External events do not harm us – only our responses to them can. It may sound counterintuitive – "Of course external events can harm us!" we might protest, "I can get hit by a bus, or my partner might leave me!" But the reality is that the story doesn't actually end with the external occurrence, even though so many people think it does. We perceive and talk about these events as though they are the defining moment, and sort of gloss over everything available to us afterwards. These events only have the power that we choose to give them. They only destroy us because we think they are destructive, and allow them to ruin our lives.

Eleanor Roosevelt famously said, "No one can make you feel inferior without your consent." The same is true with anything external – not just other people. If our judgment about any event is that it is horrible, then we allow ourselves to dwell in the belief that we are far worse off if they happen. But if we strip external events of their power, and reclaim our internal power to decide, gauge, and assign value, we maintain control of our lives. Because our internal judgments are independent of external events, the occurrence of a bad event does not necessarily have to result in sadness. If we lose something dear to us, the problem is not the loss, but our outlook on it. Life results in loss. Loss will happen. It's part of being alive. And while loss looks different from person to person and we may experience different things, to go through life allowing any loss to bully us would mean surrendering our control and wellbeing. We assign too much power to internal emotions as well. And not nearly enough to reason and balance; to reclaiming control rather than allowing ourselves to be rocked by what we feel.

Roman politician and lawyer Cicero said:

> "When misfortunes appear on the horizon, we exaggerate them once more, because of the pain they are causing us. These feelings compel us to put blame on the circumstances when what we ought to be blaming is a deficiency in our own character."

Most of us are not immune to external events and are going to feel negative emotions. But recognizing that our mind-set is not at the mercy of external events but rather something that is under our own control can go a long way in fostering a healthier, happier outlook. And it can help us maintain emotional wellbeing when things do go wrong – which they will. All of us will experience setbacks and loss. But it is only our assessment of the loss and how much power we choose to give it, especially through emotion – that makes us sad. And our wellbeing, conversely, is also entirely in our own control – should we only choose.

Q1. The author is likely to agree with which of the following statements?

○ a) **Misfortunes are inevitable and since one cannot control the impact that they have on us, one should stop worrying about them.**

○ b) **How we react to adverse events determines how we can influence our society.**

○ c) **Although our circumstances should be blamed for the damage that external events cause us, we tend to blame ourselves for the same.**

○ d) **With a proper outlook, we can choose not to be affected by any external event.** □**Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**386**
Avg. time spent on this question by all students	**306**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**298**
% of students who attempted this question	**34.25**
% of students who got the question right of those who attempted	**64.64**

Video Solution

Text Solution

Number of words: 473

The author tries to convey that our mindset is not at the mercy of external events but rather something that is under our own control and this can help in fostering a healthier, happier outlook.

Option A: The author says that we can control the way misfortunes can impact us. This can be inferred when he says "These events only have the power that we choose to give them. …. and allow them to ruin our lives." The author is not likely to agree with this option. Hence, this is not the answer.

Option B: The author does not talk about how our reaction can influence the society. The author is not likely to agree with this. Hence, this is not the answer.

Option C: When the author quotes Cicero "*These feelings compel us to put blame on the circumstances when what we ought to be blaming is a deficiency in our own character.*" he is expressing the converse of what is given in the option. Therefore, the author is likely to disagree with this. Hence, this is not the answer.

Option D: The author says that it is only our assessment of the loss and how much power we choose to give it, that makes us sad and our wellbeing is entirely in our own control if we choose that. The author will agree with this statement. Hence, this is the answer.

Choice (D)

undefined

DIRECTIONS *for questions 1 to 3:* The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

External events do not harm us – only our responses to them can. It may sound counterintuitive – "Of course external events can harm us!" we might protest, "I can get hit by a bus, or my partner might leave me!" But the reality is that the story doesn't actually end with the external occurrence, even though so many people think it does. We perceive and talk about these events as though they are the defining moment, and sort of gloss over everything available to us afterwards. These events only have the power that we choose to give them. They only destroy us because we think they are destructive, and allow them to ruin our lives.

Eleanor Roosevelt famously said, "No one can make you feel inferior without your consent." The same is true with anything external – not just other people. If our judgment about any event is that it is horrible, then we allow ourselves to dwell in the belief that we are far worse off if they happen. But if we strip external events of their power, and reclaim our internal power to decide, gauge, and assign value, we maintain control of our lives. Because our internal judgments are independent of external events, the occurrence of a bad event does not necessarily have to result in sadness. If we lose something dear to us, the problem is not the loss, but our outlook on it. Life results in loss. Loss will happen. It's part of being alive. And while loss looks different from person to person and we may experience different things, to go through life allowing any loss to bully us would mean surrendering our control and wellbeing. We assign too much power to internal emotions as well. And not nearly enough to reason and balance; to reclaiming control rather than allowing ourselves to be rocked by what we feel.

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Q2. What does the statement, "Nobody can make you feel inferior without your consent" imply?

○ a) **Only if you allow others to influence you can they make you feel as if they are looking down on you.** ☐**Your answer is correct**

○ b) **If you let others make you feel inferior against your consent, then you will most likely become and remain inferior.**

○ c) **People keep trying to make others feel inferior in order to feel superior about themselves.**

○ d) **It is wrong for someone to make you feel inferior, especially if they do not have your consent.**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 473

Nobody can make you feel inferior without your consent means that others can hurt you or affect you only when you allow them to.
Option A: Nobody can make you feel inferior without your consent means that people can hurt you or affect you only when you allow them to. Hence, this is the answer.
Option B: The statement does not imply that if you let others make you feel inferior, you will become and remain like that. This is not what the statement means. Hence, this is not the answer.
Option C: This may be true but it is not related to what the author wants to convey. Hence, this is not the answer.
Option D: The statement does not judge as to whether it is right or wrong for someone to make anyone feel inferior. Hence, this is not the answer. Choice (A)

undefined

DIRECTIONS *for questions 1 to 3:* The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

External events do not harm us – only our responses to them can. It may sound counterintuitive – "Of course external events can harm us!" we might protest, "I can get hit by a bus, or my partner might leave me!" But the reality is that the story doesn't actually end with the external occurrence, even though so many people think it does. We perceive and talk about these events as though they are the defining moment, and sort of gloss over everything available to us afterwards. These events only have the power that we choose to give them. They only destroy us because we think they are destructive, and allow them to ruin our lives.

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Q3. According to the passage, one need not feel sad when something bad has happened to them because

○ a) **our internal judgment is not under the control of any external event.** □**Your answer is correct**

○ b) **life is full of such events and it is part of being alive.**

○ c) **to go through life without getting bullied by life is unhealthy.**

○ d) **it is common and everyone in the world experiences it.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**108**
Avg. time spent on this question by all students	**91**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**93**
% of students who attempted this question	**33.87**
% of students who got the question right of those who attempted	**44.56**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 473

The author says that "because our internal judgments are independent of external events, the occurrence of a bad event need not necessarily have to result in sadness". Option A: The author says that our internal judgment is not in the control of any external event and one will not be affected by the event if one chooses to. Hence, this is the answer. Option B: Although the author says that life is full of events that can harm us and it is part of being alive, that is not the reason as to why the author says that we should not get depressed. Hence, this is not the answer. Option C: The author does not suggest that one has to get bullied by life, i.e., be affected by all the misfortunes that befall us in life. The author only states that they keep happening all the time. Hence, this is not the answer. Option D: Just because misfortunes occur in everyone's life, it does not mean that one should not feel depressed about it and this is not the reason the author gives as to why one should not be depressed. Hence, this is not the answer. Choice (A)

undefined

DIRECTIONS *for questions 4 to 9:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Inspired by the work of the humanistic psychologist Erich Fromm, the well-known psychologist Abraham Maslow insisted that the urge for self-actualization is deeply entrenched in the human psyche, but only surfaces once the more basic needs

are fulfilled. Once the powerful needs for food, security, love and self-esteem are satisfied, a deep desire for creative expression and self-actualization rises to the surface. Through his "hierarchy of needs," Maslow succeeded in combining the insights of earlier psychologists such as Freud and Skinner, who focussed on the more basic human instincts, and the more upbeat work of Jung and Fromm, who insisted that the desire for happiness is equally worthy of attention. Towards the end of his life in 1970, Maslow considered putting self-transcendence at its top, above self-actualisation. Beyond the "merely healthy" individual, he suggested, were those who became better human beings for others as well as for themselves. And a key factor in this transition, he suggested, was what he called "peak experience". By this he meant "rare, exciting, oceanic, deeply moving, exhilarating, elevating experiences that generate an advanced form of perceiving reality".

The psychologists Paul Piff and Dacher Keltner claim to have found that experiences of awe can lead to significant positive changes in behaviour. They monitored people on white-water rafting trips and visits to groves of giant trees in California and found that, compared to a control group, these people afterwards made more ethical decisions and showed greater generosity and compassion. "Even brief experiences of awe," they concluded, "lead people to feel less narcissistic and entitled, and more attuned to the common humanity we share." Piff and Keltner have become firm advocates of what they call "everyday awe", and encourage people to actively seek it out.

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Living in wonder does not change the fact that we fail, suffer and die. But it can help us to take a benign stance towards what the philosopher Roberto Unger calls the root human experience of groundlessness, which he describes as "astonishment that we exist, that the world exists, and that the world and our situation in it are the way they are rather than another way". In doing so, we may feel a sense of renewal and act with greater care.

Q4. Which of the following statements regarding self-actualization is definitely true, according to Maslow?

○ a) **The desire for self-actualization is deeply entrenched in the human psyche and can surface any time.**

○ b) **Self-actualization is said to have been achieved if all the basic needs are satisfied.**

○ c) **Self-actualization should be given preference over self-transcendence**

○ d) **One will not pursue self-actualization unless one's basic needs are fulfilled.**   ▯**Your answer is correct**

Time spent / Accuracy Analysis	
Time taken by you to answer this question	**455**
Avg. time spent on this question by all students	**268**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	277
% of students who attempted this question	**31.7**
% of students who got the question right of those who attempted	**57.23**

Video Solution

Text Solution

undefined

DIRECTIONS *for questions 4 to 9:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Inspired by the work of the humanistic psychologist Erich Fromm, the well-known psychologist Abraham Maslow insisted that the urge for self-actualization is deeply entrenched in the human psyche, but only surfaces once the more basic needs are fulfilled. Once the powerful needs for food, security, love and self-esteem are satisfied, a deep desire for creative expression and self-actualization rises to the surface. Through his "hierarchy of needs," Maslow succeeded in combining the insights of earlier psychologists such as Freud and Skinner, who focussed on the more basic human instincts, and the more upbeat work of Jung and Fromm, who insisted that the desire for happiness is equally worthy of attention. Towards the end of his life in 1970, Maslow considered putting self-transcendence at its top, above self-actualisation. Beyond the "merely healthy" individual, he suggested, were those who became better human beings for others as well as for themselves. And a key factor in this transition, he suggested, was what he called "peak experience". By this he meant "rare, exciting, oceanic, deeply moving, exhilarating, elevating experiences that generate an advanced form of perceiving reality".

The psychologists Paul Piff and Dacher Keltner claim to have found that experiences of awe can lead to significant positive changes in behaviour. They monitored people on white-water rafting trips and visits to groves of giant trees in California and found that, compared to a control group, these people afterwards made more ethical decisions and showed greater generosity and compassion. "Even brief experiences of awe," they concluded, "lead people to feel less narcissistic and entitled, and more attuned to the common humanity we share." Piff and Keltner have become firm advocates of what they call "everyday awe", and encourage people to actively seek it out.

I prefer the term "wonder" to "awe". For me, awe, even in its everyday clothes, is redolent of something that almost overwhelms us. Wonder, by contrast, is a state in which we remain in possession of our intellectual faculties as well as feel emotionally elevated. It has much in common with awe, but it also overlaps with curiosity. "When experiencing wonder," writes the scholar Matthew Bevis, "it feels as if we know something without quite being sure of what we know." Wonder is a state of deep attention in which we feel good and think clearly, and connect to phenomena beyond ourselves. What makes us wonder changes according to circumstances, age and culture. It may be something as apparently banal as the sounds from a rainstick. It may be the fact that, every second, billions of neutrinos (subatomic particles) from the sun are streaming through your body at almost the speed of light, and do so even at night when the sun is on the other side of the Earth and the neutrinos are passing straight through the Earth first.

Living in wonder does not change the fact that we fail, suffer and die. But it can help us to take a benign stance towards what the philosopher Roberto Unger calls the root human experience of groundlessness, which he describes as "astonishment

that we exist, that the world exists, and that the world and our situation in it are the way they are rather than another way".
In doing so, we may feel a sense of renewal and act with greater care.

Q5. Which of the following statements can be inferred from the findings of Piff and Keltner?

○ a) **Individuals do not consider all their needs to be equally important and there is a specific hierarchy of needs for each individual.**

○ b) **Individuals experiencing awe tend to become better human beings for both themselves as well as others.** □
Your answer is correct

○ c) **It is not necessary that people experiencing awe will experience wonder as well.**

○ d) **The sounds of a rainstick does not have any impact on us.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**107**
Avg. time spent on this question by all students	**127**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**122**
% of students who attempted this question	**29.23**
% of students who got the question right of those who attempted	**87.21**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 550

The findings of Piff and Keltner are about how awe can affect human beings positively. They postulate that those who experience awe tend to be more compassionate, and thus better human beings than others.
Option A: The findings of Piff and Keltner talk about awe in particular and not about the hierarchy of needs. Hence, this is not the answer.
Option B: According to Piff and Keltner, "experiences of awe can lead to significant positive changes in behaviour". People who experience awe tend to become better human beings. Hence, this is the answer.
Option C: The findings of Piff and Keltner pertain to awe and do not talk about wonder. Hence, this is not the answer.
Option D: The sounds of a rainstick, despite being banal, may cause wonder to some. But that has got nothing to do with the findings of Piff and Keltner. Hence, this is not the answer.
Choice (B)

undefined

DIRECTIONS *for questions 4 to 9:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Inspired by the work of the humanistic psychologist Erich Fromm, the well-known psychologist Abraham Maslow insisted that the urge for self-actualization is deeply entrenched in the human psyche, but only surfaces once the more basic needs are fulfilled. Once the powerful needs for food, security, love and self-esteem are satisfied, a deep desire for creative expression and self-actualization rises to the surface. Through his "hierarchy of needs," Maslow succeeded in combining the insights of earlier psychologists such as Freud and Skinner, who focussed on the more basic human instincts, and the more upbeat work of Jung and Fromm, who insisted that the desire for happiness is equally worthy of attention. Towards the end of his life in 1970, Maslow considered putting self-transcendence at its top, above self-actualisation. Beyond the "merely healthy" individual, he suggested, were those who became better human beings for others as well as for themselves. And a key factor in this transition, he suggested, was what he called "peak experience". By this he meant "rare, exciting, oceanic, deeply moving, exhilarating, elevating experiences that generate an advanced form of perceiving reality".

The psychologists Paul Piff and Dacher Keltner claim to have found that experiences of awe can lead to significant positive

changes in behaviour. They monitored people on white-water rafting trips and visits to groves of giant trees in California and found that, compared to a control group, these people afterwards made more ethical decisions and showed greater generosity and compassion. "Even brief experiences of awe," they concluded, "lead people to feel less narcissistic and entitled, and more attuned to the common humanity we share." Piff and Keltner have become firm advocates of what they call "everyday awe", and encourage people to actively seek it out.

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Q6. According to the author, which of the following is a reason as to why people should actively seek out 'everyday awe'?

○ a) **People who experience awe tend to make more ethical decisions than others.** ▫**Your answer is correct**

○ b) **People who experience awe are not narcissistic and entitled.**

○ c) **People who do not experience awe cannot show generosity or compassion.**

○ d) **People who do not experience awe are not attuned to the common humanity we share.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	84
Avg. time spent on this question by all students	107
Difficulty Level	D
Avg. time spent on this question by students who got this question right	104
% of students who attempted this question	28.55
% of students who got the question right of those who attempted	70.57

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 550

Piff and Keltner encouraged people to actively seek out 'everyday awe' because the people who experienced awe made more ethical decisions and showed greater generosity and compassion. They lead people to feel less narcissistic and entitled, and more attuned to the common humanity we share.
Option A: This is an outcome of experiencing awe. Hence, this is the answer.
Option B: It is not mentioned that people who experience awe are not narcissistic and entitled. It is only mentioned that those who experience awe lead people to be less narcissistic and entitled. Hence, this is not the answer.
Option C: While it is mentioned that experiencing awe leads to displays of generosity and compassion, it does not imply that people who do not experience awe cannot show compassion or generosity. Hence, this cannot be the reason.
Option D: It is not mentioned that people who do not experience awe are not at all attuned to the common humanity we share. People who experience awe tend to be more attuned to the common humanity. Hence, this is not the answer.

Choice (A)

undefined

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Q7. Who among the following is most probably not a psychologist?

○ a) **Paul Piff**

○ b) **Abraham Maslow**

○ c) **Roberto Unger**   □**Your answer is correct**

○ d) **Erich Fromm**

Video Solution

Text Solution

Paul Piff, Abraham Maslow and Erich Fromm were psychologists while Roberto Unger
was a philosopher.   Choice (C)

undefined

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I prefer the term "wonder" to "awe". For me, awe, even in its everyday clothes, is redolent of something that almost overwhelms us. Wonder, by contrast, is a state in which we remain in possession of our intellectual faculties as well as feel emotionally elevated. It has much in common with awe, but it also overlaps with curiosity. "When experiencing wonder," writes the scholar Matthew Bevis, "it feels as if we know something without quite being sure of what we know." Wonder is a state of deep attention in which we feel good and think clearly, and connect to phenomena beyond ourselves. What makes us wonder changes according to circumstances, age and culture. It may be something as apparently banal as the sounds from a rainstick. It may be the fact that, every second, billions of neutrinos (subatomic particles) from the sun are streaming through your body at almost the speed of light, and do so even at night when the sun is on the other side of the Earth and the neutrinos are passing straight through the Earth first.

Living in wonder does not change the fact that we fail, suffer and die. But it can help us to take a benign stance towards what the philosopher Roberto Unger calls the root human experience of groundlessness, which he describes as "astonishment that we exist, that the world exists, and that the world and our situation in it are the way they are rather than another way". In doing so, we may feel a sense of renewal and act with greater care.

Q8. *"I still remember the first time I watched the Aurora Borealis. I was spellbound by it. It had that devastating effect on me. I had no idea as to what was going on with me and I was lost for words." –*

The author of the passage would most likely describe the emotion experienced by this person as

○ a) **awe.**

○ b) **wonder.**

○ c) **anguish.**

○ d) **perplexity.**   ▢ **Your answer is incorrect**

Show Correct Answer

Time taken by you to answer this question	**165**
Avg. time spent on this question by all students	**93**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**82**
% of students who attempted this question	**27.12**
% of students who got the question right of those who attempted	**40.96**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 550

The ' I ' in this excerpt is mesmerized by the sight of Aurora Borealis and the feeling overwhelms him. "*I had no idea as to what was going on with me and I was lost for words*" suggests that he has lost control over his intellectual faculties and is not able to think clearly. The author mentions that as a difference between awe and wonder. Hence, the author would most probably classify his emotion as awe.

Choice (A)

undefined

DIRECTIONS *for questions 4 to 9:* The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Inspired by the work of the humanistic psychologist Erich Fromm, the well-known psychologist Abraham Maslow insisted that the urge for self-actualization is deeply entrenched in the human psyche, but only surfaces once the more basic needs are fulfilled. Once the powerful needs for food, security, love and self-esteem are satisfied, a deep desire for creative expression and self-actualization rises to the surface. Through his "hierarchy of needs," Maslow succeeded in combining the insights of earlier psychologists such as Freud and Skinner, who focussed on the more basic human instincts, and the more upbeat work of Jung and Fromm, who insisted that the desire for happiness is equally worthy of attention. Towards the end of his life in 1970, Maslow considered putting self-transcendence at its top, above self-actualisation. Beyond the "merely healthy" individual, he suggested, were those who became better human beings for others as well as for themselves. And a key factor in this transition, he suggested, was what he called "peak experience". By this he meant "rare, exciting, oceanic, deeply moving, exhilarating, elevating experiences that generate an advanced form of perceiving reality".

The psychologists Paul Piff and Dacher Keltner claim to have found that experiences of awe can lead to significant positive changes in behaviour. They monitored people on white-water rafting trips and visits to groves of giant trees in California and found that, compared to a control group, these people afterwards made more ethical decisions and showed greater generosity and compassion. "Even brief experiences of awe," they concluded, "lead people to feel less narcissistic and entitled, and more attuned to the common humanity we share." Piff and Keltner have become firm advocates of what they call "everyday awe", and encourage people to actively seek it out.

I prefer the term "wonder" to "awe". For me, awe, even in its everyday clothes, is redolent of something that almost overwhelms us. Wonder, by contrast, is a state in which we remain in possession of our intellectual faculties as well as feel emotionally elevated. It has much in common with awe, but it also overlaps with curiosity. "When experiencing wonder," writes the scholar Matthew Bevis, "it feels as if we know something without quite being sure of what we know." Wonder is a state of deep attention in which we feel good and think clearly, and connect to phenomena beyond ourselves. What makes us wonder changes according to circumstances, age and culture. It may be something as apparently banal as the sounds from a rainstick. It may be the fact that, every second, billions of neutrinos (subatomic particles) from the sun are streaming through your body at almost the speed of light, and do so even at night when the sun is on the other side of the Earth and the neutrinos are passing straight through the Earth first.

Living in wonder does not change the fact that we fail, suffer and die. But it can help us to take a benign stance towards what the philosopher Roberto Unger calls the root human experience of groundlessness, which he describes as "astonishment that we exist, that the world exists, and that the world and our situation in it are the way they are rather than another way". In doing so, we may feel a sense of renewal and act with greater care.

Q9. According to the passage, all the statements given below are true, EXCEPT?

○ a) **People who regularly experience awe can become better human beings.**

○ b) **People who often experience awe tend to act with greater care.**

○ c) **Even things that are hackneyed can make us wonder.**

○ d) **People living in wonder do not fail and suffer.** □**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	**64**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**60**
% of students who attempted this question	**28.55**
% of students who got the question right of those who attempted	**80.38**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 550

Option A: "... experiences of awe can lead to significant positive changes in behaviour." This is true. Therefore, it is not the answer.
Option B: "... we may feel a sense of renewal and act with greater care." This is true. Hence, this is not the answer.
Option C: "What makes us wonder changes according to circumstances, age and culture. It may be something as apparently banal as the sounds from a rainstick." This implies even things that are not particularly interesting can make us wonder. This is true. Hence, this is not the answer.
Option D: The author states that living in wonder does not change the fact that we can still fail and suffer. This option is false. Therefore, this is the answer.   Choice (D)

undefined

DIRECTIONS *for questions 10 to 12:* The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

Jane Austen must – in a literary sense – be in possession of the philosopher's stone. Like Shakespeare, she took the common dross of humanity, and by her wonderful power of literary alchemy, turned it into pure gold. Yet she was apparently unconscious of her strength, and in the long roll of writers who have adorned our noble literature there is probably not one so devoid of pedantry or affectation, so delightfully self-repressive as Jane Austen. Her life passed calmly and smoothly, resembling some translucent stream which meanders through our English meadows, and is never lashed into anger by treacherous rocks or violent currents. The lover of books, who turns from the rush and strife of existence in quest of intellectual solace and recreation, will discover in this writer a perennial spring of enjoyment and satisfaction. ...

But now, a new book aims to challenge our comfortable view of Jane Austen's England. Historians Roy and Lesley Adkins turn their attention away from the respectable world of Austen's polite society, the decorous Georgian balls and tea parties, the sartorial flamboyance, and instead, uncover life as it really was like – at the turn of the 19th century. ...

During that time, children toiled in coal mines or up chimneys; men could be dragged away to serve in rat-infested navy ships, or to fight the brutal battles of the long Napoleonic War; the wives and daughters of the poor could be sold in marketplaces like cattle. The streets of this world were so thick with horse dung – and sometimes human too – that in some towns there were special street sweepers who would scrape a path across the road for you, for a fee.

Out of town, travellers on highways would sometimes be subjected to the sight of an executed criminal, swinging on a gibbet. Those who received a normal burial were not safe either: London cemeteries were plagued by grave-robbers, who supplied fresh corpses to surgeons for dissection.

