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.

To understand our nature, history and psychology, we must get inside the heads of our hunter-gatherer ancestors. For nearly the entire history of our species, Sapiens lived as foragers. The past 200 years are the blink of an eye compared to tens of thousands of years during which our ancestors hunted and gathered.

The flourishing field of evolutionary psychology argues that many of our present-day social and psychological characteristics were shaped during this long pre-agricultural era. Even today, scholars in this field claim, our brains and minds are adapted to a life of hunting and gathering. Our eating habits, our conflicts and our sexuality are all the result of the way our hunter-gatherer minds interact with our current post-industrial environment, with its mega-cities, aeroplanes, telephones and computers. This environment gives us more material resources and longer lives than those enjoyed by any previous generation, but it often makes us feel alienated, depressed and pressured. To understand why, evolutionary psychologists argue, we need to delve into the hunter-gatherer world that shaped us, the world that we subconsciously still inhabit.

Why, for example, do people gorge on high-calorie food that is doing little good to their bodies? Today's affluent societies are in the throes of a plague of obesity, which is rapidly spreading to developing countries. It's a puzzle why we binge on the sweetest and greasiest food we can find, until we consider the eating habits of our forager forebears. In the savannahs and forests they inhabited, high-calorie sweets were extremely rare and food in general was in short supply. A typical forager 30,000 years ago had access to only one type of sweet food - ripe fruit. If a Stone Age woman came across a tree groaning with figs, the most sensible thing to do was to eat as many of them as she could on the spot, before the local baboon band picked the tree bare. The instinct to gorge on high-calorie food was hard-wired into our genes. Today we may be living in high-rise apartments with over-stuffed refrigerators, but our DNA still thinks we are in the savannah. That's what makes some of us spoon down an entire tub of Ben & Jerry's when we find one in the freezer and wash it down with a jumbo Coke.

This 'gorging gene' theory is widely accepted. Other theories are far more contentious. For example, some evolutionary psychologists argue that ancient foraging bands were not composed of nuclear families centered on monogamous couples. Rather, foragers lived in communes devoid of private property, monogamous relationships and even fatherhood. In such a band, a woman could have sex and form intimate bonds with several men (and women) simultaneously, and all of the band's adults cooperated in parenting its children. Since no man knew definitively which of the children were his, men showed equal concern for all youngsters. Such a social structure is not an Aquarian utopia. It's well documented among animals, notably our closest relatives, the chimpanzees and bonobos.

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Q1. Which of the following can be understood from the sentence: “Evolutionary psychologists argue that, we need to delve into the hunter-gatherer world that shaped us, the world that we subconsciously still inhabit.” (para 2)?

a) Since history repeats itself, understanding our history can help us in solving the problems of our current world.

b) Even though our lifestyle differs from that of our hunter-gatherer ancestors, the core of our being is the same as theirs.

c) **Since the world we live in belongs to our hunter-gatherer ancestors, we ought to learn about them.** **Your answer is incorrect**

d) Despite the growth and development of the world, people prefer being hunters and gatherers.

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**424**
Avg. time spent on this question by all students	**320**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**310**
% of students who attempted this question	**44.9**
% of students who got the question right of those who attempted	**75.65**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 552

The author states that even though our environment gives us more material resources and longer lives than those enjoyed by any previous generation, it often makes us feel alienated, depressed and pressured. To understand why, we need to delve into the hunter-gatherer world that shaped us, the world that we subconsciously still inhabit.
Option A: The author has neither talked about nor implied that solving our present problems needs the understanding of our ancestors. Choice A is not the answer.
Option B: Though there is a stark contrast between our lifestyle and our ancestors', we still share the same mindset as theirs and therefore the author states that we have to delve into their world to understand why we feel disconnected with our world. Our eating habits, our conflicts and our sexuality are all the result of the way our hunter-gatherer minds interact with our current post-industrial environment. Choice B is the answer.
Option C: The world does not belong to our hunter-gatherer ancestors. Choice C is not the answer.
Option D: People do not prefer being hunters and gatherers but they have the hunter-gatherer mindset. Choice D is not the answer.
Hence, the answer is option B. Choice (B)

undefined

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Q2. All of the following statements regarding the foragers are definitely true from the passage, EXCEPT?

a. Our forager ancestors lived together in groups; they shared responsibilities and had their own societal norms.

b. Hunting and gathering was the way of life of people who lived in the pre-agricultural era.

c. The way of life of our forager ancestors is reflected in our way of life in the modern world.

d. The foraging men did not practise monogamous relationships and did not know exactly who their offspring were.

e. Forager men and women were allowed to marry multiple women and men.

- a) c and e
- b) b and d
- c) **a, b and e** **Your answer is incorrect**
- d) Only c

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**436**
Avg. time spent on this question by all students	**201**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**195**
% of students who attempted this question	**39.93**
% of students who got the question right of those who attempted	**37.08**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 552

Refer mainly to the penultimate para of the passage.
Statement (a): In the penultimate paragraph of the passage, it is mentioned that our ancestors had a social structure. The foragers lived in communes implies that they were living in groups and shared responsibilities. Statement (a) can be inferred to be true and is not the answer.
Statement (b): The past 200 years are the blink of an eye compared to tens of thousands of years during which our ancestors hunted and gathered. The flourishing field of evolutionary psychology argues that many of our present-day social and psychological characteristics were shaped during this long pre-agricultural era. Statement (b) can be inferred to be true and is not the answer.
Statement (c): Our current mindsets have been shaped by our forager ancestors but the way we live in the world today is not a reflection of their way of life. Statement (c) cannot be inferred from the passage and is the answer.
Statement (d): The foragers lived in communes that were devoid of monogamous relationships. ... In such a band, a woman could have sex and form intimate bonds with several men (and women) simultaneously, and all of the band's adults cooperated in parenting its children. No man knew definitively which of the children were his. Statement (d) is true.
Statement (e): Nothing has been mentioned in the passage regarding the practice of marriage between the foragers. Men and women were allowed to have polygamous relationships but they did not necessarily have to marry. Unless additional information is given about the institution of marriage during their time, we cannot say that this is definitely true or false.
Statements (c) and (e) are the answers. Choice (A)

undefined

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Q3. Which of the following statements about high-calorie foods can be inferred to be true from the passage?

a) The foragers used to gorge on high-calorie foods because they had more food than what they needed.

b) Around 200 years ago, the most sensible thing to do was consume high-calorie foods whenever people came across such food.

c) **The “gorging gene” theory explains that obesity is caused by high-calorie foods.**

d) **The tendency to binge-eat high-calorie foods is deeply imbibed within us.** **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**131**
Avg. time spent on this question by all students	**104**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**100**
% of students who attempted this question	**43.07**
% of students who got the question right of those who attempted	**64.52**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 552

The “gorging gene” theory says that the instinct to gorge on high-calorie food was hard-wired into our genes. Since high calorie food was not readily available, our forager ancestors would gorge on high-calorie food whenever they had a chance.
Option A: The foragers did not have more food than what they needed. In fact, high-calorie foods were a rarity during their time. Choice A cannot be inferred to be true.
Option B: Consuming high-calorie foods was the most sensible thing to do during the Stone Age (30000 years ago) and not 200 years ago. Choice B cannot be inferred to be true.
Option C: The gorging gene theory explains why we gorge on high-calorie food and does not actually explain the cause of obesity. Choice C cannot be inferred.
Option D: From the gorging gene theory, we can infer that the tendency to gorge on high-calorie foods has been programmed in our DNA. Hence, the answer is option D.

Choice (D)

undefined

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Q4. Which of the following can be inferred about the theories discussed in the passage?

a) The “ancient commune” theory rightly explains the reason for the frequent infidelities in modern marriages.

b) **The “ancient commune” theory is more debatable than the “gorging gene” theory, which is widely accepted.**

Your answer is correct

c) **The “gorging gene” theory, which is widely accepted, is only concerned with modern day marriages**

d) **Both the “gorging gene” theory and the “ancient commune” theory help in explaining how humans have evolved over the years.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**110**
Avg. time spent on this question by all students	**100**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**104**
% of students who attempted this question	**39.54**
% of students who got the question right of those who attempted	**22.7**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 552

Option A: It is the proponents of the ancient commune theory who say that it explains the reason for the frequent infidelities in modern marriages and not the theory itself. It is also mentioned in the passage that this theory is contentious. Therefore, it cannot be inferred that this theory rightly explains the reason for the high divorce rates. Choice A is not the answer.
Option B: It is mentioned in the passage that the ancient commune theory is far more contentious than the gorging gene theory, which is widely accepted. Choice B can be inferred from the passage.
Option C: The gorging gene theory talks about our instinct to gorge on high-calorie food and not about the modern day marriages. Societal norms, relationships between forager men and women etc are talked about in the ancient commune theory. Choice C cannot be inferred to be true.
Option D: The theories only help us in understanding the evolutionary psychology of humans and not the process of evolution. Refer to the first sentence of para 2. Hence, choice D cannot be inferred from the passage.
Hence, the answer is option B. Choice (B)

undefined

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Q5. According to the passage, what can be a possible reason for the high rates of divorce in modern marriages?

○ a) We have inherited the genes of our ancestors who used to live in communes where monogamous relationships were

the norm.

b) **Human beings, by nature, cannot remain loyal to only one person throughout their entire lives.**

c) **We are not programmed to live in small groups and have monogamous relationships.** **Your answer is correct**

d) **We still have the same mindsets as our hunter-gatherer ancestors, who did not believe in the institution of marriage.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**73**
Avg. time spent on this question by all students	**81**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**78**
% of students who attempted this question	**42.87**
% of students who got the question right of those who attempted	**58.44**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 552

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Option A: If monogamous relationships were the norms and we inherited those genes, modern marriages would not have high divorce rates. Choice A is not correct as monogamous relationships were not the norm in ancient foraging bands.
Option B: The loyalty of human beings has not been discussed in the passage and therefore, choice B cannot answer the question.
Option C: From '....from forcing humans to live in nuclear families and monogamous relationships that are incompatible with our biological software', it can be understood that we are not programmed to live in nuclear families and practice monogamous relationships. This explains the high divorce rates in modern marriages which are characterized by nuclear families and monogamous relationships. Choice C is the answer.
Option D: Whether the hunter-gatherer ancestors believed in marriage or not has not been clearly mentioned in the passage. Choice D cannot be used to answer the question.
Hence, the answer is option C. Choice (C)

undefined

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Q6. Which of the following, if true, can undermine the credibility of the 'ancient commune' theory?

a) Animals which have the same genes that dictate our social structure live in communes devoid of monogamous relationships.

b) **The divorce rates in modern marriages are higher in monogamous societies as compared to those in polygamous societies.**

c) **Living in nuclear families was not the way of life of people who lived 10,000 years ago.**

d) **Divorces and infidelities in marriages were hardly witnessed in society around three decades back.** **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**108**
Avg. time spent on this question by all students	**92**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**85**
% of students who attempted this question	**35.78**
% of students who got the question right of those who attempted	**46.56**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 552

"The proponents of this 'ancient commune' theory argue that frequent infidelities ..... all result from forcing humans to live in nuclear families and monogamous relationships that are incompatible with our biological software."
Option A: The "ancient commune" theory argues that we are not meant to live in monogamous societies. If other animals that share the same genes live in polygamous societies, it will only strengthen the "ancient commune" theory. It will not undermine its credibility. Choice A is not the answer.
Option B: This is in line with what the proponents of the "ancient commune" theory suggest. This will not undermine its credibility. Choice B is not the answer.
Option C: This is true and it does not undermine the credibility of the "ancient commune" theory. Choice C is not the answer.
Option D: If this were true, then high divorce rates in modern marriages may not comply with the "ancient commune" theory because it would mean there are other more significant factors that are the cause for the divorce rates and not what has been stated in the "ancient commune" theory. (We can infer that modern marriages are not confined to just three decades back but to around 200 years as mentioned in the first paragraph of the passage.)
Hence, the answer is option D. 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.

Mosquitoes are pretty adaptable little creatures. Armed with receptors to detect the odors of animal skin, the tiny bugs can track down the tastiest victims. But now, as Michelle Z. Donahue reports for *National Geographic*, researchers have found that mosquitoes seem to remember certain odors. And if these scents are associated with a near-death experience, like the swipe of a fly swatter, they will avoid the odor in the future.

The study, published last month in the journal *Current Biology*, suggests that the *Aedes aegypti* mosquito has the capacity to learn and remember (for short periods). Researchers at the University of Washington trained mosquitoes by pairing a mechanical shock created by a vortex mixer - a lab gadget usually used to mix vials of liquid - with the scent of certain animals, like rats or chickens. The mixer simulated the types of vibrations and feelings that might come from a good swatting. Each mosquito had 10 trials lasting 2 minutes each of the vibrating sessions.

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The researchers also took a much deeper look into the brains of the insects. Previous research has shown that dopamine, a neurotransmitter, plays a key role in learning for other insects and animals. So in a second experiment, the team glued genetically modified mosquitoes that lack dopamine receptors to a device that allows them to fly in place. The researchers then exposed them to scents and the simulated swat while recording the activity of the neurons in the olfactory center of the insects' brains, which process scent information. Without the help of dopamine, the neurons fired less frequently with the scents, which suggests that the bugs would be less able to learn to avoid odors associated with swats.

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But any dopamine-based solution will not work on all mosquitoes. For instance, mosquitoes in the genus*Culex*, which transmit the West Nile virus, have not shown the same ability to learn to avoid humans as *Aedes*. Because their main host is birds, they likely feed on humans when their preferred host is not available, Walter Leal, chemical ecologist at the University of California at Davis, tells Donahue. Because of this, they likely don't have receptors for human scents and can't learn to avoid people. In fact, different mosquitoes have different receptors for preferred hosts, which may be why Riffell's little bloodsuckers didn't learn to avoid chickens.

Still, the development of such dopamine-based mosquito deterrents would be a big step. "We've been using all these single-compound repellents for more than 60 years now, and we need to move on," Leal tells Donahue.

Until then, he suggests another strategy to take advantage of what we now know about the little blood suckers: vigorous swatting. It could teach the little hangers-on to leave you alone - at least for a little bit.

Q7. Which of the following questions does the passage not attempt to answer?

- a) **Why do mosquitoes consider various aspects of swatting to be unpleasant?** **Your answer is correct**
- b) **Can mosquitoes associate swatting with specific odours?**
- c) **How does the mosquito brain learn to associate specific odours with unpleasant experiences?**
- d) **How can mosquitoes differentiate between various hosts?**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**569**
Avg. time spent on this question by all students	**349**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**356**
% of students who attempted this question	**34.92**
% of students who got the question right of those who attempted	**48.77**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 650

The passage mentions various studies related to the adaptability of mosquitoes and the impact of swatting on mosquitoes.
Option A: The passage does not explain why mosquitoes consider swatting to be unpleasant. It only mentions that swatting is an "unpleasant" experience. The reason why this is considered unpleasant is not explained. The studies mentioned in the passage take this for granted and this aspect is not explored. Refer to para 4. The results seem logical. … It is very plausible that different unpleasant aspects of the swat could then be remembered along with the smell of the person. Hence, this question has not been answered in the passage. Choice A is the answer.
Option B: The second and third paragraphs of the passage talk about a study in which mosquitoes are able to differentiate between odours and associate these odours with swatting. Hence, this question has been answered in the passage. Choice B is not the answer.
Option C: The fifth paragraph of the passage talks about how the mosquito brain learns to associate the odours with unpleasant sensations. It explains the role of dopamine in this process. Hence, the passage attempts to answer this question also. Choice C is not the answer.
Option D: The seventh paragraph of the passage talks about the receptors present in mosquitoes which help them differentiate their preferred hosts. Hence, the passage attempts to answer this question as well. Choice D is not the answer.
Therefore, the correct answer is option A. Choice (A)

undefined

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Christopher Potter, a researcher at Johns Hopkins Medicine who was not involved in the study tells George Dvorsky at *Gizmodo* that the results seem logical. … “It is very plausible that different unpleasant aspects of the swat, such as the rushing feeling of the wind, the banging of the hand close to the mosquito, could then be remembered along with the smell of the person.”

The researchers also took a much deeper look into the brains of the insects. Previous research has shown that dopamine, a neurotransmitter, plays a key role in learning for other insects and animals. So in a second experiment, the team glued genetically modified mosquitoes that lack dopamine receptors to a device that allows them to fly in place. The researchers then exposed them to scents and the simulated swat while recording the activity of the neurons in the olfactory center of the insects’ brains, which process scent information. Without the help of dopamine, the neurons fired less frequently with the scents, which suggests that the bugs would be less able to learn to avoid odors associated with swats.

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Q8. Which of the following can be inferred about*Aedes* mosquitoes from the passage?

- a) **Swatting near an *Aedes* mosquito will make it wary of biting anyone for at least 24 hours.**
- b) ***Aedes* mosquitoes need at least 15 minutes to associate unpleasant sensations with specific odours.**
- c) ***Aedes* mosquitoes can differentiate odours for at least 24 hours after being exposed to the scent for around 15 minutes.**
- d) ***Aedes* mosquitoes can remember the association between unpleasant sensations and specific odours for at least 24 hours.** **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**101**
Avg. time spent on this question by all students	**127**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**115**
% of students who attempted this question	**38.83**
% of students who got the question right of those who attempted	**41.19**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 650

The research mentioned in the second and third paragraphs of the passage focus on *Aedes aegypti* mosquitoes.
Option A: According to the passage, the *Aedes* mosquitoes "avoided the shock-related scents for at least 24 hours". We can infer from this that swatting may result in the mosquito avoiding the associated scent for 24 hours. But we cannot infer that they will avoid feeding for 24 hours. Hence, choice A cannot be inferred from the passage.
Option B: The passage mentions that after 15 minutes of simulated swatting, "mosquitoes began to associate the scent of certain animals, including humans, with the shock". However, we cannot infer from this that they need at least 15 minutes for making this association. They may require more time or they may require less time. Hence, choice B cannot be inferred from the passage.
Option C: The seventh paragraph of the passage mentions the receptors that mosquitoes have can help identify the scent of their preferred hosts. Hence, mosquitoes can always differentiate certain odours. Therefore, choice C is incorrect. Also "after being exposed to the scent for around 15 minutes" is a misdirection.
Option D: The passage mentions that "mosquitoes avoided the shock-related scents for at least 24 hours". From this, it can be inferred that the association between unpleasant sensation and scent that mosquitoes learn lasts for at least 24 hours. Hence, it can be inferred that mosquitoes can remember this association for at least 24 hours.
Therefore, the correct answer is option D. Choice (D)

undefined

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But any dopamine-based solution will not work on all mosquitoes. For instance, mosquitoes in the genus*Culex*, which transmit the West Nile virus, have not shown the same ability to learn to avoid humans as *Aedes*. Because their main host is birds, they likely feed on humans when their preferred host is not available, Walter Leal, chemical ecologist at the University of California at Davis, tells Donahue. Because of this, they likely don't have receptors for human scents and can't learn to avoid people. In fact, different mosquitoes have different receptors for preferred hosts, which may be why Riffell's little bloodsuckers didn't learn to avoid chickens.

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Until then, he suggests another strategy to take advantage of what we now know about the little blood suckers: vigorous swatting. It could teach the little hangers-on to leave you alone - at least for a little bit.

Q9. Why does the author say that "any dopamine-based solution will not work on all mosquitoes" (para 7)?

a) **Dopamine plays a key role in learning the association between scents and swatting for only a few genera of mosquitoes.**

b) **Any genus of mosquito can learn to associate specific scents with swatting because of dopamine.**

c) **The "Dopamine-based solution" relies on the mosquitoes' ability to distinguish the scent of humans, and this ability is not present in all genera of mosquitoes.**

d) **The effectiveness of the "dopamine-based solution" varies with time for different genera of mosquitoes.**

Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**196**
Avg. time spent on this question by all students	**113**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**109**
% of students who attempted this question	**38.33**
% of students who got the question right of those who attempted	**69.11**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 650

The passage talks about the role of dopamine in the fifth paragraph of the passage.
Option A: The study mentioned in the fifth paragraph of the passage does not limit itself to certain genera of mosquitoes. It talks about the role of dopamine in mosquitoes, in general, and hence, this option cannot be inferred.
Option B: Since the study mentioned in the fifth paragraph does not confine itself to any particular genera of mosquitoes, the statement given in this option can be inferred to be true. However, this does not explain why "dopamine-based solution will not work on all mosquitoes". Therefore, this does not answer the given question.

Option C: The context in which the author makes the given statement is when he talks about Riffel's suggestion to force "the insects to avoid people". Hence, the dopamine-based solution refers to humans specifically. However, the author explains that not all genera of mosquitoes can distinguish the smell of humans. This is the reason that the author says that this solution will not work for all mosquitoes. The absence of receptors of human scents in certain genera of mosquitoes makes this ineffective for these types of mosquitoes (for example, the *Culex* mosquitoes). Hence, this is the reason for the author to state that dopamine-based solution will not work on all mosquitoes.
Option D: The study mentioned in the second and third paragraphs talk about how the mosquitoes made the association between sensations and smells for at least 24 hours. However, the passage does not explore this time limit for different genera of mosquitoes. Hence, this is not a reason.

Therefore, the correct answer is option C. Choice (C)

undefined

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The researchers also took a much deeper look into the brains of the insects. Previous research has shown that dopamine, a neurotransmitter, plays a key role in learning for other insects and animals. So in a second experiment, the team glued genetically modified mosquitoes that lack dopamine receptors to a device that allows them to fly in place. The researchers then exposed them to scents and the simulated swat while recording the activity of the neurons in the olfactory center of the insects’ brains, which process scent information. Without the help of dopamine, the neurons fired less frequently with the scents, which suggests that the bugs would be less able to learn to avoid odors associated with swats.

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Q10. *Aedes* mosquitoes “never learned to avoid the scent of chickens” probably because

- a) ***Aedes* mosquitoes cannot differentiate between the scent of their preferred hosts and the scent of certain other hosts.**
- b) ***Aedes* mosquitoes do not have receptors for identifying the scent of chickens.**
- c) **Chickens are the preferred hosts of *Aedes* mosquitoes.**
- d) ***Aedes* mosquitoes have distinct receptors for identifying the scent of chickens and the scent of humans.**

Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**102**
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	**72**
% of students who attempted this question	**38.31**
% of students who got the question right of those who attempted	**55.4**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 650

In the third paragraph of the passage, the author mentions that *Aedes* mosquitoes never learned to avoid the scent of chickens. A probable reason for this is mentioned in the seventh paragraph of the passage.
Option A: The passage mentions that "different mosquitoes have different receptors for preferred hosts". It also mentions that *Culex* mosquitoes may not have receptors for human scents and hence, they cannot avoid humans. From this, we can infer that *Aedes* mosquitoes have receptors for humans but do not have receptors for chickens. Hence, *Aedes* mosquitoes cannot identify the scent of chickens but they can identify the scent of humans. This implies that they can differentiate the scent of their preferred hosts from the scent of certain other hosts. Therefore, this option is incorrect.
Option B: *Culex* mosquitoes do not have receptors for human scents because they are not the preferred host. Since they do not have receptors for human scents, they cannot avoid humans. The passage mentions that *Aedes* mosquitoes cannot avoid chickens. This is probably because they do not have receptors that identify chicken scents. Hence, this is a probable reason, and is indicated as such in the last line of para 7. Choice B is the answer.
Option C: *Aedes* mosquitoes may not have receptors for chicken scent. Hence, chickens are probably not their preferred host. Hence, this option is not correct.
Option D: The passage implies that *Aedes* mosquitoes may not have receptors for chicken scents. Hence, the first part of this option is incorrect.
Therefore, the correct answer is option B. Choice (B)

undefined

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Q11. Which of the following can definitely be inferred about the "previous research" mentioned in the fifth paragraph of the passage?

a) **The research did not study whether insects can learn to associate the effects of swatting with scents.**

b) **The research did not study the relation between dopamine and learning in mosquitoes.**

c) **The research did not study the behaviour of insects which lack dopamine receptors.** **Your answer is incorrect**

d) **The research did not focus on the role of dopamine in the brains of insects.**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**237**
Avg. time spent on this question by all students	**113**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**114**
% of students who attempted this question	**33.61**
% of students who got the question right of those who attempted	**16.31**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 650

The fifth paragraph mentions a previous research which showed that "dopamine, a neurotransmitter, plays a key role in learning for other insects and animals".
Option A: The passage does not mention what was included in the research. Hence, we cannot infer whether the research studied the effects of swatting on insects. Therefore, choice A cannot be inferred.
Option B: The passage mentions that the research studied "other insects and animals". The next sentence begins with "So in a second experiment" the team studied mosquitoes. We can infer from this that the previous research did not study mosquitoes. Hence, this statement can be inferred.
Option C: While the second experiment studied the behaviour of mosquitoes that lacked dopamine receptors, we cannot infer whether the previous research studied this. Hence, this cannot be definitely inferred.
Option D: The passage does not talk about the methodology of the previous research. Hence, this also cannot be inferred.
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undefined

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But any dopamine-based solution will not work on all mosquitoes. For instance, mosquitoes in the genus *Culex*, which transmit the West Nile virus, have not shown the same ability to learn to avoid humans as *Aedes*. Because their main host is birds, they likely feed on humans when their preferred host is not available, Walter Leal, chemical ecologist at the University of California at Davis, tells Donahue. Because of this, they likely don’t have receptors for human scents and can’t learn to avoid people. In fact, different mosquitoes have different receptors for preferred hosts, which may be why Riffell’s little bloodsuckers didn’t learn to avoid chickens.

Still, the development of such dopamine-based mosquito deterrents would be a big step. “We’ve been using all these single-compound repellents for more than 60 years now, and we need to move on,” Leal tells Donahue.

Until then, he suggests another strategy to take advantage of what we now know about the little blood suckers: vigorous swatting. It could teach the little hangers-on to leave you alone - at least for a little bit.

Q12. Which of the following is true of *Culex* mosquitoes and *Aedes* mosquitoes?

a) ***Culex* mosquitoes feed on birds more than they feed on humans and the inverse is the case for *Aedes* mosquitoes.**

b) **Both *Culex* mosquitoes and *Aedes* mosquitoes can probably not avoid feeding on their respective preferred hosts.**

c) **The preferred host for *Culex* mosquitoes is birds, while one of the preferred hosts for *Aedes* mosquitoes is humans.** **Your answer is correct**

d) ***Culex* mosquitoes cannot differentiate between individual humans, while *Aedes* mosquitoes can.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**207**
Avg. time spent on this question by all students	**98**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**90**
% of students who attempted this question	**36.4**
% of students who got the question right of those who attempted	**50.86**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 650

The passage talks about *Culex* mosquitoes and the *Aedes* mosquitoes in the seventh paragraph of the passage.
Option A: According to the passage, the main host of mosquitoes is birds. But "they likely feed on humans when their preferred host is not available". However, we cannot determine the extent of availability of their preferred host. Because of this, we cannot infer whether the *Culex* mosquitoes actually feed more on birds than on humans. Hence, choice A cannot be inferred.
Option B: According to the passage, the mosquitoes cannot avoid feeding on hosts which are not their preferred hosts. Hence, choice B is incorrect.
Option C: The passage mentions that the main host of *Culex* mosquitoes is birds. Also, the passage mentions that *Aedes* mosquitoes were able to avoid the scent of various animals, including humans. We can infer from this that humans are among the preferred hosts of *Aedes* mosquitoes. Hence, this option is true.
Option D: The passage does not talk about the ability to distinguish between individual humans. It only talks about differentiation between different types of hosts. Hence, choice D cannot be inferred from the passage.
Therefore, the correct answer is option C. Choice (C)

undefined

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

It is widely agreed that worldwide deforestation is bad for the environment. It is responsible for about 10% of climate-change emissions and leads to massive reductions in biodiversity…

How can we protect forests? One option is direct regulation: in other words the placement of restrictions on road building, the establishment of protected areas, and other such steps. Another option is to impose a fine or tax on forest clearing. Governments can also pay landowners to conserve their forest under a "payment for ecosystem services" (PES) contract. It might even be possible to let forest owners trade avoided emissions on a worldwide carbon market, so that forest owners are paid, by those burning fossil fuels, to protect their trees. For sure, there is no shortage of policy options, but what we desperately need is more evidence on how these policies perform in practice.

It is extremely difficult to measure the success of such policies. For example, after Brazil tightened regulation and introduced satellite monitoring in the mid-2000s, the Amazon deforestation slowed to about half a million hectares annually. At the same time, falling prices for soybeans and cattle products reduced incentives to clear land. So what was the main factor behind the slowdown? How much forest did the government actually save through regulation and satellite monitoring?

