% of the genuine notes as fake.

Q10. DIRECTIONS for questions 9 and 10: Select the correct alternative from the given choices.

If the machine labelled 1500 notes as fake and 1200 notes as genuine, what is the number of notes correctly labelled by the machine?

a) 924

b) 1104

c) 396

d) 2028

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	653
Avg. time spent on this question by all students	319
Difficulty Level	M
Avg. time spent on this question by students who got this question right	324
% of students who attempted this question	36.47
% of students who got the question right of those who attempted	83.87

[Video Solution](#)

Text Solution

Given that out of every 100 genuine notes, the machine identifies 30 notes as fake; out of every 100 fake notes, the machine identifies 20 notes as genuine.

Let the number of genuine notes be g and the number of fake notes be f .
Number of notes labelled as genuine by the machine = $0.7g + 0.2f = 1200$
Total number of notes = $g + f = 2700$
Solving the two equations, we get $g = 1320$ and $f = 1380$.
Number of genuine notes labelled genuine
 $= 1320 \times 0.7 = 924$
Number of fake notes labelled fake = $1380 \times 0.8 = 1104$
Total number of notes correctly classified
 $= 924 + 1104 = 2028$

Choice (D)

undefined

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

Farhan purchased a machine which can identify fake currency notes and genuine currency notes. Farhan can feed any number of notes into the machine. However, the machine is not completely accurate. It sometimes misclassifies the notes as fake even though they are genuine and sometimes misclassifies the notes as genuine even though they are fake. The machine classifies 20% of the fake notes as genuine and 30% of the genuine notes as fake.

Q11. DIRECTIONS for questions 11 and 12: Type in your answer in the input box provided below the question.

Farhan had a certain number of Rs.500 notes and Rs.1000 notes with him in the ratio 2 : 1 totaling Rs.1,20,000. He fed all the notes that he had into the machine and found that the machine identified 94 notes as fake. What is the minimum possible number of genuine Rs.500 notes with Farhan?

Your Answer:40 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	300
Avg. time spent on this question by all students	266
Difficulty Level	M
Avg. time spent on this question by students who got this question right	285
% of students who attempted this question	27.45
% of students who got the question right of those who attempted	24.9

[Video Solution](#)

Text Solution

Given that out of every 100 genuine notes, the machine identifies 30 notes as fake; out of every 100 fake notes, the machine identifies 20 notes as genuine.

Let the number of ₹500 notes be $2x$ and the number of ₹1000 notes be x .
Total number of notes = 180
Hence, there must be 120 ₹500 notes and 60 ₹1000 notes.
Number of notes identified as fake = $94 = 0.8f + 0.3g$
Also, $g + f = 180$.
Solving the two equations, we get $g = 100$ and $f = 80$.
Even if all the 80 fake notes are ₹500 notes, there must be at least 40 ₹500 notes which are genuine.
Hence, the minimum possible number of genuine ₹500 notes with Farhan = 40.
Ans: (40)

undefined

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

Farhan purchased a machine which can identify fake currency notes and genuine currency notes. Farhan can feed any number of notes into the machine. However, the machine is not completely accurate. It sometimes misclassifies the notes as fake even though they are genuine and sometimes misclassifies the notes as genuine even though they are fake. The machine classifies 20% of the fake notes as genuine and 30% of the genuine notes as fake.

Q12. DIRECTIONS for questions 11 and 12: Type in your answer in the input box provided below the question.

Farhan's friend, Rahul, gave Farhan 300 Rs.100 notes and 500 Rs.500 notes. If he fed all these notes into the machine and it identified exactly 364 notes as fake, the genuine notes that Rahul gave Farhan must be worth (in Rs.) at least

Your Answer:281200 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	384
Avg. time spent on this question by all students	208
Difficulty Level	M
Avg. time spent on this question by students who got this question right	224
% of students who attempted this question	21.32
% of students who got the question right of those who attempted	28.03

[Video Solution](#)

[Text Solution](#)

Given that out of every 100 genuine notes, the machine identifies 30 notes as fake; out of every 100 fake notes, the machine identifies 20 notes as genuine.

Rahul gave a total of 80 notes.

Hence, $g + f = 800$.

The machine identified 20 notes as fake.

Hence, $0.8f + 0.3g = 364$

Solving the two equations, we get $g = 552$ and $f = 248$.

To minimize the amount, we can consider the maximum number of fake notes to be ₹500 notes. Hence, there will be 248 fake ₹500 notes and 252 genuine ₹500 notes.

Minimum possible amount = $300 \times 100 + 252 \times 500 = ₹156000$ Ans: (156000)

undefined

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

Each of five persons, A through E, participated in a running race and finished in a different position. The five persons were ranked from first to fifth on the basis of the descending order of their weight (i.e., the heaviest person was ranked first and the lightest, fifth). Further, it is known that no two persons whose ranks were consecutive finished consecutively, in any order.

It is known that

- i. B, who was ranked fifth, was the fourth person to finish, while the third heaviest person was not the last person to finish.
- ii. D, who was the third heaviest person, finished immediately after C, while A was not the first to finish.

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

Who was the second person to finish the race?

- a) C
- b) A
- c) D
- d) E

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	29
Avg. time spent on this question by all students	427
Difficulty Level	E
Avg. time spent on this question by students who got this question right	440
% of students who attempted this question	57.89
% of students who got the question right of those who attempted	70.86

[Video Solution](#)

Text Solution

Given that B was ranked fifth and was the fourth person to finish.
Also, any two persons whose ranks were consecutive did not finish consecutively.

Hence, the person who was ranked fourth cannot be the third or fifth person to finish.
This person can be either first or second.
The person who was ranked third cannot be first or second (as the fourth ranked person can only be first or second). From (i), this person was not the last. Hence, this person must be the third to finish the race.

Since the third ranked person was the third to finish the race, the person ranked fourth must be the first to finish the race.

The second ranked person must be the fifth to finish the race and the first ranked person must be the second to finish the race.

From (ii), D was the third heaviest person and must have finished third. Since he finished immediately after C, C must be the heaviest person and must have finished second.

Since A was not the first to finish, A must be the last to finish and E must be the first to finish. The following table provides the ranks and the positions of the five persons:

Rank	Position	Person
1	2	C
2	5	A
3	3	D
4	1	E
5	4	B

C was the second person to finish the race.

Choice (A)

undefined

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

Each of five persons, A through E, participated in a running race and finished in a different position. The five persons were ranked from first to fifth on the basis of the descending order of their weight (i.e., the heaviest person was ranked first and the lightest, fifth). Further, it is known that no two persons whose ranks were consecutive finished consecutively, in any order.

It is known that

- i. B, who was ranked fifth, was the fourth person to finish, while the third heaviest person was not the last person to finish.
- ii. D, who was the third heaviest person, finished immediately after C, while A was not the first to finish.

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

How many persons finished the race before the second heaviest person?

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	81
Difficulty Level	E
Avg. time spent on this question by students who got this question right	71
% of students who attempted this question	55.34
% of students who got the question right of those who attempted	73

[Video Solution](#)

[Text Solution](#)

Given that B was ranked fifth and was the fourth person to finish.
Also, any two persons who ranks were consecutive did not finish consecutively.

Hence, the person who was ranked fourth cannot be the third or fifth person to finish.

This person can be either first or second.

The person who was ranked third cannot be first or second (as the fourth ranked person can only be first or second). From (i), this person was not the last. Hence, this person must be the third to finish the race.

Since the third ranked person was the third to finish the race, the person ranked fourth must be the first to finish the race.

The second ranked person must be the fifth to finish the race and the first ranked person must be the second to finish the race.

From (ii), D was the third heaviest person and must have finished third. Since he finished immediately after C, C must be the heaviest person and must have finished second.

Since A was not the first to finish, A must be the last to finish and E must be the first to finish. The following table provides the ranks and the positions of the five persons:

Rank	Position	Person
1	2	C
2	5	A
3	3	D
4	1	E
5	4	B

The second heaviest person is A. Four persons finished the race before him.

Ans: (4)

undefined

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

Each of five persons, A through E, participated in a running race and finished in a different position. The five persons were ranked from first to fifth on the basis of the descending order of their weight (i.e., the heaviest person was ranked first and the lightest, fifth). Further, it is known that no two persons whose ranks were consecutive finished consecutively, in any order.

It is known that

- i. B, who was ranked fifth, was the fourth person to finish, while the third heaviest person was not the last person to finish.
- ii. D, who was the third heaviest person, finished immediately after C, while A was not the first to finish.

Q15. DIRECTIONS for question 15: Select the correct alternative from the given choices.

What is the rank of the person who finished first?

- a) 2
- b) 1
- c) 3
- d) 4

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	37
Difficulty Level	E
Avg. time spent on this question by students who got this question right	30
% of students who attempted this question	53.18
% of students who got the question right of those who attempted	75.29

[Video Solution](#)

[Text Solution](#)

Given that B was ranked fifth and was the fourth person to finish.
Also, any two persons whose ranks were consecutive did not finish consecutively.

Hence, the person who was ranked fourth cannot be the third or fifth person to finish.
This person can be either first or second.
The person who was ranked third cannot be first or second (as the fourth ranked person can only be first or second). From (i), this person was not the last. Hence, this person must be the third to finish the race.

Since the third ranked person was the third to finish the race, the person ranked fourth must be the first to finish the race.

The second ranked person must be the fifth to finish the race and the first ranked person must be the second to finish the race.

From (ii), D was the third heaviest person and must have finished third. Since he finished immediately after C, C must be the heaviest person and must have finished second.

Since A was not the first to finish, A must be the last to finish and E must be the first to finish. The following table provides the ranks and the positions of the five persons:

Rank	Position	Person
1	2	C
2	5	A
3	3	D
4	1	E
5	4	B

The rank of the person who finished first is 4.

Choice (D)

undefined

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

Each of five persons, A through E, participated in a running race and finished in a different position. The five persons were ranked from first to fifth on the basis of the descending order of their weight (i.e., the heaviest person was ranked first and the lightest, fifth). Further, it is known that no two persons whose ranks were consecutive finished consecutively, in any order.

It is known that

- i. B, who was ranked fifth, was the fourth person to finish, while the third heaviest person was not the last person to finish.
- ii. D, who was the third heaviest person, finished immediately after C, while A was not the first to finish.

Q16. DIRECTIONS for question 16: Type in your answer in the input box provided below the question.

How many persons lighter than C finished the race after him?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	37
Difficulty Level	E
Avg. time spent on this question by students who got this question right	36
% of students who attempted this question	54.97
% of students who got the question right of those who attempted	66.95

[Video Solution](#)

[Text Solution](#)

Given that B was ranked fifth and was the fourth person to finish.
Also, any two persons whose ranks were consecutive did not finish consecutively.

Hence, the person who was ranked fourth cannot be the third or fifth person to finish.
This person can be either first or second.

The person who was ranked third cannot be first or second (as the fourth ranked person can only be first or second). From (i), this person was not the last. Hence, this person must be the third to finish the race.

Since the third ranked person was the third to finish the race, the person ranked fourth must be the first to finish the race.

The second ranked person must be the fifth to finish the race and the first ranked person must be the second to finish the race.

From (ii), D was the third heaviest person and must have finished third. Since he finished immediately after C, C must be the heaviest person and must have finished second.

Since A was not the first to finish, A must be the last to finish and E must be the first to finish. The following table provides the ranks and the positions of the five persons:

Rank	Position	Person
1	2	C
2	5	A
3	3	D
4	1	E
5	4	B

All the three persons who finished the race after C are lighter than him.

Ans: (3)

undefined

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

In the company outing of Audi Inc., exactly four events, Event 1 through Event 4, were conducted for the employees of the company. The total number of employees in the company was 150 and each employee participated in at least one event.

The following information is known about the number of employees who participated in each event:

- i. For $n = 1, 2, 3, 4$, any employee who participated in Event n participated in at most one of Event $(n - 1)$ and Event $(n + 1)$, provided the event exists, but not in any other event.
- ii. The number of employees who participated in Event 1 is 10 more than that in Event 4, which, in turn, is 15 less than those who participated in Event 2.

iii.

The number of persons who participated in both Event 2 and Event 3 is the same as the number of persons who participated in both Event 1 and Event 3, which, in turn, is the same as the number of persons who participated in both Event 3 and Event 4.

iv.

Exactly 25 persons participated in Event 3, while exactly 50 employees participated in more than one event.

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

How many employees participated in at least two events but did not participate in Event 1?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

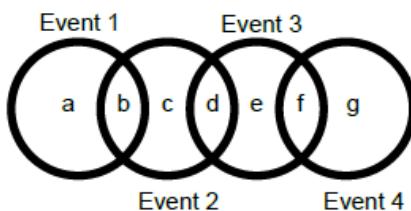
Time taken by you to answer this question	16
Avg. time spent on this question by all students	280
Difficulty Level	M
Avg. time spent on this question by students who got this question right	452
% of students who attempted this question	4.29
% of students who got the question right of those who attempted	22.21

[Video Solution](#)

[Text Solution](#)

From (i), we can infer that the employees who participated in Event 1 may have participated in Event 2 (as there cannot be an Event 0) but could not have participated in any other event. Similarly, the employees who participated in Event 2 may have participated in Event 1 or Event 3.

From condition, we can construct the following Venn diagram regarding the number of employees who participated in each event:



No person participated in both Event 1 and Event 3. Hence, from (iii), number of persons who participated in both Event 2 and Event 3 (d) = Number of persons who participated in both Event 3 and Event 4 (f) = 0.

From (iv), number of persons who participated in Event 3 = $d + e + f = 25 \Rightarrow e = 25$.

Number of persons who participated in two events = $b + d + f = 50 \Rightarrow b = 50$

Number of persons who participated in Event 1 = $a + b = a + 50$

From (ii), number of persons who participated in Event 4 = $g + f = g = a + 40$

Number of persons who participated in Event 2 = $b + c + d = c + 50 = a + 55$

Total number of employees = 150

Hence, $a + 50 + (a + 5) + 0 + 25 + 0 + a + 40 = 150 \Rightarrow 3a = 30 \Rightarrow a = 10$

$g = 50$ and $c = 15$.

The following Venn diagram provides the values:

The number employees participated in at least two events but did not participate in Event 1 = 0
Ans: (0)

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

In the company outing of Audi Inc., exactly four events, Event 1 through Event 4, were conducted for the employees of the company. The total number of employees in the company was 150 and each employee participated in at least one event.

The following information is known about the number of employees who participated in each event:

- i. For $n = 1, 2, 3, 4$, any employee who participated in Event n participated in at most one of Event $(n - 1)$ and Event $(n + 1)$, provided the event exists, but not in any other event.
- ii. The number of employees who participated in Event 1 is 10 more than that in Event 4, which, in turn, is 15 less than those who participated in Event 2.
- iii. The number of persons who participated in both Event 2 and Event 3 is the same as the number of persons who participated in both Event 1 and Event 3, which, in turn, is the same as the number of persons who participated in both Event 3 and Event 4.
- iv. Exactly 25 persons participated in Event 3, while exactly 50 employees participated in more than one event.

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

How many employees participated in Event 4 and at most one other event?

