

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

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Then in 1976 managerial capitalism received a stinging rebuke: Michael C. Jensen and William H. Meckling's "Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure," published in the *Journal of Financial Economics*. The most-cited academic business article of all time argued that owners were getting short shrift from professional managers, who were squandering corporate and societal resources to feather their own nests. This was bad for shareholders and wasteful for the economy, Jensen and Meckling argued.

Their critique ushered in the current era of capitalism, as CEOs, the managers, quickly saw the need to swear allegiance to "maximizing shareholder value." Boards of directors soon came to view their job as aligning the interests of senior management with those of shareholders through the use of stock-based compensation.

Have shareholders actually been better off since they displaced managers as the centre of the business universe? The simple answer is no. From 1933 to the end of 1976, when they were allegedly playing second fiddle to professional managers, shareholders of the S&P 500 earned compound annual real returns of 7.6%. From 1977 to the end of 2008, they did considerably worse-earning real returns of 5.9% a year. On this basis, it's hard to argue that Jensen and Meckling did shareholders a huge favour.

That counterintuitive answer begs a provocative follow-up question: If the shareholders were all you cared about, would focusing on increasing shareholder value be the best way to make sure they benefited? I believe that the answer to this question is also no. To create shareholder value, you should instead aim to maximize customer satisfaction. In other words, Peter Drucker had it right when he said that the primary purpose of a business is to acquire and keep customers.

Why not have a dual objective of maximizing both customer satisfaction and shareholder value? Unfortunately, as optimization theory maintains, there is no way to simultaneously optimize two different things—that is, to maximize two desirable variables or minimize two undesirable variables. It is possible to maximize shareholder value given a minimum hurdle for customer satisfaction, or to maximize customer satisfaction given a minimum hurdle for shareholder value appreciation, but you can't maximize both.

Q1. Which of the following best represents the essence of the passage?

- a) Modern capitalism should neither be manager-centric nor shareholder-centric as it has been; it should be customer-centric.
- b) **Modern capitalism has evolved from being manager-driven and later, shareholder-driven to being customer-driven.** Your answer is incorrect
- c) Modern capitalism can maximise shareholder value by only maximising customer-satisfaction.
- d) Modern capitalism gives greater priority to customers than to shareholders, who are more important than professional managers.

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	410
Avg. time spent on this question by all students	365
Difficulty Level	M
Avg. time spent on this question by students who got this question right	339
% of students who attempted this question	51.07
% of students who got the question right of those who attempted	48.6

[Video Solution](#)

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Number of words: 541

The passage has two parts: 1. discussion of the two eras of modern capitalism – manager-driven and shareholder-driven 2. The author's analysis on how a good change will be to move the culture of companies to being customer-driven.

Option A: This option covers both the parts discussed above – that modern capitalism was manager-centric or shareholder-centric, and that it needs to be customer-centric. So, Option A is the answer.

Option B: This line makes one digression from the actual passage. It asserts that modern capitalism has already evolved to become customer-driven. But that is not true. It is the author's suggestion that modern capitalism move in that direction. 'To create shareholder value, you should instead aim to maximize customer satisfaction.' This is the major difference between Option A and Option B. Hence, Option B is not the answer.

Option C: From 'It is possible to maximize shareholder value given a minimum hurdle for customer satisfaction, or to maximize customer satisfaction given a minimum hurdle for shareholder value appreciation, but you can't maximize both', we can understand that maximising both shareholder value and customer-satisfaction is impossible. Hence, Option C is not the answer.

Option D: Modern capitalism SHOULD give more importance to customers according to the author. We cannot assert that modern capitalism already does that. Hence, Option D is not the answer.

Hence, the answer is option A.

Choice (A)

undefined

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Q2. All the following, if true, demonstrate the principles of at least one of the three eras of modern capitalism discussed in the passage EXCEPT:

- a) Johnson & Johnson's CEO, James Burke, in the aftermath of Tylenol capsule poisoning called back all the capsules across America for customer-safety despite market share, sales and stock price plummeting.
- b) **Jack Welch of GE oversaw a \$471 billion increase in shareholder value from \$13 billion in 1981 to \$484 billion in 2001 by putting into practice the theory of shareholder value maximisation.** Your answer is incorrect
- c) Brian Chesky, co-founder of Airbnb, the accommodation rental business, also the company's CEO, thinks the company will be ready next year to go public and bring in shareholders into the mix.
- d) Roberto Goizueta, Coca Cola's CEO from 1981 to 1997, was the first American manager to become a billionaire thanks to stock-based compensation in a company that he'd neither founded nor taken public.

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	183
Avg. time spent on this question by all students	133
Difficulty Level	M
Avg. time spent on this question by students who got this question right	127
% of students who attempted this question	37.63
% of students who got the question right of those who attempted	57.59

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 541

The passage discusses three eras of modern capitalism: 1. Era of professional managers 2. Era when shareholder is king 3. Era where customer *should be* king.

Option A: J&J's CEO put customer over anyone or anything else. This subscribes to 3. Hence, Option A is not the answer.

Option B: Welsh maximised shareholder value. This subscribes to 2. Hence, Option B is not the answer.

Option C: Chesky is a founder-CEO of the company. But besides that, there is no information about the company – are there people who own pieces of the company, is the company customer-driven, etc. Hence, the option doesn't demonstrate any of the three forms of modern capitalism discussed in the passage. Option C is the answer.

Option D: Goizueta benefited from stock-based compensation, a characteristic of shareholder-driven era, 2. Hence, Option D is not the answer. Choice (C)

undefined

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Q3. 'This movement, said Berle and Means, was not to be feared; it was part of a brave new era of economic expansion.' Which of the following can be inferred as a necessity of 'This movement' as per Berle and Means?

- a) Entrepreneurs were gradually replaced by managers, because they were professional and efficient, unlike the former.
- b) **Companies need managers more than owner-CEOs to grow.**
- c) **Management and ownership should go separate ways if corporations were to expand.** Your answer is incorrect
- d) The growth of companies beyond a point is better steered by dependable managers than mercurial entrepreneurs.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	151
Avg. time spent on this question by all students	124
Difficulty Level	M
Avg. time spent on this question by students who got this question right	120
% of students who attempted this question	50.62
% of students who got the question right of those who attempted	54.52

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[Text Solution](#)

Number of words: 541

After that, the business world would no longer be dominated by Chief Executive Officer (CEO) owners like the Rockefellers, Mellons, Carnegies, and Morgans. Firms would be run by a new class of professional managers, who were more dependable and less volatile, once the business reached a significant size. This movement, said Berle and Means, was not to be feared; it was part of a brave new era of economic expansion.

Option A: While the first half of the option is true, that entrepreneurs were gradually replaced by managers, it was not necessarily because entrepreneurs were unprofessional and inefficient, as the second half suggests. True that managers were more dependable and less volatile than entrepreneurs, but it would be hasty generalisation to say that the latter were not professional and efficient at all. Hence, Option A is not the answer.

Option B: We cannot infer that companies need managers to grow, more than they need owner-CEOs. After they have grown to a certain size, managers can run them being more dependable and less volatile. However, a blanket generalisation like in this option cannot be made. Option B is not the answer.

Option C: Berle and Means did feel that 'management should be divorced from ownership' but more in the sense of management being handled by someone other than the owner. We cannot infer that it necessarily means owners and managers going 'separate ways', as in a literal 'divorce' if a company were to expand. Hence, Option C is not the answer.

Option D: 'Mercurial' means 'temperamental', synonymous to 'volatile'. So, we can infer that the growth of companies beyond a point (once the business reached a significant size) can be steered by managers who are dependable than by mercurial (volatile) entrepreneurs. Hence, Option D is the answer. Choice (D)



undefined

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Q4. A critic of Jensen and Meckling's theory discussed in the passage will most likely agree with which of the following?

- a) Shareholders were getting short shrift from the owners of companies.
- b) **Shareholders actually have been better off since they displaced managers as the centre of the business universe.**
- c) **Companies focusing on maximising shareholder value may not offer shareholders the best value.**
- d) **While allegedly playing second fiddle to professional managers, shareholders were being taken for a ride.** □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	270
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	134
% of students who attempted this question	42.49
% of students who got the question right of those who attempted	44.53

[Video Solution](#)

[Text Solution](#)

Number of words: 541

Firstly, a critic of Jensen and Meckling's theory is likely to be in agreement with the author of the passage. 'Their critique' ushered in the current era of capitalism, as CEOs quickly saw the need to swear allegiance to "maximizing shareholder value." Boards of directors soon came to view their job as aligning the interests of senior management with those of shareholders through the use of stock-based compensation. Have shareholders actually been better off since they displaced managers as the centre of the business universe? The simple answer is no.' Principally, Jensen and Meckling were against manager-driven capitalism and believed shareholder was the king.

Option A: According to Jensen and Meckling 'owners were getting short shrift from professional managers'. Option A, in fact, seems to argue in favour of shareholders, by saying they are getting a bad deal from owners of companies (short shrift – bad treatment). Hence, Option A is not the answer.

Option B: This option supports their theory by saying a shareholder-centric business has benefited shareholders, which is not the case, and is not something a critic of their theory will agree with. This option strengthens the theory of Jensen and Meckling. Hence, Option B is not the answer.

Option C: A critic of their theory is likely to agree with 'If the shareholders were all you cared about, would focusing on increasing shareholder value be the best way to make sure they benefited? I believe that the answer to this question is also no.' This option reiterates the underlined portion. Hence, Option C is the answer.

Option D: When professional managers called the shots, shareholders got a raw deal or a bad deal. This option seems to agree with Jensen and Meckling's theory. Hence, Option D is not the answer.

Choice (C)



undefined

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Q5. Which of the following serve to weaken the ‘shareholder-first’ theory advocated by Michael C. Jensen and William H Meckling?

- a) CEOs can push shareholder value up in short bursts, hoping to get out before the inevitable resultant crash.
- b) **Maximising shareholder value will maximise customer satisfaction.** Your answer is incorrect
- c) CEOs are more concerned about their stock-based compensation than maximising shareholder value.
- d) Companies that focus on maximising shareholder value probably deliver the best returns.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	60
Avg. time spent on this question by all students	108
Difficulty Level	D
Avg. time spent on this question by students who got this question right	106
% of students who attempted this question	37.44
% of students who got the question right of those who attempted	37.6

[Video Solution](#)

[Text Solution](#)

Number of words: 541

Option A: This option demonstrates how managers can abuse shareholder capitalism by creating short-term benefit for shareholders which would lead to an inevitable downfall. 'Inevitable' is the key-term here as it signifies that bad times are coming for the company. This option weakens the 'maximise the shareholder value' maxim. Hence, Option A is the answer.

Option B: 'Unfortunately, as optimization theory maintains, there is no way to simultaneously optimize two different things—that is, to maximize two desirable variables or minimize two undesirable variables. It is possible to maximize shareholder value given a minimum hurdle for customer satisfaction, or to maximize customer satisfaction given a minimum hurdle for shareholder value appreciation, but you can't maximize both.' From the underlined portions we can understand that the eventuality in the option is not possible. If it did, it will not weaken the 'shareholder-first' theory, but probably strengthen it (because customer satisfaction is a desirable parameter). Option B is not the answer.

Option C: The whole idea behind stock-based compensation was so that there was an incentive for the people who call the shots/take major decisions. So, even if a manager tries to maximise his or her stock, they subsequently end up benefiting other shareholders. Hence, this option doesn't weaken the shareholder-first theory because managers can still benefit their companies by benefiting themselves. Hence, Option C is not the answer.

Option D: This option supports the shareholder-first theory by saying that focusing on shareholders leads to the best returns (and hence, the best results). It strengthens the argument and not weakens. Hence, Option D is not the answer.

Choice (A)



undefined

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Q6. Which of the following best describes the 'tragically flawed premise' mentioned in the passage that needs to be abandoned?

- a) Management should be divorced from ownership.
- b) **To create shareholder value, you should aim to maximize customer satisfaction.**
- c) **Maximising shareholder value should be the defining mantra of any corporation.** Your answer is correct
- d) **Board of directors and CEOs should swear allegiance to shareholders.**

Time spent / Accuracy Analysis

Time taken by you to answer this question

42

Avg. time spent on this question by all students

81

Difficulty Level

M

Avg. time spent on this question by students who got this question right 78

% of students who attempted this question 47.01

% of students who got the question right of those who attempted 78.92

[Video Solution](#)

[Text Solution](#)

Number of words: 541

The second, shareholder value capitalism, began in 1976. Its governing premise is that the purpose of every corporation should be to maximize shareholders' wealth. This is a tragically flawed premise. From the underlined portions we can understand that the tragically flawed premise is the statement that the purpose of every corporation is to maximise shareholders' wealth.

Option A: 'Management should be divorced from ownership' – this was the governing principle of the first era of modern capitalism, managerial capitalism, and not shareholder capitalism. Hence, Option A is not the answer.

Option B: To create shareholder value, you should aim to maximize customer satisfaction – this is the author's opinion mentioned as a criticism of the shareholder-first principle. This is therefore opposed to the 'tragically flawed premise'. It explains why the premise is tragically flawed. It is not the premise. Hence, Option B is not the answer.

Option C: This is a restatement of the shareholder-first principle mentioned in the passage. Hence, Option C is the flawed premise being mentioned in the passage. Option C is the answer.

Option D: This is very close and is a consequence of the shareholder-first theory. However, it doesn't best describe 'the flawed premise'. It is more a result of the 'flawed premise'. Flawed premise – a corporation should maximise the shareholder's wealth. As a result, CEOs and Board of Directors swear allegiance to shareholders (again allegiance to shareholders is not quite the same as maximising shareholders' wealth, like the passage argues in the penultimate para). Hence, Option D is not the answer.

Choice (C)



undefined

DIRECTIONS for questions 7 to 9: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

In a 2004 book, I introduced the word 'oxymorononica' by adding the suffix *-ica* to the word 'oxymoron'. I was trying to coin a word to describe a collection of oxymoronic and paradoxical quotations. An oxymoron is formed when two words that don't normally go together are conjoined creating a compressed paradox. A paradox is interesting because it is false and true at the same time. The most impressive examples of *oxymorononica* don't contain a simple 'contradiction in terms', but rather a 'contradiction in ideas'. Browning's 'Less is more' or Lao-tzu's 'To lead the people, walk behind them' are false at a literal level and true at a figurative one.

Many oxymoronic replies are wonderfully witty. After receiving the Nobel Prize in 1922, the Danish physicist Niels Bohr invited friends and associates to a celebration party at his country cottage. The event was also well attended by the members of the press. One reporter, noticing a horseshoe hanging on a wall, teasingly asked the famous physicist, "Can be it that you, of all people, believe a horseshoe will bring you good luck?" Bohr replied: "Of course not but I understand it brings you luck whether you believe it or not."

Other oxymoronic replies are not so much witty as they are profound, often capturing important human truths. A famous example was offered by the emperor Pyrrhus in 279 BC when he led a coalition of invading Greek forces against the Roman army. In one of the most bitterly fought battles of the campaign, there were heavy losses on both sides. Finally, the battered Greek army defeated the Roman forces. In a celebration after the battle, when Pyrrhus was congratulated on the victory, he reportedly said: "Another victory like this and we are ruined." The words of Pyrrhus live on in the eponymous expression 'pyrrhic victory', which refers to a win accompanied by such huge losses that it's difficult to truly consider it a triumph.

Q7. All the following can be understood from the third para, "Other oxymoronic replies...consider it a triumph", EXCEPT:

- a) Pyrrhus led the Greek forces to a victory that came at a great cost.
- b) A 'pyrrhic victory' is a victory that feels like a defeat. **Your answer is correct**
- c) Pyrrhus won the battle against the Roman army which inflicted huge losses upon the Greeks.
- d) Pyrrhus felt the Greeks cannot afford another victory at such a cost.

Time spent / Accuracy Analysis

Time taken by you to answer this question	400
Avg. time spent on this question by all students	260
Difficulty Level	M
Avg. time spent on this question by students who got this question right	253
% of students who attempted this question	56
% of students who got the question right of those who attempted	47.16

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 324

The summary of the third para is that Pyrrhus led a coalition of invading Greek forces against the Romans to victory but suffered huge losses. He wittily said, 'another victory like this and we are ruined', to signify how they cannot afford losses of this nature again, the origin of term 'pyrrhic victory', a victory that came at so a great cost that one cannot really call it a victory.

Option A: From the underlined portions, it can be said that Pyrrhus led the Greek forces to victory, and that victory came after huge losses – so it came at a great cost. Hence, Option A is not the answer.

Option B: A 'pyrrhic victory' doesn't feel like a victory. From there, can we extrapolate it to say, 'it feels like a defeat?' No. Hence, Option B cannot be understood from the para and hence, it is the answer.

Option C: The battle was fought by Greeks, led by Pyrrhus, against the Romans. Greeks suffered huge losses. So, Option C can be understood from the para. It is not the answer.

Option D: Pyrrhus reportedly said another win like this would 'ruin' the Greeks. So, it can be understood that the Greeks cannot take losses of this nature again even if they win. Hence, Option D can be understood. Option D is not the answer.

Hence, the correct answer is option B. Choice (B)

undefined

DIRECTIONS for questions 7 to 9: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

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Many oxymoronic replies are wonderfully witty. After receiving the Nobel Prize in 1922, the Danish physicist Niels Bohr invited friends and associates to a celebration party at his country cottage. The event was also well attended by the members of the press. One reporter, noticing a horseshoe hanging on a wall, teasingly asked the famous physicist, "Can be it that you, of all people, believe a horseshoe will bring you good luck?" Bohr replied: "Of course not but I understand it brings you luck whether you believe it or not."

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Other oxymoronic replies are not so much witty as they are profound, often capturing important human truths. A famous example was offered by the emperor Pyrrhus in 279 BC when he led a coalition of invading Greek forces against the Roman army. In one of the most bitterly fought battles of the campaign, there were heavy losses on both sides. Finally, the battered Greek army defeated the Roman forces. In a celebration after the battle, when Pyrrhus was congratulated on the victory, he reportedly said: "Another victory like this and we are ruined." The words of Pyrrhus live on in the eponymous expression 'pyrrhic victory', which refers to a win accompanied by such huge losses that it's difficult to truly consider it a triumph.

Q8. All the following can be included in 'oxymoronica' EXCEPT:

- a) The more things change, the more they remain the same.
- b) **Nobody goes there anymore; it's too crowded.**
- c) **We are overpaying him, but he's worth it.** □ Your answer is incorrect
- d) **There were plenty of vacancies, but they're all filled.**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	40
Avg. time spent on this question by all students	71
Difficulty Level	D
Avg. time spent on this question by students who got this question right	70
% of students who attempted this question	53.36
% of students who got the question right of those who attempted	35.82

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 324

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Option A: Things changing and things remaining same are paradoxical, and 'change' and 'same' are not often used together. There is a contradiction in ideas. So, Option A is an example of 'oxymoronica' as defined by the passage. Option A is not the answer.

Option B: If no one goes there anymore, how could it be crowded? This is a contradiction in ideas and an example of 'oxymoronica'. Hence, Option B is not the answer.

Option C: If we are 'overpaying' him, how can he be 'worth it'? This is a paradox and an overpaying-worth it are terms not used with each other. This is an example of 'oxymoronica'. Hence, Option C is not the answer.

Option D: This doesn't represent a paradox. Hence, it cannot be an example of 'oxymoronica'. It doesn't represent a contradiction of ideas. It would have been one, if the line had said: There are plenty of vacancies, but they're all filled. How can they be vacancies when they are filled – that would be the paradox. But here, there were vacancies and then, they were filled. That is a natural progression. Hence, Option D is the answer.

Choice (D)

DIRECTIONS for questions 7 to 9: The passage given below is accompanied by a set of three questions. Choose the best answer to each question.

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Q9. Which of the following best explains Niels Bohr's 'oxymoronic' reply, as defined in the passage?

- a) Bohr understands that his belief in the horseshoe is what brought him luck. Your answer is incorrect
- b) Bohr doesn't believe the horseshoe brings luck but understands that it brings luck whether he believes it or not.
- c) Bohr believes that the horseshoe brings luck only to those who believe it does.
- d) Bohr believes that the horseshoe doesn't bring luck irrespective of whether one understands it does or not.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	81
Avg. time spent on this question by all students	84
Difficulty Level	M
Avg. time spent on this question by students who got this question right	80
% of students who attempted this question	55.08
% of students who got the question right of those who attempted	82.6

[Video Solution](#)

[Text Solution](#)

Number of words: 324

Option A: Bohr doesn't have the belief that the horseshoe brings luck. Hence, the luck that he has had (attributed to his winning the Nobel) didn't come from his belief, but came irrespective of his lack of belief (based on his witty reply). Option A is not the answer.

Option B: The oxymoron in Bohr's wonderful repartee (witty reply) is that on one side he said, he doesn't believe that horseshoe brings luck and then sarcastically continued that he does understand he has had some luck (because he won the Nobel) and that luck came from the horseshoe, whether he believed in it or not. There is an obvious contradiction in ideas there (intended by Bohr for wit). You either believe that the horseshoe brings you luck or don't. You cannot say you don't believe in it, and yet say, it brought you luck. So, from what he said, 'Bohr doesn't believe the horseshoe brings luck' (from 'of course not') but understands the horseshoe does bring luck whether he believes it or not'. Option B is the answer.

Option C: According to Bohr's witty reply, the horseshoe brings luck irrespective of whether one believes in it or not. This contradicts the option. Hence, Option C is not the answer.

Option D: Bohr admitted the horseshoe brought him luck according to his witty reply. This clearly contradicts the statement 'Bohr believes that the horseshoe doesn't bring luck'. Hence, Option D is not the answer.

Choice (B)



undefined

DIRECTIONS for questions 10 to 15: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Alcohol is physically bad for you in any quantity; and the more you drink, the worse its health effects. A gigantic report on the subject published last week is unequivocal and authoritative. It makes depressing reading - "sobering" would be the wrong word here, not least because few people are likely to change their behaviour as a result. But it is difficult to argue with the conclusions. The report was based on enormous amounts of data: 28 million people around the world were examined in 592 studies to estimate the health risks, while the prevalence of drinking was estimated using a further 694 studies.

Some of the effects of large-scale drinking are really shocking. Around the world today, alcohol is responsible for 20% of the deaths in the 15 to 49 age group (the researchers include in this an estimate for the proportion of road traffic fatalities caused by drunk driving, though this is extrapolated from US data).

The variety of ways in which alcohol can kill or damage people comes as a shock. In the poorest countries, its primary means of damage is through TB; as countries grow more developed (and drink, on average, more) the damage shifts to cancer and heart disease. It is the trade-off between cancer and heart disease which leads the researchers to reject the notion that moderate drinking has health benefits compared with abstinence: they find that the increased risk of cancers outweighs the diminished risk of heart disease among middle-aged moderate drinkers.

Perhaps the most startling single finding is that two-thirds of the world's population don't drink at all. They manage without a drug apparently essential to civilised life in the west. The question is whether those of us in the other third should try to emulate them. The researchers are unequivocal. They want concerted government action to deliver lower alcohol consumption, using

many of the same mechanisms that have been successfully deployed against tobacco: price rises, restrictions on advertising; limiting the availability of the drug. Some of these look like common sense.

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But the report's concentration on the physical ill-effects of alcohol consumption leaves two important questions unanswered. The direct physical effects of the drug are not the reasons for its popularity or use. It is the effect on mood and even intellect that many people take it for. This isn't an entirely benevolent one. Drunken drivers, and drunken physical violence, cause immense suffering. The emotional damage that even high-functioning alcoholics do to their families is profound and lasting. Alcohol is bad for judgment and can promote a destructive solipsism. But it can also stimulate imagination, courage and friendship in a way that is hard to achieve otherwise. These are gifts that make life worth living. There is a reason why wine is tightly linked to paradise in religious poetry. Almost all human societies have used drugs for social purposes as well as individual pleasure. A world without drink might find itself poorer as well as richer.

The report is right that many people should drink less than they do. Almost everyone should drink less than they want to. Perhaps the real benefit of moderate drinking is not that it protects the heart, but that it requires a little self-discipline.

Q10. Which of the following can be understood from the author's statement: 'They manage without a drug apparently essential to civilised life in the west'?

- I.
Two-thirds of the world's population are not from the west.
 - II.
The west cannot survive without alcohol.
 - III.
It is not impossible to manage without alcohol.
 - IV.
Only those who consume alcohol can be called civilised in the west.
- a) I, II and III
- b) Only III Your answer is correct
- c) Only II
- d) I, III and IV

Time spent / Accuracy Analysis

Time taken by you to answer this question	203
Avg. time spent on this question by all students	361
Difficulty Level	D
Avg. time spent on this question by students who got this question right	347
% of students who attempted this question	57.76
% of students who got the question right of those who attempted	50.97

[Video Solution](#)

[Text Solution](#)

Number of words: 538

Perhaps the most startling single finding is that two-thirds of the world's population don't drink at all. They manage without a drug apparently essential to civilised life in the west. 'They' refers to the two-thirds of the world's population, which doesn't drink.

Statement I: They manage without the drug apparently essential for the civilised west – this proves that 'they' are different from what people following a civilised life in the west 'apparently do'. However, this doesn't confirm whether these people are from the West or from somewhere else. Hence, Statement I cannot be understood from the author's line.

Statement II: 'Apparently essential' is not equal to 'cannot survive'. Hence, Statement II cannot be understood.

Statement III: Two-thirds of the people manage without alcohol – this suggests that it is not impossible to manage without alcohol. Hence, Statement III can be understood.

Statement IV: Alcohol is the drug that is apparently essential for the civilised west. This doesn't mean that 'alcohol' is the parameter that makes the people 'civilised'. Those who are civilised drink – this statement cannot be equated to – those who don't drink are not civilised'. Hence, IV cannot be understood.

Only III can be understood from the author's statement. I, II and IV are false.

Choice (B)

undefined



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The report is right that many people should drink less than they do. Almost everyone should drink less than they want to. Perhaps the real benefit of moderate drinking is not that it protects the heart, but that it requires a little self-discipline.

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Q11. Which of the following questions need to be answered to evaluate the author's conclusion: "A world without drink might find itself poorer as well as richer"?

- a) Does alcohol trigger imagination and courage?
- b) Can imagination and courage offset the adverse impact of bad health?
- c) What is the increase in productivity of countries restricting alcohol consumption? Your answer is incorrect
- d) What is the government's revenue from taxing alcohol consumption?

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	318
Avg. time spent on this question by all students	114
Difficulty Level	D
Avg. time spent on this question by students who got this question right	128
% of students who attempted this question	55.44
% of students who got the question right of those who attempted	17.81

[Video Solution](#)

[Text Solution](#)



Number of words: 538

The author suggests that while alcohol does a lot of damage there are some positives as well (the presence of 'But' following the negativity is a good clue): '**But it can also stimulate imagination, courage and friendship** in a way that is hard to achieve otherwise. **These are gifts that make life worth living**. There is a reason why wine is tightly linked to paradise in religious poetry. Almost all human societies have used drugs for social purposes as well as individual pleasure. **A world without drink might find itself poorer as well as richer**.' It should be understood that the author doesn't talk about comparing the amount of good alcohol does versus the amount of bad it does. They are two separate entities. Absence of alcoholism will simply take away the good it does making the world poorer, while also making the world richer because of the bad effects which disappear too.