An allied area that seems equally problematic is how to evaluate the impact of subsidies. Studies of programs in Mexico, Costa Rica and Brazil suggest that PES contracts can halve deforestation rates. They also appear to be much cheaper than, say, establishing protected areas on private land. However, PES subsidies can also waste public money by paying farmers for practices that they would have adopted anyway. After all, farmers who stand to profit the least from cutting down trees are the most likely to sign up for the programme.

Another challenge is identifying "leakage" effects. Some conservation policies, which may be successful locally, can trigger deforestation elsewhere. For example, a farmer may stop clearing forest on plots contracted under a PES programme while increasing deforestation on land not covered by the contract. On a larger scale, the threat of provincial government fines

may induce farmers or logging firms to move operations to a neighbouring province.

The gold-standard method of evaluating conservation policies is the systematic use of randomised-controlled trials (RCTs), similar to those used to test pharmaceuticals. RCTs involve randomly selecting two groups of individuals or regions and implementing a policy only for one group, keeping the second as a control. The difference between the groups provides a direct measure of success. Such trials can also be designed to measure leakage. Recently Kelsey Jack, an economist at Tufts University, performed an RCT to assess tree-planting subsidies in Malawi and Zambia. ... Policymakers at the upcoming COP21 climate conference are likely to be urged to set up a sizeable fund for conducting large RCTs. When practically feasible, RCTs are the most reliable guide to policy effectiveness that we have.

Q13. Which of the following modifications to a PES contract is the one most likely to reduce the leakage effect associated with these contracts (para 5)?

- a) **Increase subsidies to the farmers who adhered to the PES contracts.**
- b) **Include all the lands owned by a farmer in the contract when he signs up for the PES programme.** **Your answer is correct**
- c) **Impose fines on any farmer signed up for the PES programme if he cuts down trees.**
- d) **Do not provide any subsidy to the farmer if he cuts off trees in the land under PES contract.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**418**
Avg. time spent on this question by all students	**289**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**294**
% of students who attempted this question	**33.74**
% of students who got the question right of those who attempted	**51.48**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 493

In the fifth paragraph of the passage, the author provides an example of the leakage effect in PES contracts. "A farmer may stop clearing forest on plots contracted under a PES programme while increasing deforestation on land not covered by the contract".
Option A: Increasing subsidies to the farmers who adhere to PES contracts will not prevent them from cutting trees in forests not covered by the contract. Hence, Choice A is not the answer. Also this may be a negative effect as it is given that PES subsidies can also waste public money by paying farmers for practices that they would have adopted anyway.
Option B: Including all the lands that a farmer owns in the contract will not leave out any land on which he can cut trees. Hence, this will reduce the leakage effect mentioned in the passage. Choice B is the answer.
Option C: Imposing fines on farmers cannot be called a PES contract. A PES contract is one in which the farmer is paid for not cutting trees. This is different from imposing fines, which is mentioned as another option apart from PES in the first para of the passage. (Another option is to impose a fine or tax on forest clearing.)
Option D: This probably is a part of the PES contract because the subsidy is paid to the farmer only if he follows the PES programme. Hence, this is not the answer since the question asks for a modification to the PES contract.
Therefore, the correct answer is option B. Choice (B)

undefined

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

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The gold-standard method of evaluating conservation policies is the systematic use of randomised-controlled trials (RCTs), similar to those used to test pharmaceuticals. RCTs involve randomly selecting two groups of individuals or regions and implementing a policy only for one group, keeping the second as a control. The difference between the groups provides a direct measure of success. Such trials can also be designed to measure leakage. Recently Kelsey Jack, an economist at Tufts University, performed an RCT to assess tree-planting subsidies in Malawi and Zambia. ... Policymakers at the upcoming COP21 climate conference are likely to be urged to set up a sizeable fund for conducting large RCTs. When practically feasible, RCTs are the most reliable guide to policy effectiveness that we have.

Q14. Which of the following would help measure the effectiveness of the tightening of regulation and satellite monitoring in Brazil carried out with the objective of forest conservation?

- a) **The rate of deforestation whenever the prices of soybean and cattle products spiked after the mid-2000s.**
- b) **The rate of deforestation before Brazil tightened regulations.** **Your answer is incorrect**
- c) **The specific areas in the country where the rate of deforestation decreased.**
- d) **The historical prices of soybeans and cattle products and the historical rate of deforestation.**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**159**
Avg. time spent on this question by all students	**113**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**110**
% of students who attempted this question	**28.71**
% of students who got the question right of those who attempted	**36.41**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 493

In the third paragraph, the author provides an example to illustrate the difficulty in measuring the success of adopted policies. He gives the example of Brazil, where the country tightened regulation and introduced satellite monitoring. At the same time, the prices of soybeans and cattle products decreased. This reduced the incentives to clear land. We can infer that the farmers used to cut down the trees for cultivating soybeans and cattle products. During this period (i.e. the mid-2000s), deforestation halved. However, the extent to which each of these factors played a part could not be determined.

Option A: The rate of deforestation when the prices of soybeans and cattle products spiked, after Brazil introduced the measures, will help understand the effectiveness of these policies. Because the prices of soybeans and cattle products are high, there is no reason for the farmer not to cut down the trees and use the cleared land for soybeans and cattle products. If the deforestation decreased when these said prices are high, we can attribute this to the implementation of the policies. Hence, this will help measure the effectiveness of the policies. Choice A is the answer.

Option B: The rate of deforestation before Brazil tightened regulations will not help understand the impact of the policies. Choice B is incorrect.

Option C: The passage does not talk about rate of deforestation in different areas of the country. Hence, this information will most likely not be useful. Choice C is not the answer.

Option D: The historical prices of soybeans and cattle products and the rate of deforestation can help understand whether these two factors are related. However, this does not help understand the extent to which satellite monitoring affects deforestation.

Therefore, the correct answer is option A. Choice (A)

undefined

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

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Q15. The author suggests that RCTs can be used for all of the following EXCEPT

- a) **Measuring the impact of imposing a forest clearing fine on deforestation**
- b) **Measuring leakage effects associated with various policies**
- c) **Measuring the impact of the subsidies on deforestation**
- d) **Measuring the correlation between deforestation and climate change emissions** **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**88**
Avg. time spent on this question by all students	**94**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**86**
% of students who attempted this question	**30.19**
% of students who got the question right of those who attempted	**60.89**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 493

The passage mentions that RCTs can be used for "evaluating conservation policies".
Option A: Imposing fine or tax on forest clearing is one of the conservation policies mentioned in the first paragraph of the passage. Hence, RCTs can be used for measuring the effectiveness of this policy.
Option B: The passage mentions that RCTs "can also be designed to measure leakage". Hence, this is not the answer.
Option C: The passage talks about evaluating the impact of subsidies as one of the challenges. Hence, this is not the answer.
Option D: Measuring the correlation between deforestation and climate change is not a conservation policy. Hence, RCTs cannot be used for this. Choice (D)

undefined

DIRECTIONS *for questions 16 to 18:* The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

Autism may bring a lifetime of disability and difficulty to the most severely afflicted. The "Pre-School Autism Communication Trial" (PACT) attempted to answer the question of whether behavioural intervention in autism works - and, in particular, whether it does so in the most severe cases. The PACT team found not only that, if carried out correctly, behavioural intervention has an immediate effect, but also that this effect persists. Even six years after therapy, autistic children could communicate better and had a lower level of repetitive behaviour than did a control group of their peers.

The crux of PACT was the nature of the intervention employed. This was designed to train not the children but their parents. .... Specifically, PACT's intervention trained parents how to communicate with an autistic child. This is rarely a problem with "neurotypical" children. But autistic children can be difficult to engage with, and their attempts at communication can be so subtle that parents need assistance in detecting them, and advice about how to respond appropriately.

The approach used by PACT involved parents being videoed while playing with their children. Those videos were then

replayed to the parents under the tutelage of a speech therapist, who pointed out moments, which might not otherwise have been obvious, when children were attempting to communicate. Even just turning towards a parent may be such an attempt. Having seen when to respond, parents then learned how to do so in the way a therapist would, in order to draw the child out. Parents are thus taught to become therapists themselves.

This therapy, encouragingly, is neither invasive nor intensive nor costly. The results are encouraging. In families who were coached, the percentage of children with severe symptoms (such as having difficulties speaking and learning things) fell from 55% to 46%. In those who formed the control group, and were not so coached, they actually rose - from 50% to 63%.

Yet, in the case of autism, some crucial scientific questions remain to be answered. One of them is how such a therapy might be adopted swiftly and widely - how to spread these methods so that the lives of such children will improve accordingly.

Q16. Which of the following most accurately describes the organization of the passage?

a) **The passage challenges the validity of a research investigation by exposing the inconsistencies and contradictions in it.**

b) **The passage presents a methodology and discusses its application.**

c) **Two parallel investigations are discussed - the findings of one are proved correct and the findings of the other are summarily rejected.**

d) **The passage presents two explanations for a medical condition and reconciles the differences between them.**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**52**
Avg. time spent on this question by all students	**191**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**197**
% of students who attempted this question	**23.75**
% of students who got the question right of those who attempted	**68.95**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 359

Option A: The passage discusses the objective and the implementation of PACT. But it does not challenge the validity of the same. There is no discussion of the inconsistencies and the contradictions in any aspect related to PACT in the passage. Choice A is not the answer.
Option B: The passage talks about the objective of PACT, the approach used by PACT and the related findings. We can say that choice B is the correct answer.
Option C: The passage does not discuss two parallel investigations. It discusses a current investigation or intervention. Also there is no rejection of the findings of any investigation in the passage. So choice C is not the answer.
Option D: There are no two explanations for the medical condition (of Autism). The passage also does not try to reconcile conflicting viewpoints between two explanations. Choice D is incorrect. Choice (B)

undefined

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The crux of PACT was the nature of the intervention employed. This was designed to train not the children but their parents. .... Specifically, PACT's intervention trained parents how to communicate with an autistic child. This is rarely a problem with “neurotypical” children. But autistic children can be difficult to engage with, and their attempts at communication can be so subtle that parents need assistance in detecting them, and advice about how to respond appropriately.

The approach used by PACT involved parents being videoed while playing with their children. Those videos were then replayed to the parents under the tutelage of a speech therapist, who pointed out moments, which might not otherwise have been obvious, when children were attempting to communicate. Even just turning towards a parent may be such an attempt. Having seen when to respond, parents then learned how to do so in the way a therapist would, in order to draw the child out. Parents are thus taught to become therapists themselves.

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Yet, in the case of autism, some crucial scientific questions remain to be answered. One of them is how such a therapy might be adopted swiftly and widely - how to spread these methods so that the lives of such children will improve accordingly.

Q17. It can be inferred from the passage that “neurotypical” children

- a) **are children with intellectual disabilities or other neurological illnesses such as epilepsy or brain tumours.**
- b) **are children who are on the autism spectrum but who do not exhibit the symptoms of autism.**
- c) **do not suffer from mental diseases and engage in normal interactions with others.**
- d) **are autistic children who respond positively to behavioural intervention.**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**5**
Avg. time spent on this question by all students	**99**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**92**
% of students who attempted this question	**25.36**
% of students who got the question right of those who attempted	**42.76**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 359

Specifically, PACT's intervention trained parents how to communicate with an autistic child. This is rarely a problem with "neurotypical" children. **But** autistic children can be difficult to engage with, and their attempts at communication can be so subtle that parents need assistance in detecting them, and advice about how to respond appropriately.
Option A: "neurotypical" children have not been defined in the passage, so we can't tell whether they are, or are not, children with any kinds of disabilities. Choice A cannot be the answer.
Option B: Neurotypical children would refer to children who are not on the autism spectrum. Choice B is not the answer.
Option C: This is rarely a problem with "neurotypical" children. **But** autistic children can be difficult to engage with, and their attempts at communication can be so subtle .... Hence choice C is correct.
Option D: Neurotypical children are not autistic children. So choice D is a distortion.

Choice (C)

undefined

DIRECTIONS *for questions 16 to 18:* The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

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The crux of PACT was the nature of the intervention employed. This was designed to train not the children but their parents. .... Specifically, PACT's intervention trained parents how to communicate with an autistic child. This is rarely a problem with "neurotypical" children. But autistic children can be difficult to engage with, and their attempts at communication can be so subtle that parents need assistance in detecting them, and advice about how to respond appropriately.

The approach used by PACT involved parents being videoed while playing with their children. Those videos were then replayed to the parents under the tutelage of a speech therapist, who pointed out moments, which might not otherwise have been obvious, when children were attempting to communicate. Even just turning towards a parent may be such an attempt. Having seen when to respond, parents then learned how to do so in the way a therapist would, in order to draw the child out. Parents are thus taught to become therapists themselves.

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Yet, in the case of autism, some crucial scientific questions remain to be answered. One of them is how such a therapy might be adopted swiftly and widely - how to spread these methods so that the lives of such children will improve accordingly.

Q18. Which of the following can be said to be true from the passage?

a) **Creating training materials to be posted on the PACT website could be a solution to the problem mentioned in the last sentence of the passage.**

b) **The objective of PACT was to alter parental behaviour in ways that would go on to encourage desirable changes in offspring.**

c) **Autistic children often struggle to communicate and may behave in repetitive ways.**

d) **All of the above.**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**0**
Avg. time spent on this question by all students	**63**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**58**
% of students who attempted this question	**25.96**
% of students who got the question right of those who attempted	**71.72**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 359

Option A: Some crucial scientific questions remain to be answered. One of them is how such a therapy might be adopted swiftly and widely. Creating training materials to be posted on the PACT website can be a solution to the problem mentioned in the last sentence of the passage. Therapists who work with autistic children can adapt their methods accordingly. These methods will spread, and the lives of such children will improve accordingly. Choice A can be inferred.
Option B: Refer to the second and third paras of the passage. Specifically, PACT's intervention trained parents how to communicate with an autistic child. ..... Parents need assistance in detecting them, and advice about how to respond appropriately. ..... Under the tutelage of a speech therapist, who pointed out moments, which might not otherwise have been obvious, when children were attempting to communicate. ..... Having seen when to respond, parents then learned how to do so in the way a therapist would, in order to draw the child out. Parents are thus taught to become therapists themselves. Choice B can also be inferred.
Option C: Even six years after therapy, autistic children could communicate better and had a lower level of repetitive behaviour than did a control group of their peers. From this we can infer that autistic children often struggle to communicate and may behave in repetitive ways. Choice C is true. Choice (D)

undefined

DIRECTIONS *for questions 19 to 24:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Two factors can be invoked to support the idea that the opportunities of people with similar talents and abilities should not be disparate due to the effects of the social lottery.

The first is that how someone fares in the social lottery is influenced by the ongoing effects of unjust social structures. Past injustices such as racial discrimination have lingering effects on the opportunities of African Americans. The distribution of initial social assets would also be influenced by the present effects of unjust inequalities in the distribution of wealth and income that are not due to racial discrimination. There is also economic exploitation, facilitated by the abuse of governmental power and lawless coercion.

The first version of the level playing field concept of equal opportunity requires that something be done to counteract the opportunity-limiting effects of bad luck in the social lottery so far as these limitations result from the ongoing effects of unjust social structures. Rawls endorses this social structural view when he says “those at the same level of talent and ability, and having the same willingness to use them, should have the same prospects of success regardless of their initial place in the social system”. This view does not limit efforts to achieve equality of opportunity to countering the lingering effects of discrimination; it also requires efforts to counter the ongoing effects of other forms of past institutional injustice, including the unjust distribution of wealth. But the emphasis is on limitations on opportunity that originate in unjust institutions, not in natural differences among persons.

The second variant of the level playing field concept is based on a different assumption: the moral intuition that persons should not have lesser opportunities as a result of factors beyond their control, in the sense of being unchosen. Thomas Scanlon has labelled this the brute luck view of equal opportunity--the contrast being between matters of brute luck, which are not within one's control at all, and misfortunes that depend on a person's choices. Persons should not have fewer opportunities due to how they fare in the social lottery - eg. birth in a poor, uneducated family, regardless of whether the limitations on their opportunities originate in unjust institutions.

In case of the social lottery, the implications of the above two variants are closely congruent, at least in a society with a history of unjust social institutions. Many inequalities in initial social assets (all beyond the control of the individual) will be the result of unjust social structures. But when it comes to the natural lottery, the social structural view and the brute luck view have different implications. The former has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. If anything is beyond a person's control, it is how the individual fares in the natural lottery.

The social structural view, like the discrimination conception of equal opportunity, limits the domain of equal opportunity to social inequalities, because it is concerned only with how unjust social institutions, influence a person's success in competing for desirable positions in society. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. ....

The passages in Rawls' book *A Theory of Justice* seem to commit Rawls to the view that justice is concerned with natural as well as social inequalities. However, a closer reading of the text suggests that Rawls does not seek to address natural inequalities under the heading of equality of opportunity. Instead, he appears to restrict equal opportunity to efforts to counteract the opportunity-limiting effects of unjust social institutions (that is, the social structural version), while noting that the operation of a distinct principle of justice, the Difference Principle, will do something to mitigate the effects of natural inequalities as it requires that wealth inequalities broadly construed work to the greatest advantage of the worst off. Rawls may be merely saying that it would be impermissible to base a person's entitlement to a share of social goods on the mere fact that he happens to have been more fortunate in the genetic lottery. That view does not commit him to the brute luck thesis that all natural inequalities require redress or compensation as a matter of justice. However, some passages mean that in some sense he regards natural inequalities as falling within the domain of justice. Other passages lend further support to the hypothesis that Rawls' conception of equal opportunity is the social structural view.

Q19. Consider the following statement:

Rawls' remarks about the moral arbitrariness of natural inequalities do not signal that he endorses the brute luck conception.

In the light of the passage, it can be said that the above statement is

- a) **Definitely true**
- b) **Definitely false**
- c) **Probably true**
- 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	**281**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**296**
% of students who attempted this question	**12.67**
% of students who got the question right of those who attempted	**38.54**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 770

Refer to the last para of the passage.
Rawls does not seek to address natural inequalities under the heading of equality of opportunity. Instead, he appears to restrict equal opportunity to efforts to counteract the opportunity-limiting effects of unjust social institutions (that is, the social structural version), while noting that the operation of a distinct principle of justice, the Difference Principle, will do something to mitigate the effects of natural inequalities. Rawls may be merely saying that it would be impermissible to base a person's entitlement to a share of social goods on the mere fact that he happens to have been more fortunate in the **genetic lottery.** That view **does not commit him to the brute luck thesis** that all natural inequalities require redress or compensation as a matter of justice. .....
Even though Rawls does not allow the genetic lottery to fall within the domain of justice, in some sense, he regards natural inequalities as falling within the domain of justice. However, we cannot say from the above lines that he **endorses** the brute luck conception.
We can infer from a reading of the above lines that the question statement is definitely true. Choice (A)

undefined

DIRECTIONS *for questions 19 to 24:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Two factors can be invoked to support the idea that the opportunities of people with similar talents and abilities should not be disparate due to the effects of the social lottery.

The first is that how someone fares in the social lottery is influenced by the ongoing effects of unjust social structures. Past injustices such as racial discrimination have lingering effects on the opportunities of African Americans. The distribution of initial social assets would also be influenced by the present effects of unjust inequalities in the distribution of wealth and income that are not due to racial discrimination. There is also economic exploitation, facilitated by the abuse of governmental power and lawless coercion.

The first version of the level playing field concept of equal opportunity requires that something be done to counteract the opportunity-limiting effects of bad luck in the social lottery so far as these limitations result from the ongoing effects of unjust social structures. Rawls endorses this social structural view when he says “those at the same level of talent and ability, and having the same willingness to use them, should have the same prospects of success regardless of their initial place in the social system”. This view does not limit efforts to achieve equality of opportunity to countering the lingering effects of discrimination; it also requires efforts to counter the ongoing effects of other forms of past institutional injustice, including the unjust distribution of wealth. But the emphasis is on limitations on opportunity that originate in unjust institutions, not in natural differences among persons.

The second variant of the level playing field concept is based on a different assumption: the moral intuition that persons should not have lesser opportunities as a result of factors beyond their control, in the sense of being unchosen. Thomas Scanlon has labelled this the brute luck view of equal opportunity--the contrast being between matters of brute luck, which are not within one's control at all, and misfortunes that depend on a person's choices. Persons should not have fewer opportunities due to how they fare in the social lottery - eg. birth in a poor, uneducated family, regardless of whether the limitations on their opportunities originate in unjust institutions.

In case of the social lottery, the implications of the above two variants are closely congruent, at least in a society with a history of unjust social institutions. Many inequalities in initial social assets (all beyond the control of the individual) will be the result of unjust social structures. But when it comes to the natural lottery, the social structural view and the brute luck view have different implications. The former has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. If anything is beyond a person's control, it is how the individual fares in the natural lottery.

The social structural view, like the discrimination conception of equal opportunity, limits the domain of equal opportunity to social inequalities, because it is concerned only with how unjust social institutions, influence a person's success in competing for desirable positions in society. The brute luck view is much more expansive: it enlarges the domain of equal

opportunity to include natural inequalities. ....

The passages in Rawls' book *A Theory of Justice* seem to commit Rawls to the view that justice is concerned with natural as well as social inequalities. However, a closer reading of the text suggests that Rawls does not seek to address natural inequalities under the heading of equality of opportunity. Instead, he appears to restrict equal opportunity to efforts to counteract the opportunity-limiting effects of unjust social institutions (that is, the social structural version), while noting that the operation of a distinct principle of justice, the Difference Principle, will do something to mitigate the effects of natural inequalities as it requires that wealth inequalities broadly construed work to the greatest advantage of the worst off. Rawls may be merely saying that it would be impermissible to base a person's entitlement to a share of social goods on the mere fact that he happens to have been more fortunate in the genetic lottery. That view does not commit him to the brute luck thesis that all natural inequalities require redress or compensation as a matter of justice. However, some passages mean that in some sense he regards natural inequalities as falling within the domain of justice. Other passages lend further support to the hypothesis that Rawls' conception of equal opportunity is the social structural view.

Q20. According to the author,

a) **Rawls' book *A Theory of Justice* clearly establishes that he was a proponent of Thomas Scanlon's brute luck view of equal opportunity.**

b) **Rawls' writing cannot be used by either the advocates of the social structural view or the brute luck view in support of their stand.**

c) **Rawls was concerned only with unjust social institutions and any reference to natural inequalities in his book is only incidental.**

d) **we cannot categorize Rawls as an advocate of the brute luck thesis, based on his writings mentioned in the passage.**

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	**93**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**102**
% of students who attempted this question	**12.08**
% of students who got the question right of those who attempted	**35.6**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 770

Option A: Choice A is negated by the end of the passage. That view does not commit him to the brute luck thesis that all natural inequalities require redress or compensation as a matter of justice. However, some passages mean that in some sense he regards natural inequalities as falling within the domain of justice. Other passages lend further support to the hypothesis that Rawls's conception of equal opportunity is the social structural view.
Option B: In the third para, we are told that Rawls endorses this social structural view when he says "those at the same level of talent and ability, and having the same willingness to use them, should have the same prospects of success regardless of their initial place in the social system". The last para hints at the fact that Rawls' passages in his book *A Theory of Justice* can be interpreted to support either of the views (and therefore used by both). Choice B is incorrect.
Option C: From the last para, we get to know that the passages in Rawls' book *A Theory of Justice* seem to commit Rawls to the view that justice is concerned with natural as well as social inequalities. From the second sentence onwards in the last para, there is not enough to infer that Rawls was concerned only with unjust social institutions and any reference to natural inequalities is only incidental. Choice C cannot be inferred.
Option D: Only choice D is correct. Rawls may be merely saying that it would be impermissible to base a person's entitlement to a share of social goods on the mere fact that he happens to have been more fortunate in the genetic lottery. That view does not commit him to the brute luck thesis that all natural inequalities require redress or compensation as a matter of justice. Choice (D)

undefined

DIRECTIONS *for questions 19 to 24:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Two factors can be invoked to support the idea that the opportunities of people with similar talents and abilities should not be disparate due to the effects of the social lottery.

The first is that how someone fares in the social lottery is influenced by the ongoing effects of unjust social structures. Past injustices such as racial discrimination have lingering effects on the opportunities of African Americans. The distribution of initial social assets would also be influenced by the present effects of unjust inequalities in the distribution of wealth and income that are not due to racial discrimination. There is also economic exploitation, facilitated by the abuse of governmental power and lawless coercion.

The first version of the level playing field concept of equal opportunity requires that something be done to counteract the

opportunity-limiting effects of bad luck in the social lottery so far as these limitations result from the ongoing effects of unjust social structures. Rawls endorses this social structural view when he says “those at the same level of talent and ability, and having the same willingness to use them, should have the same prospects of success regardless of their initial place in the social system”. This view does not limit efforts to achieve equality of opportunity to countering the lingering effects of discrimination; it also requires efforts to counter the ongoing effects of other forms of past institutional injustice, including the unjust distribution of wealth. But the emphasis is on limitations on opportunity that originate in unjust institutions, not in natural differences among persons.

The second variant of the level playing field concept is based on a different assumption: the moral intuition that persons should not have lesser opportunities as a result of factors beyond their control, in the sense of being unchosen. Thomas Scanlon has labelled this the brute luck view of equal opportunity--the contrast being between matters of brute luck, which are not within one's control at all, and misfortunes that depend on a person's choices. Persons should not have fewer opportunities due to how they fare in the social lottery - eg. birth in a poor, uneducated family, regardless of whether the limitations on their opportunities originate in unjust institutions.

In case of the social lottery, the implications of the above two variants are closely congruent, at least in a society with a history of unjust social institutions. Many inequalities in initial social assets (all beyond the control of the individual) will be the result of unjust social structures. But when it comes to the natural lottery, the social structural view and the brute luck view have different implications. The former has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. If anything is beyond a person's control, it is how the individual fares in the natural lottery.

The social structural view, like the discrimination conception of equal opportunity, limits the domain of equal opportunity to social inequalities, because it is concerned only with how unjust social institutions, influence a person's success in competing for desirable positions in society. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. ....

The passages in Rawls' book *A Theory of Justice* seem to commit Rawls to the view that justice is concerned with natural as well as social inequalities. However, a closer reading of the text suggests that Rawls does not seek to address natural inequalities under the heading of equality of opportunity. Instead, he appears to restrict equal opportunity to efforts to counteract the opportunity-limiting effects of unjust social institutions (that is, the social structural version), while noting that the operation of a distinct principle of justice, the Difference Principle, will do something to mitigate the effects of natural inequalities as it requires that wealth inequalities broadly construed work to the greatest advantage of the worst off. Rawls may be merely saying that it would be impermissible to base a person's entitlement to a share of social goods on the mere fact that he happens to have been more fortunate in the genetic lottery. That view does not commit him to the brute luck thesis that all natural inequalities require redress or compensation as a matter of justice. However, some passages mean that in some sense he regards natural inequalities as falling within the domain of justice. Other passages lend further support to the hypothesis that Rawls' conception of equal opportunity is the social structural view.

Q21. The implications of the two variants of the level playing field concept of equal opportunity, which have been discussed in the passage, overlap greatly

- a) **when one considers the distribution of natural traits or endowments.**
- b) **when one considers a society with a history of unjust social institutions and discriminations.**
- c) **in the case of the natural lottery.**
- d) **when one evaluates how individuals fare in both the social lottery and the natural lottery.**

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	**71**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**71**
% of students who attempted this question	**11.28**
% of students who got the question right of those who attempted	**54**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 770

Refer to para 5.
Option A: The social structure view has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. The brute luck view does: equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. Hence we can say that the implications of the two variants of the level playing field concept of equal opportunity are not congruent when one considers the distribution of natural traits or endowments. Choice A is not the answer.
Option B: In case of the social lottery, the implications of the above two variants are closely congruent, at least in a society with a history of unjust social institutions. Many inequalities in initial social assets (all beyond the control of the individual) will be the result of unjust social structures. Choice B is true.
Option C: In case of the social lottery (and not the natural lottery), the implications of the above two variants are closely congruent. But when it comes to the natural lottery, the social structural view and the brute luck view have different implications. Choice C is incorrect.
Option D: In case of the social lottery, the implications of the above two variants are closely congruent. The former (social structure view) has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. The latter does: equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. If anything is beyond a person's control, it is how the individual fares in the natural lottery. Choice D is incorrect because it wrongly includes the natural lottery. Choice (B)

undefined

DIRECTIONS *for questions 19 to 24:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Two factors can be invoked to support the idea that the opportunities of people with similar talents and abilities should not be disparate due to the effects of the social lottery.