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

Time spent / Accuracy Analysis

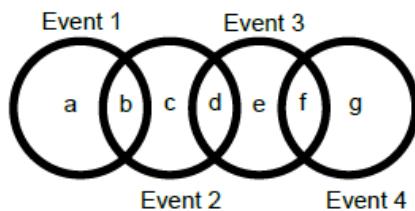
Time taken by you to answer this question	0
Avg. time spent on this question by all students	40
Difficulty Level	M
Avg. time spent on this question by students who got this question right	38
% of students who attempted this question	4.28
% of students who got the question right of those who attempted	18.72

[Video Solution](#)

[Text Solution](#)

From (i), we can infer that the employees who participated in Event 1 may have participated in Event 2 (as there cannot be an Event 0) but could not have participated in any other event. Similarly, the employees who participated in Event 2 may have participated in Event 1 or Event 3.

From condition, we can construct the following Venn diagram regarding the number of employees who participated in each event:



No person participated in both Event 1 and Event 3. Hence, from (iii), number of persons who participated in both Event 2 and Event 3 (d) = Number of persons who participated in both Event 3 and Event 4 (f) = 0.

From (iv), number of persons who participated in Event 3 = $d + e + f = 25 \Rightarrow e = 25$.

Number of persons who participated in two events = $b + d + f = 50 \Rightarrow b = 50$

Number of persons who participated in Event 1 = $a + b = a + 50$

From (ii), number of persons who participated in Event 4 = $g + f = g = a + 40$

Number of persons who participated in Event 2 = $b + c + d = c + 50 = a + 55$

Total number of employees = 150

Hence, $a + 50 + (a + 5) + 0 + 25 + 0 + a + 40 = 150 \Rightarrow 3a = 30 \Rightarrow a = 10$

$g = 50$ and $c = 15$.

The following Venn diagram provides the values:

Those who participated in Event 4 (i.e., 50 employees) did not participate in any other event. Hence, 50 employees participated in Event 4 and at most one other event.

Ans: (50)

undefined

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

In the company outing of Audi Inc., exactly four events, Event 1 through Event 4, were conducted for the employees of the company. The total number of employees in the company was 150 and each employee participated in at least one event.

The following information is known about the number of employees who participated in each event:

- i. For $n = 1, 2, 3, 4$, any employee who participated in Event n participated in at most one of Event $(n - 1)$ and Event $(n + 1)$, provided the event exists, but not in any other event.
- ii. The number of employees who participated in Event 1 is 10 more than that in Event 4, which, in turn, is 15 less than those who participated in Event 2.
- iii. The number of persons who participated in both Event 2 and Event 3 is the same as the number of persons who participated in both Event 1 and Event 3, which, in turn, is the same as the number of persons who participated in both Event 3 and Event 4.
- iv. Exactly 25 persons participated in Event 3, while exactly 50 employees participated in more than one event.

Q19. DIRECTIONS for questions 19 and 20: Select the correct alternative from the given choices.

In which event did the highest number of employees participate?

- a) **Event 1**
- b) **Event 2**
- c) **Event 3**
- d) **Event 4**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

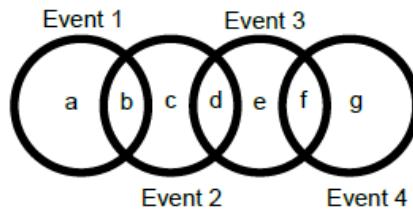
Time taken by you to answer this question	0
Avg. time spent on this question by all students	50
Difficulty Level	M
Avg. time spent on this question by students who got this question right	46
% of students who attempted this question	4.21
% of students who got the question right of those who attempted	62.39

[Video Solution](#)

[Text Solution](#)

From (i), we can infer that the employees who participated in Event 1 may have participated in Event 2 (as there cannot be an Event 0) but could not have participated in any other event. Similarly, the employees who participated in Event 2 may have participated in Event 1 or Event 3.

From condition, we can construct the following Venn diagram regarding the number of employees who participated in each event:



No person participated in both Event 1 and Event 3. Hence, from (iii), number of persons who participated in both Event 2 and Event 3 (d) = Number of persons who participated in both Event 3 and Event 4 (f) = 0.

From (iv), number of persons who participated in Event 3 = $d + e + f = 25 \Rightarrow e = 25$.

Number of persons who participated in two events = $b + d + f = 50 \Rightarrow b = 50$

Number of persons who participated in Event 1 = $a + b = a + 50$

From (ii), number of persons who participated in Event 4 = $g + f = g = a + 40$

Number of persons who participated in Event 2 = $b + c + d = c + 50 = a + 55$

Total number of employees = 150

Hence, $a + 50 + (a + 5) + 0 + 25 + 0 + a + 40 = 150 \Rightarrow 3a = 30 \Rightarrow a = 10$

$g = 50$ and $c = 15$.

The following Venn diagram provides the values:

The highest number of employees participated in Event 2 (65).

Choice (B)

undefined

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

In the company outing of Audi Inc., exactly four events, Event 1 through Event 4, were conducted for the employees of the company. The total number of employees in the company was 150 and each employee participated in at least one event.

The following information is known about the number of employees who participated in each event:

i.

For $n = 1, 2, 3, 4$, any employee who participated in Event n participated in at most one of Event $(n - 1)$ and Event $(n + 1)$, provided the event exists, but not in any other event.

ii.

The number of employees who participated in Event 1 is 10 more than that in Event 4, which, in turn, is 15 less than those who participated in Event 2.

iii.

The number of persons who participated in both Event 2 and Event 3 is the same as the number of persons who participated in both Event 1 and Event 3, which, in turn, is the same as the number of persons who participated in both Event 3 and Event 4.

iv.

Exactly 25 persons participated in Event 3, while exactly 50 employees participated in more than one event.

Q20. DIRECTIONS for questions 19 and 20: Select the correct alternative from the given choices.

Among the employees who participated in exactly one event, how many employees participated in either Event 2 or Event 3?

- a) **15**
- b) **20**
- c) **40**
- d) **55**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

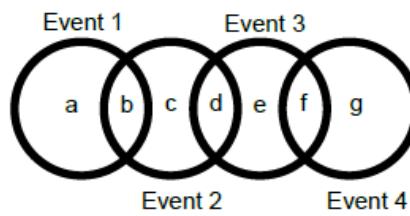
Time taken by you to answer this question	0
Avg. time spent on this question by all students	50
Difficulty Level	M
Avg. time spent on this question by students who got this question right	44
% of students who attempted this question	2.4
% of students who got the question right of those who attempted	51.38

[Video Solution](#)

[Text Solution](#)

From (i), we can infer that the employees who participated in Event 1 may have participated in Event 2 (as there cannot be an Event 0) but could not have participated in any other event. Similarly, the employees who participated in Event 2 may have participated in Event 1 or Event 3.

From condition, we can construct the following Venn diagram regarding the number of employees who participated in each event:



No person participated in both Event 1 and Event 3. Hence, from (iii), number of persons who participated in both Event 2 and Event 3 (d) = Number of persons who participated in both Event 3 and Event 4 (f) = 0.

From (iv), number of persons who participated in Event 3 = $d + e + f = 25 \Rightarrow e = 25$.

Number of persons who participated in two events = $b + d + f = 50 \Rightarrow b = 50$

Number of persons who participated in Event 1 = $a + b = a + 50$

From (ii), number of persons who participated in Event 4 = $g + f = g = a + 40$

Number of persons who participated in Event 2 = $b + c + d = c + 50 = a + 55$

Total number of employees = 150

Hence, $a + 50 + (a + 5) + 0 + 25 + 0 + a + 40 = 150 \Rightarrow 3a = 30 \Rightarrow a = 10$

$g = 50$ and $c = 15$.

The following Venn diagram provides the values:

Among the employees who participated in exactly one event, the number of employees participated in either Event 2 or Event 3 = $15 + 25 = 40$ Choice (C)

undefined

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

On a certain day, Bhargav visited six different places – Library, Park, Mall, School, Restaurant and Gym.

Given in the table below are pairs of places in parenthesis and for each pair of places in parenthesis, he did not visit the two places one immediately after the other, in any order.

(Library, Mall)	(Mall, School)
(School, Gym)	(School, Library)
(Gym, Restaurant)	(Park, Gym)
(Library, Gym)	(School, Park)

It is also known that he did not visit the Park after he visited the Restaurant.

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

Which place did Bhargav visit first?

- a) School
- b) Mall
- c) Gym
- 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	96
Avg. time spent on this question by all students	448
Difficulty Level	E
Avg. time spent on this question by students who got this question right	489
% of students who attempted this question	41.78
% of students who got the question right of those who attempted	61.01

[Video Solution](#)

[Text Solution](#)

From the table, we can see that the places that appear the maximum number of times is School and Gym.

He did not visit Gym, Library, Park and Mall immediately before or immediately after he visited the School.

Hence, there is only one place, i.e., Restaurant, that he visited immediately after or before he visited School. This implies that he must have visited the School either first or last.

Assuming that he visited School first, he must have visited Restaurant second.

Similarly, he did not visit School, Restaurant, Park and Library immediately before or immediately after he visited the Gym.

Hence, there is only one place, i.e., Mall, that he visited immediately after or before he visited Gym.

Since we assumed that he visited School first, he must have visited Gym last. He must have visited the Mall fifth.

Since he did not visit the Mall immediately after Library (from the first entry in the table), he must have visited the Park immediately before visiting the Mall. He must have visited the Library after visiting the Restaurant.

However, in this case, he could not have visited the Park after he visited the Restaurant.

Hence, our initial assumption that he visited the School first must be incorrect.

He must have visited the School last and the Gym first. The order in which he visited the other places must be Mall followed by Park followed by Library followed by Restaurant.

The following table provides the order in which he visited the six places:

Order	1	2	3	4	5	6
Places	Gym	Mall	Park	Library	Restaurant	School

Bhargav visited the Gym first.

Choice (C)

undefined

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

On a certain day, Bhargav visited six different places – Library, Park, Mall, School, Restaurant and Gym.

Given in the table below are pairs of places in parenthesis and for each pair of places in parenthesis, he did not visit the two

places one immediately after the other, in any order.

(Library, Mall)	(Mall, School)
(School, Gym)	(School, Library)
(Gym, Restaurant)	(Park, Gym)
(Library, Gym)	(School, Park)

It is also known that he did not visit the Park after he visited the Restaurant.

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

Which place did Bhargav visit immediately after he visited the Restaurant?

- a) **Library**
- b) **Park**
- c) **School**
- 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	0
Avg. time spent on this question by all students	56
Difficulty Level	E
Avg. time spent on this question by students who got this question right	46
% of students who attempted this question	39.62
% of students who got the question right of those who attempted	65.56

[Video Solution](#)

[Text Solution](#)

From the table, we can see that the places that appear the maximum number of times is School and Gym.

He did not visit Gym, Library, Park and Mall immediately before or immediately after he visited the School.

Hence, there is only one place, i.e., Restaurant, that he visited immediately after or before he visited School. This implies that he must have visited the School either first or last.

Assuming that he visited School first, he must have visited Restaurant second.

Similarly, he did not visit School, Restaurant, Park and Library immediately before or immediately after he visited the Gym.

Hence, there is only one place, i.e., Mall, that he visited immediately after or before he visited Gym.

Since we assumed that he visited School first, he must have visited Gym last. He must have visited the Mall fifth.

Since he did not visit the Mall immediately after Library (from the first entry in the table), he must have visited the Park immediately before visiting the Mall. He must have visited the Library after visiting the Restaurant.

However, in this case, he could not have visited the Park after he visited the Restaurant.

Hence, our initial assumption that he visited the School first must be incorrect.

He must have visited the School last and the Gym first. The order in which he visited the other places must be Mall followed by Park followed by Library followed by Restaurant.

The following table provides the order in which he visited the six places:

Order	1	2	3	4	5	6
Places	Gym	Mall	Park	Library	Restaurant	School

Bhargav visited the School immediately after he visited the Restaurant. Choice (C)

undefined

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

On a certain day, Bhargav visited six different places – Library, Park, Mall, School, Restaurant and Gym.

Given in the table below are pairs of places in parenthesis and for each pair of places in parenthesis, he did not visit the two places one immediately after the other, in any order.

(Library, Mall)	(Mall, School)
(School, Gym)	(School, Library)
(Gym, Restaurant)	(Park, Gym)
(Library, Gym)	(School, Park)

It is also known that he did not visit the Park after he visited the Restaurant.

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

Which is the fourth place that Bhargav visited?

- a) Restaurant
- b) Library
- c) Park
- d) Mall

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

0

Time spent / Accuracy Analysis

Avg. time spent on this question by all students	37
Difficulty Level	E
Avg. time spent on this question by students who got this question right	32
% of students who attempted this question	36.36
% of students who got the question right of those who attempted	68.92

[Video Solution](#)

Text Solution

From the table, we can see that the places that appear the maximum number of times is School and Gym.

He did not visit Gym, Library, Park and Mall immediately before or immediately after he visited the School.

Hence, there is only one place, i.e., Restaurant, that he visited immediately after or before he visited School. This implies that he must have visited the School either first or last.

Assuming that he visited School first, he must have visited Restaurant second.

Similarly, he did not visit School, Restaurant, Park and Library immediately before or immediately after he visited the Gym.

Hence, there is only one place, i.e., Mall, that he visited immediately after or before he visited Gym.

Since we assumed that he visited School first, he must have visited Gym last. He must have visited the Mall fifth.

Since he did not visit the Mall immediately after Library (from the first entry in the table), he must have visited the Park immediately before visiting the Mall. He must have visited the Library after visiting the Restaurant.

However, in this case, he could not have visited the Park after he visited the Restaurant.

Hence, our initial assumption that he visited the School first must be incorrect.

He must have visited the School last and the Gym first. The order in which he visited the other places must be Mall followed by Park followed by Library followed by Restaurant.

The following table provides the order in which he visited the six places:

Order	1	2	3	4	5	6
Places	Gym	Mall	Park	Library	Restaurant	School

The fourth place that Bhargav visited is the Library.

Choice (B)

undefined

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

On a certain day, Bhargav visited six different places – Library, Park, Mall, School, Restaurant and Gym.

Given in the table below are pairs of places in parenthesis and for each pair of places in parenthesis, he did not visit the two places one immediately after the other, in any order.

(Library, Mall)	(Mall, School)
(School, Gym)	(School, Library)
(Gym, Restaurant)	(Park, Gym)
(Library, Gym)	(School, Park)

It is also known that he did not visit the Park after he visited the Restaurant.

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

Which is the fourth place that Bhargav visited?

a) Restaurant

b) Library

c) Park

d) Mall

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	37
Difficulty Level	E
Avg. time spent on this question by students who got this question right	32
% of students who attempted this question	36.36
% of students who got the question right of those who attempted	68.92

[Video Solution](#)

Text Solution

From the table, we can see that the places that appear the maximum number of times is School and Gym.

He did not visit Gym, Library, Park and Mall immediately before or immediately after he visited the School.

Hence, there is only one place, i.e., Restaurant, that he visited immediately after or before he visited School. This implies that he must have visited the School either first or last.

Assuming that he visited School first, he must have visited Restaurant second.

Similarly, he did not visit School, Restaurant, Park and Library immediately before or immediately after he visited the Gym.

Hence, there is only one place, i.e., Mall, that he visited immediately after or before he visited Gym.

Since we assumed that he visited School first, he must have visited Gym last. He must have visited the Mall fifth.