Option A: If the answer to the question is 'yes', it proves the author right because it would mean a world without drink (alcohol) is a poorer place. If the answer is 'no' it would prove the author wrong. So, the answer to this question will indeed help us evaluate the author's inference. Hence, Option A is the answer.

Option B: Whether the answer is true or false, it doesn't help us evaluate whether a world without drink will be poorer or richer. That is because to evaluate the conclusion we need to know whether the statement stub '**it can also stimulate imagination, courage and friendship** in a way that is hard to achieve otherwise' is true or false. We don't need to compare how much courage can offset the adverse impact. Hence, Option B is not the answer.

Option C: Productivity is not a parameter in the argument. Intellect is. So, whether alcohol is connected to productivity or not doesn't help us evaluate an argument about the world becoming poorer. This is because no direct connection can be made between productivity and any of the parameters mentioned like intellect, courage, imagination, etc. Hence, Option C is not the answer.

Option D: The government's revenue will not influence the author's evaluation because 'the world becoming poorer or richer' is a metaphorical reference (poorer implies less courage and imagination and less of the good alcohol does) and not a literal reference. Hence, Option D is not the answer.

Hence, the answer is option A.

Choice (A)



undefined

DIRECTIONS for questions 10 to 15: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

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Some of the effects of large-scale drinking are really shocking. Around the world today, alcohol is responsible for 20% of the deaths in the 15 to 49 age group (the researchers include in this an estimate for the proportion of road traffic fatalities caused by drunk driving, though this is extrapolated from US data).

The variety of ways in which alcohol can kill or damage people comes as a shock. In the poorest countries, its primary means of damage is through TB; as countries grow more developed (and drink, on average, more) the damage shifts to cancer and heart disease. It is the trade-off between cancer and heart disease which leads the researchers to reject the notion that moderate drinking has health benefits compared with abstinence: they find that the increased risk of cancers outweighs the diminished risk of heart disease among middle-aged moderate drinkers.

Perhaps the most startling single finding is that two-thirds of the world's population don't drink at all. They manage without a drug apparently essential to civilised life in the west. The question is whether those of us in the other third should try to emulate them. The researchers are unequivocal. They want concerted government action to deliver lower alcohol consumption, using many of the same mechanisms that have been successfully deployed against tobacco: price rises, restrictions on advertising; limiting the availability of the drug. Some of these look like common sense.

But the report's concentration on the physical ill-effects of alcohol consumption leaves two important questions unanswered. The direct physical effects of the drug are not the reasons for its popularity or use. It is the effect on mood and even intellect that many people take it for. This isn't an entirely benevolent one. Drunken drivers, and drunken physical violence, cause immense suffering. The emotional damage that even high-functioning alcoholics do to their families is profound and lasting. Alcohol is bad for judgment and can promote a destructive solipsism. But it can also stimulate imagination, courage and friendship in a way that is hard to achieve otherwise. These are gifts that make life worth living. There is a reason why wine is tightly linked to paradise in religious poetry. Almost all human societies have used drugs for social purposes as well as individual pleasure. A world without drink might find itself poorer as well as richer.

The report is right that many people should drink less than they do. Almost everyone should drink less than they want to. Perhaps the real benefit of moderate drinking is not that it protects the heart, but that it requires a little self-discipline.

Q12. Which of the following has not been suggested as a way of reducing alcohol consumption?

- a) Increasing the price of alcohol.
- b) Checks on the promotion of alcohol
- c) Hindering the availability of drugs to deal with alcoholism
- d) Self-discipline Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	132
Avg. time spent on this question by all students	72
Difficulty Level	M
Avg. time spent on this question by students who got this question right	74
% of students who attempted this question	67.42
% of students who got the question right of those who attempted	24.04

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 538

They want concerted government action to deliver lower alcohol consumption, using many of the same mechanisms that have been successfully deployed against tobacco: **price rises, restrictions on advertising; limiting the availability of the drug**. Some of these look like common sense.

Option A: From the underlined portion above, it can be understood that price rises have been suggested as a way of reducing alcohol consumption. Hence, Option A is not the answer.

Option B: 'Restrictions on advertising' proves that placing a check on the promotion of alcohol has been mentioned as a way of reducing consumption. Hence, Option B is not the answer.

Option C: The author doesn't talk about drugs to deal with alcoholism anywhere in the passage. In fact, it is alcohol which has been referred to as a 'drug' in the sentence '**limiting the availability of the drug**'. Hence, Option C is the answer.

Option D: From the statement 'Perhaps the real benefit of moderate drinking is not that it protects the heart, but that it requires a little self-discipline', it can be understood that the author feels self-discipline helps one to reduce consumption in alcohol. Hence, Option D is not the answer.

Choice (C)

undefined

DIRECTIONS for questions 10 to 15: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

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The report is right that many people should drink less than they do. Almost everyone should drink less than they want to. Perhaps the real benefit of moderate drinking is not that it protects the heart, but that it requires a little self-discipline.

Q13. Which of the following statements is the author most likely to disagree with based on the opinions and information given in the passage?

- a) Alcohol consumption shouldn't cross certain limits.
- b) Moderate alcohol consumption makes a person self-disciplined. Your answer is correct
- c) Abstinence from alcohol consumption may make the world less imaginative.
- d) Regulated alcohol consumption can stave off the risk of heart disease.

Time spent / Accuracy Analysis

Time taken by you to answer this question	106
Avg. time spent on this question by all students	106
Difficulty Level	D
Avg. time spent on this question by students who got this question right	98
% of students who attempted this question	60.8
% of students who got the question right of those who attempted	28.45

[Video Solution](#)

[Text Solution](#)

Number of words: 538

Option A: From the statements 'The report is right that many people should drink less than they do. Almost everyone should drink less than they want to', it can be understood that the author thinks there must be a limit to drinking. Hence, the author is likely to agree with the fact that limits shouldn't be crossed. Option A is not the answer.

Option B: In the last line of the passage, the author indicates that alcohol consumption can be moderated through self-discipline. 'Perhaps the real benefit of moderate drinking is not that it protects the heart, but that it requires a little self-discipline'. So, the author means to say 'it takes self-discipline to moderate drinking'. There is a cause-effect fallacy in this option which infers the statement as 'self-discipline' being an effect. It is actually the cause. Hence, the author may disagree with Option B.

Option C: 'A world without drink might find itself poorer' means less of the benefits of alcohol which include increase in courage and imagination. Hence, the author is unlikely to disagree with this statement. Option C is not the answer.

Option D: From 'They find that the increased risk of cancers outweighs the diminished risk of heart disease among middle-aged moderate drinkers', it can be understood that regulated (moderate) drinking has a positive effect in reducing heart disease. (Also note that this advantage is not positive enough given the bigger negative effect that alcohol has in causing cancer.) However, there is no denying that alcohol in moderation can reduce the risk of heart disease. Hence, Option D is not something the author will disagree with.

Therefore, the answer is option B.

Choice (B)



undefined

DIRECTIONS for questions 10 to 15: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Alcohol is physically bad for you in any quantity; and the more you drink, the worse its health effects. A gigantic report on the subject published last week is unequivocal and authoritative. It makes depressing reading - "sobering" would be the wrong word here, not least because few people are likely to change their behaviour as a result. But it is difficult to argue with the conclusions. The report was based on enormous amounts of data: 28 million people around the world were examined in 592 studies to estimate the health risks, while the prevalence of drinking was estimated using a further 694 studies.

Some of the effects of large-scale drinking are really shocking. Around the world today, alcohol is responsible for 20% of the deaths in the 15 to 49 age group (the researchers include in this an estimate for the proportion of road traffic fatalities caused by drunk driving, though this is extrapolated from US data).

The variety of ways in which alcohol can kill or damage people comes as a shock. In the poorest countries, its primary means of damage is through TB; as countries grow more developed (and drink, on average, more) the damage shifts to cancer and heart disease. It is the trade-off between cancer and heart disease which leads the researchers to reject the notion that moderate drinking has health benefits compared with abstinence: they find that the increased risk of cancers outweighs the diminished risk of heart disease among middle-aged moderate drinkers.

Perhaps the most startling single finding is that two-thirds of the world's population don't drink at all. They manage without a drug apparently essential to civilised life in the west. The question is whether those of us in the other third should try to emulate them. The researchers are unequivocal. They want concerted government action to deliver lower alcohol consumption, using many of the same mechanisms that have been successfully deployed against tobacco: price rises, restrictions on advertising; limiting the availability of the drug. Some of these look like common sense.

But the report's concentration on the physical ill-effects of alcohol consumption leaves two important questions unanswered. The direct physical effects of the drug are not the reasons for its popularity or use. It is the effect on mood and even intellect that many people take it for. This isn't an entirely benevolent one. Drunken drivers, and drunken physical violence, cause immense

suffering. The emotional damage that even high-functioning alcoholics do to their families is profound and lasting. Alcohol is bad for judgment and can promote a destructive solipsism. But it can also stimulate imagination, courage and friendship in a way that is hard to achieve otherwise. These are gifts that make life worth living. There is a reason why wine is tightly linked to paradise in religious poetry. Almost all human societies have used drugs for social purposes as well as individual pleasure. A world without drink might find itself poorer as well as richer.

The report is right that many people should drink less than they do. Almost everyone should drink less than they want to. Perhaps the real benefit of moderate drinking is not that it protects the heart, but that it requires a little self-discipline.

Q14. Which of the following cannot be inferred as a physical ill-effect associated with alcohol consumption in the passage?

- a) Drunken driving
- b) TB
- c) Cancer
- d) Heart disease Your answer is incorrect

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	21
Avg. time spent on this question by all students	60
Difficulty Level	M
Avg. time spent on this question by students who got this question right	59
% of students who attempted this question	66.93
% of students who got the question right of those who attempted	68.54

[Video Solution](#)

[Text Solution](#)



Number of words: 538

'But the report's concentration on the **physical ill effects of alcohol consumption** leaves two important questions unanswered. The **direct physical effects of the drug are not the reasons** for its popularity or use. It is **the effect on mood and even intellect** that many people take it for.' These sentences introduce the differentiation in effects of alcohol: physical and on mood and intellect.

Option A: From the statements, 'It is the effect on mood and even intellect that many people take it for. This isn't an entirely benevolent one. **Drunken drivers, and drunken physical violence**, cause immense suffering', it can be understood that drunken driving like drunken physical violence is caused by effect of alcohol on mood and intellect. Hence, it is not a physical ill-effect. Option A is the answer.

Option B: From the sentence, 'In the poorest countries, its primary means of damage is through TB', it can be understood that TB is one of the physical ill-effects associated with alcohol. Hence, Option B is not the answer.

Option C: 'As countries grow more developed (and drink, on average, more) the **damage shifts to cancer and heart disease**...they find that **the increased risk of cancers outweighs the diminished risk of heart disease among middle-aged moderate drinkers**' – there are two parts to this explanation. The increased risk of cancer has been associated as a physical effect. Hence, Option C is not the answer.

Option D: There are two parts to understanding this answer. Firstly, heart disease has been mentioned as a physical risk in the sentence: 'the **damage shifts to cancer and heart disease**'. One could be misled by the part of the statement that says '**the increased risk of cancers outweighs the diminished risk of heart disease among middle-aged moderate drinkers**' into thinking alcohol doesn't cause heart disease but reduces. But, if we put the first statement and the second together, it can be inferred that alcohol does lead to heart disease, but ONLY **in middle-aged moderate drinkers** it diminishes the risk of heart disease. Also, inn 'Perhaps the real benefit of moderate drinking is not that it protects the heart' only moderate drinking has been stressed. Hence, Option D is not the answer.

Choice (A)



undefined

DIRECTIONS for questions 10 to 15: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Alcohol is physically bad for you in any quantity; and the more you drink, the worse its health effects. A gigantic report on the subject published last week is unequivocal and authoritative. It makes depressing reading - "sobering" would be the wrong word here, not least because few people are likely to change their behaviour as a result. But it is difficult to argue with the conclusions. The report was based on enormous amounts of data: 28 million people around the world were examined in 592 studies to estimate the health risks, while the prevalence of drinking was estimated using a further 694 studies.

Some of the effects of large-scale drinking are really shocking. Around the world today, alcohol is responsible for 20% of the deaths in the 15 to 49 age group (the researchers include in this an estimate for the proportion of road traffic fatalities cause by drunk driving, though this is extrapolated from US data).

The variety of ways in which alcohol can kill or damage people comes as a shock. In the poorest countries, its primary means of damage is through TB; as countries grow more developed (and drink, on average, more) the damage shifts to cancer and heart disease. It is the trade-off between cancer and heart disease which leads the researchers to reject the notion that moderate drinking has health benefits compared with abstinence: they find that the increased risk of cancers outweighs the diminished risk

of heart disease among middle-aged moderate drinkers.

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Perhaps the most startling single finding is that two-thirds of the world's population don't drink at all. They manage without a drug apparently essential to civilised life in the west. The question is whether those of us in the other third should try to emulate them. The researchers are unequivocal. They want concerted government action to deliver lower alcohol consumption, using many of the same mechanisms that have been successfully deployed against tobacco: price rises, restrictions on advertising; limiting the availability of the drug. Some of these look like common sense.

But the report's concentration on the physical ill-effects of alcohol consumption leaves two important questions unanswered. The direct physical effects of the drug are not the reasons for its popularity or use. It is the effect on mood and even intellect that many people take it for. This isn't an entirely benevolent one. Drunken drivers, and drunken physical violence, cause immense suffering. The emotional damage that even high-functioning alcoholics do to their families is profound and lasting. Alcohol is bad for judgment and can promote a destructive solipsism. But it can also stimulate imagination, courage and friendship in a way that is hard to achieve otherwise. These are gifts that make life worth living. There is a reason why wine is tightly linked to paradise in religious poetry. Almost all human societies have used drugs for social purposes as well as individual pleasure. A world without drink might find itself poorer as well as richer.

The report is right that many people should drink less than they do. Almost everyone should drink less than they want to. Perhaps the real benefit of moderate drinking is not that it protects the heart, but that it requires a little self-discipline.

Q15. All the following are true according to the passage EXCEPT:

- a) **Alcohol is responsible for 20% of the deaths in the 15 to 49 age group.**
- b) **Alcohol is consumed for its probable effects on mood and intellect.**
- c) **The effect of alcohol on a drinker depends on whether the drinker is from a rich or a poor country.** Your answer is correct
- d) **Moderate drinkers are at a lower risk of heart diseases than non-drinkers.**

Time spent / Accuracy Analysis

Time taken by you to answer this question

Avg. time spent on this question by all students

Difficulty Level

Avg. time spent on this question by students who got this question right 79

% of students who attempted this question 65.86

% of students who got the question right of those who attempted 63.79

[Video Solution](#)

[Text Solution](#)

Number of words: 538

Option A: This can be understood from the sentence: 'Around the world today, alcohol is responsible for 20% of the deaths in the 15 to 49 age group'. Hence, Option A is not the answer.

Option B: From the sentence, 'The direct physical effects of the drug are not the reasons for its popularity or use. **It is the effect on mood and even intellect** that many people take it for', we can understand that alcohol is consumed for the probable effects on mood and intellect (rather than physical effects). Hence, Option B is not the answer.

Option C: It is not the effect of alcohol that varies from person to person or country to country. From the sentence, 'In the poorest countries, its primary means of damage is through TB; as countries grow more developed (and drink, on average, more) the damage shifts to cancer and heart disease', we can understand that people drink more on average in developed countries because of which alcohol damage shifts from TB to cancer. So, the damage is with respect to how much people drink in poor and rich countries and what more or less drinking could lead to. Hence, Option C is the answer.

Option D: From 'they find that the increased risk of cancers outweighs **the diminished risk of heart disease among middle-aged moderate drinkers**' and 'Perhaps the real benefit of moderate drinking is not that it protects the heart', we can understand that there are benefits of moderate drinking as far as reducing the risk of heart disease is concerned.

[Note: The passage also goes ahead and asserts that this benefit may be outweighed(meaning off-set – the risk of cancer is much higher and that balances the probable good alcohol does with respect to heart diseases) by other risks and advantages (the benefit of alcohol is not so much that it helps reduce the risk of heart disease but that it needs self-discipline. In other words, one gains more in terms of self-discipline than in terms of reduced heart disease when indulging in moderate drinking.) Hence, Option D is not the answer.

Choice (C)

undefined



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

Almost 20% of Britons aged 18 and over are estimated to have a tattoo. A furtive recce at my gym suggests more women have tattoos than don't; the real distinction is level of commitment. The woman I saw last week, with the elaborately shaded Illuminati eye across her décolletage? She had committed. Me, with my line drawing no larger than a credit card, placed just so on my ribs - not so much. And that had felt like a leap.

A tattoo does not inspire trepidation in everyone. My colleague seems to have easily acquired four or five tattoos in a matter of months. But for years I couldn't get past the question: "What if I regret it later?"

People do - at least the 1,000 of them in the UK who were recently surveyed about it for Casino.org. A fifth said they'd spent "no time at all" settling on the tattoo they now regret. Star constellations, Asian characters and tribal designs did not age well beyond a split-second decision...

But as the idea settled in my mind, the unequivocal indelibility of a tattoo became a selling point. I was 26, about to move away from my family. I was leaving a permanent job for a contract; I was not in a relationship; I was nowhere near home ownership, or even dog ownership.

There wasn't much in my life that felt permanent, and it had recently dawned on me that maybe there never would be. For the first time a tattoo felt like a desirably declarative statement, a steady stake in the ground. It was not often that I agreed with Lena Dunham, but her explanation for her tens of tattoos appealed: "I think it gives me a sense of control and ownership of a body that's often beyond my control." Not just a body. A life.

Q16. The colleague's case discussed by the author demonstrates which of the following?

- a) Not everyone is obsessed with tattoos.
- b) Tattoos are sported by intrepid people.

- c) Getting multiple tattoos is an exception rather than a norm.
- d) Not everyone gets anxious about getting tattoos. Your answer is correct

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Time spent / Accuracy Analysis

Time taken by you to answer this question	131
Avg. time spent on this question by all students	222
Difficulty Level	E
Avg. time spent on this question by students who got this question right	210
% of students who attempted this question	48.98
% of students who got the question right of those who attempted	70.17

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 305

A tattoo does not inspire trepidation in everyone. My colleague seems to have easily acquired four or five tattoos in a matter of months. But for years I couldn't get past the question: "What if I regret it later?" The colleague's example has been sandwiched between two interconnected lines. A tattoo doesn't make everyone trepid (fear). And the author seems to ask the question about regret. So, the colleague 'easily' acquiring 4-5 tattoos in a matter of months (the author seems to indicate this is a small-time frame) will mean tattoo doesn't make everyone nervous.

Option A: Tattoo obsession isn't being discussed in the context. Instead we are discussing tattoo-anxiety. Hence, Option A is not the answer.

Option B: 'Intrepid' means fearless. The passage says 'A tattoo does not inspire trepidation (fear) in everyone. This does not mean the reverse is true – that people who sport tattoos are fearless. The example of the colleague was not to show that fearless people sport tattoos but to show that 'not everyone seems to be afraid of sporting tattoos'. Hence, Option B is not the answer.

Option C: We cannot hastily generalize anything about norms or exceptions. One person getting 4-5 tattoos was cited to suggest not everyone seems to be worried. We do not have enough information to infer whether it is a norm or an exception. The tone of the author however, does seem to suggest that it is not an exception. Hence, Option C is not the answer.

Option D: Not everyone seems to get anxious about tattoos e.g. the colleague who got 4-5 tattoos. This is the general line of thought used by the author. Hence, Option D is the answer.

Choice (D)

undefined

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

Almost 20% of Britons aged 18 and over are estimated to have a tattoo. A furtive recce at my gym suggests more women have tattoos than don't; the real distinction is level of commitment. The woman I saw last week, with the elaborately shaded Illuminati eye across her décolletage? She had committed. Me, with my line drawing no larger than a credit card, placed just so on my ribs - not so much. And that had felt like a leap.

A tattoo does not inspire trepidation in everyone. My colleague seems to have easily acquired four or five tattoos in a matter of months. But for years I couldn't get past the question: "What if I regret it later?"

People do - at least the 1,000 of them in the UK who were recently surveyed about it for Casino.org. A fifth said they'd spent "no time at all" settling on the tattoo they now regret. Star constellations, Asian characters and tribal designs did not age well beyond a split-second decision...

But as the idea settled in my mind, the unequivocal indelibility of a tattoo became a selling point. I was 26, about to move away from my family. I was leaving a permanent job for a contract; I was not in a relationship; I was nowhere near home ownership, or even dog ownership.

There wasn't much in my life that felt permanent, and it had recently dawned on me that maybe there never would be. For the

first time a tattoo felt like a desirably declarative statement, a steadyng stake in the ground. It was not often that I agreed with Lena Dunham, but her explanation for her tens of tattoos appealed: "I think it gives me a sense of control and ownership of a body that's often beyond my control." Not just a body. A life.

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Q17. Which of the following inferences can be drawn from the third para: 'People do...split-second decision'?

- a) **Tattoos don't age well beyond a split-second decision.**
- b) **It's possible to regret tattoos one gets on a whim.**
- c) **Settling on which tattoo one wants doesn't take time.**
- d) **All those who don't spend time settling on a tattoo will regret it later.** Your answer is incorrect

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	114
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	81
% of students who attempted this question	52.33
% of students who got the question right of those who attempted	63.31

[Video Solution](#)

[Text Solution](#)



Number of words: 305

A: Only some tattoos like 'Star constellations, Asian characters and tribal designs did not age well beyond a split-second decision'. A generalised statement about all tattoos cannot be made. Hence, Option A is not the answer.

Option B: From the given statement that a fifth of the people surveyed took no time at all settling on a tattoo that they now regret, it can be understood that some people who got the tattoo on a whim or on impulse (having taken no time deciding about it) regret it. (Please note this is different from saying they got a tattoo on impulse. They might have taken a long time deciding whether to get a tattoo or not but once they made up their mind, they may not have taken any time to arrive at the tattoo they want.) Option B is the answer.

Option C: Not everyone takes impulsive decisions with respect to tattoos. Only a fifth of those who were surveyed (and regret the tattoos) didn't take time. So, the hasty generalisation that settling on which tattoo one wants doesn't take time, is incorrect. Option C is not the answer.

Option D: From 'A fifth said they'd spent "no time at all" settling on the tattoo they now regret', we can decipher neither that 'all those' who don't spend time settling on a tattoo will regret it later, nor that 'all those who regret tattoos now, didn't spend any time settling on a tattoo. 'People do' regret as per the passage and a fifth of them (the ones surveyed and were regretting) didn't spend any time on deciding upon the tattoo. So, extrapolating it to 'all' is not accurate. Hence, Option D is not the answer.

Choice (B)



undefined

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

Almost 20% of Britons aged 18 and over are estimated to have a tattoo. A furtive recce at my gym suggests more women have tattoos than don't; the real distinction is level of commitment. The woman I saw last week, with the elaborately shaded Illuminati eye across her décolletage? She had committed. Me, with my line drawing no larger than a credit card, placed just so on my ribs - not so much. And that had felt like a leap.

A tattoo does not inspire trepidation in everyone. My colleague seems to have easily acquired four or five tattoos in a matter of months. But for years I couldn't get past the question: "What if I regret it later?"

People do - at least the 1,000 of them in the UK who were recently surveyed about it for Casino.org. A fifth said they'd spent "no time at all" settling on the tattoo they now regret. Star constellations, Asian characters and tribal designs did not age well beyond a split-second decision...

But as the idea settled in my mind, the unequivocal indelibility of a tattoo became a selling point. I was 26, about to move away from my family. I was leaving a permanent job for a contract; I was not in a relationship; I was nowhere near home ownership, or even dog ownership.

There wasn't much in my life that felt permanent, and it had recently dawned on me that maybe there never would be. For the first time a tattoo felt like a desirably declarative statement, a steady stake in the ground. It was not often that I agreed with Lena Dunham, but her explanation for her tens of tattoos appealed: "I think it gives me a sense of control and ownership of a body that's often beyond my control." Not just a body. A life.

Q18. All the following were mentioned by author as reasons why the indelibility of tattoos became a selling point EXCEPT:

- a) The author had to give up on his/her home ownership. Your answer is correct
- b) Not much in the author's life had a sense of permanence.
- c) The author picked a contract job over a permanent one.
- d) The author wasn't in a relationship.

Time spent / Accuracy Analysis

Time taken by you to answer this question	178
Avg. time spent on this question by all students	85
Difficulty Level	E
Avg. time spent on this question by students who got this question right	82
% of students who attempted this question	53.2
% of students who got the question right of those who attempted	68.18

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 305

But as the idea settled in my mind, the unequivocal indelibility of a tattoo became a selling point. I was 26, about to move away from my family. I was leaving a permanent job for a contract; I was not in a relationship; I was nowhere near home ownership, or even dog ownership. There wasn't much in my life that felt permanent, and it had recently dawned on me that maybe there never would be. For the first time a tattoo felt like a desirably declarative statement, a steady stake in the ground.

Between the two underlined portions above are the reasons why the indelibility of a tattoo became a selling point for the author.

Option A: 'I was nowhere near home ownership, or even dog ownership' means that the author still hasn't a home or a dog. It doesn't mean the author is 'giving up' on his/her home. Option D is not one of the reasons why the indelibility of a tattoo became a selling point. Therefore, Option A is the answer.

Option B: This has been mentioned in the lines above (first italicised). Hence, it is not the answer.

Option C: This has been mentioned in the lines above (second italicised line). Hence, it is not the answer.

Option D: This has been mentioned in the lines above (third italicised). Hence, it is not the answer.

Hence, the correct answer is option A.

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.

It is almost four decades since Blue Peter editor Biddy Baxter found out about a new survey being run by the Royal Society for the Protection of Birds (RSPB). The idea was that junior birdwatchers would count the birds in their gardens, to find out which were the 10 most common species. After Ms Baxter featured it on the television programme, 34,000 children joined in, and the Great Garden Birdwatch has run every year since.

Volunteers and amateurs without scientific training have long had a crucial role to play in nature conservation. Over the last decade, such efforts have increasingly been grouped under the heading of citizen science. Provided you are somewhere in the

Butterflies, like nearly all wildlife, are having a rough time. Since the heatwave summer of 1976, we have lost around half of our abundant butterflies - the generalist species found in gardens, parks and countryside all over the UK - and three quarters of our habitat specialists - those butterflies that rely on rarer plants and settings for their food. As with wild birds, intensive farming is the main cause, with recent evidence suggesting that the introduction of neonicotinoid pesticides in the 1990s may also have been a factor.

It's not all bad news: broadly speaking, British butterflies are thought to be among climate change's winners, because the UK is in the northern range of most of the 59 species that live here, meaning rising temperatures can enable them to move into new territory. This summer the marbled white, purple emperor and black hairstreak are doing well, while the warm spring provided a boost for the most endangered of all British butterflies: the high brown fritillary. But the drought conditions are perilous for caterpillars, since many of the plants and grasses they feed on have dried out, and this year's warm and sunny boom could well be followed by a 2019 bust.

Big fluctuations in populations are normal for butterflies, so conservationists focus on longer-term trends. But the count - run by the charity **Butterfly Conservation**, which is 50 this year and also focuses on moths - produces valuable information about how butterflies are doing in greenspaces such as urban gardens that conservationists are usually unable to access.