The first is that how someone fares in the social lottery is influenced by the ongoing effects of unjust social structures. Past injustices such as racial discrimination have lingering effects on the opportunities of African Americans. The distribution of initial social assets would also be influenced by the present effects of unjust inequalities in the distribution of wealth and income that are not due to racial discrimination. There is also economic exploitation, facilitated by the abuse of governmental power and lawless coercion.

The first version of the level playing field concept of equal opportunity requires that something be done to counteract the opportunity-limiting effects of bad luck in the social lottery so far as these limitations result from the ongoing effects of unjust social structures. Rawls endorses this social structural view when he says “those at the same level of talent and ability, and having the same willingness to use them, should have the same prospects of success regardless of their initial place in the social system”. This view does not limit efforts to achieve equality of opportunity to countering the lingering effects of discrimination; it also requires efforts to counter the ongoing effects of other forms of past institutional injustice, including the unjust distribution of wealth. But the emphasis is on limitations on opportunity that originate in unjust institutions, not in natural differences among persons.

The second variant of the level playing field concept is based on a different assumption: the moral intuition that persons should not have lesser opportunities as a result of factors beyond their control, in the sense of being unchosen. Thomas Scanlon has labelled this the brute luck view of equal opportunity--the contrast being between matters of brute luck, which are not within one's control at all, and misfortunes that depend on a person's choices. Persons should not have fewer opportunities due to how they fare in the social lottery - eg. birth in a poor, uneducated family, regardless of whether the limitations on their opportunities originate in unjust institutions.

In case of the social lottery, the implications of the above two variants are closely congruent, at least in a society with a history of unjust social institutions. Many inequalities in initial social assets (all beyond the control of the individual) will be the result of unjust social structures. But when it comes to the natural lottery, the social structural view and the brute luck view have different implications. The former has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. If anything is beyond a person's control, it is how the individual fares in the natural lottery.

The social structural view, like the discrimination conception of equal opportunity, limits the domain of equal opportunity to social inequalities, because it is concerned only with how unjust social institutions, influence a person's success in competing for desirable positions in society. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. ....

The passages in Rawls' book *A Theory of Justice* seem to commit Rawls to the view that justice is concerned with natural as well as social inequalities. However, a closer reading of the text suggests that Rawls does not seek to address natural inequalities under the heading of equality of opportunity. Instead, he appears to restrict equal opportunity to efforts to counteract the opportunity-limiting effects of unjust social institutions (that is, the social structural version), while noting that the operation of a distinct principle of justice, the Difference Principle, will do something to mitigate the effects of natural inequalities as it requires that wealth inequalities broadly construed work to the greatest advantage of the worst off. Rawls may be merely saying that it would be impermissible to base a person's entitlement to a share of social goods on the mere fact that he happens to have been more fortunate in the genetic lottery. That view does not commit him to the brute luck thesis that all natural inequalities require redress or compensation as a matter of justice. However, some passages mean that in some sense he regards natural inequalities as falling within the domain of justice. Other passages lend further support to the hypothesis that Rawls' conception of equal opportunity is the social structural view.

Q22. Which of the following is true regarding the social structural view explained in the passage?

- a) **Its focus is on the limitations an individual faces as a result of unjust social institutions.**
- b) **It seeks to provide a level playing field to everyone in society irrespective of their social standing.**
- c) **It takes into account the fact that individuals are born with different traits and so are different.**
- d) **It asserts that the lingering effects of past discriminations get compounded over 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	**64**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**71**
% of students who attempted this question	**11.9**
% of students who got the question right of those who attempted	**48.69**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 770

Option A: Refer to para 3. The last sentence endorses choice A. The emphasis of the social structural view is on limitations on opportunity that originate in unjust institutions, not in natural differences among persons. This is reiterated in para 6: The social structural view limits the domain of equal opportunity to social inequalities, because it is concerned only with how social structures, and more specifically, unjust social institutions, influence a person's success in competing for desirable offices and positions in society.
Option B: Choice B is besides the point. Rawls endorses this social structural view when he says "those at the same level of talent and ability, and having the same willingness to use them, (AND NOT EVERYONE) should have the same prospects of success regardless of their initial place in the social system".
Option C: But the emphasis is on limitations on opportunity that originate in unjust institutions, not in natural differences among persons. Choice C is negated.
Option D: Something should be done to counteract the opportunity-limiting effects of bad luck in the social lottery so far as these limitations result from the ongoing effects of unjust social structures. This view does not limit efforts to achieve equality of opportunity to countering the lingering effects of discrimination; it also requires efforts to counter the ongoing effects of other forms of past institutional injustice, including the unjust distribution of wealth. But "get compounded over time" in choice D is a distortion.

Choice (A)

undefined

DIRECTIONS *for questions 19 to 24:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Two factors can be invoked to support the idea that the opportunities of people with similar talents and abilities should not be disparate due to the effects of the social lottery.

The first is that how someone fares in the social lottery is influenced by the ongoing effects of unjust social structures. Past injustices such as racial discrimination have lingering effects on the opportunities of African Americans. The distribution of initial social assets would also be influenced by the present effects of unjust inequalities in the distribution of wealth and income that are not due to racial discrimination. There is also economic exploitation, facilitated by the abuse of governmental power and lawless coercion.

The first version of the level playing field concept of equal opportunity requires that something be done to counteract the opportunity-limiting effects of bad luck in the social lottery so far as these limitations result from the ongoing effects of unjust social structures. Rawls endorses this social structural view when he says “those at the same level of talent and ability, and having the same willingness to use them, should have the same prospects of success regardless of their initial place in the social system”. This view does not limit efforts to achieve equality of opportunity to countering the lingering effects of discrimination; it also requires efforts to counter the ongoing effects of other forms of past institutional injustice, including the unjust distribution of wealth. But the emphasis is on limitations on opportunity that originate in unjust institutions, not in natural differences among persons.

The second variant of the level playing field concept is based on a different assumption: the moral intuition that persons should not have lesser opportunities as a result of factors beyond their control, in the sense of being unchosen. Thomas Scanlon has labelled this the brute luck view of equal opportunity--the contrast being between matters of brute luck, which are not within one's control at all, and misfortunes that depend on a person's choices. Persons should not have fewer opportunities due to how they fare in the social lottery - eg. birth in a poor, uneducated family, regardless of whether the limitations on their opportunities originate in unjust institutions.

In case of the social lottery, the implications of the above two variants are closely congruent, at least in a society with a history of unjust social institutions. Many inequalities in initial social assets (all beyond the control of the individual) will be the result of unjust social structures. But when it comes to the natural lottery, the social structural view and the brute luck view have different implications. The former has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. If anything is beyond a person's control, it is how the individual fares in the natural lottery.

The social structural view, like the discrimination conception of equal opportunity, limits the domain of equal opportunity to social inequalities, because it is concerned only with how unjust social institutions, influence a person's success in competing for desirable positions in society. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. ....

The passages in Rawls' book *A Theory of Justice* seem to commit Rawls to the view that justice is concerned with natural as well as social inequalities. However, a closer reading of the text suggests that Rawls does not seek to address natural inequalities under the heading of equality of opportunity. Instead, he appears to restrict equal opportunity to efforts to counteract the opportunity-limiting effects of unjust social institutions (that is, the social structural version), while noting that the operation of a distinct principle of justice, the Difference Principle, will do something to mitigate the effects of natural inequalities as it requires that wealth inequalities broadly construed work to the greatest advantage of the worst off. Rawls may be merely saying that it would be impermissible to base a person's entitlement to a share of social goods on the mere fact that he happens to have been more fortunate in the genetic lottery. That view does not commit him to the brute luck thesis that all natural inequalities require redress or compensation as a matter of justice. However, some passages mean that in some sense he regards natural inequalities as falling within the domain of justice. Other passages lend further support to the hypothesis that Rawls' conception of equal opportunity is the social structural view.

Q23. All of the following are features of the brute luck view mentioned in the passage EXCEPT?

a) **It emphasizes that in order to provide equal opportunity, efforts must be made to counteract all the disadvantages that are beyond a person's control.**

b) **It differentiates between misfortunes that are the result of one's acts and those beyond one's control.**

c) **It is unconcerned about the result of differences arising from fortunate or misfortunate events outside one's control.**

d) **It highlights the fact that unjust social institutions are not the only cause for the unfair distribution of**

opportunities in society.

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	**71**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**74**
% of students who attempted this question	**9.8**
% of students who got the question right of those who attempted	**48.73**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 770

Option A: Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. Choice A is true and is not the answer.
Option B: The second variant of the level playing field concept is based on a different assumption: the moral intuition or considered judgment that persons should not have lesser opportunities as a result of factors beyond their control, in the sense of being unchosen. Thomas Scanlon has labelled this the brute luck view of equal opportunity--the contrast being between matters of brute luck, which are not within one's control at all, and misfortunes that depend on a person's choices. Choice B is true and is not the answer.
Option C: Choice C is negated by para 5: Thomas Scanlon has labelled this the brute luck view of equal opportunity--the contrast being between matters of brute luck, which are not within one's control at all, and misfortunes that depend on a person's choices. Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. Choice C is the answer.
Option D: When it comes to the natural lottery, the social structural view has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control..... The social structural view limits the domain of equal opportunity to social inequalities, because it is concerned only with how unjust social institutions, influence a person's success in society. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. .... Choice D can be inferred and is not the answer.

Choice (C)

undefined

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The first version of the level playing field concept of equal opportunity requires that something be done to counteract the opportunity-limiting effects of bad luck in the social lottery so far as these limitations result from the ongoing effects of unjust social structures. Rawls endorses this social structural view when he says “those at the same level of talent and ability, and having the same willingness to use them, should have the same prospects of success regardless of their initial place in the social system”. This view does not limit efforts to achieve equality of opportunity to countering the lingering effects of

discrimination; it also requires efforts to counter the ongoing effects of other forms of past institutional injustice, including the unjust distribution of wealth. But the emphasis is on limitations on opportunity that originate in unjust institutions, not in natural differences among persons.

The second variant of the level playing field concept is based on a different assumption: the moral intuition that persons should not have lesser opportunities as a result of factors beyond their control, in the sense of being unchosen. Thomas Scanlon has labelled this the brute luck view of equal opportunity--the contrast being between matters of brute luck, which are not within one's control at all, and misfortunes that depend on a person's choices. Persons should not have fewer opportunities due to how they fare in the social lottery - eg. birth in a poor, uneducated family, regardless of whether the limitations on their opportunities originate in unjust institutions.

In case of the social lottery, the implications of the above two variants are closely congruent, at least in a society with a history of unjust social institutions. Many inequalities in initial social assets (all beyond the control of the individual) will be the result of unjust social structures. But when it comes to the natural lottery, the social structural view and the brute luck view have different implications. The former has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. Equal opportunity, on the brute luck view, requires efforts to counteract the effects of all factors beyond an individual's control. If anything is beyond a person's control, it is how the individual fares in the natural lottery.

The social structural view, like the discrimination conception of equal opportunity, limits the domain of equal opportunity to social inequalities, because it is concerned only with how unjust social institutions, influence a person's success in competing for desirable positions in society. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. ....

The passages in Rawls' book *A Theory of Justice* seem to commit Rawls to the view that justice is concerned with natural as well as social inequalities. However, a closer reading of the text suggests that Rawls does not seek to address natural inequalities under the heading of equality of opportunity. Instead, he appears to restrict equal opportunity to efforts to counteract the opportunity-limiting effects of unjust social institutions (that is, the social structural version), while noting that the operation of a distinct principle of justice, the Difference Principle, will do something to mitigate the effects of natural inequalities as it requires that wealth inequalities broadly construed work to the greatest advantage of the worst off. Rawls may be merely saying that it would be impermissible to base a person's entitlement to a share of social goods on the mere fact that he happens to have been more fortunate in the genetic lottery. That view does not commit him to the brute luck thesis that all natural inequalities require redress or compensation as a matter of justice. However, some passages mean that in some sense he regards natural inequalities as falling within the domain of justice. Other passages lend further support to the hypothesis that Rawls' conception of equal opportunity is the social structural view.

Q24. Which of the following correctly represents the author's view regarding the relationship between the social structural view and the brute luck view?

- a) **The former considers the implications of certain types of inequalities that the latter does not.**
- b) **The latter encompasses the former and goes on to include genetic or natural inequalities also.**
- c) **The brute luck view focusses on genetic inequalities and ignores socioeconomic factors.**
- d) **Unlike the former, the latter looks at individuals as a product of only unjust social institutions.**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**0**
Avg. time spent on this question by all students	**68**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**69**
% of students who attempted this question	**9.06**
% of students who got the question right of those who attempted	**56.72**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 770

Option A: Choice A is negated from para 5 which compares and contrasts the social structural view and the brute luck view in case of the social lottery and the natural lottery. (But when it comes to the natural lottery.... distribution of natural assets or endowments.
Option B: The social structural view limits the domain of equal opportunity to social inequalities, because it is concerned only with how unjust social institutions, influence a person's success in competing for desirable positions in society. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. Choice B is true. Genetic lottery has been specifically mentioned in the last para.
Option C: According to the brute luck view, persons should not have fewer opportunities due to how they fare in the social lottery – eg. birth in a poor, uneducated family, regardless of whether the limitations on their opportunities originate in unjust institutions. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. This means that it also takes into account the socioeconomic factors. So choice C is not true.
Option D: But the emphasis in the case of the social structural view is on limitations on opportunity that originate in unjust social institutions, not in natural differences among persons. The social structural view has no direct implications for inequalities in opportunity resulting from the natural lottery--the distribution of natural assets or endowments. The brute luck view is much more expansive: it enlarges the domain of equal opportunity to include natural inequalities. .... The inverse of Choice D is correct. Choice D is not the answer. Choice (B)

undefined

Q25. DIRECTIONS *for questions 25 to 28:* The sentences given in the question, 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 this sequence of five numbers as your answer, in the input box given below the question.

1. Tourists are trickling out of Christ Church, the grandest of all the colleges in Oxford and even more of a draw since its hall landed the plum role of Hogwarts' dining room in the Harry Potter films.

2. It is where Charles Dodgson (Lewis Carroll) was teaching maths when he told a story to amuse three girls about the adventures of a child named Alice.

3. On a summer's afternoon, Oxford is looking as it does in the imagination, clad in shades of glowing saffron.

4. Another story-teller J. R. R. Tolkien who worked as Oxford Professor of Anglo-Saxon began to write his story here: “In a hole in the ground, there lived a hobbit.”

5. Some of the tourists will know that Christ Church also has an older claim to fame in children's literature.

Your Answer:31245 Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Time taken by you to answer this question	**113**
Avg. time spent on this question by all students	**198**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**187**
% of students who attempted this question	**31.22**
% of students who got the question right of those who attempted	**43.28**

Video Solution

Text Solution

On a careful reading of the sentences, it can be observed that sentence 3 is a general sentence that begins the paragraph. It introduces the topic of discussion: Oxford. Sentence 3 is followed by sentence 1. "On a summer's afternoon, Oxford is looking ..... shades of glowing saffron" in sentence 3 is followed by "Tourists are trickling out of Christ Church, the grandest of all the colleges" in sentence 1. Sentence 1 is followed by sentence 5. "Tourists are trickling out of ..." in sentence 1 links with "some of the tourists will know" in sentence 5. "even more of a draw since its hall landed the plum role of Hogwarts' dining room in the Harry Potter films" in sentence 1 is followed by "Christ Church also has an older claim to fame in children's literature" in sentence 5. Sentence 5 (claim to fame in children's literature) is exemplified by "Charles Dodgson (Lewis Carroll) was teaching maths when he told a story" in sentence 2 and "Another story-teller J. R. R. Tolkien who worked as Oxford Professor of Anglo-Saxon began to write his story here" in sentence 4. So sentence 5 is followed by sentences 2 and 4, in that order. So, 31524. Ans: (31524)

undefined

Q26. DIRECTIONS *for questions 25 to 28:* The sentences given in the question, 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 this sequence of five numbers as your answer, in the input box given below the question.

1. To rub his message in, Mr Obama worried about the "incredible natural glory of the Great Barrier Reef", off the coast of Queenland, which is threatened by global warming.

2. Tony Albott, the then Australian prime minister, had hoped to limit their talks to topics that chimed with his domestic political agenda: growth and jobs.

3. On his way to the talks, Mr Obama delivered a speech to cheering students at the University of Queensland, calling on Australia to do more to tackle climate change.

4. A heatwave hovered over Brisbane, the state capital of Queensland, as world leaders gathered on November 15th 2015 for a Group of 20 (G20 summit).

5. Barack Obama, America's then president, had other ideas.

Your Answer:25 **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**7**

Time spent / Accuracy Analysis

Avg. time spent on this question by all students	**155**
Difficulty Level	**VD**
Avg. time spent on this question by students who got this question right	**145**
% of students who attempted this question	**34.26**
% of students who got the question right of those who attempted	**55.86**

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. Sentence 4 mentions the event (G20 summit), the date (November 15th 2015) and the location (Brisbane, the state capital of Queensland). Sentence 4 mentions the topic of discussion: heatwave/ global warming. Sentence 4 is followed by sentence 2. "Brisbane, the state capital of Queensland, as world leaders gathered ..... G20 summit" in sentence 4 links with " Tony Albott, the prime minister, had hoped to limit their talks ....." in sentence 2. Sentence 5 follows sentence 2. "Barack Obama, America's then president, had other ideas" (sentence 5) contrasts "hoped to limit their talks to topics that chimed with his domestic political agenda: growth and jobs" (sentence 2). Sentences 5 and 3 form a mandatory pair. "calling on Australia to do more to tackle climate change" in sentence 3 links with "other ideas" in sentence 5 and contrasts "growth and jobs" in sentence 2. Sentence 3 is followed by sentence 1. "calling on Australia to do more to tackle climate change" in sentence 3 links with " To rub his message in ..... global warming" in sentence 1. "worried about incredible natural glory of the Great Barrier Reef, off the coast of Queenland, which is threatened by global warming" in the conclusion sentence 1 is parallel to "heatwave hovered over Brisbane, the state capital of Queensland" in the introduction sentence 4. So, 42531.

Ans: (42531)

undefined

Q27. DIRECTIONS *for questions 25 to 28:* The sentences given in the question, 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 this sequence of five numbers as your answer, in the input box given below the question.

1. McDonald's is also trying to engage with customers on social media and is working on a smartphone app, as well as testing mobile-payment systems such as Apple Pay, Softcard and Google Wallet.

2. The company is planning to roll out its "Create Your Taste" burgers in up to 2,000 restaurants - it is not saying where - by late 2015, and possibly in more places if they do well.

3. Then they sit down, waiting an average of seven minutes until a server brings their burgers to their table.

4. They can go to a touch screen and build their own burger by choosing a bun, toppings and sauces from a list of more than 20 "premium" ingredients, including grilled mushrooms, guacamole and caramelised onions.

5. In a brand-new McDonald's outlet near its headquarters in Oak Brook, Illinois, customers do not have to queue at the counter.

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	**3**
Avg. time spent on this question by all students	**137**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**131**
% of students who attempted this question	**34.57**
% of students who got the question right of those who attempted	**44.06**

Video Solution

Text Solution

On a careful reading of the sentences, it can be observed that sentence 5 is a general sentence that begins the paragraph. It mentions the location: McDonald's outlet near its headquarters in Oak Brook, Illinois and highlights the topic of discussion: Customers do not have to queue at the counter. Sentence 5 is followed by sentence 4. "customers do not have to queue at the counter" in sentence 5 is followed by "They can go to a touch screen and build their own burger" in sentence 4. Sentence 3 sequentially follows sentence 4. "They can go to a touch screen and build their own burger" in sentence 4 is followed by "they sit down, waiting ..... until a server brings their burgers to their table" in sentence 3. Sentence 2 follows as the course of action for the company. "The company is planning to roll out its "Create Your Taste" burgers in up to 2,000 restaurants" in sentence 2 mirrors what happens "in a brand-new McDonald's outlet near its headquarters in Oak Brook, Illinois" given in sentence 5. Sentence 2 is followed by sentence 1. "McDonald's is also trying to engage with customers on social media" in sentence 1 follows the point made in sentence 2. Sentence 1 concludes the para. So, 54321. Ans: (54321)

undefined

Q28. DIRECTIONS *for questions 25 to 28:* The sentences given in the question, 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 this sequence of five numbers as your answer, in the input box given below the question.

1. The slaughter at the Kehilat Bnei Torah synagogue is hardly the deadliest event in the annals of Israeli-Palestinian violence.

2. The sight of Jews lying dead in a Jerusalem synagogue, their prayer-shawls and holy books drenched in pools of blood, might be drawn from the age of pogroms in Europe.

3. Yet the synagogue murders matter; the Israeli-Palestinian conflict is drifting dangerously towards religious war.

4. And it pales in comparison to the mass slaughter taking place across the border in Syria and in other parts of the Middle East.

5. Sadly, it is an appallingly modern episode, the latest in the interminable tragedy of Jew and Arab in the promised land.

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	**3**
Avg. time spent on this question by all students	**144**
Difficulty Level	**VD**
Avg. time spent on this question by students who got this question right	**179**
% of students who attempted this question	**22.06**
% of students who got the question right of those who attempted	**2.32**

Video Solution

Text Solution

On a careful reading of the sentences, it can be observed that sentence 2 is a general sentence that begins the paragraph. Even though sentence 1 has the proper noun (Kehilat Bnei Torah synagogue) and the proper adjective (Israeli-Palestinian), it cannot begin the paragraph. "The slaughter at the Kehilat Bnei Torah synagogue" in sentence 1 can only be placed later in sequenee, after "Jews lying dead in a Jerusalem synagogue" in sentence 2. So sentence 2 begins the paragraph. Sentence 2 is followed by sentence 5. "might be drawn from the age of pogroms in Europe" in sentence 2 contrasts "sadly, it is an appallingly modern episode" in sentence 5. "Jews lying dead in a Jerusalem synagogue" in sentence 2 links with "interminable tragedy of Jew and Arab in the promised land" in sentence 5. Sentence 5 is followed by sentence 1. "latest in the interminable tragedy of Jew and Arab" in sentence 5 links with "hardly the deadliest event in the annals of Israeli-Palestinian violence" in sentence 1. So, 251. Sentences 1 and 4 form a mandatory pair. "hardly the deadliest event in the annals of Israeli-Palestinian violence" in sentence 1 links with "pales in comparison to the mass slaughter" in sentence 4. Sentence 4 is followed by sentence 3. "Yet the synagogue murders matter" in sentence 3 contrasts "pales in comparison to the mass slaughter" in sentence 4. Hence 25143. Ans: (25143)

undefined

Q29. DIRECTIONS *for questions 29 to 32:* The following question has five sentences. Each sentence is labelled with a number. All but one of the sentences can be rearranged to form a logically coherent paragraph. Key in the number of the sentence that does not fit contextually with the paragraph formed by the other four sentences.

1. Law-enforcement officials from America patrol international waters in the Caribbean and eastern Pacific, hoping to seize cocaine shipments before they reach their intended destinations.

2. Most of the world's supply of cocaine comes from just three South American countries: Columbia, Peru and Bolivia.

3. Nevertheless, Colombia may have reclaimed its title as the foremost cocaine producing nation, a position it lost to Peru in 2013.

4. Much of it is headed for the United States and Europe.

5. When they succeed in nabbing any smugglers, contraband samples are sent to chemists to help determine the source.

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**6**
Avg. time spent on this question by all students	**126**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**117**
% of students who attempted this question	**33.01**
% of students who got the question right of those who attempted	**35.6**

Video Solution

Text Solution

On a careful reading of the sentences, it can be observed that sentence 2 is a general sentence that begins the para. It introduces the topic of discussion: the source of the world's supply of cocaine. Sentence 2 is followed by sentence 4. "Most of the world's supply of cocaine comes from" in sentence 2 is followed by "Much of it is headed for" in sentence 4. Sentence 4 is followed by sentence 1. "Much of it is headed" in sentence 4 is followed by "before they reach their intended destinations" in sentence 1. Also "the United States and Europe" in sentence 4 is parallel to "Law-enforcement officials from America patrol international waters" in sentence 1. "in the Caribbean and eastern Pacific" in sentence 1 points to "three South American countries: Columbia, Peru and Bolivia" given earlier in sentence 2. Sentences 1 and 5 form a mandatory pair. The pronoun 'they' in sentence 5 points to "Law-enforcement officials from America patrol international waters" in sentence 1. "hoping to seize cocaine shipments before they reach their intended destinations" in sentence 1 links with "When they succeed in nabbing any smugglers" in sentence 5. Sentence 5 concludes the para. So, 2415. Sentence 3 can be a part of another para. The given para talks about the supply of cocaine to the world in general. It does not focus on which country is the largest, second largest and third largest producer of cocaine in the world. Sentence 3 is the odd sentence out.

Ans: (3)

undefined

Q30. DIRECTIONS *for questions 29 to 32:* The following question has five sentences. Each sentence is labelled with a number. All but one of the sentences can be rearranged to form a logically coherent paragraph. Key in the number of the sentence that does not fit contextually with the paragraph formed by the other four sentences.

1. But when the first Chinese train pulled into Teheran station after a 14-day haul, Iranian officials hailed a great leap forward.

2. A "silk rail" between east and west will also require better relations with neighbours who fear Iran's post-sanctions rebound.

3. By April, when the new trans-Kazakh railway opens fully, executives in Iran hope to have cut the journey time to China to just eight days - a month less than the sea route takes.

4. "We're becoming the global hub between east and west," boasted one minister.

5. The 10500 km (6500 mile) journey from Yiwu city in eastern China through Kazakhstan, Kyrghyzstan, Uzbekistan and Turkmenistan was sluggish.

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**52**
Avg. time spent on this question by all students	**123**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**118**
% of students who attempted this question	**26.78**
% of students who got the question right of those who attempted	**18.64**

Video Solution

Text Solution

On a careful reading of the sentences, it can be observed that sentence 5 is a general sentence that begins the paragraph. It introduces the topic of discussion and has many proper nouns. Sentence 5 is followed by sentence 1. "the journey was sluggish" in sentence 5 contrasts "But when the first Chinese train .... hailed a great leap forward" in sentence 1. Sentence 1 is followed by sentence 4. "Iranian officials hailed a ***great leap forward***" in sentence 1 links with " "***global hub between east and west***," boasted one minister" in sentence 4. Sentence 4 is followed by sentence 3. "when the new trans-Kazakh railway opens fully, executives in Iran hope to have cut the journey time to China to just eight days" in sentence 3 links with "becoming the global hub between east and west" in sentence 4 and " the first Chinese train pulled into Teheran station after a 14-day haul" in sentence 1. So, 5143. Sentence 2 is the odd sentence out. "better relations with neighbours who fear Iran's post-sanctions rebound" in sentence 2 needs a precedent and more substantiation. It can be a part of another para. Ans: (2)

undefined

Q31. DIRECTIONS *for questions 29 to 32:* The following question has five sentences. Each sentence is labelled with a number. All but one of the sentences can be rearranged to form a logically coherent paragraph. Key in the number of the sentence that does not fit contextually with the paragraph formed by the other four sentences.

1. But microorganisms were not domesticated until very recently, primarily because man did not know of their existence.

2. By the year 2020, if the pressure for food continues to intensify, biologists will be growing microorganisms for use as animal feed and, eventually, human food.

3. Our ancestors domesticated various plant and animal species in the prehistoric past.

4. Here we can harness life in its primitive forms just as we once harnessed the horse.

5. Today he does, and they are already used in the large-scale production of vitamins, enzymes, antibiotics, citric acid and other useful compounds.

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**

Time spent / Accuracy Analysis

Difficulty Level	**VD**
Avg. time spent on this question by students who got this question right	**104**
% of students who attempted this question	**29.75**
% of students who got the question right of those who attempted	**33.21**

Video Solution

Text Solution

On a careful reading of the sentences, it can be observed that sentence 3 is a general sentence that begins the para. It introduces the topic of discussion: domestication (of plant and animal species). Sentence 3 is followed by sentence 1. " domesticated various plant and animal species in the **prehistoric past**" in sentence 3 is contrasted by "But microorganisms were not domesticated until **very recently**" in sentence 1. Sentences 1 and 5 form a mandatory pair. "man did not know of their existence" in sentence 1 links with "today he does" in sentence 5. So sentence 5 follows sentence 1. Sentence 5 is followed by sentence 2. "large-scale production of vitamins, enzymes, antibiotics, citric acid and other useful compounds" in sentence 5 links with "biologists will be growing microorganisms for use as animal feed and, eventually, human food" in sentence 2. So, 3152. Sentence 4 is the odd sentence out. Here" in sentence 4 needs a precedent. Sentence 4 is a general sentence that is not connected with the rest of the sentences.

