

**Q1. DIRECTIONS** for question 1: 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 when change is accelerated, more novel first-time problems arise, and traditional forms of organization prove inadequate to the new conditions.
2. Warren Bennis may go down in sociological textbooks as the man who first predicted the demise of Weberian bureaucracy and sketched the outlines of organizations that are springing up to replace it.
3. Organizations in such an environment can be relatively permanent.
4. So long as a society is relatively stable and unchanging, the problems it presents tend to be routine and predictable.
5. In such a case, we need to create self-destroying organizations - lots of autonomous, semi-attached units which can be spun off or sold, when the time for them has disappeared.

You did not answer this question

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>16</b>    |
| Avg. time spent on this question by all students                         | <b>182</b>   |
| Difficulty Level   | <b>VD</b>    |
| Avg. time spent on this question by students who got this question right | <b>163</b>   |
| % of students who attempted this question                                | <b>32.36</b> |
| % of students who got the question right of those who attempted          | <b>23.2</b>  |

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Sentence 1: Sentence 1 has the contrast conjunction "but". It talks about "traditional forms of organization prove inadequate to (accelerated change)."

Sentence 2: An independent sentence that specifies "organizations that are springing up to replace "Weberian bureaucracy"."

Sentence 3: Sentence 3 makes a reference to "such an environment" which makes us ask the question "what kind of an environment?"

Sentence 4: Sentence 4 has the introductory words "So long as a society".

Sentence 5: Sentence 5 has the connective "in such a case" which means that there needs to be a sentence prior to it. It talks about "creating self-destroying organizations".

So sentence 4 is a general sentence that begins the paragraph. It talks about a normal scenario: So long as a society is relatively stable and unchanging. Sentence 4 is followed by sentence 3. "relatively stable and unchanging, routine and predictable" in sentence 4 links with "relatively permanent" in sentence 3. So sentences 4 and 3 form a logical block.

Sentence 1 with the contrast conjunction 'but' changes the track of the discussion and follows sentence 3. "when change is accelerated" in sentence 1 contrasts "society is relatively stable and unchanging" given earlier in sentence 4. "traditional forms of organization prove inadequate to the new conditions" in sentence 1 contrasts "Organizations in such an environment can be relatively permanent" in sentence 3.

Sentences 1 and 5 form another logical block. "In such a case" in 5 points to what has been mentioned in sentence 1 ("when change becomes accelerated"). "we need to create self-destroying organizations" in 5 links with "traditional forms of organization prove inadequate to the new conditions" in sentence 1. So, 4315.

Sentence 2 is the odd sentence out as it runs tangent to the discussion. Though "organizations that are springing up to replace it" in sentence 2 may seem to link with "when the time for them has disappeared" in sentence 5, "Weberian bureaucracy" in (2) needs a precedent and more substantiation. Sentence 2 can be a part of another para, earlier in the thought flow.

Ans: (4315)

undefined

**DIRECTIONS** for questions 2 to 7: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

One day in 1995, a middle-aged man robbed two Pittsburgh banks in broad daylight without a mask, smiling at surveillance cameras before walking out. Later that night, police arrested a surprised McArthur Wheeler. Apparently, Wheeler thought that rubbing lemon juice on his skin would render him invisible to videotape cameras. After all, lemon juice is used as invisible ink so, as long as he didn't come near a heat source, he should have been completely invisible.

The saga caught the eye of the psychologist David Dunning at Cornell University, who enlisted his graduate student, Justin Kruger, to see what was going on. They reasoned that, while almost everyone holds favourable views of their abilities in various social and intellectual domains, some people mistakenly assess their abilities as being much higher than they actually are. This 'illusion of confidence' is now called the 'Dunning-Kruger effect', and describes the cognitive bias to inflate self-assessment.

To investigate this phenomenon, Dunning and Kruger designed some clever experiments. In one study, they asked undergraduate students a series of questions about grammar, logic and jokes, and then asked each student to estimate his or her score overall, as well as their relative rank compared to the other students. Students who scored in the bottom quartile in these cognitive tasks estimated that they had performed better than two-thirds of the other students!

In a follow-up study, Dunning and Kruger went to a gun range, where they quizzed gun hobbyists about gun safety. Those who answered the fewest questions correctly, wildly overestimated their knowledge about firearms. The Dunning-Kruger effect can also be observed in people's self-assessment of a myriad of other personal abilities.....

Sure, it's typical for people to overestimate their abilities. The problem is that when people are incompetent, not only do they reach wrong conclusions and make unfortunate choices but, also, they are robbed of the ability to realise their mistakes. In a semester-long study of college students, good students could better predict their performance on future exams given feedback about their scores and relative percentile. However, the poorest performers showed no recognition, despite clear and repeated feedback that they were doing badly. Instead of being confused, perplexed or thoughtful about their erroneous ways, incompetent people insist that their ways are correct. As Charles Darwin wrote in *The Descent of Man* (1871): 'Ignorance more frequently begets confidence than does knowledge.'

Interestingly, really smart people also fail to accurately self-assess their abilities. In their classic study, Dunning and Kruger found that high-performing students, whose cognitive scores were in the top quartile, underestimated their relative competence. These students presumed that if these cognitive tasks were easy for them, then they must be just as easy or even easier for everyone else. This so-called 'impostor syndrome' can be likened to the inverse of the Dunning-Kruger effect, whereby high achievers fail to recognise their talents and think that others are equally competent. The difference is that competent people can and do adjust their self-assessment given appropriate feedback, while incompetent individuals cannot.

And therein lies the key. Sometimes we try things that lead to favourable outcomes, but other times our approaches are imperfect, irrational, inept or just plain stupid. The trick is to not be fooled by illusions of superiority and to learn to accurately re-evaluate our competence.

**Q2.** Which of the following, if true, is not in line with the essence of the passage?

- a) One's perception of one's own competence is not a function of knowledge.
- b) **Knowledge is not a prerequisite for confidence.** Your answer is incorrect
- c) Incompetence breeds an irrational confidence.
- d) Confidence begets competence given enough time.

**Show Correct Answer**

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>533</b>   |
| Avg. time spent on this question by all students                         | <b>338</b>   |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>324</b>   |
| % of students who attempted this question                                | <b>44.7</b>  |
| % of students who got the question right of those who attempted          | <b>64.37</b> |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 547

The essence of the passage can be presented in two parts: (i) that people who are ignorant often are more confident than people who have knowledge, and (ii) smart people underestimate their competence.

Option A: The option indicates that some people overestimate their own competence and that perception has got nothing to do with the knowledge they possess. The passage discusses the relationship between competence/performance and perception of one's abilities (and it can be inferred that the relationship is inverse). We can understand that a person without being competent (without having the knowledge) can perceive himself/herself as competent. Hence, Option A is in line with the essence of the passage.

Option B: Knowledge is not a prerequisite for confidence – this means that one need not have knowledge to feel confident. In other words, a confident person need not necessarily be knowledgeable. This line is in sync with the essence of the passage, rather than weakens it. Hence, Option B is not the answer.

Option C: Incompetent people generally seem more confident than those with knowledge – this has been implied in the passage. The given line is in sync with the essence of the passage. Hence, Option C is not the answer.

Option D: Confidence begets competence given enough time – this means that people who are confident automatically become better performers over a period of time. While that may, otherwise, be true, it is not the line of thought in the passage, which is that confidence and incompetence are often related as effect and cause. [Here, we encounter a positive twist on confidence and a reversal of causality (in this option)] 'Ignorance begets confidence' has been turned into 'confidence begetting competence'. Hence, Option D is the answer.

Choice (D)

undefined

**DIRECTIONS for questions 2 to 7:** The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

One day in 1995, a middle-aged man robbed two Pittsburgh banks in broad daylight without a mask, smiling at surveillance cameras before walking out. Later that night, police arrested a surprised McArthur Wheeler. Apparently, Wheeler thought that rubbing lemon juice on his skin would render him invisible to videotape cameras. After all, lemon juice is used as invisible ink so, as long as he didn't come near a heat source, he should have been completely invisible.

The saga caught the eye of the psychologist David Dunning at Cornell University, who enlisted his graduate student, Justin Kruger, to see what was going on. They reasoned that, while almost everyone holds favourable views of their abilities in various social and intellectual domains, some people mistakenly assess their abilities as being much higher than they actually are. This 'illusion of confidence' is now called the 'Dunning-Kruger effect', and describes the cognitive bias to inflate self-assessment.

To investigate this phenomenon, Dunning and Kruger designed some clever experiments. In one study, they asked undergraduate students a series of questions about grammar, logic and jokes, and then asked each student to estimate his or her score overall, as well as their relative rank compared to the other students. Students who scored in the bottom quartile in these cognitive tasks estimated that they had performed better than two-thirds of the other students!

In a follow-up study, Dunning and Kruger went to a gun range, where they quizzed gun hobbyists about gun safety. Those who answered the fewest questions correctly, wildly overestimated their knowledge about firearms. The Dunning-Kruger effect can also be observed in people's self-assessment of a myriad of other personal abilities.....

Sure, it's typical for people to overestimate their abilities. The problem is that when people are incompetent, not only do they reach wrong conclusions and make unfortunate choices but, also, they are robbed of the ability to realise their mistakes. In a semester-long study of college students, good students could better predict their performance on future exams given feedback about their scores and relative percentile. However, the poorest performers showed no recognition, despite clear and repeated feedback that they were doing badly. Instead of being confused, perplexed or thoughtful about their erroneous ways, incompetent people insist that their ways are correct. As Charles Darwin wrote in *The Descent of Man* (1871): 'Ignorance more frequently begets confidence than does knowledge.'

Interestingly, really smart people also fail to accurately self-assess their abilities. In their classic study, Dunning and Kruger found that high-performing students, whose cognitive scores were in the top quartile, underestimated their relative competence. These students presumed that if these cognitive tasks were easy for them, then they must be just as easy or even easier for everyone else. This so-called 'impostor syndrome' can be likened to the inverse of the Dunning-Kruger effect, whereby high achievers fail to recognise their talents and think that others are equally competent. The difference is that competent people can and do adjust their self-assessment given appropriate feedback, while incompetent individuals cannot.

And therein lies the key. Sometimes we try things that lead to favourable outcomes, but other times our approaches are imperfect, irrational, inept or just plain stupid. The trick is to not be fooled by illusions of superiority and to learn to accurately re-evaluate our competence.

**Q3.** Which of the following has not been mentioned as being associated with incompetence in the passage?

- a) Faulty conclusions
- b) **Failure to recognise others' talents** Your answer is correct
- c) Inability to improve from feedback
- d) Bad choices

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>135</b>   |
| Avg. time spent on this question by all students                         | <b>85</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>86</b>    |
| % of students who attempted this question                                | <b>57.88</b> |
| % of students who got the question right of those who attempted          | <b>67.92</b> |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 547

The problem is that when people are incompetent, not only do they reach wrong conclusions and make unfortunate choices but, also, they are robbed of the ability to realise their mistakes.

Option A: Incompetent people reach wrong conclusions according to the lines above. Hence, Option A is not the answer.

Option B: The ability to recognise others' talents has not been mentioned in the passage. The passage only discusses one's perceptions about one's own abilities. Hence, Option B is the answer.

Option C: From this sentence, 'Instead of being confused, perplexed or thoughtful about their erroneous ways, incompetent people insist that their ways are correct' we can understand that incompetent people are unable to change their erroneous ways based on feedback. Hence, Option C is not the answer.

Option D: Incompetent people make unfortunate choices. Option D has been mentioned. Hence, Option D is not the answer.

Choice (B)

**DIRECTIONS** for questions 2 to 7: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

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**Q4.** Which of the following is consistent with the 'impostor syndrome' mentioned in the passage?

- a) A violin prodigy who thinks everyone can learn to play the violin just as quickly as she did. Your answer is correct
- b) A successful sportsperson who believes that hard work and not talent is the key to his success.
- c) A manager with great leadership qualities, who encourages each one of his team members.
- d) A teacher who thinks that every student has potential.