The delicacy and glorious colour of butterflies, and their metamorphosis from creepy-crawly caterpillars to gorgeous, fluttering butterflies, has won them far more affection and prominence in human minds than other insects. Because of the long tradition of collecting and observing them, British butterflies are the most studied group of insects in the world. Though ants, bees and others have their champions, this realm of the animal kingdom is often overlooked by humans, and sometimes disliked. Butterflies should be the ambassadors for the insect world. This would augur well for this often overlooked realm.

Q19. A consequence of Ms Baxter finding out about the new survey by the RSPB, as can be inferred from the passage, is that

- a) the role of amateurs without scientific training became crucial in nature conservation.
- b) it led to the inception of the Great Garden Birdwatch. Your answer is incorrect
- c) it led to an increase in the number of participants in the survey.
- d) children started to participate in the survey.

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	139
Avg. time spent on this question by all students	302
Difficulty Level	M
Avg. time spent on this question by students who got this question right	307
% of students who attempted this question	49.12
% of students who got the question right of those who attempted	26.28

[Video Solution](#)

[Text Solution](#)

Number of words: 478

The editor of Blue Peter featured the survey on the television programme, Blue Peter. Following this, 34,000 children joined in.

Option A: The author mentions that amateurs "have **long had** a crucial role to play in nature conservation". However, there is no link mentioned in the passage between the featuring of this survey on Blue Peter and the role of amateurs in nature conservation. Further, they long had a crucial role implies that their role was crucial well before this survey was featured. Hence, this cannot be a consequence.

Option B: The survey was started by the RSPB, which was found by the editor of Blue Peter. The editor featured it after the survey was started and hence, the inception of "Great Garden Birdwatch" cannot be attributed to this.

Option C: It is given that after Ms. Baxter featured the survey, 34000 children joined in. We can infer that these children joined in because of the survey featuring in Blue Peter. Therefore, a consequence of the survey featuring in the programme is an increase in the number of participants.

Option D: The new survey was aimed at "**junior** birdwatchers" who "would count the birds in their gardens". Since it was aimed at junior birdwatchers, we cannot infer that children **started to** participate in the survey. Hence, this option is incorrect.

Therefore, the correct answer is option C.

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.

It is almost four decades since Blue Peter editor Biddy Baxter found out about a new survey being run by the Royal Society for the Protection of Birds (RSPB). The idea was that junior birdwatchers would count the birds in their gardens, to find out which were the 10 most common species. After Ms Baxter featured it on the television programme, 34,000 children joined in, and the Great Garden Birdwatch has run every year since.

Volunteers and amateurs without scientific training have long had a crucial role to play in nature conservation. Over the last decade, such efforts have increasingly been grouped under the heading of citizen science. Provided you are somewhere in the UK, this is a good time to join the Big Butterfly Count - the younger cousin of the birdwatch.

Butterflies, like nearly all wildlife, are having a rough time. Since the heatwave summer of 1976, we have lost around half of our abundant butterflies - the generalist species found in gardens, parks and countryside all over the UK - and three quarters of our habitat specialists - those butterflies that rely on rarer plants and settings for their food. As with wild birds, intensive farming is the main cause, with recent evidence suggesting that the introduction of neonicotinoid pesticides in the 1990s may also have been a factor.

It's not all bad news: broadly speaking, British butterflies are thought to be among climate change's winners, because the UK is in the northern range of most of the 59 species that live here, meaning rising temperatures can enable them to move into new territory. This summer the marbled white, purple emperor and black hairstreak are doing well, while the warm spring provided a boost for the most endangered of all British butterflies: the high brown fritillary. But the drought conditions are perilous for caterpillars, since many of the plants and grasses they feed on have dried out, and this year's warm and sunny boom could well be followed by a 2019 bust.

Big fluctuations in populations are normal for butterflies, so conservationists focus on longer-term trends. But the count - run by the charity Butterfly Conservation, which is 50 this year and also focuses on moths - produces valuable information about how butterflies are doing in greenspaces such as urban gardens that conservationists are usually unable to access.

The delicacy and glorious colour of butterflies, and their metamorphosis from creepy-crawly caterpillars to gorgeous, fluttering butterflies, has won them far more affection and prominence in human minds than other insects. Because of the long tradition of collecting and observing them, British butterflies are the most studied group of insects in the world. Though ants, bees and others have their champions, this realm of the animal kingdom is often overlooked by humans, and sometimes disliked. Butterflies should be the ambassadors for the insect world. This would augur well for this often overlooked realm.

Q20. It can be understood from the third para of the passage that

- a) abundant butterflies include the generalist species and the habitat specialists.

b) the heatwave of the summer of 1976 led to the loss of half of the abundant butterflies and three-quarters of the habitat specialists.

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c) the use of neonicotinoid pesticides led to the loss of many butterfly species.

d) intensive farming has led to the loss of both wild birds and butterflies. Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	163
Avg. time spent on this question by all students	116
Difficulty Level	M
Avg. time spent on this question by students who got this question right	121
% of students who attempted this question	53.24
% of students who got the question right of those who attempted	27.32

[Video Solution](#)

Text Solution

Number of words and Explanatory notes for RC:

Number of words: 478

In the third para, the author mentions that since the summer of 1976, "we have lost around **half of our abundant butterflies** – the generalist species found in gardens, parks and countryside all over the UK – and **three quarters of our habitat specialists** – those butterflies that rely on rarer plants and settings for their food".

Option A: The passage talks about two types of butterflies – the abundant butterflies, which are the generalist species, and the habitat specialists. From this, we can understand that the abundant butterflies and habitat specialists are different. Hence, this option is incorrect.

Option B: "Since the heatwave summer of 1976", a large number of butterflies has been lost. However, this cannot be taken to mean that the heatwave was the reason for the loss of half the abundant butterflies and three quarters the habitat specialists. In fact, in the subsequent part of the same para, the author attributes the main cause to "intensive farming". Hence, this is not true.

Option C: According to the passage, recent evidence suggests that "introduction of neonicotinoid pesticides in the 1990s may also have been a factor". From this, we cannot say that neonicotinoid pesticides led to the loss of butterfly species. Hence, this option is incorrect.

Option D: The author mentions that "As with wild birds, intensive farming is the main cause". From this we can infer that butterflies and wild bird have suffered similarly because of intensive farming. Hence, this is the correct 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.

It is almost four decades since Blue Peter editor Biddy Baxter found out about a new survey being run by the Royal Society for the Protection of Birds (RSPB). The idea was that junior birdwatchers would count the birds in their gardens, to find out which were the 10 most common species. After Ms Baxter featured it on the television programme, 34,000 children joined in, and the Great Garden Birdwatch has run every year since.

Volunteers and amateurs without scientific training have long had a crucial role to play in nature conservation. Over the last decade, such efforts have increasingly been grouped under the heading of citizen science. Provided you are somewhere in the UK, this is a good time to join the Big Butterfly Count - the younger cousin of the birdwatch.

Butterflies, like nearly all wildlife, are having a rough time. Since the heatwave summer of 1976, we have lost around half of our abundant butterflies - the generalist species found in gardens, parks and countryside all over the UK - and three quarters of our habitat specialists - those butterflies that rely on rarer plants and settings for their food. As with wild birds, intensive farming is the main cause, with recent evidence suggesting that the introduction of neonicotinoid pesticides in the 1990s may also have been a factor.

It's not all bad news: broadly speaking, British butterflies are thought to be among climate change's winners, because the UK is

in the northern range of most of the 59 species that live here, meaning rising temperatures can enable them to move into new territory. This summer the marbled white, purple emperor and black hairstreak are doing well, while the warm spring provided a boost for the most endangered of all British butterflies: the high brown fritillary. But the drought conditions are perilous for caterpillars, since many of the plants and grasses they feed on have dried out, and this year's warm and sunny boom could well be followed by a 2019 bust.

Big fluctuations in populations are normal for butterflies, so conservationists focus on longer-term trends. But the count - run by the charity Butterfly Conservation, which is 50 this year and also focuses on moths - produces valuable information about how butterflies are doing in greenspaces such as urban gardens that conservationists are usually unable to access.

The delicacy and glorious colour of butterflies, and their metamorphosis from creepy-crawly caterpillars to gorgeous, fluttering butterflies, has won them far more affection and prominence in human minds than other insects. Because of the long tradition of collecting and observing them, British butterflies are the most studied group of insects in the world. Though ants, bees and others have their champions, this realm of the animal kingdom is often overlooked by humans, and sometimes disliked. Butterflies should be the ambassadors for the insect world. This would augur well for this often overlooked realm.

Q21. "It's not all bad news" Which of the following best captures what the author considers not a bad news?

- a) Butterflies are capable of migrating to areas of high temperature, if it becomes too cold in the areas that they usually occupy.
- b) Most of the species of butterflies live in the southern part of the UK.
- c) The warm climate has resulted in a boost in the numbers of some species of butterflies. Your answer is correct
- d) The rising temperatures not only help boost the butterfly population but also help tackle the pestilence of caterpillars.

Time spent / Accuracy Analysis

Time taken by you to answer this question	117
Avg. time spent on this question by all students	131
Difficulty Level	D
Avg. time spent on this question by students who got this question right	135
% of students who attempted this question	47.63
% of students who got the question right of those who attempted	58.89

[Video Solution](#)

[Text Solution](#)

Number of words: 478

After discussing the dwindling butterfly population, the author talks about how it is not all bad news. The warm summer has opened up new areas for them and has helped in boosting the numbers of a few butterflies.

Option A: From this para, we can infer that butterflies can migrate to areas that are opened up because of the rising temperatures. However, this capability for migration is what the butterflies can do and, by itself, cannot be classified as good news. This capability coupled with the migration of butterflies into new areas may result in the increase in the numbers of butterflies.

Option B: According to the passage, "the UK is in the northern range of most of the 59 species that live here". This fact is only a contributing factor which led to the increase in the number of a few species of butterflies. Hence, this option cannot be called good news.

Option C: The passage mentions that "This summer the marbled white, purple emperor and black hairstreak are doing well, while the warm spring provided a boost for the most endangered of all British butterflies: the high brown fritillary". Since the previous paragraph talks about how the numbers of butterfly population is decreasing (which the author considers as bad news), the good news must also talk about how the numbers increased. Hence, this is the good news that the author is talking about.

Option D: We can infer that the rising temperature helped boost the numbers of butterfly population and also that it is dangerous for caterpillars. However, the author does not consider caterpillars to be a pestilence. The conjunction **but** in the statement "**But the drought conditions are perilous**" indicates that the author does not consider this as a favourable outcome. Hence, this is not the correct answer.

Therefore, the correct answer is option C.

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.

It is almost four decades since Blue Peter editor Biddy Baxter found out about a new survey being run by the Royal Society for the Protection of Birds (RSPB). The idea was that junior birdwatchers would count the birds in their gardens, to find out which were the 10 most common species. After Ms Baxter featured it on the television programme, 34,000 children joined in, and the Great Garden Birdwatch has run every year since.

Volunteers and amateurs without scientific training have long had a crucial role to play in nature conservation. Over the last decade, such efforts have increasingly been grouped under the heading of citizen science. Provided you are somewhere in the UK, this is a good time to join the Big Butterfly Count - the younger cousin of the birdwatch.

Butterflies, like nearly all wildlife, are having a rough time. Since the heatwave summer of 1976, we have lost around half of our abundant butterflies - the generalist species found in gardens, parks and countryside all over the UK - and three quarters of our habitat specialists - those butterflies that rely on rarer plants and settings for their food. As with wild birds, intensive farming is the main cause, with recent evidence suggesting that the introduction of neonicotinoid pesticides in the 1990s may also have

been a factor.

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It's not all bad news: broadly speaking, British butterflies are thought to be among climate change's winners, because the UK is in the northern range of most of the 59 species that live here, meaning rising temperatures can enable them to move into new territory. This summer the marbled white, purple emperor and black hairstreak are doing well, while the warm spring provided a boost for the most endangered of all British butterflies: the high brown fritillary. But the drought conditions are perilous for caterpillars, since many of the plants and grasses they feed on have dried out, and this year's warm and sunny boom could well be followed by a 2019 bust.

Big fluctuations in populations are normal for butterflies, so conservationists focus on longer-term trends. But the count - run by the charity Butterfly Conservation, which is 50 this year and also focuses on moths - produces valuable information about how butterflies are doing in greenspaces such as urban gardens that conservationists are usually unable to access.

The delicacy and glorious colour of butterflies, and their metamorphosis from creepy-crawly caterpillars to gorgeous, fluttering butterflies, has won them far more affection and prominence in human minds than other insects. Because of the long tradition of collecting and observing them, British butterflies are the most studied group of insects in the world. Though ants, bees and others have their champions, this realm of the animal kingdom is often overlooked by humans, and sometimes disliked. Butterflies should be the ambassadors for the insect world. This would augur well for this often overlooked realm.

Q22. Which of the following can be inferred from the statement "this year's warm and sunny boom... bust"?

- a) The butterfly population may decrease in 2019 because of the drought conditions this year.
- b) The butterfly population may increase in 2019 but the population of caterpillars may plummet.
- c) The drought conditions may result in the extinction of the high brown fritillary.
- d) The summer of 2019 may not be as warm and sunny as the summer of this year resulting in the decrease of butterfly population.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question

Avg. time spent on this question by all students

Difficulty Level

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

% of students who attempted this question

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

148

100

D

94

42.23

51.4

[Video Solution](#)

[Text Solution](#)

Number of words: 478

In the third para, the author talks about how the rising temperatures have helped increase the butterfly population. He also mentions about this climate to be ***perilous*** for caterpillars. He finished this para by saying that "this year's warm and sunny ***boom*** could well be followed by a 2019 ***bust***". We can understand that the boom refers to the increase in population, while the bust refers to a decrease in population.

Option A: From the statement, "But the drought conditions are perilous for caterpillars, since many of the plants and grasses they feed on have dried out, and this year's warm and sunny boom could well be followed by a 2019 bust", we can understand that the 2019 bust that the author is talking about is related to the perilous conditions for caterpillar. To understand about the 2019 bust, the last paragraph provides a clue: "***their metamorphosis from creepy-crawly caterpillars to gorgeous, fluttering butterflies***". From this we can infer that the caterpillars metamorphose into butterflies. Since the drought conditions adversely affect the population of caterpillars this year, the population of butterflies may decrease next year because less number of caterpillars will turn into butterflies. Hence, this option is the correct answer.

Option B: The author does not predict anything about the population of caterpillars in 2019. We cannot infer that the 2019 bust refers to the decrease in the population of caterpillars because, in the statement "this year's warm and sunny boom could well be followed by a 2019 bust", the boom refers to the increase in butterfly population. The bust cannot refer to another species (i.e., caterpillars), since the focus of the passage is on butterflies. Hence, this option is incorrect.

Option C: The given statement does not refer to any particular species of butterfly and hence, we cannot infer the statement given in this option.

Option D: The second part of this option is true. The 2019 bust refers to a decrease in the butterfly population. However, the reason presented in this option is not necessarily true. The author does not make any predictions about the summer of next year. He links the population of caterpillars this year to the population of butterflies next year. Hence, this option cannot be inferred.

Therefore, the correct answer is option A.

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.

It is almost four decades since Blue Peter editor Biddy Baxter found out about a new survey being run by the Royal Society for the Protection of Birds (RSPB). The idea was that junior birdwatchers would count the birds in their gardens, to find out which were the 10 most common species. After Ms Baxter featured it on the television programme, 34,000 children joined in, and the Great Garden Birdwatch has run every year since.

Volunteers and amateurs without scientific training have long had a crucial role to play in nature conservation. Over the last decade, such efforts have increasingly been grouped under the heading of citizen science. Provided you are somewhere in the

Butterflies, like nearly all wildlife, are having a rough time. Since the heatwave summer of 1976, we have lost around half of our abundant butterflies - the generalist species found in gardens, parks and countryside all over the UK - and three quarters of our habitat specialists - those butterflies that rely on rarer plants and settings for their food. As with wild birds, intensive farming is the main cause, with recent evidence suggesting that the introduction of neonicotinoid pesticides in the 1990s may also have been a factor.

It's not all bad news: broadly speaking, British butterflies are thought to be among climate change's winners, because the UK is in the northern range of most of the 59 species that live here, meaning rising temperatures can enable them to move into new territory. This summer the marbled white, purple emperor and black hairstreak are doing well, while the warm spring provided a boost for the most endangered of all British butterflies: the high brown fritillary. But the drought conditions are perilous for caterpillars, since many of the plants and grasses they feed on have dried out, and this year's warm and sunny boom could well be followed by a 2019 bust.

Big fluctuations in populations are normal for butterflies, so conservationists focus on longer-term trends. But the count - run by the charity **Butterfly Conservation**, which is 50 this year and also focuses on moths - produces valuable information about how butterflies are doing in greenspaces such as urban gardens that conservationists are usually unable to access.

The delicacy and glorious colour of butterflies, and their metamorphosis from creepy-crawly caterpillars to gorgeous, fluttering butterflies, has won them far more affection and prominence in human minds than other insects. Because of the long tradition of collecting and observing them, British butterflies are the most studied group of insects in the world. Though ants, bees and others have their champions, this realm of the animal kingdom is often overlooked by humans, and sometimes disliked. Butterflies should be the ambassadors for the insect world. This would augur well for this often overlooked realm.

Q22. Which of the following can be inferred from the statement "this year's warm and sunny boom... bust"?

- a) The butterfly population may decrease in 2019 because of the drought conditions this year.
- b) The butterfly population may increase in 2019 but the population of caterpillars may plummet.
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- d) The summer of 2019 may not be as warm and sunny as the summer of this year resulting in the decrease of butterfly population.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	148
Avg. time spent on this question by all students	100
Difficulty Level	D
Avg. time spent on this question by students who got this question right	94
% of students who attempted this question	42.23
% of students who got the question right of those who attempted	51.4

[Video Solution](#)

[Text Solution](#)

Number of words: 478

In the third para, the author talks about how the rising temperatures have helped increase the butterfly population. He also mentions about this climate to be **perilous** for caterpillars. He finished this para by saying that "this year's warm and sunny **boom** could well be followed by a 2019 **bust**". We can understand that the boom refers to the increase in population, while the bust refers to a decrease in population.

Option A: From the statement, "But the drought conditions are perilous for caterpillars, since many of the plants and grasses they feed on have dried out, and this year's warm and sunny boom could well be followed by a 2019 bust", we can understand that the 2019 bust that the author is talking about is related to the perilous conditions for caterpillar. To understand about the 2019 bust, the last paragraph provides a clue: "**their metamorphosis from creepy-crawly caterpillars to gorgeous, fluttering butterflies**". From this we can infer that the caterpillars metamorphose into butterflies. Since the drought conditions adversely affect the population of caterpillars this year, the population of butterflies may decrease next year because less number of caterpillars will turn into butterflies. Hence, this option is the correct answer.

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Option C: The given statement does not refer to any particular species of butterfly and hence, we cannot infer the statement given in this option.

Option D: The second part of this option is true. The 2019 bust refers to a decrease in the butterfly population. However, the reason presented in this option is not necessarily true. The author does not make any predictions about the summer of next year. He links the population of caterpillars this year to the population of butterflies next year. Hence, this option cannot be inferred.

Therefore, the correct answer is option A.

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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been a factor.

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Q23. The author argues that the Big Butterfly Count helps in

- a) generating interest among children about lepidoptery.
- b) understanding only short term changes in butterfly population.
- c) understanding how butterflies live in areas that conservationists are not allowed.
- d) understanding how butterfly populations are doing in greenspaces.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

Avg. time spent on this question by all students

Difficulty Level

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

% of students who attempted this question

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

69

95

E

92

42.52

65.51

[Video Solution](#)

[Text Solution](#)

Number of words and Explanatory notes for RC:

Number of words: 478

The author talks about the Big Butterfly Count in the second para of the passage. He also mentions in the penultimate para of the passage about "the count". We can infer that this count refers to the Big Butterfly Count as the passage is talking about butterflies, in detail.

Option A: The author mentions that a number of children joined the Great Garden Birdwatch. However, he does not mention about children joining the Big Butterfly Count. Hence, this cannot be inferred.

Option B: The Big Butterfly Count "produces valuable information about how butterflies are doing in greenspaces". We cannot say that this provides information only about short term changes in the butterfly population.

Option C: The count "produces valuable information about how butterflies are doing in greenspaces such as urban gardens that **conservationists are usually unable to access**". From "**usually unable to access**", we cannot infer "**conservationists are not allowed in these areas**." Hence, this option is incorrect.

Option D: The count helps in understanding how the butterfly populations are doing in greenspaces like urban gardens. Hence, this option is the correct answer.

Choice (D)

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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Q24. From the last paragraph of the passage, we can infer that the author hopes that

- a) studying butterflies will rekindle the interest that humans have on insects.
- b) humans' interest in butterflies can be extended to interest on insects as a whole. Your answer is correct
- c) ants and bees have their own champions, but humans must not overlook butterflies.
- d) butterflies should be studied more to gain an understanding about the insect world.

Time spent / Accuracy Analysis

Time taken by you to answer this question	14
Avg. time spent on this question by all students	96
Difficulty Level	M
Avg. time spent on this question by students who got this question right	94
% of students who attempted this question	44.1
% of students who got the question right of those who attempted	48.6

[Video Solution](#)

[Text Solution](#)

Number of words: 478

In the last paragraph of the passage, the author mentions that butterflies are prominent in human mind and UK butterflies are the most studied. However, he follows this opinion with the statement "Though ants, bees and others have their champions, this realm of the animal kingdom is often overlooked by humans". "***This realm of animal kingdom***" cannot refer to butterflies because the author has mentioned that butterflies are not overlooked. The realm can only refer to the insect world in general.

Option A: This option mentions that studying butterflies will ***rekindle*** the interest that humans have on insects. For the interest to be rekindled (or revived), it must have been kindled at some point of time. That humans were once interested in studying insects cannot be inferred from the passage. Hence, this option is incorrect.

Option B: The author presents multiple points in this para:

1. Butterflies are prominent in human mind and are studied more.
2. Most other insects are overlooked.

He ends the passage by saying that " Butterflies should be the ambassadors for the insect world. This would augur well for this often overlooked realm." From this we can infer that the author wants butterflies to be made ambassadors because the interest that humans have on butterflies may rub off on other species of insects, which are usually not studied. Hence, this option is correct.

Option C: The author does mention that butterflies are overlooked. He specifically mentions the opposite. Hence, this option is incorrect.

Option D: The author does not talk about studying about butterflies more. He expresses that the realm of insects is often overlooked and disliked. To get over this indifference and dislike, the author proposes that butterflies are ideal ambassadors. Hence, the author's hope is not that butterflies will be studied more. It is that humans will show interest in the insect world as a whole as they do for butterflies.

Hence, the correct answer is option B.

Choice (B)

undefined

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

1. Daenerys Targaryen, from *Game of Thrones*, is no stranger to consequences.
2. Decision-making is another managerial process that involves social, political, emotional, and organizational factors, as well as analytics, reason, and fact-based analysis.
3. Along her journey from exile to Queen of Meereen, she learns that decision making is a delicate balance that requires not only finding the greatest good for all the parties involved, but also planning for the future.
4. Good managers must recognize the pros and cons of each option and take into account all of these factors when evaluating which path will result in the best outcome.
5. Liberating an entire region of slaves, wiping out all of the Dothraki Khals in existence, and planning a coup in King's Landing do not come without repercussions.

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

186

Difficulty Level

VD

Time spent / Accuracy Analysis

Avg. time spent on this question by students who got this question right **184**

% of students who attempted this question **46.7**

% of students who got the question right of those who attempted **14.62**

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[Text Solution](#)

Sentence 1: This is an independent sentence. But, the tone of the sentence is such that it builds anticipation, making the reader naturally ask the question, what kind of consequences. This sentence **should likely be followed by a sentence that lists out examples of such events** (generic – specific).

Sentence 2: This sentence introduces decision-making as a process. It has a connector 'another' which should make the reader ask 'what were the other managerial processes discussed here? This could help in two ways. If there is another managerial process, that block will come ahead of this block. However, if there isn't any, it tells you that this para is likely to be from the middle of an essay, in which case, **a sentence like this ends up being the first sentence of the para**.

Sentence 3: This is one of the easier sentences to decipher because of the personal pronoun 'her' which should make the reader ask, 'where is the person being referred to?'

Sentence 4: This is an independent sentence (no connections to other sentences). However, in terms of content, it is an 'elaboration' sentence, building upon the theory of 'decision-making' in Sentence 2. Therefore, 24 is a logical block.

Sentence 5: There are three events in this 'independent sentence'. However, the big clue in this sentence is the word 'repercussions' which a good reader should connect to the word 'consequences' in Sentence 1.

From the above, it is clear that 24 is one block and 153 is another block. Why 5 in front of 3 and not after, since the pronoun sentence should follow the noun sentence? Because 5 is not an independent idea but one that builds on 1. 13 is a logical block but that will leave out 5 and placing 5 after 3 wouldn't make sense because in 3, the idea has already moved on to a conclusion on what she has learnt.

24 is upstream to 153. Why? Because, once grammar is taken care of, and we are comparing two independent blocks, the theory block should logically come ahead of the example block. So, the order is 24153.

Ans: (24153)

undefined

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

1. If you really want to know about it, I will own up.
2. There are scenes in Mad Men and Transparent that are as accomplished and lovely, as profound and truthful, as anything I've seen in the cinema.
3. I've barely left the house in the last 18 months because I've been watching what for me seems like a lot of TV, around five hours a night.
4. And the episode in Breaking Bad where the former chemistry teacher Walter White buries the money he has accumulated by selling crystal meth - transforming the spoils into waste or shit - is one of the most illuminating in all art.
5. And I can't say that a moment of it - apart from, say, the second season of Mr Robot - feels like wasted time.

You did not answer this question

Show Correct Answer

Remove Watermark Now

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	147
Difficulty Level	D
Avg. time spent on this question by students who got this question right	127
% of students who attempted this question	41.1
% of students who got the question right of those who attempted	18.26

[Video Solution](#)

[Text Solution](#)

Sentence 1 talks about 'owning up', which means to admit something, make a confession.

Sentence 2 is an independent sentence, but going by the tone, probably examples of some discussion or 'theory'. We cannot be sure.

Sentence 3 is again an independent sentence, but clearly, the confession being alluded to in Sentence 1, an admission.

Sentence 4 starts with a positive connection 'And' and talks about examples of TV that the author appreciated. So, by tone, it is quite possible that 24 is a logical block – two positive examples of good TV.

Sentence 5 starts with 'And' and an appreciation of something done – 'moment of it'. The only other sentence that talks about time is Sentence 3, 'barely left the house in the last 18 months' and 'watching 5 hours of TV'.

So, 35 is a logical block.

13 is a logical block because of 'own up' and the admission.

24 are two positive examples.

135 should be followed by 24 because 24 is an elaboration of what the author expresses in 135 (no moment feels like a wasted time). So, 13524. Ans: (13524)

undefined

Q27. DIRECTIONS for questions 27 and 28: Five sentences (labelled 1, 2, 3, 4, 5) are given in each of the following questions. Four of them can be put together to form a meaningful and coherent short paragraph and **one sentence is the odd one out**. Decide on the proper logical order for the sentences and key in the sequence of **four** numbers as your answer, even as you **omit the contextually unrelated sentence**.