Since he did not visit the Mall immediately after Library (from the first entry in the table), he must have visited the Park immediately before visiting the Mall. He must have visited the Library after visiting the Restaurant.

However, in this case, he could not have visited the Park after he visited the Restaurant.

Hence, our initial assumption that he visited the School first must be incorrect.

He must have visited the School last and the Gym first. The order in which he visited the other places must be Mall followed by Park followed by Library followed by Restaurant.

The following table provides the order in which he visited the six places:

Order	1	2	3	4	5	6
Places	Gym	Mall	Park	Library	Restaurant	School

The fourth place that Bhargav visited is the Library.

Choice (B)

undefined

undefined

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

On a certain day, Bhargav visited six different places – Library, Park, Mall, School, Restaurant and Gym.

Given in the table below are pairs of places in parenthesis and for each pair of places in parenthesis, he did not visit the two places one immediately after the other, in any order.

(Library, Mall)	(Mall, School)
(School, Gym)	(School, Library)
(Gym, Restaurant)	(Park, Gym)
(Library, Gym)	(School, Park)

It is also known that he did not visit the Park after he visited the Restaurant.

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

Which of the following places did Bhargav visit after he visited the Library?

- a) Park
- b) Mall
- c) Gym
- d) None of the above

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	34
Difficulty Level	E
Avg. time spent on this question by students who got this question right	31
% of students who attempted this question	37.25
% of students who got the question right of those who attempted	71.29

[Video Solution](#)

Text Solution

From the table, we can see that the places that appear the maximum number of times is School and Gym.

He did not visit Gym, Library, Park and Mall immediately before or immediately after he visited the School.

Hence, there is only one place, i.e., Restaurant, that he visited immediately after or before he visited School. This implies that he must have visited the School either first or last.

Assuming that he visited School first, he must have visited Restaurant second.

Similarly, he did not visit School, Restaurant, Park and Library immediately before or immediately after he visited the Gym.

Hence, there is only one place, i.e., Mall, that he visited immediately after or before he visited Gym.

Since we assumed that he visited School first, he must have visited Gym last. He must have visited the Mall fifth.

Since he did not visit the Mall immediately after Library (from the first entry in the table), he must have visited the Park immediately before visiting the Mall. He must have visited the Library after visiting the Restaurant.

However, in this case, he could not have visited the Park after he visited the Restaurant.

Hence, our initial assumption that he visited the School first must be incorrect.

He must have visited the School last and the Gym first. The order in which he visited the other places must be Mall followed by Park followed by Library followed by Restaurant.

The following table provides the order in which he visited the six places:

Order	1	2	3	4	5	6
Places	Gym	Mall	Park	Library	Restaurant	School

Bhargav visited the School and the Restaurant after he visited the Library. Since neither of these is given in the options, the answer is option D. Choice (D)

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

On a certain day, Bhargav visited six different places – Library, Park, Mall, School, Restaurant and Gym.

Given in the table below are pairs of places in parenthesis and for each pair of places in parenthesis, he did not visit the two places one immediately after the other, in any order.

(Library, Mall)	(Mall, School)
(School, Gym)	(School, Library)
(Gym, Restaurant)	(Park, Gym)
(Library, Gym)	(School, Park)

It is also known that he did not visit the Park after he visited the Restaurant.

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

Which of the following places did Bhargav visit after he visited the Library?

- a) **Park**
- b) **Mall**
- c) **Gym**
- d) **None of the above**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	34
Difficulty Level	E
Avg. time spent on this question by students who got this question right	31
% of students who attempted this question	37.25
% of students who got the question right of those who attempted	71.29

[Video Solution](#)

[Text Solution](#)

From the table, we can see that the places that appear the maximum number of times is School and Gym.

He did not visit Gym, Library, Park and Mall immediately before or immediately after he visited the School.

Hence, there is only one place, i.e., Restaurant, that he visited immediately after or before he visited School. This implies that he must have visited the School either first or last.

Assuming that he visited School first, he must have visited Restaurant second.

Similarly, he did not visit School, Restaurant, Park and Library immediately before or immediately after he visited the Gym.

Hence, there is only one place, i.e., Mall, that he visited immediately after or before he visited Gym.

Since we assumed that he visited School first, he must have visited Gym last. He must have visited the Mall fifth.

Since he did not visit the Mall immediately after Library (from the first entry in the table), he must have visited the Park immediately before visiting the Mall. He must have visited the Library after visiting the Restaurant.

However, in this case, he could not have visited the Park after he visited the Restaurant.

Hence, our initial assumption that he visited the School first must be incorrect.

He must have visited the School last and the Gym first. The order in which he visited the other places must be Mall followed by Park followed by Library followed by Restaurant.

The following table provides the order in which he visited the six places:

Order	1	2	3	4	5	6
Places	Gym	Mall	Park	Library	Restaurant	School

Bhargav visited the School and the Restaurant after he visited the Library. Since neither of these is given in the options, the answer is option D. Choice (D)

undefined

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

On a certain day, Bhargav visited six different places – Library, Park, Mall, School, Restaurant and Gym.

Given in the table below are pairs of places in parenthesis and for each pair of places in parenthesis, he did not visit the two places one immediately after the other, in any order.

(Library, Mall)	(Mall, School)
(School, Gym)	(School, Library)
(Gym, Restaurant)	(Park, Gym)
(Library, Gym)	(School, Park)

It is also known that he did not visit the Park after he visited the Restaurant.

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

Which of the following places did Bhargav visit after he visited the Library?

- a) Park
- b) Mall
- c) Gym
- d) None of the above

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

0

Time spent / Accuracy Analysis

Avg. time spent on this question by all students	34
Difficulty Level	E
Avg. time spent on this question by students who got this question right	31
% of students who attempted this question	37.25
% of students who got the question right of those who attempted	71.29

[Video Solution](#)

Text Solution

From the table, we can see that the places that appear the maximum number of times is School and Gym.

He did not visit Gym, Library, Park and Mall immediately before or immediately after he visited the School.

Hence, there is only one place, i.e., Restaurant, that he visited immediately after or before he visited School. This implies that he must have visited the School either first or last.

Assuming that he visited School first, he must have visited Restaurant second.

Similarly, he did not visit School, Restaurant, Park and Library immediately before or immediately after he visited the Gym.

Hence, there is only one place, i.e., Mall, that he visited immediately after or before he visited Gym.

Since we assumed that he visited School first, he must have visited Gym last. He must have visited the Mall fifth.

Since he did not visit the Mall immediately after Library (from the first entry in the table), he must have visited the Park immediately before visiting the Mall. He must have visited the Library after visiting the Restaurant.

However, in this case, he could not have visited the Park after he visited the Restaurant.

Hence, our initial assumption that he visited the School first must be incorrect.

He must have visited the School last and the Gym first. The order in which he visited the other places must be Mall followed by Park followed by Library followed by Restaurant.

The following table provides the order in which he visited the six places:

Order	1	2	3	4	5	6
Places	Gym	Mall	Park	Library	Restaurant	School

Bhargav visited the School and the Restaurant after he visited the Library. Since neither of these is given in the options, the answer is option D. Choice (D)

undefined

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

Four countries, A through D, sent a certain number of male and female delegates to a summit. The following table provides the total number of delegates sent by each of the four countries to the summit:

Country	Number of Delegates
A	15
B	12
C	18
D	21

It is also known that

- i. exactly one country sent an equal number of male and female delegates.

- ii.
no country sent as many male delegates as B did.

- iii.
three countries sent the same number of male delegates. Each of these three countries sent at most 13 female delegates.

Q25. DIRECTIONS for question 25: Select the correct alternative from the given choices.

Which country sent the highest number of female delegates?

- a) **D**
- b) **C**
- c) **A**
- d) **Cannot be determined** Your answer is incorrect

Show Correct Answer

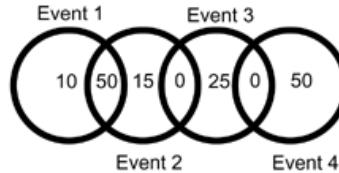
Time spent / Accuracy Analysis

Time taken by you to answer this question	390
Avg. time spent on this question by all students	303
Difficulty Level	E
Avg. time spent on this question by students who got this question right	305
% of students who attempted this question	56.5
% of students who got the question right of those who attempted	89.4

[Video Solution](#)

[Text Solution](#)

Given that one country sent equal number of male and female delegates. This can only be B or C (as only these two countries sent an even number of delegates). Consider that B sent 6 male and 6 female delegates. From (iii), there must be three countries that sent the same number of male delegates and from (ii), B cannot be one of these countries. Hence, A, C and D must have sent the same number of male delegates and this must be between 0 and 5. The number of female delegates that D sent must be between 16 and 21. However, this violates condition (iii). Hence, B cannot be the country that sent equal number of male and female delegates.



Consider that C sent 9 male and 9 female delegates. From (ii), A and D must also have sent 9 male delegates. Hence, A and D must have sent 6 and 12 female delegates respectively.

B must have sent 10/11/12 male delegates and 2/1/0 female delegates.

The following table provides the number of male and female delegates that each country sent:

Country	Male Delegates	Female Delegates
A	9	6
B	10/11/12	2/1/0
C	9	9
D	9	12

D sent the highest number of female delegates.

Choice (A)

undefined

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

Four countries, A through D, sent a certain number of male and female delegates to a summit. The following table provides the total number of delegates sent by each of the four countries to the summit:

Country	Number of Delegates
A	15
B	12
C	18
D	21

It is also known that

- i. exactly one country sent an equal number of male and female delegates.

- ii.
no country sent as many male delegates as B did.
- iii.
three countries sent the same number of male delegates. Each of these three countries sent at most 13 female delegates.

Q25. DIRECTIONS for question 25: Select the correct alternative from the given choices.

Which country sent the highest number of female delegates?

- a) **D**
- b) **C**
- c) **A**
- d) **Cannot be determined** Your answer is incorrect

Show Correct Answer

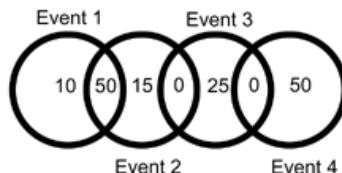
Time spent / Accuracy Analysis

Time taken by you to answer this question	390
Avg. time spent on this question by all students	303
Difficulty Level	E
Avg. time spent on this question by students who got this question right	305
% of students who attempted this question	56.5
% of students who got the question right of those who attempted	89.4

[Video Solution](#)

[Text Solution](#)

Given that one country sent equal number of male and female delegates. This can only be B or C (as only these two countries sent an even number of delegates). Consider that B sent 6 male and 6 female delegates. From (iii), there must be three countries that sent the same number of male delegates and from (ii), B cannot be one of these countries. Hence, A, C and D must have sent the same number of male delegates and this must be between 0 and 5. The number of female delegates that D sent must be between 16 and 21. However, this violates condition (iii). Hence, B cannot be the country that sent equal number of male and female delegates.



Consider that C sent 9 male and 9 female delegates. From (ii), A and D must also have sent 9 male delegates. Hence, A and D must have sent 6 and 12 female delegates respectively.

B must have sent 10/11/12 male delegates and 2/1/0 female delegates.

The following table provides the number of male and female delegates that each country sent:

Country	Male Delegates	Female Delegates
A	9	6
B	10/11/12	2/1/0
C	9	9
D	9	12

D sent the highest number of female delegates.

Choice (A)

undefined

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

Four countries, A through D, sent a certain number of male and female delegates to a summit. The following table provides the total number of delegates sent by each of the four countries to the summit:

Country	Number of Delegates
A	15
B	12
C	18
D	21

It is also known that

- i. exactly one country sent an equal number of male and female delegates.
- ii. no country sent as many male delegates as B did.
- iii. three countries sent the same number of male delegates. Each of these three countries sent at most 13 female delegates.

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

What is the difference between the number of female delegates that D sent and the number of male delegates that C sent?

Your Answer:0 **Your answer is incorrect**

Show Correct Answer

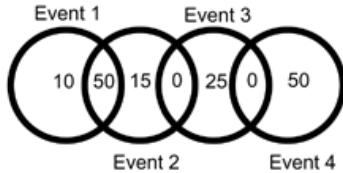
Time spent / Accuracy Analysis

Time taken by you to answer this question	163
Avg. time spent on this question by all students	57
Difficulty Level	E
Avg. time spent on this question by students who got this question right	51
% of students who attempted this question	54.37
% of students who got the question right of those who attempted	72.4

[Video Solution](#)

[Text Solution](#)

Given that one country sent equal number of male and female delegates. This can only be B or C (as only these two countries sent an even number of delegates). Consider that B sent 6 male and 6 female delegates. From (iii), there must be three countries that sent the same number of male delegates and from (ii), B cannot be one of these countries. Hence, A, C and D must have sent the same number of male delegates and this must be between 0 and 5. The number of female delegates that D sent must be between 16 and 21. However, this violates condition (iii). Hence, B cannot be the country that sent equal number of male and female delegates.



Consider that C sent 9 male and 9 female delegates. From (ii), A and D must also have sent 9 male delegates. Hence, A and D must have sent 6 and 12 female delegates respectively. B must have sent 10/11/12 male delegates and 2/1/0 female delegates. The following table provides the number of male and female delegates that each country sent:

Country	Male Delegates	Female Delegates
A	9	6
B	10/11/12	2/1/0
C	9	9
D	9	12

- . The difference between the number of female delegates that D sent and the number of male delegates that C sent = $12 - 9 = 3$

Ans: (3)

undefined

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

Four countries, A through D, sent a certain number of male and female delegates to a summit. The following table provides the total number of delegates sent by each of the four countries to the summit:

Country	Number of Delegates
A	15
B	12
C	18
D	21

It is also known that

- i. exactly one country sent an equal number of male and female delegates.
- ii. no country sent as many male delegates as B did.
- iii. three countries sent the same number of male delegates. Each of these three countries sent at most 13 female delegates.

Q27. DIRECTIONS for question 27: Select the correct alternative from the given choices.

The total number of female delegates sent by the four countries as a percentage of the total number of male delegates sent by them can be at most (approximately)

- a) **71.8%**
- b) **78.4%**
- c) **81.1%**
- d) **215.4%** Your answer is incorrect

[Show Correct Answer](#)

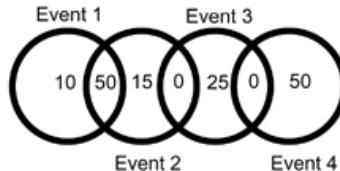
Time spent / Accuracy Analysis

Time taken by you to answer this question	565
Avg. time spent on this question by all students	129
Difficulty Level	E
Avg. time spent on this question by students who got this question right	121
% of students who attempted this question	40.66
% of students who got the question right of those who attempted	77.57

[Video Solution](#)

[Text Solution](#)

Given that one country sent equal number of male and female delegates. This can only be B or C (as only these two countries sent an even number of delegates). Consider that B sent 6 male and 6 female delegates. From (iii), there must be three countries that sent the same number of male delegates and from (ii), B cannot be one of these countries. Hence, A, C and D must have sent the same number of male delegates and this must be between 0 and 5. The number of female delegates that D sent must be between 16 and 21. However, this violates condition (iii). Hence, B cannot be the country that sent equal number of male and female delegates.