Even upper-class life was not immune from squalor. Piped hot water, mass-produced soap, shampoo and deodorant were non-existent. Lack of toothpaste would very likely have given Austen's romantic leads – terrible bad breath. When teeth decayed, the rich paid to have them replaced with fresh ones plucked from corpses.

Jane Austen's world, it turns out, was very different to our own. That being so, why do her novels get so much modern attention? What lessons can Austen possibly have for people living today? Though she was preoccupied with creating characters of the landed gentry, they still speak to us through the centuries. Humans all through history have had the same needs and desires – the same emotions. Stories about the human spirit are timeless. Although she lived two centuries ago, the society she depicts in her novels is surprisingly familiar.

Q10. According to the passage, which of the following features is one NOT likely to find in a Jane Austen's novel?

○ a) **Characters who belonged to the upper class.**

○ b) **A sophisticated and urbane society.**

○ c) **A celebration of egotism and societal realities at the turn of the 19th century.**

○ d) **A display of extravagance and luxury.**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**36**
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	**250**
% of students who attempted this question	**24.72**
% of students who got the question right of those who attempted	**56.18**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 461

Refer to the first, second and last paragraphs of the passage.
Option A: Though she was preoccupied with creating characters of the landed gentry, they still speak to us through the centuries. Landed gentry means 'well-heeled', 'upper crust', 'aristocracy'. Hence choice A is correct and is not the answer.
Option B: Refer to the second para. Comfortable view of Jane Austen's England – the respectable world of Austen's polite society, the decorous Georgian balls and tea parties, the sartorial flamboyance ... Hence choice B is true and is not the answer.
Option C: In the long roll of writers who have adorned our noble literature there is probably not one so devoid of pedantry or affectation, so delightfully self-repressive as Jane Austen. We can say that Jane Austen did not exhibit egotism in or through her novels. Also, Historians Roy and Lesley Adkins turn their attention away from the respectable world of Austen's polite society, the decorous Georgian balls and tea parties, the sartorial flamboyance, and instead, uncover life as it really was – at the turn of the 19th century. Hence we can infer that Jane Austen's novels do not celebrate reality. Paragraphs 3, 4 and 5 of the passage vindicate this fact. Choice C is the answer.
Option D: ..... the decorous Georgian balls and tea parties, the sartorial flamboyance ... Hence choice D is true and is not the answer.   Choice (C)

undefined

DIRECTIONS *for questions 10 to 12:* The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

Jane Austen must – in a literary sense – be in possession of the philosopher's stone. Like Shakespeare, she took the common dross of humanity, and by her wonderful power of literary alchemy, turned it into pure gold. Yet she was apparently unconscious of her strength, and in the long roll of writers who have adorned our noble literature there is probably not one so devoid of pedantry or affectation, so delightfully self-repressive as Jane Austen. Her life passed calmly and smoothly, resembling some translucent stream which meanders through our English meadows, and is never lashed into anger by treacherous rocks or violent currents. The lover of books, who turns from the rush and strife of existence in quest of intellectual solace and recreation, will discover in this writer a perennial spring of enjoyment and satisfaction. ...

But now, a new book aims to challenge our comfortable view of Jane Austen's England. Historians Roy and Lesley Adkins turn their attention away from the respectable world of Austen's polite society, the decorous Georgian balls and tea parties, the sartorial flamboyance, and instead, uncover life as it really was like – at the turn of the 19th century. ...

During that time, children toiled in coal mines or up chimneys; men could be dragged away to serve in rat-infested navy ships, or to fight the brutal battles of the long Napoleonic War; the wives and daughters of the poor could be sold in marketplaces like cattle. The streets of this world were so thick with horse dung – and sometimes human too – that in some towns there were special street sweepers who would scrape a path across the road for you, for a fee.

Out of town, travellers on highways would sometimes be subjected to the sight of an executed criminal, swinging on a gibbet. Those who received a normal burial were not safe either: London cemeteries were plagued by grave-robbers, who supplied fresh corpses to surgeons for dissection.

Even upper-class life was not immune from squalor. Piped hot water, mass-produced soap, shampoo and deodorant were non-existent. Lack of toothpaste would very likely have given Austen's romantic leads – terrible bad breath. When teeth decayed, the rich paid to have them replaced with fresh ones plucked from corpses.

Jane Austen's world, it turns out, was very different to our own. That being so, why do her novels get so much modern attention? What lessons can Austen possibly have for people living today? Though she was preoccupied with creating characters of the landed gentry, they still speak to us through the centuries. Humans all through history have had the same needs and desires – the same emotions. Stories about the human spirit are timeless. Although she lived two centuries ago, the society she depicts in her novels is surprisingly familiar.

Q11. The style of the passage is _____ and the tone of the author towards Jane Austen's works is one of _____.

○ a) **Argumentative .... wholehearted criticism**

○ b) **Descriptive .... satirical admiration**

○ c) **Analytical .... condescension**

○ d) **Narrative .... skeptical pessimism**

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	**83**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**82**
% of students who attempted this question	**21.19**
% of students who got the question right of those who attempted	**45.53**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 461

Option A: The passage is not argumentative. There is no debate i.e. the passage does not present arguments and counterarguments for any idea or concept. The author refrains from delivering an argument; neither does he try to convince people of an argument. The author has not presented a detailed critique of Jane Austen's work. His view on Jane Austen's works emerges in the last para and it is not one of wholehearted criticism. Hence choice A is incorrect.

Option B: In a descriptive passage, the author describes facts with a view to make the passage vivid or memorable. A descriptive passage evokes emotions making the discussion vivid. The first para of the passage describes the author's view of Jane Austen. The last para of the passage throws light on the author's view of her works. The remaining paras describe the views of the Historians – Roy and Lesley Adkins – with reference to the respectable world of Austen's polite society. The second, third, fourth and fifth paras give a picturesque view of life in 19th century England. From the last para, we can say that the tone of the author towards Austen's works is one of admiration. (Her novels have relevance to all periods). The author has lightly mocked Jane Austen when he has highlighted the contrast between life as presented in her novels and the actual grim situation in 19th century England. Hence we can say that the author's tone is overall satirical. Hence choice B is the answer.

Option C: Analysis involves examining aspects of a situation in its plusses and minuses, and making an evaluation at the end of it. In this passage, the author does not analyze the views of Historians Roy and Lesley Adkins as they move away from the respectable world of Austen's polite society to describe life as it was in 19th century England. The author has not been as 'condescending' or 'patronizing' of Jane Austen's works as much as he has been mocking of her works (as can be seen in the third, fourth and fifth paras). In the last para, he is appreciative of her works. So choice C is wrong.

Option D: A narrative passage tells a story, usually from one person's viewpoint. A narrative passage has details which relate in some way to the main point the writer is making. This passage is not narrative. The author is also not skeptical towards Jane Austen's works. Hence choice D is not the answer.   Choice (B)

undefined

DIRECTIONS *for questions 10 to 12:* The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

Jane Austen must – in a literary sense – be in possession of the philosopher's stone. Like Shakespeare, she took the common dross of humanity, and by her wonderful power of literary alchemy, turned it into pure gold. Yet she was apparently unconscious of her strength, and in the long roll of writers who have adorned our noble literature there is probably not one so devoid of pedantry or affectation, so delightfully self-repressive as Jane Austen. Her life passed calmly and smoothly, resembling some translucent stream which meanders through our English meadows, and is never lashed into anger by treacherous rocks or violent currents. The lover of books, who turns from the rush and strife of existence in quest of intellectual solace and recreation, will discover in this writer a perennial spring of enjoyment and satisfaction. ...

But now, a new book aims to challenge our comfortable view of Jane Austen's England. Historians Roy and Lesley Adkins turn their attention away from the respectable world of Austen's polite society, the decorous Georgian balls and tea parties, the sartorial flamboyance, and instead, uncover life as it really was like – at the turn of the 19th century. ...

During that time, children toiled in coal mines or up chimneys; men could be dragged away to serve in rat-infested navy ships, or to fight the brutal battles of the long Napoleonic War; the wives and daughters of the poor could be sold in marketplaces like cattle. The streets of this world were so thick with horse dung – and sometimes human too – that in some towns there were special street sweepers who would scrape a path across the road for you, for a fee.

Out of town, travellers on highways would sometimes be subjected to the sight of an executed criminal, swinging on a gibbet. Those who received a normal burial were not safe either: London cemeteries were plagued by grave-robbers, who supplied fresh corpses to surgeons for dissection.

Even upper-class life was not immune from squalor. Piped hot water, mass-produced soap, shampoo and deodorant were non-existent. Lack of toothpaste would very likely have given Austen's romantic leads – terrible bad breath. When teeth

decayed, the rich paid to have them replaced with fresh ones plucked from corpses.

Jane Austen's world, it turns out, was very different to our own. That being so, why do her novels get so much modern attention? What lessons can Austen possibly have for people living today? Though she was preoccupied with creating characters of the landed gentry, they still speak to us through the centuries. Humans all through history have had the same needs and desires – the same emotions. Stories about the human spirit are timeless. Although she lived two centuries ago, the society she depicts in her novels is surprisingly familiar.

Q12. Which of the following is not an inference that can be drawn from Roy and Lesley Adkins' view on life in 19th century England, as mentioned in the passage?

○ a) **Criminals and crooks could usually escape the long arm of the law.**

○ b) **Public hygiene was found lacking and personal hygiene could not be envisaged as in the modern day.**

○ c) **Life in Jane Austen's time was much less civilised than in today's times.**

○ 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	**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	**101**
% of students who attempted this question	**21.87**
% of students who got the question right of those who attempted	**27.57**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 461

Option A: Out of town, travellers on highways would sometimes be subjected to the sight of an executed criminal, swinging on a gibbet. Hence choice A is incorrect and is the answer.
Option B: The streets of this world were so thick with horse dung – and sometimes human too – that in some towns there were special street sweepers who would scrape a path across the road for you, for a fee. Piped hot water, mass-produced soap, shampoo and deodorant were non-existent. Lack of toothpaste would very likely have given Austen's romantic leads – terrible bad breath. Hence choice B is true and is not the answer.
Option C: Children toiled in coal mines or up chimneys; men could be dragged away to serve in rat-infested navy ships, or to fight the brutal battles of the long Napoleonic War; the wives and daughters of the poor could be sold in marketplaces like cattle. ....
So choice C is correct and is not the answer.   Choice (A)

undefined

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

What are the multiple senses of the concept of nature? I think we can discern at least three, which can be best described in terms of dichotomies. We have: Nature versus Culture, Nature versus the Supernatural, and Nature versus Nurture.

When writers, poets and singers wax lyrical about nature, they are not typically singing the praises of quantum mechanics or the genome. What they are thinking about is the world beyond human civilization and culture. In English this connotation

apparently dates from the 1660s, when the scientific revolution was beginning to gain momentum. Humans began to see many of their actions as artificial – born of artifice. I'm sure many nature-lovers and environmentalists would find the following sentence rather annoying: "Beavers naturally make dams; humans naturally make plastic."

Interestingly, the word 'culture' comes from the Latin 'cultura', which means cultivation and agriculture, and stems from the word 'colere' which means to till or tend. So culture meant a furrowed rural field long before it meant a furrowed urban brow. The rural home of agriculture – perhaps the oldest social invention – is now seen as the grey border territory that separates culture from wild, untamed nature. Beyond the towns lie the fields, and beyond the fields... the forests, the deserts, the wilderness. There lie the places and things we have not yet named.

If nature is, by definition, whatever is free of human manipulation, then we can never speak of a natural human environment in the same way that we speak of a natural animal environment. But what humans do is intricately linked with the environments of animals. Sometimes 'artificial' ecologies are more resilient than the ones that were displaced. Environmentalists and conservationists often deploy the word 'nature' as something that does not belong to humans, but that humans must nevertheless actively steward. This places humankind outside of nature and yet somehow instrumental in maintaining it. Climate change is clearly a threat to life on the entire planet, but the planet has been through disasters in the past. The fossil record suggests that Mother Nature does not seem to be particularly concerned with protecting animals and plants from extinction. Whether we like it or not, the desire to preserve biodiversity and ecosystems is a very human desire.

Change is 'in the nature' of things. Humans are not simultaneously outside nature and part of it. Nor are we the only forces capable of changing the natural world. Animals and plants are also capable....

The idea that humans are artificial interlopers who must be kept out of the Garden of Eden is not especially useful. From the perspective of the causal web, humans are not separate from nature at all. In fact, this is why humans are capable of changing the rest of the natural world. The fact that change is natural does not, however, mean that conservation is pointless or unnatural. Fighting against change is also in the nature of things. Animals and plants do this too: their attempts to create bubbles of stability are essential to the underlying process of life. Groups of humans are therefore perfectly 'natural' in wanting to manipulate, preserve and destroy parts of the natural world. It is also natural for humans to differ on how to go about this, and to argue, fight and whine about all of it.

Q13. The author says that many nature-lovers and environmentalists would find the statement: "Beavers naturally make dams; humans naturally make plastic." rather annoying, because the statement implies that

○ a) **the word 'nature' seems to serve as a label for multiple, mutually inconsistent notions.** □ **Your answer is incorrect**

○ b) **even animals have begun to see many of their actions as artificial – born of artifice.**

○ c) **humans have what resembles an aesthetic appreciation for nonhuman life on earth.**

○ d) **undesirable human actions, born of craftsmanship or skill, could also be considered normal or to be expected.**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**204**
Avg. time spent on this question by all students	**269**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	277
% of students who attempted this question	**19.58**
% of students who got the question right of those who attempted	**39.56**

Video Solution

Text Solution

undefined

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

What are the multiple senses of the concept of nature? I think we can discern at least three, which can be best described in terms of dichotomies. We have: Nature versus Culture, Nature versus the Supernatural, and Nature versus Nurture.

When writers, poets and singers wax lyrical about nature, they are not typically singing the praises of quantum mechanics or the genome. What they are thinking about is the world beyond human civilization and culture. In English this connotation apparently dates from the 1660s, when the scientific revolution was beginning to gain momentum. Humans began to see many of their actions as artificial – born of artifice. I'm sure many nature-lovers and environmentalists would find the following sentence rather annoying: "Beavers naturally make dams; humans naturally make plastic."

Interestingly, the word 'culture' comes from the Latin 'cultura', which means cultivation and agriculture, and stems from the word 'colere' which means to till or tend. So culture meant a furrowed rural field long before it meant a furrowed urban brow. The rural home of agriculture – perhaps the oldest social invention – is now seen as the grey border territory that separates culture from wild, untamed nature. Beyond the towns lie the fields, and beyond the fields... the forests, the deserts, the wilderness. There lie the places and things we have not yet named.

If nature is, by definition, whatever is free of human manipulation, then we can never speak of a natural human environment in the same way that we speak of a natural animal environment. But what humans do is intricately linked with the environments of animals. Sometimes 'artificial' ecologies are more resilient than the ones that were displaced. Environmentalists and conservationists often deploy the word 'nature' as something that does not belong to humans, but that humans must nevertheless actively steward. This places humankind outside of nature and yet somehow instrumental in maintaining it. Climate change is clearly a threat to life on the entire planet, but the planet has been through disasters in the past. The fossil record suggests that Mother Nature does not seem to be particularly concerned with protecting animals and plants from extinction. Whether we like it or not, the desire to preserve biodiversity and ecosystems is a very human desire.

Change is 'in the nature' of things. Humans are not simultaneously outside nature and part of it. Nor are we the only forces capable of changing the natural world. Animals and plants are also capable....

The idea that humans are artificial interlopers who must be kept out of the Garden of Eden is not especially useful. From the perspective of the causal web, humans are not separate from nature at all. In fact, this is why humans are capable of

changing the rest of the natural world. The fact that change is natural does not, however, mean that conservation is pointless or unnatural. Fighting against change is also in the nature of things. Animals and plants do this too: their attempts to create bubbles of stability are essential to the underlying process of life. Groups of humans are therefore perfectly 'natural' in wanting to manipulate, preserve and destroy parts of the natural world. It is also natural for humans to differ on how to go about this, and to argue, fight and whine about all of it.

Q14. Consider the following sentence:

Animals and plants are not in a state of tranquil balance: an apparent 'circle of life' is a transient interlude of harmony and rhythm in a cosmic album featuring bombastic collisions, dynamic transitions and atonal weirdness.

Which of the following correctly explains the given sentence in the context of the passage?

○ a) **Though nature goes through its ups and downs, the circle of life implies that nature still remains the same.**

○ b) **Though life can be represented by a circle without any start or finish, it is not always stable but keeps on changing.**

○ c) **The different phases of life represent different components of a musical album which intermingle to form a melody.**

○ d) **Life and music albums are permanent entities even though their individual components may be transient in form.**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**480**
Avg. time spent on this question by all students	**146**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**147**
% of students who attempted this question	**16.67**
% of students who got the question right of those who attempted	**52.46**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 551

The word 'atonal' is used in the context of musical styles and composition. It means "not written in an established key".
Option A: Humans are not simultaneously outside nature and part of it. Nor are we the only forces capable of changing the natural world. Change is natural. We cannot say from the passage that nature remains the same. Choice A is not the answer.
Option B: The fossil record suggests that Mother Nature does not seem to be particularly concerned with protecting animals and plants from extinction. Change is 'in the nature' of things. Hence we can say that life is not stable but keeps on changing. Fighting against change is also in the nature of things. Animals and plants do this too: their attempts to create bubbles of stability (amidst change) are essential to the underlying process of life. Hence choice B is the answer.
Option C: Animals and plants are not in a state of tranquil balance. The apparent circle of life implies that there are different phases of life. "a cosmic album featuring bombastic collisions, dynamic transitions and atonal weirdness" does not necessarily point to a musical album with different aspects/ styles/ components combining to form a melody. Choice C does not reflect the main point of the passage: Change is 'in the nature' of things. Humans are not simultaneously outside nature and part of it. Nor are we the only forces capable of changing the natural world. Hence choice C is a wrong implication of the sentence given in the question and does not take into account the context of the passage as a whole.
Option D: Animals, plants (and humans) are not in a state of tranquil balance: an apparent 'circle of life' is a transient interlude .... Life is not permanent. Hence choice D gives a wrong interpretation of the sentence in the question.   Choice (B)

undefined

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

What are the multiple senses of the concept of nature? I think we can discern at least three, which can be best described in terms of dichotomies. We have: Nature versus Culture, Nature versus the Supernatural, and Nature versus Nurture.

When writers, poets and singers wax lyrical about nature, they are not typically singing the praises of quantum mechanics or the genome. What they are thinking about is the world beyond human civilization and culture. In English this connotation apparently dates from the 1660s, when the scientific revolution was beginning to gain momentum. Humans began to see many of their actions as artificial – born of artifice. I'm sure many nature-lovers and environmentalists would find the following sentence rather annoying: "Beavers naturally make dams; humans naturally make plastic."

Interestingly, the word 'culture' comes from the Latin 'cultura', which means cultivation and agriculture, and stems from the word 'colere' which means to till or tend. So culture meant a furrowed rural field long before it meant a furrowed urban brow. The rural home of agriculture – perhaps the oldest social invention – is now seen as the grey border territory that separates culture from wild, untamed nature. Beyond the towns lie the fields, and beyond the fields... the forests, the deserts, the wilderness. There lie the places and things we have not yet named.

If nature is, by definition, whatever is free of human manipulation, then we can never speak of a natural human environment in the same way that we speak of a natural animal environment. But what humans do is intricately linked with the environments of animals. Sometimes 'artificial' ecologies are more resilient than the ones that were displaced. Environmentalists and conservationists often deploy the word 'nature' as something that does not belong to humans, but that humans must nevertheless actively steward. This places humankind outside of nature and yet somehow instrumental in maintaining it. Climate change is clearly a threat to life on the entire planet, but the planet has been through disasters in the past. The fossil record suggests that Mother Nature does not seem to be particularly concerned with protecting animals and plants from extinction. Whether we like it or not, the desire to preserve biodiversity and ecosystems is a very human desire.

Change is 'in the nature' of things. Humans are not simultaneously outside nature and part of it. Nor are we the only forces capable of changing the natural world. Animals and plants are also capable....

The idea that humans are artificial interlopers who must be kept out of the Garden of Eden is not especially useful. From the perspective of the causal web, humans are not separate from nature at all. In fact, this is why humans are capable of changing the rest of the natural world. The fact that change is natural does not, however, mean that conservation is pointless or unnatural. Fighting against change is also in the nature of things. Animals and plants do this too: their attempts to create bubbles of stability are essential to the underlying process of life. Groups of humans are therefore perfectly 'natural' in wanting to manipulate, preserve and destroy parts of the natural world. It is also natural for humans to differ on how to go about this, and to argue, fight and whine about all of it.

Q15. Consider the statement given below:

When one grasps a single branch in nature, one finds it attached to the rest of the world.

The above statement

○ a) **echoes the sentiments of environmentalists and conservationists.**

○ b) **echoes the view of the author.** ▢**Your answer is correct**

○ c) **contradicts the view of the author.**

○ d) **reinforces the sentiments of the environmentalists and conservationists.**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**105**
Avg. time spent on this question by all students	**84**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**87**
% of students who attempted this question	**15.3**
% of students who got the question right of those who attempted	**39.88**

Number of words and Explanatory notes for RC:

Number of words: 551

Environmentalists and conservationalists often deploy the word 'nature' as something that does not belong to humans, but that humans must nevertheless actively steward and protect. This places humankind outside of nature and yet somehow instrumental in maintaining it. .... This view is corrected by the author in the last para .... The idea that humans are artificial interlopers who must be kept out of the Garden of Eden is not especially useful. From the perspective of the causal web, humans are not separate from nature at all. In fact, this is why humans are capable of changing the rest of the natural world. We can say that the statement given in the question echoes the view of the author.   Choice (B)

undefined

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

What are the multiple senses of the concept of nature? I think we can discern at least three, which can be best described in terms of dichotomies. We have: Nature versus Culture, Nature versus the Supernatural, and Nature versus Nurture.

When writers, poets and singers wax lyrical about nature, they are not typically singing the praises of quantum mechanics or the genome. What they are thinking about is the world beyond human civilization and culture. In English this connotation apparently dates from the 1660s, when the scientific revolution was beginning to gain momentum. Humans began to see many of their actions as artificial – born of artifice. I'm sure many nature-lovers and environmentalists would find the following sentence rather annoying: "Beavers naturally make dams; humans naturally make plastic."

Interestingly, the word 'culture' comes from the Latin 'cultura', which means cultivation and agriculture, and stems from the word 'colere' which means to till or tend. So culture meant a furrowed rural field long before it meant a furrowed urban brow. The rural home of agriculture – perhaps the oldest social invention – is now seen as the grey border territory that separates culture from wild, untamed nature. Beyond the towns lie the fields, and beyond the fields... the forests, the deserts, the wilderness. There lie the places and things we have not yet named.

If nature is, by definition, whatever is free of human manipulation, then we can never speak of a natural human environment in the same way that we speak of a natural animal environment. But what humans do is intricately linked with the environments of animals. Sometimes 'artificial' ecologies are more resilient than the ones that were displaced. Environmentalists and conservationists often deploy the word 'nature' as something that does not belong to humans, but that humans must nevertheless actively steward. This places humankind outside of nature and yet somehow instrumental in maintaining it. Climate change is clearly a threat to life on the entire planet, but the planet has been through disasters in the past. The fossil record suggests that Mother Nature does not seem to be particularly concerned with protecting animals and plants from extinction. Whether we like it or not, the desire to preserve biodiversity and ecosystems is a very human desire.

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Q16. Which of the following titles correctly captures the essence of the passage?

○ a) **Nature undergoing change.**

○ b) **Nature versus change.**

◯ c) **The nature of changes in nature.**

◯ d) **Why change is not unnatural.**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**97**
Avg. time spent on this question by all students	**59**
Difficulty Level	**VD**
Avg. time spent on this question by students who got this question right	**61**
% of students who attempted this question	**21.74**
% of students who got the question right of those who attempted	**12.64**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 551

Option A: The author makes the point that nature is changing constantly and not only because of humans but also because of plants and animals... From the second half of the passage, we can infer that choice A correctly sums up the theme of the passage. Choice A is the answer.
Option B: The author has not pitted nature against change. In the third para, he has attempted to explain the dichotomy: Nature versus Culture. Choice B (Nature versus change) is incorrect.
Option C: The author has not focussed on the why, what and how of change. He has not thrown light on the factors affecting change in nature. Choice C is not the answer.
Option D: Choice D misinterprets the passage and makes 'change' the focus of the passage which is not true. Hence choice D is incorrect.   Choice (A)

undefined

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

What are the multiple senses of the concept of nature? I think we can discern at least three, which can be best described in terms of dichotomies. We have: Nature versus Culture, Nature versus the Supernatural, and Nature versus Nurture.