1. But as it turns out, research shows that unwinding is just as powerful, albeit in different ways.
2. Instead, we spend our spare time bouncing between novel distractions - going from checking our email, to reading the news, to surfing Facebook, and so on - activities that often make us even more tired.
3. I don't mean laziness in the sense of filling each moment with mindless distraction but in the sense of proper idleness, when we choose to do nothing.
4. In a world of constant distraction, we rarely put our mental feet up.
5. Laziness is a lost art.

You did not answer this question

Show Correct Answer

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Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	138
Difficulty Level	D
Avg. time spent on this question by students who got this question right	134
% of students who attempted this question	39.85
% of students who got the question right of those who attempted	24.71

[Video Solution](#)

[Text Solution](#)

Sentence 1 starts with a contrast-marker 'But' followed by a statement that says 'unwinding' is just as powerful. In front of this sentence, we need a sentence that talks about what else is powerful.

Sentence 2 starts with 'Instead' another contrast marker, and then it continues to talk about distractions, referred to in a negative way (inferred from the word 'tired').

Sentence 3 Talks about 'laziness' and indicates the author has a positive opinion about it, since it goes 'I don't mean it in a...'. The author doesn't mean it in a negative way (mindless) but in a positive way (proper). This sentence can only follow a sentence where 'laziness' has been introduced, because then a clarification on an otherwise misunderstood word will be required.

Sentence 4 talks negatively about distraction again, the author complaining we don't 'put our feet up', which means 'relax'.

Sentence 5 introduces 'laziness' as a lost art, 'lost art' signifying it is a positive expression.

53 is therefore a logical block.

Sentence 2 needs the opposite of 'spending time on novel distractions' because of 'instead'. So, 42 will be a logical block with the structure 'We don't do this; instead we do that.'

That leaves out 1, which is the odd-one. Another way of arriving at 1 is by looking at 'just as powerful'. Since, nothing else has been mentioned as powerful, Sentence 1 is the odd-one.

53 is upstream to 42. It is tricky to pick this but one needs to look at Sentence 3 where the author says 'I don't mean .. mindless distraction...' This is the introduction of distraction. That is because if we put 42 ahead of 53, this elaboration about distraction being bad is not required because 42 is doing it comprehensively.

So, the required logical order is 5342.

Ans: (5342)

undefined

Q28. DIRECTIONS for questions 27 and 28: Five sentences (labelled 1, 2, 3, 4, 5) are given in each of the following questions. Four of them can be put together to form a meaningful and coherent short paragraph and **one sentence is the odd one out**. Decide on the proper logical order for the sentences and key in the sequence of **four** numbers as your answer, even as you **omit the contextually unrelated sentence**.

1. It was this grounding in reality that bestowed a more profound political instinct than would be available to some sloganizing zealot.
2. What Orwell's experiences - both as figure of authority and as scullion - had given him was a lived understanding of the human condition.
3. Orwell could toss off sentences like that with greater authority than most because of the quality not merely of his writing but of his experience.
4. He had acquired a capacity to empathise with the foot-soldiers of history, the put-upon people generally taken for granted, ignored or squashed by the great isms of one sort or another.

5.
It conferred upon him the remarkable ability to achieve what every journalist and essayist seeks: he could tell the truth.

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

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	131
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	164
% of students who attempted this question	22.05
% of students who got the question right of those who attempted	2.21

[Video Solution](#)

[Text Solution](#)

Sentence 1 – we need to find a match for ‘this grounding’.

Sentence 2 – Independent sentence that describes Orwell’s background. What makes him an authority – his experiences. ‘Lived understanding’ is synonymous to ‘grounding’. That makes 21 a logical block.

Sentence 3 is about Orwell’s prolific writing and experience. However, in ‘Orwell could toss off sentences like that’, question unanswered is: sentences like what?

Sentence 4 talks about Orwell’s empathy.

Sentence 5 talks about ‘something’ conferring Orwell with a remarkable ability to tell the truth. One should be able to connect the words ‘capacity’ in the fourth sentence, which Orwell had acquired and ‘ability’ which was conferred upon him. These two synonymous expressions show that 45 is a logical block.

21 and 45 are logical blocks. Sentence 3 is therefore, the odd-one out.

Another way of looking at it is that Sentence 3 derives from some type of sentences which have not been mentioned in the other sentences. Therefore, 3 is the odd-one out.

21 is upstream to 45 because 4 starts with ‘He’. So, 2145 is the required logical order.

Ans: (2145)

undefined

Q29. DIRECTIONS for questions 29 and 30: Each of the questions given below has a paragraph which is followed by four alternative summaries. Choose the alternative that best captures the essence of the paragraph.

What attitude should we take to our situation or ourselves, once we recognise that it is absurd? One option is to shake our noble fists at the cosmos, cursing its silent coldness and slippery stairs. This stance appeals to a certain kind of guy in college. But some of us - women, the disabled, ethnic and gender minorities, etc - got the memo pretty early on that we weren’t plausibly the centre of the Universe. So, when our adolescent attention was directed to life’s disappointments and farcicality, we were more inclined to shrug and get back to what we were doing than get theatrical about it.

- a) When faced with the absurd, we could sulk and complain about the disappointments of life, or just get back to what we were doing.
- b) Life’s disappointments can be dealt in two ways: curse the cosmos or realise we aren’t the centre of the universe.
- c) Those who understood their place in the universe early in life are more likely to adapt to a disappointment than a privileged guy.
- d) When faced with a disappointment, some resist, but those who have understood that the world doesn’t revolve around them, simply get on with it.

You did not answer this question

Show Correct Answer

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Time spent / Accuracy Analysis

Time taken by you to answer this question	0
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	141
% of students who attempted this question	36.91
% of students who got the question right of those who attempted	57.27

[Video Solution](#)

[Text Solution](#)

Sub-ideas in the para: Unity/Introduction – the question about our attitude to the absurd, the elaboration – one way is to shake our...(complain/fight/curse), the conclusion – those who have already learnt that they are not the centre of the universe, that the world is not about them, simply shrug and get back to what they were doing.

Option A: This option talks about two ways open to everyone to react to disappointments but doesn't discern between the two types of people who take up those options. It doesn't throw light on who is more likely to shrug and get back to what they were doing. Hence, Option A is not the answer.

Option B: This option talks about two ways of dealing with disappointments. The second way is summarised as realising that we aren't the centre of the universe. This is fallacious. The para says that the second way is to just shrug and get back to work and those who realise that they aren't the centre of the universe generally adopt this approach. Hence, Option B is not the answer.

Option C: This option focuses on the likelihood of someone adapting to a disappointment. The para doesn't talk about likelihood. It simply offers two ways and the two types of people who will follow those two ways respectively. Also, 'adapt' is not the same as 'shrugged and get back to work'. Hence, Option C is not the answer.

Option D: This option talks about facing disappointments, some resisting it, and others having realised the world doesn't revolve around them (they are not the centre of the universe – essentially means that it is not about them, that the world isn't existent to serve just their needs) simply get on with it (go on doing whatever it is they were doing.) All the sub-ideas have been covered in this para. Hence, Option D is the answer.

Choice (D)

undefined

Q30. DIRECTIONS for questions 29 and 30: Each of the questions given below has a paragraph which is followed by four alternative summaries. Choose the alternative that best captures the essence of the paragraph.

One interesting aspect of this penchant for combining tasks is that we seem to have lost the ability to single task. Glance around a restaurant, look at people walking on a city street, pay attention to people waiting in line for a movie or the theatre, and you will see busily tapping fingers. We act as though we are no longer interested in or able to stay idle and simply do nothing. We appear to care more about the people who are available through our devices than those who are right in front of our faces. And perhaps more critically, we appear to have lost the ability to simply be alone with our thoughts.

- a) Whether in a restaurant, on the street, or in a line waiting for a movie, people are displaying an inability to stay in the moment and do nothing.
- b) A penchant for combining tasks has made people incapable of performing a single task - that of staying idle and not doing anything.
- c) A proclivity towards combining tasks may have rendered people incapable of single-tasking, or staying idle and doing nothing, or being alone with their thoughts.
- d) Our need to combine tasks has taken away our inability to focus on one thing, and we have stopped caring about people in front of us or our own thoughts and idleness.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Remove Watermark Now

Time taken by you to answer this question	0
Avg. time spent on this question by all students	124
Difficulty Level	D
Avg. time spent on this question by students who got this question right	127
% of students who attempted this question	42.19
% of students who got the question right of those who attempted	53.61

[Video Solution](#)

[Text Solution](#)

Sub-ideas in the para:

Unity/Introduction - One interesting aspect of this **penchant for combining tasks** is that we seem to have **lost the ability to single task**. [Example - Glance around a restaurant, look at people walking on a city street, pay attention to people waiting in line for a movie or the theatre, and you will see busily tapping fingers.]

Elaboration - We act as though we are **no longer interested in** or **able to stay idle and simply do nothing**. [Specific case - We appear to care more about the people who are available through our devices than those who are right in front of our faces.]

Conclusion - And perhaps more critically, we appear to have **lost the ability to simply be alone with our thoughts**.

Option A: Specific examples (restaurant/ on the street, etc.) disqualify this option from being called the summary/essence of the para. The only way an option such as this can be picked as the answer is when all the other options are factually incorrect. That isn't the case here and hence, Option A is not the answer.

Option B: This line makes it seem that the single task is that of staying idle and doing nothing. However, as per the para that is not the case. The author literally meant 'any single task' and added that we are incapable of enjoying our idleness. Option B is not the answer.

Option C: A proclivity (penchant/inclination) towards combining tasks has made us incapable of single tasking (Idea 1), of staying idle and doing nothing (Idea 2), or being alone with our thoughts (Idea 3). All sub-ideas have been represented without too much digression. Hence, Option C is the answer.

Option D: This is misrepresentation of information. Our need to multi-task has not taken away our inability to focus. It has taken away our 'ability' to focus. Hence, Option D is not the answer.

Choice (C)

undefined

Q31. DIRECTIONS for questions 31 and 32: Each of the following questions consists of a highlighted sentence followed by the context from where the sentence may have been drawn. The context given provides exactly three successive paragraphs, which may or may not have any other paragraph preceding or succeeding them. The paragraphs have a total of five blanks numbered as (1), (2), (3), (4) and (5). Choose the number of the blank where the highlighted sentence can best be reinserted and key in that number in the input box provided below the context.

But it has not always been this way.

Despite being Earth's nearest neighbour, the Moon has been a lonely place for the past three decades.

(1) _____ Until this decade nothing had landed on the moon since August 9th 1976, when Luna 24, a probe belonging to the Soviet Union, set itself down in Mare Crisium, just north of the lunar equator.

That changed on December 14th 2013, when China became the third power to land successfully on the lunar surface. *Chang'E 3*, the craft that did so, then deployed a small rover called *Yutu* or "Jade Rabbit", which travelled for 114 m before getting stuck.

(2) _____

Beyond the constant pitter-patter of meteorite strikes on its surface, the modern Moon is thought to be geologically dead.

(3) _____ And *Yutu* - which is equipped with a ground-penetrating radar - has shed some light on the body's past. *Chang'E 3*'s landing site was Mare Imbrium, the remnant of a giant impact crater formed 4 billion years ago. Peering hundreds of meters beneath the mare's surface, the rover was able to discern at least nine distinct strata.

(4) _____ Some of these are remnants of recent impacts, which leave layers of fine, powdered rock across the surface. (5) _____ Others, deeper down, are lava flows from volcanoes that may have stopped erupting a mere 100m years ago.

You did not answer this question

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Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	139
Difficulty Level	M
Avg. time spent on this question by students who got this question right	140
% of students who attempted this question	31.86
% of students who got the question right of those who attempted	34.25

[Video Solution](#)

[Text Solution](#)

Note that the highlighted sentence contains the contrast conjunction "But". On a careful reading of the paragraph, it can be inferred that the highlighted sentence does not belong to blank (1). The sentence is completely out of place in blank (1), as it interrupts the flow of thought. "Until this decade nothing had landed on the moon" in the sentence after blank (1) links with "the Moon has been a lonely place for the past three decades" in the sentence preceding blank (1). So there is no need for an idea fixed to a contrast conjunction like "but" as given in the highlighted sentence. The highlighted sentence is completely out of place in blank (2). The pronoun "it" in the highlighted sentence has no correct referent in the sentences prior to blank (2) in the second paragraph. The highlighted sentence can be a part of blank (3). "Yutu has shed some light on the body's past" (and the facts mentioned after this) contrasts "the modern Moon is thought to be geologically dead" in the sentence prior to blank (3). The contrast conjunction "But" in the highlighted sentence contrasts the sentence before it "the modern Moon is thought to be geologically dead". The highlighted sentence is also justified by the series of sentence following blank (3): least nine distinct strata remnants of recent impacts Others, deeper down, are lava flows from volcanoes that may have stopped erupting a mere 100m years ago. Hence (3) is the answer. The highlighted sentence cannot be a part of blank (4). If the highlighted sentence is placed in blank (4), then there will be a complete distortion of thoughtflow. "Some of these are remnants of recent impacts" and "Others, deeper down, are lava flows from volcanoes" in the sentences succeeding blank (4) point to "at least nine distinct strata" in the sentence prior to blank (4). Similarly, the highlighted sentence cannot be a part of blank (5). The last three sentences of the last para need to flow continuously and no insertion of any extraneous sentence is required.

The correct answer is (3).

Ans: (3)

undefined

Q32. DIRECTIONS for questions 31 and 32: Each of the following questions consists of a highlighted sentence followed by the context from where the sentence may have been drawn. The context given provides exactly three successive paragraphs, which may or may not have any other paragraph preceding or succeeding them. The paragraphs have a total of five blanks numbered as (1), (2), (3), (4) and (5). Choose the number of the blank where the highlighted sentence can best be reinserted and key in that number in the input box provided below the context.

So far, so good.

When we make decisions, we make mistakes. _____(1)_____ We all know this from personal experience, of course. But just in case we didn't, a seemingly unending stream of experimental evidence in recent years has documented the human penchant for error. _____(2)_____ This line of research - dubbed heuristics and biases (behavioural economics) - has become the dominant academic approach to understanding decisions. Its practitioners have had a major influence on business, government and financial markets. Their books - *Predictably Irrational*; *Thinking, fast and Slow*; and *Nudge*, to name three of the most important - have suffused popular culture.

_____ (3) _____ This research has been enormously informative and valuable. Our world, and our understanding of decision making, would be much poorer without it.

It is not, however, the only useful way to think about making decisions. _____(4)_____ Even if you restrict your view to the academic discussion, there are three distinct schools of thought.

_____ (5) _____ Although heuristics and biases is currently dominant, for the past half century, it has interacted with and sometimes battled with the other two, one of which has a formal name - decision analysis - and the other

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

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	92
Difficulty Level	M
Avg. time spent on this question by students who got this question right	92
% of students who attempted this question	28.73
% of students who got the question right of those who attempted	48.98

[Video Solution](#)

[Text Solution](#)

The highlighted sentence would make no sense if placed in blank (1). There can be nothing good about making mistakes.

The highlighted sentence would disrupt the flow of thought if placed in blank (2). “unending stream of experimental evidence” in the part preceding blank (2) connects with “This line of research – dubbed heuristics and biases (behavioural economics)” succeeding blank (2). So (2) is not the answer.

The highlighted sentence can best be placed in blank (3). The second para highlights some important features of the line of research – heuristics and biases (behavioural economics). The last two sentences of the first para are also positive in tone. “So far, so good” is a positive comment that can be attributed to the line of research – dubbed heuristics and biases (behavioural economics) – that can help one in understanding decisions. So (3) is the correct answer.

The last para opens with the sentence: It is not, however, the only useful way to think about making decisions. This sentence, on the whole, is not appreciative of the said field of research. The remaining sentences of the third para mention two other schools of thought – “decision analysis” and “going with your gut”. The positive comment (i.e. the highlighted sentence) would be out of place if inserted anywhere in the third para. So (4) and (5) are not the answers. (The highlighted sentence needs to be placed much earlier in the passage.)

The correct answer is (3).

Ans: (3)

undefined

Q33. DIRECTIONS for questions 33 and 34: Each of the questions consists of a paragraph with three blanks. For each blank choose one numbered word/ phrase from the corresponding column of choices that will best complete the text. Key in the appropriate numbers of the words/ phrases for each blank, in the correct sequential order, in the input box given below the question. For example, if you think that words/ phrases labelled (1), (5) and (9) can complete the text correctly, then enter 159 as your answer in the input box. (Note: Only one word/ phrase in each column can fill the respective blank correctly.)

Dating is a treacherous business. There may be plenty of fish in the sea, yet many are unhygienic, self-absorbed or _____ (i) _____ attached to ex-fish. Digital dating sites, including a growing array of matchmaking apps, are meant to help. Their design owes more to hard-nosed economics than it does to the mysteries of the heart. In a sense, searching for a mate is not so different from hunting for a job. Jobs, like prospective partners, have their strengths and weaknesses, which makes finding the right one a matter of _____ (ii) _____. Dating exchanges are different from other transactions, in that both parties must be enthusiastic about the match for it to happen. A supermarket, in contrast, _____ (iii) _____ whose wallet it is draining, nor does the power company agonize about whether a customer is worthy of its watts.

Blank (i)	Blank (ii)	Blank (iii)
(1) contumeliously	(4) complicated trade-offs	(7) is unilateral about
(2) disconcertingly	(5) equivocal prevarication	(8) is ambivalent about
(3) paralogically	(6) incongruous experiences	(9) does not particularly care

You did not answer this question

Show Correct Answer

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Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	157
Difficulty Level	D
Avg. time spent on this question by students who got this question right	157
% of students who attempted this question	27.14
% of students who got the question right of those who attempted	20.36

[Video Solution](#)

[Text Solution](#)

The para begins with the statement that 'dating' is a treacherous business. The word 'treacherous' here means 'unreliable' or 'deceptive'. There are plenty of people out there but not all may be suitable as a 'dating' partner. The first blank needs a negative word. 'contumeliously' is a strong negative word and means 'rudeness or contempt arising from arrogance; insolence'. But 'contumeliously' cannot collocate with 'attached to ex-fish'. 'Paralogical' means illogical and does not suit the context. There is nothing illogical in the state of being attached to an ex-date or ex-partner. Disconcertingly means 'to cause to lose composure; embarrass or confuse' and is more apt here. Though there are many fish in the sea, some of the people may disconcertingly be attached to their exes. And this idea can explain why dating can be a treacherous activity. So the best answer for the first blank is (2).

Searching for a mate is not so different from hunting for a job. Jobs have several strong points and weak points. And so do prospective dating partners. Now, strengths and weaknesses of a person are two incompatible features. A person may desire the strengths of the other person and may not be able to handle the weaknesses of the other. Hence a person has to strike a compromise when analyzing the strengths and weaknesses of his/ her dating partner. Hence the process of finding a prospective partner can be termed a "complicated trade-off". Trade-off means "a balance achieved between two desirable but incompatible features; a compromise". Prevarication means skirting around the truth, being vague about the truth, or even delaying giving someone an answer, especially to avoid telling them the whole truth. Equivocal means open to more than one interpretation and being ambiguous or evasive. Finding the right partner cannot become an equivocal prevarication (negative solution to the problem). The sentences surrounding the second blank are not negative. 'Incongruous' which means "unsuited" or "not in harmony or keeping with the surroundings or other aspects of something" does not hint at the balance between strengths and weaknesses of a date. So (6) is incorrect. The correct answer for the second blank is (4).

The last two sentences of the para talk about how the dating transaction is different from other transactions. A clue for the third blank is available in the phrase "both parties must be enthusiastic about the match". The required contrast is brought about by the use of "does not particularly care". Hence the correct answer for the third blank is 9. 'Unilateral' {(of an action or decision) performed by or affecting only one person, group, or country involved in a situation, without the agreement of another or the others} and 'ambivalent' {having mixed feelings or contradictory ideas about something or someone, indecisive, inconclusive} do not fit the third blank. The supermarket has no mixed feelings. The power company does not agonize about whether a customer is worthy of its watts and similarly, the supermarket does not particularly care (9) is the answer for the third blank.

The required answer is 249.

Ans: (249)

undefined

Q34. DIRECTIONS for questions 33 and 34: Each of the questions consists of a paragraph with three blanks. For each blank choose one numbered word/ phrase from the corresponding column of choices that will best complete the text. Key in the appropriate numbers of the words/ phrases for each blank, in the correct sequential order, in the input box given below the question. For example, if you think that words/ phrases labelled (1), (5) and (9) can complete the text correctly, then enter 159 as your answer in the input box. (Note: Only one word/ phrase in each column can fill the respective blank correctly.)

The book *The Tipping Point* is the _____ (i) _____ of a simple idea: the best way to understand the emergence

of fashion trends, the ebb and flow of crime waves, the transformation of unknown books into bestsellers, the rise of teenage smoking, the phenomena of word of mouth etc is to think of them as epidemics. Ideas, products, messages and behaviours spread just like viruses do. The rise of Hush Puppies and the fall of New York's crime rate are textbook examples of epidemics in action. Although they may sound as if they don't have very much in common, they share a basic, underlying pattern: they are clear examples of _____ (ii) _____ behaviour. In New York, kids exposed other people to their fashion sense and infected them with the Hush Puppies "virus" by wearing the shoes wherever they went.

(iii) _____, a large number of people in New York got "infected" with an anti-crime virus in a short time. The behaviour of peace-loving people in a huge percentage of situations that would otherwise have turned deadly spread to others would-be criminals.

Blank (i)	Blank (ii)	Blank (iii)
(1) disapprobation	(4) egregious	(7) Ergo
(2) preclusion	(5) exigent	(8) Similarly
(3) rendition	(6) contagious	(9) Unswervingly

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	156
Difficulty Level	D
Avg. time spent on this question by students who got this question right	150
% of students who attempted this question	25.16
% of students who got the question right of those who attempted	26.51

[Video Solution](#)

[Text Solution](#)

The central idea of the book *The Tipping Point* is mentioned in the first two sentences of the paragraph: Ideas, products, messages and behaviours spread just like viruses do – like epidemics. Disapprobation means strong disapproval, typically on moral grounds. Disapprobation cannot fit the description of the idea on which the book is based. Rendition is representation, performance or interpretation, especially of a dramatic role or piece of music. You can also render an idea. 'Render an idea' and 'rendition of an idea' are often used. (Note that the given context is what the idea is, and not how it was developed, used, changed or how it grew etc.) Preclusion means to exclude or debar from something, to prevent the presence, existence, or occurrence of. Preclusion does not work in the given context. The correct answer for the first blank is (3).

The middle of the paragraph talks about two examples of epidemics in action. The second blank needs a synonym of 'epidemic'. The keyword is 'contagious' which means to spread from one person or organism to another, transmissible, transferable. 'Egregious' means outstandingly bad; shocking. ('Egregious' is not to be confused with 'gregarious' which means 'fond of company; sociable'.) Exigent means pressing; demanding. The context neither needs the use of 'shockingly bad' or 'to be demanding'. The correct answer for the second blank is (6).

The latter half of the paragraph goes on to discuss how the two epidemics (the rise of Hush Puppies and the fall of New York's crime rate) came about. These two epidemics share a basic, underlying pattern: they are clear examples of epidemics. The correct answer for the last blank is 'similarly'. Ergo which means 'therefore, consequently' and 'unswervingly' which means "without swerving or turning aside, constant, steady" are contextually inappropriate. The correct answer for the third blank is (8).

The required answer is 368.

Ans: (368)

undefined

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

This year, the Indian cricket selection panel decided that the only criterion for selecting young batsmen to play at the international level will be their average in the one-day matches that they have played at the national level.

$$\text{Average of any player} = \frac{\text{Total runs scored by the player}}{\text{Number of times that the player was out}}$$

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where the number of runs scored and number of times a player is out are positive integers.

At present, the selection panel was considering a young opening batsman, who had played a total of 25 one-day matches at the national level but had not played even one match at the international level. At the national level, the player had batted and got out in each of the 25 matches he played. It was also known that his score in no two matches was the same. Further, the sum of his top five scores was 337.

All the questions that follow are based only on the scores of the above-mentioned batsman in the 25 national level matches he played.

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

Given that his lowest five scores added up to 121 and his average was more than 40, the number of matches in which he scored less than 40 was at most

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	17
Avg. time spent on this question by all students	348
Difficulty Level	M
Avg. time spent on this question by students who got this question right	432
% of students who attempted this question	19.88
% of students who got the question right of those who attempted	5.9

[Video Solution](#)

[Text Solution](#)

Total runs scored by him are at least 1001. As the average of the 25 innings is more than 40, with the top five scores amounting to 337 and the lowest five scores amounting to 121, the remaining fifteen innings accounted for $1001 - (337 + 121) = 543$ runs. Now to have the maximum number of scores below 40, we have to minimise the fifth lowest score (as total of the lowest five innings is given). The fifth lowest score can be a minimum of 27, when the lowest five scores are (27, 25, 24, 23 and 22) so that the higher scores are 28, 29....upto 42. Now, $121 + (28 + 29 + \dots + 42) + 337 = 977$
Hence, the scores of 40 and above i.e., 40, 41 and 42 need to be revised upwards to reach a total of 1001.
∴ He has at most 5 + 12 scores which are below 40.

Ans: (17)

undefined

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

This year, the Indian cricket selection panel decided that the only criterion for selecting young batsmen to play at the international level will be their average in the one-day matches that they have played at the national level.

$$\text{Average of any player} = \frac{\text{Total runs scored by the player}}{\text{Number of times that the player was out}}$$

where the number of runs scored and number of times a player is out are positive integers.

At present, the selection panel was considering a young opening batsman, who had played a total of 25 one-day matches at the national level but had not played even one match at the international level. At the national level, the player had batted and got out in each of the 25 matches he played. It was also known that his score in no two matches was the same. Further, the sum of his top five scores was 337.

All the questions that follow are based only on the scores of the above-mentioned batsman in the 25 national level matches he played.

Q2. DIRECTIONS for questions 1 to 4: Type your answer in the text box provided below the question.[Remove Watermark Now](#)

If his lowest five scores added up to 121, his sixth highest score was at least

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	112
Difficulty Level	M
Avg. time spent on this question by students who got this question right	171
% of students who attempted this question	15.21
% of students who got the question right of those who attempted	5.35

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

From the previous solution the least possible value of his 5th lowest score is 27.
 \therefore The 6th highest (i.e. 20th lowest) score must be at least 42. Ans: (42)

undefined

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

This year, the Indian cricket selection panel decided that the only criterion for selecting young batsmen to play at the international level will be their average in the one-day matches that they have played at the national level.

$$\text{Average of any player} = \frac{\text{Total runs scored by the player}}{\text{Number of times that the player was out}}$$

where the number of runs scored and number of times a player is out are positive integers.

At present, the selection panel was considering a young opening batsman, who had played a total of 25 one-day matches at the national level but had not played even one match at the international level. At the national level, the player had batted and got out in each of the 25 matches he played. It was also known that his score in no two matches was the same. Further, the sum of his top five scores was 337.

All the questions that follow are based only on the scores of the above-mentioned batsman in the 25 national level matches he played.

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

If it is known that the total number of runs he made was the maximum possible, and the highest score made by him in any match was X, then how many of the following are possible values of X?