Ans: (4)

undefined

Q32. DIRECTIONS *for questions 29 to 32:* The following question has five sentences. Each sentence is labelled with a number. All but one of the sentences can be rearranged to form a logically coherent paragraph. Key in the number of the sentence that does not fit contextually with the paragraph formed by the other four sentences.

1. Experiments like these have been built up to dismaying degrees of complexity.

2. His job is to press a button each time a red block passes in front of him on the conveyor belt.

3. We know that if his pace is too slow or if the belt moves too fast, he will falter, miss, grow confused and uncoordinated.

4. So long as the belt moves at a reasonable speed, he will have little difficulty - his performance will approach 100 percent accuracy.

5. Imagine an assembly line worker in a factory making children's blocks.

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	**94**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**83**

Time spent / Accuracy Analysis

% of students who attempted this question	**29.67**
% of students who got the question right of those who attempted	**46.79**

Video Solution

Text Solution

On a careful reading of the sentences, it can be observed that sentence 5 is a general sentence that begins the para. It begins the topic of discussion: assembly line worker in a factory making children's blocks. Sentence 5 is followed by sentence 2. "His job" in sentence 2 is linked with "assembly line worker" in sentence 5. Sentence 2 is followed by sentence 4. "the belt" in sentence 4 points to "the conveyor belt" in sentence 2. "press a button each time a red block passes in front of him" in sentence 2 links with "he will have little difficulty – his performance will approach 100 percent accuracy" in sentence 4. Sentence 4 is followed by sentence 3. "So long as the belt moves at a reasonable speed" in sentence 4 links with "We know that if his pace is too slow or if the belt moves too fast" in sentence 3. Also "he will falter, miss, grow confused and uncoordinated" in sentence 3 contradicts "he will have little difficulty – his performance will approach 100 percent accuracy" in sentence 4. Sentence 3 concludes the para. Sentence 1 is the odd sentence out and can be a part of another para. Ans: (1)

undefined

Q33. DIRECTIONS *for questions 33 and 34:* The following question has a paragraph from which the last sentence has been left incomplete. From the given options, choose the one that completes the paragraph in the most appropriate way.

Epidemics are a function of the people who transmit infectious agents, the infectious agent itself, and the environment in which the infectious agent is operating. And when an epidemic tips, when it is jolted out of equilibrium, it tips because something great or drastic has happened or some transformational change has occurred. When we say that a handful of East Village kids started the Hush Puppies epidemic, or that the scattering of the residents of a few housing projects was sufficient to start Baltimore's syphilis epidemic, what we are really saying is that in a given process or system some people matter more than the others. This is not, on the face of it, a particularly radical notion. Economists often talk about the 80/20 principle, which is the idea that 80% of the work will be done by 20% of the participants. 20% of motorists cause 80% of all accidents. 20% of beer drinkers drink 80% of all beer. _____

a) **The Law of the Few says the answer is that one of these exceptional people found out about the trend, and through social connections, energy, enthusiasm and personality spread the word about Hush Puppies.**

b) **The name given to that one dramatic moment in an epidemic when everything can change all at once is the Tipping Point.**

c) **When it comes to epidemics, though, this disproportionality becomes even more extreme: a tiny percentage of people do the majority of the work.**

d) **There is more than one way to tip an epidemic, in other words.**

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	**139**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**138**
% of students who attempted this question	**23.13**
% of students who got the question right of those who attempted	**80.96**

Video Solution

Text Solution

The paragraph explains what epidemics are and then describes some epidemics. An important point in the paragraph is: In a given process or system some people matter more than the others. The paragraph then goes on to explain the 80/20 principle.
Option A: "The Law of the Few" as given in choice A might seem applicable for a situation where 20% of the people do all or most of the work. But "one of these exceptional people" as given in choice A needs a precedent. Also choice A focuses more on the Hush Puppies epidemic. The para has gone beyond providing the examples of the Hush Puppies epidemic and the Baltimore's syphilis epidemic to make a very important point. Hence choice A does not connect with the penultimate sentence and leaves the thoughtflow incomplete. Choice A can come in another para which is prior to this para and which focusses only on the Hush Puppies epidemic.
Option B: Choice B does not connect well with the penultimate sentence and is also out of context. It defines what a tipping point is. Choice B can be a part of another para.
Option C: Choice C is the best sentence to complete the para. "though, this disproportionality becomes even more extreme" in choice C contrasts "This is not, on the face of it, a particularly radical notion." mentioned in the para. Also "a tiny percentage of people do the majority of the work" as given in choice C reiterates the fact that in a given process or system some people (in the case of epidemics, fewer than 20%) matter more than the others. Hence choice C is the answer.
Option D: Choice D is out of scope. The para does not talk about ways of tipping an epidemic. Choice D needs a precedent and more substantiation. Choice (C)

undefined

Q34. DIRECTIONS *for questions 33 and 34:* The following question has a paragraph from which the last sentence has been left incomplete. From the given options, choose the one that completes the paragraph in the most appropriate way.

Significantly, one of the worst punishments known to man is solitary confinement - a situation in which the individual is not only cut off from the stimulation of social interaction, but deprived of change and novelty of any kind. For this reason, it is employed by interrogators and psychologists to "soften up" prisoners whom they wish to brainwash. It was, in fact, the successful brainwashing of captured American troops by the Red Chinese and North Koreans during the Korean conflict that spurred research into "Sensory deprivation". The psychologist D. O. Hebb, a pioneer in this field, found that monotonous sensory stimulation produces confusion - a disruption of the ability to think clearly. His associates confirmed that, in their studies, stimuli-deprived subjects had difficulty concentrating. _____

a) **Moving out of the laboratory, we find that certain employees in advanced automated plants frequently exhibit similar symptoms of understimulation.**

b) **So strong is man's need to stay within the adaptive range that internal mechanisms sometimes take over when the external environment fails to provide the needed excitement.**

c) **Man begins to doubt his own ability to distinguish between normal and abnormal signals.**

d) **The volunteers reported anxiety, somatic complaints, occasional hallucinations, and difficulty in judging the passage of 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	**219**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**194**
% of students who attempted this question	**23.46**
% of students who got the question right of those who attempted	**40.87**

Video Solution

[Text Solution]

The paragraph discusses solitary confinement and where it is used.
Option A: Choice A is a parallel to the discussion in the given paragraph. "Moving out of the laboratory, we find that ..... similar symptoms of understimulation." indicates that the findings are found to have relevance in parallel circumstances, in work areas. But choice D is a better concluding sentence than choice A as it connects very well with the sentences just before the blank. In the absence of choice D, choice A could be the answer as it provides a parallel (example).
Option B: "So strong is man's need to stay within the adaptive range" does not connect well with the penultimate sentence of the paragraph. It needs a precedent. Choice B is out of scope of the given para.
Option C: Choice C unnecessarily changes the subject from the more specific "stimuli-deprived subjects" to the general subject "Man". Choice C does not bring the thoughtflow to an end.
Option D: Choice D connects with the penultimate sentence of the para and brings the thoughtflow to a logical end. The last two lines (just before the blank) talk of the findings by Hebb and his associates. "The volunteers" in choice D point to "their studies" (i.e. the experiment/ survey/ process whereby they arrived at these findings) given in the penultimate sentence of the paragraph. Choice D is the correct answer.

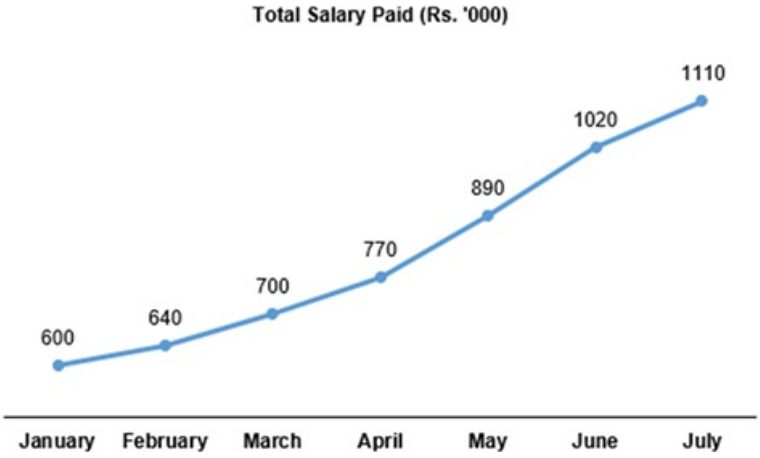
Choice (D)

undefined

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

In a factory, all the workers are paid a salary on the last day of every month. All the workers who have been working in the factory for more than one month are paid an equal salary, which remains constant. The salary paid to any worker for his first month in the factory is half the salary that is paid to any worker who has worked in the factory for more than one month. Any worker who starts working in the factory always starts working from the first day of a month.

The graph below provides the total salary (in Rs.'000) paid to all the workers each month, for seven months - starting from January of a particular year. It is known that no worker joined the factory in January and no worker left the factory during the given period.



Q1. DIRECTIONS *for questions 1 to 4:* Select the correct alternative from the given choices.

What is the ratio of the number of workers who joined in May to that in July?

- a) **7 : 4**
- b) **4 : 3** **Your answer is incorrect**
- c) **4 : 7**
- d) **7 : 3**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**420**
Avg. time spent on this question by all students	**374**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**450**
% of students who attempted this question	**19.5**
% of students who got the question right of those who attempted	**39.22**

Video Solution

Text Solution

In January, the total salary paid was ₹600000. The workers who were working in January will have a salary of ₹600000 in February as well. (since no worker joined in January).
Since the total salary paid increased by ₹40000 in February, this ₹40000 must have been paid to the workers who joined in February. Let the number of workers who joined in February be n.
In March, the workers who joined in February will be paid double the amount. Hence, they will be paid ₹80000 (as they were being paid ₹40000 in the first month of joining).
In March, all the workers who joined before March will be paid ₹680000. Hence, the workers who joined in March will be paid ₹20000. Compared to February, the salary paid to the newly joined workers in March is half. Hence, there would have been n/2 workers who joined in March.
These workers will be paid ₹40000 from the next month onwards.
Hence, in April, the salary paid to all the workers who joined before April will be ₹720000. The salary paid to the workers who joined in April will be ₹50000. Since this is 5/4 times the salary paid to newly joined workers in February, the number of newly joined workers in April will be 5n/4.
In May, the salary paid to all workers who joined before May will be ₹820000. Hence, the salary paid to those who joined in May will be ₹70000 and the number of workers who joined in May will be 7n/4.
In June, the salary paid to all the workers who joined before June will be ₹960000. Hence, the salary paid to those who joined in June will be ₹60000 and the number of workers who joined in June will be 3n/2.
In July, the salary paid to all the workers who joined before July will be ₹1080000. Hence, the salary paid to those who joined in July will be ₹30000 and the number of workers who joined in July will be 3n/4.
The following table provides the number of workers who joined in each month, with a representing the number of workers in the factory in January:

Month	January	February	March	April	May	June	July
Number of New Workers	0	n	n/2	5n/4	7n/4	3n/2	3n/4

Ratio of number of workers who joined in May to that in July $= \frac{7}{4} \times \frac{4}{3} = \frac{7}{3}$

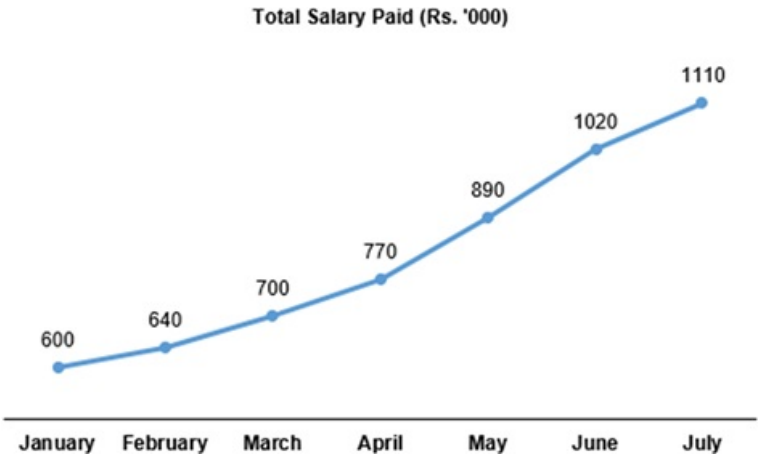
Choice (D)

undefined

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

In a factory, all the workers are paid a salary on the last day of every month. All the workers who have been working in the factory for more than one month are paid an equal salary, which remains constant. The salary paid to any worker for his first month in the factory is half the salary that is paid to any worker who has worked in the factory for more than one month. Any worker who starts working in the factory always starts working from the first day of a month.

The graph below provides the total salary (in Rs.'000) paid to all the workers each month, for seven months - starting from January of a particular year. It is known that no worker joined the factory in January and no worker left the factory during the given period.



Q2. DIRECTIONS *for questions 1 to 4:* Select the correct alternative from the given choices.

If there were exactly 90 workers working in the factory in January, how many workers joined the factory in June?

- a) **18**
- b) **39**
- c) **9**
- d) **Cannot be determined** **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**236**
Avg. time spent on this question by all students	**162**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**176**
% of students who attempted this question	**18.05**
% of students who got the question right of those who attempted	**38.58**

Video Solution

Text Solution

In January, the total salary paid was ₹600000. The workers who were working in January will have a salary of ₹600000 in February as well. (since no worker joined in January).
Since the total salary paid increased by ₹40000 in February, this ₹40000 must have been paid to the workers who joined in February. Let the number of workers who joined in February be n.
In March, the workers who joined in February will be paid double the amount. Hence, they will be paid ₹80000 (as they were being paid ₹40000 in the first month of joining).
In March, all the workers who joined before March will be paid ₹680000. Hence, the workers who joined in March will be paid ₹20000. Compared to February, the salary paid to the newly joined workers in March is half. Hence, there would have been n/2 workers who joined in March.
These workers will be paid ₹40000 from the next month onwards.
Hence, in April, the salary paid to all the workers who joined before April will be ₹720000.
The salary paid to the workers who joined in April will be ₹50000. Since this is 5/4 times the salary paid to newly joined workers in February, the number of newly joined workers in April will be 5n/4.
In May, the salary paid to all workers who joined before May will be ₹820000. Hence, the salary paid to those who joined in May will be ₹70000 and the number of workers who joined in May will be 7n/4.
In June, the salary paid to all the workers who joined before June will be ₹960000. Hence, the salary paid to those who joined in June will be ₹60000 and the number of workers who joined in June will be 3n/2.
In July, the salary paid to all the workers who joined before July will be ₹1080000. Hence, the salary paid to those who joined in July will be ₹30000 and the number of workers who joined in July will be 3n/4.
The following table provides the number of workers who joined in each month, with a representing the number of workers in the factory in January:

Month	January	February	March	April	May	June	July
Number of New Workers	0	n	n/2	5n/4	7n/4	3n/2	3n/4

Given that there were 90 workers in January.
Salary of each worker = 600000/90 = 20000/3
Salary of a worker in first month = 10000/3
Salary drawn by newly joined workers in February = 40000.
Number of newly joined workers in February = n = 12
Number of workers who joined in June = 12 × 3/2 = 18 Choice (A)

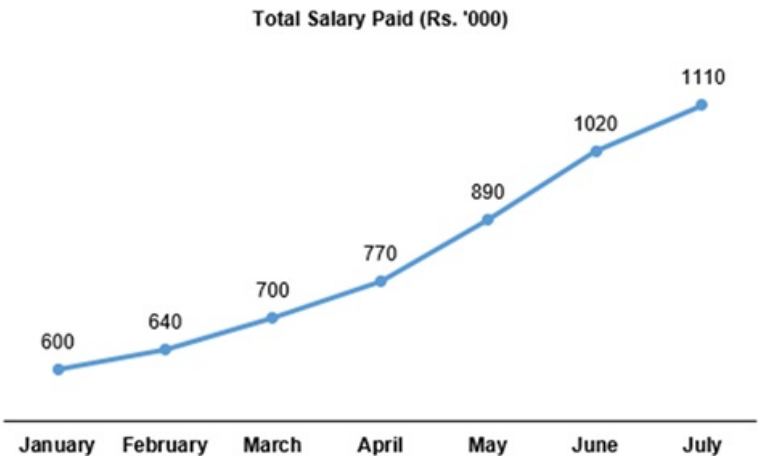
undefined

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

In a factory, all the workers are paid a salary on the last day of every month. All the workers who have been working in the factory for more than one month are paid an equal salary, which remains constant. The salary paid to any worker for his first month in the factory is half the salary that is paid to any worker who has worked in the factory for more than one month. Any worker who starts working in the factory always starts working from the first day of a month.

The graph below provides the total salary (in Rs.'000) paid to all the workers each month, for seven months - starting from January of a particular year. It is known that no worker joined the factory in January and no worker left the factory during the

given period.



Q3. DIRECTIONS *for questions 1 to 4:* Select the correct alternative from the given choices.

In which month did the maximum number of workers join the factory?

- a) **February**
- b) **April**
- c) **May** **Your answer is correct**
- d) **June**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**104**
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	**41**
% of students who attempted this question	**21.9**
% of students who got the question right of those who attempted	**47.34**

Video Solution

Text Solution

In January, the total salary paid was ₹600000. The workers who were working in January will have a salary of ₹600000 in February as well. (since no worker joined in January).
Since the total salary paid increased by ₹40000 in February, this ₹40000 must have been paid to the workers who joined in February. Let the number of workers who joined in February be n.
In March, the workers who joined in February will be paid double the amount. Hence, they will be paid ₹80000 (as they were being paid ₹40000 in the first month of joining).
In March, all the workers who joined before March will be paid ₹680000. Hence, the workers who joined in March will be paid ₹20000. Compared to February, the salary paid to the newly joined workers in March is half. Hence, there would have been n/2 workers who joined in March.
These workers will be paid ₹40000 from the next month onwards.
Hence, in April, the salary paid to all the workers who joined before April will be ₹720000.
The salary paid to the workers who joined in April will be ₹50000. Since this is 5/4 times the salary paid to newly joined workers in February, the number of newly joined workers in April will be 5n/4.
In May, the salary paid to all workers who joined before May will be ₹820000. Hence, the salary paid to those who joined in May will be ₹70000 and the number of workers who joined in May will be 7n/4.
In June, the salary paid to all the workers who joined before June will be ₹960000. Hence, the salary paid to those who joined in June will be ₹60000 and the number of workers who joined in June will be 3n/2.
In July, the salary paid to all the workers who joined before July will be ₹1080000. Hence, the salary paid to those who joined in July will be ₹30000 and the number of workers who joined in July will be 3n/4.
The following table provides the number of workers who joined in each month, with a representing the number of workers in the factory in January:

Month	January	February	March	April	May	June	July
Number of New Workers	0	n	n/2	5n/4	7n/4	3n/2	3n/4

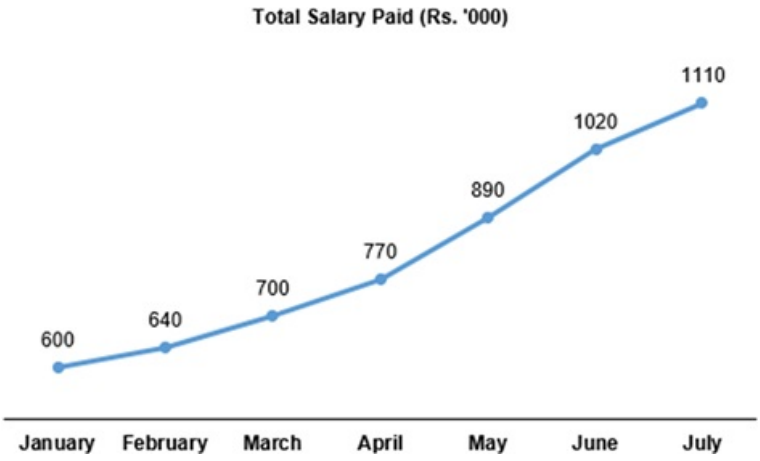
The maximum number of workers joined the factory in May. Choice (C)

undefined

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

In a factory, all the workers are paid a salary on the last day of every month. All the workers who have been working in the factory for more than one month are paid an equal salary, which remains constant. The salary paid to any worker for his first month in the factory is half the salary that is paid to any worker who has worked in the factory for more than one month. Any worker who starts working in the factory always starts working from the first day of a month.

The graph below provides the total salary (in Rs.'000) paid to all the workers each month, for seven months - starting from January of a particular year. It is known that no worker joined the factory in January and no worker left the factory during the given period.



Q4. DIRECTIONS *for questions 1 to 4:* Select the correct alternative from the given choices.

What is the minimum number of workers working in the factory in January?

- a) **25**
- b) **30**
- c) **40**
- d) **None of the above** **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	**85**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**97**
% of students who attempted this question	**13.94**
% of students who got the question right of those who attempted	**43.22**

Video Solution

Text Solution

In January, the total salary paid was ₹600000. The workers who were working in January will have a salary of ₹600000 in February as well. (since no worker joined in January).
Since the total salary paid increased by ₹40000 in February, this ₹40000 must have been paid to the workers who joined in February. Let the number of workers who joined in February be n.
In March, the workers who joined in February will be paid double the amount. Hence, they will be paid ₹80000 (as they were being paid ₹40000 in the first month of joining).
In March, all the workers who joined before March will be paid ₹680000. Hence, the workers who joined in March will be paid ₹20000. Compared to February, the salary paid to the newly joined workers in March is half. Hence, there would have been n/2 workers who joined in March.
These workers will be paid ₹40000 from the next month onwards.
Hence, in April, the salary paid to all the workers who joined before April will be ₹720000.
The salary paid to the workers who joined in April will be ₹50000. Since this is 5/4 times the salary paid to newly joined workers in February, the number of newly joined workers in April will be 5n/4.
In May, the salary paid to all workers who joined before May will be ₹820000. Hence, the salary paid to those who joined in May will be ₹70000 and the number of workers who joined in May will be 7n/4.
In June, the salary paid to all the workers who joined before June will be ₹960000. Hence, the salary paid to those who joined in June will be ₹60000 and the number of workers who joined in June will be 3n/2.
In July, the salary paid to all the workers who joined before July will be ₹1080000. Hence, the salary paid to those who joined in July will be ₹30000 and the number of workers who joined in July will be 3n/4.
The following table provides the number of workers who joined in each month, with a representing the number of workers in the factory in January:

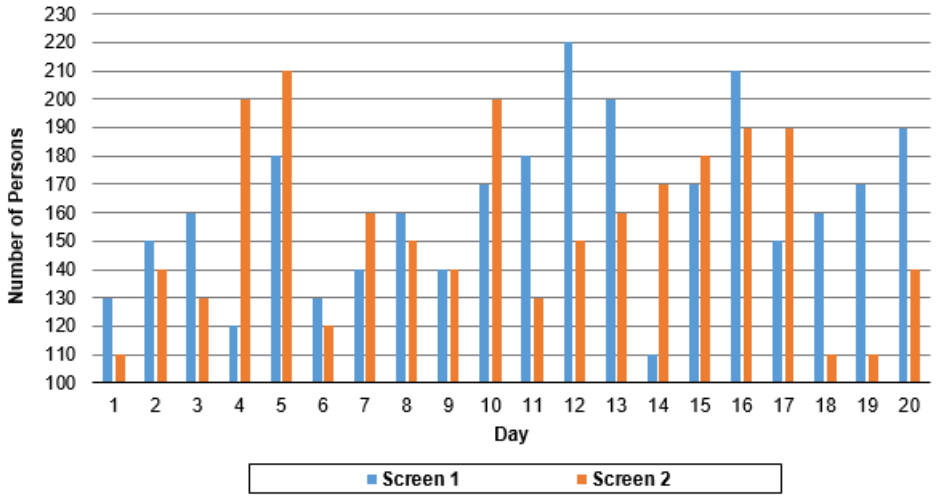
Month	January	February	March	April	May	June	July
Number of New Workers	0	n	n/2	5n/4	7n/4	3n/2	3n/4

The number of new workers in each month must be an integer.
Hence, n must be a minimum of 4. Since n is a minimum of 4, the salary paid in the first month must be atmost ₹10000.
Salary paid from second month onwards will be atmost ₹20,000
Hence, the maximum possible salary of a worker working in the factory in January is ₹20000.
Minimum possible number of workers = 600000/20000 = 30 Choice (B)

undefined

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

In Knox multiplex, there are exactly two screens, Screen 1 and Screen 2. The graph below provides the number of persons who watched a movie in Screen 1 and the number of persons who watched a movie in Screen 2 on each day, for 20 consecutive days - Day 1 through Day 20. Assume that no person watched more than one movie at the multiplex during the given period.



Q5. DIRECTIONS *for question 5:* Select the correct alternative from the given choices.

On how many days during the given period is the number of persons who watched a movie in Screen 1 at least 30% more than the number of persons who watched a movie in Screen 2?

a) **4**

b) **6**

c) **7** **Your answer is incorrect**

d) **5**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**251**
Avg. time spent on this question by all students	**254**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**258**
% of students who attempted this question	**34.1**
% of students who got the question right of those who attempted	**51.28**

Video Solution

Text Solution

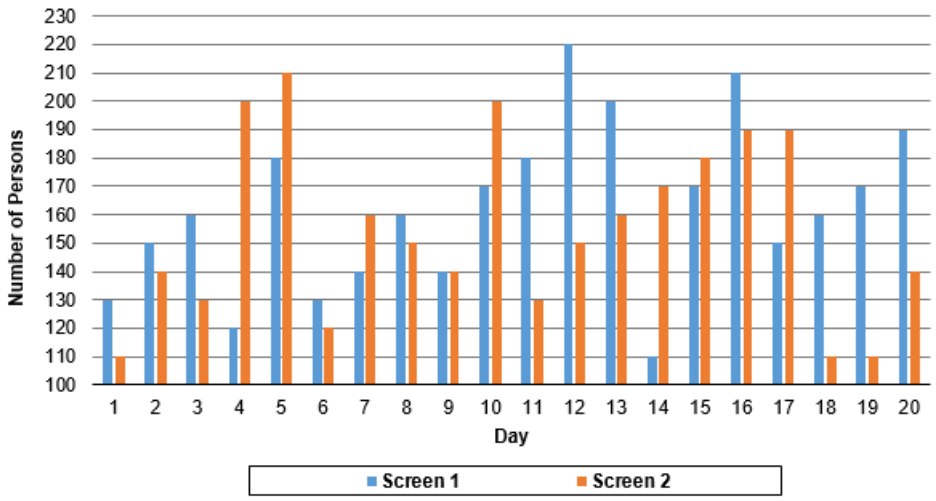
Since the vertical axis in the given chart starts from 100 and each gridline represents 10 persons, for the given condition to be satisfied, the blue bar (representing Screen 1) must be at least three gridlines (i.e., 30 persons more, which is 30% of 100) above the red bar (representing Screen 2).
For these days, we can see whether the given condition is satisfied.
By observation, we can see that the given condition is satisfied on five days, Day 11, Day 12, Day 18, Day 19 and Day 20. Choice (D)

undefined

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

In Knox multiplex, there are exactly two screens, Screen 1 and Screen 2. The graph below provides the number of persons who watched a movie in Screen 1 and the number of persons who watched a movie in Screen 2 on each day, for 20 consecutive days - Day 1 through Day 20. Assume that no person watched more than one movie at the multiplex during the

given period.



Q6. DIRECTIONS *for questions 6 and 7:* Type in your answer in the input box provided below the question.

On how many days during the given period did the total number of persons who watched a movie in Knox multiplex decrease as compared to the previous day?