When writers, poets and singers wax lyrical about nature, they are not typically singing the praises of quantum mechanics or the genome. What they are thinking about is the world beyond human civilization and culture. In English this connotation apparently dates from the 1660s, when the scientific revolution was beginning to gain momentum. Humans began to see many of their actions as artificial – born of artifice. I'm sure many nature-lovers and environmentalists would find the following sentence rather annoying: "Beavers naturally make dams; humans naturally make plastic."

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If nature is, by definition, whatever is free of human manipulation, then we can never speak of a natural human environment in the same way that we speak of a natural animal environment. But what humans do is intricately linked with the environments of animals. Sometimes 'artificial' ecologies are more resilient than the ones that were displaced. Environmentalists and conservationists often deploy the word 'nature' as something that does not belong to humans, but that humans must nevertheless actively steward. This places humankind outside of nature and yet somehow instrumental in maintaining it. Climate change is clearly a threat to life on the entire planet, but the planet has been through disasters in the past. The fossil record suggests that Mother Nature does not seem to be particularly concerned with protecting animals and plants from extinction. Whether we like it or not, the desire to preserve biodiversity and ecosystems is a very human desire.

Change is 'in the nature' of things. Humans are not simultaneously outside nature and part of it. Nor are we the only forces capable of changing the natural world. Animals and plants are also capable....

The idea that humans are artificial interlopers who must be kept out of the Garden of Eden is not especially useful. From the perspective of the causal web, humans are not separate from nature at all. In fact, this is why humans are capable of changing the rest of the natural world. The fact that change is natural does not, however, mean that conservation is pointless or unnatural. Fighting against change is also in the nature of things. Animals and plants do this too: their attempts to create bubbles of stability are essential to the underlying process of life. Groups of humans are therefore perfectly 'natural' in wanting to manipulate, preserve and destroy parts of the natural world. It is also natural for humans to differ on how to go about this, and to argue, fight and whine about all of it.

Q17. Which of the following is not true according to the passage?

○ a) **Humans can modify existing ecosystems and this modification can influence nature.**

○ b) **Animals and plants are capable of both changing nature and keeping it stable.**

○ c) **Humans can create new ecosystems in place of old ones and may also desire to preserve them.**

○ d) **Unlike humans, animals and plants are not capable of finding the true balance of life due to changes in nature.**
    □**Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	147
Avg. time spent on this question by all students	70
Difficulty Level	D
Avg. time spent on this question by students who got this question right	68
% of students who attempted this question	20.59
% of students who got the question right of those who attempted	59.96

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 551

Option A: But what humans do is intricately linked with the environments of animals. Groups of humans are therefore perfectly 'natural' in wanting to manipulate, preserve and destroy parts of the natural world. Choice A is correct and is not the answer.
Option B: Nor are we the only forces capable of changing the natural world. Animals and plants are also capable... Fighting against change is also in the nature of things. Animals and plants do this too: their attempts to create bubbles of stability are essential to the underlying process of life. Hence choice B is correct and is not the answer.
Option C: Sometimes 'artificial' ecologies are more resilient than the ones that were displaced. This means that humans can create new ecosystems in place of old ones. Whether we like it or not, the desire to preserve biodiversity and ecosystems is a very human desire. Hence choice C is true and is not the answer.
Option D: Choice D has not been mentioned in the passage. The passage does not say that animals and plants are not capable of finding the true balance of life. Choice D is the answer.   Choice (D)

undefined

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When writers, poets and singers wax lyrical about nature, they are not typically singing the praises of quantum mechanics or the genome. What they are thinking about is the world beyond human civilization and culture. In English this connotation apparently dates from the 1660s, when the scientific revolution was beginning to gain momentum. Humans began to see many of their actions as artificial – born of artifice. I'm sure many nature-lovers and environmentalists would find the following sentence rather annoying: "Beavers naturally make dams; humans naturally make plastic."

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The idea that humans are artificial interlopers who must be kept out of the Garden of Eden is not especially useful. From the perspective of the causal web, humans are not separate from nature at all. In fact, this is why humans are capable of changing the rest of the natural world. The fact that change is natural does not, however, mean that conservation is pointless or unnatural. Fighting against change is also in the nature of things. Animals and plants do this too: their attempts to create bubbles of stability are essential to the underlying process of life. Groups of humans are therefore perfectly 'natural' in wanting to manipulate, preserve and destroy parts of the natural world. It is also natural for humans to differ on how to go about this, and to argue, fight and whine about all of it.

Q18. Match the words with their meanings.

Column A	Column B
1. wax lyrical	a. sing the praises of
2. steward	b. to be out of place
3. interlope	c. position or use
4. artifice	d. look after or protect
5. deploy	e. clever trick or skill
	f. not occurring naturally

○ a) **1 – e, 2 – d, 3 – c, 4 – f, 5 – b**

○ b) **1 – b, 2 – c, 3 – f, 4 – e, 5 – a**

○ c) **1 – a, 2 – d, 3 – b, 4 – e, 5 – c** □**Your answer is correct**

○ d) **1 – a, 2 – e, 3 – d, 4 – b, 5 – c**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**239**
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	**137**
% of students who attempted this question	**23.02**
% of students who got the question right of those who attempted	**60.52**

Video Solution

Text Solution

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.

In 1874, the state geologist of Pennsylvania – then the nation's leading oil-producing state – estimated that only enough U.S. oil remained to keep the nation's kerosene lamps burning for four more years. Nearly 40 years later, during World War I, the federal government concluded that depleting U.S. oil supplies required reliance on oil-shale resources. In 1952, the Paley Commission estimated that by the 1970s, the United States would have to shift its reliance from oil to coal and synthetic fuels. .... Because oil is a finite resource, the world has been 'running out' of oil since the first barrel was extracted, and oil supply eventually will not be capable of satisfying rising world demand at prevailing prices. Thus, the peaking of world oil production has been a matter of speculation in the mid-1800s, and for 150 years, energy analysts have been claiming that the world peak would occur in the next 25 years.

No one knows, however, precisely when the peak will occur. A unique and frustrating aspect of the world oil peak problem is that its timing is uncertain in large part due to inadequate and potentially biased reserves data from around the world.

Reserves are an estimate of the amount of oil in a reservoir that can be extracted at an assumed cost. Thus, a higher oil-price outlook often means that more oil can be extracted, and the reserves will increase. But geology also limited reserves growth. In well-managed oil fields, the maximum increase in reserves is usually only 10 to 20 percent, no matter how high the price. Reserves estimates are revised periodically as new information becomes available from the developed fields, but reserves estimation was hampered by the inherently limited information we could obtain about complex rock formations located miles below the surface. Sometimes large errors occurred as was the case with Shell's recent reserves markdown of more than 20 percent.

With publicly available data on reserves sometimes grossly unreliable, estimating the amount of available oil becomes a complex technical, political and institutional problem. For example, when OPEC decided during the 1980s to base its quotas, in part, on oil reserves instead of production, a number of its members immediately doubled or tripled their reserves estimates. In Iraq, reserves reports of 100 billion barrels came out every year from 1985 to 1998, despite no major new discoveries while the country continued to produce oil.

Extensive drilling for oil and gas has provided a massive worldwide database, and current geological knowledge is much more extensive than in years past. Also, various seismic and other exploration technologies have advanced dramatically in recent decades, greatly improving our ability to discover new oil reservoirs. Nevertheless, the number of oil reserves discovered per exploratory well has been declining worldwide for more than a decade.

We are finding less oil inspite of vigorous efforts, suggesting that nature may not have much more to provide. As such, many credible analysts have recently become much more pessimistic about the possibility of finding the huge new reserves needed to meet growing world demand. Even optimistic forecasts suggest that the world oil peak will occur in less than 20 years.

Oil peaking is a liquid-fuels problem for the transportation sector, not an 'energy crisis' in the sense that the term has been often used. Frequently publicized energy alternatives, such as solar, wind, photovoltaics, nuclear power, geothermal, fusion and others, do not produce liquid fuels, so they cannot affect transportation until major technology shifts from the use of liquid fuels to other replacements are implemented on a significant scale.

Contrary to a recent spate of doomsday books, the peak of conventional world oil production will not result in the end of

modern civilization. Nevertheless, a worldwide peak in the current energy and economic environment could create disruption on a scale much greater than previously experienced. Still unknown are how to address the challenges posed by an oil peak and when the peak will actually occur. I believe, however, that it is wise to focus on prudent risk management, potential solutions and mitigation strategies instead of being consumed with arguing about the exact date of conventional oil production peaking.

Q19. "…, the world has been "running out" of oil since the first barrel was extracted…" (para 1). Which of the following can be inferred from this statement?

○ a) **The finiteness of oil reserves has continually fuelled the speculation that the world will run out of oil.** ▫**Your answer is correct**

○ b) **In less than quarter of a century, we will have extracted all the oil that there is.**

○ c) **Growth in world demand for oil has continually outpaced the growth in estimated oil reserves.**

○ d) **A lower oil-price outlook would result in an increase in the oil reserves.**

<table>
<tr><td colspan="2" align="center">**Time spent / Accuracy Analysis**</td></tr>
<tr><td>Time taken by you to answer this question</td><td>**191**</td></tr>
<tr><td>Avg. time spent on this question by all students</td><td>**227**</td></tr>
<tr><td>Difficulty Level</td><td>**D**</td></tr>
<tr><td>Avg. time spent on this question by students who got this question right</td><td>**236**</td></tr>
<tr><td>% of students who attempted this question</td><td>**22.74**</td></tr>
<tr><td>% of students who got the question right of those who attempted</td><td>**62.77**</td></tr>
</table>

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 690

Refer to the first sentence of the first paragraph.
Option A: The phrase "running out" is used in a satirical sense, to indicate the numerous instances when experts felt that oil reserves will run out. This idea has been expressed in statement A. Therefore, Choice A can be inferred.
Option B: For 150 years, energy analysts have been claiming that the peaking of world oil production would occur in the next 25 years. But a claim need not translate into actuality. Choice B is a misdirection.
Option C: The passage does not compare the growth in world demand for oil with the growth in estimated reserves. Hence, Choice C cannot be inferred.
Option D: According to the statement given in para 3, "Thus, a higher oil-price outlook often means that more oil can be extracted, and the reserves will increase", we can infer that a lower oil-price outlook would most likely result in a decrease in the oil reserves, and not an increase. Therefore Choice D cannot be inferred.

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.

In 1874, the state geologist of Pennsylvania – then the nation's leading oil-producing state – estimated that only enough U.S. oil remained to keep the nation's kerosene lamps burning for four more years. Nearly 40 years later, during World War I, the federal government concluded that depleting U.S. oil supplies required reliance on oil-shale resources. In 1952, the Paley Commission estimated that by the 1970s, the United States would have to shift its reliance from oil to coal and synthetic fuels. .... Because oil is a finite resource, the world has been 'running out' of oil since the first barrel was extracted, and oil supply eventually will not be capable of satisfying rising world demand at prevailing prices. Thus, the peaking of world oil production has been a matter of speculation in the mid-1800s, and for 150 years, energy analysts have been

claiming that the world peak would occur in the next 25 years.

No one knows, however, precisely when the peak will occur. A unique and frustrating aspect of the world oil peak problem is that its timing is uncertain in large part due to inadequate and potentially biased reserves data from around the world.

Reserves are an estimate of the amount of oil in a reservoir that can be extracted at an assumed cost. Thus, a higher oil-price outlook often means that more oil can be extracted, and the reserves will increase. But geology also limited reserves growth. In well-managed oil fields, the maximum increase in reserves is usually only 10 to 20 percent, no matter how high the price. Reserves estimates are revised periodically as new information becomes available from the developed fields, but reserves estimation was hampered by the inherently limited information we could obtain about complex rock formations located miles below the surface. Sometimes large errors occurred as was the case with Shell's recent reserves markdown of more than 20 percent.

With publicly available data on reserves sometimes grossly unreliable, estimating the amount of available oil becomes a complex technical, political and institutional problem. For example, when OPEC decided during the 1980s to base its quotas, in part, on oil reserves instead of production, a number of its members immediately doubled or tripled their reserves estimates. In Iraq, reserves reports of 100 billion barrels came out every year from 1985 to 1998, despite no major new discoveries while the country continued to produce oil.

Extensive drilling for oil and gas has provided a massive worldwide database, and current geological knowledge is much more extensive than in years past. Also, various seismic and other exploration technologies have advanced dramatically in recent decades, greatly improving our ability to discover new oil reservoirs. Nevertheless, the number of oil reserves discovered per exploratory well has been declining worldwide for more than a decade.

We are finding less oil inspite of vigorous efforts, suggesting that nature may not have much more to provide. As such, many credible analysts have recently become much more pessimistic about the possibility of finding the huge new reserves needed to meet growing world demand. Even optimistic forecasts suggest that the world oil peak will occur in less than 20 years.

Oil peaking is a liquid-fuels problem for the transportation sector, not an 'energy crisis' in the sense that the term has been often used. Frequently publicized energy alternatives, such as solar, wind, photovoltaics, nuclear power, geothermal, fusion and others, do not produce liquid fuels, so they cannot affect transportation until major technology shifts from the use of liquid fuels to other replacements are implemented on a significant scale.

Contrary to a recent spate of doomsday books, the peak of conventional world oil production will not result in the end of modern civilization. Nevertheless, a worldwide peak in the current energy and economic environment could create disruption on a scale much greater than previously experienced. Still unknown are how to address the challenges posed by an oil peak and when the peak will actually occur. I believe, however, that it is wise to focus on prudent risk management, potential solutions and mitigation strategies instead of being consumed with arguing about the exact date of conventional oil production peaking.

Q20.   Which of the following, if true, would resolve the inherent discrepancy in the statement: "In Iraq, reserves reports of 100 billion barrels were declared every year from 1985 to 1998, despite no major new discoveries while the country continued to produce oil." (para 4)?

○ a) **In Iraq, unconventional oil reserves from oil sands were added every year to their total oil reserves, thereby maintaining the reserves at a constant level.**

○ b) **Iraqi oil reserves estimates have not been subject to external, independent verification since the 1980s for a variety of political and economic reasons.**

○ c) **In 1985, Iraq invested heavily not only in mastering the technology of oil drilling and maintaining oil wells but also in accurately estimating the amount of oil available.**

○ d) **None of the above**

[Text Solution](…)

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 690

The discrepancy here is that though the amount of oil in Iraq's reserves should be decreasing as oil is extracted, it keeps stating that it has the exact same amount.

Option A: In Iraq, unconventional oil from oil sands was added to their oil reserves, thereby maintaining the reserves at a constant level. If this had happened, it can explain Iraq reporting 100 billion barrels every year. Hence choice A helps to explain the apparent discrepancy and is the answer.

Option B: Choice B seems to imply that Iraq had either misreported or not accurately measured the available oil reserves. However, if choice B is true, it will falsify the given statement but will not resolve the discrepancy within the statement. Hence, this is not the answer.

Option C: If Iraq accurately estimated the amount of oil available in 1985, then the oil reserves should have increased in the same year (or the following year). But this choice does not throw any light on how the level of oil reserves remained constant year on year. Choice C does not resolve the discrepancy and is not the answer.

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.

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We are finding less oil inspite of vigorous efforts, suggesting that nature may not have much more to provide. As such, many credible analysts have recently become much more pessimistic about the possibility of finding the huge new reserves needed to meet growing world demand. Even optimistic forecasts suggest that the world oil peak will occur in less than 20 years.

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Contrary to a recent spate of doomsday books, the peak of conventional world oil production will not result in the end of modern civilization. Nevertheless, a worldwide peak in the current energy and economic environment could create disruption on a scale much greater than previously experienced. Still unknown are how to address the challenges posed by an oil peak and when the peak will actually occur. I believe, however, that it is wise to focus on prudent risk management, potential solutions and mitigation strategies instead of being consumed with arguing about the exact date of conventional oil production peaking.

Q21. According to the passage, all of the following are encouraging developments that can lead to an increase in our chances of discovering new oil reserves EXCEPT?

○ a) **Availability of a more substantial database of worldwide oil reserves**

○ b) **Vastly improved seismic and other exploration technologies**

○ c) **Improved and extensive geological knowledge**

○ d) **The delegation of drilling, constructing and maintaining wells by oil companies to oilfield-service firms**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**129**
Avg. time spent on this question by all students	**89**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**90**
% of students who attempted this question	**17.08**
% of students who got the question right of those who attempted	**64.58**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 690

Refer to para 5.
Option A: With publicly available data on reserves sometimes grossly unreliable, estimating the amount of available oil becomes a complex technical, political and institutional problem. But now extensive drilling for oil and gas has provided a massive worldwide database (of oil reserves). Hence choice A is true and is not the answer.
Option B: Various seismic and other exploration technologies have advanced dramatically in recent decades, greatly improving our ability to discover new oil reservoirs. Hence choice B is true and is not the answer.
Option C: In the past, geology also limited reserves growth. Reserves estimation was hampered by the inherently limited information we could obtain about complex rock formations located miles below the surface. Current geological knowledge is much more extensive than in years past. So choice C is true and is not the answer.
Option D: Choice D has not been mentioned in the passage and is the answer.

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.

In 1874, the state geologist of Pennsylvania – then the nation's leading oil-producing state – estimated that only enough U.S. oil remained to keep the nation's kerosene lamps burning for four more years. Nearly 40 years later, during World War

I, the federal government concluded that depleting U.S. oil supplies required reliance on oil-shale resources. In 1952, the Paley Commission estimated that by the 1970s, the United States would have to shift its reliance from oil to coal and synthetic fuels. .... Because oil is a finite resource, the world has been 'running out' of oil since the first barrel was extracted, and oil supply eventually will not be capable of satisfying rising world demand at prevailing prices. Thus, the peaking of world oil production has been a matter of speculation in the mid-1800s, and for 150 years, energy analysts have been claiming that the world peak would occur in the next 25 years.

No one knows, however, precisely when the peak will occur. A unique and frustrating aspect of the world oil peak problem is that its timing is uncertain in large part due to inadequate and potentially biased reserves data from around the world.

Reserves are an estimate of the amount of oil in a reservoir that can be extracted at an assumed cost. Thus, a higher oil-price outlook often means that more oil can be extracted, and the reserves will increase. But geology also limited reserves growth. In well-managed oil fields, the maximum increase in reserves is usually only 10 to 20 percent, no matter how high the price. Reserves estimates are revised periodically as new information becomes available from the developed fields, but reserves estimation was hampered by the inherently limited information we could obtain about complex rock formations located miles below the surface. Sometimes large errors occurred as was the case with Shell's recent reserves markdown of more than 20 percent.

With publicly available data on reserves sometimes grossly unreliable, estimating the amount of available oil becomes a complex technical, political and institutional problem. For example, when OPEC decided during the 1980s to base its quotas, in part, on oil reserves instead of production, a number of its members immediately doubled or tripled their reserves estimates. In Iraq, reserves reports of 100 billion barrels came out every year from 1985 to 1998, despite no major new discoveries while the country continued to produce oil.

Extensive drilling for oil and gas has provided a massive worldwide database, and current geological knowledge is much more extensive than in years past. Also, various seismic and other exploration technologies have advanced dramatically in recent decades, greatly improving our ability to discover new oil reservoirs. Nevertheless, the number of oil reserves discovered per exploratory well has been declining worldwide for more than a decade.

We are finding less oil inspite of vigorous efforts, suggesting that nature may not have much more to provide. As such, many credible analysts have recently become much more pessimistic about the possibility of finding the huge new reserves needed to meet growing world demand. Even optimistic forecasts suggest that the world oil peak will occur in less than 20 years.

Oil peaking is a liquid-fuels problem for the transportation sector, not an 'energy crisis' in the sense that the term has been often used. Frequently publicized energy alternatives, such as solar, wind, photovoltaics, nuclear power, geothermal, fusion and others, do not produce liquid fuels, so they cannot affect transportation until major technology shifts from the use of liquid fuels to other replacements are implemented on a significant scale.

Contrary to a recent spate of doomsday books, the peak of conventional world oil production will not result in the end of modern civilization. Nevertheless, a worldwide peak in the current energy and economic environment could create disruption on a scale much greater than previously experienced. Still unknown are how to address the challenges posed by an oil peak and when the peak will actually occur. I believe, however, that it is wise to focus on prudent risk management, potential solutions and mitigation strategies instead of being consumed with arguing about the exact date of conventional oil production peaking.

Q22. What is the underlying assumption in the author's conclusion that energy alternatives, such as solar, wind and others cannot affect transportation until major technology shifts are implemented on a significant scale (para 7)?

○ a) **As production of oil from some of the world's biggest fields matures, transport companies will not entertain the idea of using alternatives to liquid fuels.**

○ b) **The consequences of oil peaking are limited to those forms of transport that use liquid fuels, and not to every area where energy is needed.**

○ c) **Using alternative sources of energy – solar, wind, geothermal and the like – can help avert the inevitable disaster.**

○ d) **Many motor vehicles, aircraft, trains and ships are simply not equipped to employ alternatives to liquid fuels.**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**0**
Avg. time spent on this question by all students	**103**
Difficulty Level	**D**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 690

Refer to the penultimate para of the passage.
Option A: The first part of choice A sounds positive. This is incorrect. The passage talks about the world running out of oil. Hence choice A is not the assumption.
Option B: Refer to the penultimate paragraph, especially the line 'it is a liquid-fuels problem for the transportation sector, not an "energy crisis" in the sense that the term has been often used'. Choice B is the assumption behind the author's statement that the problem of oil peaking is not an 'energy crisis'. Choice B is not the assumption for the author's conclusion given in the question.
Option C: Frequently publicized energy alternatives, such as solar, wind, photovoltaics, nuclear power, geothermal, fusion and others, do not produce liquid fuels, so they cannot affect transportation until .... Hence choice C is not the correct answer.
Option D: Frequently publicized energy alternatives, such as solar, wind, photovoltaics, nuclear power, geothermal, fusion and others, do not produce liquid fuels, so they cannot affect transportation until major technology shifts from the use of liquid fuels to other replacements are implemented on a significant scale. Choice D is the correct assumption.   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.

In 1874, the state geologist of Pennsylvania – then the nation's leading oil-producing state – estimated that only enough U.S. oil remained to keep the nation's kerosene lamps burning for four more years. Nearly 40 years later, during World War I, the federal government concluded that depleting U.S. oil supplies required reliance on oil-shale resources. In 1952, the Paley Commission estimated that by the 1970s, the United States would have to shift its reliance from oil to coal and synthetic fuels. .... Because oil is a finite resource, the world has been 'running out' of oil since the first barrel was extracted, and oil supply eventually will not be capable of satisfying rising world demand at prevailing prices. Thus, the peaking of world oil production has been a matter of speculation in the mid-1800s, and for 150 years, energy analysts have been claiming that the world peak would occur in the next 25 years.

No one knows, however, precisely when the peak will occur. A unique and frustrating aspect of the world oil peak problem is that its timing is uncertain in large part due to inadequate and potentially biased reserves data from around the world.

Reserves are an estimate of the amount of oil in a reservoir that can be extracted at an assumed cost. Thus, a higher oil-price outlook often means that more oil can be extracted, and the reserves will increase. But geology also limited reserves growth. In well-managed oil fields, the maximum increase in reserves is usually only 10 to 20 percent, no matter how high the price. Reserves estimates are revised periodically as new information becomes available from the developed fields, but reserves estimation was hampered by the inherently limited information we could obtain about complex rock formations located miles below the surface. Sometimes large errors occurred as was the case with Shell's recent reserves markdown of more than 20 percent.

With publicly available data on reserves sometimes grossly unreliable, estimating the amount of available oil becomes a complex technical, political and institutional problem. For example, when OPEC decided during the 1980s to base its quotas, in part, on oil reserves instead of production, a number of its members immediately doubled or tripled their reserves estimates. In Iraq, reserves reports of 100 billion barrels came out every year from 1985 to 1998, despite no major new discoveries while the country continued to produce oil.

Extensive drilling for oil and gas has provided a massive worldwide database, and current geological knowledge is much more extensive than in years past. Also, various seismic and other exploration technologies have advanced dramatically in

recent decades, greatly improving our ability to discover new oil reservoirs. Nevertheless, the number of oil reserves discovered per exploratory well has been declining worldwide for more than a decade.