- (I) 68 (II) 69 (III) 70 (IV) 71 (V) 72 (VI) 75

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

Time spent / Accuracy Analysis

Time taken by you to answer this question	0
Avg. time spent on this question by all students	114
Difficulty Level	M
Avg. time spent on this question by students who got this question right	123
% of students who attempted this question	12.58
% of students who got the question right of those who attempted	14.04

[Video Solution](#)

[Text Solution](#)

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As it is known that the number of runs he made was the maximum possible, and as the sum of his top five scores is given along with the fact that he didn't make the same score in any two innings, the runs scored can be the maximum when his scores are as close as possible. In this case, the 5th top score is the highest possible which maximizes the total number of runs scored.

The possible sets of scores which maximize the 5th top score are (70, 69, 67, 66, 65) and (71, 68, 67, 66, 65).

∴ His highest score can be 70 or 71. i.e., only 2 values are possible. Ans: (2)

undefined

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

This year, the Indian cricket selection panel decided that the only criterion for selecting young batsmen to play at the international level will be their average in the one-day matches that they have played at the national level.

$$\text{Average of any player} = \frac{\text{Total runs scored by the player}}{\text{Number of times that the player was out}}$$

where the number of runs scored and number of times a player is out are positive integers.

At present, the selection panel was considering a young opening batsman, who had played a total of 25 one-day matches at the national level but had not played even one match at the international level. At the national level, the player had batted and got out in each of the 25 matches he played. It was also known that his score in no two matches was the same. Further, the sum of his top five scores was 337.

All the questions that follow are based only on the scores of the above-mentioned batsman in the 25 national level matches he played.

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

If it is known that he made two centuries (i.e., a score of 100 or more), his lowest score was at most

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	89
Difficulty Level	M
Avg. time spent on this question by students who got this question right	130
% of students who attempted this question	10.54
% of students who got the question right of those who attempted	17.13

[Video Solution](#)

[Text Solution](#)

The lowest possible scores when he scored the centuries can be 100 and 101. The remaining top three innings accounted for $337 - 201 = 136$ runs. To find the maximum value of the lowest score we have to assume that all the scores are as close as possible. The third, fourth and fifth highest scores can be 47, 45 and 44. The remaining twenty scores can be successively one less and the maximum value of the lowest score can be $(43 - 20 + 1) = 24$ Ans: (24)

undefined

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

Sudheer is interested in electronic gadgets and he made a new metallic keyboard for his computer. However, while marking the keys with letters, he made a mistake in marking the vowels such that none of the vowels were marked correctly with their corresponding keys. All other keys, except the vowels were marked correctly. Further it is known that,

- i. the key for A is neither marked E nor marked O.
- ii. the key for I is either marked A or marked U.
- iii. the key for E is not marked O.

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

Sudheer typed PUT on his keyboard and the output he got is PAT, then what will be the output if he types BAT?

- a) BUT
- b) BIT Your answer is correct
- c) BET
- d) BOT

Time spent / Accuracy Analysis

Time taken by you to answer this question

Avg. time spent on this question by all students

Difficulty Level

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

% of students who attempted this question

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

478

317

M

321

61.48

85.32

[Video Solution](#)

[Text Solution](#)

Original keys	A	E	I	O	U
Marked as	Ax Ex Ox	Ex Ox	Ix Ex Ox	Ox Ix	Ux Ix

Going by conditions i, ii, and iii, A, I, E are not marked as O and O cannot be marked as O as none of the vowels are marked correctly. Thus the key for U should have been marked as O.

As U have been marked as O and from condition i, ii, A and I are not marked as E, O should have been marked as E.

Thus the possible marking of keys from the given conditions is as follows.

Original keys	A	E	I	O	U
Marked as	I or U	A or I or U	A or U	E	O

Sudheer got the output as PAT, when he typed PUT \Rightarrow A is marked as U. in such a case, the key markings on the keys will be as follows.

A	E	I	O	U
U	I	A	E	O

Thus when he types BAT, the output will be BIT.

Choice (B)

undefined

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

Sudheer is interested in electronic gadgets and he made a new metallic keyboard for his computer. However, while marking the keys with letters, he made a mistake in marking the vowels such that none of the vowels were marked correctly with their corresponding keys. All other keys, except the vowels were marked correctly. Further it is known that,

- i. the key for A is neither marked E nor marked O.
- ii. the key for I is either marked A or marked U.
- iii. the key for E is not marked O.

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

Sudheer typed PUT on his keyboard and the output he got is PAT, then what will be the output if he types BAT?

- a) BUT
- b) BIT Your answer is correct
- c) BET
- d) BOT

Time spent / Accuracy Analysis

Time taken by you to answer this question 478

Avg. time spent on this question by all students 317

Difficulty Level M

Avg. time spent on this question by students who got this question right 321

Time spent / Accuracy Analysis

Remove Watermark Now

% of students who attempted this question	61.48
% of students who got the question right of those who attempted	85.32

[Video Solution](#)

[Text Solution](#)

Original keys	A	E	I	O	U
Marked as	Ax Ex Ox	Ex Ox	Ix Ex Ox	Ox Ix	Ux Ix

Going by conditions i, ii, and iii, A, I, E are not marked as O and O cannot be marked as O as none of the vowels are marked correctly. Thus the key for U should have been marked as O.

As U have been marked as O and from condition i, ii, A and I are not marked as E, O should have been marked as E.

Thus the possible marking of keys form the given conditions is as follows.

Original keys	A	E	I	O	U
Marked as	I or U	A or I or U	A or U	E	O

Sudheer got the output as PAT, when he typed PUT \Rightarrow A is marked as U. in such a case, the key markings on the keys will be as follows.

A	E	I	O	U
U	I	A	E	O

Thus when he types BAT, the output will be BIT.

Choice (B)

undefined

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

Sudheer is interested in electronic gadgets and he made a new metallic keyboard for his computer. However, while marking the keys with letters, he made a mistake in marking the vowels such that none of the vowels were marked correctly with their corresponding keys. All other keys, except the vowels were marked correctly. Further it is known that,

- i. the key for A is neither marked E nor marked O.
- ii. the key for I is either marked A or marked U.
- iii. the key for E is not marked O.

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

Which of the following words cannot be the output, if Sudheer typed DUAL?

- a) DIEL
- b) DEIL
- c) DAIL
- d) DAEL

You did not answer this question

Show Correct Answer

Remove Watermark Now

Time spent / Accuracy Analysis

Time taken by you to answer this question	315
Avg. time spent on this question by all students	183
Difficulty Level	M
Avg. time spent on this question by students who got this question right	198
% of students who attempted this question	51.27
% of students who got the question right of those who attempted	50.75

[Video Solution](#)

Text Solution

Original keys	A	E	I	O	U
Marked as	Ax Ex Ox	Ex Ox Ox	Ix Ex Ix	Ox Ix Ix	Ux

Going by conditions i, ii, and iii, A, I, E are not marked as O and O cannot be marked as O as none of the vowels are marked correctly. Thus the key for U should have been marked as O.

As U have been marked as O and from condition i, ii, A and I are not marked as E, O should have been marked as E.

Thus the possible marking of keys form the given conditions is as follows.

Original keys	A	E	I	O	U
Marked as	I or U	A or I or U	A or U	E	O

If I is marked as U, then E will be marked as A and typing DUAL in this case gives the output DIEL.

If E is marked as U, then I will be marked as A and DEIL can be the output in this case.

If A is marked as U then I will be marked as A and DAIL can be the output in this case.

If A is marked as U. E should be marked as I and I should be marked as A. thus DAEL cannot be the output when DUAL is typed.

Choice (D)

undefined

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

Sudheer is interested in electronic gadgets and he made a new metallic keyboard for his computer. However, while marking the keys with letters, he made a mistake in marking the vowels such that none of the vowels were marked correctly with their corresponding keys. All other keys, except the vowels were marked correctly. Further it is known that,

i.
the key for A is neither marked E nor marked O.

ii.
the key for I is either marked A or marked U.

iii.
the key for E is not marked O.

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

Which of the following words cannot be the output, if Sudheer typed DUAL?

a) **DIEL**

b) **DEIL**

c) **DAIL**

d) **DAEL**

[Remove Watermark Now](#)

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	315
Avg. time spent on this question by all students	183
Difficulty Level	M
Avg. time spent on this question by students who got this question right	198
% of students who attempted this question	51.27
% of students who got the question right of those who attempted	50.75

[Video Solution](#)

[Text Solution](#)

Original keys	A	E	I	O	U
Marked as	Ax Ex Ox	Ex Ox	Ix Ex Ox	Ox Ix	Ux Ix

Going by conditions i, ii, and iii, A, I, E are not marked as O and O cannot be marked as O as none of the vowels are marked correctly. Thus the key for U should have been marked as O.

As U have been marked as O and from condition i, ii, A and I are not marked as E, O should have been marked as E.

Thus the possible marking of keys form the given conditions is as follows.

Original keys	A	E	I	O	U
Marked as	I or U	A or I or U	A or U	E	O

If I is marked as U, then E will be marked as A and typing DUAL in this case gives the output DIEL.

If E is marked as U, then I will be marked as A and DEIL can be the output in this case.

If A is marked as U then I will be marked as A and DAIL can be the output in this case.

If A is marked as U. E should be marked as I and I should be marked as A. thus DAEL cannot be the output when DUAL is typed.

Choice (D)

undefined

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

Sudheer is interested in electronic gadgets and he made a new metallic keyboard for his computer. However, while marking the keys with letters, he made a mistake in marking the vowels such that none of the vowels were marked correctly with their corresponding keys. All other keys, except the vowels were marked correctly. Further it is known that,

i. the key for A is neither marked E nor marked O.

ii. the key for I is either marked A or marked U.

iii. the key for E is not marked O.

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

Which of the following cannot be the marking on any of the keys that Sudheer has typed, if the output is MORE?

- a) E
- b) O Your answer is correct
- c) A
- d) U

Time spent / Accuracy Analysis

Time taken by you to answer this question	45
Avg. time spent on this question by all students	99
Difficulty Level	M
Avg. time spent on this question by students who got this question right	96
% of students who attempted this question	47.67
% of students who got the question right of those who attempted	60.61

[Video Solution](#)

[Text Solution](#)

Original keys	A	E	I	O	U
Marked as	Ax Ex Ox	Ex Ex Ox	Ix Ex Ix	Ox Ix Ix	Ux Ix

Going by conditions i, ii, and iii, A, I, E are not marked as O and O cannot be marked as O as none of the vowels are marked correctly. Thus the key for U should have been marked as O.

As U have been marked as O and form condition i, ii, A and I are not marked as E, O should have been marked as E.

Thus the possible marking of keys form the given conditions is as follows.

Original keys	A	E	I	O	U
Marked as	I or U	A or I or U	A or U	E	O

If the output is MORE, then sudheer would have definitely typed in the keys, M, E, R as O is marked as E. The marking on the other key which he typed can be A, I or U as the key corresponding to E is either marked A or I or U. Thus among the given options O, cannot be the marking on any of the keys which Sudheer has typed.

Choice (B)

undefined

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

Sudheer is interested in electronic gadgets and he made a new metallic keyboard for his computer. However, while marking the keys with letters, he made a mistake in marking the vowels such that none of the vowels were marked correctly with their corresponding keys. All other keys, except the vowels were marked correctly. Further it is known that,

- i. the key for A is neither marked E nor marked O.
- ii. the key for I is either marked A or marked U.

iii.

- the key for E is not marked
O.

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

Which of the following statements is definitely true?

- a) If Sudheer types UNIT, the output will not be ANET.
- b) If Sudheer types CRICKET, the output will be CRACKOT.
- c) If Sudheer types ORANGE, the output will be URENGO.
- d) If Sudheer types DUNE, the output will not be DANU.

You did not answer this question

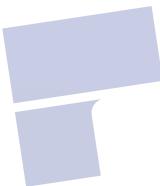
[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	8
Avg. time spent on this question by all students	135
Difficulty Level	M
Avg. time spent on this question by students who got this question right	137
% of students who attempted this question	43.4
% of students who got the question right of those who attempted	47.36

[Video Solution](#)

[Text Solution](#)



Original keys	A	E	I	O	U
Marked as	Ax Ex Ox	Ex Ox Ox	Ix Ex Ix	Ox Ix Ix	Ux Ix

Going by conditions i, ii, and iii, A, I, E are not marked as O and O cannot be marked as O as none of the vowels are marked correctly. Thus the key for U should have been marked as O.

As U have been marked as O and form condition i, ii, A and I are not marked as E, O should have been marked as E.

Thus the possible marking of keys form the given conditions is as follows.

Original keys	A	E	I	O	U
Marked as	I or U	A or I or U	A or U	E	O

If E is marked as I, then A will be marked as U. Thus on typing UNIT the output can be ANET. Hence option A is incorrect.

We know that 'O' is marked as E and only A or E can be marked as I. Thus typing CRICKET can give output as CRACHOT or CRECKOT.

Hence option B is incorrect.

When ORANGE is typed, the output can be URENGO or URINGO depending on the key for which A is used as marking. Hence option C is incorrect.

U is marked as O and not E and Thus typing DUNE, in no case, will give the output as DANU. Hence option D is definitely true.

Choice (D)

undefined

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

Three persons - A, B and C - play a series of games with coins. In each game, they place some coins on a table and pick the

coins in turns, starting with A, then B, then C and then A and so on. Each person, in his turn, has to pick either one or two coins. In any game, the number of coins with which the game starts is termed as the *primary count* of that game. In each game, the person picks points according to the following conditions:

- i. The person who picks the last coin is the winner of that game and hence gets two points.
- ii. The person whose turn is next to the winner of that game gets one point.
- iii. The person whose turn is before the winner of that game gets no points.

Also each person plays intelligently and tries to get the maximum possible points.

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

For which of the following *primary counts* will A win?

- a) **12**
- b) **23**
- c) **34**
- d) **None of these**

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	237
Avg. time spent on this question by all students	241
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	238
% of students who attempted this question	11.71
% of students who got the question right of those who attempted	24.67

[Video Solution](#)

[Text Solution](#)

Each person wants to win, and if it is not possible, he wants the person next to him to lose i.e., the person before him should win.
 If there are 3 coins at the beginning, even if A picks one or two coins, B will definitely win.
 If there are 4 coins, A picks only one coin such that B does not win. And hence A gets one point and C gets two points.
 If there are 5 coins, A picks one coin and hence B picks one coin such that he gets one point as in previous case (where A gets one point). Now A gets two points.
 If there are 6 coins, A picks two coins and wins as in the previous case.
 If there are 7 coins, even if A picks one or two coins, B will definitely win.
 If there are 8 coins, A picks up one coin so that B cannot win and C wins. Hence A gets one point.
 If there are 9 coins, A picks up one coin and B also picks up one coin (for C must not be the winner). So C is left with 7 coins in which case A wins.
 If these are 10 coins, A picks up two coins and hence he wins (as in the previous case).
 We can generalize this as follows (for $n = 1, 2, \dots$)

No of coins	Winner (2 pts)	1 Point
$4n - 1$	B	C
$4n$	C	A
$4n + 1$	A	B
$4n + 2$	A	B

Only 34 is of the form $4n + 1$ or $4n + 2$.

Choice (C)

undefined

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

Three persons - A, B and C - play a series of games with coins. In each game, they place some coins on a table and pick the coins in turns, starting with A, then B, then C and then A and so on. Each person, in his turn, has to pick either one or two coins. In any game, the number of coins with which the game starts is termed as the *primary count* of that game. In each game, they get points according to the following conditions:

- i. The person who picks the last coin is the winner of that game and hence gets two points.
- ii. The person whose turn is next to the winner of that game gets one point.
- iii. The person whose turn is before the winner of that game gets no points.

Also each person plays intelligently and tries to get the maximum possible points.

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

For which of the following *primary counts* will B get no points?

- a) 15
- b) 16
- c) 17
- d) None of these

You did not answer this question

Show Correct Answer

Remove Watermark Now

Time spent / Accuracy Analysis

Time taken by you to answer this question	8
Avg. time spent on this question by all students	79
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	75
% of students who attempted this question	7.95
% of students who got the question right of those who attempted	26

[Video Solution](#)

Text Solution

Each person wants to win, and if it is not possible, he wants the person next to him to lose i.e., the person before him should win.

If there are 3 coins at the beginning, even if A picks one or two coins, B will definitely win.

If there are 4 coins, A picks only one coin such that B does not win. And hence A gets one point and C gets two points.

If there are 5 coins, A picks one coin and hence B picks one coin such that he gets one point as in previous case (where A gets one point). Now A gets two points.

If there are 6 coins, A picks two coins and wins as in the previous case.

If there are 7 coins, even if A picks one or two coins, B will definitely win.

If there are 8 coins, A picks up one coin so that B cannot win and C wins. Hence A gets one point.

If there are 9 coins, A picks up one coin and B also picks up one coin (for C must not be the winner). So C is left with 7 coins in which case A wins.

If these are 10 coins, A picks up two coins and hence he wins (as in the previous case).

We can generalize this as follows (for $n = 1, 2, \dots$)

No of coins	Winner (2 pts)	1 Point
$4n - 1$	B	C
$4n$	C	A
$4n + 1$	A	B
$4n + 2$	A	B

B gets no points if C wins i.e., if the coins are $4n$.

Choice (B)

undefined

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

Three persons - A, B and C - play a series of games with coins. In each game, they place some coins on a table and pick the coins in turns, starting with A, then B, then C and then A and so on. Each person, in his turn, has to pick either one or two coins. In any game, the number of coins with which the game starts is termed as the *primary count* of that game. In each game, they get points according to the following conditions:

- i. The person who picks the last coin is the winner of that game and hence gets two points.
- ii. The person whose turn is next to the winner of that game gets one point.
- iii. The person whose turn is before the winner of that game gets no points.

Also each person plays intelligently and tries to get the maximum possible points.

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

B and C are friends and hence they want one of them to be the winner (without considering their individual points).

For which of the following *primary counts* will A win?

- a) **24**
- b) **25**
- c) **26**
- 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	76
Difficulty Level	D
Avg. time spent on this question by students who got this question right	99
% of students who attempted this question	5.92
% of students who got the question right of those who attempted	21.59

[Video Solution](#)

[Text Solution](#)



Each person wants to win, and if it is not possible, he wants the person next to him to lose i.e., the person before him should win.

If there are 3 coins at the beginning, even if A picks one or two coins, B will definitely win.

If there are 4 coins, A picks only one coin such that B does not win. And hence A gets one point and C gets two points.

If there are 5 coins, A picks one coin and hence B picks one coin such that he gets one point as in previous case (where A gets one point). Now A gets two points.

If there are 6 coins, A picks two coins and wins as in the previous case.

If there are 7 coins, even if A picks one or two coins, B will definitely win.

If there are 8 coins, A picks up one coin so that B cannot win and C wins. Hence A gets one point.

If there are 9 coins, A picks up one coin and B also picks up one coin (for C must not be the winner). So C is left with 7 coins in which case A wins.

If there are 10 coins, A picks up two coins and hence he wins (as in the previous case).

We can generalize this as follows (for $n = 1, 2, \dots$)

No of coins	Winner (2 pts)	1 Point
$4n - 1$	B	C
$4n$	C	A
$4n + 1$	A	B
$4n + 2$	A	B

Now B and C can pick 1, 2, 3 or 4 coins left at the end for one of them to win. If A leaves 5 coins, B and C will pick one coin each and A is left with 3 coins in which case A cannot win. And this continues for other values of n. Hence A can never win.

Choice (D)



undefined

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

Three persons - A, B and C - play a series of games with coins. In each game, they place some coins on a table and pick the coins in turns, starting with A, then B, then C and then A and so on. Each person, in his turn, has to pick either one or two coins. In any game, the number of coins with which the game starts is termed as the *primary count* of that game. In each game, they get points according to the following conditions:

- i. The person who picks the last coin is the winner of that game and hence gets two points.
- ii. The person whose turn is next to the winner of that game gets one point.

iii.

- The person whose turn is before the winner of that game gets no points.

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Also each person plays intelligently and tries to get the maximum possible points.

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

B and C are friends and hence they want one of them to be the winner (without considering their individual points).

If they play three games with *primary counts* as 4, 5 and 6, what is the number of points scored by A by the end of these three games?

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

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	119
Difficulty Level	D
Avg. time spent on this question by students who got this question right	123
% of students who attempted this question	5.47
% of students who got the question right of those who attempted	41.66

[Video Solution](#)

[Text Solution](#)

Each person wants to win, and if it is not possible, he wants the person next to him to lose i.e., the person before him should win.

If there are 3 coins at the beginning, even if A picks one or two coins, B will definitely win.

If there are 4 coins, A picks only one coin such that B does not win. And hence A gets one point and C gets two points.

If there are 5 coins, A picks one coin and hence B picks one coin such that he gets one point as in previous case (where A gets one point). Now A gets two points.

If there are 6 coins, A picks two coins and wins as in the previous case.

If there are 7 coins, even if A picks one or two coins, B will definitely win.

If there are 8 coins, A picks up one coin so that B cannot win and C wins. Hence A gets one point.

If there are 9 coins, A picks up one coin and B also picks up one coin (for C must not be the winner). So C is left with 7 coins in which case A wins.

If these are 10 coins, A picks up two coins and hence he wins (as in the previous case).

We can generalize this as follows (for $n = 1, 2, \dots$)

No of coins	Winner (2 pts)	1 Point
$4n - 1$	B	C
$4n$	C	A
$4n + 1$	A	B
$4n + 2$	A	B

As A cannot win, he has to make sure that C wins and thereby he gets a point. C can win all the three games and hence A can get 3 points.

Choice (C)

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

Akbar wrote a software which modifies a string in a specific manner. The software accepts input only in the form of a text string and the modification of the text string takes place in four sequential steps, i.e., step 1, step 2 and step 3 followed by the final output. The following example gives the output of the software after each step for a particular input string:

Input String: A FAT CAT STOOD NEAR A THIN PUMA
Step 1: E FET CET STUUD NIER E THON PAME
Step 2: E HEV EEV UVUUF PIET E VJOP RAOE
Step 3: HVVVFPTVJPR
Final Output: IUWUGOUUKOS

Q13. DIRECTIONS for question 13: Type your answer in the text box provided below the question.

What is the number of vowels in the final output of the software, if the input string is “THERE IS NO SPOON”?

Your Answer:4 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	447
Avg. time spent on this question by all students	372
Difficulty Level	M
Avg. time spent on this question by students who got this question right	372
% of students who attempted this question	47.14
% of students who got the question right of those who attempted	56.69

[Video Solution](#)

[Text Solution](#)

By observing each step we can infer the logic involved in each step.
Step 1: All the vowels are replaced with the next vowel in the alphabet.
Step 2: All the consonants are replaced with the second next letter (not second next consonant) in the alphabet.
Step 3: All the vowels in the string are removed along with the spaces.
Step 4: All the letters in the odd places are replaced by the next letter and the letters in the even places are replaced by the previous letter in the alphabet.

The output at the end of the first step is “THIRI OS NU SPUUN”

Output at the end of 2nd step: VJITI OU PU URUUP

Output at the end of 3rd step: VJTPRP

Output at the end of 4th step: WIUOSO

Hence, the number of vowels in the final output is 4.

Ans: (4)

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

Akbar wrote a software which modifies a string in a specific manner. The software accepts input only in the form of a text string and the modification of the text string takes place in four sequential steps, i.e., step 1, step 2 and step 3 followed by the final output. The following example gives the output of the software after each step for a particular input string:

Input String: A FAT CAT STOOD NEAR A THIN PUMA
Step 1: E FET CET STUUD NIER E THON PAME
Step 2: E HEV EEV UVUUF PIET E VJOP RAOE
Step 3: HVVVFPTVJPR
Final Output: IUWUGOUUKOS

Q14. DIRECTIONS for questions 14 to 16: Select the correct alternative from the given choices.

If the final output of the software is “WISIQSQUZ”, which of the following could be the input string?

a) THE PHONE SOUNDS TWICE

b) THE PHONE IS NOT WORKING

c) THE PHONE SINGS ONCE

d) THE PHONE RINGS TWICE Your answer is correct

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Time spent / Accuracy Analysis

Time taken by you to answer this question	316
Avg. time spent on this question by all students	295
Difficulty Level	M
Avg. time spent on this question by students who got this question right	299
% of students who attempted this question	29.38
% of students who got the question right of those who attempted	78.37

[Video Solution](#)

Text Solution

By observing each step we can infer the logic involved in each step.

Step 1: All the vowels are replaced with the next vowel in the alphabet.

Step 2: All the consonants are replaced with the second next letter (not second next consonant) in the alphabet.

Step 3: All the vowels in the string are removed along with the spaces.

Step 4: All the letters in the odd places are replaced by the next letter and the letters in the even places are replaced by the previous letter in the alphabet.

If the final output is "WISIQSQUZ", the output at the end of third step has to be "VJRJPTPVY". Ignoring the vowels in between, the consonants at the end of the first step has to be "THPHNRNTW". These consonants must be in the input string in the same order. Observing the options, we find that only option D has the consonants in the same order.

undefined

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

Akbar wrote a software which modifies a string in a specific manner. The software accepts input only in the form of a text string and the modification of the text string takes place in four sequential steps, i.e., step 1, step 2 and step 3 followed by the final output. The following example gives the output of the software after each step for a particular input string:

Input String:	A FAT CAT STOOD NEAR A THIN PUMA
Step 1:	E FET CET STUUD NIER E THON PAME
Step 2:	E HEV EEV UVUUUF PIET E VJOP RAOE
Step 3:	HVVVFPTVJPR
Final Output:	IUWUGOUUKOS

Q15. DIRECTIONS for questions 14 to 16: Select the correct alternative from the given choices.

Which of the following can be the final output of the software?

a) SIZLOCK

b) FRIENDS

c) COPTER

d) CHIPSET

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Remove Watermark Now

Time taken by you to answer this question	64
Avg. time spent on this question by all students	134
Difficulty Level	M
Avg. time spent on this question by students who got this question right	133
% of students who attempted this question	20.11
% of students who got the question right of those who attempted	77.03

[Video Solution](#)

Text Solution

By observing each step we can infer the logic involved in each step.

Step 1: All the vowels are replaced with the next vowel in the alphabet.

Step 2: All the consonants are replaced with the second next letter (not second next consonant) in the alphabet.

Step 3: All the vowels in the string are removed along with the spaces.

Step 4: All the letters in the odd places are replaced by the next letter and the letters in the even places are replaced by the previous letter in the alphabet.

The output of the third step of the software should not have any vowels in it.

If SIZLOCK is the final output, the third step would be RJYMNDJ. This can be the output of the third step.

If FRIENDS is the final output, the third step would be ESHFMER. Since this has vowels in it, this cannot be a final output.

If COPTER is the final output, the third step would be BPOUDS. Since this has vowels in it, this cannot be a final output.

If CHIPSET is the final output, the third step would be BIHQRF. Since this has a vowel in it, this cannot be a final output.

Choice (A)

undefined



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

Akbar wrote a software which modifies a string in a specific manner. The software accepts input only in the form of a text string and the modification of the text string takes place in four sequential steps, i.e., step 1, step 2 and step 3 followed by the final output. The following example gives the output of the software after each step for a particular input string:

Input String:	A FAT CAT STOOD NEAR A THIN PUMA
Step 1:	E FET CET STUUD NIER E THON PAME
Step 2:	E HEV EEV UVUUF PIET E VJOP RAOE
Step 3:	HVVVFPTVJPR
Final Output:	IUWUGOUUKOS

Q16. DIRECTIONS for questions 14 to 16: Select the correct alternative from the given choices.