Your Answer:7 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**234**
Avg. time spent on this question by all students	**188**
Difficulty Level	**VE**
Avg. time spent on this question by students who got this question right	**196**
% of students who attempted this question	**33.59**
% of students who got the question right of those who attempted	**62.2**

Video Solution

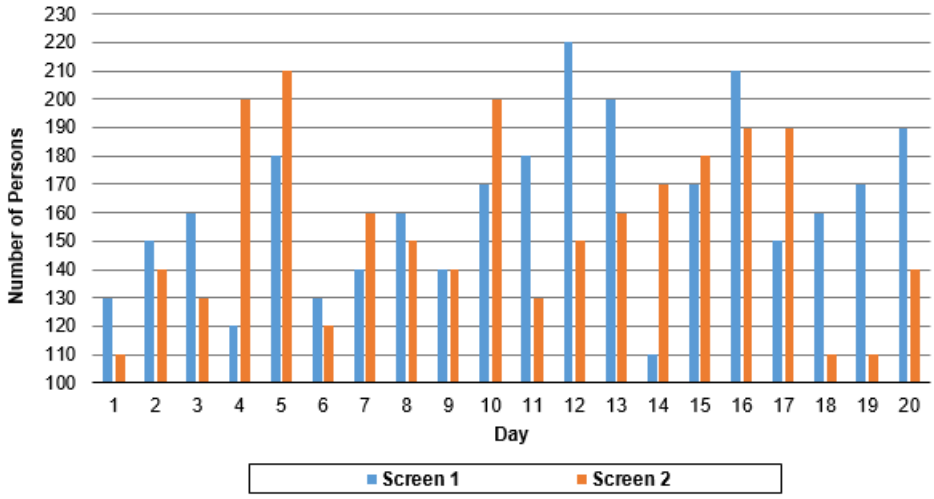
Text Solution

The total number of persons who watched a movie in Knox multiplex decreased on 7 days, Day 6, Day 9, Day 11, Day 13, Day 14, Day 17 and Day 18. Ans: (7)

undefined

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

In Knox multiplex, there are exactly two screens, Screen 1 and Screen 2. The graph below provides the number of persons who watched a movie in Screen 1 and the number of persons who watched a movie in Screen 2 on each day, for 20 consecutive days - Day 1 through Day 20. Assume that no person watched more than one movie at the multiplex during the given period.



Q7. DIRECTIONS *for questions 6 and 7:* Type in your answer in the input box provided below the question.

If each ticket for Screen 1 is priced at Rs. 50 and each ticket for Screen 2 is priced at Rs. 40, on how many days during the given period is the revenue from ticket sales for Screen 2 at least as much as that for Screen 1?

Your Answer:2 **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**217**
Avg. time spent on this question by all students	**222**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**231**
% of students who attempted this question	**28.74**
% of students who got the question right of those who attempted	**46.24**

Video Solution

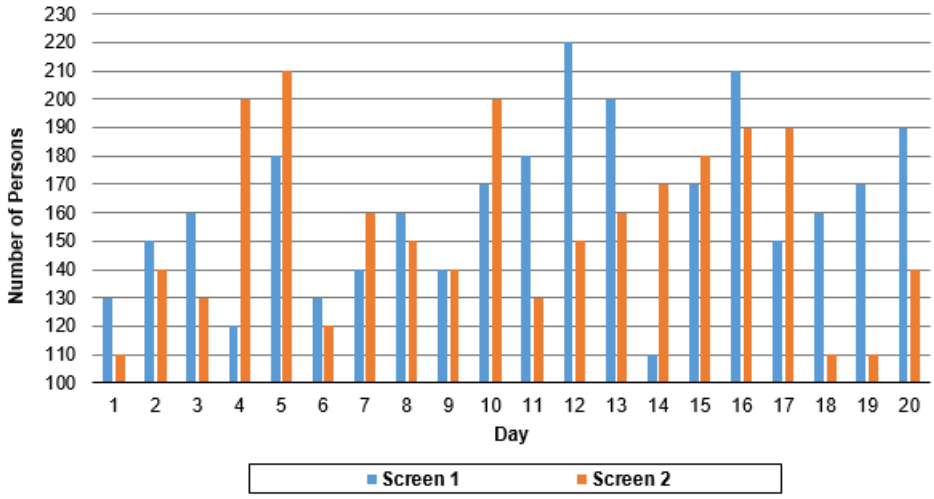
Text Solution

For the given ticket prices, the price of ticket for Screen 2 is 20% less than the price of ticket for Screen 1.
For the revenue of Screen 2 to be greater, the number of persons who watched a movie in Screen 1 must be at least 20% less than the number of persons who watched a movie in Screen 2.
Three days, Day 4, Day 14 and Day 17, satisfy this condition. Ans: (3)

undefined

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

In Knox multiplex, there are exactly two screens, Screen 1 and Screen 2. The graph below provides the number of persons who watched a movie in Screen 1 and the number of persons who watched a movie in Screen 2 on each day, for 20 consecutive days - Day 1 through Day 20. Assume that no person watched more than one movie at the multiplex during the given period.



Q8. DIRECTIONS *for question 8:* Select the correct alternative from the given choices.

During the given period, what is the average number of persons who watched a movie in Knox multiplex per day?

- a) **410.5**
- b) **316.5** **Your answer is correct**
- c) **385.5**
- d) **300.5**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**602**
Avg. time spent on this question by all students	**248**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**255**
% of students who attempted this question	**24.61**
% of students who got the question right of those who attempted	**75.96**

Video Solution

Text Solution

Total number of persons who watched a movie = 6330

Average = $\frac{6330}{20} = 316.5$ Choice (B)

undefined

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

Raghu, a project manager, has to select a team of eight persons from twelve persons, A through L. Among the eight persons that he selects, at least four persons should be willing to work on weekdays and at least four persons should be willing to work on weekends. Among the eight persons that Raghu selects, there should be at least four persons proficient in C+, at least four persons proficient in Java and at least four persons proficient in Python. Among the twelve persons, the people who are proficient in C+ are A, H, I, J and L; the persons who are proficient in Java are A, B, C, D, E, G and H; the persons who are proficient in Python are C, F, G, H, I, J, K and L.

Further, A, C, D, H and L are willing to work only on weekdays; B, F, I, J and K are willing to work only on weekends and the rest are willing to work on either weekdays or weekends. It is also known that any person who is proficient in both Java and Python cannot be in the team with any person who is not proficient in Python.

Q9. DIRECTIONS *for question 9:* Type in your answer in the input box provided below the question.

In how many ways can Raghu select the team?

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**17**
Avg. time spent on this question by all students	**384**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**498**
% of students who attempted this question	**11.38**
% of students who got the question right of those who attempted	**19.86**

Video Solution

Text Solution

The following table summarizes the information given in the question:

Person	C+	Java	Python	Weekday/Weekend
A	Y	Y	N	Weekday
B	N	Y	N	Weekend
C	N	Y	Y	Weekday
D	N	Y	N	Weekday
E	N	Y	N	Both
F	N	N	Y	Weekend
G	N	Y	Y	Both
H	Y	Y	Y	Weekday
I	Y	N	Y	Weekend
J	Y	N	Y	Weekend
K	N	N	Y	Weekend
L	Y	N	Y	Weekday

Given that any person proficient in both Java and Python cannot be in the team with any person not proficient in Python. The persons who are proficient in both Java and Python are C, G and H. The persons who are not proficient in Python are A, B, D and E. If A, B, D and E are not in the team, then all the other persons must be in the team. Hence, the team will consist of C, F, G, H, I, J, K and L. In this team there will only be three persons proficient in Java (C, G and H). Hence, this case is not possible and C, G and H cannot be in the team.

Of the persons proficient in Java, there are only four persons other than C, G and H. They are A, B, D and E. All of them must be in the team. Among A, B, D and E, three are willing to work on weekdays (A, D and E) and two are willing to work on weekends (B and E).

Between, F, I, J, K and L, four persons must be in the team. Among F, I, J, K and L, only L is willing to work on weekdays and the rest work only on weekends. Since there should be at least one person willing to work on weekdays, L must be in the team.

Among A, B, D, E and L, two persons are proficient in C+ (A and L). Hence, of the other three persons among F, I, J and K, at least two must be proficient in C+. Hence, F and K cannot be in the team together. Hence, the possible teams are **A, B, D, E, F, I, J, L** and **A, B, D, E, I, J, K, L**.

Raghu can select the team in 2 ways. Ans: (2)

undefined

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

Raghu, a project manager, has to select a team of eight persons from twelve persons, A through L. Among the eight persons that he selects, at least four persons should be willing to work on weekdays and at least four persons should be willing to work on weekends. Among the eight persons that Raghu selects, there should be at least four persons proficient in C+, at least four persons proficient in Java and at least four persons proficient in Python. Among the twelve persons, the people who are proficient in C+ are A, H, I, J and L; the persons who are proficient in Java are A, B, C, D, E, G and H; the persons

who are proficient in Python are C, F, G, H, I, J, K and L.

Further, A, C, D, H and L are willing to work only on weekdays; B, F, I, J and K are willing to work only on weekends and the rest are willing to work on either weekdays or weekends. It is also known that any person who is proficient in both Java and Python cannot be in the team with any person who is not proficient in Python.

Q10. DIRECTIONS *for questions 10 to 12:* Select the correct alternative from the given choices.

Who among the following need not be in the team?

- a) **I**
- b) **J**
- c) **F**
- d) **More than one 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	**114**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**120**
% of students who attempted this question	**16.41**
% of students who got the question right of those who attempted	**50.28**

Video Solution

Text Solution

The following table summarizes the information given in the question:

Person	C+	Java	Python	Weekday/Weekend
A	Y	Y	N	Weekday
B	N	Y	N	Weekend
C	N	Y	Y	Weekday
D	N	Y	N	Weekday
E	N	Y	N	Both
F	N	N	Y	Weekend
G	N	Y	Y	Both
H	Y	Y	Y	Weekday
I	Y	N	Y	Weekend
J	Y	N	Y	Weekend
K	N	N	Y	Weekend
L	Y	N	Y	Weekday

Given that any person proficient in both Java and Python cannot be in the team with any person not proficient in Python. The persons who are proficient in both Java and Python are C, G and H. The persons who are not proficient in Python are A, B, D and E. If A, B, D and E are not in the team, then all the other persons must be in the team. Hence, the team will consist of C, F, G, H, I, J, K and L. In this team there will only be three persons proficient in Java (C, G and H). Hence, this case is not possible and C, G and H cannot be in the team.

Of the persons proficient in Java, there are only four persons other than C, G and H. They are A, B, D and E. All of them must be in the team. Among A, B, D and E, three are willing to work on weekdays (A, D and E) and two are willing to work on weekends (B and E).

Between, F, I, J, K and L, four persons must be in the team. Among F, I, J, K and L, only L is willing to work on weekdays and the rest work only on weekends. Since there should be at least one person willing to work on weekdays, L must be in the team.

Among A, B, D, E and L, two persons are proficient in C+ (A and L). Hence, of the other three persons among F, I, J and K, at least two must be proficient in C+. Hence, F and K cannot be in the team together. Hence, the possible teams are **A, B, D, E, F, I, J, L** and **A, B, D, E, I, J, K, L**.

F need not be in the team. Choice (C)

undefined

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

Raghu, a project manager, has to select a team of eight persons from twelve persons, A through L. Among the eight persons that he selects, at least four persons should be willing to work on weekdays and at least four persons should be willing to work on weekends. Among the eight persons that Raghu selects, there should be at least four persons proficient in C+, at least four persons proficient in Java and at least four persons proficient in Python. Among the twelve persons, the people who are proficient in C+ are A, H, I, J and L; the persons who are proficient in Java are A, B, C, D, E, G and H; the persons who are proficient in Python are C, F, G, H, I, J, K and L.

Further, A, C, D, H and L are willing to work only on weekdays; B, F, I, J and K are willing to work only on weekends and the rest are willing to work on either weekdays or weekends. It is also known that any person who is proficient in both Java and Python cannot be in the team with any person who is not proficient in Python.

Q11. DIRECTIONS *for questions 10 to 12:* Select the correct alternative from the given choices.

Who among the following will definitely be in the team?

- a) **C**
- b) **A**
- c) **L**
- d) **More than one 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	**54**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**54**
% of students who attempted this question	**17.41**
% of students who got the question right of those who attempted	**54.45**

Video Solution

Text Solution

The following table summarizes the information given in the question:

Person	C+	Java	Python	Weekday/Weekend
A	Y	Y	N	Weekday
B	N	Y	N	Weekend
C	N	Y	Y	Weekday
D	N	Y	N	Weekday
E	N	Y	N	Both
F	N	N	Y	Weekend
G	N	Y	Y	Both
H	Y	Y	Y	Weekday
I	Y	N	Y	Weekend
J	Y	N	Y	Weekend
K	N	N	Y	Weekend
L	Y	N	Y	Weekday

Given that any person proficient in both Java and Python cannot be in the team with any person not proficient in Python. The persons who are proficient in both Java and Python are C, G and H. The persons who are not proficient in Python are A, B, D and E. If A, B, D and E are not in the team, then all the other persons must be in the team. Hence, the team will consist of C, F, G, H, I, J, K and L. In this team there will only be three persons proficient in Java (C, G and H). Hence, this case is not possible and C, G and H cannot be in the team.
Of the persons proficient in Java, there are only four persons other than C, G and H. They are A, B, D and E. All of them must be in the team. Among A, B, D and E, three are willing to work on weekdays (A, D and E) and two are willing to work on weekends (B and E).
Between, F, I, J, K and L, four persons must be in the team. Among F, I, J, K and L, only L is willing to work on weekdays and the rest work only on weekends. Since there should be at least one person willing to work on weekdays, L must be in the team.
Among A, B, D, E and L, two persons are proficient in C+ (A and L). Hence, of the other three persons among F, I, J and K, at least two must be proficient in C+. Hence, F and K cannot be in the team together. Hence, the possible teams are **A, B, D, E, F, I, J, L** and **A, B, D, E, I, J, K, L**.

A and L will definitely be in the team. Choice (D)

undefined

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

Raghu, a project manager, has to select a team of eight persons from twelve persons, A through L. Among the eight persons that he selects, at least four persons should be willing to work on weekdays and at least four persons should be willing to work on weekends. Among the eight persons that Raghu selects, there should be at least four persons proficient in C+, at least four persons proficient in Java and at least four persons proficient in Python. Among the twelve persons, the people who are proficient in C+ are A, H, I, J and L; the persons who are proficient in Java are A, B, C, D, E, G and H; the persons who are proficient in Python are C, F, G, H, I, J, K and L.

Further, A, C, D, H and L are willing to work only on weekdays; B, F, I, J and K are willing to work only on weekends and the

rest are willing to work on either weekdays or weekends. It is also known that any person who is proficient in both Java and Python cannot be in the team with any person who is not proficient in Python.

Q12. DIRECTIONS *for questions 10 to 12:* Select the correct alternative from the given choices.

Which of the following pairs of persons cannot be in the team together?

- a) **A, D**
- b) **K, L**
- c) **F, K**
- d) **I, J**

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	**80**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**76**
% of students who attempted this question	**13.22**
% of students who got the question right of those who attempted	**37.41**

Video Solution

Text Solution

The following table summarizes the information given in the question:

Person	C+	Java	Python	Weekday/Weekend
A	Y	Y	N	Weekday
B	N	Y	N	Weekend
C	N	Y	Y	Weekday
D	N	Y	N	Weekday
E	N	Y	N	Both
F	N	N	Y	Weekend
G	N	Y	Y	Both
H	Y	Y	Y	Weekday
I	Y	N	Y	Weekend
J	Y	N	Y	Weekend
K	N	N	Y	Weekend
L	Y	N	Y	Weekday

Given that any person proficient in both Java and Python cannot be in the team with any person not proficient in Python. The persons who are proficient in both Java and Python are C, G and H. The persons who are not proficient in Python are A, B, D and E. If A, B, D and E are not in the team, then all the other persons must be in the team. Hence, the team will consist of C, F, G, H, I, J, K and L. In this team there will only be three persons proficient in Java (C, G and H). Hence, this case is not possible and C, G and H cannot be in the team.

Of the persons proficient in Java, there are only four persons other than C, G and H. They are A, B, D and E. All of them must be in the team. Among A, B, D and E, three are willing to work on weekdays (A, D and E) and two are willing to work on weekends (B and E).

Between, F, I, J, K and L, four persons must be in the team. Among F, I, J, K and L, only L is willing to work on weekdays and the rest work only on weekends. Since there should be at least one person willing to work on weekdays, L must be in the team.

Among A, B, D, E and L, two persons are proficient in C+ (A and L). Hence, of the other three persons among F, I, J and K, at least two must be proficient in C+. Hence, F and K cannot be in the team together. Hence, the possible teams are **A, B, D, E, F, I, J, L** and **A, B, D, E, I, J, K, L**.

F and K cannot be in the team together. Choice (C)

undefined

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

Five persons - Krish, Manan, Naren, Oswald and Prem - visited five countries, Freedonia, Aldorria, Borginia, Glovania and Kashfar, such that each person visited exactly four countries. Further, each country has a different capital city from among Mos Eisley, Coruscant, Porbell, Toyland and Woodcrest. Any person who visited a country definitely visited its capital city.

It is also known that

i. for any pair of persons, the number of countries that both of them visited was at most three.

ii. Naren visited Glovania, but did not visit Porbell, while both Krish and Oswald visited Toyland.

iii. Oswald visited Freedonia, whose capital city is not Porbell, while the capital city of Borginia is not Woodcrest.

iv. both Krish and Prem visited Woodcrest, while both Manan and Naren visited Borginia.

v. Prem visited Toyland, but he did not visit Kashfar the capital city of which is not Coruscant.

Q13. DIRECTIONS *for questions 13 to 16:* Select the correct alternative from the given choices.

Which country did Krish not visit?

- a) **Aldorria**
- b) **Freedonia**
- c) **Borginia**
- 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	**12**
Avg. time spent on this question by all students	**452**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**520**
% of students who attempted this question	**16.24**
% of students who got the question right of those who attempted	**35.16**

Video Solution

Text Solution

Given that each person visited four countries. From (i), each person must not have visited a different country.
From the given conditions, we can see that most of the conditions are related to persons and cities. Hence, we can start with determining which city each person did not visit.
From (ii), Naren did not visit Porbell. Hence, Naren must have visited all the other capital cities. Further, since Naren did not visit Porbell, all the others must have visited Porbell.
From (ii), Krish and Oswald visited Toyland. From (iv), Krish and Prem visited Woodcrest. From (v), Prem visited Toyland. Hence, everyone except Manan visited Toyland. Therefore, Manan must not have visited Toyland and must have visited all the other cities.
Everyone except Oswald visited Woodcrest. Hence, Oswald must not have visited Woodcrest and visited all the other cities.
Krish and Prem must not have visited Mos Eisley and Coruscant (not necessarily respectively). From (v), Prem did not visit Kashfar and the capital city of Kashfar was not Coruscant. Therefore, Kashfar's capital city must be Mos Eisley and Prem must not have visited Mos Eisley. Krish must not have visited Coruscant.
We know that capital city of Kashfar was Mos Eisley.
From (iii), the capital city of Borginia is not Woodcrest. From (iv), both Manan and Naren visited Borginia. But Manan did not visit Toyland and Naren did not visit Porbell. Hence, the capital city of Borginia cannot be Toyland or Porbell. Hence, the capital of Borginia must be Coruscant.
From (iii), Oswald visited Freedonia and Porbell is not the capital of Freedonia. Since Oswald did not visit Woodcrest, Woodcrest is not the capital of Freedonia. Hence, Toyland must be the capital of Freedonia.
From (ii), Naren visited Glovania but did not visit Porbell. Hence, Porbell cannot be the capital of Glovania. Hence, Glovania's capital must be Woodcrest. Porbell must be the capital of Aldorria.
The following table provides the capital cities of each country and the countries that each person visited:

Country	Freedonia	Aldorria	Borginia	Glovania	Kashfar
Capital	Toyland	Porbell	Coruscant	Woodcrest	Mos Eisley
Krish	✓	✓	×	✓	✓
Manan	×	✓	✓	✓	✓
Naren	✓	×	✓	✓	✓
Oswald	✓	✓	✓	×	✓
Prem	✓	✓	✓	✓	×

Krish did not visit Borginia. Choice (C)

undefined

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

Five persons - Krish, Manan, Naren, Oswald and Prem - visited five countries, Freedonia, Aldorria, Borginia, Glovania and Kashfar, such that each person visited exactly four countries. Further, each country has a different capital city from among Mos Eisley, Coruscant, Porbell, Toyland and Woodcrest. Any person who visited a country definitely visited its capital city.

It is also known that

i. for any pair of persons, the number of countries that both of them visited was at most three.

ii. Naren visited Glovania, but did not visit Porbell, while both Krish and Oswald visited Toyland.

iii. Oswald visited Freedonia, whose capital city is not Porbell, while the capital city of Borginia is not Woodcrest.

iv. both Krish and Prem visited Woodcrest, while both Manan and Naren visited Borginia.

v. Prem visited Toyland, but he did not visit Kashfar the capital city of which is not Coruscant.

Q14. DIRECTIONS *for questions 13 to 16:* Select the correct alternative from the given choices.

What is the capital city of Freedonia?

- a) **Coruscant**
- b) **Toyland**
- c) **Woodcrest**
- d) **Mos Eisley**

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	**92**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**86**
% of students who attempted this question	**13.21**
% of students who got the question right of those who attempted	**63.32**

Video Solution

Text Solution

Given that each person visited four countries. From (i), each person must not have visited a different country.
From the given conditions, we can see that most of the conditions are related to persons and cities. Hence, we can start with determining which city each person did not visit.
From (ii), Naren did not visit Porbell. Hence, Naren must have visited all the other capital cities. Further, since Naren did not visit Porbell, all the others must have visited Porbell.
From (ii), Krish and Oswald visited Toyland. From (iv), Krish and Prem visited Woodcrest. From (v), Prem visited Toyland. Hence, everyone except Manan visited Toyland. Therefore, Manan must not have visited Toyland and must have visited all the other cities.
Everyone except Oswald visited Woodcrest. Hence, Oswald must not have visited Woodcrest and visited all the other cities.
Krish and Prem must not have visited Mos Eisley and Coruscant (not necessarily respectively). From (v), Prem did not visit Kashfar and the capital city of Kashfar was not Coruscant. Therefore, Kashfar's capital city must be Mos Eisley and Prem must not have visited Mos Eisley. Krish must not have visited Coruscant.
We know that capital city of Kashfar was Mos Eisley.
From (iii), the capital city of Borginia is not Woodcrest. From (iv), both Manan and Naren visited Borginia. But Manan did not visit Toyland and Naren did not visit Porbell. Hence, the capital city of Borginia cannot be Toyland or Porbell. Hence, the capital of Borginia must be Coruscant.
From (iii), Oswald visited Freedonia and Porbell is not the capital of Freedonia. Since Oswald did not visit Woodcrest, Woodcrest is not the capital of Freedonia. Hence, Toyland must be the capital of Freedonia.
From (ii), Naren visited Glovania but did not visit Porbell. Hence, Porbell cannot be the capital of Glovania. Hence, Glovania's capital must be Woodcrest. Porbell must be the capital of Aldorria.
The following table provides the capital cities of each country and the countries that each person visited:

Country	Freedonia	Aldorria	Borginia	Glovania	Kashfar
Capital	Toyland	Porbell	Coruscant	Woodcrest	Mos Eisley
Krish	✓	✓	×	✓	✓
Manan	×	✓	✓	✓	✓
Naren	✓	×	✓	✓	✓
Oswald	✓	✓	✓	×	✓
Prem	✓	✓	✓	✓	×

The capital city of Freedonia is Toyland. Choice (B)

undefined

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

Five persons - Krish, Manan, Naren, Oswald and Prem - visited five countries, Freedonia, Aldorria, Borginia, Glovania and Kashfar, such that each person visited exactly four countries. Further, each country has a different capital city from among Mos Eisley, Coruscant, Porbell, Toyland and Woodcrest. Any person who visited a country definitely visited its capital city.

It is also known that

i. for any pair of persons, the number of countries that both of them visited was at most three.

ii. Naren visited Glovania, but did not visit Porbell, while both Krish and Oswald visited Toyland.

iii. Oswald visited Freedonia, whose capital city is not Porbell, while the capital city of Borginia is not Woodcrest.

iv. both Krish and Prem visited Woodcrest, while both Manan and Naren visited Borginia.

v. Prem visited Toyland, but he did not visit Kashfar the capital city of which is not Coruscant.

Q15. DIRECTIONS *for questions 13 to 16:* Select the correct alternative from the given choices.

Which city did Oswald not visit?

- a) **Woodcrest**
- b) **Coruscant**
- c) **Mos Eisley**
- 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	**D**
Avg. time spent on this question by students who got this question right	**57**
% of students who attempted this question	**11.94**
% of students who got the question right of those who attempted	**19.2**

Video Solution

Text Solution

Given that each person visited four countries. From (i), each person must not have visited a different country.
From the given conditions, we can see that most of the conditions are related to persons and cities. Hence, we can start with determining which city each person did not visit.
From (ii), Naren did not visit Porbell. Hence, Naren must have visited all the other capital cities. Further, since Naren did not visit Porbell, all the others must have visited Porbell.
From (ii), Krish and Oswald visited Toyland. From (iv), Krish and Prem visited Woodcrest. From (v), Prem visited Toyland. Hence, everyone except Manan visited Toyland. Therefore, Manan must not have visited Toyland and must have visited all the other cities.
Everyone except Oswald visited Woodcrest. Hence, Oswald must not have visited Woodcrest and visited all the other cities.
Krish and Prem must not have visited Mos Eisley and Coruscant (not necessarily respectively). From (v), Prem did not visit Kashfar and the capital city of Kashfar was not Coruscant. Therefore, Kashfar's capital city must be Mos Eisley and Prem must not have visited Mos Eisley. Krish must not have visited Coruscant.
We know that capital city of Kashfar was Mos Eisley.
From (iii), the capital city of Borginia is not Woodcrest. From (iv), both Manan and Naren visited Borginia. But Manan did not visit Toyland and Naren did not visit Porbell. Hence, the capital city of Borginia cannot be Toyland or Porbell. Hence, the capital of Borginia must be Coruscant.
From (iii), Oswald visited Freedonia and Porbell is not the capital of Freedonia. Since Oswald did not visit Woodcrest, Woodcrest is not the capital of Freedonia. Hence, Toyland must be the capital of Freedonia.
From (ii), Naren visited Glovania but did not visit Porbell. Hence, Porbell cannot be the capital of Glovania. Hence, Glovania's capital must be Woodcrest. Porbell must be the capital of Aldorria.
The following table provides the capital cities of each country and the countries that each person visited:

Country	Freedonia	Aldorria	Borginia	Glovania	Kashfar
Capital	Toyland	Porbell	Coruscant	Woodcrest	Mos Eisley
Krish	✓	✓	×	✓	✓
Manan	×	✓	✓	✓	✓
Naren	✓	×	✓	✓	✓
Oswald	✓	✓	✓	×	✓
Prem	✓	✓	✓	✓	×

Oswald did not visit Woodcrest. Choice (A)

undefined

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

Five persons - Krish, Manan, Naren, Oswald and Prem - visited five countries, Freedonia, Aldorria, Borginia, Glovania and Kashfar, such that each person visited exactly four countries. Further, each country has a different capital city from among Mos Eisley, Coruscant, Porbell, Toyland and Woodcrest. Any person who visited a country definitely visited its capital city.

It is also known that

i. for any pair of persons, the number of countries that both of them visited was at most three.

ii. Naren visited Glovania, but did not visit Porbell, while both Krish and Oswald visited Toyland.

iii. Oswald visited Freedonia, whose capital city is not Porbell, while the capital city of Borginia is not Woodcrest.

iv. both Krish and Prem visited Woodcrest, while both Manan and Naren visited Borginia.

v. Prem visited Toyland, but he did not visit Kashfar the capital city of which is not Coruscant.

Q16. DIRECTIONS *for questions 13 to 16:* Select the correct alternative from the given choices.

Which of the following countries did all three of Krish, Manan and Naren visit?