Consider that C sent 9 male and 9 female delegates. From (ii), A and D must also have sent 9 male delegates. Hence, A and D must have sent 6 and 12 female delegates respectively.

B must have sent 10/11/12 male delegates and 2/1/0 female delegates.

The following table provides the number of male and female delegates that each country sent:

Country	Male Delegates	Female Delegates
A	9	6
B	10/11/12	2/1/0
C	9	9
D	9	12

Number of female delegates can be at most $6 + 2 + 9 + 12 = 29$

Number of male delegates can be at least $9 + 10 + 9 + 9 = 37$

Required percentage = $29/37 = 78.4\%$

Choice (B)

undefined

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

Four countries, A through D, sent a certain number of male and female delegates to a summit. The following table provides the total number of delegates sent by each of the four countries to the summit:

Country	Number of Delegates
A	15
B	12
C	18
D	21

It is also known that

- i. exactly one country sent an equal number of male and female delegates.
- ii. no country sent as many male delegates as B did.
- iii. three countries sent the same number of male delegates. Each of these three countries sent at most 13 female delegates.

Q28. DIRECTIONS for question 28: Type in your answer in the input box provided below the question.

If the number of female delegates sent by B is at least one third the number of female delegates sent by A, what is the total number of male delegates sent by the four countries?

Your Answer:33 □ Your answer is incorrect

Show Correct Answer

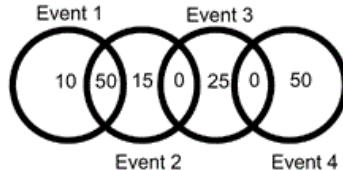
Time spent / Accuracy Analysis

Time taken by you to answer this question	111
Avg. time spent on this question by all students	69
Difficulty Level	E
Avg. time spent on this question by students who got this question right	60
% of students who attempted this question	44.55
% of students who got the question right of those who attempted	78.6

[Video Solution](#)

[Text Solution](#)

Given that one country sent equal number of male and female delegates. This can only be B or C (as only these two countries sent an even number of delegates). Consider that B sent 6 male and 6 female delegates. From (iii), there must be three countries that sent the same number of male delegates and from (ii), B cannot be one of these countries. Hence, A, C and D must have sent the same number of male delegates and this must be between 0 and 5. The number of female delegates that D sent must be between 16 and 21. However, this violates condition (iii). Hence, B cannot be the country that sent equal number of male and female delegates.



Consider that C sent 9 male and 9 female delegates. From (ii), A and D must also have sent 9 male delegates. Hence, A and D must have sent 6 and 12 female delegates respectively.

B must have sent 10/11/12 male delegates and 2/1/0 female delegates.

The following table provides the number of male and female delegates that each country sent:

Country	Male Delegates	Female Delegates
A	9	6
B	10/11/12	2/1/0
C	9	9
D	9	12

The number of female delegates of B must be at least 2. Since it can be a maximum of 2, the number of female delegates that B sent must be 2.

Total number of male delegates = $9 + 10 + 9 + 9 = 37$

Ans: (37)

undefined

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

Eight teams, A through H, participated in a hockey tournament which comprised three rounds – Quarterfinals, Semifinals and Finals. All the eight teams participated in the Quarterfinals such that each team played exactly one match in the Quarterfinals. The winners of the Quarterfinals played in the semifinals and the winners of the semifinals played in the finals. The winner of the finals was declared the winner of the tournament.

It is known that A, E, G and H played in the semifinals and A and G played in the finals. In any match, the difference between the number of goals scored by the two teams was exactly 3.

The following table provides the total number of goals scored by each team in the tournament:

Team	A	B	C	D	E	F	G	H
Goals Scored	8	2	4	1	7	5	12	10

Q29. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

Which team played against B in the quarterfinals?

a) E

b) G

c) A

d) H

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	507
Difficulty Level	M
Avg. time spent on this question by students who got this question right	544
% of students who attempted this question	26.66
% of students who got the question right of those who attempted	58.39

[Video Solution](#)

[Text Solution](#)

Given that A, E, G and H played in the semifinals. Hence, B, C, D and F lost the quarterfinals.

The teams that played against B, C, D and F must have scored 5, 7, 4 and 8 goals respectively.

Since A played 3 matches and scored 8 goals, A must have scored at least 3 goals in all the matches that it won. Since A won the quarterfinals and the semifinals, it could not have won the finals. Hence, G won the finals and must have scored at least 3 goals in the finals. In the quarterfinals and the semifinals, G could have scored at most 9 goals.

A could not have played C or F in the quarterfinals. G also could not have played C or F in the quarterfinals (in both the cases, the two teams cannot score at least 3 goals in the semifinals).

Hence, A and G must have played B and D in any order. E and H must have played C and F in any order.

Since E scored only 7 goals, E must have played against C. H must have played against F.

E must not have scored any goal in the semifinals. H must have scored 2 goals in the semifinals. A and G must have scored 3 and 5 goals in any order in the semifinals.

A scored 4 or 5 goals in the quarterfinals and 3 or 5 goals in the semifinals. However, A could not have scored 5 goals in the semifinals as A scored only 8 goals in total. Hence, A must have scored 3 goals in the semifinals and must have played against E.

G must have played against H and must have scored 5 goals in the semifinals.

Since G scored 5 goals in the quarterfinals and at least 3 goals in the finals, it could not have scored more than 4 goals in the quarterfinals. Hence, G scored 4 goals in the quarterfinals and A scored 5 goals in the quarterfinals.

In the finals, G must have scored 3 goals and A must not have scored any goal.

The following table provides the teams that played against each other in the quarterfinals, semifinals and finals, along with the scores in each match:

Quarter Finals		Semifinals		Finals	
A – B	5 – 2	A – E	3 – 0	A – G	0 – 3
C – E	4 – 7	G – H	5 – 2		
D – G	1 – 4				
F – H	5 – 8				

A played against B in the quarterfinals.

Choice (C)

undefined

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

Eight teams, A through H, participated in a hockey tournament which comprised three rounds – Quarterfinals, Semifinals and Finals. All the eight teams participated in the Quarterfinals such that each team played exactly one match in the Quarterfinals. The winners of the Quarterfinals played in the semifinals and the winners of the semifinals played in the finals. The winner of the finals was declared the winner of the tournament.

It is known that A, E, G and H played in the semifinals and A and G played in the finals. In any match, the difference between the number of goals scored by the two teams was exactly 3.

The following table provides the total number of goals scored by each team in the tournament:

Team	A	B	C	D	E	F	G	H
Goals Scored	8	2	4	1	7	5	12	10

Q29. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

Which team played against B in the quarterfinals?

- a) E
- b) G
- c) A
- d) H

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	507
Difficulty Level	M
Avg. time spent on this question by students who got this question right	544
% of students who attempted this question	26.66
% of students who got the question right of those who attempted	58.39

[Video Solution](#)

[Text Solution](#)

Given that A, E, G and H played in the semifinals. Hence, B, C, D and F lost the quarterfinals.

The teams that played against B, C, D and F must have scored 5, 7, 4 and 8 goals respectively.

Since A played 3 matches and scored 8 goals, A must have scored at least 3 goals in all the matches that it won. Since A won the quarterfinals and the semifinals, it could not have won the finals. Hence, G won the finals and must have scored at least 3 goals in the finals. In the quarterfinals and the semifinals, G could have scored at most 9 goals.

A could not have played C or F in the quarterfinals. G also could not have played C or F in the quarterfinals (in both the cases, the two teams cannot score at least 3 goals in the semifinals).

Hence, A and G must have played B and D in any order. E and H must have played C and F in any order.

Since E scored only 7 goals, E must have played against C. H must have played against F.

E must not have scored any goal in the semifinals. H must have scored 2 goals in the semifinals. A and G must have scored 3 and 5 goals in any order in the semifinals.

A scored 4 or 5 goals in the quarterfinals and 3 or 5 goals in the semifinals. However, A could not have scored 5 goals in the semifinals as A scored only 8 goals in total. Hence, A must have scored 3 goals in the semifinals and must have played against E.

G must have played against H and must have scored 5 goals in the semifinals.

Since G scored 5 goals in the quarterfinals and at least 3 goals in the finals, it could not have scored more than 4 goals in the quarterfinals. Hence, G scored 4 goals in the quarterfinals and A scored 5 goals in the quarterfinals.

In the finals, G must have scored 3 goals and A must not have scored any goal.

The following table provides the teams that played against each other in the quarterfinals, semifinals and finals, along with the scores in each match:

Quarter Finals		Semifinals		Finals	
A – B	5 – 2	A – E	3 – 0	A – G	0 – 3
C – E	4 – 7	G – H	5 – 2		
D – G	1 – 4				
F – H	5 – 8				

Total number of goals scored by the two finalists in the semifinal = $3 + 5 = 8$.

Choice (A)

undefined

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

Eight teams, A through H, participated in a hockey tournament which comprised three rounds – Quarterfinals, Semifinals and Finals. All the eight teams participated in the Quarterfinals such that each team played exactly one match in the Quarterfinals. The winners of the Quarterfinals played in the semifinals and the winners of the semifinals played in the finals. The winner of the finals was declared the winner of the tournament.

It is known that A, E, G and H played in the semifinals and A and G played in the finals. In any match, the difference between the number of goals scored by the two teams was exactly 3.

The following table provides the total number of goals scored by each team in the tournament:

Team	A	B	C	D	E	F	G	H
Goals Scored	8	2	4	1	7	5	12	10

Q29. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

Which team played against B in the quarterfinals?

- a) E
- b) G
- c) A
- d) H

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	507
Difficulty Level	M
Avg. time spent on this question by students who got this question right	544
% of students who attempted this question	26.66
% of students who got the question right of those who attempted	58.39

[Video Solution](#)

[Text Solution](#)

Given that A, E, G and H played in the semifinals. Hence, B, C, D and F lost the quarterfinals.

The teams that played against B, C, D and F must have scored 5, 7, 4 and 8 goals respectively.

Since A played 3 matches and scored 8 goals, A must have scored at least 3 goals in all the matches that it won. Since A won the quarterfinals and the semifinals, it could not have won the finals. Hence, G won the finals and must have scored at least 3 goals in the finals. In the quarterfinals and the semifinals, G could have scored at most 9 goals.

A could not have played C or F in the quarterfinals. G also could not have played C or F in the quarterfinals (in both the cases, the two teams cannot score at least 3 goals in the semifinals).

Hence, A and G must have played B and D in any order. E and H must have played C and F in any order.

Since E scored only 7 goals, E must have played against C. H must have played against F.

E must not have scored any goal in the semifinals. H must have scored 2 goals in the semifinals. A and G must have scored 3 and 5 goals in any order in the semifinals.

A scored 4 or 5 goals in the quarterfinals and 3 or 5 goals in the semifinals. However, A could not have scored 5 goals in the semifinals as A scored only 8 goals in total. Hence, A must have scored 3 goals in the semifinals and must have played against E.

G must have played against H and must have scored 5 goals in the semifinals.

Since G scored 5 goals in the quarterfinals and at least 3 goals in the finals, it could not have scored more than 4 goals in the quarterfinals. Hence, G scored 4 goals in the quarterfinals and A scored 5 goals in the quarterfinals.

In the finals, G must have scored 3 goals and A must not have scored any goal.

The following table provides the teams that played against each other in the quarterfinals, semifinals and finals, along with the scores in each match:

Quarter Finals		Semifinals		Finals	
A – B	5 – 2	A – E	3 – 0	A – G	0 – 3
C – E	4 – 7	G – H	5 – 2		
D – G	1 – 4				
F – H	5 – 8				

Total number of goals scored by the two finalists in the semifinal = $3 + 5 = 8$.

Choice (A)

undefined

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

Eight teams, A through H, participated in a hockey tournament which comprised three rounds – Quarterfinals, Semifinals and

Finals. All the eight teams participated in the Quarterfinals such that each team played exactly one match in the Quarterfinals. The winners of the Quarterfinals played in the semifinals and the winners of the semifinals played in the finals. The winner of the finals was declared the winner of the tournament.

It is known that A, E, G and H played in the semifinals and A and G played in the finals. In any match, the difference between the number of goals scored by the two teams was exactly 3.

The following table provides the total number of goals scored by each team in the tournament:

Team	A	B	C	D	E	F	G	H
Goals Scored	8	2	4	1	7	5	12	10

Q31. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

Which team scored the highest number of goals in the quarterfinals?

- a) **A**
- b) **E**
- c) **G**
- d) **H**

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	40
Difficulty Level	M
Avg. time spent on this question by students who got this question right	36
% of students who attempted this question	23.36
% of students who got the question right of those who attempted	73.64

[Video Solution](#)

[Text Solution](#)

Given that A, E, G and H played in the semifinals. Hence, B, C, D and F lost the quarterfinals.

The teams that played against B, C, D and F must have scored 5, 7, 4 and 8 goals respectively.

Since A played 3 matches and scored 8 goals, A must have scored at least 3 goals in all the matches that it won. Since A won the quarterfinals and the semifinals, it could not have won the finals. Hence, G won the finals and must have scored at least 3 goals in the finals. In the quarterfinals and the semifinals, G could have scored at most 9 goals.

A could not have played C or F in the quarterfinals. G also could not have played C or F in the quarterfinals (in both the cases, the two teams cannot score at least 3 goals in the semifinals).

Hence, A and G must have played B and D in any order. E and H must have played C and F in any order.

Since E scored only 7 goals, E must have played against C. H must have played against F.

E must not have scored any goal in the semifinals. H must have scored 2 goals in the semifinals. A and G must have scored 3 and 5 goals in any order in the semifinals.

A scored 4 or 5 goals in the quarterfinals and 3 or 5 goals in the semifinals. However, A could not have scored 5 goals in the semifinals as A scored only 8 goals in total. Hence, A must have scored 3 goals in the semifinals and must have played against E.

G must have played against H and must have scored 5 goals in the semifinals.

Since G scored 5 goals in the quarterfinals and at least 3 goals in the finals, it could not have scored more than 4 goals in the quarterfinals. Hence, G scored 4 goals in the quarterfinals and A scored 5 goals in the quarterfinals.

In the finals, G must have scored 3 goals and A must not have scored any goal.

The following table provides the teams that played against each other in the quarterfinals, semifinals and finals, along with the scores in each match:

Quarter Finals		Semifinals		Finals	
A – B	5 – 2	A – E	3 – 0	A – G	0 – 3
C – E	4 – 7	G – H	5 – 2		
D – G	1 – 4				
F – H	5 – 8				

H scored the highest number of goals in the quarterfinals.

Choice (D)

undefined

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

Eight teams, A through H, participated in a hockey tournament which comprised three rounds – Quarterfinals, Semifinals and Finals. All the eight teams participated in the Quarterfinals such that each team played exactly one match in the Quarterfinals. The winners of the Quarterfinals played in the semifinals and the winners of the semifinals played in the finals. The winner of the finals was declared the winner of the tournament.

It is known that A, E, G and H played in the semifinals and A and G played in the finals. In any match, the difference between the number of goals scored by the two teams was exactly 3.

The following table provides the total number of goals scored by each team in the tournament:

Team	A	B	C	D	E	F	G	H
Goals Scored	8	2	4	1	7	5	12	10

Q32. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

If the semifinals that A played was the third match of the tournament, then which of the following teams could have played in the second match of the tournament?

a) E

b) D

c) F

d) G

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	121
Difficulty Level	M
Avg. time spent on this question by students who got this question right	90
% of students who attempted this question	15.73
% of students who got the question right of those who attempted	73

[Video Solution](#)

[Text Solution](#)

Given that A, E, G and H played in the semifinals. Hence, B, C, D and F lost the quarterfinals.