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>30</b>    |
| Avg. time spent on this question by all students                         | <b>78</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>73</b>    |
| % of students who attempted this question                                | <b>57.84</b> |
| % of students who got the question right of those who attempted          | <b>91.66</b> |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 547

Imposter syndrome can be understood from the statements – ‘These students presumed that if these cognitive tasks were easy for them, then they must be just as easy or even easier for everyone else. This so-called ‘imposter syndrome’ can be likened to the inverse of the Dunning-Kruger effect, whereby high achievers fail to recognise their talents and think that others are equally competent.’ It is important to understand that ‘impostor syndrome’ is applicable when both the entities are performing the same tasks. The competent persons/high performers feel they are easy for everyone, which may not be true.

Option A: Since, the violin prodigy doesn’t think highly of her skills and believes anyone can pick it up, this is a classic case of ‘impostor syndrome’. Option A is the answer.

Option B: Here, the successful sportsperson isn’t making any perceptions about other sportspersons. He or she is just underestimating the importance of talent. This is not analogous to ‘impostor syndrome’ unless the sportsperson thinks anyone can accomplish what he or she has accomplished. Option B is not the answer.

Option C: One of the responsibilities of the manager is to encourage her or his teammates. To apply ‘impostor syndrome’ we have to pick an example where two entities are being compared performing the same set of tasks. The competent person thinks everyone else must be equally competent. That situation cannot be applied here. Hence, Option C is not the answer.

Option D: A good teacher thinking all other teachers are equally good represents ‘impostor syndrome’. Since students and teachers are entities which share a different relationship than represented in the passage (equals – other people), Option D is not about Imposter Syndrome. Here, teachers recognising the talent of a student is not necessarily because the person thinks what comes easily to them is easy for everyone. In fact, here, the tasks of the teacher and student are different and hence, comparison is incorrect. Option D is not the answer.

Choice (A)

undefined

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competence. These students presumed that if these cognitive tasks were easy for them, then they must be just as easy or even easier for everyone else. This so-called 'imposter syndrome' can be likened to the inverse of the Dunning-Kruger effect, whereby high achievers fail to recognise their talents and think that others are equally competent. The difference is that competent people can and do adjust their self-assessment given appropriate feedback, while incompetent individuals cannot.

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**Q5.** The author mentions Charles Darwin's statement to assert that:

- a) While the fact that knowledgeable people are confident is questionable, the fact that ignorant people are confident is beyond doubt.
- b) While the ignorant are confident, the knowledgeable aren't.
- c) Confidence is more closely associated with incompetence than with ignorance.
- d) Ignorant people feel confident more often than knowledgeable people do. Your answer is correct

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 136   |
| Avg. time spent on this question by all students                         | 99    |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 93    |
| % of students who attempted this question                                | 55.33 |
| % of students who got the question right of those who attempted          | 81.79 |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 547

*Instead of being confused, perplexed or thoughtful about their erroneous ways, incompetent people insist that their ways are correct.* As Charles Darwin wrote in *The Descent of Man* (1871): 'Ignorance more frequently begets confidence than does knowledge.' Charles Darwin was mentioned to support the preceding argument about incompetent people who insist they are right. This argument is strengthened by mentioning that ignorance makes people more confident than knowledge does.

Option A: The option tries to say that one cannot be sure whether knowledgeable people are confident. But, one can be sure ignorant people are confident. That is very adjacent to the actual idea but is inaccurate. Knowledgeable people could be confident. And not all ignorant people are necessarily confident. The point is that the ignorant people are more likely to be confident than the knowledgeable people. It is not about how many knowledgeable people are under-confident and how many ignorant people are confident. It is about how often ignorant people are confident and how often the knowledgeable people are not confident. Hence, Option A is not the answer.

Option B: The second half of this line asserts that the knowledgeable aren't confident. That is not necessarily true. From the lines above, we can only understand that ignorance more often leads to confidence than knowledge does. Hence, Option B is not the answer.

Option C: This option is easy to eliminate considering we are comparing incompetence and ignorance, both on the same side of the scale. Darwin's example was to compare the opposite sides – the competent and the ignorant. Hence, option C is not the answer.

Option D: Ignorance leads to confidence more often than knowledge does. Therefore, ignorant people are more likely to feel confident than knowledgeable people do. Hence, Option D is true. Option D is the answer.

Choice (D)

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**Q6.** The Dunning-Kruger effect, as described in the passage, is best represented by:

- a) Students who scored in the bottom quartile in cognitive tasks estimated that they had performed better than most. **Your answer is correct**
- b) Good students are more accurate when it comes to predicting their scores in exams than poor students.
- c) Gun hobbyists quizzed about firearms surprisingly showed limited awareness about their guns.
- d) Bad students generally predict lower scores for themselves in cognitive tasks than they do for good students.

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>69</b>    |
| Avg. time spent on this question by all students                         | <b>84</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>77</b>    |
| % of students who attempted this question                                | <b>57.64</b> |
| % of students who got the question right of those who attempted          | <b>86.18</b> |

## Text Solution

### **Number of words and Explanatory notes for RC:**

Number of words: 547

There is a mismatch between a person's competence/ performance and their perception of their own abilities.

Option A: 'Students who scored in the bottom quartile in these cognitive tasks estimated that they had performed better than two-thirds of the other students.' From these sentences, we can understand that some students who estimate that they have performed better than others, are often, poor performers. Hence, this option is consistent with the effect.

Option B: From this sentence, 'Dunning and Kruger found that high-performing students, whose cognitive scores were in the top quartile, underestimated their relative competence', we can understand that good students underestimate their own ability and hence, probably predict lower scores for themselves. This option, however, presents a different thought: Good students are more accurate when it comes to predicting their scores in exams than those of poor students – this sentence means that good students predict their scores correctly but cannot predict the scores of poor students. Good students in fact, underestimate themselves. Also, good students make good predictions after they are shown their feedback, which has not been mentioned here. Hence, this is not the answer.

Option C: Gun hobbyists quizzed about firearms surprisingly showed limited awareness about their guns - This, even if it were true (according to the passage they were only quizzed about firearms safety), doesn't include the main aspect of the Dunning-Kruger effect – the perception about themselves. The effect is evident only when those who showed limited awareness about their guns actually perceived their abilities to be much higher. The option doesn't mention that. Hence, Option C is not the answer.

Option D: Bad students predict higher scores for themselves in a test. That is one deviation in this option. Secondly, the bad students don't necessarily consider/know the good students. The effect is only about what students perceive will be their probable scores based on their own abilities. Hence, Option D is not the answer.

Choice (A)

undefined

**DIRECTIONS** for questions 2 to 7: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

One day in 1995, a middle-aged man robbed two Pittsburgh banks in broad daylight without a mask, smiling at surveillance cameras before walking out. Later that night, police arrested a surprised McArthur Wheeler. Apparently, Wheeler thought that rubbing lemon juice on his skin would render him invisible to videotape cameras. After all, lemon juice is used as invisible ink so, as long as he didn't come near a heat source, he should have been completely invisible.

The saga caught the eye of the psychologist David Dunning at Cornell University, who enlisted his graduate student, Justin Kruger, to see what was going on. They reasoned that, while almost everyone holds favourable views of their abilities in various social and intellectual domains, some people mistakenly assess their abilities as being much higher than they actually are. This 'illusion of confidence' is now called the 'Dunning-Kruger effect', and describes the cognitive bias to inflate self-assessment.

To investigate this phenomenon, Dunning and Kruger designed some clever experiments. In one study, they asked undergraduate students a series of questions about grammar, logic and jokes, and then asked each student to estimate his or her score overall, as well as their relative rank compared to the other students. Students who scored in the bottom quartile in these cognitive tasks estimated that they had performed better than two-thirds of the other students!

In a follow-up study, Dunning and Kruger went to a gun range, where they quizzed gun hobbyists about gun safety. Those who answered the fewest questions correctly, wildly overestimated their knowledge about firearms. The Dunning-Kruger effect can also be observed in people's self-assessment of a myriad of other personal abilities.....

Sure, it's typical for people to overestimate their abilities. The problem is that when people are incompetent, not only do they reach wrong conclusions and make unfortunate choices but, also, they are robbed of the ability to realise their mistakes. In a semester-long study of college students, good students could better predict their performance on future exams given feedback about their scores and relative percentile. However, the poorest performers showed no recognition, despite clear and repeated feedback that they were doing badly. Instead of being confused, perplexed or thoughtful about their erroneous

ways, incompetent people insist that their ways are correct. As Charles Darwin wrote in *The Descent of Man* (1871): 'Ignorance more frequently begets confidence than does knowledge.'

Interestingly, really smart people also fail to accurately self-assess their abilities. In their classic study, Dunning and Kruger found that high-performing students, whose cognitive scores were in the top quartile, underestimated their relative competence. These students presumed that if these cognitive tasks were easy for them, then they must be just as easy or even easier for everyone else. This so-called 'impostor syndrome' can be likened to the inverse of the Dunning-Kruger effect, whereby high achievers fail to recognise their talents and think that others are equally competent. The difference is that competent people can and do adjust their self-assessment given appropriate feedback, while incompetent individuals cannot.

And therein lies the key. Sometimes we try things that lead to favourable outcomes, but other times our approaches are imperfect, irrational, inept or just plain stupid. The trick is to not be fooled by illusions of superiority and to learn to accurately re-evaluate our competence.

**Q7.** The author mentions the example of McArthur Wheeler to demonstrate that:

- a) It is silly to believe that lemon juice makes someone invisible.
- b) The ignorant are generally confident about the most outrageous ideas.
- c) It is possible to find those who overestimate their abilities by a substantial margin. Your answer is correct
- d) Almost everyone holds very favourable views of their abilities in various intellectual and social domains.

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>93</b>    |
| Avg. time spent on this question by all students                         | <b>84</b>    |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>88</b>    |
| % of students who attempted this question                                | <b>56.41</b> |
| % of students who got the question right of those who attempted          | <b>36.46</b> |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 547

McArthur Wheeler was surprised that his seemingly outrageous/ignorant idea didn't work. To understand why the author mentioned his example, we need to focus on the lines following the example. '*They reasoned that, while almost everyone holds favourable views of their abilities in various social and intellectual domains, some people mistakenly assess their abilities as being much higher than they actually are.*' The example led to the study undertaken by Dunning-Kruger, who concluded that people mistakenly assess their abilities as being higher.

Option A: The example was mentioned to not discuss the actual story, or its silliness, which was anyway understood and implied, but to introduce a higher message. So, Option A can be eliminated.

Option B: The ignorant are confident but that confidence has got nothing to do with how outrageous their ideas are. The focus of this example was not so much to focus on how outrageous the idea was but to emphasize on how ignorant people don't notice that their ideas are bad. Hence, Option B can be eliminated.

Option C: Since, some people mistakenly assess their abilities to be 'much higher', we can say that there are those who overestimate their own abilities and that too, by a big margin. Hence, Option C is the answer.

Option D: In the lines quoted above, 'Almost everyone holds very favourable views of their abilities in various intellectual and social domains' is the first part, but that was not the point of the example, since it is understood anyway. The second part was the point of the example, that some people mistakenly think they are much better than what they truly are. Option D is not the answer.

Choice (C)

undefined

**Q8. DIRECTIONS** for question 8: Insert the highlighted sentence in the text (consisting of two paragraphs) given below it at the correct location. Enter the location number as your answer in the input box given below the question.

Enter your answer as any one of 2 or 3 or 4 if the sentence can be inserted at the corresponding numbered location within the text.

Enter your answer as 1 if the highlighted sentence precedes or is upstream of the given text.

Enter your answer as 5 if the highlighted sentence succeeds or is downstream of the given text.

**If we are henceforth to do without such works, then we will surely be the lesser for it.**

(1) \_\_\_\_\_

....

Most under-50 art lovers take pop culture very seriously indeed. So they should, not merely because it is popular but because so much of it is so good. It may well be that our popular art is on balance of higher quality than the "serious" art of the present moment. (2) True or not, a case can certainly be made that the best popular art has long aspired to, and often attained, a degree of aesthetic and emotional seriousness that is comparable to all but the greatest works of high art. Like the masterpieces of earlier eras, these works infuse familiar forms and materials with a creative energy that allows them to transcend their mundane origins. They are, in the poetic sense, elevated, and to experience them elevates us. (3) \_\_\_\_\_

Yet they still differ from their predecessors in a way that is fundamental, not superficial. Nor am I referring to the fact that they are less ambitious, be it in their structure or their genre-bound subject matter.