- a) **Aldorria**
- b) **Glovania**
- c) **Borginia**
- d) **Freedonia**

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	**63**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**74**
% of students who attempted this question	**13.82**
% of students who got the question right of those who attempted	**27.15**

Video Solution

Text Solution

Given that each person visited four countries. From (i), each person must not have visited a different country.
From the given conditions, we can see that most of the conditions are related to persons and cities. Hence, we can start with determining which city each person did not visit.
From (ii), Naren did not visit Porbell. Hence, Naren must have visited all the other capital cities. Further, since Naren did not visit Porbell, all the others must have visited Porbell.
From (ii), Krish and Oswald visited Toyland. From (iv), Krish and Prem visited Woodcrest. From (v), Prem visited Toyland. Hence, everyone except Manan visited Toyland. Therefore, Manan must not have visited Toyland and must have visited all the other cities.
Everyone except Oswald visited Woodcrest. Hence, Oswald must not have visited Woodcrest and visited all the other cities.
Krish and Prem must not have visited Mos Eisley and Coruscant (not necessarily respectively). From (v), Prem did not visit Kashfar and the capital city of Kashfar was not Coruscant. Therefore, Kashfar's capital city must be Mos Eisley and Prem must not have visited Mos Eisley. Krish must not have visited Coruscant.
We know that capital city of Kashfar was Mos Eisley.
From (iii), the capital city of Borginia is not Woodcrest. From (iv), both Manan and Naren visited Borginia. But Manan did not visit Toyland and Naren did not visit Porbell. Hence, the capital city of Borginia cannot be Toyland or Porbell. Hence, the capital of Borginia must be Coruscant.
From (iii), Oswald visited Freedonia and Porbell is not the capital of Freedonia. Since Oswald did not visit Woodcrest, Woodcrest is not the capital of Freedonia. Hence, Toyland must be the capital of Freedonia.
From (ii), Naren visited Glovania but did not visit Porbell. Hence, Porbell cannot be the capital of Glovania. Hence, Glovania's capital must be Woodcrest. Porbell must be the capital of Aldorria.
The following table provides the capital cities of each country and the countries that each person visited:

Country	Freedonia	Aldorria	Borginia	Glovania	Kashfar
Capital	Toyland	Porbell	Coruscant	Woodcrest	Mos Eisley
Krish	✓	✓	×	✓	✓
Manan	×	✓	✓	✓	✓
Naren	✓	×	✓	✓	✓
Oswald	✓	✓	✓	×	✓
Prem	✓	✓	✓	✓	×

Krish, Manan and Naren all visited Glovania. Choice (B)

undefined

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

In a classroom, there were seven chairs in a straight line from left to right, all facing the same direction. Of the seven chairs, two chairs had both seat cushions and handles; two chairs did not have seat cushions but had handles; three chairs had neither seat cushions nor handles.

On a particular day, seven students, Andy, Chris, Davies, Manny, Pete, Randy and Steve, came into the classroom at different times and occupied the chairs. When any student came into the classroom, if a chair which had both cushions and handles was unoccupied, he sat in it; if these chairs were all occupied, a student sat in a chair which did not have cushions but had handles; if the chairs of both these types were all occupied, a student would sit in any of the unoccupied chairs available. If two chairs of the same type were available, the student selects any of the two chairs at random.

The following information is known about the order in which they came into the classroom and the chairs that they occupied:

i. Andy, who came in immediately before Davies, is sitting in a chair which does not have seat cushions but has handles.

ii. Chris, who was the third person to come in, is sitting in the chair which is two places from the chair on the extreme left.

iii. The chair in which Pete is sitting has neither seat cushions nor handles and is to the immediate left of the chair in which Steve is sitting.

iv. The two chairs at the extreme ends are of the same type and at least three persons came in before Randy, who was not the last to come in to the classroom.

v. Davies is sitting two places to the right of Chris, while Steve is not sitting adjacent to Chris.

vi. The three chairs which have neither seat cushions nor handles are not all immediately next to each other.

Q17. DIRECTIONS *for question 17:* Select the correct alternative from the given choices.

Which of the following is definitely true of the chair that Randy is sitting in?

- a) **The chair has both seat cushions and handles.**
- b) **The chair does not have seat cushions but has handles.**
- c) **The chair has neither seat cushions nor handles.**
- 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	**12**
Avg. time spent on this question by all students	**536**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**561**
% of students who attempted this question	**20.08**
% of students who got the question right of those who attempted	**73.19**

Video Solution

Text Solution

Let 1 to 7 represent the chairs from left to right.
From (ii), Chris was the third person to come in. Hence, he must have sat in a chair which did not have seat cushions but had handles. Since he sat in chair 3, chair 3 must be a seat which did not have seat cushions but had handles.
From (v), Davies must be in chair 5. From (i), Davies came after Andy and Andy sat in a chair which did not have seat cushions but had handles. Since Chris sat in the same type of chair, Davies must be sitting in a chair which did not have both seat cushions and handles.
From (iii), Pete sat in a chair which did not have both seat cushions and handles and was to the immediate left of Steve. From (v), Steve was not adjacent to Chris. Hence, Pete and Steve cannot be in chairs 1 and 2. They must be in chairs 6 and 7.
From (iv), the two chairs at the extreme ends cannot be the chairs which do not have seat cushions but have handles (since one of the chairs is chair 3). They cannot be the chairs which do not have both seat cushions and handles (since two such chairs are chairs 5 and 6). Hence, they have to be the chairs which have both seat cushions and handles.
Andy cannot be the person at the extreme left. Randy cannot be the person at the extreme left (from iv). Hence, Manny has to be the person at the extreme left.
From (vi), the chair with no seat cushion and handle cannot be chair 4. Hence, chair 2 does not have both seat cushion and handle. Chair 4 must be the chair which does not have seat cushion but has a handle. From (i), Andy must be in chair 4 and hence, Randy must be in chair 2.
Chris was the third. Hence, Andy and Davies must be 4th and 5th. Since Randy and Pete are sitting in chairs without handles and seat cushions, they must be 6th and 7th. From (iv), Randy must be 6th and Pete must be 7th. Mandy and Steve must be 1st and 2nd in any order.
The following table provides the type of chair and the person seated in the order in which the chairs are present from left to right:

Order of arrival	1/2	6	3	4	5	7	2/1
Chair Type	Has both	No Seat Cushion No Handle	No Seat Cushion	No Seat Cushion	No Seat Cushion No Handle	No Seat Cushion No Handle	Has both
Person	Manny	Randy	Chris	Andy	Davies	Pete	Steve

Randy sat in the chair which did not have both seat cushions and handles.

Choice (C)

undefined

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

In a classroom, there were seven chairs in a straight line from left to right, all facing the same direction. Of the seven chairs, two chairs had both seat cushions and handles; two chairs did not have seat cushions but had handles; three chairs had neither seat cushions nor handles.

On a particular day, seven students, Andy, Chris, Davies, Manny, Pete, Randy and Steve, came into the classroom at different times and occupied the chairs. When any student came into the classroom, if a chair which had both cushions and

handles was unoccupied, he sat in it; if these chairs were all occupied, a student sat in a chair which did not have cushions but had handles; if the chairs of both these types were all occupied, a student would sit in any of the unoccupied chairs available. If two chairs of the same type were available, the student selects any of the two chairs at random.

The following information is known about the order in which they came into the classroom and the chairs that they occupied:

i. Andy, who came in immediately before Davies, is sitting in a chair which does not have seat cushions but has handles.

ii. Chris, who was the third person to come in, is sitting in the chair which is two places from the chair on the extreme left.

iii. The chair in which Pete is sitting has neither seat cushions nor handles and is to the immediate left of the chair in which Steve is sitting.

iv. The two chairs at the extreme ends are of the same type and at least three persons came in before Randy, who was not the last to come in to the classroom.

v. Davies is sitting two places to the right of Chris, while Steve is not sitting adjacent to Chris.

vi. The three chairs which have neither seat cushions nor handles are not all immediately next to each other.

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

How many students are sitting to the right of the student who was the fifth person to come in?

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	**90**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**79**
% of students who attempted this question	**17.38**
% of students who got the question right of those who attempted	**50.89**

Video Solution

Text Solution

Let 1 to 7 represent the chairs from left to right.
From (ii), Chris was the third person to come in. Hence, he must have sat in a chair which did not have seat cushions but had handles. Since he sat in chair 3, chair 3 must be a seat which did not have seat cushions but had handles.
From (v), Davies must be in chair 5. From (i), Davies came after Andy and Andy sat in a chair which did not have seat cushions but had handles. Since Chris sat in the same type of chair, Davies must be sitting in a chair which did not have both seat cushions and handles.
From (iii), Pete sat in a chair which did not have both seat cushions and handles and was to the immediate left of Steve. From (v), Steve was not adjacent to Chris. Hence, Pete and Steve cannot be in chairs 1 and 2. They must be in chairs 6 and 7.
From (iv), the two chairs at the extreme ends cannot be the chairs which do not have seat cushions but have handles (since one of the chairs is chair 3). They cannot be the chairs which do not have both seat cushions and handles (since two such chairs are chairs 5 and 6). Hence, they have to be the chairs which have both seat cushions and handles.
Andy cannot be the person at the extreme left. Randy cannot be the person at the extreme left (from iv). Hence, Manny has to be the person at the extreme left.
From (vi), the chair with no seat cushion and handle cannot be chair 4. Hence, chair 2 does not have both seat cushion and handle. Chair 4 must be the chair which does not have seat cushion but has a handle. From (i), Andy must be in chair 4 and hence, Randy must be in chair 2.
Chris was the third. Hence, Andy and Davies must be 4th and 5th. Since Randy and Pete are sitting in chairs without handles and seat cushions, they must be 6th and 7th. From (iv), Randy must be 6th and Pete must be 7th. Mandy and Steve must be 1st and 2nd in any order.
The following table provides the type of chair and the person seated in the order in which the chairs are present from left to right:

Order of arrival	1/2	6	3	4	5	7	2/1
Chair Type	Has both	No Seat Cushion No Handle	No Seat Cushion	No Seat Cushion	No Seat Cushion No Handle	No Seat Cushion No Handle	Has both
Person	Manny	Randy	Chris	Andy	Davies	Pete	Steve

The fifth person to come in was Davies. Two persons are to the right of Davies.

Ans: (2)

undefined

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

In a classroom, there were seven chairs in a straight line from left to right, all facing the same direction. Of the seven chairs, two chairs had both seat cushions and handles; two chairs did not have seat cushions but had handles; three chairs had neither seat cushions nor handles.

On a particular day, seven students, Andy, Chris, Davies, Manny, Pete, Randy and Steve, came into the classroom at different times and occupied the chairs. When any student came into the classroom, if a chair which had both cushions and handles was unoccupied, he sat in it; if these chairs were all occupied, a student sat in a chair which did not have cushions but had handles; if the chairs of both these types were all occupied, a student would sit in any of the unoccupied chairs available. If two chairs of the same type were available, the student selects any of the two chairs at random.

The following information is known about the order in which they came into the classroom and the chairs that they occupied:

i. Andy, who came in immediately before Davies, is sitting in a chair which does not have seat cushions but has handles.

ii. Chris, who was the third person to come in, is sitting in the chair which is two places from the chair on the extreme left.

iii. The chair in which Pete is sitting has neither seat cushions nor handles and is to the immediate left of the chair in which Steve is sitting.

iv. The two chairs at the extreme ends are of the same type and at least three persons came in before Randy, who was not the last to come in to the classroom.

v. Davies is sitting two places to the right of Chris, while Steve is not sitting adjacent to Chris.

vi. The three chairs which have neither seat cushions nor handles are not all immediately next to each other.

Q19. DIRECTIONS *for question 19:* Select the correct alternative from the given choices.

Which of the following pairs of students came into the classroom one immediately after the other and are also sitting adjacent to each other?

- a) **Manny, Andy**
- b) **Chris, Randy**
- c) **Davies, Pete**
- d) **Chris, Andy**

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	**73**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**72**
% of students who attempted this question	**16.77**
% of students who got the question right of those who attempted	**66.94**

Video Solution

Text Solution

Let 1 to 7 represent the chairs from left to right.
From (ii), Chris was the third person to come in. Hence, he must have sat in a chair which did not have seat cushions but had handles. Since he sat in chair 3, chair 3 must be a seat which did not have seat cushions but had handles.
From (v), Davies must be in chair 5. From (i), Davies came after Andy and Andy sat in a chair which did not have seat cushions but had handles. Since Chris sat in the same type of chair, Davies must be sitting in a chair which did not have both seat cushions and handles.
From (iii), Pete sat in a chair which did not have both seat cushions and handles and was to the immediate left of Steve. From (v), Steve was not adjacent to Chris. Hence, Pete and Steve cannot be in chairs 1 and 2. They must be in chairs 6 and 7.
From (iv), the two chairs at the extreme ends cannot be the chairs which do not have seat cushions but have handles (since one of the chairs is chair 3). They cannot be the chairs which do not have both seat cushions and handles (since two such chairs are chairs 5 and 6). Hence, they have to be the chairs which have both seat cushions and handles.
Andy cannot be the person at the extreme left. Randy cannot be the person at the extreme left (from iv). Hence, Manny has to be the person at the extreme left.
From (vi), the chair with no seat cushion and handle cannot be chair 4. Hence, chair 2 does not have both seat cushion and handle. Chair 4 must be the chair which does not have seat cushion but has a handle. From (i), Andy must be in chair 4 and hence, Randy must be in chair 2.
Chris was the third. Hence, Andy and Davies must be 4^{th} and 5^{th}. Since Randy and Pete are sitting in chairs without handles and seat cushions, they must be 6^{th} and 7^{th}. From (iv), Randy must be 6^{th} and Pete must be 7^{th}. Mandy and Steve must be 1^{st} and 2^{nd} in any order.
The following table provides the type of chair and the person seated in the order in which the chairs are present from left to right:

Order of arrival	1/2	6	3	4	5	7	2/1
Chair Type	Has both	No Seat Cushion No Handle	No Seat Cushion	No Seat Cushion	No Seat Cushion No Handle	No Seat Cushion No Handle	Has both
Person	Manny	Randy	Chris	Andy	Davies	Pete	Steve

Chris and Andy came into the classroom one immediately after the other and are also sitting adjacent to each other. Choice (D)

undefined

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

In a classroom, there were seven chairs in a straight line from left to right, all facing the same direction. Of the seven chairs, two chairs had both seat cushions and handles; two chairs did not have seat cushions but had handles; three chairs had neither seat cushions nor handles.

On a particular day, seven students, Andy, Chris, Davies, Manny, Pete, Randy and Steve, came into the classroom at different times and occupied the chairs. When any student came into the classroom, if a chair which had both cushions and handles was unoccupied, he sat in it; if these chairs were all occupied, a student sat in a chair which did not have cushions but had handles; if the chairs of both these types were all occupied, a student would sit in any of the unoccupied chairs available. If two chairs of the same type were available, the student selects any of the two chairs at random.

The following information is known about the order in which they came into the classroom and the chairs that they occupied:

i. Andy, who came in immediately before Davies, is sitting in a chair which does not have seat cushions but has handles.

ii. Chris, who was the third person to come in, is sitting in the chair which is two places from the chair on the extreme left.

iii. The chair in which Pete is sitting has neither seat cushions nor handles and is to the immediate left of the chair in which Steve is sitting.

iv. The two chairs at the extreme ends are of the same type and at least three persons came in before Randy, who was not the last to come in to the classroom.

v. Davies is sitting two places to the right of Chris, while Steve is not sitting adjacent to Chris.

vi. The three chairs which have neither seat cushions nor handles are not all immediately next to each other.

Q20. DIRECTIONS *for question 20:* Type in your answer in the input box provided below the question.

For how many students can it be said that the number of students sitting to the left of him is definitely the same as the number of students who came into the classroom before him?

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	**M**
Avg. time spent on this question by students who got this question right	**85**
% of students who attempted this question	**14.05**
% of students who got the question right of those who attempted	**31.21**

Video Solution

Text Solution

Let 1 to 7 represent the chairs from left to right.
From (ii), Chris was the third person to come in. Hence, he must have sat in a chair which did not have seat cushions but had handles. Since he sat in chair 3, chair 3 must be a seat which did not have seat cushions but had handles.
From (v), Davies must be in chair 5. From (i), Davies came after Andy and Andy sat in a chair which did not have seat cushions but had handles. Since Chris sat in the same type of chair, Davies must be sitting in a chair which did not have both seat cushions and handles.
From (iii), Pete sat in a chair which did not have both seat cushions and handles and was to the immediate left of Steve. From (v), Steve was not adjacent to Chris. Hence, Pete and Steve cannot be in chairs 1 and 2. They must be in chairs 6 and 7.
From (iv), the two chairs at the extreme ends cannot be the chairs which do not have seat cushions but have handles (since one of the chairs is chair 3). They cannot be the chairs which do not have both seat cushions and handles (since two such chairs are chairs 5 and 6). Hence, they have to be the chairs which have both seat cushions and handles.
Andy cannot be the person at the extreme left. Randy cannot be the person at the extreme left (from iv). Hence, Manny has to be the person at the extreme left.
From (vi), the chair with no seat cushion and handle cannot be chair 4. Hence, chair 2 does not have both seat cushion and handle. Chair 4 must be the chair which does not have seat cushion but has a handle. From (i), Andy must be in chair 4 and hence, Randy must be in chair 2.
Chris was the third. Hence, Andy and Davies must be 4^{th} and 5^{th}. Since Randy and Pete are sitting in chairs without handles and seat cushions, they must be 6^{th} and 7^{th}. From (iv), Randy must be 6^{th} and Pete must be 7^{th}. Mandy and Steve must be 1^{st} and 2^{nd} in any order.
The following table provides the type of chair and the person seated in the order in which the chairs are present from left to right:

Order of arrival	1/2	6	3	4	5	7	2/1
Chair Type	Has both	No Seat Cushion No Handle	No Seat Cushion	No Seat Cushion	No Seat Cushion No Handle	No Seat Cushion No Handle	Has both
Person	Manny	Randy	Chris	Andy	Davies	Pete	Steve

The given condition is satisfied for 3 students, Chris, Andy and Davies. Ans: (3)

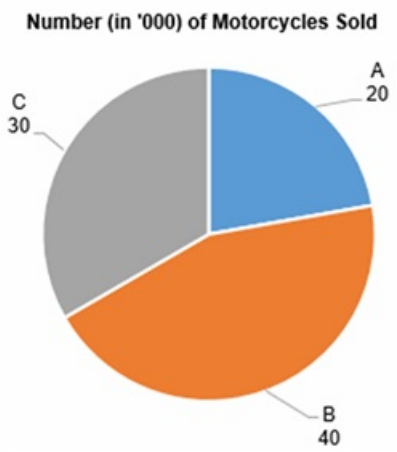
undefined

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

Each of three companies, A, B and C, sells a different motorcycle among Tempest, Heleus and Beepee, not necessarily in the same order. The companies did not sell any other products apart from these three motorcycles.

The pie chart below provides, for the year 2017, the number (in '000) of motorcycles sold by each of the three companies.

The table provides the price at which each motorcycle was sold (price/unit) in 2017.



Motorcycle	Price/unit (in Rs.)
Tempest	20000
Heleus	40000
Beepee	30000

Note: The market share of a company is calculated as the revenue of the company as a percentage of the revenues of the three companies combined.

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

If it is known that the market share of none of the three companies was greater than 40%, which company sold Heleus?

a) **B**

b) **A** **Your answer is correct**

c) **C**

d) **Cannot be determined**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**310**
Avg. time spent on this question by all students	**231**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**270**
% of students who attempted this question	**20.67**
% of students who got the question right of those who attempted	**48.85**

Video Solution

Text Solution

Since each company could have sold any of the three motorcycles, there are six possible cases for associating the motorcycles with the companies.

In each case, the revenue of the companies will be different.

The following table provides the revenues (in '000) in all the cases (T, H and B represent Tempest, Heleus and Beepee)

Company	Case 1		Case 2		Case 3		Case 4		Case 5		Case 6	
A	T	400	T	400	H	800	H	800	B	600	B	600
B	H	1600	B	1200	T	800	B	1200	T	800	H	1600
C	B	900	H	1200	B	900	T	600	H	1200	T	600
Total		2900		2800		2500		2600		2600		2800

The following table provides the market share of the three companies in each case:

Company	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
A	13.8%	14.3%	32%	30.8%	23.1%	21.4%
B	55.2%	42.9%	32%	46.2%	30.8%	57.1%
C	31.0%	42.9%	36%	23.1%	46.2%	21.4%

The given condition is satisfied only in Case 3. Company A sells Heleus.

Choice (B)

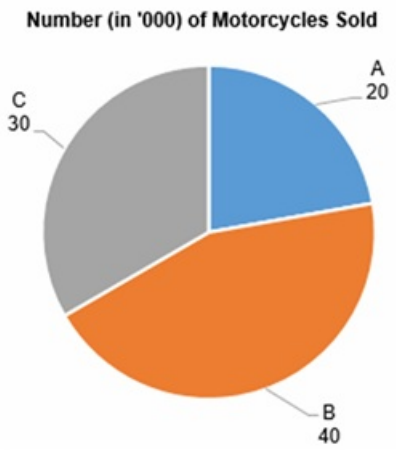
undefined

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

Each of three companies, A, B and C, sells a different motorcycle among Tempest, Heleus and Beepee, not necessarily in the same order. The companies did not sell any other products apart from these three motorcycles.

The pie chart below provides, for the year 2017, the number (in '000) of motorcycles sold by each of the three companies.

The table provides the price at which each motorcycle was sold (price/unit) in 2017.



Motorcycle	Price/unit (in Rs.)
Tempest	20000
Heleus	40000
Beepee	30000

Note: The market share of a company is calculated as the revenue of the company as a percentage of the revenues of the three companies combined.

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

What is the highest possible market share of any of the three companies, approximately?

- a) **46.1%**
- b) **55.2%**
- c) **58.7%**
- d) **57.1%**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**18**
Avg. time spent on this question by all students	**106**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**115**
% of students who attempted this question	**17.81**
% of students who got the question right of those who attempted	**46.92**

Video Solution

Text Solution

Since each company could have sold any of the three motorcycles, there are six possible cases for associating the motorcycles with the companies.

In each case, the revenue of the companies will be different.

The following table provides the revenues (in '000) in all the cases (T, H and B represent Tempest, Heleus and Beepee)

Company	Case 1		Case 2		Case 3		Case 4		Case 5		Case 6	
A	T	400	T	400	H	800	H	800	B	600	B	600
B	H	1600	B	1200	T	800	B	1200	T	800	H	1600
C	B	900	H	1200	B	900	T	600	H	1200	T	600
Total		2900		2800		2500		2600		2600		2800

The following table provides the market share of the three companies in each case:

Company	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
A	13.8%	14.3%	32%	30.8%	23.1%	21.4%
B	55.2%	42.9%	32%	46.2%	30.8%	57.1%
C	31.0%	42.9%	36%	23.1%	46.2%	21.4%

The highest possible market share of any of the three companies = 57.1%

Choice (D)

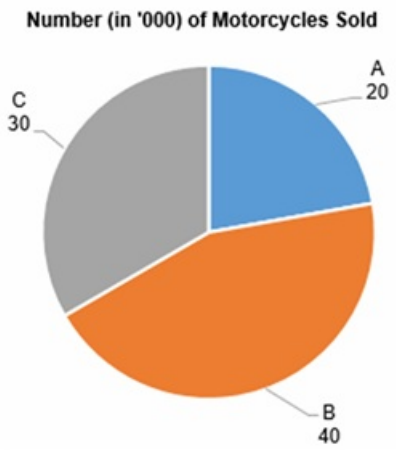
undefined

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

Each of three companies, A, B and C, sells a different motorcycle among Tempest, Heleus and Beepee, not necessarily in the same order. The companies did not sell any other products apart from these three motorcycles.

The pie chart below provides, for the year 2017, the number (in '000) of motorcycles sold by each of the three companies.

The table provides the price at which each motorcycle was sold (price/unit) in 2017.



Motorcycle	Price/unit (in Rs.)
Tempest	20000
Heleus	40000
Beepee	30000

Note: The market share of a company is calculated as the revenue of the company as a percentage of the revenues of the three companies combined.

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

If the company that sells Beepee has more than 45% market share, what is the market share of the company that sells Heleus?

- a) **30.8%**
- b) **23.1%**
- c) **36%**
- d) **31.2%**

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	**142**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**165**
% of students who attempted this question	**12.46**
% of students who got the question right of those who attempted	**69.6**

Video Solution

Text Solution

Since each company could have sold any of the three motorcycles, there are six possible cases for associating the motorcycles with the companies.

In each case, the revenue of the companies will be different.

The following table provides the revenues (in '000) in all the cases (T, H and B represent Tempest, Heleus and Beepee)

Company	Case 1		Case 2		Case 3		Case 4		Case 5		Case 6	
A	T	400	T	400	H	800	H	800	B	600	B	600
B	H	1600	B	1200	T	800	B	1200	T	800	H	1600
C	B	900	H	1200	B	900	T	600	H	1200	T	600
Total		2900		2800		2500		2600		2600		2800

The following table provides the market share of the three companies in each case:

Company	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
A	13.8%	14.3%	32%	30.8%	23.1%	21.4%
B	55.2%	42.9%	32%	46.2%	30.8%	57.1%
C	31.0%	42.9%	36%	23.1%	46.2%	21.4%

The given condition refers to Case 4. The market share of the company that sells Heleus, i.e., Company A, is 30.8%. Choice (A)

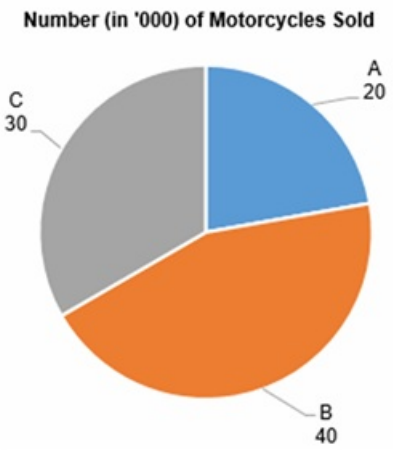
undefined

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

Each of three companies, A, B and C, sells a different motorcycle among Tempest, Heleus and Beepee, not necessarily in the same order. The companies did not sell any other products apart from these three motorcycles.

The pie chart below provides, for the year 2017, the number (in '000) of motorcycles sold by each of the three companies.

The table provides the price at which each motorcycle was sold (price/unit) in 2017.



Motorcycle	Price/unit (in Rs.)
Tempest	20000
Heleus	40000
Beepee	30000

Note: The market share of a company is calculated as the revenue of the company as a percentage of the revenues of the three companies combined.

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

What is the highest possible difference between the highest market share of any company and the lowest market share of any company?

- a) **41.4%**
- b) **43.8%**
- c) **36.8%**
- d) **35.7%**

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	**94**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**98**
% of students who attempted this question	**12.39**
% of students who got the question right of those who attempted	**46.49**

Video Solution

Text Solution

Since each company could have sold any of the three motorcycles, there are six possible cases for associating the motorcycles with the companies.

In each case, the revenue of the companies will be different.

The following table provides the revenues (in '000) in all the cases (T, H and B represent Tempest, Heleus and Beepee)

Company	Case 1		Case 2		Case 3		Case 4		Case 5		Case 6	
A	T	400	T	400	H	800	H	800	B	600	B	600
B	H	1600	B	1200	T	800	B	1200	T	800	H	1600
C	B	900	H	1200	B	900	T	600	H	1200	T	600
Total		2900		2800		2500		2600		2600		2800

The following table provides the market share of the three companies in each case:

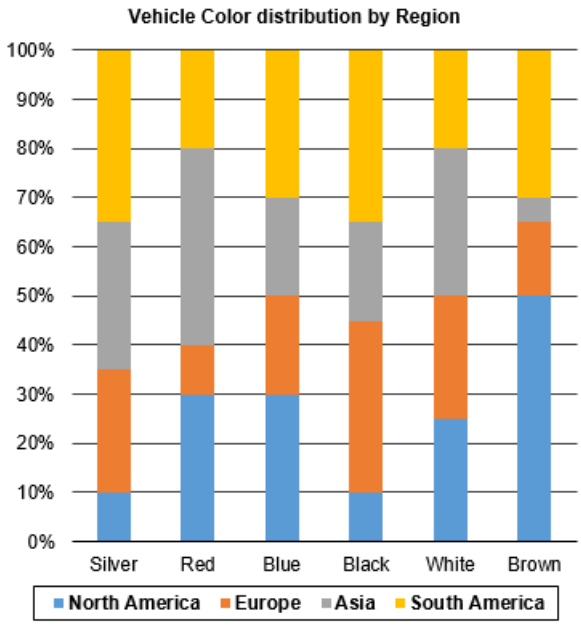
Company	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
A	13.8%	14.3%	32%	30.8%	23.1%	21.4%
B	55.2%	42.9%	32%	46.2%	30.8%	57.1%
C	31.0%	42.9%	36%	23.1%	46.2%	21.4%

The difference between the highest and the lowest market share is maximum for Case 1.
The maximum difference = 55.2 – 13.8 = 41.4% Choice (A)

undefined

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

A survey was conducted across four regions to find the distribution of vehicles of each colour. The graph given below represents, for each colour, the number of vehicles of that colour in each of the four regions as a percentage of the total number of vehicles of that colour across the four regions.