The teams that played against B, C, D and F must have scored 5, 7, 4 and 8 goals respectively.

Since A played 3 matches and scored 8 goals, A must have scored at least 3 goals in all the matches that it won. Since A won the quarterfinals and the semifinals, it could not have won the finals. Hence, G won the finals and must have scored at least 3 goals in the finals. In the quarterfinals and the semifinals, G could have scored at most 9 goals.

A could not have played C or F in the quarterfinals. G also could not have played C or F in the quarterfinals (in both the cases, the two teams cannot score at least 3 goals in the semifinals).

Hence, A and G must have played B and D in any order. E and H must have played C and F in any order.

Since E scored only 7 goals, E must have played against C. H must have played against F.

E must not have scored any goal in the semifinals. H must have scored 2 goals in the semifinals. A and G must have scored 3 and 5 goals in any order in the semifinals.

A scored 4 or 5 goals in the quarterfinals and 3 or 5 goals in the semifinals. However, A could not have scored 5 goals in the semifinals as A scored only 8 goals in total. Hence, A must have scored 3 goals in the semifinals and must have played against E.

G must have played against H and must have scored 5 goals in the semifinals.

Since G scored 5 goals in the quarterfinals and at least 3 goals in the finals, it could not have scored more than 4 goals in the quarterfinals. Hence, G scored 4 goals in the quarterfinals and A scored 5 goals in the quarterfinals.

In the finals, G must have scored 3 goals and A must not have scored any goal.

The following table provides the teams that played against each other in the quarterfinals, semifinals and finals, along with the scores in each match:

Quarter Finals		Semifinals		Finals	
A – B	5 – 2	A – E	3 – 0	A – G	0 – 3
C – E	4 – 7	G – H	5 – 2		
D – G	1 – 4				
F – H	5 – 8				

For the semifinals A – E to be the third match, the matches A – B and C – E must have been the first two matches. From the given options, E could have played in the second match.
Choice (A)

undefined

Q33. DIRECTIONS for questions 33 and 34: Type in your answer in the input box provided below the question.

The sum of n terms in a GP is 6825. If the common ratio and the first term of the series are 4 and 5 respectively, find n.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question

85

Time spent / Accuracy Analysis

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	129
% of students who attempted this question	28.96
% of students who got the question right of those who attempted	82.72

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

□

undefined

undefined

Q1. DIRECTIONS for questions 1 to 3: Type in your answer in the input box provided below the question.If $(x + a)(x - 2b)(x + 3b) = x^3 + 5x^2 - 23bx - c$, where $a, b \neq 0$, what is the value of c ?**Your Answer:96 Your answer is correct****Time spent / Accuracy Analysis**

Time taken by you to answer this question	277
Avg. time spent on this question by all students	261
Difficulty Level	M
Avg. time spent on this question by students who got this question right	256
% of students who attempted this question	23.05
% of students who got the question right of those who attempted	50.31

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

$$(x + a)(x - 2b)(x + 3b) = x^3 + x^2(a + b) + x(ab - 6b^2) - 6ab^2$$

Given that $x^3 + x^2(a + b) + x(ab - 6b^2) - 6ab^2 = x^3 + 5x^2 - 23bx - c$
Hence, $a + b = 5$ and $b(a - 6b) = -23b \Rightarrow a - 6b = -23$
Solving the two, we get $b = 4$ and $a = 1$.
Hence, $c = 6ab^2 = 6 \times 1 \times 16 = 96$

Ans: (96)

Q1. DIRECTIONS for questions 1 to 3: Type in your answer in the input box provided below the question.If $(x + a)(x - 2b)(x + 3b) = x^3 + 5x^2 - 23bx - c$, where $a, b \neq 0$, what is the value of c ?**Your Answer:96 Your answer is correct****Time spent / Accuracy Analysis**

Time taken by you to answer this question	277
Avg. time spent on this question by all students	261
Difficulty Level	M
Avg. time spent on this question by students who got this question right	256
% of students who attempted this question	23.05
% of students who got the question right of those who attempted	50.31

[Video Solution](#)

[Text Solution](#)

$$(x+a)(x-2b)(x+3b) = x^3 + x^2(a+b) + x(ab - 6b^2) - 6ab^2$$

Given that $x^3 + x^2(a+b) + x(ab - 6b^2) - 6ab^2 = x^3 + 5x^2 - 23bx - c$
Hence, $a + b = 5$ and $b(a - 6b) = -23b \Rightarrow a - 6b = -23$
Solving the two, we get $b = 4$ and $a = 1$.
Hence, $c = 6ab^2 = 6 \times 1 \times 16 = 96$ Ans: (96)

undefined

undefined

Q2. DIRECTIONS for questions 1 to 3: Type in your answer in the input box provided below the question.

The sum of three consecutive natural numbers is 30. Find the product of the three numbers.

Your Answer:990 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	51
Avg. time spent on this question by all students	61
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	59
% of students who attempted this question	62.27
% of students who got the question right of those who attempted	94.02

[Video Solution](#)

[Text Solution](#)

Let the three numbers be $n - 1$, n and $n + 1$
 $n - 1 + n + n + 1 = 30 \Rightarrow n = 10$
The three numbers are 9, 10 and 11.
Product of the three numbers = $9 \times 10 \times 11 = 990$ Ans: (990)

Q2. DIRECTIONS for questions 1 to 3: Type in your answer in the input box provided below the question.

The sum of three consecutive natural numbers is 30. Find the product of the three numbers.

Your Answer:990 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	51
Avg. time spent on this question by all students	61
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	59
% of students who attempted this question	62.27
% of students who got the question right of those who attempted	94.02

[Video Solution](#)

Text Solution

Let the three numbers be $n - 1$, n and $n + 1$
 $n - 1 + n + n + 1 = 30 \Rightarrow n = 10$
The three numbers are 9, 10 and 11.
Product of the three numbers = $9 * 10 * 11 = 990$ Ans: (990)

undefined

undefined

Q3. DIRECTIONS for questions 1 to 3: Type in your answer in the input box provided below the question.

If $x \geq 0$, the minimum value of $\frac{(x+7)(x+25)}{(x+1)}$ is

Your Answer:0 Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	198
Avg. time spent on this question by all students	179
Difficulty Level	D
Avg. time spent on this question by students who got this question right	262
% of students who attempted this question	39.96
% of students who got the question right of those who attempted	22.95

[Video Solution](#)

Text Solution

$$\begin{aligned} \text{Let } x + 1 &= y \\ \Rightarrow \frac{(x+7)(x+25)}{x+1} &= \frac{(y+6)(y+24)}{y} \\ &= y + 30 + \frac{144}{y} \\ &= 12\left(\frac{y}{12} + \frac{12}{y}\right) + 30 \end{aligned}$$

The minimum value of $\frac{y}{12} + \frac{12}{y}$ is 2 when $y \geq 1$.

$$\therefore \text{The minimum value of } \frac{(x+7)(x+25)}{x+1} = 12(2) + 30 = 54. \quad \text{Ans: (54)}$$

Q3. DIRECTIONS for questions 1 to 3: Type in your answer in the input box provided below the question.

If $x \geq 0$, the minimum value of $\frac{(x+7)(x+25)}{(x+1)}$ is

Your Answer:0 Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	198
---	------------

Time spent / Accuracy Analysis

Avg. time spent on this question by all students	179
Difficulty Level	D
Avg. time spent on this question by students who got this question right	262
% of students who attempted this question	39.96
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[Video Solution](#)

Text Solution

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The minimum value of $\frac{y}{12} + \frac{12}{y}$ is 2 when $y \geq 1$.

$$\therefore \text{The minimum value of } \frac{(x+7)(x+25)}{x+1} = 12(2) + 30 = 54.$$

Ans: (54)

undefined

undefined

Q4. DIRECTIONS for question 4: Select the correct alternative from the given choices.

If a, b, c and d are natural numbers, such that the LCM of a and b is b and the LCM of b and c is c and the LCM of c and d is c , then the LCM of a and d will NOT be

- a) greater than b .
- b) greater than d .
- c) greater than c . Your answer is correct
- d) lesser than b .

Time spent / Accuracy Analysis

Time taken by you to answer this question	130
Avg. time spent on this question by all students	137
Difficulty Level	E
Avg. time spent on this question by students who got this question right	132
% of students who attempted this question	47.01
% of students who got the question right of those who attempted	58.21

[Video Solution](#)

Text Solution

Since the LCM of a and b is b , a must be a factor of b , i.e., $a \leq b$. Similarly, b and d must both be factors of c (with both b and d being less than or equal to c).

Hence, a is also a factor of c .

As both a and d are factors of c , the LCM of a and d can be at most c . Hence, the LCM of a and d cannot be greater than c .
Choice (C)

Q4. DIRECTIONS for question 4: Select the correct alternative from the given choices.

If a, b, c and d are natural numbers, such that the LCM of a and b is b and the LCM of b and c is c and the LCM of c and d is c , then the LCM of a and d will NOT be

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- b) greater than d .
- c) greater than c . Your answer is correct
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Time spent / Accuracy Analysis

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Avg. time spent on this question by all students	137
Difficulty Level	E
Avg. time spent on this question by students who got this question right	132
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[Video Solution](#)

[Text Solution](#)

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Hence, a is also a factor of c .

As both a and d are factors of c , the LCM of a and d can be at most c . Hence, the LCM of a and d cannot be greater than c .
Choice (C)

undefined

undefined

Q4. DIRECTIONS for question 4: Select the correct alternative from the given choices.

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- a) greater than b .
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- c) greater than c . Your answer is correct

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Difficulty Level	E
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[Video Solution](#)

[Text Solution](#)

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- b) **greater than d .**
- c) **greater than c .** **Your answer is correct**
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[Video Solution](#)

[Text Solution](#)

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undefined

undefined

Q5. DIRECTIONS for questions 5 and 6: Type in your answer in the input box provided below the question.

N is a two-digit number such that the number formed by reversing the digits of N is 18 less than N. If the units digit of N is 5, find its tens digit.

Your Answer:7 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	67
Avg. time spent on this question by all students	110
Difficulty Level	E
Avg. time spent on this question by students who got this question right	103
% of students who attempted this question	59.54
% of students who got the question right of those who attempted	78.86

[Video Solution](#)

[Text Solution](#)

Let the N be of the form ab. Number formed by reversing the digits of N is ba.

Given $ab - ba = 18$

$$\Rightarrow 10a + b - 10b - a = 18$$

$$9(a - b) = 18$$

$$\Rightarrow a - b = 2$$

Given b = 5, a = 7 and N is 75.

Ans: (7)

Q5. DIRECTIONS for questions 5 and 6: Type in your answer in the input box provided below the question.

N is a two-digit number such that the number formed by reversing the digits of N is 18 less than N. If the units digit of N is 5, find its tens digit.

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[Video Solution](#)

[Text Solution](#)

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Given b = 5, a = 7 and N is 75.

Ans: (7)

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[Video Solution](#)

[Text Solution](#)

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[Video Solution](#)

[Text Solution](#)

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Given $ab - ba = 18$

$$\Rightarrow 10a + b - 10b - a = 18$$

$$9(a - b) = 18$$

$$\Rightarrow a - b = 2$$

Given b = 5, a = 7 and N is 75.

Ans: (7)

undefined

undefined

Q6. DIRECTIONS for questions 5 and 6: Type in your answer in the input box provided below the question.

Your Answer:20 □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	89
Avg. time spent on this question by all students	146
Difficulty Level	M
Avg. time spent on this question by students who got this question right	152
% of students who attempted this question	34.38
% of students who got the question right of those who attempted	26.65

[Video Solution](#)

[Text Solution](#)

The given equation can be written as $10x^2 + 2ax + b = 0$

For this equation to have equal roots, $4a^2 = 4 \times 10 \times b \Rightarrow a = \pm\sqrt{10b}$

For a to be an integer, b can be 10, 40, 90, 160... For each of these values, the minimum value of $a + b$ occurs if a is -10, -20, -30, -40...

For $a + b$ to be minimum, a must be -10 and b must be 10.

Hence, the minimum possible value of $a + b = 0$.

Ans: (0)

Q6. DIRECTIONS for questions 5 and 6: Type in your answer in the input box provided below the question.

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[Video Solution](#)

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Hence, the minimum possible value of $a + b = 0$.

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For $a + b$ to be minimum, a must be -10 and b must be 10.

Hence, the minimum possible value of $a + b = 0$.

Ans: (0)

undefined

undefined

Q7. DIRECTIONS for questions 7 to 9: Select the correct alternative from the given choices.

A hollow sphere of radius 20 cm has a cylinder of height 20 cm is inside it. What is the maximum possible radius of the cylinder?

- a) 10 cm
- b) $10\sqrt{3}$ cm **Your answer is correct**
- c) 20 cm
- d) $10\sqrt{2}$ cm

Time spent / Accuracy Analysis

Time taken by you to answer this question	173
Avg. time spent on this question by all students	131
Difficulty Level	M
Avg. time spent on this question by students who got this question right	125
% of students who attempted this question	29.53
% of students who got the question right of those who attempted	69.39

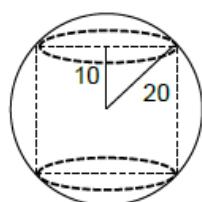
[Video Solution](#)

[Text Solution](#)

If a cylinder of height 10cm is placed inside a sphere, to maximize the radius of the cylinder, we need to place the cylinder at the center of the sphere.

In the adjacent figure, the circle represents the sphere and the rectangle represents the cylinder.

The radius of the cylinder = $\sqrt{(20^2 - 10^2)} = 10\sqrt{3}$ cm



Choice (B)

Q7. DIRECTIONS for questions 7 to 9: Select the correct alternative from the given choices.

A hollow sphere of radius 20 cm has a cylinder of height 20 cm is inside it. What is the maximum possible radius of the cylinder?

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Time spent / Accuracy Analysis

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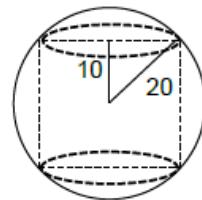
[Video Solution](#)

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Choice (B)

undefined

undefined

undefined

undefined

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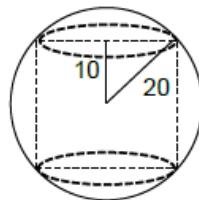
[Video Solution](#)

[Text Solution](#)

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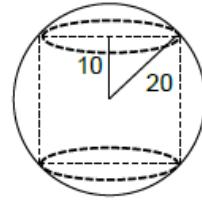
[Video Solution](#)

[Text Solution](#)

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Choice (B)

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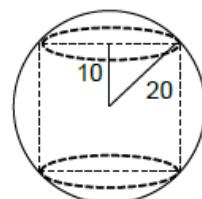
[Video Solution](#)

[Text Solution](#)

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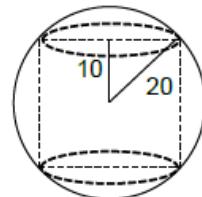
Time spent / Accuracy Analysis

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[Video Solution](#)

[Text Solution](#)

If a cylinder of height 10cm is placed inside a sphere, to maximize the radius of the cylinder, we need to place the cylinder at the center of the sphere.
 In the adjacent figure, the circle represents the sphere and the rectangle represents the cylinder.
 The radius of the cylinder = $\sqrt{(20^2 - 10^2)} = 10\sqrt{3}$ cm



Choice (B)

undefined

undefined

Q8. DIRECTIONS for questions 7 to 9: Select the correct alternative from the given choices.