While operating the software, Akbar unknowingly altered the software such that the order of exactly two steps were interchanged. If the final output of the software did not change for the input string "PRINTER" after this alteration, which of the following steps could have been interchanged?

- a) Step 1, Step 2
- b) Step 1, Step 3
- c) Step 3, Step 4
- d) More than one of the above

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	8
Avg. time spent on this question by all students	138

Time spent / Accuracy Analysis

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Difficulty Level	M
Avg. time spent on this question by students who got this question right	160
% of students who attempted this question	21.65
% of students who got the question right of those who attempted	36.6

[Video Solution](#)

[Text Solution](#)

By observing each step we can infer the logic involved in each step.

Step 1: All the vowels are replaced with the next vowel in the alphabet.

Step 2: All the consonants are replaced with the second next letter (not second next consonant) in the alphabet.

Step 3: All the vowels in the string are removed along with the spaces.

Step 4: All the letters in the odd places are replaced by the next letter and the letters in the even places are replaced by the previous letter in the alphabet.

If Step 1 and Step 2 are interchanged, there will be no change in the final output. The output after the two steps will be RTOPVIT. Similarly, if step 1 and step 3 are interchanged, the output will be RTPVT. Hence, the answer is option D.

Choice (D)

undefined

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

Number of employees in an organisation who were sent for various training programmes – classified on the basis of their experience

Experience	Number of employees sent for SAP Training		Number of employees sent for BAAN Training		Total number of employees in the organisation	
	Staff	Line	Staff	Line	Staff	Line
< 3 years	120	151	83	115	150	170
3 - 5 years	145	173	170	254	252	300
> 5 years	47	20	25	52	75	98

Total number of employees = Staff employees + Line employees.

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

What percentage of the total number of employees in the organisation were sent for SAP training?

- a) 42%
- b) 67%
- c) 58%
- d) 63% Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	241
Avg. time spent on this question by all students	224
Difficulty Level	M
Avg. time spent on this question by students who got this question right	221
% of students who attempted this question	52.64

Time spent / Accuracy Analysis

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% of students who got the question right of those who attempted **89.53**

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

$$\text{Total number of employees} = \text{Total staff} + \text{Total line employees} = (150 + 252 + 75) + (170 + 300 + 98) = 1045$$

$$\text{Number of employees sent for SAP training} \\ = (120 + 145 + 47) + (151 + 173 + 20) = 656$$

$$\therefore \text{required percentage} = \frac{656}{1045} \times 100 = 63\% \quad \text{Choice (D)}$$

undefined

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

Number of employees in an organisation who were sent for various training programmes – classified on the basis of their experience

Experience	Number of employees sent for SAP Training		Number of employees sent for BAAN Training		Total number of employees in the organisation	
	Staff	Line	Staff	Line	Staff	Line
< 3 years	120	151	83	115	150	170
3 - 5 years	145	173	170	254	252	300
> 5 years	47	20	25	52	75	98

Total number of employees = Staff employees + Line employees.

Q18. DIRECTIONS for questions 18 and 19: Type your answer in the text box provided below the question.

At least how many staff employees with an experience between 3 and 5 years underwent training in both the programmes?

Your Answer:63 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question **128**

Avg. time spent on this question by all students **134**

Difficulty Level **M**

Avg. time spent on this question by students who got this question right **135**

% of students who attempted this question **46.87**

% of students who got the question right of those who attempted **46.99**

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

3 – 5 years:

Staff (Total number of employees = 252).

Let 'a' be the number of staff employees who undergo both SAP and BAAN training.

$$145 + 170 - a = 252, a = 63$$

Ans: (63)

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

Number of employees in an organisation who were sent for various training programmes –
classified on the basis of their experience

Experience	Number of employees sent for SAP Training		Number of employees sent for BAAN Training		Total number of employees in the organisation	
	Staff	Line	Staff	Line	Staff	Line
< 3 years	120	151	83	115	150	170
3 - 5 years	145	173	170	254	252	300
> 5 years	47	20	25	52	75	98

Total number of employees = Staff employees + Line employees.

Q19. DIRECTIONS for questions 18 and 19: Type your answer in the text box provided below the question.

At most how many line employees with less than 3 years of experience underwent only BAAN training?

Your Answer:54 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

155

Avg. time spent on this question by all students

115

Difficulty Level

M

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

119

% of students who attempted this question

41.97

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

50.62

[Video Solution](#)

Text Solution

< 3 years:

Total line employees = 170.

Let 'b' be the number of line employees who undergo both SAP and BAAN training

$$151 + 115 - b = 170$$

$$\Rightarrow b = 96$$

∴ number of employees who underwent only BAAN training = $115 - 96 = 19$

Ans: (19)

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

Experience	Number of employees sent for SAP Training		Number of employees sent for BAAN Training		Total number of employees in the organisation	
	Staff	Line	Staff	Line	Staff	Line
< 3 years	120	151	83	115	150	170
3 - 5 years	145	173	170	254	252	300
> 5 years	47	20	25	52	75	98

Total number of employees = Staff employees + Line employees.

Q20. DIRECTIONS for question 20: Select the correct alternative from the given choices.

At most how many employees with an experience between 3 and 5 years underwent only SAP training?

- a) 118
- b) 128
- c) 181
- d) **None of the above** Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

Avg. time spent on this question by all students

Difficulty Level

Avg. time spent on this question by students who got this question right 105

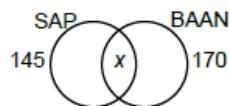
% of students who attempted this question 33.83

% of students who got the question right of those who attempted 71.43

[Video Solution](#)

[Text Solution](#)

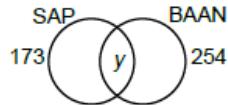
3 – 5 years:
Staff (Total number of employees = 252)



$$145 + 170 - x = 252 \Rightarrow x = 63.$$

∴ only SAP = $(145 - 63) = 82$.

Line (Total number of employees = 300)



$$173 + 254 - y = 300 \Rightarrow y = 127.$$

∴ only SAP = $173 - 127 = 46$.

∴ Total number = $82 + 46 = 128$

Choice (B)

Alternative Solution:

The number of staff employees with an experience between 3 and 5 years is 252.
The number of staff employees with an experience between 3 and 5 years who undergo BAAN training is 170.
 $\Rightarrow 82(251 - 170)$ employees did not undergo BAAN training.
∴ At most 82 staff employees (mentioned above) can undergo only SAP training.
The number of Line employees with an experience between 3 and 5 years is 300.
The number of line employees with an experience between 3 and 5 years who undergo BAAN training is 254.
 $\Rightarrow 46(300 - 254)$ employees did not undergo BAAN training.
∴ At most 46 Line employees (mentioned above) can undergo only SAP training.
∴ At most $128(82 + 46)$ employees can undergo only SAP training.



undefined

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

Three girls - Aishwarya, Ashmita and Ananya - and five boys - Raghuram, Ritvik, Rishi, Ramesh and Rana are sitting around a circular table such that no two girls are opposite or adjacent to each other. The following additional information is also known about the way they are seated:

i. Raghuram is four places away to the right of Rana.

ii. Aishwarya is to the immediate left of Ritvik.

iii. Ramesh and Ashmita are opposite each other.

iv. Rana is not adjacent to Ramesh.

v. Rishi is adjacent to two girls.

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

- a) **Ritvik** Your answer is correct
- b) **Rishi**
- c) **Rana**
- d) **Raghuram**

Time spent / Accuracy Analysis

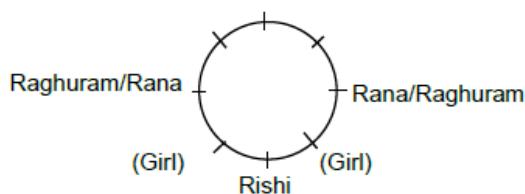
Time taken by you to answer this question	522
Avg. time spent on this question by all students	425
Difficulty Level	E
Avg. time spent on this question by students who got this question right	424
% of students who attempted this question	61.71
% of students who got the question right of those who attempted	96.19

[Video Solution](#)

[Text Solution](#)



From (v), as Rishi is adjacent to two girls and from (i), on the other side of each of these two women, either Raghuram or Rana is sitting. The arrangement is as follows:



Also, as no two girls are opposite each other, the 3rd girl must be opposite Rishi.

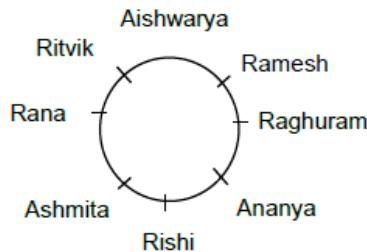
From (ii) and the above results, the 3rd girl must be Aishwarya

∴ Aishwarya is opposite Rishi.

Now, there is only position for Ramesh, the one to the immediate left of Aishwarya.

From (iii) and the above results, Ashmita is to the immediate left of Rishi and Ananya is to the immediate right of Rishi.

From (iv), the final arrangement is as follows.



Ritvik is opposite Ananya.

Choice (A)

undefined

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

Three girls - Aishwarya, Ashmita and Ananya - and five boys - Raghuram, Ritvik, Rishi, Ramesh and Rana are sitting around a circular table such that no two girls are opposite or adjacent to each other. The following additional information is also known about the way they are seated:

i. Raghuram is four places away to the right of Rana.

ii. Aishwarya is to the immediate left of Ritvik.

- iii. Ramesh and Ashmita are opposite each other.
- iv. Rana is not adjacent to Ramesh.
- v. Rishi is adjacent to two girls.

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

Who is sitting three places away to the right of Rana?

- a) **Rishi**
- b) **Ramesh**
- c) **Ashmita**
- d) **Ananya** Your answer is correct

Time spent / Accuracy Analysis

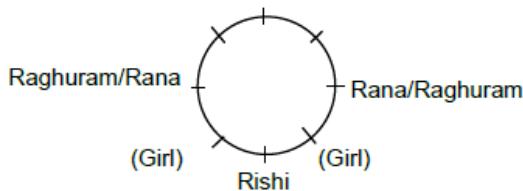
Time taken by you to answer this question	20
Avg. time spent on this question by all students	29
Difficulty Level	E
Avg. time spent on this question by students who got this question right	27
% of students who attempted this question	61.04
% of students who got the question right of those who attempted	90.55

[Video Solution](#)

[Text Solution](#)

From (v), as Rishi is adjacent to two girls and from (i), on the other side of each of these two women, either Raghuram or Rana is sitting. The arrangement is as follows:

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Also, as no two girls are opposite each other, the 3rd girl must be opposite Rishi.

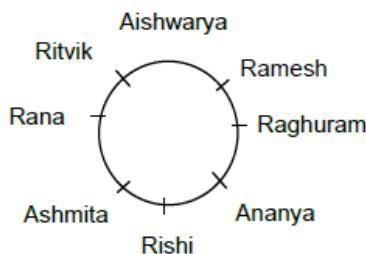
From (ii) and the above results, the 3rd girl must be Aishwarya

∴ Aishwarya is opposite Rishi.

Now, there is only position for Ramesh, the one to the immediate left of Aishwarya.

From (iii) and the above results, Ashmita is to the immediate left of Rishi and Ananya is to the immediate right of Rishi.

From (iv), the final arrangement is as follows.



Ananya is three places to the right of Rana.

Choice (D)

undefined



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

Three girls - Aishwarya, Ashmita and Ananya - and five boys - Raghuram, Ritvik, Rishi, Ramesh and Rana are sitting around a circular table such that no two girls are opposite or adjacent to each other. The following additional information is also known about the way they are seated:

i. Raghuram is four places away to the right of Rana.

ii. Aishwarya is to the immediate left of Ritvik.

iii. Ramesh and Ashmita are opposite each other.

iv. Rana is not adjacent to Ramesh.

v. Rishi is adjacent to two girls.

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

Who is to the immediate left of Rishi?

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- a) **Ananya**
- b) **Ashmita** Your answer is correct
- c) **Aishwarya**
- d) **Either Ananya or Ashmita**

Time spent / Accuracy Analysis

Time taken by you to answer this question	33
Avg. time spent on this question by all students	31
Difficulty Level	E
Avg. time spent on this question by students who got this question right	30
% of students who attempted this question	60.82
% of students who got the question right of those who attempted	87.9

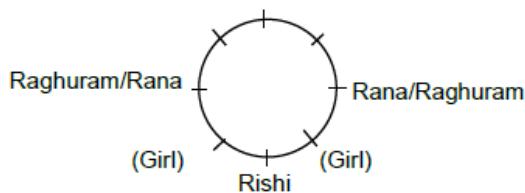
[Video Solution](#)

[Text Solution](#)



From (v), as Rishi is adjacent to two girls and from (i), on the other side of each of these two women, either Raghuram or Rana is sitting. The arrangement is as follows:

[Remove Watermark Now](#)



Also, as no two girls are opposite each other, the 3rd girl must be opposite Rishi.

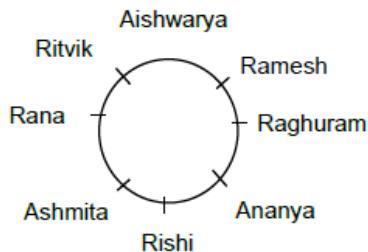
From (ii) and the above results, the 3rd girl must be Aishwarya

∴ Aishwarya is opposite Rishi.

Now, there is only position for Ramesh, the one to the immediate left of Aishwarya.

From (iii) and the above results, Ashmita is to the immediate left of Rishi and Ananya is to the immediate right of Rishi.

From (iv), the final arrangement is as follows.



- . Ashmita is to the immediate left of Rishi.

Choice (B)



undefined

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

Three girls - Aishwarya, Ashmita and Ananya - and five boys - Raghuram, Ritvik, Rishi, Ramesh and Rana are sitting around a circular table such that no two girls are opposite or adjacent to each other. The following additional information is also known about the way they are seated:

i.
Raghuram is four places away to the right of
Rana.

ii.
Aishwarya is to the immediate left of
Ritvik.

- iii. Ramesh and Ashmita are opposite each other.
- iv. Rana is not adjacent to Ramesh.
- v. Rishi is adjacent to two girls.

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

Who is sitting to the immediate right of Ritvik?

- a) **Raghuram**
- b) **Ramesh**
- c) **Ashmita**
- d) **Rana** Your answer is correct

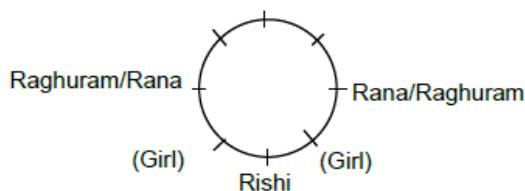
Time spent / Accuracy Analysis

Time taken by you to answer this question	9
Avg. time spent on this question by all students	20
Difficulty Level	E
Avg. time spent on this question by students who got this question right	19
% of students who attempted this question	60.36
% of students who got the question right of those who attempted	94.46

[Video Solution](#)

[Text Solution](#)

From (v), as Rishi is adjacent to two girls and from (i), on the other side of each of these two women, either Raghuram or Rana is sitting. The arrangement is as follows:



Also, as no two girls are opposite each other, the 3rd girl must be opposite Rishi.

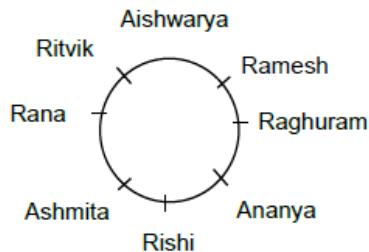
From (ii) and the above results, the 3rd girl must be Aishwarya

∴ Aishwarya is opposite Rishi.

Now, there is only position for Ramesh, the one to the immediate left of Aishwarya.

From (iii) and the above results, Ashmita is to the immediate left of Rishi and Ananya is to the immediate right of Rishi.

From (iv), the final arrangement is as follows.



Rana is sitting to the immediate right of Ritvik.

Choice (D)

undefined

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

The following table gives the details regarding the population and literacy rate in five districts - A, B, C, D and E. All questions pertain only to these five districts.

District	Population (in lakh)	Female population (in lakh)	Male literacy rate	Overall literacy rate
A	26.5	12.2	70%	55%
B	20.2	10.8	65%	52%
C	12.6	6.8	75%	62%
D	32.2	15.6	80%	67%
E	17.5	8.2	60%	44%

Q25. DIRECTIONS for questions 25 to 28: In each of the following questions, two statements I and II are given. Assess whether each statement is true or false and mark your answer choice appropriately.

Statement I: In district B, the number of male illiterates is more than the number of female literates.

Statement II: The number of female literates in district A is 4.83 lakh.

- a) Only statement I is true.
- b) Only statement II is true.
- c) Both statements I and II are true.
- d) Neither statement I nor statement II is true.

You did not answer this question

Show Correct Answer

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Time spent / Accuracy Analysis

Time taken by you to answer this question	125
Avg. time spent on this question by all students	375
Difficulty Level	E
Avg. time spent on this question by students who got this question right	407
% of students who attempted this question	42.28
% of students who got the question right of those who attempted	52.31

[Video Solution](#)

[Text Solution](#)



As the given choices are not very close to each other, we need to approximately find the values.

In district A, as the male literacy rate is 70%, the number of male literates
 $= 14.3 \times \frac{70}{100} = 10$ lakh and as the overall literacy rate is 55%, the number of literates
is $\frac{55}{100} \times 26.5 \approx 14.6$ lakh.

\therefore Number of female literates ≈ 4.6 lakhs.

\therefore Female literacy rate $= \frac{4.6}{12.2} \times 100 \approx 38\%$

Similarly values for other districts can be determined. (Note that the following table is given only for convenience and need not be necessary for answering all the questions)

District	Population	Female population	Male population	Male literacy rate	Female literacy rate	Overall literary rate
A	26.5	12.2	14.3	70%	38%	55%
B	20.2	10.8	9.4	65%	41%	52%
C	12.6	6.8	5.8	75%	51%	62%
D	32.2	15.6	16.6	80%	54%	67%
E	17.5	8.2	9.3	60%	26%	44%

The number of male illiterates in district B

$$= 9.4 \times \frac{35}{100} = 3.29 \text{ lakh}$$

The number of female literates in district B

$$= 10.8 \times \frac{41}{100} > 4 \text{ lakh}$$

Statement I is false.

The number of female literates in district A = 4.6 lakh

Statement II is also false.

Choice (D)

undefined

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

The following table gives the details regarding the population and literacy rate in five districts - A, B, C, D and E. All questions pertain only to these five districts.

District	Population (in lakh)	Female population (in lakh)	Male literacy rate	Overall literacy rate
A	26.5	12.2	70%	55%
B	20.2	10.8	65%	52%
C	12.6	6.8	75%	62%
D	32.2	15.6	80%	67%
E	17.5	8.2	60%	44%

Q26. DIRECTIONS for questions 25 to 28: In each of the following questions, two statements I and II are given. Assess whether each statement is true or false and mark your answer choice appropriately.

- Statement I: District E has the highest number of illiterate males.
 Statement II: The number of illiterate males in district D is 3.32 lakh.

- a) Both statements I and II are true.
- b) Only statement II is true.
- c) Neither statement I nor statement II is true.
- d) Only statement I is true.

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	160
Difficulty Level	E
Avg. time spent on this question by students who got this question right	164
% of students who attempted this question	35.29
% of students who got the question right of those who attempted	68.18

[Video Solution](#)

[Text Solution](#)

As the given choices are not very close to each other, we need to approximately find the values.

In district A, as the male literacy rate is 70%, the number of male literates
 $= 14.3 \times \frac{70}{100} = 10$ lakh and as the overall literacy rate is 55%, the number of literates
is $\frac{55}{100} \times 26.5 \approx 14.6$ lakh.

\therefore Number of female literates ≈ 4.6 lakhs.

$$\therefore \text{Female literacy rate} = \frac{4.6}{12.2} \times 100 \approx 38\%$$

Similarly values for other districts can be determined. (Note that the following table is given only for convenience and need not be necessary for answering all the questions)

District	Population	Female population	Male population	Male literacy rate	Female literacy rate	Overall literary rate
A	26.5	12.2	14.3	70%	38%	55%
B	20.2	10.8	9.4	65%	41%	52%
C	12.6	6.8	5.8	75%	51%	62%
D	32.2	15.6	16.6	80%	54%	67%
E	17.5	8.2	9.3	60%	26%	44%

Just by observation we can determine that district A would have the highest number of illiterate males – among districts A, B, C and D. Now, the number of illiterate males in the two districts A and E are

$$\text{District A} = \frac{30}{100} \times 14.3 = 4.29$$

$$\text{District E} = \frac{40}{100} \times 8.3 = 3.32$$

\therefore Statement I is false.

The number of illiterate males in district D

$$= \frac{20}{100} \times 16.6 = 3.32$$

Statement II is true.

Choice (B)

undefined

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

The following table gives the details regarding the population and literacy rate in five districts - A, B, C, D and E. All questions pertain only to these five districts.

District	Population (in lakh)	Female population (in lakh)	Male literacy rate	Overall literacy rate
A	26.5	12.2	70%	55%
B	20.2	10.8	65%	52%
C	12.6	6.8	75%	62%
D	32.2	15.6	80%	67%
E	17.5	8.2	60%	44%

Q27. DIRECTIONS for questions 25 to 28: In each of the following questions, two statements I and II are given. Assess whether each statement is true or false and mark your answer choice appropriately.

Statement I: The overall literacy rate of the five districts together is more than the overall literacy rate of district A.

Statement II: The female literacy rate is the highest in district D.

- a) Only statement II is true.
- b) Only statement I is true.
- c) Both statements I and II are true.
- d) Neither statement I nor statement II is true.

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You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	8
Avg. time spent on this question by all students	194
Difficulty Level	E
Avg. time spent on this question by students who got this question right	199
% of students who attempted this question	25.28
% of students who got the question right of those who attempted	65.87

[Video Solution](#)

[Text Solution](#)



As the given choices are not very close to each other, we need to approximately find the values.

In district A, as the male literacy rate is 70%, the number of male literates

$$= 14.3 \times \frac{70}{100} = 10 \text{ lakh and as the overall literacy rate is } 55\%, \text{ the number of literates}$$

$$\text{is } \frac{55}{100} \times 26.5 \approx 14.6 \text{ lakh.}$$

\therefore Number of female literates ≈ 4.6 lakhs.

$$\therefore \text{Female literacy rate} = \frac{4.6}{12.2} \times 100 \approx 38\%$$

Similarly values for other districts can be determined. (Note that the following table is given only for convenience and need not be necessary for answering all the questions)

District	Population	Female population	Male population	Male literacy rate	Female literacy rate	Overall literary rate
A	26.5	12.2	14.3	70%	38%	55%
B	20.2	10.8	9.4	65%	41%	52%
C	12.6	6.8	5.8	75%	51%	62%
D	32.2	15.6	16.6	80%	54%	67%
E	17.5	8.2	9.3	60%	26%	44%

The overall literacy rate

$$= \frac{\text{Total literate population of all districts}}{\text{Total population of all districts}}$$

$$= \frac{14.6 + 10.5 + 7.8 + 21.7 + 7.75}{26.5 + 20.2 + 12.6 + 32.2 + 17.5} \times 100 \approx 57\%$$

Statement I is true

From the table it can be seen that the female literacy rate was the highest in D.

Statement II is also true.

Choice (C)



undefined

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

The following table gives the details regarding the population and literacy rate in five districts - A, B, C, D and E. All questions pertain only to these five districts.

District	Population (in lakh)	Female population (in lakh)	Male literacy rate	Overall literacy rate
A	26.5	12.2	70%	55%
B	20.2	10.8	65%	52%
C	12.6	6.8	75%	62%
D	32.2	15.6	80%	67%
E	17.5	8.2	60%	44%

Q28. DIRECTIONS for questions 25 to 28: In each of the following questions, two statements I and II are given. Assess whether each statement is true or false and mark your answer choice appropriately.

Statement I: The difference between the male and the female literacy rates is the highest in district D.

[Remove Watermark Now](#)

Statement II: More than 50% of the population of the five districts put together are males.

- a) Only statement I is true.
- b) Only statement II is true.
- c) Neither statement I nor statement II is true.
- d) Both statements I and II are true.

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	152
Difficulty Level	E
Avg. time spent on this question by students who got this question right	160
% of students who attempted this question	21.8
% of students who got the question right of those who attempted	56.65

[Video Solution](#)

[Text Solution](#)



As the given choices are not very close to each other, we need to approximately find the values.

In district A, as the male literacy rate is 70%, the number of male literates
 $= 14.3 \times \frac{70}{100} = 10$ lakh and as the overall literacy rate is 55%, the number of literates
is $\frac{55}{100} \times 26.5 \approx 14.6$ lakh.

\therefore Number of female literates ≈ 4.6 lakhs.

\therefore Female literacy rate $= \frac{4.6}{12.2} \times 100 \approx 38\%$

Similarly values for other districts can be determined. (Note that the following table is given only for convenience and need not be necessary for answering all the questions)

District	Population	Female population	Male population	Male literacy rate	Female literacy rate	Overall literary rate
A	26.5	12.2	14.3	70%	38%	55%
B	20.2	10.8	9.4	65%	41%	52%
C	12.6	6.8	5.8	75%	51%	62%
D	32.2	15.6	16.6	80%	54%	67%
E	17.5	8.2	9.3	60%	26%	44%

. It can be seen from the table that the difference between the male and female literacy rates is the highest in district E.

Statement I is false.

The total male population $= 14.3 + 9.4 + 5.8 + 16.6 + 8.3 = 54.4$

Total female population $= 12.2 + 10.8 + 6.8 + 15.6 + 8.2 = 53.6$

As the number of males is more than the number of females, statement II is true.

Choice (B)



undefined

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

A wholesaler dealer, Chinta Singh, deals with only six products - A, B, C, D, E and F. He purchases the products from the company at Rs.120, Rs.400, Rs.160, Rs.320, Rs.640 and Rs.140 per unit respectively and sells them to retail shopkeepers at Rs.184, Rs.460, Rs.256, Rs.352, Rs.720 and Rs.196 per unit respectively. He sells each product only in packs of 100 units.

Q29. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

On a certain day, if he sold a total of 200 units, then which of the following cannot be his total profit on that day?

- a) Rs.8,800
- b) Rs.12,800
- c) Rs.14,600
- d) Rs.17,600

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

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Time taken by you to answer this question	201
Avg. time spent on this question by all students	274
Difficulty Level	M
Avg. time spent on this question by students who got this question right	268
% of students who attempted this question	38.8
% of students who got the question right of those who attempted	74.26

[Video Solution](#)

Text Solution

The table below gives the cost price, selling price, profit and profit percentage of each of the six products.

Product	Cost price per unit	Selling price per unit	Profit per unit	Profit percentage
A	120	184	64	53.33%
B	400	460	60	15%
C	160	256	96	60%
D	320	352	32	10%
E	640	720	80	12.5%
F	140	196	56	40%

Choice (A) It is possible for him to realise a profit of ₹8,800 when he sells 100 units of D and 100 units of F.

Choice (B) It is possible for him to realise a profit of ₹12,800 when he sells 200 units of A.

Choice (D) It is possible for him to realise a profit of ₹17,600, when he sells 100 units of C and 100 units of E.

∴ Of the given options, choice (C) cannot be the profit amount that he could have realized on that day.