We are finding less oil inspite of vigorous efforts, suggesting that nature may not have much more to provide. As such, many credible analysts have recently become much more pessimistic about the possibility of finding the huge new reserves needed to meet growing world demand. Even optimistic forecasts suggest that the world oil peak will occur in less than 20 years.

Oil peaking is a liquid-fuels problem for the transportation sector, not an 'energy crisis' in the sense that the term has been often used. Frequently publicized energy alternatives, such as solar, wind, photovoltaics, nuclear power, geothermal, fusion and others, do not produce liquid fuels, so they cannot affect transportation until major technology shifts from the use of liquid fuels to other replacements are implemented on a significant scale.

Contrary to a recent spate of doomsday books, the peak of conventional world oil production will not result in the end of modern civilization. Nevertheless, a worldwide peak in the current energy and economic environment could create disruption on a scale much greater than previously experienced. Still unknown are how to address the challenges posed by an oil peak and when the peak will actually occur. I believe, however, that it is wise to focus on prudent risk management, potential solutions and mitigation strategies instead of being consumed with arguing about the exact date of conventional oil production peaking.

Q23. Which of the following describes the author's attitude in the last paragraph?

○ a) **He is a neutral spectator and of the opinion that there can be no substance to the current claims about the peaking of world oil production.**

○ b) **He completely downplays the dreary scenario, stating that it is fashionable to get excited again about 'the peaking of world oil production' and states that prices are always on an upward trajectory.**

○ c) **He dismisses the extreme pessimism about the oil problem, suggesting a circumspect response to the impending challenges.**

○ d) **He rejects the notion that oil reserves will run out soon, citing some courses of action such as technological advances in increasing the numbers of new oil reserves.**

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	**88**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**89**
% of students who attempted this question	**15.26**
% of students who got the question right of those who attempted	**69.57**

Video Solution

Text Solution

Refer to the last paragraph: I believe, however, that it is wise to focus on prudent risk management, potential solutions and mitigation strategies instead of being consumed with arguing about the exact date of conventional oil production peaking.

Option A: Choice A is contradictory to the author's opinion. Even optimistic forecasts suggest that the world oil peak will occur in less than 20 years. Choice A is not the answer.

Option B: The author's view on the oil problem is indeed gloomy, but not as gloomy as that of some others. (Contrary to a recent spate of doomsday books, the peak of conventional world oil production will not result in the end of modern civilization.) The first part of choice B is not true. He does not completely downplay the dreary scenario because he says: Nevertheless, a worldwide peak in the current energy and economic environment could create disruption on a scale much greater than previously experienced. Choice B which sounds positive cannot be inferred from the passage. So choice B is not the answer.

Option C: The author warns against the extreme pessimism about the oil problem, adopts a more realistic stance, and advises focusing on strategies to deal with the problem. Hence choice C is the correct answer.

Option D: The first part of choice D is wrong. The author does not dismiss the notion that oil reserves will run out soon. He also does not provide courses of action for dealing with the oil problem in the last paragraph, he merely advises that people should focus on dealing with it. Hence choice D is not the answer.   Choice (C)

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.

In 1874, the state geologist of Pennsylvania – then the nation's leading oil-producing state – estimated that only enough U.S. oil remained to keep the nation's kerosene lamps burning for four more years. Nearly 40 years later, during World War I, the federal government concluded that depleting U.S. oil supplies required reliance on oil-shale resources. In 1952, the Paley Commission estimated that by the 1970s, the United States would have to shift its reliance from oil to coal and synthetic fuels. .... Because oil is a finite resource, the world has been 'running out' of oil since the first barrel was extracted, and oil supply eventually will not be capable of satisfying rising world demand at prevailing prices. Thus, the peaking of world oil production has been a matter of speculation in the mid-1800s, and for 150 years, energy analysts have been claiming that the world peak would occur in the next 25 years.

No one knows, however, precisely when the peak will occur. A unique and frustrating aspect of the world oil peak problem is that its timing is uncertain in large part due to inadequate and potentially biased reserves data from around the world.

Reserves are an estimate of the amount of oil in a reservoir that can be extracted at an assumed cost. Thus, a higher oil-price outlook often means that more oil can be extracted, and the reserves will increase. But geology also limited reserves growth. In well-managed oil fields, the maximum increase in reserves is usually only 10 to 20 percent, no matter how high the price. Reserves estimates are revised periodically as new information becomes available from the developed fields, but reserves estimation was hampered by the inherently limited information we could obtain about complex rock formations

located miles below the surface. Sometimes large errors occurred as was the case with Shell's recent reserves markdown of more than 20 percent.

With publicly available data on reserves sometimes grossly unreliable, estimating the amount of available oil becomes a complex technical, political and institutional problem. For example, when OPEC decided during the 1980s to base its quotas, in part, on oil reserves instead of production, a number of its members immediately doubled or tripled their reserves estimates. In Iraq, reserves reports of 100 billion barrels came out every year from 1985 to 1998, despite no major new discoveries while the country continued to produce oil.

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Oil peaking is a liquid-fuels problem for the transportation sector, not an 'energy crisis' in the sense that the term has been often used. Frequently publicized energy alternatives, such as solar, wind, photovoltaics, nuclear power, geothermal, fusion and others, do not produce liquid fuels, so they cannot affect transportation until major technology shifts from the use of liquid fuels to other replacements are implemented on a significant scale.

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Q24. It can be inferred from the passage that proponents of the 'peaking of world oil production' hypothesis claim that

○ a) **demand of oil is going up, supply has peaked, or will do so quickly, and hence prices will rise.**

○ b) **demand of oil is going down, supply has peaked, or will do so quickly, and hence prices will fall.**

○ c) **the OPEC's system of setting oil prices and limits is the elephant in the room.**

○ d) **more oil will be produced, and the oil reserves will increase in number.**

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	**68**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**69**
% of students who attempted this question	**14.11**
% of students who got the question right of those who attempted	**75.75**

Video Solution

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 690

Option A: Oil supply eventually will not be capable of satisfying rising world demand at prevailing prices. Thus, the peaking of world oil production has been a matter of speculation from the very beginning of the modern oil era. This makes choice A the correct answer.
Option B: Choice B is incorrect as demand of oil is going up (not down) and prices of oil will rise (not fall) according to the 'peaking of world oil production' theory.
Option C: 'Elephant in the room' is a metaphorical idiom for an obvious problem or risk that no one wants to discuss, or a condition of groupthink that no one wants to challenge. The passage does mention OPEC when it states: When OPEC decided during the 1980s to base its quotas, in part, on oil reserves instead of production, a number of its members immediately doubled or tripled their reserves estimates. But choice C is not related to 'peaking of world oil production'.
Option D: Thus, a higher oil-price outlook often means that more oil will be produced, and the reserves will increase. .... Nevertheless, the number of oil reserves discovered per exploratory well has been declining worldwide for more than a decade. Choice D does not answer the question.   Choice (A)

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.
   It describes how these strings propagate through space and interact with each
   other.

2.
   In string theory, one of the many vibrational states of the string corresponds to the graviton, a quantum mechanical
   particle that carries gravitational force.

3.
   In physics, string theory is a theoretical framework in which the point-like particles of particle physics are replaced by
   one-dimensional objects called strings.

4.
   Thus, string theory is a theory of quantum
   gravity.

5.
   On distance scales larger than the string scale, a string looks just like an ordinary particle, with its mass, charge, and
   other properties determined by the vibrational state of the string.

Time taken by you to answer this question	**5**
Avg. time spent on this question by all students	**199**
Difficulty Level	**VD**
Avg. time spent on this question by students who got this question right	**217**
% of students who attempted this question	**29.01**
% of students who got the question right of those who attempted	**18.51**

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 term 'string theory'. Since "called strings" in sentence 3 implies that "strings" has been defined in this sentence, sentence 5 (a string looks just like ....) does not begin the sentence. Sentence 3 is followed by sentence 1. The pronoun "it" in sentence 1 points to 'string theory' in sentence 3. Also "how these strings" in sentence 1 points to the "one-dimensional objects (strings)" mentioned in sentence 3. Sentence 5 continues after sentence 1. Sentence 5 gives additional details and properties of a string. Also "a string looks just like an ordinary particle" in sentence 5 contrasts "point-like particles of particle physics are replaced by one-dimensional objects called strings" given earlier in sentence 3. Sentence 5 is followed by sentence 2. "properties determined by the vibrational state of the string" in sentence 5 links with "many vibrational states of the string corresponds" in sentence 2. Sentence 2 and 4 form a mandatory pair. "graviton, a quantum mechanical particle that carries gravitational force" in sentence 2 links with "quantum gravity" in sentence 4. Sentence 4 (Thus ....) concludes the para. Hence 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.
   As a result, little is known about it.

2.
   The fossil record for early phases of primate evolution is notoriously patchy.

3.
   Its nearly complete skeleton was unearthed in China's Hubei province by scientist Ni Xijun.

4.
   This makes Archicebus achilles, which lived around 55m years ago, in the Eocene epoch, a boon to paleontologists.

5.
   As he reports in *Nature*, the critter is the most primitive relative of tarsiers and mouse-sized primates found in South-East Asian islands.

You did not answer this question   Show Correct Answer

Time taken by you to answer this question	**2**
Avg. time spent on this question by all students	**154**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**156**
% of students who attempted this question	**24.86**
% of students who got the question right of those who attempted	**17.11**

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. It introduces the topic of discussion. Fossil record of early primate evolution is not clear. Sentences 2 and 1 form a mandatory pair. "little is known about it" in sentence 1 links with "notoriously patchy" in sentence 2. Sentences 1 and 4 form a mandatory pair. "This makes Archicebus achilles a boon to paleontologists" in sentence 4 links with "little is known about it (fossil record)" in sentence 2. Also "55m years ago, in the Eocene epoch" in sentence 4 links with "early phases of primate evolution" in sentence 2. Sentence 4 is followed by sentence 3. "Its nearly complete skeleton" in sentence 3 points to "Archicebus achilles" given in sentence 4. Sentences 3 and 5 form another mandatory pair. The pronoun 'he' in sentence 5 points to 'scientist Ni Xijun' in sentence 3. "the critter" in sentence 5 points to "Archicebus achilles" in sentence 4. Also "most primitive relative of tarsiers and mouse-sized primates" in sentence 5 links with "fossil record for early phases of primate evolution" given in the introductory sentence 2. So, 21435.   Ans: (21435)

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. This represents one of the great tragedies in life, because so much potential remains untapped, undeveloped and unused.

2. Many people have not experienced even a moderate degree of synergy in their family life.

3. Ineffective people live day after day with this unused potential.

4. They have been trained /scripted into defensive /protecting communications or into believing that other people can't be trusted.

5. They experience synergy only in small, peripheral ways in their lives.

You did not answer this question Show Correct Answer

Time taken by you to answer this question	**1**
Avg. time spent on this question by all students	**146**
Difficulty Level	**VD**
Avg. time spent on this question by students who got this question right	**173**
% of students who attempted this question	**24.42**
% of students who got the question right of those who attempted	**3.33**

Text Solution

On a careful reading of the sentences, it can be observed that sentence 2 is a general sentence that begins the paragraph. It introduces the background: people have not experienced synergy. Sentence 2 is followed by sentence 4. "They have been trained ......defensive/ protecting communications" in sentence 4 elaborates on "not experienced ..... synergy" in sentence 2. Sentence 4 is followed by sentence 1. "This represents" in sentence 1 points to "defensive and protecting communications" in sentence 4. "believing that other people can't be trusted" in sentence 4 links with "potential remains untapped, undeveloped and unused" in sentence 1. Sentence 1 is followed by sentence 3. "potential remains untapped, undeveloped and unused" in sentence 1 links with "unused potential" in sentence 3. Sentence 5 concludes the para. The pronoun 'they' in sentence 5 points to "Ineffective people" in sentence 3. So, 24135.   Ans: (24135)

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. This explains why young people have set up parauniversities or experimental colleges.

2. These systems lay down basic tracks along which all students must progress.

3. In these parauniversities, each student is free to choose any course he desires: guerilla tactics, stock market techniques, Zen Buddhism and underground theatre.

4. While most universities have broadened the variety of their course offerings, they are still wedded to standardized systems based on degrees and majors.

5. While educators are rapidly multiplying the number of alternative paths, the pace of diversification is by no means swift enough for the students.

You did not answer this question [Show Correct Answer]

Time taken by you to answer this question	**6**
Avg. time spent on this question by all students	**147**

Difficulty Level	**VD**
Avg. time spent on this question by students who got this question right	**145**
% of students who attempted this question	**22.44**
% of students who got the question right of those who attempted	**17.54**

Video Solution

Text Solution

On a careful reading of the sentences, it can be observed that sentence 4 is a general sentence that begins the paragraph. It establishes the background of the para: Universities have various course offerings but still continue with standardized systems based on degrees. Sentences 4 and 2 form a mandatory pair. "These systems" in sentence 2 links with "standardized systems" given in sentence 4. Sentence 2 is followed by sentence 5. "alternative paths" in sentence 5 contrasts "basic tracks" in sentence 2 and "standardized systems" in sentence 4. "the pace of diversification" in sentence 5 contrasts "basic tracks along which all students must progress" in sentence 2 and also points to "broadened the variety of their course offerings" in sentence 4. "no means swift enough for the students" in sentence 5 links with "still wedded to standardized systems based on degrees and majors" in sentence 4. Sentence 5 is followed by sentence 1. Sentence 1 "This explains why ..... experimental colleges" follows from "the pace of diversification is by no means swift enough for the students" given in sentence 5. Sentences 1 and 3 form a mandatory pair. "In these para universities" in sentence 3 links with "para universities or experimental colleges" in sentence 1. "free to choose any course he desires" in sentence 3 points to "swift enough for the students" given earlier in sentence 5. Sentence 3 concludes the para. So, 42513.   Ans: (42513)

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. No obvious talent is coming up behind her from which to draw a potential successor.

2. Angela Merkel may be personally popular in Germany and favoured to remain chancellor after the parliamentary election in February.

3. They have remained close ever since.

4. But she and her centre-right political camps are starting to face a different problem.

5. One by one, her hopefuls have fallen by the wayside, failing in local elections or resigning amid scandals of one kind or another.

You did not answer this question | Show Correct Answer |

Time taken by you to answer this question	**0**

Time spent / Accuracy Analysis

Avg. time spent on this question by all students	**132**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**121**
% of students who attempted this question	**24.09**
% of students who got the question right of those who attempted	**35.61**

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. It introduces the topic of discussion: Angela Merkel as chancellor of Germany. Sentence 2 is followed by sentence 4 which starts with the contrast conjunction 'but'. "face a different problem" in sentence 4 contrasts "popular and favoured to remain chancellor" in sentence 2. Sentence 4 is followed by sentence 1. "No obvious talent .... draw a potential successor" in sentence 1 contrasts "face a different problem" in sentence 4. Sentence 5 elaborates on the point mentioned in sentence 5 and concludes the paragraph. So, 2415. Sentence 3 is the odd sentence out. The pronoun 'They' in sentence 3 needs a precedent. Also "remained close ever since" in sentence 3 is nowhere discussed and needs more substantiation. The pronoun 'they' in sentence 3 does not refer to "her hopefuls" given in sentence 5.   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. This requires an integrated character, a oneness, primarily with self but also with life.

2. Honesty is telling the truth – in other words, conforming our words to reality.

3. Integrity includes but goes beyond honesty.

4. When you defend those who are absent, you retain the trust of those present.

5. But, integrity is conforming reality to our words – in other words, keeping promises and fulfilling expectations.

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**0**
Avg. time spent on this question by all students	**111**

Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**95**
% of students who attempted this question	**22.81**
% of students who got the question right of those who attempted	**29.56**

[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 terms 'integrity' and 'honesty'. Sentence 3 establishes the background of the topic of discussion: Integrity goes beyond honesty. Sentence 3 is followed by sentence 2. Sentence 2 tells us what honesty is. Sentence 2 is followed by sentence 5 which explains what integrity is. "conforming reality to our words – in other words, keeping promises and fulfilling expectations" in sentence 5 contrasts "conforming our words to reality" in sentence 2. Sentence 5 is followed by sentence 1. "This requires" in sentence 1 continues after "conforming reality to our words i.e. keeping promises and fulfilling expectations" in sentence 5. Sentence 1 concludes the para. Sentence 4 is the odd sentence out. It needs a precedent and more substantiation.   Ans: (4)

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. People use patterns to think through every task, sophisticated and mundane.

2. Scientists have gained insight into the complete unconscious mental process by which we perceive events, people and things.

3. Much remains for scientists to discover about the human brain, but one thing we know for certain.

4. Computer programmers use embedded logic to create complicated software, pedestrians use rules of the road to cross the street.

5. Whether designing a new software program or crossing the street, we all navigate through life's tasks using learned mental patterns.

You did not answer this question Show Correct Answer

Time taken by you to answer this question	**0**
Avg. time spent on this question by all students	**116**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**110**

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 background of discussion: Scientists have yet to discover many aspects of the human brain. Sentence 3 is followed by sentence 1. "But one thing we know for certain" in sentence 3 links with "people use patterns to think through every task" in sentence 1. Sentence 1 is followed by sentence 5. Sentence 1 exemplifies the point made in sentence 1. Also, "navigate through life's tasks using learned mental patterns" in sentence 5 links with "use patterns to think through every task" in sentence 1. Sentences 5 and 4 form a mandatory pair. "designing a new software program" and "using learned mental patterns" in sentence 5 links with "use embedded logic to create complicated software" in sentence 4. Also "pedestrians use rules of the road to cross the street" in sentence 4 links with "crossing the street .... using learned mental patterns" in sentence 5. Sentence 4 concludes the para. So, 3154. Sentence 2 is the odd sentence out. It does not fit in with the thoughtflow. It also contradicts the introduction sentence 3.

Ans: (2)

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. As a result, discoveries can be made long after a telescope has been decommissioned.

2. In doing so, the Kepler telescope has made "exoplanet research" one of the busiest areas of astronomy.

3. Some of these worlds are far enough from their stars for liquid water to exist on the surface, meaning that these worlds would possibly be hospitable to life.

4. Since then it has spotted 2700 alien worlds.

5. The Kepler telescope was launched into space in 2009 to look for extrasolar planets, those that circle stars other than the sun.

You did not answer this question   Show Correct Answer

Time taken by you to answer this question	**0**
Avg. time spent on this question by all students	**110**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**103**

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 'The Kepler Telescope'. It mentions the objective of the Kepler Telescope. Sentence 5 is followed by sentence 4. The pronoun 'it' in sentence 4 refers to the 'Kepler Telescope' in sentence 5. Sentences 4 and 3 form a mandatory pair. "these worlds" in sentence 3 points to "2700 alien worlds" given in sentence 4. So sentence 4 is followed by sentence 3. Sentence 3 is followed by sentence 2. "In doing so" in sentence 2 links with "spotted 2700 alien worlds" in sentence 4. Sentence 2 concludes the para. So, 5432. Sentence 1 is the odd sentence out. There is no reference to the fact that the Kepler Telescope was damaged or put out of service, in the remaining sentences. Hence "after a telescope has been decommissioned" as given in sentence 1 needs a precedent. Also "As a result, discoveries can be made" as given in sentence 1 is out of scope. Ans: (1)

undefined

Q33. **DIRECTIONS** *for questions 33 and 34:* The question below contains a paragraph followed by alternative summaries. Choose the alternative that best captures the essence of the paragraph.

What exactly do advertisers get out of sponsoring public entertainment? Does it boost their sales? Does it enhance the company image in a way that's measurable at the bank? A question mark hangs over this issue. Sponsors are evidently beginning to mutiny on the bounty. Volvo, the car people, has pulled out of international Grand Masters tennis which they bank-rolled for years. This followed closely on Virginia Slims cigarette dismantling a long standing association with women's tennis. Now Prudential Insurance has told world cricket that it's been fun but that they've got to go.

○ a) **Though advertisers always believe in long term participation, they feel that sponsoring public entertainment does not help meet their goal: sales improvement.**

○ b) **Agencies sponsoring public entertainment seem to have no evidence whether such sponsorship helped the brand and are moving away from it.**

○ c) **Volvo, Virginia Slims Cigarette and Prudential Insurance have stopped sponsoring mega-sports events.**

○ d) **Sponsoring agencies strongly deplore the fact that sponsoring public entertainment is a waste of time, money and effort.**

Text Solution

Option A: From the keywords "bank-rolled for years" and "long standing association with women's tennis" as given in the examples mentioned in the second half of the para, "long-term participation" as given in choice A might seem correct. But there is no way to ascertain from the para that advertisers always believe in long term participation. Further sales improvement is only one objective mentioned in the second sentence of the para. Choice A is incomplete.

Option B: The movement away from sponsorship of public entertainment is obvious because of the examples. Choice B correctly and concisely captures the essence of the text.

Option C: Choice C only provides examples and does not mention the reason for advertisers to stop sponsoring mega-sports events.

Option D: "strongly deplore that" in choice D is too categorical. The para only says that a question mark hangs over this issue. Hence choice D is incorrect.

Choice (B)

undefined

Q34.

DIRECTIONS *for questions 33 and 34:* The question below contains a paragraph followed by alternative summaries. Choose the alternative that best captures the essence of the paragraph. Deep sleep which helps retain memories in the brain, may also strengthen immunological memories of encountered pathogens. The immune system remembers an encounter with a bacteria or virus by collecting fragments from the microbe to create memory T cells, which last for months or years and help the body recognize a previous infection and quickly respond. These memory T cells appear to abstract 'gist information' about the pathogens, allowing memory T cells to detect new pathogens that are similar, but not identical, to previously encountered bacteria or viruses. Studies in humans have shown that long-term increases in memory T cells are associated with deep slow-wave sleep on the nights after vaccination. The findings support the view that slow-wave sleep contributes to the formation of long-term memories of abstract, generalized information, which leads to adaptive behavioural and immunological responses.

○ a) **Deep slow-wave sleep supports immunological memory formation by enhancing the effects of memory T cells which can isolate new pathogens identical to previously encountered ones and destroy them.**

○ b) **Deep slow-wave sleep contributes to the formation of long-term memories of abstract, generalized information, through the mediation of memory T cells and this leads to adaptive behavioural and immunological responses.**

○ c) **Deep slow-wave sleep especially on the nights after vaccination exhibit an increase in memory T cells which are responsible for helping the immune system remember an encounter with a pathogen by abstracting gist information about it and detect a similar pathogen when encountered later.**

○ d) **Deep slow-wave sleep is the constructive phase of sleep for recuperation of the mind-body system in which it rebuilds itself after each day. Memory T cells are activated during this phase which enhance immunological responses.**

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	**268**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**264**
% of students who attempted this question	**16.87**
% of students who got the question right of those who attempted	**48.08**

Video Solution

Text Solution

Option A: "enhancing the effects of memory T cells" in choice A is out of scope. Also "isolate new pathogens identical to previously encountered ones" is incorrect. The para only tells us that memory T cells can detect new pathogens that are similar, but not identical, to previously encountered bacteria or viruses.
Option B: Choice B repeats the last sentence of the para and mentions memory T cells in passing. Choice B is incomplete as a summary.
Option C: Choice C correctly summarizes the main points of the para. Choice C is the answer.
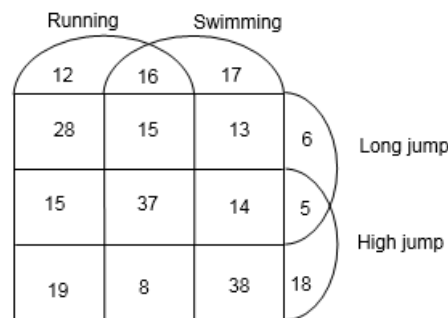Option D: The first sentence in choice D may be a definition of slow wave sleep but it has not been mentioned specifically in the para. Choice D does not mention the main features of memory T cells. Choice D is not the answer.   Choice (C)

undefined

Q34.

DIRECTIONS *for questions 33 and 34:* The question below contains a paragraph followed by alternative summaries. Choose the alternative that best captures the essence of the paragraph. Deep sleep which helps retain memories in the brain, may also strengthen immunological memories of encountered pathogens. The immune system remembers an encounter with a bacteria or virus by collecting fragments from the microbe to create memory T cells, which last for months or years and help the body recognize a previous infection and quickly respond. These memory T cells appear to abstract 'gist information' about the pathogens, allowing memory T cells to detect new pathogens that are similar, but not identical, to previously encountered bacteria or viruses. Studies in humans have shown that long-term increases in memory T cells are associated with deep slow-wave sleep on the nights after vaccination. The findings support the view that slow-wave sleep contributes to the formation of long-term memories of abstract, generalized information, which leads to adaptive behavioural and immunological responses.