(4) No, something else distinguishes these "masterpieces" from their high-art counterparts, something that is implicit in the very act of their creation - and is central to the nature of pop culture itself.

....

(5) \_\_\_\_\_

**You did not answer this question**

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 11    |
| Avg. time spent on this question by all students                         | 150   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 155   |
| % of students who attempted this question                                | 30.93 |
| % of students who got the question right of those who attempted          | 34.58 |

[Video Solution](#)

[Text Solution](#)

Note the presence of the plural subjective pronoun "they" in the highlighted sentence. On a careful reading of the paragraph, it can be inferred that the highlighted sentence does not belong to blank (2). The sentence is completely out of place in blank (2), as it interrupts the flow of thought. The sentence preceding blank (2) refers to "popular art" and so does the sentence succeeding blank (2) {best popular art}. Now, "popular art" is a singular noun and can be referred to by the singular pronoun "it". So (2) is not the location where the highlighted sentence can be inserted.

The description about "these works" is very positive. Refer to the last two sentences of the first para. The highlighted sentence cannot belong to blank (3). There is no hint of "doing without such works" in the first para.

The second para of the reproduced text talks about the fact that our popular art works differ from their predecessors. The highlighted sentence does not point to any such difference and would disrupt the thoughtflow if it is placed in blank (4). The two sentences around blank (4) need to flow continuously and no insertion of any extraneous sentence is required.

The highlighted sentence is too specific to be upstream of the para.

The highlighted sentence can be placed downstream of the given text, after a few paras that continue to extol "these works". Hence 5 is the correct answer.

Ans: (5)

undefined

#### Q9.

**DIRECTIONS for question 9:** Each of the following questions has a set of five sequentially ordered statements. Classify the statements into Facts, Inferences and Judgements based on the following criteria:

- Facts, which deal with pieces of information that one has seen, heard or read; which are known matters of direct observation or existing reality; which are open to discovery or verification. (You need to represent such a statement with the number '1').

- Inferences, which are logical conclusions or deductions drawn about the unknown, on the basis of the known i.e. based on the knowledge of facts (You need to represent such a statement with the number '2').

- Judgments, which are opinions, or recommendations or estimates or anticipations of common sense or intention that imply approval or disapproval of persons, objects, situations and occurrences in the past, the present or the future (You need to represent such a statement with the number '3').

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

i.  
The principle of sufficient reason tells us that things don't just happen.

ii.  
We do not know the causes of everything, but we know that everything has a cause.

- iii. The knowledge of causes, simply from a theoretical point of view, can be very satisfying, since to know the causes of things is to have a truly profound understanding of them.
- iv. But the knowledge of causes also has wide-ranging practical implications, for in many instances to know causes is to be able to control them, and to control causes is to control effects.
- v. There being no doubt in our minds that we are dealing with objective facts, our doubts would concern only how those facts came to be.

**You did not answer this question**

[Show Correct Answer](#)

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>5</b>     |
| Avg. time spent on this question by all students                         | <b>168</b>   |
| Difficulty Level   | <b>VD</b>    |
| Avg. time spent on this question by students who got this question right | <b>162</b>   |
| % of students who attempted this question                                | <b>27.72</b> |
| % of students who got the question right of those who attempted          | <b>1.68</b>  |

[Video Solution](#)

[Text Solution](#)

Statement 1 is a fact. The author is explaining the principle – F.  
 Statement 2 is also a fact. The author is pointing to general observation, namely of what we know or do not know – F.  
 Statement 3 is a judgment inspite of the use of 'since'. Both, what he bases his idea on and the idea itself are opinions. 'satisfying' and 'truly profound' are subjective terms – J.  
 Statement 4 is an inference. The author concludes that something has wide-ranging implications. The second part of the sentence is a premise and the first part is understanding – I.  
 Statement 5 is an inference, as it presents a conclusion (the second half) based on a fact (the first half). - I  
 Hence FFJII.  
 Since the five sentences are classified as FFJII, we represent the answer as 11322.  
 Ans: (11322)

undefined

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

The German economy is booming. Unemployment is at a near-record low. In Europe and around the world, the country is seen as a beacon of wealth and efficiency.

So why are these prosperous young Germans so doggedly pessimistic about their future? Good job prospects, a clean environment, low crime rates, lots of leisure time and cultural attractions, good transport links - what's not to like? But there are problems below the surface that could impact the younger generation.

Peter Matuschek, chief political analyst at the German polling institute Forsa, says that while Germans tend to be content with their own lives, they feel less at ease with the direction the country is taking.

In a polling Forsa did for the German broadcaster RTL, 81% were very happy or happy with their own personal financial situation; asked about the country more broadly, that figure dropped 10%. And while 71% said they were happy with the German political system as it's supposed to operate, just 14% were happy with how it actually functions.

When it comes to the economy, for example, Matuschek told BBC Capital that perceptions had shifted starkly over the course of the last year. Asked whether the economy would improve or deteriorate, Germans in January were split fairly evenly. Since the summer, however, there has been a shift of nearly 20% towards greater pessimism.....

To be fair, it has been a tumultuous summer for Germans. A high-profile showdown over migration nearly brought down the government. Mesut Özil, a member of Germany's national football team who is of Turkish descent, quit this summer after alleging racism from team members and fans. The incident forced broader discussions about the prevalence of everyday racism in Germany. And, video footage of far-right sympathisers rioting and chasing foreigners through the streets of Chemnitz, a town in the East German state of Saxony, shook the country and reopened questions about the extent to which Germany has learned from its past.

**Q10.** According to the passage, the young Germans are pessimistic about their future most probably because

- a) they do not have clarity on the direction that the country is taking.
- b) they are uncomfortable with the unfolding situation in the country. Your answer is correct
- c) the everyday problems that they face have increased.
- d) the growth in the German economy has brought with it many problems, which are unrecognized by the government.

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 183   |
| Avg. time spent on this question by all students                         | 232   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 219   |
| % of students who attempted this question                                | 55.8  |
| % of students who got the question right of those who attempted          | 38.91 |

[Video Solution](#)

#### Text Solution

##### Number of words and Explanatory notes for RC:

Number of words: 324

The second para of the passage introduces the idea that, even though everything looks hunky-dory, there are problems "below the surface" and the "young Germans are so doggedly pessimistic about their future". The third para provides an answer in the form of Germans feeling unease about the direction that the country is taking.

Option A: The passage mentions that the Germans "feel less at ease with the direction the country is taking". This does not mean the people do not have clarity on the direction. It means that they do not necessarily agree with the direction. Hence, this option is incorrect.

Option B: According to the Peter Matuschek, "they feel less at ease with the direction the country is taking". We can say from this that they are sceptical about its path. Further, the second para talks about young Germans "feeling pessimistic". The third para talks about Germans feeling "less at ease". We can infer that the reason why Germans feel less at ease is most probably also the reason why young Germans feel pessimistic. Hence, this is the correct answer.

Option C: In the third para of the passage, the author mentions that "Germans tend to be content with their own lives". Hence, we cannot infer that their everyday problems increased.

Option D: The passage mentions that the economy is booming (in the first para). It also mentions that "there are problems below the surface". However, the author does not imply that the former led to the latter. This option mentions that the boom in the economy brought about the problems, which is incorrect.

Therefore, the correct answer is option B.

Choice (B)

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

The German economy is booming. Unemployment is at a near-record low. In Europe and around the world, the country is seen as a beacon of wealth and efficiency.

So why are these prosperous young Germans so doggedly pessimistic about their future? Good job prospects, a clean environment, low crime rates, lots of leisure time and cultural attractions, good transport links - what's not to like? But there are problems below the surface that could impact the younger generation.

Peter Matuschek, chief political analyst at the German polling institute Forsa, says that while Germans tend to be content with their own lives, they feel less at ease with the direction the country is taking.

In a polling Forsa did for the German broadcaster RTL, 81% were very happy or happy with their own personal financial situation; asked about the country more broadly, that figure dropped 10%. And while 71% said they were happy with the German political system as it's supposed to operate, just 14% were happy with how it actually functions.

When it comes to the economy, for example, Matuschek told BBC Capital that perceptions had shifted starkly over the course of the last year. Asked whether the economy would improve or deteriorate, Germans in January were split fairly evenly. Since the summer, however, there has been a shift of nearly 20% towards greater pessimism.....

To be fair, it has been a tumultuous summer for Germans. A high-profile showdown over migration nearly brought down the government. Mesut Özil, a member of Germany's national football team who is of Turkish descent, quit this summer after alleging racism from team members and fans. The incident forced broader discussions about the prevalence of everyday racism in Germany. And, video footage of far-right sympathisers rioting and chasing foreigners through the streets of Chemnitz, a town in the East German state of Saxony, shook the country and reopened questions about the extent to which Germany has learned from its past.

**Q11.** Based on the findings of Forsa, which of the following could help allay the uneasiness of the Germans?

- a) Managing the country's finances in a manner similar to that whereby the Germans manage their personal finances.
- b) Reducing the excessive bureaucracy that has crept into the German political system.
- c) Reducing the unemployment levels further.
- d) Aligning the functioning of the political system with how it is supposed to function. Your answer is correct

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>118</b>   |
| Avg. time spent on this question by all students                         | <b>83</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>77</b>    |
| % of students who attempted this question                                | <b>52.59</b> |
| % of students who got the question right of those who attempted          | <b>84.07</b> |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 324

The fourth and fifth paragraph talks about the polling that Forsa did. It presents a few snippets of information about the people's opinion towards the country's finances, political system and economy.

Option A: According to the poll, "81% were very happy or happy with their own personal financial situation; asked about the country more broadly, that figure dropped 10%". This implies that people were happy with their personal finances but not as many were happy with the country's finances. However, we cannot infer from this that people want the country's finances to be managed on similar lines to personal finance. Hence, this is incorrect.

Option B: The passage mentions that "while 71% said they were happy with the German political system as it's supposed to operate, just 14% were happy with how it actually functions". From this we can infer that a large proportion of the people were not happy with how the government/political system functions. However, we cannot infer from the passage that this is because of bureaucracy. It can also be because of many other factors.

Option C: The beginning of the para says that the unemployment is at a record low. Even then people feel uneasy about the direction of the country. Further, the poll does not mention unemployment as a factor for the Germans to not be satisfied with their country. Hence, this is not the correct answer.

Option D: From the statement, "while 71% said they were happy with the German political system as it's supposed to operate, just 14% were happy with how it actually functions", we can infer that more people would be happy if the political system operated as it is supposed to operate. Therefore, this is the correct answer.

Choice (D)

undefined

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

The German economy is booming. Unemployment is at a near-record low. In Europe and around the world, the country is seen as a beacon of wealth and efficiency.

So why are these prosperous young Germans so doggedly pessimistic about their future? Good job prospects, a clean environment, low crime rates, lots of leisure time and cultural attractions, good transport links - what's not to like? But there are problems below the surface that could impact the younger generation.

Peter Matuschek, chief political analyst at the German polling institute Forsa, says that while Germans tend to be content with their own lives, they feel less at ease with the direction the country is taking.

In a polling Forsa did for the German broadcaster RTL, 81% were very happy or happy with their own personal financial situation; asked about the country more broadly, that figure dropped 10%. And while 71% said they were happy with the German political system as it's supposed to operate, just 14% were happy with how it actually functions.

When it comes to the economy, for example, Matuschek told BBC Capital that perceptions had shifted starkly over the course of the last year. Asked whether the economy would improve or deteriorate, Germans in January were split fairly evenly. Since the summer, however, there has been a shift of nearly 20% towards greater pessimism.....

To be fair, it has been a tumultuous summer for Germans. A high-profile showdown over migration nearly brought down the

government. Mesut Özil, a member of Germany's national football team who is of Turkish descent, quit this summer after alleging racism from team members and fans. The incident forced broader discussions about the prevalence of everyday racism in Germany. And, video footage of far-right sympathisers rioting and chasing foreigners through the streets of Chemnitz, a town in the East German state of Saxony, shook the country and reopened questions about the extent to which Germany has learned from its past.