Choice (C)

undefined

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

A wholesaler dealer, Chinta Singh, deals with only six products - A, B, C, D, E and F. He purchases the products from the company at Rs.120, Rs.400, Rs.160, Rs.320, Rs.640 and Rs.140 per unit respectively and sells them to retail shopkeepers at Rs.184, Rs.460, Rs.256, Rs.352, Rs.720 and Rs.196 per unit respectively. He sells each product only in packs of 100 units.

Q30. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

On a day on which he sold all the six products, selling 200 units of each product, what was his total profit?

- a) **Rs.73600**
- b) **Rs.75600**
- c) **Rs.77600**
- d) **Rs.79600**

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	91
Difficulty Level	E

Time spent / Accuracy Analysis

Remove Watermark Now

Avg. time spent on this question by students who got this question right	89
% of students who attempted this question	43.93
% of students who got the question right of those who attempted	92.94

[Video Solution](#)

Text Solution

The table below gives the cost price, selling price, profit and profit percentage of each of the six products.

Product	Cost price per unit	Selling price per unit	Profit per unit	Profit percentage
A	120	184	64	53.33%
B	400	460	60	15%
C	160	256	96	60%
D	320	352	32	10%
E	640	720	80	12.5%
F	140	196	56	40%

The profit on selling 200 units of each product

$$\begin{aligned} &= 200(184 - 120 + 460 - 400 + 256 - 160 + 352 - 320 + 720 - 640 + 196 - 140) \\ &= 200(64 + 60 + 96 + 32 + 80 + 56) = 77600. \end{aligned}$$

Choice (C)

undefined

undefined

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

A wholesaler dealer, Chinta Singh, deals with only six products - A, B, C, D, E and F. He purchases the products from the company at Rs.120, Rs.400, Rs.160, Rs.320, Rs.640 and Rs.140 per unit respectively and sells them to retail shopkeepers at Rs.184, Rs.460, Rs.256, Rs.352, Rs.720 and Rs.196 per unit respectively. He sells each product only in packs of 100 units.

Q31. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

It is known that on a particular day, the overall profit percentage that he made on the products sold on that day was exactly 10.5%.

What is the least possible total profit that he could have made on that day?

- a) **Rs.20,800**
- b) **Rs.11,200**
- c) **Rs.26,400**
- d) **Rs.33,600**

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	236
Difficulty Level	D
Avg. time spent on this question by students who got this question right	241
% of students who attempted this question	10.81
% of students who got the question right of those who attempted	38.85

[Text Solution](#)

The table below gives the cost price, selling price, profit and profit percentage of each of the six products.

Product	Cost price per unit	Selling price per unit	Profit per unit	Profit percentage
A	120	184	64	53.33%
B	400	460	60	15%
C	160	256	96	60%
D	320	352	32	10%
E	640	720	80	12.5%
F	140	196	56	40%

The question can be solved by above approach and also by the following approach.
Since his overall profit percentage was 10.5%, D has to be one of the products he sold on that day and to have the least possible profit the other product has to E.
The ratio of cost price of units of D sold: cost price of units of E sold = $(12.5 - 10.5) : (10.5 - 10)$ = 4 : 1.

The cost price of one unit of D is half the cost price of one unit of E.

∴ The number of units of D sold : the number of units of E sold = 8 : 1.

∴ The number of units of D is 800 and that of E is 100.

$$\begin{aligned} \text{∴ The required value} &= 800(352 - 320) + 100(720 - 640) \\ &= 800(32) + 100(80) \\ &= ₹33,600. \end{aligned}$$

Choice (D)

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

A wholesaler dealer, Chinta Singh, deals with only six products - A, B, C, D, E and F. He purchases the products from the company at Rs.120, Rs.400, Rs.160, Rs.320, Rs.640 and Rs.140 per unit respectively and sells them to retail shopkeepers at Rs.184, Rs.460, Rs.256, Rs.352, Rs.720 and Rs.196 per unit respectively. He sells each product only in packs of 100 units.

Q31. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

It is known that on a particular day, the overall profit percentage that he made on the products sold on that day was exactly 10.5%.

What is the least possible total profit that he could have made on that day?

- a) **Rs.20,800**
- b) **Rs.11,200**
- c) **Rs.26,400**
- d) **Rs.33,600**

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	236
Difficulty Level	D
Avg. time spent on this question by students who got this question right	241
% of students who attempted this question	10.81
% of students who got the question right of those who attempted	38.85

[Text Solution](#)

The table below gives the cost price, selling price, profit and profit percentage of each of the six products.

Product	Cost price per unit	Selling price per unit	Profit per unit	Profit percentage
A	120	184	64	53.33%
B	400	460	60	15%
C	160	256	96	60%
D	320	352	32	10%
E	640	720	80	12.5%
F	140	196	56	40%

The question can be solved by above approach and also by the following approach.
Since his overall profit percentage was 10.5%, D has to be one of the products he sold on that day and to have the least possible profit the other product has to E.
The ratio of cost price of units of D sold: cost price of units of E sold = $(12.5 - 10.5) : (10.5 - 10) = 4 : 1$.

The cost price of one unit of D is half the cost price of one unit of E.
 \therefore The number of units of D sold : the number of units of E sold = 8 : 1.
 \therefore The number of units of D is 800 and that of E is 100.
 \therefore The required value = $800(352 - 320) + 100(720 - 640)$
 $= 800(32) + 100(80)$
 $= ₹33,600.$

Choice (D)

undefined

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

A wholesaler dealer, Chinta Singh, deals with only six products - A, B, C, D, E and F. He purchases the products from the company at Rs.120, Rs.400, Rs.160, Rs.320, Rs.640 and Rs.140 per unit respectively and sells them to retail shopkeepers at Rs.184, Rs.460, Rs.256, Rs.352, Rs.720 and Rs.196 per unit respectively. He sells each product only in packs of 100 units.

Q32. DIRECTIONS for questions 29 to 32: Select the correct alternative from the given choices.

It is known that on a particular day, the overall profit percentage that he made on the products sold on that day was exactly 10.5%.

If it is also known that he sold only three products, B, D and E, selling at least 100 units of each, then which of the following can be the total number of units that he sold on that day?

- a) 4900
- b) 6300
- c) 6700
- d) 7500

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	277
Difficulty Level	VD
Avg. time spent on this question by students who got this question right	389
% of students who attempted this question	3.93

Time spent / Accuracy Analysis

Remove Watermark Now

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

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

The table below gives the cost price, selling price, profit and profit percentage of each of the six products.

Product	Cost price per unit	Selling price per unit	Profit per unit	Profit percentage
A	120	184	64	53.33%
B	400	460	60	15%
C	160	256	96	60%
D	320	352	32	10%
E	640	720	80	12.5%
F	140	196	56	40%

Let the number of products sold of B, D and E be $100b$, $100d$ and $100e$ respectively.

It is known that profit percentage = 10.5%

$$\Rightarrow \frac{60b + 32d + 80e}{400b + 320d + 640e} \times 100 = 10.5$$

$$= 600b + 320d + 800e = 420b + 336d + 672e$$

$$= 180b + 128d = 16d$$

$$= 45b + 32e = 4d$$

The minimum values of $(b, e, d) = (4, 1, 53)$

i.e., total unit sold = 5800 units.

The other set of values for (b, e, d) is $(4, 2, 61)$

i.e., total units sold = 6700 units.

Choice (C)

undefined

Q1. DIRECTIONS for question 1: Type your answer in the text box provided below the question.

A square room has a hook on the ceiling exactly at the centre P. If AB is one of the sides of the floor, where $\angle APB = 60^\circ$ and $AB = 6$ m, then what is the height (in m) of the room?

Enter your answer as a decimal value, rounded off to two decimal places.

Your Answer: 4 Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

196

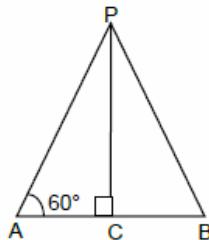
Avg. time spent on this question by all students

191

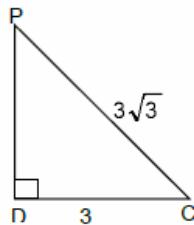
Difficulty Level

EAvg. time spent on this question by students who got this question right **197**% of students who attempted this question **30.09**% of students who got the question right of those who attempted **20.24**[Video Solution](#)[Text Solution](#)

Given $\angle APB = 60^\circ$
 AP = BP [\because P is at centre of the roof]
 $\therefore \angle PBA = 60^\circ$
 Let C be the mid point of the side of the floor



AC = 3 m
 $PC = AC \tan 60^\circ = 3\sqrt{3}$ m
 Let D be the centre of the floor.



$\triangle PDC$ is a right-angled triangle
 $\therefore PD = \sqrt{(3\sqrt{3})^2 - 3^2} = \sqrt{18} = 3\sqrt{2}$ m
 \therefore The height of the room is $3\sqrt{2}$ m.
 $\cong 3 \times 1.414 \cong 4.2426 \cong 4.24$ (rounded off to two decimal places) Ans: (4.24)

undefined



Q2. DIRECTIONS for question 2 and 3: Select the correct alternative from the given choices.

In how many ways can 60060 be written as a product of two factors?

- a) 16 ways
- b) 32 ways
- c) 48 ways
- d) 96 ways Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	324
Avg. time spent on this question by all students	157
Difficulty Level	E
Avg. time spent on this question by students who got this question right	155
% of students who attempted this question	40.69
% of students who got the question right of those who attempted	65.52

[Video Solution](#)

Text Solution

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$$\begin{aligned}
 60060 &= 60 \times 1001 \\
 &= 60 \times 7 \times 11 \times 13 \\
 &= 2^2 \times 3 \times 5 \times 7 \times 11 \times 13 \\
 \text{Number of ways of expressing } a^p \times b^q \times c^r \dots \text{ as product of 2 factors} \\
 \frac{1}{2} [(p+1)(q+1)(r+1) \dots] \\
 \therefore \text{No. of ways} &= \frac{1}{2}[3.2.2.2.2.2] \\
 &= 48 \text{ ways}
 \end{aligned}$$

Choice (C)

undefined

Q3. DIRECTIONS for question 2 and 3: Select the correct alternative from the given choices.

Find the sum of all possible values of x , if $\frac{\log 20 + \log(x^2 + 5x)}{\log 4\sqrt{5}} = 2$.

- a) -10
- b) -5
- c) 10
- d) None of the above Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	260
Avg. time spent on this question by all students	147
Difficulty Level	M
Avg. time spent on this question by students who got this question right	137
% of students who attempted this question	27.94
% of students who got the question right of those who attempted	68.08

[Video Solution](#)

Text Solution

$$\frac{\log 20 + \log(x^2 + 5x)}{\log 4\sqrt{5}} = 2$$

$$\log 20 + \log(x^2 + 5x) = 2 \log 4\sqrt{5}$$

$$\log(x^2 + 5x) = \log\left(\frac{16 \times 5}{20}\right)$$

$$x^2 + 5x = 4$$

$$x^2 + 5x - 4 = 0$$

Now, $(x^2 + 5x)$ appears directly in the equation, and we know that $x^2 + 5x + 4 = 0$.

Hence, we can be sure that both the roots will satisfy the original equation.

\therefore Sum of the roots

$$\frac{-b}{a} = -5$$

Choice (B)

undefined

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

If the ratio of the sum of the first n terms (where n is any natural number) of two arithmetic progressions is given by $\frac{2n+3}{5n-17}$, then what is the ratio of the 12th terms of the progressions?

Enter your answer as a decimal value, rounded off to two decimal places.

Your Answer:0.50 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	180
Avg. time spent on this question by all students	166
Difficulty Level	M
Avg. time spent on this question by students who got this question right	160
% of students who attempted this question	28.52
% of students who got the question right of those who attempted	39.92

[Video Solution](#)

[Text Solution](#)

Let a_1, d_1 and a_2, d_2 be the 1st term and the common difference of the two APs.

Ratio of the sum of n terms

$$\begin{aligned} &= \frac{\frac{n}{2}[2a_1 + (n-1)d_1]}{\frac{n}{2}[2a_2 + (n-1)d_2]} = \frac{2n+3}{5n-17} \\ &\Rightarrow \frac{2a_1 + (n-1)d_1}{2a_2 + (n-1)d_2} = \frac{2n+3}{5n-17} \\ &\Rightarrow \frac{a_1 + \left(\frac{n-1}{2}\right)d_1}{a_2 + \left(\frac{n-1}{2}\right)d_2} = \frac{2n+3}{5n-17} \end{aligned}$$

i.e., the ratio of $\left(\left(\frac{n-1}{2}\right) + 1\right)^{\text{th}}$ terms of the given progressions is $\frac{2n+3}{5n-17}$

Since, the ratio of 12th terms is required, we take $n = 23$.

$$\therefore \text{The required ratio is } = \frac{2(23)+3}{5(23)-17} = \frac{49}{98} = \frac{1}{2} \quad \text{Ans: (0.50)}$$

Note: The sum of $2k + 1$ terms of a A.P. is $2k + 1$ times the $(k + 1)^{\text{th}}$ term of the progression.

\therefore The ratio of 12th terms of the progression will be same as the sum of the first 23 terms of the progressions.

undefined

Q5. DIRECTIONS for questions 5 to 10: Select the correct alternative from the given choices.

The first term, seventh term and thirty-first term of an increasing arithmetic progression are in geometric progression. Find the ratio of the first term to the common difference of the arithmetic progression.

- a) 3 : 1
- b) 2 : 1 **Your answer is correct**
- c) 1 : 2

Time spent / Accuracy Analysis

Time taken by you to answer this question	171
Avg. time spent on this question by all students	122
Difficulty Level	E
Avg. time spent on this question by students who got this question right	120
% of students who attempted this question	41.83
% of students who got the question right of those who attempted	87.38

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

The first term, seventh term and thirty-first term of an arithmetic progression will be of the form a , $a + 6d$ and $a + 30d$.

Given,

$$\begin{aligned} (a)(a + 30d) &= (a + 6d)^2 \\ a^2 + 30ad &= a^2 + 12ad + 36d^2 \\ 18ad &= 36d^2 \end{aligned}$$

$$\Rightarrow a = 2d \text{ (since it is an increasing A.P.)}$$

\therefore The required ratio is $2 : 1$.

Choice (B)

undefined

Q6. DIRECTIONS for questions 5 to 10: Select the correct alternative from the given choices.

Four friends, Amit, Sumit, Praneet and Vineet, decided to run on a circular track, of length 2.52 km, at speeds of 21 m/s, 23 m/s, 18 m/s and 19 m/s respectively. If all the four friends started running from the same point at 8:00 a.m., then at what time after they start will all the friends meet for the first time at the starting point?

- a) 8:21 a.m.
- b) 8:42 a.m. **Your answer is correct**
- c) 9:21 a.m.
- d) They will never meet at the starting point.

Time spent / Accuracy Analysis

Time taken by you to answer this question	182
Avg. time spent on this question by all students	204
Difficulty Level	M
Avg. time spent on this question by students who got this question right	195
% of students who attempted this question	27.41
% of students who got the question right of those who attempted	38.68

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

Speeds of the four friends are 21 m/s, 23 m/s, 18 m/s, 19 m/s
 Distance = 2520 m

Time taken by the four friends to meet again at the starting point

$$= \text{LCM of } \left(\frac{2520}{21}, \frac{2520}{23}, \frac{2520}{18}, \frac{2520}{19} \right)$$

$$\text{LCM of fractions} = \frac{\text{LCM of numerators}}{\text{HCF of denominators}}$$

$$\therefore \text{Required LCM} = \frac{\text{LCM of}(2520, 2520, 2520, 2520)}{\text{HCF of } (21, 23, 18, 19)}$$

$$= \frac{2520}{1} = 2520 \text{ sec} = 42 \text{ minutes}$$

\therefore They meet at the starting point at 8:42 a.m.

Choice (B)

undefined

Q7. DIRECTIONS for questions 5 to 10: Select the correct alternative from the given choices.

How many three-letter words can be formed using the letters of the word "EDUCATION", such that no letter is repeated?

a) 729

b) 624

c) 512

d) 504 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question **70**

Avg. time spent on this question by all students **81**

Difficulty Level **VE**

Avg. time spent on this question by students who got this question right **79**

% of students who attempted this question **52.99**

% of students who got the question right of those who attempted **95.07**

[Video Solution](#)

[Text Solution](#)

"EDUCATION" has 9 distinct letters.

No. of three-letter words that can be formed

$$= 9 \times 8 \times 7 = 504.$$

Choice (D)

undefined

Q8. DIRECTIONS for questions 5 to 10: Select the correct alternative from the given choices.

In a class, there are 40 boys and 32 girls. The average heights of the boys and the girls are in the ratio 10 : 9. Find the ratio of

the average height of the class to that of the boys.

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- a) 45 : 43
- b) 43 : 45
- c) 45 : 47
- d) 47 : 45

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	100
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	176
% of students who attempted this question	43.32
% of students who got the question right of those who attempted	87.01

[Video Solution](#)

[Text Solution](#)

Let the average height of the boys be b .

\Rightarrow The average height of the girls is $\frac{9}{10}b$.

\Rightarrow The average height of the group

$$= \frac{40(b) + 32\left(\frac{9}{10}\right)(b)}{40 + 32} = \frac{43}{45}b$$

$$\therefore \text{The required ratio} = \frac{43}{45}b : b = 43 : 45$$

Choice (B)

undefined

undefined

Q9. DIRECTIONS for questions 5 to 10: Select the correct alternative from the given choices.

At which of the following times will the angle between the minute hand and the hour hand of a clock be exactly 15°?

- a) 5:40 p.m.
- b) 4:50 p.m.
- c) 3:40 p.m.
- d) 2:30 p.m.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	8
Avg. time spent on this question by all students	158
Difficulty Level	M

Time spent / Accuracy Analysis

Avg. time spent on this question by students who got this question right **155**

% of students who attempted this question **39.18**

% of students who got the question right of those who attempted **70.7**

[Remove Watermark Now](#)

[Video Solution](#)

[Text Solution](#)

The angle between the clocks at 5:40 p.m. will be less than 90°.

The angle between the clocks at 4:50 p.m. = Angle covered by minutes hand – angle covered by hour hand (taking vertical, i.e., 12 noon as reference).

Angle covered by minute hand in 50 minutes = $50 \times 6 = 300^\circ$

Angle covered by hour hand in 4:50 minutes = $(4 \times 60 + 50) \times 1/2 = 145^\circ$

Angle between the hands = $300 - 145 = 155^\circ$

Similarly angle between the hands at 3:40 p.m.

= $40 \times 6 - 220/2 = 130^\circ$

Angle between the hands at 2:30 p.m. = $30 \times 6 - 150/2 = 105^\circ$

Hence, the answer is 4:50 p.m.

Choice (B)

Q9. DIRECTIONS for questions 5 to 10: Select the correct alternative from the given choices.

At which of the following times will the angle between the minute hand and the hour hand of a clock be exactly 15°?

- a) 5:40 p.m.
- b) 4:50 p.m.
- c) 3:40 p.m.
- d) 2:30 p.m.

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question **8**

Avg. time spent on this question by all students **158**

Difficulty Level **M**

Avg. time spent on this question by students who got this question right **155**

% of students who attempted this question **39.18**

% of students who got the question right of those who attempted **70.7**

[Video Solution](#)

[Text Solution](#)

The angle between the clocks at 5:40 p.m. will be less than 90°.

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Angle between the hands = $300 - 145 = 155^\circ$

Similarly angle between the hands at 3:40 p.m.

= $40 \times 6 - 220/2 = 130^\circ$

Angle between the hands at 2:30 p.m. = $30 \times 6 - 150/2 = 105^\circ$

Hence, the answer is 4:50 p.m.

Choice (B)

undefined

undefined

Q10. DIRECTIONS for questions 5 to 10: Select the correct alternative from the given choices.

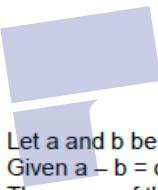
If the difference between the mean and the median of the observations x_1, x_2, \dots, x_n is d , find the difference between the mean and the median of the observations $5x_1 + 8, 5x_2 + 8, \dots, 5x_n + 8$.

- a) **5d + 40**
- b) **5d + 8**
- c) **5d**
- 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	32
Avg. time spent on this question by all students	109
Difficulty Level	E
Avg. time spent on this question by students who got this question right	113
% of students who attempted this question	25.01
% of students who got the question right of those who attempted	63.66

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

pdfelement

Let a and b be the mean and median respectively of x_1, x_2, \dots, x_n .
Given $a - b = d$.

The mean of the observations $5x_1 + 8, 5x_2 + 8, \dots, 5x_n + 8$

$$\begin{aligned} &= \frac{(5x_1 + 8) + (5x_2 + 8) + \dots + (5x_n + 8)}{n} \\ &= \frac{5(x_1 + x_2 + \dots + x_n)}{n} + \frac{8n}{n} = 5a + 8. \end{aligned}$$

The median, which is the middle term of the observations, will be equal to $5b + 8$.

\therefore The required difference = $(5a + 8) - (5b + 8)$.

$$= 5(a - b) = 5d.$$

Note: If all the observations are multiplied / increased by the same number, then the mean and the median are also multiplied / increased by the same number.

Alternative Solution:

We could take simple numbers, say 1, 3, 5 and they would become 13, 23, 33 after multiplying by 5 and adding 8. The mean and the median of the two sets of numbers can be compared to arrive at the answer choice.

Choice (C)

Q10. DIRECTIONS for questions 5 to 10: Select the correct alternative from the given choices.

If the difference between the mean and the median of the observations x_1, x_2, \dots, x_n is d , find the difference between the mean and the median of the observations $5x_1 + 8, 5x_2 + 8, \dots, 5x_n + 8$.

- a) **5d + 40**

b) **5d + 8**

c) **5d**

d) **Cannot be determined**

[Remove Watermark Now](#)

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	32
Avg. time spent on this question by all students	109
Difficulty Level	E
Avg. time spent on this question by students who got this question right	113
% of students who attempted this question	25.01
% of students who got the question right of those who attempted	63.66

[Video Solution](#)

[Text Solution](#)

Let a and b be the mean and median respectively of x_1, x_2, \dots, x_n .

Given $a - b = d$.

The mean of the observations $5x_1 + 8, 5x_2 + 8, \dots, 5x_n + 8$

$$= \frac{(5x_1 + 8) + (5x_2 + 8) + \dots + (5x_n + 8)}{n}$$

$$= \frac{5(x_1 + x_2 + \dots + x_n)}{n} + \frac{8n}{n} = 5a + 8.$$

The median, which is the middle term of the observations, will be equal to $5b + 8$.

∴ The required difference = $(5a + 8) - (5b + 8)$.

$$= 5(a - b) = 5d.$$

Note: If all the observations are multiplied / increased by the same number, then the mean and the median are also multiplied / increased by the same number.

Alternative Solution:

We could take simple numbers, say 1, 3, 5 and they would become 13, 23, 33 after multiplying by 5 and adding 8. The mean and the median of the two sets of numbers can be compared to arrive at the answer choice.

Choice (C)

undefined

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

A rightangled triangle, PQR, is rightangled at Q, with $\overline{PR} = 70$ cm. The angle bisector of $\angle PQR$ intersects PR at X and the median drawn from vertex Q intersects PR at Y. If $\overline{XY} = 5$ cm, then find the area (in sq.cm.) of triangle PQR.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

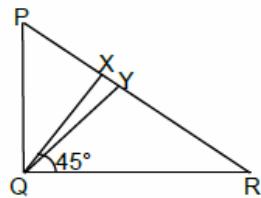
Time taken by you to answer this question	199
Avg. time spent on this question by all students	207
Difficulty Level	D
Avg. time spent on this question by students who got this question right	207
% of students who attempted this question	10.78
% of students who got the question right of those who attempted	32.92

[Video Solution](#)

Text Solution

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Y is the midpoint of PR. For our convenience, let us consider $\overline{QR} > \overline{PQ}$.



$$\Rightarrow \overline{PY} = \frac{\overline{PR}}{2} = \frac{70}{2} = 35 \text{ cm.}$$

$$\Rightarrow \overline{PX} = \overline{PY} - \overline{XY} = 35 - 5 = 30 \text{ cm.}$$

We know that, the angle bisector of $\angle Q$ divides PR in the ratio $\overline{PQ} : \overline{QR}$

$$= \overline{PX} : \overline{XR}$$

$$= 30 : (70 - 30) = 3 : 4$$

$$\Rightarrow \frac{\overline{PQ}}{\overline{QR}} = \frac{3}{4}$$

Since PQR is a rightangled triangle

$$\overline{PQ} : \overline{QR} : \overline{PR} = 3 : 4 : 5,$$

$$\text{i.e., } PQ = 70 \times \frac{3}{5} = 42 \text{ and } QR = 70 \times \frac{4}{5} = 56.$$

\therefore The area of the triangle PQR

$$= \left(\frac{1}{2}\right)(42)(56) = 1176 \text{ sq.cm.}$$

Ans: (1176)

undefined

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

Anil wrote down all the possible three-digit numbers with distinct digits on a blackboard. Of these numbers, Biswas erased all the numbers whose first and last digits were either both even or both odd. How many numbers were left on the board?

Your Answer:392 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	194
Avg. time spent on this question by all students	163
Difficulty Level	M
Avg. time spent on this question by students who got this question right	171
% of students who attempted this question	30.79
% of students who got the question right of those who attempted	20.85

[Video Solution](#)

Text Solution

The number of three-digit numbers that Anil wrote

$$\begin{array}{ccc} H & T & U \\ (9) & (9) & (8) = (81)(8) = 648 \end{array}$$

The number of numbers that begin with an even digit and end with an even digit.

$$\begin{array}{ccc} H & T & U \\ (4) & (8) & (4) = 128 \end{array}$$

The number of numbers that begin with an odd number and end with an odd number

$$\begin{array}{ccc} H & T & U \\ (5) & (8) & (4) = 160 \end{array}$$

$$\therefore \text{Required number} = 648 - (128 + 160) = 648 - 288 = 360$$

Alternative solution:

____ (For the three places)

The first [hundred, (H)] digit is odd & last digit [units (U)] even.

There are $5 \times 5 = 25$ ways of choosing such combinations for H and U.

The first digit (H) is even & last digit is odd.

There are $4 \times 5 = 20$ ways of choosing such combinations of H and U.

Now the middle digit (T) in either case can take any of 8 digits (excluding the first & last digit).

$$\therefore \text{No of ways} = (25)(20)(8) = 360.$$

Ans: (360)

undefined



Q13. DIRECTIONS for questions 13 to 15: Select the correct alternative from the given choices.

The cost per ounce of an acid A has a linear relation with its concentration. If the cost per ounce of 98% A is Rs.590, and that of 20% A is Rs.200, find the cost per ounce of 56% A.

- a) **Rs.560**
- b) **Rs.470**
- c) **Rs.380** Your answer is correct
- d) **Rs.340**

Time spent / Accuracy Analysis

Time taken by you to answer this question	222
Avg. time spent on this question by all students	154
Difficulty Level	E
Avg. time spent on this question by students who got this question right	147
% of students who attempted this question	34.42
% of students who got the question right of those who attempted	77.2

[Video Solution](#)

[Text Solution](#)

If the concentration is 20%, the cost is ₹200/ounce.
 If the concentration is 98%, the cost is ₹590/ounce.
 ∴ If the concentration is 56%, the cost (in ₹/ounce) is

$$200 + \frac{56 - 20}{98 - 20} (590 - 200)$$

$$= 200 + \frac{36}{78} (390) = 380$$

Choice (C)

undefined

Q14. DIRECTIONS for questions 13 to 15: Select the correct alternative from the given choices.