Four similar taps, when opened simultaneously, can fill an empty tank in 15 hours. If, when the tank is empty, one tap is kept open for 1 hour, two taps are kept open for 4 hours, three taps are kept open for 6 hours and four taps are kept open for 8 hours, what percentage of the tank will remain empty?

- a) 0.33%
- b) 1.67%
- c) 2%
- d) 5%

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	175
Difficulty Level	E
Avg. time spent on this question by students who got this question right	170
% of students who attempted this question	34.52

Time spent / Accuracy Analysis% of students who got the question right of those who attempted **89.58**[Video Solution](#)[Text Solution](#)

Four taps can fill the tank in 15 hours.

Hence, each tap can fill $\frac{1}{60}$ of the tank in one hour.

From the given information, the percentage of tank that will be filled = $\frac{1}{60} + \frac{2 \times 4}{60} +$

$$\frac{3 \times 6}{60} + \frac{4 \times 8}{60} = \frac{59}{60}$$

The percentage of tank that will be empty = $1/60 = 1.67\%$

Choice (B)

Q8. DIRECTIONS for questions 7 to 9: Select the correct alternative from the given choices.

Four similar taps, when opened simultaneously, can fill an empty tank in 15 hours. If, when the tank is empty, one tap is kept open for 1 hour, two taps are kept open for 4 hours, three taps are kept open for 6 hours and four taps are kept open for 8 hours, what percentage of the tank will remain empty?

- a) 0.33%
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- c) 2%
- d) 5%

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	175
Difficulty Level	E
Avg. time spent on this question by students who got this question right	170
% of students who attempted this question	34.52
% of students who got the question right of those who attempted	89.58

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

Four taps can fill the tank in 15 hours.

Hence, each tap can fill $\frac{1}{60}$ of the tank in one hour.

From the given information, the percentage of tank that will be filled = $\frac{1}{60} + \frac{2 \times 4}{60} +$

$$\frac{3 \times 6}{60} + \frac{4 \times 8}{60} = \frac{59}{60}$$

The percentage of tank that will be empty = $1/60 = 1.67\%$

Choice (B)

undefined

undefined

Q9. DIRECTIONS for questions 7 to 9: Select the correct alternative from the given choices.

ABCD is a trapezium, where E and F are the midpoints of the non-parallel sides AD and BC respectively, with $\overline{EF} = 30$ cm and diagonal AC dividing \overline{EF} in the ratio of 3 : 2. If XY is a line drawn parallel to AB inside the trapezium, where X and Y lie on the sides AD and BC respectively, such that AC divides \overline{XY} in the ratio 1 : 1, find the length of \overline{XY} .

- a) **27.6 cm**
- b) **28.4 cm**
- c) **28.8 cm**
- d) **29.2 cm**

You did not answer this question

[Show Correct Answer](#)

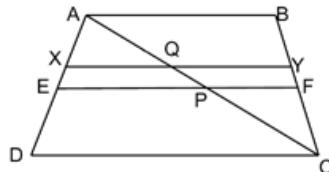
Time spent / Accuracy Analysis

Time taken by you to answer this question	203
Avg. time spent on this question by all students	221
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	238
% of students who attempted this question	4.61
% of students who got the question right of those who attempted	37.45

[Video Solution](#)

[Text Solution](#)

Let P and Q be the points at which AC intersects XY and EF respectively.



If we consider $\triangle ADC$, $\overline{EP} \parallel \overline{DC}$

$$\Rightarrow \frac{AE}{AD} = \frac{EP}{DC}$$

Since E is the midpoint of AD, $AE = \frac{1}{2}AD$

$$\Rightarrow DC = \frac{2(EP)}{2} \Rightarrow DC = 2\left(\frac{3}{5}(30)\right) = 36 \text{ cm.}$$

Similarly, in $\triangle ACB$, $\overline{PE} \parallel \overline{AB}$

$$\Rightarrow \frac{CF}{CB} = \frac{PF}{AB}$$

$$\Rightarrow B = 2(PF) \Rightarrow AB = 2\left(\frac{2}{5}(30)\right) = 24 \text{ cm}$$

Let X divide AD in the ratio $m : n$

$\Rightarrow Y$ divides BC in the ratio $m : n$.

If we consider $\triangle ADC$

$$\frac{AX}{AD} = \frac{XQ}{CD}$$

$$\Rightarrow XQ = CD \left(\frac{AX}{AD} \right) = CD \left(\frac{m}{m+n} \right) = \frac{36m}{m+n}$$

$$\text{Similarly in } \triangle ABC, QY = AB \left(\frac{n}{m+n} \right) = 24 \left(\frac{n}{m+n} \right)$$

$$\therefore \frac{36m}{m+n} = \frac{24n}{m+n} (\because XQ = QY)$$

$$\Rightarrow \frac{m}{n} = \frac{2}{3}.$$

$$\begin{aligned} \therefore \text{The length of } XY &= \frac{(n)(AB) + (m)(CD)}{m+n} \\ &= \frac{(3)(24) + (2)(36)}{3+2} \\ &= \frac{72+72}{5} = 28.8 \text{ cm} \end{aligned}$$

Choice (C)

Q9. DIRECTIONS for questions 7 to 9: Select the correct alternative from the given choices.

ABCD is a trapezium, where E and F are the midpoints of the non-parallel sides AD and BC respectively, with $\overline{EF} = 30 \text{ cm}$ and diagonal AC dividing \overline{EF} in the ratio of 3 : 2. If XY is a line drawn parallel to AB inside the trapezium, where X and Y lie on the sides AD and BC respectively, such that AC divides \overline{XY} in the ratio 1 : 1, find the length of \overline{XY} .

- a) 27.6 cm
- b) 28.4 cm
- c) 28.8 cm
- d) 29.2 cm

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	203
Avg. time spent on this question by all students	221
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	238
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Time spent / Accuracy Analysis

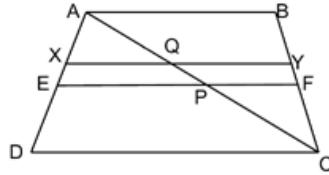
% of students who got the question right of those who attempted

37.45

[Video Solution](#)

[Text Solution](#)

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Choice (C)

undefined

undefined

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- a) 27.6 cm
- b) 28.4 cm
- c) 28.8 cm

d) **29.2 cm**

You did not answer this question

Show Correct Answer

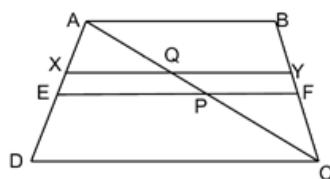
Time spent / Accuracy Analysis

Time taken by you to answer this question	203
Avg. time spent on this question by all students	221
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	238
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[Video Solution](#)

[Text Solution](#)

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d) **29.2 cm**

You did not answer this question

Show Correct Answer

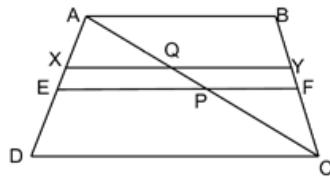
Time spent / Accuracy Analysis

Time taken by you to answer this question	203
Avg. time spent on this question by all students	221
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	238
% of students who attempted this question	4.61
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[Video Solution](#)

Text Solution

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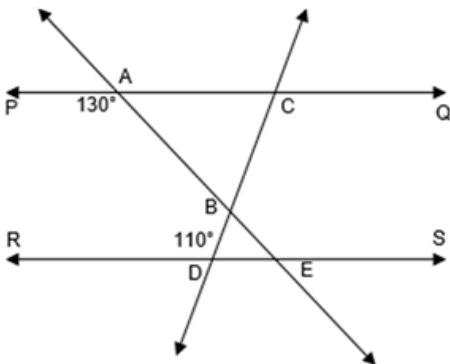
Choice (C)

undefined

undefined

Q10. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

In the following figure, if PQ and RS are parallel and the measures of angle PAB and RDB are 130° and 110° respectively, what is the measure (in degrees) of angle ABC?



Your Answer:60 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	158
Avg. time spent on this question by all students	107
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	103
% of students who attempted this question	58.08
% of students who got the question right of those who attempted	84.16

[Video Solution](#)

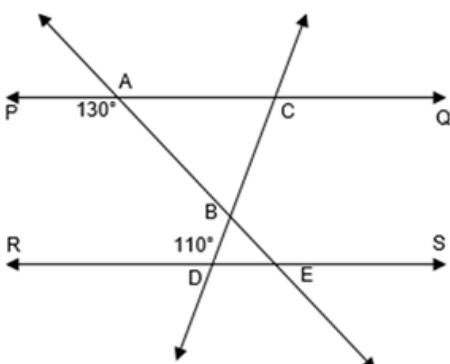
[Text Solution](#)

In the figure, $PAB = 130^\circ$
Hence, $BAC = 50^\circ$
Since $CDR = 110^\circ$, $BCQ = 110^\circ$.
Hence, $BCA = 70^\circ$.
Therefore, $ABC = 180 - BAC - BCA = 60^\circ$

Ans: (60)

Q10. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

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Avg. time spent on this question by all students	107
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	103
% of students who attempted this question	58.08
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[Video Solution](#)

Text Solution

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Hence, $BAC = 50^\circ$
Since $CDR = 110^\circ$, $BCQ = 110^\circ$.
Hence, $BCA = 70^\circ$.
Therefore, $ABC = 180 - BAC - BCA = 60^\circ$

Ans: (60)

undefined

undefined

Q11. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

In how many distinct ways can seven identical pencils be distributed among four children, such that the difference between the number of pencils with any two children is not greater than 2?

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	15
Avg. time spent on this question by all students	148
Difficulty Level	M
Avg. time spent on this question by students who got this question right	154
% of students who attempted this question	30.8
% of students who got the question right of those who attempted	23.61

[Video Solution](#)

Text Solution

For 7 pencils to be distributed to 4 children, such that the difference in the number of pencils between any two children is not greater than 2, each child must necessarily get at least one pencil. This is because, if, say, even one child gets zero pencils, we can observe that at least one of the remaining three children must get at least 3 pencils, which violates the above condition. Hence, we start by first giving one pencil to each child and then simply consider the number of ways in which the remaining three pencils can be distributed among the four children.

Now only two ways are possible satisfying the required condition: (2,2,2,1) and (1, 1, 2, 3).

Of these, the first can be done in 4C_1 = four ways, and the second in ${}^4C_2 \times 2!$ = 12 ways.

Hence, total number of distinct ways = 4 + 12 = 16

Ans: (16)

Q11. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

In how many distinct ways can seven identical pencils be distributed among four children, such that the difference between the number of pencils with any two children is not greater than 2?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	15
Avg. time spent on this question by all students	148
Difficulty Level	M
Avg. time spent on this question by students who got this question right	154
% of students who attempted this question	30.8
% of students who got the question right of those who attempted	23.61

[Video Solution](#)

[Text Solution](#)

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Hence, total number of distinct ways = 4 + 12 = 16

Ans: (16)

undefined

undefined

Q12. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

If a and b are non-zero integers, how many ordered pairs (a, b) exist, such that $(a^3 + b^3)^2 = (a^2 + b^2)^3$?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	8
Avg. time spent on this question by all students	135
Difficulty Level	D
Avg. time spent on this question by students who got this question right	153
% of students who attempted this question	19.68
% of students who got the question right of those who attempted	52.47

[Video Solution](#)

[Text Solution](#)

Given a and b are non-zero.

$$(a^3 + b^3)^2 = (a^2 + b^2)^3$$

$$a^6 + b^6 + 2a^3b^3 = a^6 + b^6 + 3a^2b^2(a^2 + b^2)$$

$$2a^3b^3 = 3a^2b^2(a^2 + b^2)$$

$$2ab = 3a^2 + 3b^2$$

$$3a^2 + 3b^2 - 2ab = 0$$

As $b \neq 0$

$$\Rightarrow 3\left(\frac{a}{b}\right)^2 - 2\left(\frac{a}{b}\right) + 3 = 0$$

Now, discriminant = $4 - 36 = -32$
 \therefore No roots exists
 No ordered pair (a, b) except $(0, 0)$ possible.

Ans: (0)

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If a and b are non-zero integers, how many ordered pairs (a, b) exist, such that $(a^3 + b^3)^2 = (a^2 + b^2)^3$?

You did not answer this question Show Correct Answer

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[Video Solution](#)

[Text Solution](#)

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[Video Solution](#)

[Text Solution](#)

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∴ No roots exists

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[Video Solution](#)

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Now, discriminant = $4 - 36 = -32$

\therefore No roots exists

No ordered pair (a, b) except (0, 0) possible.

Ans: (0)

undefined

undefined

undefined

undefined

Q13. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

What is the least natural number that will leave a non-zero remainder when it divides $25!$?

Your Answer:29 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	58
Avg. time spent on this question by all students	77
Difficulty Level	E
Avg. time spent on this question by students who got this question right	74
% of students who attempted this question	40.95
% of students who got the question right of those who attempted	51.97

[Video Solution](#)

[Text Solution](#)

It is obvious that every natural number less than, say N, will always divide $N!$. Further, if we consider the natural numbers which are greater than N, the least prime number, say P, greater than 25 will leave a non-zero remainder when it divides $25!$. Any other number in between N and P will have prime factors that divide $25!$. Hence, the answer is 29.

Ans: (29)

Q13. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

What is the least natural number that will leave a non-zero remainder when it divides $25!$?

Your Answer:29 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	58
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Time spent / Accuracy Analysis

Avg. time spent on this question by all students	77
Difficulty Level	E
Avg. time spent on this question by students who got this question right	74
% of students who attempted this question	40.95
% of students who got the question right of those who attempted	51.97

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

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Ans: (29)

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Your Answer:29 Your answer is correct**Time spent / Accuracy Analysis**

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

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Ans: (29)

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[Video Solution](#)

[Text Solution](#)

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Ans: (29)

undefined

undefined

Q14. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

If three consecutive vertices of a rectangle are (3, 5), (3, 8) and (5, 8), find the area (in sq.units) of the rectangle.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	68
Avg. time spent on this question by all students	96
Difficulty Level	E
Avg. time spent on this question by students who got this question right	91
% of students who attempted this question	50.15
% of students who got the question right of those who attempted	73.41

[Video Solution](#)

[Text Solution](#)

The three vertices of the rectangle will be as follows:

Length of the longer side = $8 - 5 = 3$ units.