**Q12.** Which of the following is an assumption made by the author in justifying the shift towards greater pessimism "since the summer" (para 6)?

- a) A near-toppling of the government fosters pessimism among the citizens. Your answer is incorrect
- b) High-profile disturbances lead to an increase in pessimism among the citizens.
- c) A deterioration in the economy will affect the faith of the citizens in their government.
- d) The more the people know about how their government functions, the more their pessimism will be.

**Show Correct Answer**

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>39</b>    |
| Avg. time spent on this question by all students                         | <b>111</b>   |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>104</b>   |
| % of students who attempted this question                                | <b>44.15</b> |
| % of students who got the question right of those who attempted          | <b>58.68</b> |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 324

The author **justifies** the shift towards greater pessimism in the statement "**To be fair**, it has been a tumultuous summer for Germans". Note that the author uses the phrase "To be fair". The assumption in this case is that a tumultuous period will lead to increase in pessimism.

Option A: While the 'near-toppling' of the government is mentioned as one of the incidents that made the summer tumultuous, other circumstances have also been mentioned. Hence, this is not an accurate description of the assumption that the author made.

Option B: The circumstances that made the summer tumultuous are both high profile (given significant public exposure) incidents. Hence, we can say that high profile incidents, which made the summer tumultuous, increased the pessimism of the people. This is the assumption in the justification of the author. Therefore, this is the correct answer.

Option C: The author talks about the deterioration of the economy neither in this context nor in the entire passage. He mentions to the contrary that the economy is doing well in the first para. Hence, this is not an assumption that the author made.

Option D: The author does not assume anything about the knowledge of the people regarding their government. He only talks about certain high profile cases. Hence, this is not an assumption.

Therefore, the correct answer is option B.

Choice (B)

undefined

**Q13. DIRECTIONS** for question 13: 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. We may have been transplanted into another millennium in *EI Norte*, but we are still connected to that elegy, aren't we?
2. Aren't we still unfolding the same great tapestry of a tale begun long, long ago?
3. Of gods worshipped and sacrificed to from the top of pyramids -- of thousands upon thousands of Indios baptized for Christ in the saliva of Franciscan monks?
4. It sometimes seems as if Mexicans are to forgetting what the Jews are to remembering.
5. Aren't my aunts and uncles, cousins, parents and brothers, all part of the same long dolorous poem that sings of the epoch of ocean-plying caravelas and conquest, of Totonacas and Aztecas, of unimaginable treasures created from jade, silver, and gold?

**Your Answer:**1524 □ **Your answer is incorrect**

Show Correct Answer

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>98</b>    |
| Avg. time spent on this question by all students                         | <b>136</b>   |
| Difficulty Level   | <b>VD</b>    |
| Avg. time spent on this question by students who got this question right | <b>156</b>   |
| % of students who attempted this question                                | <b>22.51</b> |
| % of students who got the question right of those who attempted          | <b>2.63</b>  |

[Video Solution](#)

#### Text Solution

This parajumble comprises statements that pose a series of questions.  
 Sentence 1: Sentence 1 tells us we are still connected to the 'elegy' (sad/**dolorous poem**).

Sentence 2: Sentence 2 makes a reference to "great tapestry of a tale".

Sentence 3: Sentence 3 is an independent sentence that refers to "gods".

Sentence 4: A standalone sentence that has an analogy: Mexicans are to forgetting what the Jews are to remembering.

Sentence 5: Sentence 5 makes a reference to "same long **dolorous poem**".

So sentence 2 is the most general sentence of all. It has the introductory words "tale begun long, long ago". Sentences 2 and 5 form a logical block. "great tapestry of a tale begun long, long ago" in sentence 2 links with "all part of the same long dolorous poem" in sentence 5. So 5 follows 2. "great tapestry" in 2 seems to link with "epoch of ocean-plying caravelas and conquest, of Totonacas and Aztecas, of unimaginable treasures created from jade, silver, and gold" in sentence 5.

Sentence 3 (Of gods worshipped and sacrificed) continues the list after sentence 5 (epoch of ocean-plying caravelas and conquest, of Totonacas and Aztecas, of unimaginable treasures).

Sentence 1 concludes the para. "we are still connected to that elegy, aren't we?" in the conclusion sentence 1 mirrors the "same long dolorous poem" in sentence 5. So, 2531.

Sentence 4 is the odd sentence out. That "Mexicans are to forgetting what the Jews are to remembering" is not of consequence in this context. The para only talks about continuity of a tale and not about forgetting or remembering. Sentence 4 needs a precedent and more substantiation.

Ans: (2531)

undefined

**DIRECTIONS** for questions 14 to 19: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Cross the boundaries of the former Yugoslavia and you face a few hassles. Heading from Slovenia to Croatia you encounter the Schengen border, which separates the European Union's passport-free area from those EU countries which are not members of it. Cross from Croatia into Serbia or Bosnia-Herzegovina, and you leave the EU entirely; here you find customs checks and passport controls.

The one thing you might not even notice is a difference in language. In Slovenia, the tourist might pick up *dobrodosli*, *dober dan* and *hvala*, "welcome", "hello" and "thank you". In Croatia, these are *dobrodosli*, *dobar dan* and *hvala*. Not everything is the same, by any means. But Croatians and Slovenes can largely understand each other's languages. Then, why are they considered two distinct languages at all?

Yugoslavia, cobbled together from territories mostly populated with speakers of southern Slavic tongues, was dominated by a language called Serbo-Croatian. Serbians wrote it with the Cyrillic alphabet, and Croats, Muslims and Montenegrins preferred the Latin one. But a few minor dialectal differences aside, they all clearly spoke the same language, its varieties closer even than Slovenian and Croatian are.

But when Yugoslavia broke up and the republics went to war, not only the state but the language of Serbo-Croatian was dismantled. Nationalists in the successor republics insist today that they speak Croatian, Serbian, Bosnian and Montenegrin. Last year liberal intellectuals gathered in Sarajevo to affirm that Serbs, Croats, Montenegrins and Bosniaks speak a single "polycentric" language like English (with its standard British, American and other varieties). Nationalists howled.

Max Weinreich, a linguist, made famous the wry remark that "a language is a dialect with an army and a navy." The usual criterion for what is a separate language, and not a mere dialect, is that speakers of two languages should find it difficult or impossible to understand each other. But factors that have nothing to do with language often supersede the linguistic ones.

Those who try to tally up the world's languages are either "lumpers", who would treat mutually comprehensible tongues as single languages, and "splitters", who focus on the differences. A lumper would say that Macedonian is really Bulgarian. Macedonian splitters angrily retort that this is an attempt to obliterate their identity.

Lumper-splitter controversies can be found around the world. Swedes, Danes and Norwegians can understand each other pretty well too, but few say that they simply speak "Scandinavian".....

While lines on the map are influential, other loyalties play a role too. Lumpers once recognised a language called Hindustani; its disparate speakers have no trouble conversing. But a splitter would point to the two different writing systems of Hindi and Urdu, as well as communal preferences - Muslims speak Urdu; Hindus, Hindi - and say they are two languages. Urdu is a language of India as well as Pakistan; the boundary is less territorial than religious, with the writing system a visible marker (Urdu's Arabic script connects it to Islam, Hindi's Devanagari links to Sanskrit and Hinduism).

In other words, the messy facts of the real world complicate the simple narratives some see as necessary for community-building. Nationalists don't like to talk about the awful things their forebears did. They tend to assume that their country's most expansive borders are the natural ones - though these inevitably overlap with their neighbours' border claims. Languages are no different. A phrase beloved of some journalists is even truer of nationalists: never let the facts get in the way of a good story.

**Q14.** The author's key contention in this passage is that

- a) the reasons behind considering some dialects as languages is more political and cultural than linguistic, but nationalists ignore this fact.
- b) despite speakers of some dialects comprehending each other, those dialects are considered separate languages, especially by nationalists, for reasons that supersede linguistic ones. Your answer is correct
- c) dialects, despite their similarities exceeding their differences, end up being considered languages when supported by powerful lobbying groups.
- d) while lumpers continue to argue that dialects are not separate languages, but just polycentric, splitters - especially nationalists - insist on separate languages as a symbol of identity.

#### Time spent / Accuracy Analysis

|  |     |
|--|-----|
| Time taken by you to answer this question        | 458 |
| Avg. time spent on this question by all students | 387 |

### Time spent / Accuracy Analysis

| Difficulty Level   | VD           |
|--|--------------|
| Avg. time spent on this question by students who got this question right | <b>382</b>   |
| % of students who attempted this question                                | <b>32.58</b> |
| % of students who got the question right of those who attempted          | <b>47.93</b> |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 576

Option A: This option has a misrepresentation. 'This fact' according to the sentence means – 'The reasons behind considering some dialects as languages is more political'. This is probably not ignored by the nationalists (as they probably argue for separate language as a political/national identity). The 'facts' the author says, nationalists ignore, in the passage, is in a different connotation – facts that 'complicate narratives'. We are not given an explicit idea on what kind of 'facts' the author was alluding to. Hence, Option A is not the answer.

Option B: The author's contention has two parts. If speakers of some dialects comprehend each other, then those cannot be considered separate languages. Secondly, such dialects are being considered separate languages not on linguistic basis but for other reasons (alluding to politics and nationalism). Hence, Option B is a close representation.

Option C: The count of the number of similarities and the number of differences has not been discussed in the passage. 'Powerful lobbying group' is an extreme extrapolation for the nationalism and politics blamed for turning similar dialects into separate languages. Hence, Option C is not the answer.

Option D: Dialects are not separate languages but comprise part of a 'polycentric language' – this part cannot be understood from the passage. Also, not all splitters insist on separate languages for the sake of 'identity'. Hence, Option D is not the answer.

Choice (B)

undefined

**DIRECTIONS** for questions 14 to 19: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

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The one thing you might not even notice is a difference in language. In Slovenia, the tourist might pick up *dobrodosli, dober dan* and *hvala*, "welcome", "hello" and "thank you". In Croatia, these are *dobrodosli, dobar dan* and *hvala*. Not everything is the same, by any means. But Croatians and Slovenes can largely understand each other's languages. Then, why are they considered two distinct languages at all?

Yugoslavia, cobbled together from territories mostly populated with speakers of southern Slavic tongues, was dominated by a language called Serbo-Croatian. Serbians wrote it with the Cyrillic alphabet, and Croats, Muslims and Montenegrins preferred the Latin one. But a few minor dialectal differences aside, they all clearly spoke the same language, its varieties closer even than Slovenian and Croatian are.

But when Yugoslavia broke up and the republics went to war, not only the state but the language of Serbo-Croatian was dismantled. Nationalists in the successor republics insist today that they speak Croatian, Serbian, Bosnian and Montenegrin. Last year liberal intellectuals gathered in Sarajevo to affirm that Serbs, Croats, Montenegrins and Bosniaks speak a single "polycentric" language like English (with its standard British, American and other varieties). Nationalists howled.

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Those who try to tally up the world's languages are either "lumpers", who would treat mutually comprehensible tongues as

single languages, and “splitters”, who focus on the differences. A lumper would say that Macedonian is really Bulgarian. Macedonian splitters angrily retort that this is an attempt to obliterate their identity.

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In other words, the messy facts of the real world complicate the simple narratives some see as necessary for community-building. Nationalists don't like to talk about the awful things their forebears did. They tend to assume that their country's most expansive borders are the natural ones - though these inevitably overlap with their neighbours' border claims. Languages are no different. A phrase beloved of some journalists is even truer of nationalists: never let the facts get in the way of a good story.

**Q15.** Which of the following can be inferred from the last sentence of the passage: ‘A phrase...of a good story’?

- a) Journalists do not misinterpret facts as much as nationalists do.
- b) Neither journalists nor nationalists care as much for the story as they do for the facts.
- c) Narratives often supercede facts in journalism and, more so, in nationalism. Your answer is correct
- d) The narratives of good stories are rarely based on immaculate facts.

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 117   |
| Avg. time spent on this question by all students                         | 99    |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 89    |
| % of students who attempted this question                                | 40.65 |
| % of students who got the question right of those who attempted          | 66.48 |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 576

A phrase beloved of some journalists is even truer of nationalists: never let the facts get in the way of a good story. It is important to understand the essence of the sentence. The author here is not justifying for journalists. There is no real comparison either as to who does this more or who does this less.... The statement generally used by/for journalists is actually true for nationalists as well.