○ a) **Deep slow-wave sleep supports immunological memory formation by enhancing the effects of memory T cells which can isolate new pathogens identical to previously encountered ones and destroy them.**

○ b) **Deep slow-wave sleep contributes to the formation of long-term memories of abstract, generalized information, through the mediation of memory T cells and this leads to adaptive behavioural and immunological responses.**

○ c) **Deep slow-wave sleep especially on the nights after vaccination exhibit an increase in memory T cells which are responsible for helping the immune system remember an encounter with a pathogen by abstracting gist information about it and detect a similar pathogen when encountered later.**

○ d) **Deep slow-wave sleep is the constructive phase of sleep for recuperation of the mind-body system in which it rebuilds itself after each day. Memory T cells are activated during this phase which enhance immunological responses.**

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	**268**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**264**
% of students who attempted this question	**16.87**
% of students who got the question right of those who attempted	**48.08**

Video Solution

Text Solution

Option A: "enhancing the effects of memory T cells" in choice A is out of scope. Also "isolate new pathogens identical to previously encountered ones" is incorrect. The para only tells us that memory T cells can detect new pathogens that are similar, but not identical, to previously encountered bacteria or viruses.
Option B: Choice B repeats the last sentence of the para and mentions memory T cells in passing. Choice B is incomplete as a summary.
Option C: Choice C correctly summarizes the main points of the para. Choice C is the answer.
Option D: The first sentence in choice D may be a definition of slow wave sleep but it has not been mentioned specifically in the para. Choice D does not mention the main features of memory T cells. Choice D is not the answer.   Choice (C)

undefined

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

The applicants for the post of Security Officers in a private company had to appear for the tests in each of four events – Running, Swimming, Long Jump and High Jump. All the 320 applicants attended the test in each of the four events. The following diagram gives the details of the number of applicants who qualified in one or more of the four events:

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

How many of the applicants qualified in at most one of the four events?

Your Answer:53 ⬚ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**169**
Avg. time spent on this question by all students	**207**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**265**
% of students who attempted this question	**28.14**
% of students who got the question right of those who attempted	**12.35**

Video Solution

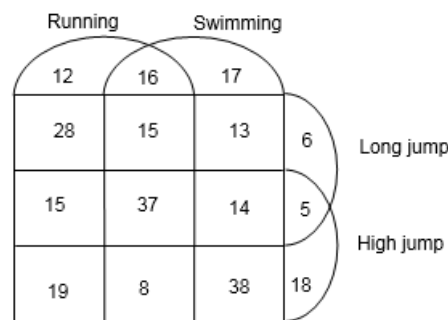**Text Solution**

The number of applicants who cleared at most one of the four tests = Total number of applicants – applicants who cleared two or more events.
= 320 – (16 + 28 + 15 + 13 + 15 + 37 + 14 + 5 + 19 + 8 + 38) = 320 – 208 = 112

Ans : (112)

undefined

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

The applicants for the post of Security Officers in a private company had to appear for the tests in each of four events – Running, Swimming, Long Jump and High Jump. All the 320 applicants attended the test in each of the four events. The following diagram gives the details of the number of applicants who qualified in one or more of the four events:

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

If the company recruits all the applicants who qualified in High Jump and also in at least two of the other three events, how many applicants will be recruited?

Your Answer:74   **Your answer is correct**

Time spent / Accuracy Analysis

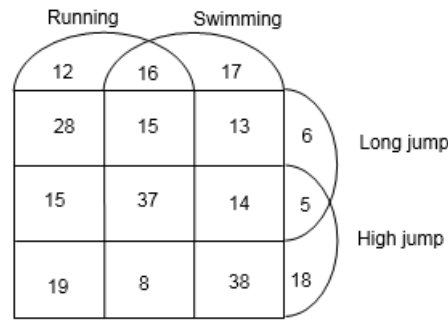|	
Time taken by you to answer this question	**273**
Avg. time spent on this question by all students	**164**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**159**
% of students who attempted this question	**26.06**
% of students who got the question right of those who attempted	**24.21**

Video Solution

Text Solution

The number of applicants who cleared at least three tests including the high jump = 37 + 15 + 8 + 14 = 74

Ans : (74)

undefined

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

The applicants for the post of Security Officers in a private company had to appear for the tests in each of four events – Running, Swimming, Long Jump and High Jump. All the 320 applicants attended the test in each of the four events. The following diagram gives the details of the number of applicants who qualified in one or more of the four events:

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

Approximately, what percentage of the applicants failed to qualify in the event in which the least number of applicants qualified?

○ a) **48.4%**   ▫ **Your answer is incorrect**

○ b) **52.4%**

○ c) **58.4%**

○ d) **64.4%**

Show Correct Answer

Time spent / Accuracy Analysis

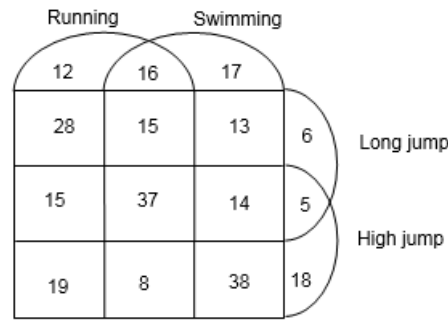|	
Time taken by you to answer this question	**569**
Avg. time spent on this question by all students	**236**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**250**
% of students who attempted this question	**13.06**
% of students who got the question right of those who attempted	**57.71**

Video Solution

Text Solution

The number of applicants who qualified in the different tests are,
Running = 150
Swimming = 158
Long Jump = 133
High Jump = 154
The minimum number of applicants qualified in the event of long jump.
People who didn't qualify in the event of long jump = 320 − 133 = 187

required percentage = $\dfrac{187}{320} \times 100 = 58.4\%$ Choice (C)

undefined

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

The applicants for the post of Security Officers in a private company had to appear for the tests in each of four events – Running, Swimming, Long Jump and High Jump. All the 320 applicants attended the test in each of the four events. The following diagram gives the details of the number of applicants who qualified in one or more of the four events:

Running   Swimming

12	16	17		
28	15	13	6	Long jump
15	37	14	5	High jump
19	8	38	18	

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

The number of applicants who qualified in all the four events is approximately what percentage of the number of applicants who qualified in at least one event?

○ a) **14.2%**   ▫**Your answer is correct**

○ b) **17.8%**

○ c) **11.6%**

○ d) **33.1%**

Time spent / Accuracy Analysis

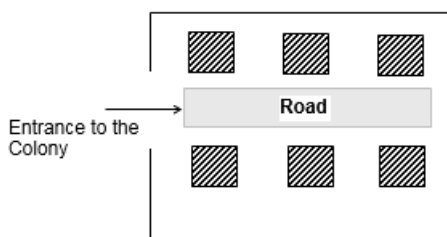|	
Time taken by you to answer this question	**114**
Avg. time spent on this question by all students	**143**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**151**
% of students who attempted this question	**18.92**
% of students who got the question right of those who attempted	**54.26**

Video Solution

Text Solution

The number of applicants who qualified in all the four events = 37
The number of applicants who qualified in at least one event = The number of qualified in two or more events + the number who qualified in exactly one event.
= 208 (from earlier solution) + (12 + 17 + 6 + 18) = 261.

∴ Required percentage = $\dfrac{37}{261} \cong 14.2\%$ Choice (A)

undefined

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

The above figure shows a colony with six houses and the entrance to the colony. The owners of the six houses are Manish, Naveen, Pavan, Raman, Sravan and Varun, not in any particular order. The houses of both Pavan and Raman are on the right side (as one enters the colony) and the house of Sravan is on the left side. The houses of Manish and Naveen are not on the same side and do not face each other. The houses of Varun and Raman face each other. Naveen is not the owner of a corner house. Manish"s house is further down the road than Sravan"s, but on the same side.

Q5. If Naveen sits in his house and faces the road, whose house is to his left?

○ a) **Sravan's**

○ b) **Pavan's**

○ c) **Raman's**   □**Your answer is correct**

○ d) **Varun's**

Video Solution

Text Solution

Let the house of each person be denoted by the first letter of his name.

As the houses of Manish and Naveen are not on the same side of the road and also their houses do not face each other, we can say that, at least one of M and N is a corner house.
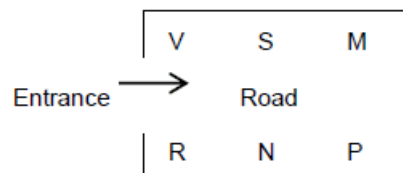
As Naveen is not the owner of a corner house, we can say that M is a corner house and N is the middle house on one of the sides.

As Manish's house is further down the road than Sravan's but on the same side and the houses of both Pavan and Raman are on the right side of the colony road, we can say that N is the middle house on the right side and M is the last house on the left side.
As the houses of Varun and Raman face each other we can say that R is the first house on the right and V is the first house on the left.

Also, P is the last house on the right and S is the middle house on the left.
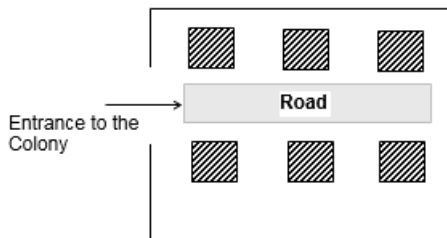
The final arrangement will be as follows.

V	S	M

Entrance → Road

R	N	P

If Naveen sits in his house and faces the road, Raman's house is to his left.

Choice (C)

undefined

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

Entrance to the Colony

The above figure shows a colony with six houses and the entrance to the colony. The owners of the six houses are Manish, Naveen, Pavan, Raman, Sravan and Varun, not in any particular order. The houses of both Pavan and Raman are on the right side (as one enters the colony) and the house of Sravan is on the left side. The houses of Manish and Naveen are not on the same side and do not face each other. The houses of Varun and Raman face each other. Naveen is not the owner of a corner house. Manish"s house is further down the road than Sravan"s, but on the same side.

Q6. Whose house faces Sravan's house?

○ a) **Pavan's**

○ b) **Raman's**

○ c) **Varun's**

○ d) **Naveen's**   □**Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**15**
Avg. time spent on this question by all students	**39**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**33**
% of students who attempted this question	**32.54**
% of students who got the question right of those who attempted	**85.24**

Video Solution

Text Solution

Let the house of each person be denoted by the first letter of his name.

As the houses of Manish and Naveen are not on the same side of the road and also their houses do not face each other, we can say that, at least one of M and N is a corner house.
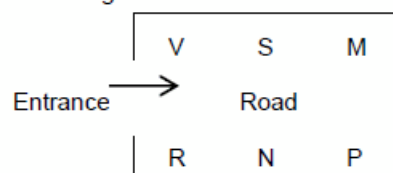
As Naveen is not the owner of a corner house, we can say that M is a corner house and N is the middle house on one of the sides.

As Manish's house is further down the road than Sravan's but on the same side and the houses of both Pavan and Raman are on the right side of the colony road, we can say that N is the middle house on the right side and M is the last house on the left side.
As the houses of Varun and Raman face each other we can say that R is the first house on the right and V is the first house on the left.

Also, P is the last house on the right and S is the middle house on the left.

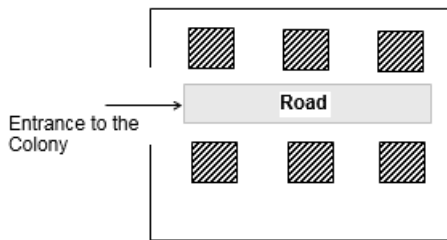The final arrangement will be as follows.

V	S	M
R	N	P

Entrance → Road

Naveen's house faces Sravan's house.   Choice (D)

undefined

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

The above figure shows a colony with six houses and the entrance to the colony. The owners of the six houses are Manish, Naveen, Pavan, Raman, Sravan and Varun, not in any particular order. The houses of both Pavan and Raman are on the right side (as one enters the colony) and the house of Sravan is on the left side. The houses of Manish and Naveen are not on the same side and do not face each other. The houses of Varun and Raman face each other. Naveen is not the owner of a corner house. Manish"s house is further down the road than Sravan"s, but on the same side.

Q7. Who is/are Manish's neighbour(s)?

○ a) **Only Sravan** □**Your answer is correct**

○ b) **Sravan and Varun**

○ c) **Only Raman**

○ d) **Pavan and Raman**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**29**
Avg. time spent on this question by all students	**30**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**28**
% of students who attempted this question	**32.34**
% of students who got the question right of those who attempted	**75.14**

Video Solution

Text Solution

Let the house of each person be denoted by the first letter of his name.

As the houses of Manish and Naveen are not on the same side of the road and also their houses do not face each other, we can say that, at least one of M and N is a corner house.
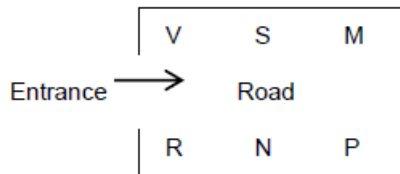
As Naveen is not the owner of a corner house, we can say that M is a corner house and N is the middle house on one of the sides.

As Manish's house is further down the road than Sravan's but on the same side and the houses of both Pavan and Raman are on the right side of the colony road, we can say that N is the middle house on the right side and M is the last house on the left side.
As the houses of Varun and Raman face each other we can say that R is the first house on the right and V is the first house on the left.

Also, P is the last house on the right and S is the middle house on the left.

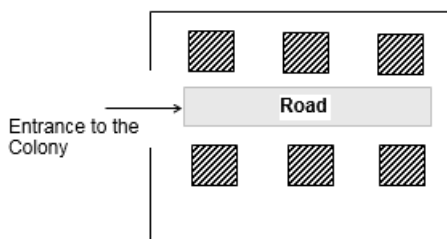The final arrangement will be as follows.

V	S	M

Entrance → Road

R	N	P

Only Sravan is the neighbour of Manish.   Choice (A)

undefined

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

The above figure shows a colony with six houses and the entrance to the colony. The owners of the six houses are Manish, Naveen, Pavan, Raman, Sravan and Varun, not in any particular order. The houses of both Pavan and Raman are on the right side (as one enters the colony) and the house of Sravan is on the left side. The houses of Manish and Naveen are not on the same side and do not face each other. The houses of Varun and Raman face each other. Naveen is not the owner of

a corner house. Manish"s house is further down the road than Sravan"s, but on the same side.

Q8. Varun was heard telling someone to go further down the road to the last house on the right. To whose house was he trying to direct that person?

○ a) **Sravan's**

○ b) **Pavan's**   ▫**Your answer is correct**

○ c) **Raman's**

○ d) **Manish's**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**35**
Avg. time spent on this question by all students	**39**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**36**
% of students who attempted this question	**31.83**
% of students who got the question right of those who attempted	**73.52**

Video Solution

Text Solution

Let the house of each person be denoted by the first letter of his name.

As the houses of Manish and Naveen are not on the same side of the road and also their houses do not face each other, we can say that, at least one of M and N is a corner house.
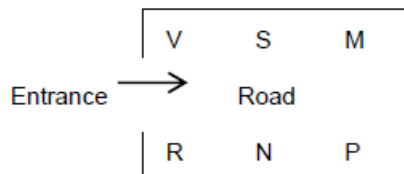
As Naveen is not the owner of a corner house, we can say that M is a corner house and N is the middle house on one of the sides.

As Manish's house is further down the road than Sravan's but on the same side and the houses of both Pavan and Raman are on the right side of the colony road, we can say that N is the middle house on the right side and M is the last house on the left side.
As the houses of Varun and Raman face each other we can say that R is the first house on the right and V is the first house on the left.

Also, P is the last house on the right and S is the middle house on the left.

The final arrangement will be as follows.

V	S	M
R	N	P

Entrance → Road

The last house on the right is Pavan's house.   Choice (B)

undefined

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

The following pie charts give the values of the sales and expenses of five companies – P, Q, R, S and T – as a percentage of the total sales and expenses of these five companies put together:

Sales

T 30%
S 10%
P 20%
R 15%
Q 25%

Expenses

S 18%
T 30%
P 10%
R 22%
Q 20%
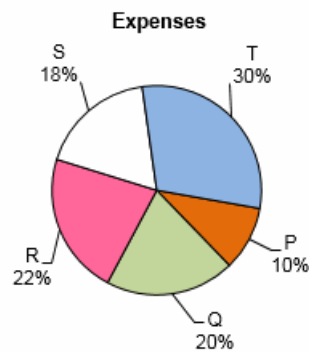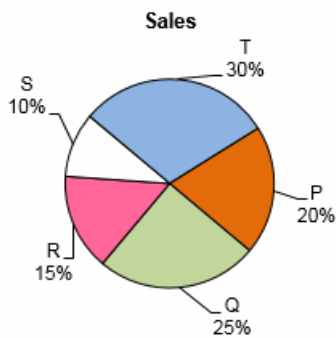
Profit = Sales − Expenses

Profit percentage = $\dfrac{\text{Profit}}{\text{Sales}} \times 100$

No company made a loss.

Q9. Which of the companies had the highest profit percentage?

○ a) **P**

○ b) **Q**

○ c) **R**

○ d) **Cannot be determined**   □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**93**
Avg. time spent on this question by all students	**184**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**190**
% of students who attempted this question	**28.56**
% of students who got the question right of those who attempted	**65.25**

Video Solution

Text Solution

If the total sales are 10x, the sales of different companies are, P → 2x, Q → 2.5x, R → 1.5x, S → 1x and T → 3x. If the total expenses are 10y, the expenses of different companies are, P → 1y, Q → 2y, R → 2.2y, S → 1.8y, T → 3y
Profit = Sales - Expenses and given that no company made a loss, though we can't say which company had the highest profit, using the ratio of (profit/sales) we can say that the profit percentage is highest for P.

Alternative solution:

Since profit percentage = $\dfrac{\text{Profit}}{\text{Sales}} \times 100$

$= \dfrac{\text{Sales} - \text{Expenses}}{\text{Sales}} \times 100 = \left(1 - \dfrac{\text{Expenses}}{\text{Sales}}\right) \times 100$

Profit percentage of the company is highest if its ratio of $\dfrac{\text{Expenses}}{\text{Sales}}$ is least.
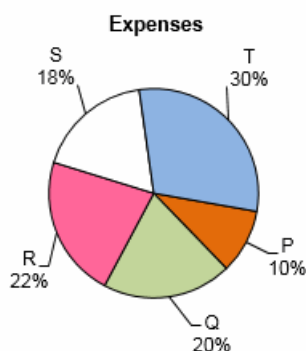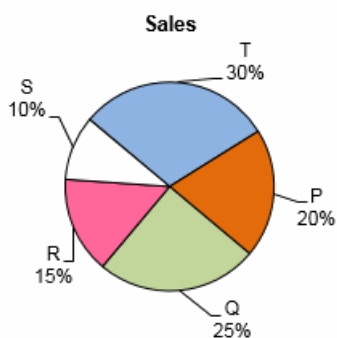
This ratio is least for P.   Choice (A)

undefined

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

The following pie charts give the values of the sales and expenses of five companies – P, Q, R, S and T – as a percentage of the total sales and expenses of these five companies put together:

Profit = Sales – Expenses

Profit percentage = $\dfrac{\text{Profit}}{\text{Sales}} \times 100$

No company made a loss.

Q10. For which of the companies is the ratio of expenses to profit, the highest?

○ a) **P**

○ b) **S**

○ c) **T**

○ d) **Cannot be determined**   □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**207**
Avg. time spent on this question by all students	**111**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**119**
% of students who attempted this question	**22.44**
% of students who got the question right of those who attempted	**33.46**

Video Solution

Text Solution

The required ratio $\dfrac{\text{Expenses}}{\text{Profit}} \Rightarrow \left(\dfrac{\text{Expenses}}{\text{Sales} - \text{Expenses}}\right)$

$\Rightarrow \dfrac{1}{\left(\dfrac{\text{Sales} - \text{Expenses}}{\text{Expenses}}\right)} \Rightarrow \dfrac{1}{\left(\dfrac{\text{Sales}}{\text{Expenses}} - 1\right)}$

Now, the less the value of $\dfrac{\text{Sales}}{\text{Expenses}}$, the more the required ratio.
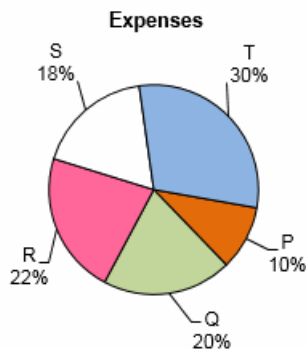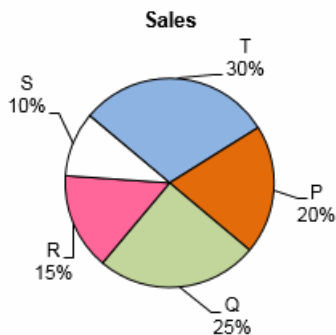
∴ The ratio is the highest for S.   Choice (B)

undefined

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

The following pie charts give the values of the sales and expenses of five companies – P, Q, R, S and T – as a percentage of the total sales and expenses of these five companies put together:

Profit = Sales – Expenses

Profit percentage = $\dfrac{\text{Profit}}{\text{Sales}} \times 100$

No company made a loss.

Q11. If the overall profit percentage of all the five companies put together was 50%, how many companies had a profit percentage greater than 60%?

○ a) **0**

○ b) **1**

○ c) **2**

○ d) **3**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**158**
Avg. time spent on this question by all students	**123**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**141**
% of students who attempted this question	**15.18**
% of students who got the question right of those who attempted	**34.19**

Video Solution

Text Solution

If overall profit percentage was 50%, it means that expenses are 50% of sales, ∴ It can be said that only company P had a profit percentage greater than 60, while Q had a profit percentage of exactly 60.

Alternative solution:

Let total sales = 100, then as overall profit percentage = 50%, total expenses will be 50.
Then the following will be the profit percentages of all the companies

$$P = \frac{20-5}{20} = 75\%$$

$$Q = \frac{25-10}{25} = 60\%$$

$$R = \frac{15-11}{15} = 26.67\%$$

$$S = \frac{10-9}{10} = 10\%$$

$$T = \frac{30-15}{30} = 50\%$$

Hence only P has a profit percentage of above 60%.   Choice (B)

undefined

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

The following pie charts give the values of the sales and expenses of five companies – P, Q, R, S and T – as a percentage of the total sales and expenses of these five companies put together:
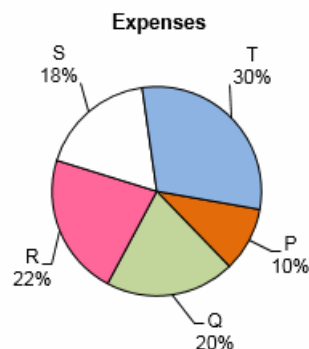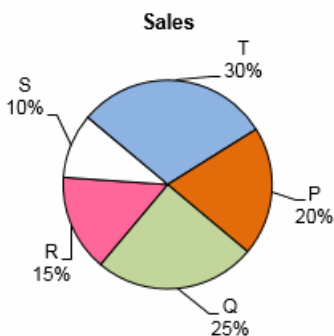
Profit = Sales – Expenses

Profit percentage = $\dfrac{\text{Profit}}{\text{Sales}} \times 100$

No company made a loss.

Q12. If the total sales were Rs.800 crore and the overall profit percentage of all the five companies put together was 50%, what were the expenses of company R?

○ a) **Rs.60 crore**   □ **Your answer is incorrect**

○ b) **Rs.68 crore**

○ c) **Rs.80 crore**

○ d) **Rs.88 crore**

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	**139**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**135**
% of students who attempted this question	**14.03**
% of students who got the question right of those who attempted	**65.74**

Video Solution

Text Solution

Since overall profit percentage is 50% total expenses

$$= \frac{50}{100} \times 800 = Rs.400 \text{ crore.}$$

$$\therefore \text{ Expenses of company R} = \frac{22}{100} \times 400 = Rs.88 \text{ crore} \qquad \text{Choice (D)}$$

undefined

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

Sixty eight chocolates are distributed among eight students – A, B, C, D, E, F, G and H – such that each student got at least five chocolates and no two students got the same number of chocolates.

Also, the following information is known:

i.
C got as many chocolates more than D as F got less than G.

ii.
E got exactly 11 chocolates.

iii.
A got twice the number of chocolates that B got.

iv.
C got more chocolates than each of F and H but less than G.

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

Who got the least number of chocolates?