If there are five more men in a work force, they will take 16 days less to complete a job. Instead, if there are 12 more men in it, they will take 30 days less to complete it. Find the ratio of the number of men and the time taken (in days) to complete the given work.

- a) 1 : 6
- b) 1 : 5
- c) 1 : 4
- d) 3 : 10

You did not answer this question

[Show Correct Answer](#)**Time spent / Accuracy Analysis**

Time taken by you to answer this question

Avg. time spent on this question by all students

Difficulty Level

Avg. time spent on this question by students who got this question right 237

% of students who attempted this question 20.15

% of students who got the question right of those who attempted 68.41

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

Let the number of men be x and the number of days for which they work be y days.

The amount of work = xy

Given

$$(x + 5)(y - 16) = xy \rightarrow (1)$$

$$(x + 12)(y - 30) = xy \rightarrow (2)$$

Solving (1) and (2), we get

$$xy + 5y - 16x - 80 = xy$$

$$5y = 16x + 80 \rightarrow (3)$$

$$xy + 12y - 30x - 360 = xy$$

$$2y = 5x + 60 \rightarrow (4)$$

Multiplying (3) by 2 and (4) by 5, we get

$$10y = 32x + 160$$

$$10y = 25x + 300$$

$$7x = 140 \Rightarrow x = 20$$

Substituting the value of x in (3)

$$5y = 400, y = 80$$

$$\frac{x}{y} = \frac{20}{80} = \frac{1}{4} = 1 : 4$$

Choice (C)

Q15. DIRECTIONS for questions 13 to 15: Select the correct alternative from the given choices.

If $y = 12 - 2\sqrt{35}$, then $\sqrt{y} + \frac{1}{\sqrt{y}} =$

a) $\frac{3\sqrt{7}-\sqrt{5}}{2}$. Your answer is correct

b) $\frac{3\sqrt{5}-\sqrt{7}}{2}$.

c) $\frac{\sqrt{7}-3\sqrt{5}}{2}$.

d) $\frac{3\sqrt{7}+\sqrt{5}}{2}$

Time spent / Accuracy Analysis

Time taken by you to answer this question	91
Avg. time spent on this question by all students	171
Difficulty Level	E
Avg. time spent on this question by students who got this question right	162
% of students who attempted this question	21.62
% of students who got the question right of those who attempted	74.07

[Video Solution](#)

Text Solution

$$\begin{aligned}
 y &= 12 - 2\sqrt{35} = 7 + 5 - 2\sqrt{7 \times 5} \\
 (\sqrt{y})^2 &= (\sqrt{7})^2 + (\sqrt{5})^2 - 2(\sqrt{7})(\sqrt{5}) \\
 &= (\sqrt{7} - \sqrt{5})^2 \\
 \Rightarrow \sqrt{y} &= \sqrt{7} - \sqrt{5} \quad (\text{considering the positive root}) \\
 \sqrt{y} + \frac{1}{\sqrt{y}} &= \sqrt{7} - \sqrt{5} + \frac{1}{\sqrt{7} - \sqrt{5}} \\
 &= \sqrt{7} - \sqrt{5} + \frac{\sqrt{7} + \sqrt{5}}{(\sqrt{7} - \sqrt{5})(\sqrt{7} + \sqrt{5})} \\
 &= \sqrt{7} - \sqrt{5} + \frac{\sqrt{7} + \sqrt{5}}{2} \\
 &= \frac{3\sqrt{7} - \sqrt{5}}{2}
 \end{aligned}$$

Choice (A)

Q16. DIRECTIONS for questions 16 and 17: Type your answer in the text box provided below the question.

Find the remainder when the product $567890 \times 567892 \times 567894 \times 567896 \times 567898$ is divided by 11.

Your Answer:6 Your answer is correct

Time spent / Accuracy Analysis

Time spent / Accuracy Analysis

Time taken by you to answer this question	178
Avg. time spent on this question by all students	129
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	138
% of students who attempted this question	40.41
% of students who got the question right of those who attempted	48.16

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[Video Solution](#)

[Text Solution](#)

The required remainder is simply the remainder obtained by multiplying the individual remainders when each of 567890, 567892, 567894, 567896 and 567898 are divided by 11.

$$\text{i.e., Rem } \left[\frac{4 \times 6 \times 8 \times 10 \times 1}{11} \right] = \text{Rem } \left[\frac{1920}{11} \right] = 6 \quad \text{Ans: (6)}$$

undefined

Q17. DIRECTIONS for questions 16 and 17: Type your answer in the text box provided below the question.

What is the last digit of the sum $0! + 1! + 2! + \dots + 77!$?

Your Answer:4 Your answer is correct

Time spent / Accuracy Analysis

Time taken by you to answer this question	51
Avg. time spent on this question by all students	60
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	59
% of students who attempted this question	38.96
% of students who got the question right of those who attempted	45.23

[Video Solution](#)

[Text Solution](#)

Given sum is $0! + 1! + \dots + 77!$

We can get the answer by adding only factorials of the first four numbers, as for all numbers after 5 the last digit of the factorial will be 0.

$$= 1 + 1 + 2 + 6 + 24 = 34$$

\therefore Last digit of the given sum is 4.

Ans: (4)

undefined

Q18. DIRECTIONS for questions 18 and 19: Select the correct alternative from the given choices.

Find the distance between the lines $3x + 2y + 7 = 0$ and $6x + 4y + 15 = 0$.

a) $\frac{1}{\sqrt{3}}$

b) $\frac{1}{\sqrt{13}}$

c) $\frac{1}{2\sqrt{13}}$

d) $\frac{1}{4\sqrt{13}}$

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	9
Avg. time spent on this question by all students	92
Difficulty Level	E
Avg. time spent on this question by students who got this question right	86
% of students who attempted this question	30.94
% of students who got the question right of those who attempted	85.67

[Video Solution](#)

Text Solution

The two lines are parallel, i.e.,

$$6x + 4y + 14 = 0$$

$$6x + 4y + 15 = 0$$

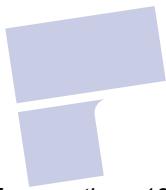
Distance between two parallel lines $a_1x + b_1y + c_1 = 0$ and $a_1x + b_1y + c_2 = 0$

$$= \frac{|c_1 - c_2|}{\sqrt{a^2 + b^2}}$$

$$\text{Distance} = \frac{|15 - 14|}{\sqrt{6^2 + 4^2}} = \frac{1}{\sqrt{36+16}} = \frac{1}{\sqrt{4 \times 13}} = \frac{1}{2\sqrt{13}}$$

Choice (C)

undefined



Q19. DIRECTIONS for questions 18 and 19: Select the correct alternative from the given choices.

A building of height 20 m has a pole on top of it. A person standing at a certain distance from the foot of the building observes that the angle of elevation of the top of the building is 30° , whereas the angle of elevation of the top of the pole is 45° . What is the height of the pole?

a) $20\sqrt{3}$ m

b) 20 m

c) $20(\sqrt{3} - 1)$ m Your answer is correct

d) $20(\sqrt{3} + 1)$ m

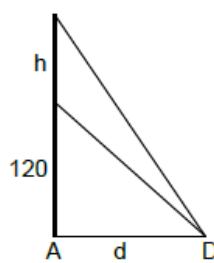
Time spent / Accuracy Analysis

Time taken by you to answer this question	74
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	115
% of students who attempted this question	43.99
% of students who got the question right of those who attempted	89.01

[Video Solution](#)

Text Solution

Consider the figure below, where the pole BC is on top of the building AB. Let D be the location of the person.



Let h be the height of the pole and d be the distance from the foot of the building to the observer.

$$\tan 30 = \frac{20}{d} \Rightarrow d = 20\sqrt{3} \text{ m}$$

$$\tan 45 = \frac{(20+h)}{d} \Rightarrow h = 20\sqrt{3} - 20 = 20(\sqrt{3} - 1) \text{ m}$$

Choice (C)

undefined

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

The simple interest accrued on an amount of Rs.30,000 at the end of four years is Rs.7,200. What would be the compound interest accrued (in Rs.) on the same amount, at the same rate of interest, at the end of two years?

Your Answer:3708 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question

123

Avg. time spent on this question by all students

143

Difficulty Level

E

Avg. time spent on this question by students who got this question right 134

% of students who attempted this question 51.48

% of students who got the question right of those who attempted 68.94

[Video Solution](#)

[Text Solution](#)

$$P = ₹30,000$$

$$T = 4 \text{ years}$$

$$I = ₹7200$$

$$\Rightarrow \text{Simple interest for 1 year} = \frac{7200}{4} = ₹1800$$

1800 is 6% of 30,000

$$\Rightarrow R = 6\%$$

$$\text{Now, for C.I. } 30,000(1.06)^2$$

$$= 30,000 (1 + 0.12 + 0.0036)$$

$$\therefore \text{C.I.} = 30000(0.1236)$$

$$= 30000 + 600 + 90 + 18 = ₹3708$$

Ans: (3708)

undefined

Q21. DIRECTIONS for questions 21 and 22: Select the correct alternative from the given choices.

Each of A, B and C have some chocolates with them, such that the ratio of the total number of chocolates with A and C to those with A and B is 5 : 4. If the ratio of the total number of chocolates with B and C to those with C and A is 6 : 5, which of the

following is the ratio of the number of chocolates with B and C?

[Remove Watermark Now](#)

- a) 5 : 7
- b) 3 : 5
- c) 1 : 3
- d) 5 : 6

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	185
Avg. time spent on this question by all students	163
Difficulty Level	E
Avg. time spent on this question by students who got this question right	162
% of students who attempted this question	34
% of students who got the question right of those who attempted	86.65

[Video Solution](#)

Text Solution

Let the number of chocolates with A, B and C be a , b and c respectively.

Given

$$\begin{aligned}4(a + c) &= 5(a + b) \\ \Rightarrow a + 5b &= 4c \quad (1) \\ 5(a + c) &= 5(b + c) \\ 6a - 5b &= -c \\ \text{Solving (1) and (2) we get} \\ a &= \frac{3c}{7} \text{ and } b = \frac{5c}{7} \\ \therefore \text{The required ratio} &= 5 : 7.\end{aligned}$$

Choice (A)

undefined

Q22. DIRECTIONS for questions 21 and 22: Select the correct alternative from the given choices.

An isosceles trapezium is circumscribed about a circle. One of the parallel sides is thrice the other. Find the area (in sq.cm.) of the trapezium, if its perimeter is 8 cm.

- a) $6\sqrt{3}$
- b) $3\sqrt{3}$
- c) $4\sqrt{3}$
- d) $2\sqrt{3}$

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	181
Avg. time spent on this question by all students	148
Difficulty Level	M
Avg. time spent on this question by students who got this question right	154

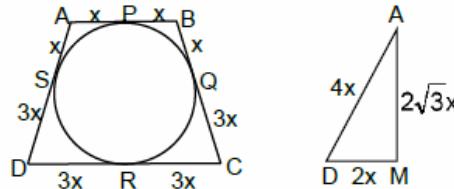
Time spent / Accuracy Analysis

% of students who attempted this question	11.08
% of students who got the question right of those who attempted	74.74

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[Video Solution](#)

[Text Solution](#)



Let $AP = x$. Because the trapezium is isosceles, $PB = x$

$\therefore AS = BQ = x$.

$AS = 3x$, $DR = RC = 3x$

The perimeter $= 16x = 8 \Rightarrow x = \frac{1}{2}$

Half the sum of the parallel sides $= (2x + 6x)/2 = 4x = 2$

Altitude $AM = 2\sqrt{3}x = \sqrt{3}$

\therefore Area of trapezium $= 2\sqrt{3}$

Alternative solution:

If the perimeter of a quadrilateral is fixed ($4s$), the greatest possible area occurs when the quadrilateral is a square and this area is s^2 . Therefore, if the perimeter is 8, the

greatest possible area is $\left(\frac{8}{4}\right)^2$ or 4. Only choice (D) is less than this.

Choice (D)

undefined

Q23. DIRECTIONS for questions 23 to 25: Type your answer in the text box provided below the question.

If the number of equilateral triangles that can be formed by joining the vertices of an-sided regular polygon is 9, then find the value of n .

Your Answer:9 **Your answer is incorrect**

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	193
Avg. time spent on this question by all students	90
Difficulty Level	E
Avg. time spent on this question by students who got this question right	103
% of students who attempted this question	26.8
% of students who got the question right of those who attempted	7.76

[Video Solution](#)

[Text Solution](#)

For a triangle formed by joining the vertices of a polygon to be equilateral, the vertices need to be equispaced.

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⇒ The number of sides of the polygon should be a multiple of 3.

$$\therefore \text{The no.of equilateral triangles that can be formed} = \frac{n}{3}.$$

$$\text{Given } \frac{n}{3} = 9 \Rightarrow n = 27.$$

∴ The number of sides of the required polygon is 27.

Ans: (27)

undefined

Q24. DIRECTIONS for questions 23 to 25: Type your answer in the text box provided below the question.

If M and N are the roots of the quadratic equation $x^2 - (p - 3)x - 2p - 1 = 0$, where p is some real number, find the minimum value of $M^2 + N^2$.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

34

Avg. time spent on this question by all students

127

Difficulty Level

M

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

119

% of students who attempted this question

29.86

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

48.5

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}M^2 + N^2 &= (M + N)^2 - 2 MN = (p - 3)^2 + 2(2p + 1) \\&= p^2 - 2p + 11 = (p - 1)^2 + 10.\\&\text{which is minimum when } p - 1 = 0.\\&\text{Its minimum value is 10.}\end{aligned}$$

Ans: (10)

undefined

Q25. DIRECTIONS for questions 23 to 25: Type your answer in the text box provided below the question.

If the lines $6x + 5y = 17$ and $py = x + 1$ intersect at one point, then how many integer values of p are possible such that the point of intersection has integer co-ordinates?

Your Answer:1 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

116

Avg. time spent on this question by all students

118

Difficulty Level

M

Time spent / Accuracy Analysis

[Remove Watermark Now](#)

Avg. time spent on this question by students who got this question right **124**

% of students who attempted this question **18.76**

% of students who got the question right of those who attempted **25.77**

[Video Solution](#)

[Text Solution](#)

The two lines are $6x + 5y = 17$ and $py = x + 1$

The point of intersection of the lines is

$$6(py - 1) + 5y = 17$$

$$y(6p + 5) = 23 \Rightarrow y = \frac{23}{6p+5} \quad (1)$$

From (1) we can say that $6p + 5$ should be factor of 23 (since y , must be an integer)
i.e. $6p + 5 = \pm 1, \pm 23$.

The values of p which satisfy are

$$p = -1, (x, y) = (22, -23) \text{ and } p = 3, (x, y) = (2, 1).$$

\therefore For two values of p we get integer co-ordinates.

Ans: (2)

undefined

undefined

Q26. DIRECTIONS for question 26: Select the correct alternative from the given choices.

Mr. Kumar has two sons Ramesh and Suresh. The sum of seven times Ramesh's age and thirteen times Suresh's age is equal to Mr. Kumar's age, while the sum of twelve times Ramesh's age and eight times Suresh's age is equal to Mrs. Kumar's age. If the difference between Mr. Kumar's age and Mrs. Kumar's age is five years, find the difference between Ramesh's age and Suresh's age.

- a) **1 year**
- b) **2 years**
- c) **3 years**
- 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 **10**

Avg. time spent on this question by all students **120**

Difficulty Level **E**

Avg. time spent on this question by students who got this question right **115**

% of students who attempted this question **38.28**

% of students who got the question right of those who attempted **82.85**

[Video Solution](#)

[Text Solution](#)

Let Kumar's age, Ramesh's age and Suresh's age be K, R and S respectively.

$$\Rightarrow 7R + 12S = K \quad \rightarrow (1)$$

$$\Rightarrow 12R + 8S = K \pm 5 \quad \rightarrow (2)$$

$$(2) - (1), \text{ we get } 5(R - S) = \pm 5$$

$$\Rightarrow |R - S| = 1.$$

\therefore The difference between Ramesh's age and Suresh's age is 1 year.

Choice (A)

Q26. DIRECTIONS for question 26: Select the correct alternative from the given choices.

Mr. Kumar has two sons Ramesh and Suresh. The sum of seven times Ramesh's age and thirteen times Suresh's age is equal to Mr. Kumar's age, while the sum of twelve times Ramesh's age and eight times Suresh's age is equal to Mrs. Kumar's age. If the difference between Mr. Kumar's age and Mrs. Kumar's age is five years, find the difference between Ramesh's age and Suresh's age.

- a) 1 year
- b) 2 years
- c) 3 years
- 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

Avg. time spent on this question by all students

Difficulty Level

Avg. time spent on this question by students who got this question right 115

% of students who attempted this question 38.28

% of students who got the question right of those who attempted 82.85

[Video Solution](#)

[Text Solution](#)

Let Kumar's age, Ramesh's age and Suresh's age be K, R and S respectively.

$$\Rightarrow 7R + 12S = K \quad \rightarrow (1)$$

$$\Rightarrow 12R + 8S = K \pm 5 \quad \rightarrow (2)$$

$$(2) - (1), \text{ we get } 5(R - S) = \pm 5$$

$$\Rightarrow |R - S| = 1.$$

\therefore The difference between Ramesh's age and Suresh's age is 1 year.

Choice (A)

undefined

Q27. DIRECTIONS for questions 27 to 31: Type your answer in the text box provided below the question.

There are two taps, P and Q, connected to a tank. P alone takes 16 hours more than the time taken by P and Q together to fill the tank, while Q alone takes 36 hours more than the time taken by P and Q together to fill the tank. How many hours will Q alone take to fill the tank?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	95
Avg. time spent on this question by all students	156
Difficulty Level	M
Avg. time spent on this question by students who got this question right	153
% of students who attempted this question	22.01
% of students who got the question right of those who attempted	63.65

[Video Solution](#)

[Text Solution](#)

Let x be the number of hours in which P and Q together fill the tank.

$$\begin{aligned}\Rightarrow \frac{1}{x+16} + \frac{1}{x+36} &= \frac{1}{x} \\ \Rightarrow x(2x+52) &= (x+16)(x+36) \\ \Rightarrow 2x^2 + 52x &= x^2 + 52x + (36)(16) \\ \Rightarrow x = \sqrt{(36)(16)} &= (4)(6) = 24\end{aligned}$$

\therefore The number of hours Q alone takes to fill the tank
 $= 24 + 36 = 60$ hours

Ans: (60)

undefined

Q28. DIRECTIONS for questions 27 to 31: Type your answer in the text box provided below the question.

If the sum of the squares of the first N natural numbers exceeds the sum of the first N natural numbers by 1600%, find the value of N .

Your Answer: 25 **Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question

31

Avg. time spent on this question by all students

114

Difficulty Level

E

Avg. time spent on this question by students who got this question right 101

% of students who attempted this question 28.24

% of students who got the question right of those who attempted 64.64

[Video Solution](#)

[Text Solution](#)

The sum of first N natural numbers is $\frac{N(N+1)}{2}$.

The sum of squares of first N natural numbers is $\frac{N(N+1)(2N+1)}{6}$.

$$\text{Given, } \frac{N(N+1)(2N+1)}{6} = \left(1 + \frac{1600}{100}\right) \left(\frac{N(N+1)}{2}\right)$$

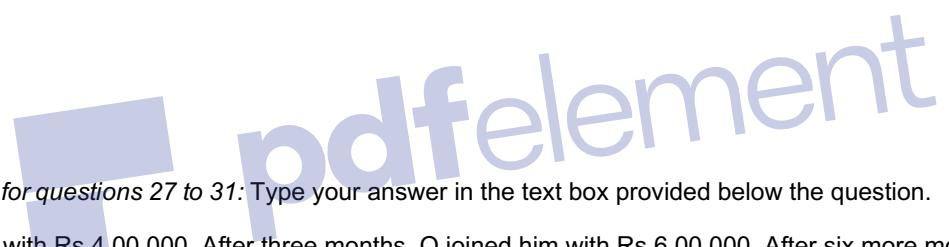
$$= \frac{17N(N+1)}{2}$$

$$\Rightarrow 2N + 1 = 51$$

$$\Rightarrow N = 25.$$

Ans: (25)

undefined



Q29. DIRECTIONS for questions 27 to 31: Type your answer in the text box provided below the question.

P started a business with Rs.4,00,000. After three months, Q joined him with Rs.6,00,000. After six more months, R joined them with Rs.x. If at the end of the year, Q received Rs.24,000 as his share of the profit, out of a total annual profit of Rs.64000, find the value of x.

Your Answer:2040000 Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question	33
Avg. time spent on this question by all students	205
Difficulty Level	E
Avg. time spent on this question by students who got this question right	210
% of students who attempted this question	26.54
% of students who got the question right of those who attempted	26.57

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}
 \text{The amount Q will receive} \\
 &= \frac{9(600000) \times 64000}{12(400000) + 9(600000) + 3x} \\
 &\Rightarrow \frac{54 \times 64000}{48 + 54 + \frac{3x}{100000}} = 24000 \\
 &= \frac{54}{102 + \frac{x}{100000}} = \frac{3}{8} \\
 &\Rightarrow x = 14,00,000
 \end{aligned}$$

Ans: (1400000)

undefined

Q30. DIRECTIONS for questions 27 to 31: Type your answer in the text box provided below the question.

Find the sixth term of a geometric progression whose second term is 8 and common ratio, 4.

Your Answer: 8195 □ Your answer is incorrect

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

16

Avg. time spent on this question by all students

71

Difficulty Level

VE

Avg. time spent on this question by students who got this question right 68

68

% of students who attempted this question

43.22

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

83.82

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}
 \text{Sixth term} &= \text{second term} \times r^4 \\
 &= 8 \times 4^4 = 2^{11} = 2048
 \end{aligned}$$

Ans: (2048)

undefined

Q31. DIRECTIONS for questions 27 to 31: Type your answer in the text box provided below the question.

If the average of N consecutive numbers is three times the smallest number of these consecutive numbers and the difference between the second largest number and the smallest number is 59, find the sum of these numbers.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

4

Avg. time spent on this question by all students

189

Difficulty Level

M

Avg. time spent on this question by students who got this question right 196

Time spent / Accuracy Analysis

% of students who attempted this question	9.96
% of students who got the question right of those who attempted	49.01

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[Video Solution](#)

Text Solution

Let x, y be the smallest number and the largest number of the N consecutive numbers respectively.

⇒ The average of N consecutive numbers is $3x$.

Since, N consecutive numbers will be in A. P their average is equal to half the sum of the smallest and the largest number of the series.

$$\Rightarrow 3x = \frac{x + y}{2}$$

$$\Rightarrow y = 5x$$

$$\text{Given, } y - 1 - x = 59$$

$$\Rightarrow 5x - 1 - x = 59$$

$$\Rightarrow x = 15.$$

∴ The sum of the N consecutive numbers

$$= \left(\frac{N}{2}\right)(x + y)$$

$$= \frac{1}{2}(y - x + 1)(x + 5x)$$

$$= (5x - x + 1)(3x)$$

$$= (4(15) + 1)(3(15)) = (61)(45) = 2745.$$

Ans: (2745)

undefined

Q32. DIRECTIONS for questions 32 and 33: Select the correct alternative from the given choices.

The price of an article is marked up by 57.14% over its cost price. What should be the discount percentage offered so that the profit made on selling the product is 10%?

- a) **28%**
- b) **30%**
- c) **39%**
- d) **48%**

You did not answer this question

[Show Correct Answer](#)

Time spent / Accuracy Analysis

Time taken by you to answer this question	27
Avg. time spent on this question by all students	102
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	100
% of students who attempted this question	34.19
% of students who got the question right of those who attempted	88.14

[Video Solution](#)

Text Solution

As the markup percentage is $57.14\% \left(\cong \frac{4}{7} \right)$,

let the cost price be ₹70.

$$\Rightarrow \text{Marked price} = 1 + \frac{4}{7} \times 70 = 110$$

$$\text{Selling price} = \text{C.P} + 10\% \text{ profit} = 70 + 7 = 77$$

$$\text{Discount} = 110 - 77 = 33$$

$$\text{Discount\%} = \frac{33}{110} \times 100 = 30\%$$

Choice (B)

undefined

Q33. DIRECTIONS for questions 32 and 33: Select the correct alternative from the given choices.

If $f : a = 1 : 2$, $a : \ell = 2 : 3$ and $\ell : k = 3 : 4$, find the value of $\frac{f^8 a + \ell^4}{k^2 f^2 + a^3 \ell}$

a)

$\frac{164}{41}$

b)

$\frac{122}{47}$

c)

$\frac{83}{40}$

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	3
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	126
% of students who attempted this question	27.59
% of students who got the question right of those who attempted	90.42

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}
 \frac{f}{a} = \frac{1}{2} &\Rightarrow a = 2f \\
 \frac{a}{\ell} = \frac{2}{3} &\Rightarrow \ell = \frac{3a}{2} = 3f \\
 \frac{\ell}{k} = \frac{3}{4} &\Rightarrow k = \frac{4\ell}{3} = 4f \\
 \frac{f^2a + \ell^4}{k^2f^2 + a^2\ell} &= \frac{f^2 \cdot 2f + (3f)^4}{(4f)^2 \cdot f^2 + (2f)^2 \cdot 3f} \\
 &= \frac{f^4(2+81)}{f^4(16+24)} \\
 &= \frac{83}{40}
 \end{aligned}$$

Choice (C)

undefined

Q34. DIRECTIONS for question 34: Type your answer in the text box provided below the question.

If $3^x + 3 + 9^x + 1 = 7290$, then what is the value of x ?

122
47

83
40

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	162
Difficulty Level	VE
Avg. time spent on this question by students who got this question right	160
% of students who attempted this question	24.04
% of students who got the question right of those who attempted	75.66

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned} & 3^{x+3} + 9^{x+1} \\ &= 3^{x+3} + 3^{2x+2} \\ &= 3^{x+3} (1 + 3^{x-1}) = 7290 \end{aligned}$$

We can infer that $(1 + 3^{x-1})$ is not divisible by 3. Hence, 3^{x+3} is the highest power of 3 in 7290 (i.e., if 7290 is divisible by 3 or any power of 3).

We see that $7290 = 3^6(10)$

Hence, $x + 3 = 6 \Rightarrow x = 3$

Now, the other factor should be $(1 + 3^{x-1})$

i.e., $(1 + 3^{3-1})$

$= 10$.

Hence, $x = 3$.

Alternative Solution 1:

Given $3^{x+3} + 9^{x+1} = 7290$.

This can be rewritten as $3^{x+3} (1 + 3^{x-1}) = 7290$

Now, let $3^{x-1} = a$

We get $a \cdot 3^4 (1 + a) = 7290$

$\Rightarrow 81a^2 + 81a = 7290$

$\Rightarrow a^2 + a - 90 = 0$

$\Rightarrow a = -10$, or 9

Since $a = 3^{x-1}$, a cannot be negative

$\Rightarrow a = 9$, i.e., $3^{x-1} = 9 = 3^2$

$\Rightarrow x - 1 = 2$

$\Rightarrow x = 3$.

Alternative Solution 2:

One could try to plug in, $x = 1, 2, 3, \dots$ And check if any simple solution exists.

For $x = 3$, the given equation holds true.

$\therefore x = 3$

Ans: (3)