Option A: ‘Misinterpret’ is a wrong word. We can infer that the sentence applies even more to nationalists than it does to journalists. In other words, nationalists according to the author have even less regard for facts when it comes to their narratives than even journalists, who are infamous for the same. Hence, Option A is not the answer.

Option B: This option contradicts the essence/data in the passage. Journalists and nationalists care more for the story than they do for the facts. Hence, Option B is not the answer.

Option C: This option represents the true essence of the last line. Narrative (story) is more important than facts (facts shouldn't get in the way of a good story) and this is truer for nationalists. Hence, Option C is the answer.

Option D: From the line/para it is not possible to stereotype all good stories and to extrapolate that they are not based on facts. Also the last line was about journalism and nationalism, and was not about stories and their relationship with facts. Hence, Option D is not the answer.

Choice (C)

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Those who try to tally up the world's languages are either "lumpers", who would treat mutually comprehensible tongues as single languages, and "splitters", who focus on the differences. A lumper would say that Macedonian is really Bulgarian. Macedonian splitters angrily retort that this is an attempt to obliterate their identity.

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**Q16.** Which of the following can be inferred about Yugoslavia from the information given in the third para?

- a) Yugoslavia doesn't exist as a sovereign country anymore.
- b) Speakers of Slavic tongues comprised the majority in Yugoslavia. Your answer is correct
- c) People of Yugoslavia spoke the same language, Serbo-Croatian.
- d) The only difference between the various dialects of Yugoslavia was the alphabet.

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 223   |
| Avg. time spent on this question by all students                         | 116   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 117   |
| % of students who attempted this question                                | 44.32 |
| % of students who got the question right of those who attempted          | 32.86 |

## [Video Solution](#)

## [Text Solution](#)

### **Number of words and Explanatory notes for RC:**

Number of words: 576

Yugoslavia, cobbled together from territories mostly populated with speakers of southern Slavic tongues, was dominated by a language called Serbo-Croatian. Serbians wrote it with the Cyrillic alphabet, and Croats, Muslims and Montenegrins preferred the Latin one. But a few minor dialectal differences aside, they all clearly spoke the same language, its varieties closer even than Slovenian and Croatian are. Option A: This cannot be inferred from the third para. This information is present in the fourth para. Hence, Option A is not the answer.

Option B: '*Yugoslavia, cobbled together from territories mostly populated with speakers of southern Slavic tongues.*' Since, Yugoslavia is cobbled together of areas **mostly populated** with people who speak southern Slavic tongues, we can infer that Slavic speakers are a majority in Yugoslavia. Option B is the answer.

Option C: *Yugoslavia was dominated by a language called Serbo-Croatian.* From this, we cannot infer that people of Yugoslavia speak the same language. A majority speaks this language. Hence, Option C is not the answer.

Option D: *Serbians wrote it with the Cyrillic alphabet, and Croats, Muslims and Montenegrins preferred the Latin one.* This is with respect to Serbo-Croatian. The same cannot be said about all the dialects of Yugoslavia. Hence, Option D is not the answer.

Choice (B)

undefined

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Those who try to tally up the world's languages are either "lumpers", who would treat mutually comprehensible tongues as single languages, and "splitters", who focus on the differences. A lumper would say that Macedonian is really Bulgarian. Macedonian splitters angrily retort that this is an attempt to obliterate their identity.

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Urdu, as well as communal preferences - Muslims speak Urdu; Hindus, Hindi - and say they are two languages. Urdu is a language of India as well as Pakistan; the boundary is less territorial than religious, with the writing system a visible marker (Urdu's Arabic script connects it to Islam, Hindi's Devanagari links to Sanskrit and Hinduism).

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Q17. ALL the following can be implied to be differences between 'lumpers' and 'splitters' EXCEPT?

- a) **Splitters would consider the languages of Swedes, Danes and Norwegians separate whereas Lumpers would call it Scandinavian.**
- b) **Splitters would say that Hindi and Urdu are separate languages, whereas lumpers would disagree.**
- c) **Splitters would term Croatian and Slovenian languages as separate languages whereas lumpers would call them versions of a polycentric language.**
- d) **Splitters are more likely to be nationalists whereas lumpers are more likely to be liberal intellectuals.** Your answer is correct

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>245</b>   |
| Avg. time spent on this question by all students                         | <b>131</b>   |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>118</b>   |
| % of students who attempted this question                                | <b>39.99</b> |
| % of students who got the question right of those who attempted          | <b>66.86</b> |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 576

Those who try to tally up the world's languages are either "lumpers", who would treat mutually comprehensible tongues as single languages, and "splitters", who focus on the differences.

Option A: From the sentence 'Lumper-splitter controversies can be found around the world. Swedes, Danes and Norwegians can understand each other pretty well too, but few say that they simply speak "Scandinavian" we can understand that those who look at differences (splitters) would call the languages separate, but those who consider them a single language (lumpers) would call it Scandinavian. Hence, Option A can be implied to be a difference. Option A is not the answer.

Option B: From the sentences, 'Lumpers once recognised a language called Hindustani; its disparate speakers have no trouble conversing. But a splitter would point to the two different writing systems of Hindi and Urdu, as well as communal preferences', we can understand that Option B is implied to be a difference. Option B is not the answer.

Option C: Splitters would say Croatian and Slovenian languages are separate whereas lumpers would call them polycentric languages. While the first half of the option is directly mentioned, the second half needs further deliberation. Lumpers would call them versions of 'a polycentric language'. Polycentric language could be inferred as a language with several possible dialects/versions like Croatian and Slovenian. Hence, Option C can be implied to be a difference. Option C is not the answer.

Option D: Liberal intellectuals have argued as lumpers do, in the passage (insisting that several different dialects are part of the same language, Serbo-Croatian) and nationalists have argued as splitters do, insisting that the languages are all separate and stand for an identity. However, from this, the reverse cannot be implied – that lumpers are liberal intellectuals and splitters are nationalists, because splitters and lumpers are involved only in language-related arguments and have not been mentioned associating with politics. Hence, Option D is the answer since it cannot be implied.

Choice (D)

undefined

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**Q18.** The wry remark made by Max Weinreich ("a language...navy") implies that

- I.  
Not every dialect can, necessarily, be called a language.
- II.  
The dialects spoken by the army and navy generally gain more popularity.
- III.  
Dialects gain prominence as a language depending on the power of the people who promote them.
- IV.  
Not all dialects are difficult to understand by those who speak other languages.

- a) Only I
- b) I and III Your answer is correct
- c) Only III
- d) I, II, III and IV

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>154</b>   |
| Avg. time spent on this question by all students                         | <b>112</b>   |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>111</b>   |
| % of students who attempted this question                                | <b>28.87</b> |
| % of students who got the question right of those who attempted          | <b>37.82</b> |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 576

The intended meaning of this sentence is that those who are powerful get to choose which dialect actually receives the status of a language or is popularised.

- I: Since only dialects backed by powerful groups see themselves transform into 'language', I can be inferred – that every dialect doesn't necessarily become a language. Only the popular ones. Hence, I is true.
- II: The army and navy represent power and were not meant 'literally'. Hence, II is not part of the answer.
- III: A language is a dialect backed by an army and navy, implies, a dialect gains prominence when it is promoted as a language by powerful people. Hence, III can be implied.
- IV: The difficulty in comprehension of a dialect is not the essence of this line. The wry/witty/dry humour remark was more to do with the importance associated with a particular language and the power needed to gain such an importance. IV is not part of the answer.

I and III can be implied. Option B is the answer.

Choice (B)

undefined

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**Q19.** Which of the following answers to the author's question (in the last line of the second para), would most resonate with the author's opinion?

- a) Serbians use the Cyrillic alphabet whereas Croats prefer the Latin ones.
- b) There are a few minor dialectical differences in the Serbo-Croatian language.
- c) It is a consequence of the post-war nationalism in the successor republics of erstwhile Yugoslavia. Your answer is correct
- d) The real reasons aren't as political as they are linguistic.

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>91</b>    |
| Avg. time spent on this question by all students                         | <b>96</b>    |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>88</b>    |
| % of students who attempted this question                                | <b>38.68</b> |
| % of students who got the question right of those who attempted          | <b>65.43</b> |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 576

**'Then, why are they considered two distinct languages at all?'** The author has gone on to answer his own question in the rest of the passage. The usual criterion for what is a separate language, and not a mere dialect, is that speakers of two languages should find it difficult or impossible to understand each other. **But factors that have nothing to do with language often supersede the linguistic ones.**

Option A: The reason why they are considered separate languages has got nothing to do with the alphabet. In fact, this can be understood from the underlined portion – ‘Serbians wrote it with the Cyrillic alphabet, and Croats, Muslims and Montenegrins preferred the Latin one. **But a few minor dialectal differences aside, they all clearly spoke the same language**’. Hence, Option A is not the answer.

Option B: As explained above, the few minor dialectical differences could be pushed aside as the language they spoke was almost the same. Hence, Option B is not the answer.

Option C: From these lines ‘But when Yugoslavia broke up and the republics went to war, not only the state but the language of Serbo-Croatian was dismantled. Nationalists in the successor republics insist today that they speak Croatian, Serbian, Bosnian and Montenegrin’ we can understand that the answer to the author’s question matches with this option; that it is nationalists who insisted on calling them all separate languages. Option C is the answer.

Option D: This tends to suggest that the reason dialects are considered as separate languages has got more to do with linguistics than with politics. That clearly contradicts the author’s stance in the passage from the line – ‘**But factors that have nothing to do with language often supersede(come before, get higher priority) the linguistic ones**’. Hence, Option D is not the answer.

Choice (C)

undefined

**Q20. DIRECTIONS** for question 20: Given below is 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. 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 power of a bold idea uttered publicly \_\_\_\_\_(i)\_\_\_\_\_ dominant opinion cannot be easily measured. Those special people who speak out in such a way as to shake up not only the self-assurance of their enemies, but also the \_\_\_\_\_(ii)\_\_\_\_\_ of their friends, are \_\_\_\_\_(iii)\_\_\_\_\_.

| Blank (i)          | Blank (ii)         | Blank (iii)                              |
|--------------------|--------------------|--|
| (1) wary of        | (4) capriciousness | (7) precious catalysts for change        |
| (2) oblivious to   | (5) complacency    | (8) egregious iconoclasts                |
| (3) in defiance of | (6) ignominy       | (9) unswerving instruments of opprobrium |

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                         | 122   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 116   |
| % of students who attempted this question                                | 36.68 |
| % of students who got the question right of those who attempted          | 25.51 |

[Video Solution](#)

[Text Solution](#)

Look at the options available for the first blank. "oblivious to" has a neutral tone, "in defiance to" has a strong negative tone. "wary of" can be positive or negative depending on the context.

The clue for the first blank is available in the phrase "bold idea uttered publicly" and "speak out in such a way". Hence from the three alternatives available for the first blank, only "in defiance to" can complete it logically. "in defiance to" means a daring or bold resistance to any opposing force. "wary of" is too mild for the context. It refers to "feeling or showing caution about possible dangers or problems", being circumspect. Also "wary to" does not collocate with ".... uttered publicly". Hence (3) is the answer for the first blank.

The sentence containing the second blank has a "not only .... but also" construction. We need a word similar to "self-assurance". That word is "complacency". "complacency" refers to a feeling of smug or uncritical satisfaction with oneself or one's achievements. It also means smugness, self-satisfaction, self-approval, self-approbation, self-admiration. "capriciousness" and "ignominy" have a negative connotation and are not similar to "self-assurance". "Capriciousness" means impulsive and unpredictable, fickle-minded. Ignominy means "public shame or disgrace". So 5 is the answer for the second blank.

For the third blank, we need to refer to "Those special people who speak out" in the first part of the second sentence. The word "special" indicates a positive tone. The power of a bold idea uttered publicly .... cannot be easily measured (again a positive sentence). So, "those special people" can be said to be "precious catalysts for change". While "iconoclasts" (persons who attack or criticize cherished beliefs or institutions) seems to gel with the idea of the paragraph, choice 8 is not a suitable phrase for the last blank. "egregious" means outstandingly bad; shocking and this word cannot be used to describe " Those special people". Similarly "instruments of opprobrium" is too strong a description and cannot fit blank (iii). "opprobrium" means harsh criticism or censure. The correct answer for the last blank is (7).