○ a) **B**

b) **D**

c) **F**

d) **H**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**396**
Avg. time spent on this question by all students	**385**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**448**
% of students who attempted this question	**20.34**
% of students who got the question right of those who attempted	**32.71**

Video Solution

Text Solution

Sixty eight chocolates can be distributed among 8 students as 5, 6, 7, 8, 9, 10, 11 and 12 (since no two students got equal number of chocolates and each student got at least 5 chocolates)

Also as A got twice what B got, the number can be either 10 and 5 (or) 12 and 6

Also C – D = G – F (from i)

$\Rightarrow$ C + F = G + D ----- (1)

As C got more than F and less than G, the only possibility is G > C > F > D ------ (2)

Also, C > H ----- (3)

Case a:
A = 10, B = 5, E = 11
The remaining values are 6, 7, 8, 9 and 12
To satisfy (1) and (2), the only possible values are C = 8, D = 6, F = 7 and G = 9
Hence, H = 12
But given C > H, which is a contradiction
∴ Case (a) is not possible

Case b:
A = 12, B = 6, E = 11
The remaining values are 5, 7, 8, 9 and 10
To satisfy the (1) and (2), the possible values are
(i) C = 9, D = 7, F = 8 and G = 10
Hence, H = 5
Also C > H is satisfied
∴ The only possible values are A = 12, B = 6, C = 9, D = 7, E = 11, F = 8, G = 10 and H = 5

H got 5 chocolates, which in the least.   Choice (D)

undefined

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

Sixty eight chocolates are distributed among eight students – A, B, C, D, E, F, G and H – such that each student got at least five chocolates and no two students got the same number of chocolates.

Also, the following information is known:

i.
   C got as many chocolates more than D as F got less than
   G.

ii.
   E got exactly 11
   chocolates.

iii.
A got twice the number of chocolates that B got.

iv.
C got more chocolates than each of F and H but less than G.

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

The total number of chocolates with B, D, F and H put together is

Video Solution

Text Solution

Sixty eight chocolates can be distributed among 8 students as 5, 6, 7, 8, 9, 10, 11 and 12 (since no two students got equal number of chocolates and each student got at least 5 chocolates)
Also as A got twice what B got, the number can be either 10 and 5 (or) 12 and 6
Also C – D = G – F (from i)
$\Rightarrow$ C + F = G + D ----- (1)
As C got more than F and less than G, the only possibility is G > C > F > D ------ (2)
Also, C > H ----- (3)

Case a:
A = 10, B = 5, E = 11
The remaining values are 6, 7, 8, 9 and 12
To satisfy (1) and (2), the only possible values are C = 8, D = 6, F = 7 and G = 9
Hence, H = 12
But given C > H, which is a contradiction
$\therefore$ Case (a) is not possible
Case b:
A = 12, B = 6, E = 11
The remaining values are 5, 7, 8, 9 and 10
To satisfy the (1) and (2), the possible values are
(i) C = 9, D = 7, F = 8 and G = 10
Hence, H = 5
Also C > H is satisfied
$\therefore$ The only possible values are A = 12, B = 6, C = 9, D = 7, E = 11, F = 8, G = 10 and H = 5

The chocolates with B + D + F + H = 6 + 7 + 8 + 5 = 26   Ans : (26)

undefined

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

Sixty eight chocolates are distributed among eight students – A, B, C, D, E, F, G and H – such that each student got at least

five chocolates and no two students got the same number of chocolates.

Also, the following information is known:

i.
C got as many chocolates more than D as F got less than
G.

ii.
E got exactly 11
chocolates.

iii.
A got twice the number of chocolates that B
got.

iv.
C got more chocolates than each of F and H but less than
G.

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

The total number of chocolates with B and G is equal to the total number of chocolates with

○ a) **A and F**

○ b) **H and C**

○ c) **C and D**

○ d) **F and H**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**3**
Avg. time spent on this question by all students	**82**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**81**
% of students who attempted this question	**11.79**
% of students who got the question right of those who attempted	**47.62**

Video Solution

Text Solution

Sixty eight chocolates can be distributed among 8 students as 5, 6, 7, 8, 9, 10, 11 and 12 (since no two students got equal number of chocolates and each student got at least 5 chocolates)

Also as A got twice what B got, the number can be either 10 and 5 (or) 12 and 6

Also C – D = G – F (from i)

$\Rightarrow$ C + F = G + D ----- (1)

As C got more than F and less than G, the only possibility is G > C > F > D ------ (2)

Also, C > H ----- (3)

Case a:

A = 10, B = 5, E = 11

The remaining values are 6, 7, 8, 9 and 12

To satisfy (1) and (2), the only possible values are C = 8, D = 6, F = 7 and G = 9

Hence, H = 12

But given C > H, which is a contradiction

$\therefore$ Case (a) is not possible

Case b:

A = 12, B = 6, E = 11

The remaining values are 5, 7, 8, 9 and 10

To satisfy the (1) and (2), the possible values are

(i) C = 9, D = 7, F = 8 and G = 10

Hence, H = 5

Also C > H is satisfied

$\therefore$ The only possible values are A = 12, B = 6, C = 9, D = 7, E = 11, F = 8, G = 10 and H = 5

Chocolates with B + G = 6 + 10 = 16

Chocolates with A + F = 12 + 8 = 20

Chocolates with H + C = 5 + 9 = 14

Chocolates with C + D = 9 + 7 = 16

Chocolates with F + H = 8 + 5 = 13   Choice (C)

undefined

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

Sixty eight chocolates are distributed among eight students – A, B, C, D, E, F, G and H – such that each student got at least five chocolates and no two students got the same number of chocolates.

Also, the following information is known:

i.
    C got as many chocolates more than D as F got less than G.

ii.
    E got exactly 11 chocolates.

iii.
A got twice the number of chocolates that B got.

iv.
C got more chocolates than each of F and H but less than G.

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

The number of students who got more chocolates than F is

Video Solution

Text Solution

Sixty eight chocolates can be distributed among 8 students as 5, 6, 7, 8, 9, 10, 11 and 12 (since no two students got equal number of chocolates and each student got at least 5 chocolates)
Also as A got twice what B got, the number can be either 10 and 5 (or) 12 and 6
Also C – D = G – F (from i)
⇒ C + F = G + D ----- (1)
As C got more than F and less than G, the only possibility is G > C > F > D ------ (2)
Also, C > H ----- (3)

Case a:
A = 10, B = 5, E = 11
The remaining values are 6, 7, 8, 9 and 12
To satisfy (1) and (2), the only possible values are C = 8, D = 6, F = 7 and G = 9
Hence, H = 12
But given C > H, which is a contradiction
∴ Case (a) is not possible
Case b:
A = 12, B = 6, E = 11
The remaining values are 5, 7, 8, 9 and 10
To satisfy the (1) and (2), the possible values are
(i) C = 9, D = 7, F = 8 and G = 10
Hence, H = 5
Also C > H is satisfied
∴ The only possible values are A = 12, B = 6, C = 9, D = 7, E = 11, F = 8, G = 10 and H = 5

Only C, G, E and A, i.e., four students got more chocolates than F.   Ans : (4)

undefined

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

Four families – including four husbands, Aman, Pradeep, Suman, Naveen, and four wives, Divya, Gowri, Shilpa and Malini – decided to attend the wedding of one of their friends. One of the families had no kids but the other families had at least one

kid each, and at least one kid attended the marriage from each of these three families. The four families reached the venue at different times and all the members of a family who attended the wedding reached at the same time.

Shilpa does not have any kids and she reached just before Malini's family. Aman and his wife reached last with their only kid. Gowri reached before Shilpa but after Divya. Malini's and Divya's daughters go to the same school. The family with no kids came just after the family with two kids. Neither Suman nor Naveen is the husband of Gowri. Pradeep and Suman have at least one kid each. Pradeep said his son could not come because of his exams.

Q17. Which of the following is a correct pair of husband and wife?

○ a) **Pradeep and Malini**

○ b) **Suman and Shilpa**

○ c) **Naveen and Gowri**

○ d) **Suman and Divya**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**22**
Avg. time spent on this question by all students	**376**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**382**
% of students who attempted this question	**26.29**
% of students who got the question right of those who attempted	**84.72**

Video Solution

Text Solution

Given,

Shilpa does not have any kids
∴ she is not the wife of Aman, Pradeep or Suman.

So, Shilpa is the wife of Naveen.

Naveen –   Shilpa   –   No Kids
Aman   –   –   –   One Kid
Suman –   –   –
Pradeep

⇒ Malini belongs to the family which reached last i.e. Aman's. (as Gouri reached before shilpa but after Divya and Shilpa came just before malini).
As Suman was not the husband of Gowri, he was the husband of Divya and Pradeep was the husband of Gowri.

Naveen –   Shilpa   –   No Kids
Aman   –   Malini   –   One Kid
Suman –   Divya   –
Pradeep –   Gowri

As, Divya reached the party before Gowri and Shilpa, she is the first person to reach the party. Gowri is the second person, Shilpa is the third and Malini is the fourth.

. Suman and Divya form a married couple.   Choice (D)

undefined

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

Four families – including four husbands, Aman, Pradeep, Suman, Naveen, and four wives, Divya, Gowri, Shilpa and Malini – decided to attend the wedding of one of their friends. One of the families had no kids but the other families had at least one kid each, and at least one kid attended the marriage from each of these three families. The four families reached the venue at different times and all the members of a family who attended the wedding reached at the same time.

Shilpa does not have any kids and she reached just before Malini's family. Aman and his wife reached last with their only kid. Gowri reached before Shilpa but after Divya. Malini's and Divya's daughters go to the same school. The family with no kids came just after the family with two kids. Neither Suman nor Naveen is the husband of Gowri. Pradeep and Suman have at least one kid each. Pradeep said his son could not come because of his exams.

Q18. The daughters of which of the following pairs of persons definitely attend the same school?

○ a) **Pradeep and Naveen**

○ b) **Aman and Suman**

○ c) **Suman and Naveen**

○ d) **Aman and Pradeep**

Text Solution

Given,

Shilpa does not have any kids
∴ she is not the wife of Aman, Pradeep or Suman.

So, Shilpa is the wife of Naveen.

```
Naveen  –  Shilpa  –  No Kids
Aman    –    –      –  One Kid
Suman   –    –      –
Pradeep
```

⇒ Malini belongs to the family which reached last i.e. Aman's. (as Gouri reached before shilpa but after Divya and Shilpa came just before malini).
As Suman was not the husband of Gowri, he was the husband of Divya and Pradeep was the husband of Gowri.

```
Naveen  –  Shilpa  –  No Kids
Aman    –  Malini  –  One Kid
Suman   –  Divya   –
Pradeep –  Gowri
```

As, Divya reached the party before Gowri and Shilpa, she is the first person to reach the party. Gowri is the second person, Shilpa is the third and Malini is the fourth.

Malini's and Divya's daughter i.e. Aman's and Suman's daughter go to the same school.   Choice (B)

undefined

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

Four families – including four husbands, Aman, Pradeep, Suman, Naveen, and four wives, Divya, Gowri, Shilpa and Malini – decided to attend the wedding of one of their friends. One of the families had no kids but the other families had at least one kid each, and at least one kid attended the marriage from each of these three families. The four families reached the venue at different times and all the members of a family who attended the wedding reached at the same time.

Shilpa does not have any kids and she reached just before Malini's family. Aman and his wife reached last with their only kid. Gowri reached before Shilpa but after Divya. Malini's and Divya's daughters go to the same school. The family with no kids came just after the family with two kids. Neither Suman nor Naveen is the husband of Gowri. Pradeep and Suman have at least one kid each. Pradeep said his son could not come because of his exams.

Q19. Who among the following is part of the third family to arrive?

○ a) **Shilpa**

○ b) **Gowri**

○ c) **Malini**

○ d) **Divya**

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	**29**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**26**
% of students who attempted this question	**26.35**
% of students who got the question right of those who attempted	**89.45**

Video Solution

Text Solution

Given,

Shilpa does not have any kids
∴ she is not the wife of Aman, Pradeep or Suman.

So, Shilpa is the wife of Naveen.

Naveen – Shilpa – No Kids
Aman – – – One Kid
Suman – – –
Pradeep

⇒ Malini belongs to the family which reached last i.e. Aman's. (as Gouri reached before shilpa but after Divya and Shilpa came just before malini).
As Suman was not the husband of Gowri, he was the husband of Divya and Pradeep was the husband of Gowri.

Naveen – Shilpa – No Kids
Aman – Malini – One Kid
Suman – Divya –
Pradeep – Gowri

As, Divya reached the party before Gowri and Shilpa, she is the first person to reach the party. Gowri is the second person, Shilpa is the third and Malini is the fourth.

Shilpa arrived third.   Choice (A)

undefined

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

Four families – including four husbands, Aman, Pradeep, Suman, Naveen, and four wives, Divya, Gowri, Shilpa and Malini – decided to attend the wedding of one of their friends. One of the families had no kids but the other families had at least one kid each, and at least one kid attended the marriage from each of these three families. The four families reached the venue at different times and all the members of a family who attended the wedding reached at the same time.

Shilpa does not have any kids and she reached just before Malini's family. Aman and his wife reached last with their only kid. Gowri reached before Shilpa but after Divya. Malini's and Divya's daughters go to the same school. The family with no kids came just after the family with two kids. Neither Suman nor Naveen is the husband of Gowri. Pradeep and Suman have at least one kid each. Pradeep said his son could not come because of his exams.

Q20. Who among the following is known to have more than one kid for certain?

○ a) **Aman**

○ b) **Pradeep**

○ c) **Suman**

○ d) **Naveen**

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	**28**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**26**
% of students who attempted this question	**25.82**
% of students who got the question right of those who attempted	**86.85**

Video Solution

Text Solution

Given,

Shilpa does not have any kids
∴ she is not the wife of Aman, Pradeep or Suman.

So, Shilpa is the wife of Naveen.

Naveen – Shilpa – No Kids
Aman –   –   – One Kid
Suman –   –   –
Pradeep

⇒ Malini belongs to the family which reached last i.e. Aman's. (as Gouri reached before shilpa but after Divya and Shilpa came just before malini).
As Suman was not the husband of Gowri, he was the husband of Divya and Pradeep was the husband of Gowri.

Naveen – Shilpa – No Kids
Aman   – Malini – One Kid
Suman – Divya –
Pradeep – Gowri

As, Divya reached the party before Gowri and Shilpa, she is the first person to reach the party. Gowri is the second person, Shilpa is the third and Malini is the fourth.

Pradeep's family definitely has more than one kid.   Choice (B)

undefined

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

Mr Suzuki, a car dealer, sold cars of only two brands, A and B, in the previous year. This year, he introduced a new brand, C. The number of cars of brand A and brand B sold in the previous year were in the ratio 3 : 2, and the ratio of the number of cars sold in the previous year to that sold in this year is 2 : 3 for brand A and 2 : 5 for brand B. Further, the number of cars of brand C sold this year forms 81% of the total number of cars sold this year.

Q21. Find the number of cars of brand C sold this year, given that a total of 24 cars of brand A were sold in the previous

year.

○ a) **324** ▫**Your answer is correct**

○ b) **648**

○ c) **162**

○ d) **243**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**410**
Avg. time spent on this question by all students	**307**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**313**
% of students who attempted this question	**17.59**
% of students who got the question right of those who attempted	**81.31**

Video Solution

Text Solution

Given that the ratio of the number of cars of brand A and B sold in the last year is 3 : 2

Last year	A		B
	3	:	②

	Last year		Present year
A	2	:	3
B	②	:	5

In the above numbers, the underlined numbers represent the same value. Similarly the encircled numbers also represent the same value. So make them same.

	A		B
Last year	6	:	4

	Last year		Present year
A	6	:	9
B	4	:	10
C	–		81

From the above ratio it is clear that for every 6 cars of A sold last year, 19 cars of A and B are sold this year and 81 cars of C are sold this year.

∴ Number of cars of 'C' sold this year is $\frac{24}{6} \times 81 = 324$ Choice (A)

undefined

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

Mr Suzuki, a car dealer, sold cars of only two brands, A and B, in the previous year. This year, he introduced a new brand, C. The number of cars of brand A and brand B sold in the previous year were in the ratio 3 : 2, and the ratio of the number of cars sold in the previous year to that sold in this year is 2 : 3 for brand A and 2 : 5 for brand B. Further, the number of cars of brand C sold this year forms 81% of the total number of cars sold this year.

Q22. What is the percentage increase in the total number of cars sold this year, when compared to the total number of cars sold in the previous year?

○ a) **400%**

○ b) **600%**

○ c) **900%** □**Your answer is correct**

○ d) **1000%**

Video Solution

Text Solution

Given that the ratio of the number of cars of brand A and B sold in the last year is 3 : 2

```
Last year      A            B
               3     :      ②
            Last year      Present year
A              2     :      3
B              ②     :      5
```

In the above numbers, the underlined numbers represent the same value. Similarly the encircled numbers also represent the same value. So make them same.

```
               A      :     B
Last year      6      :     4
            Last year      Present year
A              6      :      9
B              4      :      10
C              –             81
```

From the previous question and the given ratios, it is clear that for every 10 cars sold last year, 100 cars are sold this year.
∴ The percentage increase is 900%.   Choice (C)

undefined

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

Mr Suzuki, a car dealer, sold cars of only two brands, A and B, in the previous year. This year, he introduced a new brand, C. The number of cars of brand A and brand B sold in the previous year were in the ratio 3 : 2, and the ratio of the number of cars sold in the previous year to that sold in this year is 2 : 3 for brand A and 2 : 5 for brand B. Further, the number of cars of brand C sold this year forms 81% of the total number of cars sold this year.

Q23. In the next year, Mr.Suzuki wants to increase the total sales by 80%, compared to the total sales this year, by keeping the sales of each of A, B and C at the same level as that in this year and introducing a new brand D. By what percent will the number of cars of brand D (to be sold next year) be more than the total number of cars sold last year?

○ a) **400%**

○ b) **600%**

○ c) **900%**

○ d) **700%** □**Your answer is correct**

Video Solution

Text Solution

Given that the ratio of the number of cars of brand A and B sold in the last year is 3 : 2

Last year	A		B
	3	:	②

	Last year		Present year
A	2	:	3
B	②	:	5

In the above numbers, the underlined numbers represent the same value. Similarly the encircled numbers also represent the same value. So make them same.

	A		B
Last year	6	:	4

	Last year		Present year
A	6	:	9
B	4	:	10
C	–		81

For every 10 cars sold last year, 100 cars are sold this year and he wants to sell 180 cars in the next year. It is clear that out of this 180, 80 cars will be of brand D.
∴ Number of cars to be sold in the next year will be 700% more than the total sales of last year.   Choice (D)

undefined

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

Mr Suzuki, a car dealer, sold cars of only two brands, A and B, in the previous year. This year, he introduced a new brand, C. The number of cars of brand A and brand B sold in the previous year were in the ratio 3 : 2, and the ratio of the number of cars sold in the previous year to that sold in this year is 2 : 3 for brand A and 2 : 5 for brand B. Further, the number of cars of brand C sold this year forms 81% of the total number of cars sold this year.

Q24. If a total of 380 cars were sold this year, and the sales of C this year were nil, instead of 81% of total sales, then how many cars of brand A were sold in the previous year?

○ a) **140**

○ b) **120**   ▢**Your answer is correct**

○ c) **100**

○ d) **180**

Video Solution

Text Solution

Given that the ratio of the number of cars of brand A and B sold in the last year is 3 : 2

Last year	A		B
	3	:	②

	Last year		Present year
A	2	:	3
B	②	:	5

In the above numbers, the underlined numbers represent the same value. Similarly the encircled numbers also represent the same value. So make them same.

	A		B
Last year	6	:	4

	Last year		Present year
A	6	:	9
B	4	:	10
C	–		81

. Given that a total of 380 cars are sold this year. From the above ratios it is clear that for every 19 cars sold this year 6 cars of brand A were sold in the last year.

∴ Number of cars of brand A sold last year is $\dfrac{380}{19} \times 6$

= 120   Choice (B)

undefined

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

The following table gives, for each of 12 families, the income of the person with the highest income in the family and that of the person with the least income in the family, as a percentage of the total income of the family (i.e., the sum of the incomes of all the earning members of each family).

Family	Percentage share of the person with		Number of earning members
	Highest income	Lowest income	
Chopras	34%	12%	5
Kapurs	32%	16%	4
Bakshis	30%	8%	6
Pandeys	40%	14%	4
Sharmas	24%	6%	6
Khannas	34%	12%	4
Murthys	30%	8%	5
Raos	30%	20%	4
Dayals	35%	10%	6
Maliks	45%	11%	4
Prasads	40%	5%	6
Kumars	35%	9%	5

Note: Assume that for each family, the income of each earning member as a percentage of the total income of the family is a distinct integer.

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

The number of families in which there are at least two persons, each of whose income is more than 30% of the total income of the family, is at most

Time spent / Accuracy Analysis

Time taken by you to answer this question	**24**
Avg. time spent on this question by all students	**230**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**284**
% of students who attempted this question	**11.27**
% of students who got the question right of those who attempted	**12.13**

Video Solution

Text Solution

Here we are looking for the maximum number of families in which there are at least two persons, each of whose income is more than 30% of the total income. Hence, the person with the second highest income must have the maximum possible income. Now consider each family.
Chopras:- Let us assume that the person with 2nd least and 3rd least incomes, have a share of 13% and 14% respectively. Even in this case also, the remaining person i.e. the person with 2nd highest income cannot have an income of more than 30%.
Kapurs:- In this family, the person with 2nd highest income can have 31% income. By similar calculation for other families, we can find that the families in which at least two persons with more 30% of total income can be Kapurs, Pandeys, Khannas, Maliks, Prasads and Kumars i.e. a total of 6 families. Ans : (6)

undefined

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

The following table gives, for each of 12 families, the income of the person with the highest income in the family and that of the person with the least income in the family, as a percentage of the total income of the family (i.e., the sum of the incomes of all the earning members of each family).

Family	Percentage share of the person with		Number of earning members
	Highest income	Lowest income	
Chopras	34%	12%	5
Kapurs	32%	16%	4
Bakshis	30%	8%	6
Pandeys	40%	14%	4
Sharmas	24%	6%	6
Khannas	34%	12%	4
Murthys	30%	8%	5
Raos	30%	20%	4
Dayals	35%	10%	6
Maliks	45%	11%	4
Prasads	40%	5%	6
Kumars	35%	9%	5

Note: Assume that for each family, the income of each earning member as a percentage of the total income of the family is a distinct integer.

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

At most how many families are such that each of the earning members, except the person with the least income, has an income more than the average income per earning member of the family?

Time spent / Accuracy Analysis

Time taken by you to answer this question	**0**

Time spent / Accuracy Analysis

Avg. time spent on this question by all students	**120**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**163**
% of students who attempted this question	**6.63**
% of students who got the question right of those who attempted	**2.79**

Video Solution

Text Solution

We are looking for the maximum possible number of families in which all the persons except the one with the least income must have more than average income per earning member.

For a family with 4 members, three members must have more than 25% of the total income. For a family with 5 members, four members must have more than 20% of the total income.

For a family with 6 members, five members must have more than $16^{2}/_{3}$% of the total income.

This is possible only in the case of Khannas.   Ans : (1)

undefined

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

The following table gives, for each of 12 families, the income of the person with the highest income in the family and that of the person with the least income in the family, as a percentage of the total income of the family (i.e., the sum of the incomes of all the earning members of each family).

Family	Percentage share of the person with		Number of earning members
	Highest income	Lowest income	
Chopras	34%	12%	5
Kapurs	32%	16%	4
Bakshis	30%	8%	6
Pandeys	40%	14%	4
Sharmas	24%	6%	6
Khannas	34%	12%	4
Murthys	30%	8%	5
Raos	30%	20%	4
Dayals	35%	10%	6
Maliks	45%	11%	4
Prasads	40%	5%	6
Kumars	35%	9%	5

Note: Assume that for each family, the income of each earning member as a percentage of the total income of the family is a distinct integer.

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

The maximum possible number of families in which the income of the person with the second highest income is more than twice the income of the person with the second least income is

○ a) **11.**

○ b) **10.**

○ c) **9.**

○ d) **8.**

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	**99**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**111**
% of students who attempted this question	**4.05**
% of students who got the question right of those who attempted	**23.16**

Video Solution

Text Solution

In this case, the person with 2nd highest income must have maximum possible income and the one with 2nd least income must have least possible income.