Length of the shorter side = $5 - 3 = 2$ units

Area of the rectangle = $3 * 2 = 6$ sq. units

Ans: (6)

Q14. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

If three consecutive vertices of a rectangle are (3, 5), (3, 8) and (5, 8), find the area (in sq.units) of the rectangle.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	68
Avg. time spent on this question by all students	96
Difficulty Level	E
Avg. time spent on this question by students who got this question right	91
% of students who attempted this question	50.15
% of students who got the question right of those who attempted	73.41

[Video Solution](#)

Text Solution

The three vertices of the rectangle will be as follows:
Length of the longer side = $8 - 5 = 3$ units.
Length of the shorter side = $5 - 3 = 2$ units
Area of the rectangle = $3 * 2 = 6$ sq. units

Ans: (6)

undefined

undefined

Q14. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

If three consecutive vertices of a rectangle are (3, 5), (3, 8) and (5, 8), find the area (in sq.units) of the rectangle.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	68
Avg. time spent on this question by all students	96
Difficulty Level	E
Avg. time spent on this question by students who got this question right	91
% of students who attempted this question	50.15
% of students who got the question right of those who attempted	73.41

[Video Solution](#)

Text Solution

The three vertices of the rectangle will be as follows:
Length of the longer side = $8 - 5 = 3$ units.
Length of the shorter side = $5 - 3 = 2$ units
Area of the rectangle = $3 * 2 = 6$ sq. units

Ans: (6)

Q14. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

If three consecutive vertices of a rectangle are (3, 5), (3, 8) and (5, 8), find the area (in sq.units) of the rectangle.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	68
Avg. time spent on this question by all students	96
Difficulty Level	E
Avg. time spent on this question by students who got this question right	91
% of students who attempted this question	50.15
% of students who got the question right of those who attempted	73.41

[Video Solution](#)

Text Solution

The three vertices of the rectangle will be as follows:
Length of the longer side = $8 - 5 = 3$ units.
Length of the shorter side = $5 - 3 = 2$ units
Area of the rectangle = $3 * 2 = 6$ sq. units

Ans: (6)

undefined

undefined

Q15. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

Four men and six women working together can build a wall in 10 days, while two men and six women can build a similar wall in 15 days. In how many days can one man and one woman build a similar wall?

Your Answer:45 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	96
Avg. time spent on this question by all students	182
Difficulty Level	E
Avg. time spent on this question by students who got this question right	161
% of students who attempted this question	41.69
% of students who got the question right of those who attempted	67.33

[Video Solution](#)

[Text Solution](#)

Let each man be able to build $1/m$ of a wall in a day and each woman be able to build $1/w$ of a wall in one day.

$$\text{Hence, } \frac{4}{m} + \frac{6}{w} = \frac{1}{10} \text{ and } \frac{2}{m} + \frac{6}{w} = \frac{1}{15} \Rightarrow \frac{1}{m} = \frac{1}{60} \text{ and } \frac{1}{w} = \frac{1}{180}$$

One man and one woman working together can build the wall in $\frac{180}{4} = 45$ days.

Ans: (45)

Q15. DIRECTIONS for questions 10 to 15: Type in your answer in the input box provided below the question.

Four men and six women working together can build a wall in 10 days, while two men and six women can build a similar wall in 15 days. In how many days can one man and one woman build a similar wall?

Your Answer:45 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	96
Avg. time spent on this question by all students	182
Difficulty Level	E
Avg. time spent on this question by students who got this question right	161
% of students who attempted this question	41.69
% of students who got the question right of those who attempted	67.33

[Video Solution](#)

[Text Solution](#)

Let each man be able to build $\frac{1}{m}$ of a wall in a day and each woman be able to build $\frac{1}{w}$ of a wall in one day.

$$\text{Hence, } \frac{4}{m} + \frac{6}{w} = \frac{1}{10} \text{ and } \frac{2}{m} + \frac{6}{w} = \frac{1}{15} \Rightarrow \frac{1}{m} = \frac{1}{60} \text{ and } \frac{1}{w} = \frac{1}{180}$$

One man and one woman working together can build the wall in $\frac{180}{4} = 45$ days.

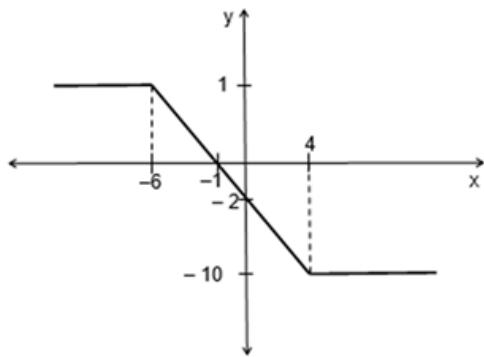
Ans: (45)

undefined

undefined

Q16. DIRECTIONS for questions 16 and 17: Select the correct alternative from the given choices.

Which of the following expressions best represents the graph shown below?



- a) $|x + 4| - |x - 6|$
- b) $|x + 4| - |x + 6|$
- c) $|x - 4| - |x - 6|$
- d) $|x - 4| - |x + 6|$ Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	172
Avg. time spent on this question by all students	108
Difficulty Level	M
Avg. time spent on this question by students who got this question right	112
% of students who attempted this question	33.41
% of students who got the question right of those who attempted	77.8

[Video Solution](#)

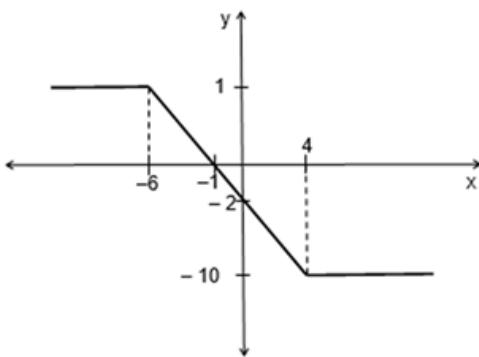
[Text Solution](#)

On substituting $x = -1$, we can eliminate choices A, B and C.

Choice (D)

Q16. DIRECTIONS for questions 16 and 17: Select the correct alternative from the given choices.

Which of the following expressions best represents the graph shown below?



- a) $|x + 4| - |x - 6|$
- b) $|x + 4| - |x + 6|$
- c) $|x - 4| - |x - 6|$
- d) $|x - 4| - |x + 6|$ Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	172
Avg. time spent on this question by all students	108
Difficulty Level	M
Avg. time spent on this question by students who got this question right	112
% of students who attempted this question	33.41
% of students who got the question right of those who attempted	77.8

[Video Solution](#)

[Text Solution](#)

On substituting $x = -1$, we can eliminate choices A, B and C.

Choice (D)

undefined

Q17. DIRECTIONS for questions 16 and 17: Select the correct alternative from the given choices.

If the sum of the first four terms of an AP is one-fifth the sum of the first nine terms of the AP, what is the ratio of the first term of the AP to its common difference?

- a) 20 : 11
- b) 25 : 11
- c) 50 : 11
- d) 6 : 11 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	114
Avg. time spent on this question by all students	144
Difficulty Level	E
Avg. time spent on this question by students who got this question right	143
% of students who attempted this question	43.22
% of students who got the question right of those who attempted	92.94

[Video Solution](#)

[Text Solution](#)

Let the AP till the ninth term be $a - 4d, a - 3d, a - 2d, \dots, a + 4d$.

$$\text{From the given information, } 4a - 10d = \frac{1}{5} \times (9a) \Rightarrow \frac{a}{d} = \frac{50}{11}$$

$$\text{Required ratio} = \frac{a - 4d}{d} = \frac{a}{d} - 4 = \frac{50}{11} - 4 = 6 : 11$$

Choice (D)

undefined

Q18. DIRECTIONS for questions 18 to 20: Type in your answer in the input box provided below the question.

When the function $f(x) = x^2 - 5x + k$, is divided by $x - 4$, the remainder is 3. Find the value of k .

Your Answer: 7 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	63
Avg. time spent on this question by all students	86
Difficulty Level	E
Avg. time spent on this question by students who got this question right	76
% of students who attempted this question	46.33
% of students who got the question right of those who attempted	77.86

[Video Solution](#)

[Text Solution](#)

When $f(x)$ is divided by $x - a$, the remainder is $f(a)$

Given $f(4) = 3$

$$16 - 5*4 + k = 3$$

$$k = 7$$

Ans: (7)

undefined

Q19. DIRECTIONS for questions 18 to 20: Type in your answer in the input box provided below the question.

Two persons, A and B, have 120 apples between them. If C, their friend, gave exactly 35 apples to B, the number of apples that B has will be a multiple of 12. If C gave exactly 26 apples to A, the number of apples that A has will be a multiple of 11. How many apples does A have?

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	274
Difficulty Level	M
Avg. time spent on this question by students who got this question right	264
% of students who attempted this question	32.23
% of students who got the question right of those who attempted	62.59

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

Let the number of apples with A be a and the number of apples with B be b .

If C gave 35 apples to B, then $b + 35 = 12n \Rightarrow b = 12n - 35$.

If C gave 26 apples to A, then $a + 26 = 11m \Rightarrow a = 11m - 26$.

But we know that

$$a + b = 120 \Rightarrow (11m - 26) + (12n - 35) = 120 \Rightarrow 11m + 12n = 181 \Rightarrow 11m = 181 - 12n$$

Hence, $181 - 12n$ must be a multiple of 11, i.e., both 181 and $12n$ must leave the same remainder when divided by 11. The remainder when $12n$ is divided by 11 will simply be n (since $12n = (11+1)n$). And the remainder of 181 when divided by 11 is 5. Therefore $n = 5$ (or 16, 27, 38 ...) But only $n = 5$ is feasible since $11m$ cannot become negative.

Hence, $n = 5$ and $m = 11$.

$$\begin{aligned} \text{The number of apples with A} &= 11m - 26 = 11 \times 11 - 26 \\ &= 95 \end{aligned}$$

Ans: (95)

undefined

Q20. DIRECTIONS for questions 18 to 20: Type in your answer in the input box provided below the question.

Your Answer:5 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	111
Avg. time spent on this question by all students	120
Difficulty Level	E
Avg. time spent on this question by students who got this question right	117
% of students who attempted this question	37.76
% of students who got the question right of those who attempted	88.87

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

$$3456 = 2^7 \times 3^3$$

Since x and y are integers, we can compare the respective powers of 2 and 3 on either sides of the equation

$$\therefore x + 3y = 7 \text{ and } x + y = 3$$

Solving the above equations, we get $y = 2$ and $x = 1$.

$$\text{Hence, } 3x + y = 5$$

Ans: (5)

undefined

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

In a school, there are exactly five classes – Class I through Class V. If the number of students in Class V is 20 more than the number of students in Class II, which, in turn, is 30 less than the number of students in Class I, which, in turn is 15 more than the number of students in Class III, which, in turn, is 65 less than the number of students in Class IV, which, in turn, is twice the number of students in Class V, how many students are there in the school?

a) 300

b) 345 Your answer is correct

c) 360

d) 390

Time spent / Accuracy Analysis

Time taken by you to answer this question	373
Avg. time spent on this question by all students	220
Difficulty Level	E
Avg. time spent on this question by students who got this question right	220
% of students who attempted this question	29.29
% of students who got the question right of those who attempted	91.58

[Video Solution](#)

[Text Solution](#)

Let the number of students in Class V be x .

Number of students in Class II = $x - 20$

Number of students in Class I = $x + 10$

Number of students in Class III = $x - 5$

Number of students in Class IV = $x + 60$

Given that $x + 60 = 2x \Rightarrow x = 60$

Hence, the total number of students in the school = $5x + 45 = 345$

Choice (B)

undefined

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

If $f(x)$ and $g(x)$ are linear functions where $g(x) = f(x) + 4$ and $2g(3) = 3f(2) + 6$, then $g(0) =$

a) 6

b) 4

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	103
Avg. time spent on this question by all students	120
Difficulty Level	E
Avg. time spent on this question by students who got this question right	156
% of students who attempted this question	16.5
% of students who got the question right of those who attempted	27.2

[Video Solution](#)

[Text Solution](#)

Let $f(x) = ax + b$
 $g(x) = ax + b + 4$
 $2g(3) = 3f(2) + 6 \Rightarrow 6a + 2b + 8 = 6a + 3b + 6 \Rightarrow b = 2$
Hence, $g(0) = 2 + 4 = 6$.

Choice (A)

undefined

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

Two persons, A and B, started running along a 400 m race track. For the first 100 m of the track, both A and B ran at the same speed; for the next 100 m, A ran at twice the speed of B; for the next 120 m, B ran at thrice the speed of A and for the last 80 m, A ran at four times the speed of B. If B ran at a constant speed of 2 m/s throughout, what is the difference between the times taken by A and B to complete the race?

- a) 50 seconds
- b) 55 seconds
- c) 60 seconds
- d) 65 seconds

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	203
Difficulty Level	E
Avg. time spent on this question by students who got this question right	202
% of students who attempted this question	19.75
% of students who got the question right of those who attempted	79.75

[Video Solution](#)

[Text Solution](#)

Given that B ran at a constant speed of 2 m/s. Hence, B would have take 200 seconds to run along the 400 m track.

A ran at a speed of 2 m/s for first 100m; at a speed of 4 m/s for the next 100m; at a speed of 2/3 m/s for the next 120 m and for the last 80 m, at a speed of 8 m/s.

$$\text{Total time taken by A} = \frac{100}{2} + \frac{100}{4} + \frac{120}{2} \times 3 + \frac{80}{8} = 265 \text{ seconds}$$

Required difference = 65 seconds

Choice (D)

undefined

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

Ravi took a loan for a certain amount at a simple interest of 4% per month. Rahul took a loan for the same amount at a simple interest of 12% per annum. If the difference in the interests that they paid in one year was Rs.180000, what is the amount of loan that each of them took?

- a) Rs.3,60,000

- b) **Rs.4,80,000**
- c) **Rs.5,00,000** Your answer is correct
- d) **Rs.6,00,000**

Time spent / Accuracy Analysis

Time taken by you to answer this question	89
Avg. time spent on this question by all students	153
Difficulty Level	E
Avg. time spent on this question by students who got this question right	148
% of students who attempted this question	37.13
% of students who got the question right of those who attempted	89.98

[Video Solution](#)

[Text Solution](#)

Let the amount of loan be P.
 Interest paid by Ravi = $P \times 0.04 \times 12 = 0.48P$
 Interest paid by Rahul = $0.12P$
 Difference in interest = $0.36P = 150000 \Rightarrow P = 500000$

Choice (C)

undefined

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

Find the remainder when $1565^8 - 1551^8$ is divided by 14.

Your Answer:0 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	22
Avg. time spent on this question by all students	76
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	70
% of students who attempted this question	30.09
% of students who got the question right of those who attempted	76.33

[Video Solution](#)

[Text Solution](#)

We know that $(a^n - b^n)$ is divisible by $(a - b)$ when a is even.
 Hence the given expression is divisible by $(1565 - 1551)$, i.e., 14.
 Therefore, the remainder will be 0.

Ans: (0)

undefined

Q26. DIRECTIONS for question 26: Select the correct alternative from the given choices.

The ratio of the absolute difference between the roots of $6x^2 - x - 40 = 0$ and the absolute difference between the roots of $2x^2 + 9x - 5 = 0$ is

a) 41 : 33

b) 31 : 33 **Your answer is correct**

c) 31 : 37

d) 39 : 38

Time spent / Accuracy Analysis

Time taken by you to answer this question	225
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	199
% of students who attempted this question	23.26
% of students who got the question right of those who attempted	89.91

[Video Solution](#)

[Text Solution](#)

$$6x^2 - x - 40 = 0 \Rightarrow 6x^2 + 15x - 16x - 40 = 0 \Rightarrow (2x + 5)(3x - 8) = 0 \Rightarrow x = -\frac{5}{2} \text{ or } \frac{8}{3}$$

Difference of roots = $\frac{8}{3} + \frac{5}{2} = \frac{31}{6}$

$$2x^2 + 9x - 5 = 0 \Rightarrow (x + 5)(2x - 1) = 0 \Rightarrow x = -5 \text{ or } \frac{1}{2}$$

Difference = $11/2$

$$\text{Required ratio} = \frac{31}{6} \times \frac{2}{11} = \frac{31}{33}$$
Choice (B)

undefined

Q27. DIRECTIONS for questions 27 to 30: Type in your answer in the input box provided below the question.