The required answer is 357.

Ans: (357)

undefined

**Q21. DIRECTIONS for question 21:** Each of the questions given below has a paragraph which is followed by five alternative summaries. Identify the alternative that best captures the essence of the text and enter its number as your answer in the input box provided.

Some authors push the analogy between cultural evolution and biological evolution very far. Within biology, the most celebrated evolutionary process is natural selection: traits that increase fitness are more likely than others to get passed on from one generation to the next. 20<sup>th</sup> century evolutionary theory supplements this Darwinian idea with the principle that traits are transmitted genetically. Genes produce traits (or phenotypes), which impact reproductive success, and thereby impact which genes will be copied into the next generation. Richard Dawkins, who helped popularize this idea, characterizes cultural items as "memes" - a term that echoes "gene" while emphasizing the idea that culture is passed on mimetically - that is, by imitation. Like a gene, a meme will spread if it is successful.

1. The analogy between cultural and biological evolution is farfetched as cultural traits can be spread in ways that differ significantly from genes.
2. Richard Dawkins propounded the idea that genes produce characteristics which impact reproductive success, and thereby determine their genetic transmission from one generation to the next. He thinks that culture can also be passed on by imitation.
3. Just as genetic traits, such as those that increase fitness, are transmitted from one generation to the next, cultural traits get reproduced in an analogous way, according to some authors.
4. The analogy between biological evolution, in which traits that increase reproductive success are perpetuated, and cultural evolution, where elements that are successful are imitated, is extrapolated very far by some authors.
5. A cultural trait can change while being transmitted mimetically, which is not the case with the genetic transmission of successful traits.

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 4     |
| Avg. time spent on this question by all students                         | 173   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 169   |
| % of students who attempted this question                                | 40.03 |
| % of students who got the question right of those who attempted          | 48.32 |

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Option 1: The first part of this choice appears to be true from the opening sentence of the para. But the second part is contradictory to the last few lines of the para. Option 1 is not the answer. It is also incomplete as a summary.

Option 2: Option 2 is incorrect as "propounded" the idea is slightly different from "popularizes the idea." "Propounded" means put forward (an idea or theory) for consideration by others; advance; postulated etc. Option 2 does not capture the complete essence of the para.

Option 3: Option 3 does not talk about the part where the author mentions that the analogy between biological and cultural evolution is pushed too far. This part is mentioned in the introduction of the para and the examples provided (of biological traits and Richard Dawkins) highlight this aspect. Hence, the introductory sentence of the para provides its essence. Since this option does not capture the essence of the para, this is not the correct answer. Also, the example of traits that increase fitness is incorrect in the context. This was according to the earlier view (that of Darwin). Choice 3 does not capture the relevant point (genes... impact reproductive success...) which supplements Darwin's idea. Further "cultural traits get reproduced" is a wrong interpretation. The para only says "cultural traits are passed on, by imitation."

Option 4: This option correctly captures the essence of the para – that the analogy between biological and cultural evolution is pushed very far. Hence, this is the correct summary.

Option 5: Culture is passed on mimetically – that is, by imitation. Traits (or phenotypes), which impact reproductive success etc. are transmitted genetically. The focus of the para is not: A cultural trait can change ... So the difference mentioned between the transmission of a cultural trait and that of a genetic trait is incorrect. Option 5 is not the answer.

Ans: (4)

undefined

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

Do narcissists have insight into the negative aspects of their personality and reputation? To address this question, a research team conducted a multiple-perspective examination of how narcissists are seen by others (i.e., others' perceptions), how they see themselves (i.e., self-perceptions), and how they believe they are seen by others (i.e., meta-perceptions). Two competing views were tested. They also examined these multiple perspectives across several social contexts including new acquaintances, acquaintances not selected by the target (e.g., co-workers), and close others (e.g., friends/ family).

The Narcissistic Ignorance view, argues that narcissists lack insight into their personality. They fail to understand that they have narcissistic characteristics, and they overestimate how positively others see them i.e., their meta-perceptions are just as overly positive as their self-perceptions.

The Narcissistic Awareness view argues that narcissists have insight into their personality. They understand that they have narcissistic characteristics, and their meta-perceptions are closer to others' perceptions, i.e., less positively biased, than are their self-perceptions, that their reputation is less positive than their self-perceptions. They maintain their positive self-perceptions in ways other than through meta-perceptions (e.g. derogating others).

Both views predict that narcissism (scores) will be strongly associated with positive self-perceptions. Second, narcissists' self-perceptions will be more positive than others' perceptions. Specifically, narcissism should be positively associated with self-other bias i.e., the difference score between self-perceptions and other-perceptions, for positive traits. Third, narcissism will be associated with having a narcissistic reputation. That is, one should observe a strong, positive correlation between narcissism scores and others' perceptions of narcissistic traits. The critical difference between the two views is the predictions they make about narcissists' meta-perceptions, i.e., their positivity and the degree to which they match up with others' impressions and whether they believe they are seen as narcissistic.

As predicted by both views, the new study confirmed that narcissism was associated with holding positive self-perceptions and with being seen more positively by new acquaintances than by well-acquainted others. However, consistent with the research team's predictions, the research findings were closer to the Narcissistic Awareness view than to the Narcissistic Ignorance view. Narcissists' meta-perceptions for positive traits appeared to be less positive than their self-perceptions of those traits. Narcissism was more strongly associated with self-other bias (positivity of self-perceptions relative to others' perceptions) than with meta-other bias (positivity of meta-perceptions relative to others' perceptions) for positive traits. Narcissists were somewhat aware that close others saw them in more negative ways than did new acquaintances. Narcissism was positively associated with self-perceptions and meta-perceptions of narcissistic traits, suggesting some insight into their narcissistic characteristics. Although narcissists make a positive first impression, their reputation becomes more negative as people get to know them.

**Q22.** It can be understood from the passage that the similarities between the Narcissistic Ignorance view and the Narcissistic Awareness view include all of the following EXCEPT?

- a) A strong, positive correlation between narcissism scores and self-perceptions on positive traits like intelligence
- b) A strong, positive correlation between narcissism scores and others' perceptions of narcissistic traits
- c) A strong, positive correlation between narcissism scores and the extent of a narcissist's belief in how others perceive him or her
- d) According to both views, individuals scoring high on narcissism are initially seen in a positive light but over several weeks this perception becomes more negative.

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 11    |
| Avg. time spent on this question by all students                         | 334   |
| Difficulty Level   | VD    |
| Avg. time spent on this question by students who got this question right | 343   |
| % of students who attempted this question                                | 22.67 |
| % of students who got the question right of those who attempted          | 42.82 |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 439

Refer to the fourth para which talks about the similarities between the Narcissistic Ignorance view and the Narcissistic Awareness view.

Option A: Both views predict that narcissism (scores) will be strongly associated with positive self-perceptions. So option A can be understood to be true and is not the answer.

Option B: Second, narcissists' self-perceptions will be more positive than others' perceptions. Specifically, narcissism should be positively associated with self-other bias (i.e., the difference score between self-perceptions and other-perceptions) for positive traits. narcissism will be associated with having a narcissistic reputation (i.e., others' perceptions). Hence option B can be inferred to be true and is not the answer.

Option C: A research team conducted a multiple-perspective examination of how narcissists are seen by others (i.e., others' perceptions), how they see themselves (i.e., self-perceptions), and how they believe they are seen by others (i.e., meta-perceptions). The critical difference between the two views is the predictions they make about narcissists' meta-perceptions (i.e., their positivity and the degree to which they match up with others' impressions) and whether they believe they are seen as narcissistic. So 'the extent of a narcissist's belief in how others perceive him or her' is a differentiating point between both views. It is not a similarity between the two views. Option C is not true and is the required answer.

Option D: In the last para, it has been given that: As predicted by both views, narcissism was associated with holding positive self-perceptions and with being seen more positively by new acquaintances than by well-acquainted others. Option D is true and is not the answer.

Choice (C)

undefined

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

Do narcissists have insight into the negative aspects of their personality and reputation? To address this question, a research team conducted a multiple-perspective examination of how narcissists are seen by others (i.e., others' perceptions), how they see themselves (i.e., self-perceptions), and how they believe they are seen by others (i.e., meta-perceptions). Two competing views were tested. They also examined these multiple perspectives across several social contexts including new acquaintances, acquaintances not selected by the target (e.g., co-workers), and close others (e.g., friends/ family).

The Narcissistic Ignorance view, argues that narcissists lack insight into their personality. They fail to understand that they have narcissistic characteristics, and they overestimate how positively others see them i.e., their meta-perceptions are just as overly positive as their self-perceptions.

The Narcissistic Awareness view argues that narcissists have insight into their personality. They understand that they have narcissistic characteristics, and their meta-perceptions are closer to others' perceptions, i.e., less positively biased, than are their self-perceptions, that their reputation is less positive than their self-perceptions. They maintain their positive self-perceptions in ways other than through meta-perceptions (e.g. derogating others).

Both views predict that narcissism (scores) will be strongly associated with positive self-perceptions. Second, narcissists' self-perceptions will be more positive than others' perceptions. Specifically, narcissism should be positively associated with self-other bias i.e., the difference score between self-perceptions and other-perceptions, for positive traits. Third, narcissism will be associated with having a narcissistic reputation. That is, one should observe a strong, positive correlation between narcissism scores and others' perceptions of narcissistic traits. The critical difference between the two views is the predictions they make about narcissists' meta-perceptions, i.e., their positivity and the degree to which they match up with others' impressions and whether they believe they are seen as narcissistic.

As predicted by both views, the new study confirmed that narcissism was associated with holding positive self-perceptions and with being seen more positively by new acquaintances than by well-acquainted others. However, consistent with the research team's predictions, the research findings were closer to the Narcissistic Awareness view than to the Narcissistic Ignorance view. Narcissists' meta-perceptions for positive traits appeared to be less positive than their self-perceptions of those traits. Narcissism was more strongly associated with self-other bias (positivity of self-perceptions relative to others' perceptions) than with meta-other bias (positivity of meta-perceptions relative to others' perceptions) for positive traits. Narcissists were somewhat aware that close others saw them in more negative ways than did new acquaintances. Narcissism was positively associated with self-perceptions and meta-perceptions of narcissistic traits, suggesting some insight into their narcissistic characteristics. Although narcissists make a positive first impression, their reputation becomes more negative as people get to know them.

**Q23.** Which of the following statements would a proponent of the Narcissistic Awareness view support?

Identify all that apply and enter the corresponding number in the input box given below. You must enter your answer in increasing order only. For example, if you think that (1) and (4) apply, then enter 14 (but not 41) in the input box.

1. Narcissists' positive self-perceptions are reinforced by their meta-perceptions - they believe that they are seen just as positively by others as they see themselves.
2. Narcissists are able to acknowledge that others do not see them as positively as they see themselves.
3. Narcissists' self- and meta-perceptions should not reflect an awareness of their narcissistic traits.
4. Narcissists' meta-perceptions will be less positively biased relative to others' perceptions than are their self-perceptions.
5. Narcissists are likely to explain away others' perceptions of themselves to match their self-perception.

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 5     |
| Avg. time spent on this question by all students                         | 126   |
| Difficulty Level   | VD    |
| Avg. time spent on this question by students who got this question right | 131   |
| % of students who attempted this question                                | 18.86 |
| % of students who got the question right of those who attempted          | 14.53 |

[Video Solution](#)

[Text Solution](#)

#### **Number of words and Explanatory notes for RC:**

Number of words: 439

Statement 1: The Narcissistic Ignorance view, argues that narcissists lack insight into their personality. They fail to understand that they have narcissistic characteristics, and they overestimate how positively others see them (i.e., their meta-perceptions are just as overly positive as their self-perceptions). So statement 1 is not consistent with the Narcissistic Awareness view. It is closer to the Narcissistic Ignorance view. Statement 1 is not the answer.