Family	Maximum possible income of the person with 2nd highest income	Minimum possible income of the person with 2nd least income	Ratio
Chopras	27%	13%	>2
Kapurs	31%	21%	<2
Bakshis	29%	9%	>2
Pandeys	31%	15%	>2
Sharmas	23%	7%	>2
Khannas	33%	21%	<2
Murthys	29%	9%	>2
Raos	29%	21%	<2
Dayals	19%	11%	<2
Maliks	32%	12%	>2
Prasads	34%	6%	>2
Kumars	34%	10%	>2

This happened for a total of 8 families.   Choice (D)

undefined

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

The following table gives, for each of 12 families, the income of the person with the highest income in the family and that of the person with the least income in the family, as a percentage of the total income of the family (i.e., the sum of the incomes of all the earning members of each family).

Family	Percentage share of the person with		Number of earning members
	Highest income	Lowest income	
Chopras	34%	12%	5
Kapurs	32%	16%	4
Bakshis	30%	8%	6
Pandeys	40%	14%	4
Sharmas	24%	6%	6
Khannas	34%	12%	4
Murthys	30%	8%	5
Raos	30%	20%	4
Dayals	35%	10%	6
Maliks	45%	11%	4
Prasads	40%	5%	6
Kumars	35%	9%	5

Note: Assume that for each family, the income of each earning member as a percentage of the total income of the family is a distinct integer.

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

The number of families in which less than half of the earning members contribute more than half of the total income, is at least

○ a) **5.**

○ b) **6.**

○ c) **7.**

○ d) **8.**

Video Solution

Text Solution

In the case of a family with 4 members, less than half i.e. 1 member must have an income of more than half i.e. more than 50%. This did not happen for any family. Now in a family of five or six members, two members together must have an income of more than 50%. This definitely happened in the families – Chopras, Murthys, Dayals, Prasads and Kumars i.e. a total of five families.

Choice (A)

undefined

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

In a group of ten friends – A through J – each of the friends has exactly one specialisation among Marketing, Finance, Operations and HR. The number of friends having each of the specialisations is distinct and at least one. Each of these ten friends got a job in exactly one of the four sectors – Banking, IT, FMCG and Insurance. The number of friends who got a job in each of the sectors is distinct and is at least one in each sector.

Further, it is known that,

i.
 except B and G, no two persons with the same specialisation got jobs in the same sector. Both B and G have Finance as their specialisation and got jobs in the Insurance sector.

ii.
 maximum number of persons got jobs in the IT sector and maximum number of persons had Marketing as their specialisation.

iii.
 D, whose specialisation is HR, got a job in the FMCG sector.

iv.
C and E have the same specialisation while A and J got jobs in the same sector.

v.
H and I neither have the same specialisation nor did they get a job in the same sector. H got a job in the Banking sector and F has HR as his specialisation.

vi.
B had the same specialisation as J and got a job in the same sector as E.

Q29. How many of the friends have Finance as their specialisation?

○ a) **1**

○ b) **2**

○ c) **3**

○ 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	**5**
Avg. time spent on this question by all students	**369**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**413**
% of students who attempted this question	**17.05**
% of students who got the question right of those who attempted	**61.88**

Video Solution

Text Solution

The number of friends having each of the specialisations is different and at least one,
∴ these numbers must be 1, 2, 3 and 4.
The number of friends who got a job in each of the sectors is different and at least one,
∴ these numbers must be 1, 2, 3, and 4.
It is also given that no two persons except B and G have both the same specialisation and got a job in the same sector.
Now, maximum number of persons i.e. 4 have marketing as their specialisation,
∴ each of them must get a job in a different sector. One of these persons will get a job in the insurance sector along with both B and G.
∴ Three persons got jobs in the insurance sector.
Similarly, three persons have finance as their specialisation.

Specialisation		Sector	
	–		–
	–, –		–, –
Finance	B, G, –	Insurance	B, G, –
Marketing	–, –, –, –	IT	–, –, –, –

Each of the persons who specialised in marketing got jobs in different sectors, i.e.,
one of them got the job in the sector in which only one person got the job. Hence, D cannot be that person as he has specialised in HR.
∴ Two persons got jobs in the FMCG sector and one got a job in the Banking sector.
Similarly, two persons are specialised in HR and one person is specialised in operations. As C and E have the same specialisation, it must be marketing.
A and J got a job in same sector, ∴ it must be IT.
H got a job in the Banking sector and hence H is specialised in marketing and F has HR as specialisation.

The final distribution is as follows.

Specialisation		Sector	
Operations	I	Banking	H
HR	D, F	FMCG	D, C
Finance	B, G, J	Insurance	B, G, E
Marketing	C, E, H, A	IT	A, J, F, I

Three persons have Finance as their specialisation.   Choice (C)

undefined

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

In a group of ten friends – A through J – each of the friends has exactly one specialisation among Marketing, Finance, Operations and HR. The number of friends having each of the specialisations is distinct and at least one. Each of these ten friends got a job in exactly one of the four sectors – Banking, IT, FMCG and Insurance. The number of friends who got a job in each of the sectors is distinct and is at least one in each sector.

Further, it is known that,

i.
    except B and G, no two persons with the same specialisation got jobs in the same sector. Both B and G have Finance as their specialisation and got jobs in the Insurance sector.

ii.
maximum number of persons got jobs in the IT sector and maximum number of persons had Marketing as their specialisation.

iii.
D, whose specialisation is HR, got a job in the FMCG sector.

iv.
C and E have the same specialisation while A and J got jobs in the same sector.

v.
H and I neither have the same specialisation nor did they get a job in the same sector. H got a job in the Banking sector and F has HR as his specialisation.

vi.
B had the same specialisation as J and got a job in the same sector as E.

Q30. Who among the following has Marketing as his/her specialisation and a job in the FMCG sector?

○ a) **E**

○ b) **C**

○ c) **I**

○ d) **None of the above**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**0**
Avg. time spent on this question by all students	**118**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**134**
% of students who attempted this question	**11.72**
% of students who got the question right of those who attempted	**33.77**

Video Solution

Text Solution

The number of friends having each of the specialisations is different and at least one,
∴ these numbers must be 1, 2, 3 and 4.
The number of friends who got a job in each of the sectors is different and at least one,
∴ these numbers must be 1, 2, 3, and 4.
It is also given that no two persons except B and G have both the same specialisation and got a job in the same sector.
Now, maximum number of persons i.e. 4 have marketing as their specialisation,
∴ each of them must get a job in a different sector. One of these persons will get a job in the insurance sector along with both B and G.
∴ Three persons got jobs in the insurance sector.
Similarly, three persons have finance as their specialisation.

Specialisation		Sector	
	–		–
	–, –		–, –
Finance	B, G, –	Insurance	B, G, –
Marketing	–, –, –, –	IT	–, –, –, –

Each of the persons who specialised in marketing got jobs in different sectors, i.e., one of them got the job in the sector in which only one person got the job. Hence, D cannot be that person as he has specialised in HR.
∴ Two persons got jobs in the FMCG sector and one got a job in the Banking sector.
Similarly, two persons are specialised in HR and one person is specialised in operations. As C and E have the same specialisation, it must be marketing.
A and J got a job in same sector, ∴ it must be IT.
H got a job in the Banking sector and hence H is specialised in marketing and F has HR as specialisation.

The final distribution is as follows.

Specialisation		Sector	
Operations	I	Banking	H
HR	D, F	FMCG	D, C
Finance	B, G, J	Insurance	B, G, E
Marketing	C, E, H, A	IT	A, J, F, I

C specialised in marketing and got a job in the FMCG sector.   Choice (B)

undefined

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

In a group of ten friends – A through J – each of the friends has exactly one specialisation among Marketing, Finance, Operations and HR. The number of friends having each of the specialisations is distinct and at least one. Each of these ten friends got a job in exactly one of the four sectors – Banking, IT, FMCG and Insurance. The number of friends who got a job in each of the sectors is distinct and is at least one in each sector.

Further, it is known that,

i.
  except B and G, no two persons with the same specialisation got jobs in the same sector. Both B and G have Finance as their specialisation and got jobs in the Insurance sector.

ii.
  maximum number of persons got jobs in the IT sector and maximum number of persons had Marketing as their specialisation.

iii.
  D, whose specialisation is HR, got a job in the FMCG sector.

iv.
  C and E have the same specialisation while A and J got jobs in the same sector.

v.
  H and I neither have the same specialisation nor did they get a job in the same sector. H got a job in the Banking sector and F has HR as his specialisation.

vi.
  B had the same specialisation as J and got a job in the same sector as E.

Q31. Which of the following represents the group of friends who got jobs in the IT sector?

○ a) **A, C, J and F**

○ b) **A, E, F and C**

○ c) **A, F, I and J**

○ d) **A, C, E and I**

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	**105**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**109**
% of students who attempted this question	**12.23**
% of students who got the question right of those who attempted	**49.62**

Video Solution

Text Solution

The number of friends having each of the specialisations is different and at least one,
∴ these numbers must be 1, 2, 3 and 4.
The number of friends who got a job in each of the sectors is different and at least one,
∴ these numbers must be 1, 2, 3, and 4.
It is also given that no two persons except B and G have both the same specialisation and got a job in the same sector.
Now, maximum number of persons i.e. 4 have marketing as their specialisation,
∴ each of them must get a job in a different sector. One of these persons will get a job in the insurance sector along with both B and G.
∴ Three persons got jobs in the insurance sector.
Similarly, three persons have finance as their specialisation.

Specialisation		Sector	
	–		–
	–, –		–, –
Finance	B, G, –	Insurance	B, G, –
Marketing	–, –, –, –	IT	–, –, –, –

Each of the persons who specialised in marketing got jobs in different sectors, i.e., one of them got the job in the sector in which only one person got the job. Hence, D cannot be that person as he has specialised in HR.
∴ Two persons got jobs in the FMCG sector and one got a job in the Banking sector.
Similarly, two persons are specialised in HR and one person is specialised in operations. As C and E have the same specialisation, it must be marketing.
A and J got a job in same sector, ∴ it must be IT.
H got a job in the Banking sector and hence H is specialised in marketing and F has HR as specialisation.

The final distribution is as follows.

Specialisation		Sector	
Operations	I	Banking	H
HR	D, F	FMCG	D, C
Finance	B, G, J	Insurance	B, G, E
Marketing	C, E, H, A	IT	A, J, F, I

A, J, F and I got jobs in the IT sector.   Choice (C)

undefined

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

In a group of ten friends – A through J – each of the friends has exactly one specialisation among Marketing, Finance, Operations and HR. The number of friends having each of the specialisations is distinct and at least one. Each of these ten friends got a job in exactly one of the four sectors – Banking, IT, FMCG and Insurance. The number of friends who got a job in each of the sectors is distinct and is at least one in each sector.

Further, it is known that,

i.
except B and G, no two persons with the same specialisation got jobs in the same sector. Both B and G have Finance as their specialisation and got jobs in the Insurance sector.

ii.
maximum number of persons got jobs in the IT sector and maximum number of persons had Marketing as their specialisation.

iii.
D, whose specialisation is HR, got a job in the FMCG sector.

iv.
C and E have the same specialisation while A and J got jobs in the same sector.

v.
H and I neither have the same specialisation nor did they get a job in the same sector. H got a job in the Banking sector and F has HR as his specialisation.

vi.
B had the same specialisation as J and got a job in the same sector as E.

Q32. The person who has Operations as his/her specialisation is

○ a) **J.**

○ b) **A.**

○ c) **I.**

○ d) **H.**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**0**
Avg. time spent on this question by all students	**226**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**211**
% of students who attempted this question	**9.89**
% of students who got the question right of those who attempted	**46.86**

Video Solution

Text Solution

The number of friends having each of the specialisations is different and at least one,
∴ these numbers must be 1, 2, 3 and 4.
The number of friends who got a job in each of the sectors is different and at least one,
∴ these numbers must be 1, 2, 3, and 4.
It is also given that no two persons except B and G have both the same specialisation and got a job in the same sector.
Now, maximum number of persons i.e. 4 have marketing as their specialisation, ∴ each of them must get a job in a different sector. One of these persons will get a job in the insurance sector along with both B and G.
∴ Three persons got jobs in the insurance sector.
Similarly, three persons have finance as their specialisation.

Specialisation		Sector	
	–		–
	–, –		–, –
Finance	B, G, –	Insurance	B, G, –
Marketing	–, –, –, –	IT	–, –, –, –

Each of the persons who specialised in marketing got jobs in different sectors, i.e., one of them got the job in the sector in which only one person got the job. Hence, D cannot be that person as he has specialised in HR.
∴ Two persons got jobs in the FMCG sector and one got a job in the Banking sector.
Similarly, two persons are specialised in HR and one person is specialised in operations. As C and E have the same specialisation, it must be marketing.
A and J got a job in same sector, ∴ it must be IT.
H got a job in the Banking sector and hence H is specialised in marketing and F has HR as specialisation.

The final distribution is as follows.

Specialisation		Sector	
Operations	I	Banking	H
HR	D, F	FMCG	D, C
Finance	B, G, J	Insurance	B, G, E
Marketing	C, E, H, A	IT	A, J, F, I

I specialised in operations.   Choice (C)

undefined

Q1. **DIRECTIONS** *for questions 1 to 3:* Select the correct alternative from the given choices.

What is the value of $0.5\overline{74} + 0.\overline{27}$?

○ a) $\dfrac{844}{999}$

○ b) $\dfrac{838}{999}$

○ c) $\dfrac{839}{990}$ □**Your answer is correct**

○ d) **None of the above**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**176**
Avg. time spent on this question by all students	**149**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**152**
% of students who attempted this question	**20.88**
% of students who got the question right of those who attempted	**55.57**

Video Solution

Text Solution

Given value is $0.5\overline{74} + 0.\overline{27}$

Fractional representation of $0.5\overline{74} = \dfrac{574 - 5}{990} = \dfrac{569}{990}$

Fractional representation of $0.\overline{27} = \dfrac{27}{99}$

$\therefore\ 0.5\overline{74} + 0.\overline{27} = \dfrac{569}{990} + \dfrac{27}{99} = \dfrac{839}{990}$ Choice (C)

undefined

Q2. **DIRECTIONS** *for questions 1 to 3:* Select the correct alternative from the given choices.

The sum of three numbers in an arithmetic progression is 12 and the sum of the cubes of the three numbers is 408. Find the smallest of the three numbers.

○ a) **1** □**Your answer is correct**

○ b) **2**

○ c) **3**

○ d) **4**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**364**

Avg. time spent on this question by all students	**195**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**202**
% of students who attempted this question	**23.33**
% of students who got the question right of those who attempted	**69.03**

Video Solution

Text Solution

Let the three terms in A. P. be a – d, a and a + d
$\Rightarrow$ a – d + a + a + d = 12
$\therefore$ a = 4
And (a – d)³ + a³ + (a + d)³ = 408
a³ – 3a²d + 3ad² – d³ + a³ + a³ + 3a²d + 3ad² + d³ = 408
3a³ + 6ad² = 408
$\Rightarrow$ 192 + 24d² = 408
$\Rightarrow$ d = ± 3
$\therefore$ The value of the smallest term is 4 – 3 = 1

Alternative Solution:

Once it is found that a = 4, it is easy to check for the value of d (and hence all three terms) from the answer choices.
For example, if smallest term = 1, from choice (A), the largest term = 4 + (4 – 1) = 7 and 7³ + 4³ + 1³ = 408.
Hence, choice (A)   Choice (A)

undefined

Q3. DIRECTIONS *for questions 1 to 3:* Select the correct alternative from the given choices.

The monthly incomes of Virat and Mitchell are in the ratio 5 : 4 and the ratio of their monthly expenditures is 1 : 1. If the ratio of the monthly savings of Virat and Mitchell is 5 : 3, what proportion of his monthly income does Virat save?

○ a) $\frac{1}{2}$ ▫**Your answer is correct**

○ b) $\frac{2}{3}$

○ c) $\frac{3}{5}$

○ d) **None of the above**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**118**
Avg. time spent on this question by all students	**168**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**166**
% of students who attempted this question	**18.82**
% of students who got the question right of those who attempted	**53.6**

Video Solution

Text Solution

Let the income of virat be 5x.
⇒ the income of mitchel is 4x.
Let the expenditure of Virat be y.
⇒ the expenditure of Mitchel is y.
3(5x – y) = 5(4x – y)
2y = 5x.

∴ The required value = $\dfrac{5x - y}{5x}$ = $\dfrac{5x - \dfrac{5x}{2}}{5x}$ = $\dfrac{1}{2}$.

Choice (A)

undefined

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

The price of a stock at the beginning of a year was Rs.2000. Over the next three years, it showed an annual increase of 5%, 15%, and 20% over the previous year. What is the price of the stock (in Rs.) after three years?

Your Answer:2898   **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**137**
Avg. time spent on this question by all students	**131**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**127**
% of students who attempted this question	**29.31**
% of students who got the question right of those who attempted	**71.5**

Video Solution

Text Solution

The initial price of the stock = 2000
Price of the stock after first year = 2000 × 1.05 = 2100
Price of the stock after second year = 2100 × 1.15 = 2415
Price of the stock after three years = 2415 × 1.2 = 2898

Ans: (2898)

undefined

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

If log 2 = 0.301 and log 3 = 0.4771, find the value of $\log\left(\dfrac{2430}{64}\right)$.

○ a) **1.5759**

○ b) **1.5795**

○ c) **1.5975**

○ d) **1.5957**

You did not answer this question   Show Correct Answer

Time taken by you to answer this question	**29**
Avg. time spent on this question by all students	**180**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**177**
% of students who attempted this question	**16.55**
% of students who got the question right of those who attempted	**87.03**

Video Solution

Text Solution

$$\log\left(\frac{2430}{64}\right) = \log\left(\frac{3^5 \times 10}{2^6}\right)$$

$= 5\log3 + \log10 - 6\log2$
$= 5 \times 0.4771 + 1 - 6 \times 0.301$
$2.3855 + 1 - 1.806 = 1.5795$

Choice (B)

undefined

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

The ratio of the ages of Mrs. Sharma and Mr. Sharma when their first child was born was 5 : 6. Today, when their second child was born, the ratio of their ages is 7 : 8. If the difference in the ages of the two children of Mr. Sharma is 8 years, then what will be the age (in years) of Mrs. Sharma five years from now?

Your Answer:33 **Your answer is correct**

Time taken by you to answer this question	**204**
Avg. time spent on this question by all students	**192**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**190**
% of students who attempted this question	**21.62**
% of students who got the question right of those who attempted	**68.1**

Video Solution

Text Solution

Let the present ages of Mrs. Sharma and Mr. Sharma be 7x and 8x respectively. When their first daughter was born, i.e. 8 years ago, the ratio of their ages was 5 : 6

$$\frac{7x-8}{8x-8} = \frac{5}{6}, \qquad 42x - 48 = 40x - 40$$

$2x = 8 \Rightarrow x = 4$
∴ The present ages are 28 and 32 respectively.
Five years from now, the age of Mrs. Sharma will be 33.

Ans: (33)

undefined

Q7. DIRECTIONS *for questions 7 to 9:* Select the correct alternative from the given choices.

In an infinite geometric progression, the sum of all the terms exceeds the sum of the first four terms by 100. If the sum of the first eight terms is 97.44 more than the sum of the first four terms, find the common ratio of the progression.

a) $\dfrac{1}{10}$

b) $\dfrac{1}{5}$

c) $\dfrac{3}{10}$

d) $\dfrac{2}{5}$

Time spent / Accuracy Analysis

Time taken by you to answer this question	**523**
Avg. time spent on this question by all students	**161**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**219**
% of students who attempted this question	**3.66**
% of students who got the question right of those who attempted	**43.32**

Video Solution

Text Solution

The given information can be understood as the sum of fifth term onwards (up to infinite terms) = 100.
Also, the sum of the fifth term through the eighth term = 97.44.
Now, without loss of generality, we can assume that 5th term = a and common ratio = r.
That is, we can consider the progression that starts from the fifth term onwards.
∴ a/(1 – r) = 100.

and $\dfrac{a\left(1-r^4\right)}{1-r}$ = 97.44

⇒ 1 – r^4 = 0.9744
⇒ r^4 = 0.0256 ⇒ r = 0.4   Choice (D)

undefined

Q8. DIRECTIONS *for questions 7 to 9:* Select the correct alternative from the given choices.

Find the largest power of 27 which divides $\dfrac{100!}{15!}$.

a) **12**

b) **14**

c) **16**

d) **15**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**58**
Avg. time spent on this question by all students	**156**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**154**
% of students who attempted this question	**9.21**
% of students who got the question right of those who attempted	**48.57**

Video Solution

Text Solution

To find the largest power of 27(i.e., 3^3) in the given number, we need to find the power of 3 in the given number.

The power of 3 in 100! = $\dfrac{100}{3} + \dfrac{33}{3} + \dfrac{11}{3} + \dfrac{3}{3}$

= 33 + 11 + 3 + 1 = 48

The power of 3 in 15! = $\dfrac{15}{3} + \dfrac{5}{3}$ = 5 + 1 = 6

$\Rightarrow$ The power of 3 in $\dfrac{100!}{15!}$ = 48 – 6 = 42

$\therefore$ The power of 27 in $\dfrac{100!}{15!}$ is $\dfrac{42}{3}$ = 14   Choice (B)

undefined

Q9. DIRECTIONS *for questions 7 to 9:* Select the correct alternative from the given choices.

Find the value of

$$1 + \cfrac{1}{2 + \cfrac{3}{4 + \cfrac{5}{6 + \cfrac{7}{8 + \left(\cfrac{9}{10}\right)}}}}$$

○ a) $\dfrac{10395}{7534}$

○ b) $\dfrac{11541}{7212}$

○ c) $\dfrac{8297}{6914}$

○ d) $\dfrac{4007}{2822}$ □ **Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**470**
Avg. time spent on this question by all students	**213**

Video Solution

Text Solution

$$8 + \frac{9}{10} = \frac{89}{10}$$

$$6 + \frac{7}{\left(\frac{89}{10}\right)} = \frac{604}{89} \; ; \quad 4 + \frac{5}{\left(\frac{604}{89}\right)} = \frac{2861}{604} \quad ; \quad 2 + \frac{3}{\left(\frac{2861}{604}\right)}$$

$$= \frac{7534}{2861} \; ; \quad 1 + \frac{1}{\left(\frac{7534}{2861}\right)}$$

$$= \frac{10395}{7534} \qquad\qquad\qquad\qquad\qquad\qquad \text{Choice (A)}$$

Alternative Solution:

The given expression can be observed to lie between $1 + \dfrac{1}{\left(2 + \dfrac{3}{(K)}\right)}$, where $4 < K < 5$.

Hence, the expression must lie between $1 + \dfrac{1}{2.75}$ and $1 + \dfrac{1}{2.6}$, i.e., between 1.364 and 1.385.

By approximately calculating each of the choices, only choice (A) satisfies.

undefined

Q10. DIRECTIONS *for questions 10 and 11:* Type in your answer in the input box provided below the question.

In how many ways is it possible to choose two black squares on an 8 × 8 chessboard so that they neither lie in the same row nor in the same column?

Video Solution

Text Solution

The number of ways a black square can be selected is 32.
The number of black squares in the same row or same column of the selected black square is 6.
∴ The number of ways of selecting the other black square form the remaining is 25 i.e., (31 – 6)
But each case of selecting two squares is counted twice.

∴ The required value = $\dfrac{32 \times 25}{2}$ = 400

Ans: (400)

undefined

Q11. DIRECTIONS *for questions 10 and 11:* Type in your answer in the input box provided below the question.

Find the sum of the digits of the smallest four-digit number which when divided by 33 leaves a remainder of 8 and when divided by 21 leaves remainder of 17.

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	**276**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**311**
% of students who attempted this question	**6.55**
% of students who got the question right of those who attempted	**16.23**

Video Solution

Text Solution

Let the number be $33K_1 + 8$
$\Rightarrow 33K_1 + 8 = 21K_2 + 17$
$\Rightarrow 11K_1 = 7K_2 + 3$
$\Rightarrow 4K_1 = 7(K_2 - K_1) + 3$
Since, K_1 and K_2 are integers $K_2 - K_1$ can be taken as K_3, Which is an integer.
$4K_1 = 7K_3 + 3$
Similarly, on proceeding further
$4(K_1 - K_3) = 3K_3 + 3$
$4K_4 = 3K_3 + 3$
$K_4 = 3(K_3 - K_4) + 3$
To find the minimum value of such number.
K_4 should be minimum.
The minimum value of K_4 is 3.
On back substituting, we will get $K_3 = 3$, $K_1 = 6$
∴ The required smallest such number = 206.
The number is therefore of the from LCM (21,33) × K + 206 = 231K + 206 the least four-digit such number is obtained for n = 4, and is equal to 4 × (231) + 206 = 1130
∴ Sum of digits = 5.