Q25. DIRECTIONS *for question 25:* Select the correct alternative from the given choices.

For which region is the ratio of the number of White vehicles to the number of Black vehicles in that region the highest?

- a) **North America**
- b) **Europe**
- c) **Asia**
- d) **South America**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**7**
Avg. time spent on this question by all students	**183**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**188**
% of students who attempted this question	**24.94**
% of students who got the question right of those who attempted	**72.55**

Video Solution

Text Solution

Let the number of White vehicles be w and the number of Black vehicles be b.
The required ratios for

North America $= \frac{25}{10} \times \frac{w}{b} = \frac{5}{2} \times \frac{w}{b}$

Europe $= \frac{25}{35} \times \frac{w}{b} = \frac{5}{7} \times \frac{w}{b}$

Asia $= \frac{30}{20} \times \frac{w}{b} = \frac{3}{2} \times \frac{w}{b}$

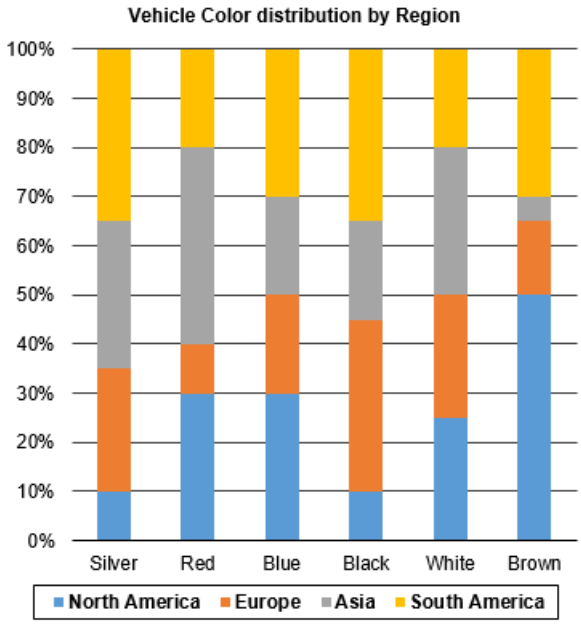
South America $= \frac{20}{35} \times \frac{w}{b} = \frac{4}{7} \times \frac{w}{b}$

Choice (A)

undefined

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

A survey was conducted across four regions to find the distribution of vehicles of each colour. The graph given below represents, for each colour, the number of vehicles of that colour in each of the four regions as a percentage of the total number of vehicles of that colour across the four regions.



Q26. DIRECTIONS *for questions 26 and 27:* Type in your answer in the input box provided below the question.

If, in each region, there are at least 10000 vehicles of any colour, what is the minimum number of vehicles in South America?

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	**128**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**229**
% of students who attempted this question	**18.41**
% of students who got the question right of those who attempted	**3.44**

Video Solution

Text Solution

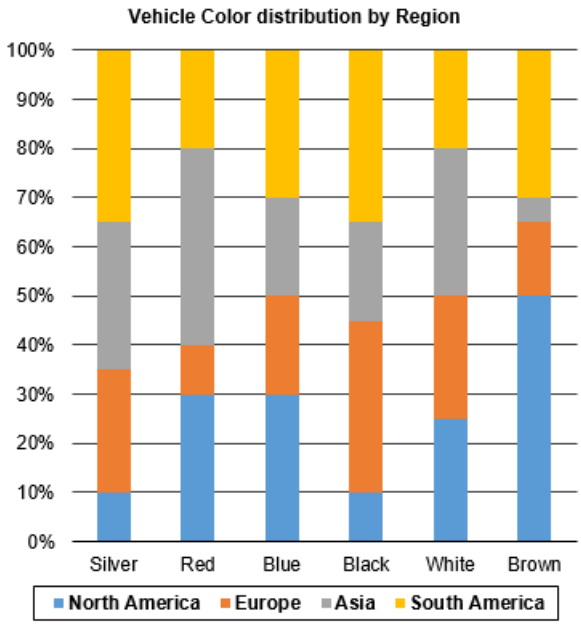
There are 10,000 vehicles of each colour in each region. For each colour, we can consider the region which has the minimum number of vehicles of that colour. This must be more than 10,000.
Hence, there must be at least 10,000 silver vehicles in North America. Hence, the total number of Silver vehicles across the four regions must be at least 100,000.
Similarly, there must be at least 10,000 Red vehicles in Europe. The total number of Red vehicles must be at least 100,000.
There must be at least 10,000 Blue vehicles in each of Europe and Asia. Hence, there must be at least 50,000 Blue vehicles.
Similarly, there must be at least 100,000 Black vehicles, 50,000 White vehicles, 200,000 Brown vehicles.
The minimum number of vehicles in South America = $100,000 \times 0.35 + 100,000 \times 0.2 + 50,000 \times 0.3 + 100,000 \times 0.35 + 50,000 \times 0.2 + 200,000 \times 0.3 = 175,000$

Ans: (175000)

undefined

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

A survey was conducted across four regions to find the distribution of vehicles of each colour. The graph given below represents, for each colour, the number of vehicles of that colour in each of the four regions as a percentage of the total number of vehicles of that colour across the four regions.



Q27. DIRECTIONS *for questions 26 and 27:* Type in your answer in the input box provided below the question.

Across the four regions, the total number of Silver, Red, Blue, Black, White and Brown vehicles are in the ratio 1 : 2 : 1 : 3 : 2 : 1. The number of Red vehicles across the four regions is 100,000.

What is the difference between the total number of vehicles in Europe and the total number of vehicles in Asia?

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	**304**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**359**
% of students who attempted this question	**10.63**
% of students who got the question right of those who attempted	**20.92**

Video Solution

Text Solution

With the given information, we can find the total number of vehicles of each colour. The following table provides the total number of vehicles of each colour:

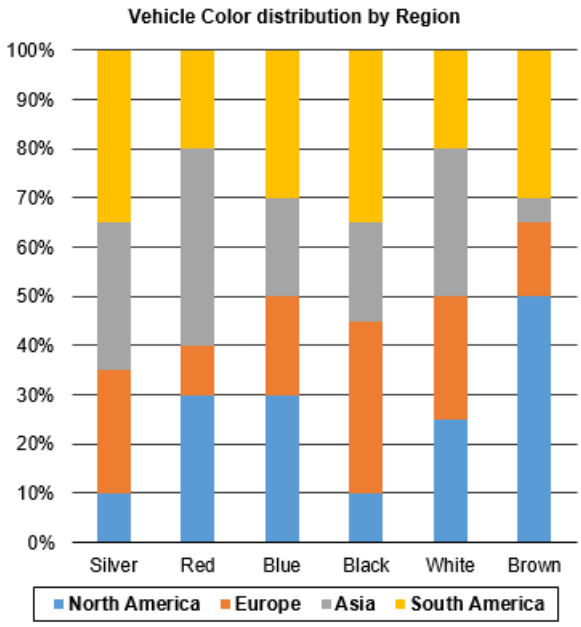
Colour	Number of Vehicles
Silver	50000
Red	100000
Blue	50000
Black	150000
White	100000
Brown	50000

Number of vehicles in Europe = 12500 + 10000 + 10000 + 52500 + 25000 + 7500 = 117500
Number of vehicles in Asia = 15000 + 40000 + 10000 + 30000 + 30000 + 2500 = 127500
Required difference = 127500 – 117500 = 10000 Ans: (10000)

undefined

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

A survey was conducted across four regions to find the distribution of vehicles of each colour. The graph given below represents, for each colour, the number of vehicles of that colour in each of the four regions as a percentage of the total number of vehicles of that colour across the four regions.



Q28. DIRECTIONS *for question 28:* Select the correct alternative from the given choices.

Across the four regions, the total number of Silver, Red, Blue, Black, White and Brown vehicles are in the ratio 1 : 2 : 1 : 3 : 2 : 1. The number of Red vehicles across the four regions is 100,000.

Which of the following statements is definitely true?

- a) **The number of Blue vehicles in Europe is twice that of Silver vehicles in South America.**
- b) **There are equal number of Silver and Black vehicles in North America.**
- c) **There are more number of Red vehicles in Asia than vehicles of any other colour.**
- d) **The number of Brown vehicles in North America is more than that of Black vehicles in South America.**

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	**140**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**153**
% of students who attempted this question	**10.11**
% of students who got the question right of those who attempted	**59.35**

Video Solution

Text Solution

Options A: Number of Blue vehicles in Europe = 10,000
Number of Silver vehicles in North America = 17,500
Hence, this is not true.

Option B: Number of Silver vehicles in North America = 5000
Number of Black vehicles in North America = 15000
Hence, this is not true.

Option C: In Asia, number of Silver, Red, Blue, Black, White and Brown vehicles are 15000, 40000, 10000, 30000, 30000 and 2500 respectively. Hence, in Asia, Red vehicles are the most numerous.

Option D: Number of Brown vehicles in North America = 25000
Number of Black vehicles in South America = 52500
Hence, this is also not true.

Hence, the statement given in option C is true.

Note: This question can be answered using only the given ratio and without calculating the actual numbers.

Choice (C)

undefined

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

Telisio, a conglomerate, operates five factories, each in a different city among Ajmer, Jamshedpur, Pune, Nagpur and Hubli. Each factory manufactures a different product among Paper, Motorcycles, Pens, Cell Phones and Cutlery. Further, each factory is managed by a different person among Ankit, Kiran, Manish, Govind and Lohit.

It is also known that

i. the factory managed by Kiran is in Pune.

ii. the factory managed by Manish is not in Ajmer, while the factory manufacturing Motorcycles is not managed by Ankit.

iii. the factory manufacturing Cell Phones is not managed by Lohit, while the factory in Nagpur does not manufacture Cutlery.

iv. the factory in Hubli is managed by Ankit, while the factory manufacturing Cell Phones is in Ajmer.

v. the factory that manufactures Cutlery is managed by Manish, while the factory managed by Lohit does not manufacture Motorcycle.

Q29. Which product does the factory managed by Kiran manufacture?

- a) **Cell Phones**
- b) **Paper**
- c) **Pens** **Your answer is incorrect**
- d) **Motorcycles**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**685**
Avg. time spent on this question by all students	**359**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**373**
% of students who attempted this question	**23.77**
% of students who got the question right of those who attempted	**87.71**

Video Solution

Text Solution

From (i), Kiran manages the factory in Pune. From (iv), Ankit manages the factory in Hubli. From (iv), the factory in Ajmer manufactures Cell Phones. From (ii), this factory is not managed by Manish. From (iii), this factory is not managed by Lohit.
Hence, the factory in Ajmer that manufactures Cell Phones is managed by Govind.
The factories in Jamshedpur and Nagpur must be managed by Manish and Lohit in any order.
From (iii), the factory in Nagpur does not manufacture Cutlery. From (v), the factory that manufactures Cutlery is managed by Manish. Hence, Manish does not manage the factory in Nagpur. Therefore, Lohit manages the factory in Nagpur and Manish manages the factory in Jamshedpur.
From (v), the factory in Jamshedpur manufactures Cutlery (since Manish manages this factory). From (ii) and (v), Ankit and Lohit do not manage the factory that manufactures Motorcycles. Hence, Kiran must be the person who manages the factory that manufactures Motorcycles.
Ankit and Lohit must be managing the factories manufacturing Paper and Pen in any order.
The following table provides the distribution:

Person	City	Product
Ankit	Hubli	Paper/Pen
Kiran	Pune	Motorcycle
Manish	Jamshedpur	Cutlery
Govind	Ajmer	Cell Phone
Lohit	Nagpur	Pen/Paper

The factory managed by Kiran manufactures Motorcycles. Choice (D)

undefined

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

Telisio, a conglomerate, operates five factories, each in a different city among Ajmer, Jamshedpur, Pune, Nagpur and Hubli. Each factory manufactures a different product among Paper, Motorcycles, Pens, Cell Phones and Cutlery. Further, each factory is managed by a different person among Ankit, Kiran, Manish, Govind and Lohit.

It is also known that

i. the factory managed by Kiran is in Pune.

ii. the factory managed by Manish is not in Ajmer, while the factory manufacturing Motorcycles is not managed by Ankit.

iii. the factory manufacturing Cell Phones is not managed by Lohit, while the factory in Nagpur does not manufacture Cutlery.

iv. the factory in Hubli is managed by Ankit, while the factory manufacturing Cell Phones is in Ajmer.

v. the factory that manufactures Cutlery is managed by Manish, while the factory managed by Lohit does not manufacture Motorcycle.

Q30. In which city is the factory that manufactures Cutlery?

a) **Pune** **Your answer is incorrect**

b) **Hubli**

c) **Jamshedpur**

d) **Ajmer**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**112**
Avg. time spent on this question by all students	**33**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**31**
% of students who attempted this question	**24.92**
% of students who got the question right of those who attempted	**92.67**

Video Solution

Text Solution

From (i), Kiran manages the factory in Pune. From (iv), Ankit manages the factory in Hubli. From (iv), the factory in Ajmer manufactures Cell Phones. From (ii), this factory is not managed by Manish. From (iii), this factory is not managed by Lohit.
Hence, the factory in Ajmer that manufactures Cell Phones is managed by Govind.
The factories in Jamshedpur and Nagpur must be managed by Manish and Lohit in any order.
From (iii), the factory in Nagpur does not manufacture Cutlery. From (v), the factory that manufactures Cutlery is managed by Manish. Hence, Manish does not manage the factory in Nagpur. Therefore, Lohit manages the factory in Nagpur and Manish manages the factory in Jamshedpur.
From (v), the factory in Jamshedpur manufactures Cutlery (since Manish manages this factory). From (ii) and (v), Ankit and Lohit do not manage the factory that manufactures Motorcycles. Hence, Kiran must be the person who manages the factory that manufactures Motorcycles.
Ankit and Lohit must be managing the factories manufacturing Paper and Pen in any order.
The following table provides the distribution:

Person	City	Product
Ankit	Hubli	Paper/Pen
Kiran	Pune	Motorcycle
Manish	Jamshedpur	Cutlery
Govind	Ajmer	Cell Phone
Lohit	Nagpur	Pen/Paper

The factory that manufactures Cutlery is in Jamshedpur. Choice (C)

undefined

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

Telisio, a conglomerate, operates five factories, each in a different city among Ajmer, Jamshedpur, Pune, Nagpur and Hubli. Each factory manufactures a different product among Paper, Motorcycles, Pens, Cell Phones and Cutlery. Further, each factory is managed by a different person among Ankit, Kiran, Manish, Govind and Lohit.

It is also known that

i. the factory managed by Kiran is in Pune.

ii. the factory managed by Manish is not in Ajmer, while the factory manufacturing Motorcycles is not managed by Ankit.

iii. the factory manufacturing Cell Phones is not managed by Lohit, while the factory in Nagpur does not manufacture Cutlery.

iv. the factory in Hubli is managed by Ankit, while the factory manufacturing Cell Phones is in Ajmer.

v. the factory that manufactures Cutlery is managed by Manish, while the factory managed by Lohit does not manufacture Motorcycle.

Q31. If the factory managed by Lohit manufactures Paper, what does the factory in Nagpur manufacture?

- a) **Pen**
- b) **Paper** **Your answer is correct**
- c) **Cell Phone**
- d) **Cutlery**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**259**
Avg. time spent on this question by all students	**51**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**45**
% of students who attempted this question	**23.78**
% of students who got the question right of those who attempted	**80.02**

Video Solution

Text Solution

From (i), Kiran manages the factory in Pune. From (iv), Ankit manages the factory in Hubli. From (iv), the factory in Ajmer manufactures Cell Phones. From (ii), this factory is not managed by Manish. From (iii), this factory is not managed by Lohit.
Hence, the factory in Ajmer that manufactures Cell Phones is managed by Govind.
The factories in Jamshedpur and Nagpur must be managed by Manish and Lohit in any order.
From (iii), the factory in Nagpur does not manufacture Cutlery. From (v), the factory that manufactures Cutlery is managed by Manish. Hence, Manish does not manage the factory in Nagpur. Therefore, Lohit manages the factory in Nagpur and Manish manages the factory in Jamshedpur.
From (v), the factory in Jamshedpur manufactures Cutlery (since Manish manages this factory). From (ii) and (v), Ankit and Lohit do not manage the factory that manufactures Motorcycles. Hence, Kiran must be the person who manages the factory that manufactures Motorcycles.
Ankit and Lohit must be managing the factories manufacturing Paper and Pen in any order.
The following table provides the distribution:

Person	City	Product
Ankit	Hubli	Paper/Pen
Kiran	Pune	Motorcycle
Manish	Jamshedpur	Cutlery
Govind	Ajmer	Cell Phone
Lohit	Nagpur	Pen/Paper

If Lohit manages the factory that manufactures Paper, the factory in Nagpur manufactures Paper. Choice (B)

undefined

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

Telisio, a conglomerate, operates five factories, each in a different city among Ajmer, Jamshedpur, Pune, Nagpur and Hubli. Each factory manufactures a different product among Paper, Motorcycles, Pens, Cell Phones and Cutlery. Further, each factory is managed by a different person among Ankit, Kiran, Manish, Govind and Lohit.

It is also known that

i. the factory managed by Kiran is in Pune.

ii. the factory managed by Manish is not in Ajmer, while the factory manufacturing Motorcycles is not managed by Ankit.

iii. the factory manufacturing Cell Phones is not managed by Lohit, while the factory in Nagpur does not manufacture Cutlery.

iv. the factory in Hubli is managed by Ankit, while the factory manufacturing Cell Phones is in Ajmer.

v. the factory that manufactures Cutlery is managed by Manish, while the factory managed by Lohit does not manufacture Motorcycle.

Q32. Who manages the factory that manufactures Cell Phones?

- a) **Govind** **Your answer is correct**
- b) **Kiran**
- c) **Ankit**
- d) **Manish**

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	**E**
Avg. time spent on this question by students who got this question right	**104**
% of students who attempted this question	**24.07**
% of students who got the question right of those who attempted	**89.61**

Video Solution

Text Solution

From (i), Kiran manages the factory in Pune. From (iv), Ankit manages the factory in Hubli. From (iv), the factory in Ajmer manufactures Cell Phones. From (ii), this factory is not managed by Manish. From (iii), this factory is not managed by Lohit.
Hence, the factory in Ajmer that manufactures Cell Phones is managed by Govind.
The factories in Jamshedpur and Nagpur must be managed by Manish and Lohit in any order.
From (iii), the factory in Nagpur does not manufacture Cutlery. From (v), the factory that manufactures Cutlery is managed by Manish. Hence, Manish does not manage the factory in Nagpur. Therefore, Lohit manages the factory in Nagpur and Manish manages the factory in Jamshedpur.
From (v), the factory in Jamshedpur manufactures Cutlery (since Manish manages this factory). From (ii) and (v), Ankit and Lohit do not manage the factory that manufactures Motorcycles. Hence, Kiran must be the person who manages the factory that manufactures Motorcycles.
Ankit and Lohit must be managing the factories manufacturing Paper and Pen in any order.
The following table provides the distribution:

Person	City	Product
Ankit	Hubli	Paper/Pen
Kiran	Pune	Motorcycle
Manish	Jamshedpur	Cutlery
Govind	Ajmer	Cell Phone
Lohit	Nagpur	Pen/Paper

Govind manages the factory that manufactures Cell Phones. Choice (A)

undefined

Q1. DIRECTIONS *for questions 1 to 4:* Select the correct alternative from the given choices.

The cost of five apples, four bananas and three chikkoos is Rs.50. If the cost of an apple, a banana and a chikkoo is Rs.12, how much more does an apple cost than a chikkoo?

- a) **Rs.1**
- b) **Rs.2** **Your answer is correct**
- c) **Rs.3**
- d) **Rs.4**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**102**
Avg. time spent on this question by all students	**161**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**151**
% of students who attempted this question	**35.24**
% of students who got the question right of those who attempted	**90.62**

Video Solution

Text Solution

Let the cost (in ₹) of an apple, a banana and a chikoo be a, b and c respectively.
Given that
$5a + 4b + 3c = 50$ ——— (1)
and $a + b + c = 12$ ——— (2)
Consider (1) – 4 × (2), we get $a - c = 50 - 4 \times 12 = 2$
∴ An apple costs ₹2 more than a chikoo. Choice (B)

undefined

Q2. DIRECTIONS *for questions 1 to 4:* Select the correct alternative from the given choices.

A solution of alcohol and water contains 60% alcohol. What percent of the solution must be taken out and replaced with water, so that the resultant solution contains 40% alcohol?

- a) **50%**
- b) $33\frac{1}{3}\%$ **Your answer is correct**
- c) $14\frac{2}{7}\%$
- d) $8\frac{1}{3}\%$

Time spent / Accuracy Analysis

Time taken by you to answer this question	**74**
Avg. time spent on this question by all students	**154**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**153**
% of students who attempted this question	**21.43**
% of students who got the question right of those who attempted	**74.61**

Video Solution

Text Solution

If the volume of the original solution is assumed as 100 ml, then the final solution (after replacement) is also 100 ml and has 40 ml of alcohol. Now original solution had 60 ml of alcohol. Hence 60 – 40 = 20 ml of alcohol must have been removed along with $\frac{20}{60}$ = $33\frac{1}{3}$ % of the solution. Choice (B)

(Choice (A) can be eliminated since 50% of the solution (with 60% alcohol) and 50% pure water (with 0% alcohol) will result in (60 + 0) ÷ 2 = 30% alcohol solution).

undefined

Q3. DIRECTIONS *for questions 1 to 4:* Select the correct alternative from the given choices.

Three runners, A, B and C, run around a circular track of 180 m length in 12, 15 and 18 seconds respectively. If they start running at the same time and in the same direction, from the same point on the track, find the difference between the time taken by them to meet for the first time ever and the time taken by them to meet for the first time at the starting point.

- a) **120 seconds** **Your answer is incorrect**
- b) **60 seconds**
- c) **180 seconds**
- d) **None of the above**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**252**
Avg. time spent on this question by all students	**194**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**220**
% of students who attempted this question	**19.66**
% of students who got the question right of those who attempted	**38.53**

Video Solution

Text Solution

The time they meet at the starting point for the first time

L.C.M. $\frac{180}{12}, \frac{180}{15}, \frac{180}{18}$ = ∠15,12,10 = 60 seconds.

The time A and B meet for the 1st time = $\frac{180}{15-12}$ = 60sec.

B and C meet for the 1st time = $\frac{180}{18-12}$ = 60 sec.

A, B, C meet for first time = L.C.M ∠60,60 = 60 sec.

Hence, both these happen at the same time. Choice (D)

undefined

Q4. DIRECTIONS *for questions 1 to 4:* Select the correct alternative from the given choices.

A four-digit number is such that the sum of the first two digits is equal to the sum of the last two digits, while the sum of the

A four-digit number is such that the sum of the first two digits is equal to the sum of the last two digits, while the sum of the first and the third digit is equal to the last digit. If the sum of the first and the last digits is thrice the sum of the second and the third digits, which of the following can be the second digit of the number?

- a) **1**
- b) **8**
- c) **5**
- d) **2**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**462**
Avg. time spent on this question by all students	**257**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**261**
% of students who attempted this question	**21.5**
% of students who got the question right of those who attempted	**72.02**

Video Solution

Text Solution

Let the number be 'abcd'
$a + b = c + d$ ---- (1)
$a + c = d$ ----- (2)
$a + d = 3(b + c)$ ---- (3)
(1) – (2) $\Rightarrow b = 2c$ ---- (4)
If $a = kc$, (2) $\Rightarrow d = (k+1)c$
(3), (4) $\Rightarrow (2k + 1)c = 9c \Rightarrow k = 4$
$b = 2c \therefore a = 4c, d = 5c$
$\therefore$ The number can only be 4215
The second digit is 2 Choice (D)

undefined

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

There are 42 students in a class. Each student plays one, two, three, four or five games. The number of students who play at most one and at most two games is 8 and 21 respectively, while 12 students play at least four games. How many students play exactly three games?

Your Answer:9 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**198**
Avg. time spent on this question by all students	**134**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**132**
% of students who attempted this question	**21.55**
% of students who got the question right of those who attempted	**49.43**

Video Solution

Text Solution

21 students play 1 or 2 games.
12 students play 4 or 5 games.
∴42 – (21 + 12) = 9 students play exactly 3 games. Ans: (9)

undefined

Q6. DIRECTIONS *for questions 6 and 7:* Select the correct alternative from the given choices.

Coyote was 700 m behind Roadrunner when they both started running in the same direction. If Coyote's speed is 35 kmph and Roadrunner's speed is 28 kmph, find the time taken by Coyote to overtake Roadrunner.

- a) **3 minutes**
- b) **4 minutes**
- c) **5 minutes**
- d) **6 minutes** **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**120**
Avg. time spent on this question by all students	**153**
Difficulty Level	**VE**
Avg. time spent on this question by students who got this question right	**142**
% of students who attempted this question	**27.61**
% of students who got the question right of those who attempted	**75.29**

Video Solution

Text Solution

Time taken by Coyote to overtake Roadrunner = $\frac{Distance}{Relative\ Speed}$

$= \frac{0.7}{35 - 28}$ = 0.1 hours = 6 minutes. Choice (D)

undefined

Q7. DIRECTIONS *for questions 6 and 7:* Select the correct alternative from the given choices.

What is the remainder when 3^{100} is divided by 30?

- a) **0**
- b) **3**
- c) **9**
- d) **21** **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**123**
Avg. time spent on this question by all students	**142**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**138**
% of students who attempted this question	**25.47**
% of students who got the question right of those who attempted	**43.18**

Video Solution

Text Solution

Remainder of $\frac{3^1}{30} = 3$; Remainder of $\frac{3^2}{30} = 9$

Remainder of $\frac{3^3}{30} = 27$ (which is same as -3)

Remainder of $\frac{3^4}{30} = 21$ (which is same as -9)

Remainder of $\frac{3^5}{30} = 3$; Remainder of $\frac{3^6}{30} = 9$ and so on.

Hence the pattern of remainders is (3, 9, –3, –9) (3, 9, –3, –9) .... for $\frac{3^{100}}{30}$, 100 being a multiple of 4, the remainder will be same as that for $\frac{3^4}{30}$, i.e., 21.

Alternative solution:

$\text{Rem}\left[\frac{3^{100}}{30}\right] = 3 \times \text{Rem}\left[\frac{3^{99}}{10}\right]$

[Here, $\text{Rem}\left(\frac{A}{B}\right)$ = remainder when A is divided by B]

$\text{Rem}\left[\frac{3^{99}}{10}\right]$ is same as the last digit of 3^{99}, which in turn, is same as the last digit of 3^3 i.e. 7.

$\therefore \text{Rem}\left[\frac{3^{100}}{30}\right] = 3 \times 7 = 21$ Choice (D)

undefined

Q8. DIRECTIONS *for questions 8 and 9:* Type in your answer in the input box provided below the question.

The cost prices of two varieties of rice differ by Rs.12. Ram, a shopkeeper, mixes these two varieties in a certain ratio and the resultant mixture costs Rs.18 per kg. If instead, Ram mixes the two varieties in the inverse ratio, the cost price of the resultant mixture will be Rs.26 per kg. Find the cost price (in Rs. per kg) of the less expensive variety of rice.

Rs.

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**112**
Avg. time spent on this question by all students	**227**

Time spent / Accuracy Analysis

Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**236**
% of students who attempted this question	**10.82**
% of students who got the question right of those who attempted	**45.12**

Video Solution

Text Solution

Let the cost prices of the two varieties of rice be ₹x and ₹$(x + 12)$ and let $1 : k$ be the ratio in which the shopkeeper has mixed these two varieties respectively.
Given
$x + k(x + 12) = 18(1 + k)$ ----------(1)
$x + k(x + 12) = 26(1 + k)$ ----------(2)
(1) + (2) gives

$$\frac{(k+1)(x+(x+12))}{(k+1)} = 44$$

$\Rightarrow 2x + 12 = 44 \Rightarrow x = 16$ Ans: (16)

undefined

Q9. DIRECTIONS *for questions 8 and 9:* Type in your answer in the input box provided below the question.

A trader marked a watch 40% above the cost price and then gave a discount of 10% while selling it. If he made a net profit of Rs.468 after paying a tax of 10% on the gross profit, find the cost price (in Rs.) of the watch.

Rs.