Statement 2: According to the Narcissistic Awareness view, narcissists understand that they have narcissistic characteristics, and their meta-perceptions are closer to others' perceptions (i.e., less positively biased) than are their self-perceptions. Given that the Narcissistic Ignorance view states that narcissists fail to understand that they have narcissistic characteristics, and they overestimate how positively others see them; we can infer that statement 2 would be consistent with the Narcissistic Awareness view. Narcissists understand that their reputation is less positive than their self-perceptions. Statement 2 is the answer.

Statement 3: According to the Narcissistic Ignorance view, narcissists lack insight into their personality. The Narcissistic Awareness view argues that narcissists have insight into their personality. Statement 3 is more in line with the Narcissistic Ignorance view. Statement 3 is not the answer.

Statement 4: The Narcissistic Awareness view argues that narcissists have insight into their personality. They understand that they have narcissistic characteristics, and their meta-perceptions are closer to others' perceptions (i.e., less positively biased) than are their self-perceptions. So 4 is also true and is the answer.

Statement 5: Narcissists maintain their positive self-perceptions in ways other than through meta-perceptions (e.g. derogating others). Hence 5 also applies.

Ans: (245)

undefined

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

Do narcissists have insight into the negative aspects of their personality and reputation? To address this question, a research team conducted a multiple-perspective examination of how narcissists are seen by others (i.e., others' perceptions), how they see themselves (i.e., self-perceptions), and how they believe they are seen by others (i.e., meta-perceptions). Two competing views were tested. They also examined these multiple perspectives across several social contexts including new acquaintances, acquaintances not selected by the target (e.g., co-workers), and close others (e.g., friends/ family).

The Narcissistic Ignorance view, argues that narcissists lack insight into their personality. They fail to understand that they have narcissistic characteristics, and they overestimate how positively others see them i.e., their meta-perceptions are just as overly positive as their self-perceptions.

The Narcissistic Awareness view argues that narcissists have insight into their personality. They understand that they have narcissistic characteristics, and their meta-perceptions are closer to others' perceptions, i.e., less positively biased, than are their self-perceptions, that their reputation is less positive than their self-perceptions. They maintain their positive self-perceptions in ways other than through meta-perceptions (e.g. derogating others).

Both views predict that narcissism (scores) will be strongly associated with positive self-perceptions. Second, narcissists' self-perceptions will be more positive than others' perceptions. Specifically, narcissism should be positively associated with self-other bias i.e., the difference score between self-perceptions and other-perceptions, for positive traits. Third, narcissism will be associated with having a narcissistic reputation. That is, one should observe a strong, positive correlation between narcissism scores and others' perceptions of narcissistic traits. The critical difference between the two views is the predictions they make about narcissists' meta-perceptions, i.e., their positivity and the degree to which they match up with others' impressions and whether they believe they are seen as narcissistic.

As predicted by both views, the new study confirmed that narcissism was associated with holding positive self-perceptions and with being seen more positively by new acquaintances than by well-acquainted others. However, consistent with the research team's predictions, the research findings were closer to the Narcissistic Awareness view than to the Narcissistic

Ignorance view. Narcissists' meta-perceptions for positive traits appeared to be less positive than their self-perceptions of those traits. Narcissism was more strongly associated with self-other bias (positivity of self-perceptions relative to others' perceptions) than with meta-other bias (positivity of meta-perceptions relative to others' perceptions) for positive traits. Narcissists were somewhat aware that close others saw them in more negative ways than did new acquaintances. Narcissism was positively associated with self-perceptions and meta-perceptions of narcissistic traits, suggesting some insight into their narcissistic characteristics. Although narcissists make a positive first impression, their reputation becomes more negative as people get to know them.

**Q24.** If you were to interview the author, what follow up question would you pose to him or her in order to further your understanding of the passage?

- a) Do narcissists make flattering first impressions that sour over time?
- b) Does narcissism show a strong correlation with meta-other bias as it does with self-other bias?
- c) Do narcissists understand that well-acquainted others see them less positively than they see themselves?
- d) Can narcissists minimise their negative behaviour over time if people consistently give them negative feedback?

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                         | 68    |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 67    |
| % of students who attempted this question                                | 19.56 |
| % of students who got the question right of those who attempted          | 72.67 |

[Video Solution](#)

#### Text Solution

##### Number of words and Explanatory notes for RC:

Number of words: 439

However, consistent with our predictions, the research findings were closer to the Narcissistic Awareness view than to the Narcissistic Ignorance view.

Option A: Lastly, although narcissists make a positive first impression, their reputation becomes much more negative as people get to know them. Hence choice A is already mentioned in the passage as a finding and is not a follow up question to the author.

Option B: Narcissism was more strongly associated with self-other bias (positivity of self-perceptions relative to others' perceptions) than with meta-other bias (positivity of meta-perceptions relative to others' perceptions) for positive traits. So choice B is already mentioned in the passage as a finding and is not a follow up question to the author.

Option C: The Narcissistic Awareness view argues that narcissists have insight into their personality. They understand that they have narcissistic characteristics, and their meta-perceptions are closer to others' perceptions (i.e., less positively biased) than are their self-perceptions. Narcissists understand that their reputation is less positive than their self-perceptions. Choice C has also been discussed and is not the answer.

Option D: Narcissists make a positive first impression. Choice D would involve another related study or research experimentation and can be posed to the author for his/ her inputs. Hence choice D is the answer.

Choice (D)

undefined

**Q25. DIRECTIONS** for question 25: Insert the highlighted sentence in the text (consisting of two paragraphs) given below it at the correct location. Enter the location number as your answer in the input box given below the question.

Enter your answer as any one of 2 or 3 or 4 if the sentence can be inserted at the corresponding numbered location within the text.

Enter your answer as 1 if the highlighted sentence precedes or is upstream of the given text.

Enter your answer as 5 if the highlighted sentence succeeds or is downstream of the given text.

**Especially for shorter durations up to a few seconds, humans can accurately synchronize their movements to regular beats or reproduce presented intervals.**

\_\_\_\_\_ (1) \_\_\_\_\_

....

Psychological research has shown that cognitive functions such as attention, working memory as well as long-term memory determine our temporal judgements. Moreover, drive states, moods and emotions as well as factors of personality influence duration estimates. For example, time intervals are judged to be longer when we pay more attention to time and when the load of varying experiences stored in memory is higher. \_\_\_\_\_ (2) \_\_\_\_\_ Our subjective well-being also strongly influences how time is experienced. Time speeds up when we are involved in pleasant activities, but it drags during periods of boredom. \_\_\_\_\_ (3) \_\_\_\_\_ Thus, our sense of time is a function of the intricate interplay between specific cognitive functions and of our momentary mood states.

The aforementioned psychological factors definitely influence the processing of duration. However, a specific neural timing mechanism nevertheless, could account for our ability to accurately process temporal intervals.

\_\_\_\_\_ (4) \_\_\_\_\_ Yet, there is no consensus as to which temporal mechanisms account for these temporal-processing abilities.

....

\_\_\_\_\_ (5) \_\_\_\_\_

**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                         | 116   |
| Difficulty Level   | VD    |
| Avg. time spent on this question by students who got this question right | 122   |
| % of students who attempted this question                                | 29.77 |
| % of students who got the question right of those who attempted          | 62.82 |

[Video Solution](#)

[Text Solution](#)

The highlighted sentence would make no sense if placed in blank (1). The text best begins with the opening sentence: Psychological research has shown that cognitive functions ..... determine our temporal judgements.

The highlighted sentence would disrupt the flow of thought if placed in blank (2). "time intervals are judged to be longer" in the part preceding blank (2) connects with "influences how time is experienced" succeeding blank (2). So (2) is not the answer.

Similarly, the highlighted sentence cannot be placed in blank (3). "interplay between specific cognitive functions and of our momentary mood states" in the sentence succeeding blank (3) links with the sentence preceding blank (3): Time speeds up when we are involved in pleasant activities, but it drags during periods of boredom. So (3) is also not the correct answer. The last four sentences of the first paragraph given in the text need to flow continuously.

The last para opens with the sentence: The aforementioned psychological factors definitely influence the processing of duration. This sentence, on the whole, has a positive tone (definitely influence the processing of duration). The second sentence of the second para is again positive: neural timing mechanism nevertheless, could account for our ability to accurately process temporal intervals. So the highlighted sentence can best be a part of blank (4). "humans can accurately synchronize their movements to regular beats or reproduce presented **intervals**" as given in the highlighted sentence links with "ability to accurately process temporal intervals" mentioned in the line preceding blank (4). So (4) is the correct answer. Also "these temporal processing abilities" in the sentence succeeding blank (4) points to "accurately synchronize their movements to regular beats or reproduce presented **intervals**" given in the highlighted sentence. Hence the answer is (4).

Since we have already placed the highlighted sentence in blank (4), blank (5) which refers to a downstream location becomes redundant.

Ans: (4)

undefined

**Q26. DIRECTIONS for question 26:** Given below is 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. 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.)

It may be because of our unhinged and fractured times, but some modern fiction seems to lose its way because of a glut of language, a whole \_\_\_\_\_ (i) \_\_\_\_\_ of it, as if words were not enough to convey the prevailing frenzy. There are stories with an idiom that reflect the verve and strut of our time, but the piling on of word and image is such that truth is sabotaged and feeling sacrificed for \_\_\_\_\_ (ii) \_\_\_\_\_. Oceans brim, skies bleed, nights are wrought with drugs, sex and slaughter, but such is the inundation that we get repetition rather than revelation and crucially the private \_\_\_\_\_ (iii) \_\_\_\_\_ between unknown reader and unknown author is lost.

| <u>Blank (i)</u> | <u>Blank (ii)</u> | <u>Blank (iii)</u> |
|------------------|-------------------|--------------------|
| (1) obviation    | (4) swagger       | (7) trajectory     |
| (2) smorgasbord  | (5) intemperance  | (8) predilection   |
| (3) gargantuan   | (6) despondency   | (9) transaction    |

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

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>1</b>     |
| Avg. time spent on this question by all students                         | <b>114</b>   |
| Difficulty Level   | <b>VD</b>    |
| Avg. time spent on this question by students who got this question right | <b>117</b>   |
| % of students who attempted this question                                | <b>26.05</b> |
| % of students who got the question right of those who attempted          | <b>6.29</b>  |

[Video Solution](#)

[Text Solution](#)

Modern fiction seems to lose its objective because of a glut of language.

There are some scattered phrases in the paragraph which give us a clue for the first blank: glut of language, words not enough, piling on of word and image, such is the inundation that we get repetition rather than revelation .... Hence the correct answer for the first blank would be: smorgasbord (a wide range of something; a variety). Now, the first blank needs a noun. Though "gargantuan" means "of immense size, extent, or quantity or scope", it is an adjective and it would be redundant when used along with "whole". "obviation" means "to keep from happening or render unnecessary" and this word does not fit the context. Hence the correct answer for the first blank is (2).

The piling up of language results in truth getting sabotaged and feeling getting \_\_\_\_\_. So "swagger" can fill the second blank. "Swagger" means brag, boast, behave arrogantly and has the same sense as "truth getting sabotaged". "intemperance" and "despondency" are negative terms but are misfits in the given context. "intemperance" means "lack of temperance, as in the indulgence of an appetite or a passion" while despondency means "depression of spirits from loss of hope, confidence, or courage; dejection". The correct answer for the second blank is (4).

The correct word for the last blank is 'transaction' (proceeding, dealing, affairs, concerns). "predilection" is irrelevant for the last blank. Trajectory means path, course or route. Between "trajectory" and "transaction", "transaction" is a better fit for the last blank. Hence (9).

The required answer is 249.

Ans: (249)

undefined

**Q27.**

**DIRECTIONS for question 27:** Each of the following questions has a set of five sequentially ordered statements. Classify the statements into Facts, Inferences and Judgements based on the following criteria:

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

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

above and in the correct sequential order.

- i. People have always faced change as they age but no generation has been thrown so much change, so fast, as today's seniors.
- ii. They grew up in a time when, to the average person, technology did not mean more than a wall telephone, a TV set with three channels, and a radio.
- iii. But how ironic it is that today they are in the midst of a monumental transition.
- iv. While some senior citizens are handling the rapid rise of the internet age well - emailing, posting family photos on Facebook, paying bills online - others are facing discomfort in doing so.
- v. I believe that those who have adjusted feel confident, those who have resisted feel vulnerable, oblivious to how critical the computer will be to help them stay in touch with friends, order food, or buy prescription drugs as they become more housebound.