Ans: (5)

undefined

Q12. DIRECTIONS *for questions 12 to 15:* Select the correct alternative from the given choices.

If the product of the roots of a quadratic equation $ax^2 + bx + c = 0$ is 45, and one of its roots is –1, which of the following is its discriminant?

○ a) **1936**

○ b) **2161**

○ c) **$1936a^2$**   ▫**Your answer is correct**

○ d) **$2161a^2$**

Time spent / Accuracy Analysis

Time taken by you to answer this question	170
Avg. time spent on this question by all students	164
Difficulty Level	M
Avg. time spent on this question by students who got this question right	172
% of students who attempted this question	9.6
% of students who got the question right of those who attempted	51.31

Video Solution

Text Solution

The quadratic equation is $ax^2 + bx + c = 0$
Given $c/a = 45$ and $a - b + c = 0$
$\Rightarrow 46a = b$
Discriminant $= b^2 - 4ac = 46^2 \times a^2 - 4 \times a \times 45a = 1936a^2$ Choice (C)

undefined

Q13. DIRECTIONS *for questions 12 to 15:* Select the correct alternative from the given choices.

If $a^{b+c-a} = b^{a+c-b} = c^{a+b-c} = 1$, then $(abc)^{a+b+c} = ?$

○ a) $a^{2a}b^{2b}c^{2c}$

○ b) $a^a b^b c^c$

○ c) $a^b b^c c^a$

○ d) $a^c b^b c^a$

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	350
Avg. time spent on this question by all students	132
Difficulty Level	E
Avg. time spent on this question by students who got this question right	138
% of students who attempted this question	11.8
% of students who got the question right of those who attempted	60.13

Video Solution

Given that, $a^{(b+c)} = a^a$; $b^{(a+c)} = b^b$; $c^{(a+b)} = c^c$.

$\Rightarrow (abc)^{(a+b+c)} = a^{(b+c)} \cdot a^a \cdot b^{(a+c)} \cdot b^b \cdot c^{(a+b)} \cdot c^c = a^{2a} \cdot b^{2b} \cdot c^{2c}$

Choice (A)

undefined

Q14. DIRECTIONS *for questions 12 to 15:* Select the correct alternative from the given choices.

An amount of Rs.450 was gained by a merchant when he sold a cycle at a profit of 20%. If he sold six such cycles and earned a total profit of Rs.1500, find the overall profit percentage (approximately) made by the merchant on selling all the six cycles.

○ a) **9.09%**

○ b) **10%**

○ c) **10.5%**

○ d) **11.11%** □**Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**235**
Avg. time spent on this question by all students	**192**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**192**
% of students who attempted this question	**18.36**
% of students who got the question right of those who attempted	**77.01**

Video Solution

Text Solution

Let the price of one cycle be x.
$\Rightarrow 0.2x = ₹450$
∴ The price of the cycle is ₹2250.
∴ The required percentage

$= \dfrac{1500}{6 \times 2250} \times 100 = \dfrac{1500}{13500} \times 100 \cong 11.11\%$.

Choice (D)

undefined

Q15. DIRECTIONS *for questions 12 to 15:* Select the correct alternative from the given choices.

Evaluate the sum to infinite terms of the series given below:

$1 + \dfrac{4}{5} + \dfrac{9}{5^2} + \dfrac{16}{5^3} + \ldots..$

○ a) $\dfrac{85}{32}$

b) $\dfrac{95}{32}$

c) $\dfrac{65}{32}$

d) $\dfrac{75}{32}$

Time spent / Accuracy Analysis

Time taken by you to answer this question	**94**
Avg. time spent on this question by all students	**136**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**166**
% of students who attempted this question	**5.64**
% of students who got the question right of those who attempted	**44.96**

Video Solution

Text Solution

Let the given sum be denoted by S.

$$S = 1 + \frac{4}{5} + \frac{9}{5^2} + \frac{16}{5^3} + \ldots.$$

Instead of the number 1/5, it is more convenient to work with a symbol.

$$\therefore \text{Let } \frac{1}{5} = x$$

$S = 1 + 4x + 9x^2 + 16x^3 + \ldots \text{ (1)}$
$Sx = x + 4x^2 + 9x^3 + \ldots \text{ (2)}$
$S(1 - x) = 1 + 3x + 5x^2 + 7x^3 + \ldots \text{ (3). By [(1) - (2)]}$
$Sx(1 - x) = x + 3x^2 + 5x^3 + 7x^4 + \ldots \text{ (4)}$
$S(1 - x)^2 = 1 + 2x + 2x^2 + \ldots \text{ (5). By ((3) - (4))}$

$$S = \frac{1 + \dfrac{2x}{1-x}}{(1-x)^2} = \frac{1+x}{(1-x)^3}$$

$$= \frac{1 + \dfrac{1}{5}}{\left(1 - \dfrac{1}{5}\right)^3} = \frac{75}{32}$$

Alternative Solution:

Evaluating the first four or five terms of the series and comparing the sum of those terms with the values of the answer choices can help identify the correct answer choice.

$\therefore$ 1 + 0.8 + 0.36 + 0.128 + 0.04 + ... $\cong$ 2.292 which is just less than $2\frac{1}{3}$. Clearly

$\frac{75}{32}$ (i.e., choice (D)) is the answer since both choices (A) and (B) are greater than $2\frac{1}{3}$, while choice (C) is less than 2.   Choice (D)

undefined

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

The average mark scored by the students of class VIII in their unit test is 78. The average marks scored by the boys and the girls in the class are 75 and 83 respectively. If there are ten more boys than girls in the class, then what is the total number of students in class VIII?

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

Time spent / Accuracy Analysis

Time taken by you to answer this question	157
Avg. time spent on this question by all students	170
Difficulty Level	E
Avg. time spent on this question by students who got this question right	168
% of students who attempted this question	15.6
% of students who got the question right of those who attempted	69.9

Text Solution

Let the total number of boys & girls be b and g respectively.
Given,
b – g = 10
$\frac{75b + 83g}{b+g} = 78$
⇒ 5g = 3b
⇒ 5g = 3(g + 10)
⇒ 2g = 30
⇒ g = 15
∴ b = 25
∴ Total number of students = 15 + 25 = 40.

Alternative solution:
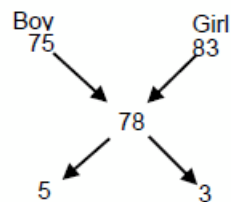
Ratio of Boys to girls = 5 : 3
Diff in number of Boys & Girls = 10
∴ Boys : Girls = 25 : 15
Total number of students = 40

Ans: (40)

undefined

Q17. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

The range of x for which $\log_{1.6}(2 - x) \le \log_{1.6}\left(\frac{1}{5}\right)$ is

a) $x \le \dfrac{9}{5}$

b) $x \ge \dfrac{9}{5}$

c) $\dfrac{9}{5} < x < 2$

d) $\dfrac{9}{5} \le x < 2$

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**2**
Avg. time spent on this question by all students	**89**
Difficulty Level	**M**

Video Solution

Text Solution

Given,

$$\log_{\frac{8}{5}}(2-x) \le \log_{\frac{8}{5}}\left(\frac{1}{5}\right)$$

$$\Rightarrow 2 - x \le \frac{1}{5} \; [\because \text{ base} > 1]$$

$$\Rightarrow x \ge 2 - \frac{1}{5} \text{ i.e., } x \ge \frac{9}{5} \quad \rightarrow \quad (1)$$

Also $\log_{\frac{8}{5}}(2-x)$ is defined only if $2 - x > 0$

$$\Rightarrow x < 2 \quad\quad\quad\quad \rightarrow \quad (2)$$

$\therefore$ from (1) and (2), we have

$$\frac{9}{5} \le x < 2 \quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad \text{Choice (D)}$$

undefined

Q18. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

What is the time when the hour-hand and the minute-hand of a clock coincide between 2:00 p.m. and 3:00 p.m.?

○ a) $2:10\frac{10}{11}$ **p.m.**

○ b) **2:10 p.m.**

○ c) $2:11\frac{9}{11}$ **p.m.**

○ d) $2:9\frac{1}{11}$ **p.m.**

You did not answer this question | Show Correct Answer |

Video Solution

Text Solution

The hands of clock coincide every $\frac{12}{11}$ hours

i.e, $65\frac{5}{11}$ minutes.

We know that hands of a clock coincide at 12:00, so they also coincide after $\frac{24}{11}$ hours

i.e, $2\frac{2}{11}$ hours.

$= 2:\frac{2 \times 60}{11} = 2:10\frac{10}{11}$ p.m.

Choice (A)

undefined

Q19. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

The geometric mean of the length and the breadth of a rectangle is 4 and their arithmetic mean is 5. What is the ratio of the numerical value of the perimeter of the rectangle to that of its area?

○ a) **10 : 1**

○ b) **5 : 4**   □**Your answer is correct**

○ c) **1 : 5**

○ d) **1 : 20**

Time spent / Accuracy Analysis

Time taken by you to answer this question	83
Avg. time spent on this question by all students	97
Difficulty Level	E
Avg. time spent on this question by students who got this question right	99
% of students who attempted this question	13.25
% of students who got the question right of those who attempted	85.19

Video Solution

Text Solution

Given that $\sqrt{lb} = 4 \Rightarrow lb = 16$

$\frac{l + b}{2} = 5 \Rightarrow 2(l + b) = 20$

Ratio of perimeter to area $= 20 : 16 = 5 : 4.$ Choice (B)

undefined

Q20. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

A certain amount was supposed to be divided among Amar, Akbar and Anthony in the ratio 3 : 4 : 5. Instead, by mistake, it was divided among them in the ratio $\frac{1}{3} : \frac{1}{4} : \frac{1}{5}$. If Amar got Rs.1650 more than what he was supposed to get, find the total amount.

a) **Rs.10,200**

b) **Rs.9,400** ☐**Your answer is correct**

c) **Rs.10,800**

d) **Rs.9,700**

Time spent / Accuracy Analysis

Time taken by you to answer this question	**302**
Avg. time spent on this question by all students	**217**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**227**
% of students who attempted this question	**11.64**
% of students who got the question right of those who attempted	**60.24**

Video Solution

Text Solution

Let the amount be x.

The amount Amar would have got if it is divided in the ratio 3 : 4 : 5 = $\frac{3}{3+4+5}$ (x) =

$\frac{x}{4} \rightarrow (1)$

The actual amount A received by Amar

$= \frac{\left(\frac{1}{3}\right)x}{\left(\frac{1}{3}+\frac{1}{4}+\frac{1}{5}\right)} = \frac{20x}{47} \rightarrow (2)$

Given, (2) – (1) = 1650

$\frac{20x}{47} - \frac{x}{4} = 1650$

$\frac{33x}{188} = 1650$

$\Rightarrow x = 9400.$

∴ The required value is ₹9400.   Choice (B)

undefined

Q21. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

What is the remainder of $\frac{1!+2!+3!------20!}{36}$?

a) **1**

b) **4**

○ c) **9**

○ d) **15**

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	**112**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**116**
% of students who attempted this question	**7.94**
% of students who got the question right of those who attempted	**57.24**

Video Solution

Text Solution

Rem of $\dfrac{1!+2!+3!-----20!}{36}$

Since 6! is divisible by 36, all the terms from 6! Onwards will leave a zero remainder when divided by 36.

∴ Rem of $\dfrac{1!+2! ------20!}{36}$

$= $ Rem of $\dfrac{1!+2!+3!+4!+5!}{36}$

$= \dfrac{1+2+6+24+120}{36} = \dfrac{153}{36}$

∴ Rem $\left(\dfrac{153}{36}\right) = 9$

Choice (C)

undefined

Q22. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

In a solid cylinder, if the ratio of the radius to the height is 2 : 3, find the ratio of the curved surface area of the cylinder to the total surface area of the cylinder.

○ a) **3 : 7**

○ b) **4 : 9**

○ c) **4 : 7**

○ d) **3 : 5**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**2**
Avg. time spent on this question by all students	**102**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**109**
% of students who attempted this question	**13.09**
% of students who got the question right of those who attempted	**77.85**

Text Solution

Let the radius of the cylinder be 2x
The total surface area = $2\pi r^2 + 2\pi rh$
= $(2)(\pi)(2x)^2 + (2)(\pi)(2x)(3x)$
= $20\pi x^2$
The curved surface area of the cylinder
= $2\pi rh$
= $(2)(\pi)(2x)(3x) = 12\pi x^2$
∴ The required ratio = $12\pi x^2 : 20\pi x^2$
= 3 : 5

Choice (D)

undefined

Q23. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

If $P = \sqrt{a} - \sqrt{b}$, where $a > b$ and a, b are two consecutive positive integers, then find $\left(P^2 - \dfrac{1}{P^2}\right)^2$.

○ a) $-4\sqrt{ab}$

○ b) **16*ab***

○ c) $16\sqrt{ab}$

○ 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	**5**
Avg. time spent on this question by all students	**126**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**131**
% of students who attempted this question	**7.41**
% of students who got the question right of those who attempted	**31.73**

Text Solution

Given that $P = \sqrt{a} - \sqrt{b}$ $(a > b)$ and $a - b = 1$

As a and b are two consecutive positive integers, we have

$$\frac{1}{P} = \sqrt{a} + \sqrt{b}$$

$$\Rightarrow P + \frac{1}{P} = 2\sqrt{a} \text{ and } P - \frac{1}{P} = -2\sqrt{b}$$

$$\therefore \left(P + \frac{1}{P}\right)\left(P - \frac{1}{P}\right) = -4\sqrt{ab}$$

$$\left(P^2 - \frac{1}{P^2}\right)^2 = 16ab$$

Choice (B)

undefined

Q24. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

Three friends, A, B and C, invest Rs.16,500 each to start a business together. Four months later, B withdraws half the amount he invested. After another four months, C doubles his investment. If the profit at the end of the year was Rs.24,000, find A's share.

○ a) **Rs.5,400**

○ b) **Rs.6,000**

○ c) **Rs.8,000**

○ d) **Rs.9,600**

You did not answer this question | Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**65**
Avg. time spent on this question by all students	**198**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**205**
% of students who attempted this question	**11.23**
% of students who got the question right of those who attempted	**60.94**

Video Solution

Text Solution

□

undefined

Q25. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

Ajay and Anil simultaneously started from cities A and B, towards B and A respectively. After meeting each other at a point on the way, Ajay took 16 hours to reach city B and Anil took 9 hours to reach city A. If they both started at 9:00 a.m., at what time did they meet each other?

○ a) **9:00 p.m.**

○ b) **10:00 p.m.**

○ c) **12:00 noon**

○ d) **Cannot be determined.**

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	**117**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**131**
% of students who attempted this question	**12.13**
% of students who got the question right of those who attempted	**14.92**

Video Solution

Text Solution

If t is the time taken to meet and t_1, t_2 are the times taken after the meeting to reach the respective destinations, then $t = \sqrt{t_1 t_2}$.

Given t_1 = 16 hours, t_2 = 9 hours

$t = \sqrt{t_1 t_2} = \sqrt{16.9}$

= 12 hours.

∴ Ajay and Anil met after 12 hours, i.e., at 9 : 00 p.m.   Choice (A)

undefined

Q26. DIRECTIONS *for questions 17 to 26:* Select the correct alternative from the given choices.

Pankaj, who has Rs.40 with him, could buy exactly four pens, two pencils and one eraser with the money he had. If he had Rs.20 more, he could buy exactly six pens, one pencil and three erasers OR two pens, three pencils and four erasers. How much should Pankaj spend to buy one pen, two pencils and three erasers?

○ a) **Rs.38**

○ b) **Rs.51**

○ c) **Rs.46**

○ d) **Rs.41**

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	**233**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**261**
% of students who attempted this question	**9.35**
% of students who got the question right of those who attempted	**54.49**

Text Solution

Let the number of pens purchased, pencils purchase and erases purchased be x, y, z respectively.
Given that
4x + 2y + z = 40 _____ (1)
6x + y + 3y = 60 _____ (2)
2x + 3y + 4z = 60 _____ (3)
From (2) and (3)
6x + y + 3y = 2x + 3y + 4z
4x = 2y + z
Substitute in (1)
8x = 40
$\Rightarrow$ x = 5
Now,
2y + z = 20
$\Rightarrow$ y + 3z = 30
5z = 40
$\Rightarrow$ z = 8, y = 6
∴ The value of x + 2y + 3y = 5 + 12 + 24 = 41   Choice (D)

undefined

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

Six men can finish a work in 24 days. Eight men start doing the same work but after one-third of the work is completed, four of the men leave. How long (in days) will it take from the start, for the work to be completed?

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	**132**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**149**
% of students who attempted this question	**8.65**
% of students who got the question right of those who attempted	**36.06**

Text Solution

1 man will be able to do 1/(6 × 24) of the work in one day.

To finish 1/3rd of the work, 8 men will require $\dfrac{6 \times 24}{8} \times \dfrac{1}{3}$ = 6 days.

To finish 2/3^{rds} of the work, 4 men will requires $\dfrac{6 \times 24}{4} \times \dfrac{2}{3}$

= 24 days.
Total time to finish the work = 30 days.   Ans: (30)

undefined

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

What is the approximate difference between the average of the first six prime numbers and the average of the first six composite numbers?

○ a) **0**

○ b) **1**

○ c) **1.33**

○ d) **1.67**

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**2**
Avg. time spent on this question by all students	**127**
Difficulty Level	**VE**
Avg. time spent on this question by students who got this question right	**129**
% of students who attempted this question	**14.71**
% of students who got the question right of those who attempted	**66.1**

Video Solution

Text Solution

First six prime numbers = 2, 3, 5, 7, 11, 13

$$\text{Average} = \frac{41}{6}$$

First six composite numbers = 4, 6, 8, 9, 10, 12

$$\text{Average} = \frac{49}{6}$$

$$\text{Difference} = \frac{49}{6} - \frac{41}{6} = \frac{8}{6} \cong 1.33 \qquad \text{Choice (C)}$$

undefined

Q29. DIRECTIONS *for questions 29 and 30:* Type in your answer in the input box provided below the question.

The batting average of Ramesh after 17 matches was 38. Assuming that Ramesh bats and gets out in every match he plays, what should his average in the next four matches be so that his overall average becomes 42?

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**2**
Avg. time spent on this question by all students	**118**
Difficulty Level	**E**
Avg. time spent on this question by students who got this question right	**122**
% of students who attempted this question	**10.39**
% of students who got the question right of those who attempted	**59.12**

Text Solution

Let the average of Ramesh in the last four matches be x.

$$\frac{38 \times 17 + 4x}{21} = 42$$

$38 \times 17 + 4x = 42 \times 21$

$4x = 42 \times 17 + 42 \times 4 - 38 \times 17$

$\Rightarrow 4x = 4 \times 17 + 42 \times 4 \qquad \Rightarrow x = 17 + 42 = 59$

∴ The average runs scored by Ramesh should be 59.　　　　　　　Ans: (59)

undefined

Q30. DIRECTIONS *for questions 29 and 30:* Type in your answer in the input box provided below the question.

The amount of water consumed by Ravi varies directly with the temperature (in °C) in the room when the humidity is constant and inversely with the humidity (%) when the temperature is constant. Ravi consumes 600 ml of water at a temperature of 25°C and 32% humidity. When the humidity is 45%, what is the increase in the quantity of water consumed (in ml) for every 1°C increase in the temperature?

Enter your answer as a decimal value, rounded off to two decimal places.

You did not answer this question　Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**2**
Avg. time spent on this question by all students	**132**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**188**
% of students who attempted this question	**3.25**
% of students who got the question right of those who attempted	**15.04**

Text Solution

Let the water consumed be *w*, temperature be *t* and humidity be *h*.

$$w \propto \frac{t}{h} \Rightarrow w = \frac{kt}{h}$$

$$600 = k \times \frac{25}{32} \Rightarrow k = 768$$

If temperature increases by 1°C, then increase in quantity of water consumed =

$$\frac{k(t+1)}{h} - \frac{kt}{h} = \frac{k}{h}$$

At 45% humidity, $\frac{k}{h} = \frac{768}{45} \approx 17.07$ 　　　　　Ans: (17.07)

undefined

Q31. DIRECTIONS *for question 31:* Select the correct alternative from the given choices.

If the number of factors of $2^{10}\ 3^n\ 10^6$ is 1309, then find the value of n.

○ a) **8**

○ b) **9**

○ c) **10**

○ 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	**1**
Avg. time spent on this question by all students	**80**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**89**
% of students who attempted this question	**8.29**
% of students who got the question right of those who attempted	**22.79**

Video Solution

Text Solution

Given number
$= 2^{10}\ 3^n\ 2^6\ 5^6 = 2^{16}\ 3^n\ 5^6$
The no of factors of the given number $= (16 + 1)\ (n + 1)\ (6 + 1)$
$\Rightarrow (16 + 1)\ (n + 1)\ (6 + 1) = 1309 \Rightarrow n + 1 = 11$
$\therefore$ The value of n is 10.   Choice (C)

undefined

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

In a rhombus, the sum of the lengths of the diagonals is 28 units. If the length of each side of the rhombus is 10 units, find the area (in sq. units) of the rhombus.

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	**128**
Difficulty Level	**M**
Avg. time spent on this question by students who got this question right	**161**
% of students who attempted this question	**6.91**
% of students who got the question right of those who attempted	**17.86**

Video Solution

Text Solution

Let the length of one of the diagonals of the rhombus be 2x units.
⇒ The length of the other diagonal of the rhombus
= 28 – 2x units.
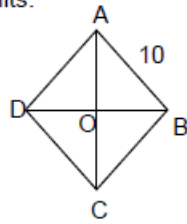
Since, the diagonals of the rhombus bisect each other and they are pendicular to each other, ∆AOC

$AO^2 + OB^2 = AB^2$

$\left(\dfrac{2x}{2}\right)^2 + \left(\dfrac{28-2x}{2}\right)^2 = 10^2$

$x^2 + (14 – x)^2 = 10^2$

$\Rightarrow x = 6$ or 8

Alternatively, by observation, since $AO + OB = \dfrac{28}{2} = 14$ and $AO^2 + OB^2 = 10^2$

AO = 6(or 8) and OB = 8 (or 6)

∴ The area of the rhombus = $\dfrac{(2x)(28-2x)}{2}$

$= \dfrac{(12)(16)}{2} = 96$ sq. units

Ans: (96)

undefined

Q33. DIRECTIONS *for questions 33 and 34:* Select the correct alternative from the given choices.

If $f(x + n) = f(x). f(n – 1)$ and $f(0) = 2$, then $f(1). f(2). f(3). f(4). f(5)... f(103) =$

○ a) 2^{5356}

○ b) 2^{5459}

○ c) 2^{5406}

○ d) 1

You did not answer this question   Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	**1**
Avg. time spent on this question by all students	**101**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**134**
% of students who attempted this question	**3.55**
% of students who got the question right of those who attempted	**41.64**

Video Solution

Given $f(x + n) = f(x) \times f(n - 1)$

If $x = 0$ and $n = 1$, $f(1) = f(0) \times f(0) = 2^2$

Similarly, $f(2) = f(1) \times f(0) = 2^3$

$f(3) = f(2) \times f(0) = 2^4$

$f(1).\ f(2).\ f(3).\ f(4).\ f(5)\ ....\ f(103) = 2^{2+3+4+....+104}$

Now, $2 + 3 + 4 + .. + 104 = \dfrac{(2 + 104)}{2} \times 103 = 5459$

Hence, the answer is 2^{5459}.

Choice (B)

undefined

Q34. DIRECTIONS *for questions 33 and 34:* Select the correct alternative from the given choices.

Find the remainder when $f(x) = 2x^2 + 3x + 4$ is divided by $x + 2$.

○ a) **2**

○ b) **4**

○ 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	**1**
Avg. time spent on this question by all students	**117**
Difficulty Level	**D**
Avg. time spent on this question by students who got this question right	**109**
% of students who attempted this question	**13**
% of students who got the question right of those who attempted	**64.91**

Video Solution

Given polynomial is $f(x) = 2x^2 + 3x + 4$ and divisor is $(x + 2)$.

∴ Remainder $= f(-2) = 2(-2)^2 + 3(-2) + 4$

$= 8 - 6 + 4 = 6$.

Choice (C)