Your Answer:2000 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**160**
Avg. time spent on this question by all students	**194**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**176**
% of students who attempted this question	**24.94**
% of students who got the question right of those who attempted	**57.42**

Video Solution

Text Solution

Let the cost price and selling price be C and S respectively
$S = C(1.4)(0.9)$
$\therefore$ Gross Profit (P)
$= C(1.4 \times 0.9 - 1) = 0.26C$
Net Profit $= P(0.9) = 468$
$\Rightarrow P = 520 \Rightarrow C(0.26) = 520 \Rightarrow C = 2000$ Ans: (2000)

undefined

Q10. DIRECTIONS *for questions 10 to 14:* Select the correct alternative from the given choices.

The number of natural numbers n such that $\frac{(n+1)^2}{n+7}$ is an integer is

- a) **4.**
- b) **5.**
- c) **6.**
- 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	**187**
Avg. time spent on this question by all students	**125**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**186**
% of students who attempted this question	**16.06**
% of students who got the question right of those who attempted	**14.95**

Video Solution

Text Solution

$$\frac{(n+1)^2}{n+7} = \frac{n^2+2n+1}{n+7} = \frac{(n+7)(n-5)+36}{n+7}$$

$$= n - 5 + \frac{36}{n+7}$$

If n is a natural number, n + 7 = 9 or 12 or 18 or 36; i.e., there are 4 values of n (2, 5, 11, 29) Choice (A)

undefined

Q11. DIRECTIONS *for questions 10 to 14:* Select the correct alternative from the given choices.

A van travels 10 km on one litre of diesel and the price of diesel was Rs.22 per litre. After servicing, it gives 10% extra mileage (i.e., km travelled on one litre of diesel). If the price of diesel also now goes up by 15%, how much more than earlier would it cost now to cover one km?

- a) **15 paise**
- b) **22 paise**
- c) **20 paise**
- d) **10 paise** **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**258**
Avg. time spent on this question by all students	**166**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**165**

Time spent / Accuracy Analysis

% of students who attempted this question	**24.3**
% of students who got the question right of those who attempted	**78.62**

Video Solution

Text Solution

Initial cost per km = 22/10 = ₹2.20

Cost per km now = $\frac{22 \times 1.15}{10 \times 1.1} = \frac{25.30}{11} = 2.30$

So, it now costs 10 ps. more. Choice (D)

undefined

Q12. DIRECTIONS *for questions 10 to 14:* Select the correct alternative from the given choices.

Which of the following values is the highest?

- a) $\sqrt{3} + \sqrt{10}$
- b) $\sqrt{5} + \sqrt{8}$
- c) $\sqrt{6} + \sqrt{7}$ **Your answer is correct**
- d) $\sqrt{4} + \sqrt{9}$

Time spent / Accuracy Analysis

Time taken by you to answer this question	**161**
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	**115**
% of students who attempted this question	**31.58**
% of students who got the question right of those who attempted	**65.49**

Video Solution

Text Solution

$(\sqrt{a} + \sqrt{b})^2 = a + b + 2\sqrt{ab}$.

By observation, 3 + 10 = 5 + 8 = 6 + 7 = 4 + 9 = 13.

The value will be the maximum possible, when the numbers are as close as possible (i.e., when the product a × b is maximum) i.e., the difference between the numbers is the minimum. Thus $\sqrt{6} + \sqrt{7}$ is the maximum Choice (C)

undefined

Q13. DIRECTIONS *for questions 10 to 14:* Select the correct alternative from the given choices.

A and B, each working alone, can do a certain piece of work in 40 days and 120 days respectively. A and B start working

together on that work, but after having worked for 10 days, additional work came in. The additional work is such that B would take 40 days working alone to complete it. In order to cope with the additional load, C is inducted and the remaining work is finished in 5 days. Find the number of days that C alone would take to complete the original work.

- a) **8**
- b) **6** **Your answer is correct**
- c) **12**
- d) **9**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**274**
Avg. time spent on this question by all students	**188**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**192**
% of students who attempted this question	**14.95**
% of students who got the question right of those who attempted	**70.67**

Video Solution

Text Solution

A and B can do $\left(\frac{1}{40}+\frac{1}{120}\right)$ i.e., $\left(\frac{1}{30}\right)^{th}$ of the original work in a day.

In the initial 10 days they complete $\left(\frac{1}{3}\right)^{rd}$ of the work.

Now the additional work can be done by B alone in 40 days. This implies that the additional work is $\frac{1}{3}^{rd}$ of the original work.

Hence at the end of 10 days the work remaining is same as the original work.

$\Rightarrow \frac{1}{40}+\frac{1}{120}+\frac{1}{C}=\frac{1}{5} \quad \Rightarrow \frac{1}{C}=\frac{1}{6}$

or C alone can do the work in 6 days. Choice (B)

undefined

Q14. DIRECTIONS *for questions 10 to 14:* Select the correct alternative from the given choices.

A goat is tied to the corner of a rectangular plot, of dimensions 14 m × 7 m, with a rope 21 m long. Since there is a wall constructed all along the boundary of the plot, and the goat is tied outside the plot, it cannot graze inside the plot but can graze outside it, as far the rope permits. Find the approximate area (in sq.m) that the goat can graze.

- a) **1080**
- b) **1180**
- c) **1232**
- d) **1596**

You did not answer this question Show Correct Answer

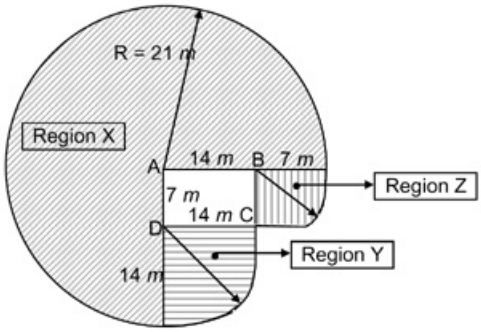
Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Time taken by you to answer this question	**236**
Avg. time spent on this question by all students	**243**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**259**
% of students who attempted this question	**16.27**
% of students who got the question right of those who attempted	**62.39**

Video Solution

Text Solution



Suppose the plot is denoted by ABCD and the goat is tied at A. The total area that the goat can graze will be the sum of the areas of the regions X, Y and Z in the figure above

Area of $X = \frac{270^\circ}{360}\left(\pi(21^2)\right)$

Area of $Y = \frac{90^\circ}{360^\circ}\left(\pi(14^2)\right)$

Area of $Z = \frac{90^\circ}{360^\circ}\left(\pi(7^2)\right)$

Assuming $\pi = \frac{22}{7}$

Total area $= \frac{22}{7}\left(\frac{3}{4}(21^2)+\frac{1}{4}(14^2)+\frac{1}{4}(7^2)\right)$

=1232 sq. m. Choice (C)

undefined

DIRECTIONS *for questions 15 and 16:* Answer the questions on the basis of the information given below.

In a management entrance test, there are 150 questions. Six marks are awarded for each correct answer, two marks are deducted for each wrong answer and one mark is deducted for each question left unattempted.

Q15. DIRECTIONS *for question 15:* Type in your answer in the input box provided below the question.

A candidate gets a net score of 420. If he got as many wrong answers as the number of questions he left unattempted, how many questions did he answer correctly?

Your Answer:86 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**81**
Avg. time spent on this question by all students	**216**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**213**
% of students who attempted this question	**23.11**

Time spent / Accuracy Analysis

% of students who got the question right of those who attempted	**55.02**

Video Solution

Text Solution

Let the number of correct answers, wrong answers and unattempted questions be c, w and u respectively.
To enable easier solving, consider the maximum possible total first as $6 \times 150 = 900$ marks. From this, every unattempted question results in a net decrease of 7 marks and every wrong answer results in a net decrease of 8 marks

Hence, $420 = 900 - 7x - 8x$ (where $u = w = x$)
$\Rightarrow x = 32$ and $c = 150 - 2x = 86$ Ans: (86)

undefined

DIRECTIONS *for questions 15 and 16:* Answer the questions on the basis of the information given below.

In a management entrance test, there are 150 questions. Six marks are awarded for each correct answer, two marks are deducted for each wrong answer and one mark is deducted for each question left unattempted.

Q16. DIRECTIONS *for question 16:* Select the correct alternative from the given choices.

What is the total number of distinct scores that are possible, if a candidate attempts all the questions?

- a) **150**
- b) **151**
- c) **1200**
- d) **1201**

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	**96**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**100**
% of students who attempted this question	**11.86**
% of students who got the question right of those who attempted	**47.46**

Video Solution

Text Solution

Let the number of correct answers, wrong answers and unattempted questions be c, w and u respectively.
To enable easier solving, consider the maximum possible total first as $6 \times 150 = 900$ marks. From this, every unattempted question results in a net decrease of 7 marks and every wrong answer results in a net decrease of 8 marks

Given u = 0
$\Rightarrow c + w = 150$
Since the net score now is $c - 2w$, for every pair of (c,w), we get a distinct score. We have 151 distinct pairs for (c,w), i.e., from (0, 150) to (150, 0) Choice (B)

undefined

Q17. DIRECTIONS *for question 17:* Select the correct alternative from the given choices.

Two vertical wooden poles of heights 12 m and 27 m are located 8 m apart. If the shorter pole is chopped off at a distance of 4 m from the top, at what distance from its base should the taller pole be chopped off to ensure that the distance between the tops of the two poles remains the same?

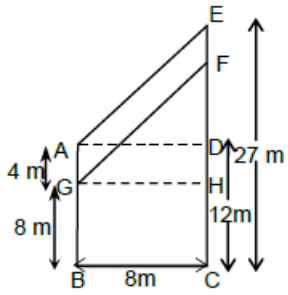
- a) **9 m**
- b) **18 m**
- c) **4 m**
- d) **23 m** **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**8**
Avg. time spent on this question by all students	**160**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**158**
% of students who attempted this question	**19.33**
% of students who got the question right of those who attempted	**36.69**

Video Solution

Text Solution



Let AB and EC be the poles.
ED = 27 – 12 = 15 m
Let AG represent the part of the pole chopped off AB.
Given AG = 4 m
For the distance between the tops to remain the same, FH should be equal to ED.
In other words, if the decrease in the heights of the two poles is of the same magnitude, the distance AE = GF.
⇒ AG = EF = 4m.
∴ The taller pole should also be chopped off by 4m from the top, i.e., 23 m from base.
Choice (D)

undefined

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

An arithmetic progression is given by 2, 4, 6, 8 …….. upto*n* terms. If the sum of the last five terms and the first five terms of the progression is 130, find the sum of all the terms of the progression.

Your Answer:156 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**237**
Avg. time spent on this question by all students	**174**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**179**
% of students who attempted this question	**18.43**
% of students who got the question right of those who attempted	**47.79**

Video Solution

Text Solution

a = 2, d = 2
2 + 4 + 6 + 8 + 10 + (2 + (n – 1) 2) + (2 + (n – 2) 2) + (2 + (n – 3) 2) + (2 + (n – 4) 2) + (2 + (n – 5) 2) = 130
⇒ n = 12
∴ sum of n terms = $\frac{12}{2}[2+24] = 6 \times 26 = 156$ Ans: (156)

undefined

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

If the compound interest accrued on a certain sum, at 11% p.a, for two years is Rs.1064.8 more than the simple interest accrued on the same sum, at the same rate and for the same period, what is the sum?

- a) **Rs.9,680**
- b) **Rs.8,800**
- c) **Rs.80,000**
- d) **Rs.88,000**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**14**
Avg. time spent on this question by all students	**164**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**169**
% of students who attempted this question	**14.27**
% of students who got the question right of those who attempted	**66.71**

Video Solution

Text Solution

The compound interest on P at a rate of r% p.a. for 2 years is $\frac{Pr}{100}\left(\frac{r}{100}+2\right)$ and the simple interest is $\frac{2pr}{100}$.

The difference is $P\left(\frac{r}{100}\right)^2$

$\therefore P\left(\frac{r}{100}\right)^2 = 1064.8$

$\Rightarrow P = \frac{1,06,48,000}{121} = ₹88,000$ Choice (D)

undefined

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

There is a set of three concurrent lines on an infinite plane. If a line is drawn parallel to one of these lines, what is the number of regions into which the plane is divided?

- a) **6**
- b) **7**

c) **8**

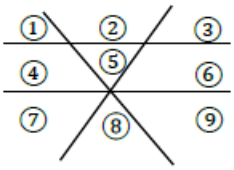
d) **None of the above** **Your answer is correct**

Time spent / Accuracy Analysis	
Time taken by you to answer this question	**4**
Avg. time spent on this question by all students	**72**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**78**
% of students who attempted this question	**13.28**
% of students who got the question right of those who attempted	**62.33**

Video Solution

Text Solution

Consider the figure below.



We see that nine regions are formed. Choice (D)

undefined

Q21. DIRECTIONS *for question 21:* Type in your answer in the input box provided below the question.

A certain distance is covered at an average speed of 20 km/hr; 37.5% of the distance is covered at 15 km/hr and another stretch comprising 12.5% of the distance, at 25 km/hr. What is the average speed (in km/hr) for the rest of the distance?

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis	
Time taken by you to answer this question	**4**
Avg. time spent on this question by all students	**170**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**187**
% of students who attempted this question	**12.33**
% of students who got the question right of those who attempted	**37.36**

Video Solution

Text Solution

Lets assume that the total distance is 8k km. 37.5% is 3k km and 12.5% is k km.
The data is tabulated below.

Distance (in km)	3k	k	4k	8k
Speed km/hr	15	25		20
Time	$\frac{k}{5} = \frac{5k}{25}$	$\frac{k}{25}$		$\frac{8k}{20} = \frac{10k}{25}$

We can see that the time required for the remaining 4k km is $\frac{4k}{25}$ hours.

$\therefore$ The speed is 25 km/hr. Ans: (25)

undefined

Q22. DIRECTIONS *for questions 22 to 24:* Select the correct alternative from the given choices.

If $f(x) = 2x + 3$, and $f(f(f(x))) = 13$, then the value of x =

- a) **1.**
- b) **2.**
- c) **-1.** **Your answer is correct**
- d) **-2.**

Time spent / Accuracy Analysis

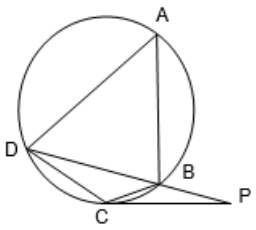
Time taken by you to answer this question	**8**
Avg. time spent on this question by all students	**84**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**83**
% of students who attempted this question	**21.7**
% of students who got the question right of those who attempted	**84.03**

Video Solution

Text Solution

undefined

Q23. DIRECTIONS *for questions 22 to 24:* Select the correct alternative from the given choices.



In the figure above, PC is a tangent to the circle from the point P and B is a point on the circle such that PB = CB. Find ∠ DCP, if ∠ DPC = 20°.

- a) **120°**
- b) **140°**
- c) **160°**
- d) **100°**

You did not answer this question Show Correct Answer

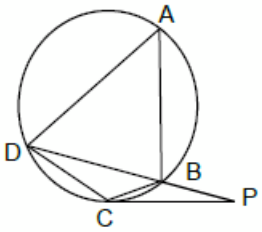
Time spent / Accuracy Analysis

Time taken by you to answer this question	**1**
Avg. time spent on this question by all students	**140**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**134**
% of students who attempted this question	**11.97**
% of students who got the question right of those who attempted	**50.85**

Video Solution

Text Solution

CPB is an isosceles triangle with CB = BP.



∴ let us say ∠CPB = x°
∴ ∠ DBC = 2x°
(exterior angle = sum of the remote interior angles)
∠BCP = ∠CDB = x°
(Alternate Segment Theorem and Isosceles Triangle Theorem)
∴ ∠DCP = 180° – 2 (x)
= 180° –2(20°) [Given ∠DPC = 20°] = 140° Choice (B)

undefined

Q24. DIRECTIONS *for questions 22 to 24:* Select the correct alternative from the given choices.

Harish bought a certain number of mangoes from the market and distributed them among his three sons. To his eldest son, he gave one more than half the total number of mangoes. To his second son, he gave two more than one-third the number of mangoes that remained after giving to his first son. To his third son, he gave three more than one-fourth of the remaining

mangoes. Now, after giving to his third son, if he was left with exactly three mangoes, find the number of mangoes that he gave to his first son.

- a) **5**
- b) **17**
- c) **9**
- d) **32** **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**282**
Avg. time spent on this question by all students	**222**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**232**
% of students who attempted this question	**10.56**
% of students who got the question right of those who attempted	**56.43**

Video Solution

Text Solution

Let the number of mangoes, which the man brought from the market be n.

	Gives to son	Remaining Mangoes
Son 1	$\frac{n}{2}+1$	$\frac{n}{2}-1$
Son 2	$\frac{1}{3}\left(\frac{n}{2}-1\right)+2$	$\frac{2}{3}\left(\frac{n}{2}-1\right)-2$
Son 3	$\frac{1}{4}\left(\frac{2}{3}\left(\frac{n}{2}-1\right)-2\right)+3$	$\frac{3}{4}\left(\frac{2}{3}\left(\frac{n}{2}-1\right)-2\right)-3$

Now, $\frac{3}{4}\left(\frac{2}{3}\left(\frac{n}{2}-1\right)-2\right)-3=3$

$\Rightarrow \frac{2}{3}\left(\frac{n}{2}-1\right)-2=8$

$\Rightarrow \frac{2}{3}\left(\frac{n}{2}-1\right)=10 \Rightarrow \frac{n}{2}-1=15 \Rightarrow n=32$

So, he gave 17 mangoes to his first son.
We can now verify this conclusion

	Gives to son	Remaining
Son1	17	15
Son2	7	8
Son3	5	3

Alternative solution:

This question can also be solved by starting from the end, i.e., before giving to his third son, he should have had $(3+3)\times\frac{4}{3}$ = 8 mangoes. Before giving to his second son, he should have had $(8+2)\times\frac{3}{2}$ = 15 mangoes and before giving to his first son, he should have had $(15+1)\times\frac{2}{1}$

= 32 mangoes.
Therefore, the number of mangoes that he would have given his first son 32 – 15 = 17
Choice (B)

undefined

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

Find the value of m, if $2^{(2m - 6)(m + 1)} = 4^{(m + 2)(m - 3)}$.

Your Answer:3 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**4**
Avg. time spent on this question by all students	**97**
Difficulty Level	**VE**
Avg. time spent on this question by students who got this question right	**93**
% of students who attempted this question	**18.18**
% of students who got the question right of those who attempted	**72.45**

Video Solution

Text Solution

Given that $2^{(2m-6)(m+1)} = 4^{(m+2)(m-3)}$

$2^{(2m-6)(m+1)} = 2^{2(m+2)(m-3)}$

Bases are equal. Equating powers, we get

$(2m - 6)(m + 1) = 2(m + 2)(m - 3)$

$2m^2 - 4m - 6 = 2m^2 - 2m - 12$

$\Rightarrow m = 3$ Ans: (3)

undefined

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

What is the remainder when 7! is divided by 8?

Your Answer:0 **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	**54**
Difficulty Level	**VE**
Avg. time spent on this question by students who got this question right	**53**
% of students who attempted this question	**24.97**
% of students who got the question right of those who attempted	**73.53**

Video Solution

Text Solution

7! = 5040

5040 is divisible by 8.

Hence, the remainder will be 0. Ans: (0)

undefined

DIRECTIONS *for questions 27 and 28:* Answer the questions on the basis of the information given below.

A, B, C, D and E are five cars such that the price of C is twice that of A and the price of E is one-third that of B. The ratio of the price of D and that of C is 4 : 5.

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

How many of the following statements are definitely true or definitely false?

I. The cost of A and E together is less than that of B and D together.

II. The cost of D is more than B.

III. The difference between the costs of E and D is more than the difference between the costs of A and B.

IV. The ratio of the cost of A to the cost of D is less than 0.6.

a) **1**

b) **2**

c) **3**

d) **4**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**4**
Avg. time spent on this question by all students	**169**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**168**
% of students who attempted this question	**8.38**
% of students who got the question right of those who attempted	**36.94**

Video Solution

Text Solution

Let the costs of C and D be ₹10x and ₹8x respectively.
∴ The cost of A is ₹5x.
Let the cost of B be ₹3y. Thus the cost of E will be ₹y.

Consider I : The cost of A and E = $5x + y$
The cost of B and D = $3y + 8x$
∴ This statement is true.
Consider II : Since the values of x and y are unknown, nothing can be said about this statement.
Consider III : For the same reason as stated above, nothing can be said about this statement.
Consider IV : The ratio of the cost of A to that of D = $\frac{5x}{8x} = \frac{5}{8} = 0.625$
∴ The given statement is definitely false. Choice (B)

undefined

DIRECTIONS *for questions 27 and 28:* Answer the questions on the basis of the information given below.

A, B, C, D and E are five cars such that the price of C is twice that of A and the price of E is one-third that of B. The ratio of the price of D and that of C is 4 : 5.

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

How many of the following statements, when considered independently, will be sufficient to find the ratio of the cost of A to the cost of E?

I. The difference between the costs of B and C is same as the difference between the costs of A and E.

II. The ratio of the cost of A and that of B is 2 : 1.

III. The cost of E and D together is equal to the cost of A and B together.

IV. The sum of the costs of B and A together is twice that of C and E together.

a) **4**

b) **3**

c) **0**

d) **1**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**3**
Avg. time spent on this question by all students	**100**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**86**
% of students who attempted this question	**5.79**
% of students who got the question right of those who attempted	**23.16**

Video Solution

Text Solution

Let the costs of C and D be ₹10x and ₹8x respectively.
$\therefore$ The cost of A is ₹5x.
Let the cost of B be ₹3y. Thus the cost of E will be₹y.

If we know the ratio $\frac{x}{y}$, we can find the required ratio.

Statement I :
$3y - 10x = 5x - y$ or $3y - 10x = y - 5x$
$\Rightarrow 4y = 15x$ or $2y = 5x$
$\Rightarrow y = 3.75x$ or $y = 2.5x$

As we are getting two values for the ratio $\frac{x}{y}$, this statement is not sufficient.

Statement II :
Given $\frac{5x}{3y} = \frac{2}{1} \Rightarrow \frac{x}{y} = \frac{6}{5}$
$\therefore$ This statement is sufficient.
Statement III :
Given, $8x + y = 5x + 3y$
$\Rightarrow 3x = 2y \Rightarrow \frac{x}{y} = \frac{2}{3}$
$\therefore$ This statement is also sufficient.
Statement IV :
$5x + 3y = 2\ (10x + y)$
$\Rightarrow y = 15x \Rightarrow \frac{x}{y} = \frac{1}{15}$
$\therefore$ This statement is also sufficient.
Hence, exactly three of the given four statements, when considered independently, will be sufficient to find the required ratio. Choice (B)

undefined

Q29. DIRECTIONS *for questions 29 to 34:* Select the correct alternative from the given choices.

When Santosh asked Lalitha what her weight was, she said, “The difference between your weight and my weight is more than your weight. Also, five times your weight is more than twice my weight”. If Santosh weighs 40 kg and Lalitha’s weight (in kg) is an integer, which of the following could be the maximum possible difference in their weights?

- a) **99 kg**
- b) **59 kg**
- c) **48 kg**
- d) **58 kg**

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	**68**
Avg. time spent on this question by all students	**133**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**139**
% of students who attempted this question	**12.19**
% of students who got the question right of those who attempted	**62.08**

Video Solution

Text Solution

Let Lalitha's weight be L kg Santosh's weight 40 kg.
Now $L > 2\ (40)$ and $2L < 5(40)$
$\Rightarrow 80 < L < 100$
Maximum possible value of L = 99 kg
$\therefore$ Maximum possible difference in their weights =
(Max. value of L) – 40 = 59 kg Choice (B)

undefined

Q30. DIRECTIONS *for questions 29 to 34:* Select the correct alternative from the given choices.

What is the profit/loss percentage when an item purchased for Rs.48 is sold for Rs.56?

a) **13.67% profit**

b) **15.33% loss**

c) **16.67% profit** **Your answer is correct**

d) **19.33% loss**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**38**
Avg. time spent on this question by all students	**51**
Difficulty Level	**VE**
Avg. time spent on this question by students who got this question right	**49**
% of students who attempted this question	**23.95**
% of students who got the question right of those who attempted	**93.85**

Video Solution

Text Solution

Cost price of the article = ₹48
Selling price of the article = ₹56.
Therefore, there is a profit of 56 – 48 = ₹8.
Profit percentage = $\left(\frac{8}{48}\right) * 100 = 16.67\%$ Choice (C)

undefined

Q31. DIRECTIONS *for questions 29 to 34:* Select the correct alternative from the given choices.

For the annual day celebrations in a school, nine different cultural activities were organised. For operational reasons, the class-teacher of class V ensured that the number of students from her class taking part in each of the nine cultural activities was the same. It was observed that each student from class V took part in either exactly five or none of the cultural activities. If there are a total of 61 students in class V, the minimum number of students of that class who did not participate in any of the cultural activities is

- a) **7.**
- b) **1.**
- c) **6.**
- d) **8.**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**12**
Avg. time spent on this question by all students	**99**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**119**
% of students who attempted this question	**4.83**
% of students who got the question right of those who attempted	**42.46**

Video Solution

Text Solution

Let x be the number of students participating in the cultural activities & y be the number of students participating in each cultural activity.
Since each student takes part in exactly five cultural activities, total number of participants = 5x.
Since there are a total of nine cultural activities with equal participation in each, total number of participants = 9y.

$\therefore 5x = 9y \Rightarrow y = \frac{5x}{9}$

Since x & y are positive integers, x should be a multiple of 9 and less than 61 (total number of students).
$\therefore x = 54 \Rightarrow$ 7 students do not take part in any activity. Choice (A)

undefined

Q32. DIRECTIONS *for questions 29 to 34:* Select the correct alternative from the given choices.

The volume of a cylinder is 4312 cm^3. If the radius of the cylinder is twice its height, find the height of the cylinder. (Assume $\pi = \frac{22}{7}$)

- a) **4.5 cm**
- b) **7 cm** **Your answer is correct**
- c) **3.5 cm**
- d) **9 cm**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**13**
Avg. time spent on this question by all students	**121**
Difficulty Level	**VE**
Avg. time spent on this question by students who got this question right	**116**
% of students who attempted this question	**16.25**
% of students who got the question right of those who attempted	**85**

Video Solution

Text Solution

Let the height of the cylinder be h. The radius of the cylinder will be 2h.
Volume of the cylinder = $\left(\frac{22}{7}\right) * (Radius)^2 * (Height)$
$4312 = \left(\frac{22}{7}\right) * (2h)^2 * h$
h = 7 cm. Choice (B)

undefined

Q33. DIRECTIONS *for questions 29 to 34:* Select the correct alternative from the given choices.

The average score of a cricketer in a certain number of innings is 44. If he then played another eight innings, in which he scored 97, 3, 23, 0, 68, 40, 50 and 71 runs respectively, which of the following statements is true regarding his new average score in all the innings together?

- a) **The new average is more than the old average.**
- b) **The new average is less than the old average.**
- c) **The new average is the same as the old average.**
- d) **Cannot conclude any of the above unless we know the initial number of innings played.**

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**25**
Avg. time spent on this question by all students	**98**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**102**
% of students who attempted this question	**14.37**
% of students who got the question right of those who attempted	**51.04**

Video Solution

Text Solution

Taking deviations we get, sum of deviations
+ 53 – 41 – 21 – 44 + 24 – 4 + 6 + 27 = 0
i.e. the same as old average. Choice (C)

undefined

Q34. DIRECTIONS *for questions 29 to 34:* Select the correct alternative from the given choices.

A certain number of children are standing in a row, all of them facing North. There are twice as many girls in the row as there are boys. From the west end of the row, Ajay is 8^{th} among the boys and 17^{th} among all the children. From the east end of the row he is 20^{th} among all the children. How many boys are there to the right of Ajay?

- a) **5**
- b) **4**
- c) **16**
- 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	**4**
Avg. time spent on this question by all students	**173**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**163**
% of students who attempted this question	**10.2**
% of students who got the question right of those who attempted	**58.26**

Video Solution

Text Solution

Ajay is 17^{th} from left and 20^{th} from right. Hence, there are (20 + 17 – 1) i.e., 36 children in the row.
∴ Number of girls and boys, respectively, are (2 : 1) 24 and 12.
Ajay is 8^{th} among the boys and 17^{th} among all children in the row from left i.e., there are nine girls to the left of Ajay and 15 on his right. There are 19 children in all to Ajay's right among whom 19 – 15 = 4 are four boys. Choice (B)