If $x^2 + y^2 + z^2 = xy + yz + zx$, and the product of x, y and z is 27, find the value of $x^3 + y^3 + z^3$.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	41
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	29.25
% of students who got the question right of those who attempted	82.82

[Video Solution](#)

[Text Solution](#)

$$x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx)$$

If $x^2 + y^2 + z^2 = xy + yz + zx$, then $x^3 + y^3 + z^3 - 3xyz = 0$

$$x^3 + y^3 + z^3 = 3xyz = 3 * 27 = 81$$

Ans: (81)

undefined

Q27. DIRECTIONS for questions 27 to 30: Type in your answer in the input box provided below the question.

If $x^2 + y^2 + z^2 = xy + yz + zx$, and the product of x, y and z is 27, find the value of $x^3 + y^3 + z^3$.

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

Time spent / Accuracy Analysis

Time taken by you to answer this question	41
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	29.25
% of students who got the question right of those who attempted	82.82

[Video Solution](#)

[Text Solution](#)

$$x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx)$$

If $x^2 + y^2 + z^2 = xy + yz + zx$, then $x^3 + y^3 + z^3 - 3xyz = 0$

$$x^3 + y^3 + z^3 = 3xyz = 3 * 27 = 81$$

Ans: (81)

undefined

Q28. DIRECTIONS for questions 27 to 30: Type in your answer in the input box provided below the question.

The harmonic mean of 4 and k is 6. Find the value of k.

Your Answer:12 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	65
Avg. time spent on this question by all students	66
Difficulty Level	E
Avg. time spent on this question by students who got this question right	64
% of students who attempted this question	40.73
% of students who got the question right of those who attempted	74.47

[Video Solution](#)

[Text Solution](#)

Harmonic mean of two numbers a and b = $2/(1/a + 1/b)$

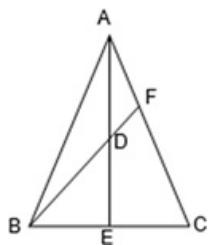
$$6 = 2/(1/4 + 1/k)$$
$$1/4 + 1/k = 1/3$$
$$1/k = 1/3 - 1/4 = 1/12$$
$$\Rightarrow k = 12$$

Ans: (12)

undefined

Q29. DIRECTIONS for questions 27 to 30: Type in your answer in the input box provided below the question.

In the figure below, ABC is a triangle, where E is a point on BC such that $BE : EC = 6 : 5$ and D is a point on AE, such that $AD : DE = 2 : 3$. If BD, when produced, meets AC in F, such that $AF = 8 \text{ cm}$, find the length (in cm) of AC.



You did not answer this question

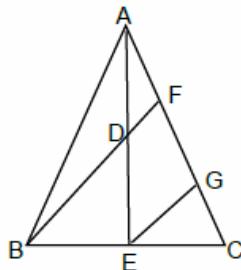
Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	162
Avg. time spent on this question by all students	144
Difficulty Level	M
Avg. time spent on this question by students who got this question right	163
% of students who attempted this question	10.45
% of students who got the question right of those who attempted	15.74

[Video Solution](#)

[Text Solution](#)



Let G be a point on AC such that BF and EG are parallel. $\frac{AF}{FG} = \frac{AD}{DE} = \frac{2}{3}$ ---- (1)

$$\frac{FG}{GC} = \frac{BE}{EC} = \frac{6}{5} \quad \text{--- (2)}$$

from (1) and (2), $AF : FG : GC = 4 : 6 : 5$

$$AC = \frac{15}{4} \text{ AF} = 30 \text{ cm}$$

Ans: (30)

undefined

Q30. DIRECTIONS for questions 27 to 30: Type in your answer in the input box provided below the question.

The birthday of Kishore when written in ddmm format forms a four-digit number which is divisible by 9, and when written in mmdd format, forms a four-digit number which is divisible by 18. How many possibilities exist for the birthday of Kishore?

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	171

Time spent / Accuracy Analysis

Difficulty Level	D
Avg. time spent on this question by students who got this question right	191
% of students who attempted this question	11.83
% of students who got the question right of those who attempted	11.94

[Video Solution](#)

Text Solution

The date of birth in ddmm format and mmdd format both form four-digit numbers.

Hence, the month cannot be less than 10.

Therefore, mm can only be 10 or 11 or 12.

If mm = 10, for ddmm to be divisible by 9, ddmm can be 1710 or 2610.

If mm = 11, for ddmm to be divisible by 9, ddmm can be 2511 or 1611.

If mm = 12, for ddmm to be divisible by 9, ddmm can be 1512 or 2412.

These dates in mmdd format will be 1017, 1026, 1125, 1116, 1215, 1224. Of these, all the even numbers will be divisible by 18 also.

Hence, the date of birth, in mmdd format, can be 1026 or 1116 or 1224, i.e., three possibilities

Ans: (3)

undefined

Q30. DIRECTIONS for questions 27 to 30: Type in your answer in the input box provided below the question.

The birthday of Kishore when written in ddmm format forms a four-digit number which is divisible by 9, and when written in mmdd format, forms a four-digit number which is divisible by 18. How many possibilities exist for the birthday of Kishore?

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	171
Difficulty Level	D
Avg. time spent on this question by students who got this question right	191
% of students who attempted this question	11.83
% of students who got the question right of those who attempted	11.94

[Video Solution](#)

Text Solution

The date of birth in ddmm format and mmdd format both form four-digit numbers.

Hence, the month cannot be less than 10.

Therefore, mm can only be 10 or 11 or 12.

If mm = 10, for ddmm to be divisible by 9, ddmm can be 1710 or 2610.

If mm = 11, for ddmm to be divisible by 9, ddmm can be 2511 or 1611.

If mm = 12, for ddmm to be divisible by 9, ddmm can be 1512 or 2412.

These dates in mmdd format will be 1017, 1026, 1125, 1116, 1215, 1224. Of these, all the even numbers will be divisible by 18 also.

Hence, the date of birth, in mmdd format, can be 1026 or 1116 or 1224, i.e., three possibilities

Ans: (3)

undefined

Q31. DIRECTIONS for questions 31 and 32: Select the correct alternative from the given choices.

What is the range of x for which the inequality $|3x - 5| < 2x + 7$ holds true?

- a) $(-\frac{3}{5}, 10)$
- b) $(-\frac{2}{5}, 12)$ Your answer is correct
- c)

$$(-\frac{2}{5}, 12) - \left\{-\frac{5}{3}\right\}$$

- d)

$$(-\frac{3}{5}, 12) - \left\{\frac{5}{3}\right\}$$

Time spent / Accuracy Analysis

Time taken by you to answer this question	168
Avg. time spent on this question by all students	117
Difficulty Level	E
Avg. time spent on this question by students who got this question right	117
% of students who attempted this question	27.92
% of students who got the question right of those who attempted	65.06

[Video Solution](#)

[Text Solution](#)

$|3x - 5| < 2x + 7$ implies

Case (i)

$$\begin{aligned}3x - 5 &< 2x + 7, \text{ when } x \geq 5/3 \\ \Rightarrow x &< 12 \text{ and } x \geq 5/3 \\ \Rightarrow 5/3 &\leq x < 12\end{aligned}$$

Case (ii)

$$\begin{aligned}5 - 3x &< 2x + 7, \text{ when } x < 5/3 \\ \Rightarrow x &> -2/5 \text{ and } x < 5/3 \\ \Rightarrow -2/5 &< x < 5/3\end{aligned}$$

Combining both, we see that the range of x is $(-2/5, 12)$

Choice (B)

undefined

Q31. DIRECTIONS for questions 31 and 32: Select the correct alternative from the given choices.

What is the range of x for which the inequality $|3x - 5| < 2x + 7$ holds true?

- a) $(-\frac{3}{5}, 10)$

b) $(-\frac{2}{5}, 12)$ Your answer is correct

c)

$$(-\frac{2}{5}, 12) - \left\{-\frac{5}{3}\right\}$$

d)

$$(-\frac{3}{5}, 12) - \left\{-\frac{5}{3}\right\}$$

Time spent / Accuracy Analysis

Time taken by you to answer this question	168
Avg. time spent on this question by all students	117
Difficulty Level	E
Avg. time spent on this question by students who got this question right	117
% of students who attempted this question	27.92
% of students who got the question right of those who attempted	65.06

[Video Solution](#)

[Text Solution](#)

$$|3x - 5| < 2x + 7 \text{ implies}$$

Case (i)

$$\begin{aligned}3x - 5 &< 2x + 7, \text{ when } x \geq 5/3 \\ \Rightarrow x &< 12 \text{ and } x \geq 5/3 \\ \Rightarrow 5/3 &\leq x < 12\end{aligned}$$

Case (ii)

$$\begin{aligned}5 - 3x &< 2x + 7, \text{ when } x < 5/3 \\ \Rightarrow x &> -2/5 \text{ and } x < 5/3 \\ \Rightarrow -2/5 &< x < 5/3\end{aligned}$$

Combining both, we see that the range of x is $(-2/5, 12)$

Choice (B)

undefined

Q32. DIRECTIONS for questions 31 and 32: Select the correct alternative from the given choices.

If the last four digits of a number, x , when expressed in the binary system are 1000, then the last three digits of the product $125x$ are

a) **100**

b) **000** Your answer is correct

c) **125**

d) **025**

Time spent / Accuracy Analysis

Time taken by you to answer this question	113
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Time spent / Accuracy Analysis

Avg. time spent on this question by all students	84
Difficulty Level	E
Avg. time spent on this question by students who got this question right	84
% of students who attempted this question	18.87
% of students who got the question right of those who attempted	89.5

[Video Solution](#)

Text Solution

If the last three digits of a number when expressed in binary is 000, then the number will be divisible by 8.

This is because the last four digits of the number in binary can be written as

$$1 \times 2^3 + 0 \times 2^2 + 0 \times 2 + 0 \times 1.$$

Irrespective of the number of digits preceding this, 8 will remain common to all the terms.

Hence, the number in decimal will be of the form $8n$.

$$125 \times 8n = 1000n$$

Hence, the last three digits of $125x$ will be 000.

Choice (B)

undefined

Q32. DIRECTIONS for questions 31 and 32: Select the correct alternative from the given choices.

If the last four digits of a number, x , when expressed in the binary system are 1000, then the last three digits of the product $125x$ are

- a) **100**
- b) **000** **Your answer is correct**
- c) **125**
- d) **025**

Time spent / Accuracy Analysis

Time taken by you to answer this question	113
Avg. time spent on this question by all students	84
Difficulty Level	E
Avg. time spent on this question by students who got this question right	84
% of students who attempted this question	18.87
% of students who got the question right of those who attempted	89.5

[Video Solution](#)

Text Solution

If the last three digits of a number when expressed in binary is 000, then the number will be divisible by 8.

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$$1 \times 2^3 + 0 \times 2^2 + 0 \times 2 + 0 \times 1.$$

Irrespective of the number of digits preceding this, 8 will remain common to all the terms.

Hence, the number in decimal will be of the form $8n$.

$$125 \times 8n = 1000n$$

Hence, the last three digits of $125x$ will be 000.

Choice (B)

undefined

undefined

Q33. DIRECTIONS for questions 33 and 34: Type in your answer in the input box provided below the question.

The sum of n terms in a GP is 6825. If the common ratio and the first term of the series are 4 and 5 respectively, find n.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	85
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	129
% of students who attempted this question	28.96
% of students who got the question right of those who attempted	82.72

[Video Solution](#)

[Text Solution](#)

$$\text{Sum of } n \text{ terms of a GP} = a(r^n - 1)/(r - 1)$$
$$5(4^n - 1)/(4 - 1) = 6825 \Rightarrow 4^n - 1 = 4095 \Rightarrow n = 6$$

Ans: (6)

Q33. DIRECTIONS for questions 33 and 34: Type in your answer in the input box provided below the question.

The sum of n terms in a GP is 6825. If the common ratio and the first term of the series are 4 and 5 respectively, find n.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	85
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	129
% of students who attempted this question	28.96
% of students who got the question right of those who attempted	82.72

[Video Solution](#)

[Text Solution](#)

$$\text{Sum of } n \text{ terms of a GP} = a(r^n - 1)/(r - 1)$$
$$5(4^n - 1)/(4 - 1) = 6825 \Rightarrow 4^n - 1 = 4095 \Rightarrow n = 6$$

Ans: (6)

undefined

undefined

undefined

undefined

Q33. DIRECTIONS for questions 33 and 34: Type in your answer in the input box provided below the question.

The sum of n terms in a GP is 6825. If the common ratio and the first term of the series are 4 and 5 respectively, find n.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	85
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	129
% of students who attempted this question	28.96
% of students who got the question right of those who attempted	82.72

[Video Solution](#)

[Text Solution](#)

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Q33. DIRECTIONS for questions 33 and 34: Type in your answer in the input box provided below the question.

The sum of n terms in a GP is 6825. If the common ratio and the first term of the series are 4 and 5 respectively, find n.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	85
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	129
% of students who attempted this question	28.96
% of students who got the question right of those who attempted	82.72

[Video Solution](#)

[Text Solution](#)

$$\text{Sum of } n \text{ terms of a GP} = a(r^n - 1)/(r - 1)$$
$$5(4^n - 1)/(4 - 1) = 6825 \Rightarrow 4^n - 1 = 4095 \Rightarrow n = 6$$

Ans: (6)

Q33. DIRECTIONS for questions 33 and 34: Type in your answer in the input box provided below the question.

The sum of n terms in a GP is 6825. If the common ratio and the first term of the series are 4 and 5 respectively, find n.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Time taken by you to answer this question	85
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	129
% of students who attempted this question	28.96
% of students who got the question right of those who attempted	82.72

[Video Solution](#)

[Text Solution](#)

$$\text{Sum of } n \text{ terms of a GP} = a(r^n - 1)/(r - 1)$$
$$5(4^n - 1)/(4 - 1) = 6825 \Rightarrow 4^n - 1 = 4095 \Rightarrow n = 6$$

Ans: (6)

Q34. DIRECTIONS for questions 33 and 34: Type in your answer in the input box provided below the question.

What is the angle (in degrees) between the lines $3x + 2y = 4$ and $2x - 3y = 9$?

Your Answer:90 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	56
Avg. time spent on this question by all students	81
Difficulty Level	E
Avg. time spent on this question by students who got this question right	70
% of students who attempted this question	24.45
% of students who got the question right of those who attempted	82.61

[Video Solution](#)

[Text Solution](#)

Slope of the line $3x + 2y = 4$ is $-3/2$
Slope of the line $2x - 3y = 9$ is $2/3$.
Product of the slopes = $-3/2 * 2/3 = -1$
Therefore, the lines are perpendicular to each other.

Ans: (90)