**You did not answer this question**

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>2</b>     |
| Avg. time spent on this question by all students                         | <b>123</b>   |
| Difficulty Level   | <b>VD</b>    |
| Avg. time spent on this question by students who got this question right | <b>117</b>   |
| % of students who attempted this question                                | <b>23.09</b> |
| % of students who got the question right of those who attempted          | <b>3.48</b>  |

[Video Solution](#)

[Text Solution](#)

Statement 1 is a judgment. There is a comparative opinion presented – that no generation .... as today's seniors – J.

Statement 2 is a fact. This is an observation of what people had available at that time. We can verify the specific features of the time when today's seniors grew up. Hence F.

Statement 3 is a judgment as it provides subjective opinion – But how ironic it is. 'monumental' is an adjective and 'monumental transition' is a descriptive phrase which is not factual in tone. So, J.

Statement 4 is a fact. It is a report of the current situation. It provides information that can be verified. Hence F.

Statement 5 provides personal opinion (I believe that) and is a judgment – J.

So, JFJFJ.

Since the five sentences are classified as JFJFJ, we represent the answer as 31313.

Ans: (31313)

undefined

**DIRECTIONS** for questions 28 to 33: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Movies are an authoritarian medium. They make you vulnerable and dominate you. Part of the magic of going to a movie is surrendering to it, letting it dominate you. The sitting in the dark, the looking up, the traced distance from the screen, the

being able to see the people on the screen without being seen by the people on the screen, the people on the screen being so much bigger than you, prettier than you, more compelling than you, etc.

Film's overwhelming power isn't news. But, different kinds of movies use this power in different ways. Art film is essentially teleological: it tries in various ways to "wake the audience up" or render us more "conscious". This kind of agenda can easily degenerate into pretentiousness and self-righteousness and condescending twaddle, but the agenda itself is large-hearted and fine.

Commercial film doesn't seem like it cares very much about an audience's instruction or enlightenment. Commercial film's goal is to "entertain," which usually means enabling various fantasies that allow the movie-goer to pretend he's somebody else and that life is somehow bigger and more coherent and more compelling and attractive and in general just more entertaining than a moviegoer's life really is. You could say that a commercial movie doesn't try to wake people up but rather to make their sleep so comfortable and their dreams so pleasant that they will fork over money to experience it - this seduction, a fantasy-for-money transaction, is a commercial movie's basic point.

An art film's point is usually more intellectual or aesthetic, and you usually have to do some interpretive work to get it, so that when you pay to see an art film you're actually paying to do work, whereas the only work you have to do with most commercial films is whatever work you did to afford the price of the ticket.

David Lynch's movies are often described as occupying a kind of middle ground between art and commercial film. But, what they really occupy is a whole third different kind of territory. Most of Lynch's best films don't really have much of a point, and in lots of ways they seem to resist the film-interpretive process by which avant-garde movies are understood. The British critic Paul Taylor says that Lynch's movies are indeed 'to be experienced rather than explained.' Lynch's movies are susceptible to a variety of sophisticated interpretations, but it would be a serious mistake to conclude from this that his movies' point is "film-interpretation is necessarily multivalent" or something - they're just not that kind of movie. Nor are they seductive in the commercial sense. You never get the sense that the point is to entertain you, and never that the point is to get you to fork over money to see it. The unsettling thing is that you don't feel like you are entering into any of the standard unspoken contracts you normally enter into with other kinds of movies. In the absence of such an unconscious contract we lose some of the psychic protections we normally bring to bear on a medium as powerful as film.

**Q28.** By saying that 'Film's overwhelming power isn't news' the author highlights

- a) **the influence cinema has over people.** Your answer is incorrect
- b) **the power of art films to transform a person.**
- c) **that the power of films is well-known and understood.**
- d) **that the main purpose of films is not to give you news.**

Show Correct Answer

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 127   |
| Avg. time spent on this question by all students                         | 243   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 230   |
| % of students who attempted this question                                | 52.96 |
| % of students who got the question right of those who attempted          | 55.39 |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 517

The meaning of 'news' is something that is surprising, something that is new. So, the author is trying to say that the overwhelming power of film is not a surprising element. That everyone is well-aware of it.

Option A: This explanation is incomplete. The author is not trying to highlight the influence of cinema. The author is trying to highlight the fact that the influence of cinema is not news and is nothing new. Hence, Option A is not the answer.

Option B: This option mimics the previous option and has the same problem too. It ignores why the word 'news' was mentioned. Also, we are not talking about art films, but all films. Hence, Option B is not the answer.

Option C: This sentence depicts both the aspects of the sentence: that cinema is powerful and that this fact is not a secret. Hence, Option C is the answer.

Option D: This is taking the alternative meaning of news. Film is not to 'inform' you about what is happening in the world – that is the meaning of this option. However, 'news' hasn't been used in that context in the quoted line. Hence, Option D is not the answer.

Choice (C)

undefined

**DIRECTIONS** for questions 28 to 33: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Movies are an authoritarian medium. They make you vulnerable and dominate you. Part of the magic of going to a movie is surrendering to it, letting it dominate you. The sitting in the dark, the looking up, the traced distance from the screen, the being able to see the people on the screen without being seen by the people on the screen, the people on the screen being so much bigger than you, prettier than you, more compelling than you, etc.

Film's overwhelming power isn't news. But, different kinds of movies use this power in different ways. Art film is essentially teleological: it tries in various ways to "wake the audience up" or render us more "conscious". This kind of agenda can easily degenerate into pretentiousness and self-righteousness and condescending twaddle, but the agenda itself is large-hearted and fine.

Commercial film doesn't seem like it cares very much about an audience's instruction or enlightenment. Commercial film's goal is to "entertain," which usually means enabling various fantasies that allow the movie-goer to pretend he's somebody else and that life is somehow bigger and more coherent and more compelling and attractive and in general just more entertaining than a moviegoer's life really is. You could say that a commercial movie doesn't try to wake people up but rather to make their sleep so comfortable and their dreams so pleasant that they will fork over money to experience it - this seduction, a fantasy-for-money transaction, is a commercial movie's basic point.

An art film's point is usually more intellectual or aesthetic, and you usually have to do some interpretive work to get it, so that when you pay to see an art film you're actually paying to do work, whereas the only work you have to do with most commercial films is whatever work you did to afford the price of the ticket.

David Lynch's movies are often described as occupying a kind of middle ground between art and commercial film. But, what they really occupy is a whole third different kind of territory. Most of Lynch's best films don't really have much of a point, and in lots of ways they seem to resist the film-interpretive process by which avant-garde movies are understood. The British critic Paul Taylor says that Lynch's movies are indeed 'to be experienced rather than explained.' Lynch's movies are susceptible to a variety of sophisticated interpretations, but it would be a serious mistake to conclude from this that his movies' point is "film-interpretation is necessarily multivalent" or something - they're just not that kind of movie. Nor are they seductive in the commercial sense. You never get the sense that the point is to entertain you, and never that the point is to get you to fork over money to see it. The unsettling thing is that you don't feel like you are entering into any of the standard

unspoken contracts you normally enter into with other kinds of movies. In the absence of such an unconscious contract we lose some of the psychic protections we normally bring to bear on a medium as powerful as film.

**Q29.** According to the passage 'entertainment' can be inferred to be

- a) an illusion that can distract one from one's actual life. Your answer is correct
- b) a true depiction of what's happening in one's life without the drama.
- c) an imitation of real-life that is far more compelling.
- d) an attractive and coherent version of what a moviegoer is going through in his/her life.

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 175   |
| Avg. time spent on this question by all students                         | 103   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 94    |
| % of students who attempted this question                                | 53.65 |
| % of students who got the question right of those who attempted          | 48.08 |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 517

Consider the statements: 'Commercial film's goal is to "entertain," which usually means enabling various fantasies that allow the movie-goer to pretend he's somebody else and that life is somehow bigger and more coherent and more compelling and attractive and in general just more entertaining than a moviegoer's life really is.' The author also explains what he means by entertainment. Option A: Entertainment enables 'various fantasies' allowing the movie-goer to pretend – hence it can be understood that it is an illusion (fantasy) which distracts from 'reality' also implied in the lines 'that a commercial movie doesn't try to wake people up but rather to make their sleep so comfortable and their dreams so pleasant'. Hence, Option A is the answer.

Option B: Commercial film allows one to pretend he is somebody else and to believe that life is bigger and better and clearer. Hence, it cannot be considered a true depiction of what's happening in one's life without the drama. So, 'true depiction' and 'drama' are both extrapolations. Hence, Option B is not the answer.

Option C: While entertainment is compelling, it is not mentioned to be 'an imitation of real-life' anywhere in the above-mentioned lines (it is not a replica of real-life, it is more a fantasy). Hence, Option C is not the answer.

Option D: It is a different life that is probably depicted in a commercial film (as one can pretend he is somebody else). So entertainment is not an attractive or coherent version of what the moviegoer is already going through in his/her life. The author mentions that the movie is in general more attractive than a moviegoer's life. So, it cannot be inferred to be a version of the moviegoer's life. Hence, Option D is not the answer.

Choice (A)

undefined

**DIRECTIONS** for questions 28 to 33: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Movies are an authoritarian medium. They make you vulnerable and dominate you. Part of the magic of going to a movie is surrendering to it, letting it dominate you. The sitting in the dark, the looking up, the tranced distance from the screen, the being able to see the people on the screen without being seen by the people on the screen, the people on the screen being so much bigger than you, prettier than you, more compelling than you, etc.

Film's overwhelming power isn't news. But, different kinds of movies use this power in different ways. Art film is essentially teleological: it tries in various ways to "wake the audience up" or render us more "conscious". This kind of agenda can easily degenerate into pretentiousness and self-righteousness and condescending twaddle, but the agenda itself is large-hearted and fine.

Commercial film doesn't seem like it cares very much about an audience's instruction or enlightenment. Commercial film's goal is to "entertain," which usually means enabling various fantasies that allow the movie-goer to pretend he's somebody else and that life is somehow bigger and more coherent and more compelling and attractive and in general just more entertaining than a moviegoer's life really is. You could say that a commercial movie doesn't try to wake people up but rather to make their sleep so comfortable and their dreams so pleasant that they will fork over money to experience it - this seduction, a fantasy-for-money transaction, is a commercial movie's basic point.

An art film's point is usually more intellectual or aesthetic, and you usually have to do some interpretive work to get it, so that when you pay to see an art film you're actually paying to do work, whereas the only work you have to do with most commercial films is whatever work you did to afford the price of the ticket.

David Lynch's movies are often described as occupying a kind of middle ground between art and commercial film. But, what they really occupy is a whole third different kind of territory. Most of Lynch's best films don't really have much of a point, and in lots of ways they seem to resist the film-interpretive process by which avant-garde movies are understood. The British critic Paul Taylor says that Lynch's movies are indeed 'to be experienced rather than explained.' Lynch's movies are susceptible to a variety of sophisticated interpretations, but it would be a serious mistake to conclude from this that his movies' point is "film-interpretation is necessarily multivalent" or something - they're just not that kind of movie. Nor are they seductive in the commercial sense. You never get the sense that the point is to entertain you, and never that the point is to get you to fork over money to see it. The unsettling thing is that you don't feel like you are entering into any of the standard unspoken contracts you normally enter into with other kinds of movies. In the absence of such an unconscious contract we lose some of the psychic protections we normally bring to bear on a medium as powerful as film.

**Q30.** The difference between art and commercial films, according to the passage, is that

- a) audiences do not sleep in art films, while they do in commercial films.
- b) commercial films are larger-than-life whereas art films are true-to-life.
- c) art films are pretentious while commercial films are compelling.
- d) art films aim to provoke thought whereas commercial films aim to amuse. Your answer is correct

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>112</b>   |
| Avg. time spent on this question by all students                         | <b>79</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>70</b>    |
| % of students who attempted this question                                | <b>54.03</b> |
| % of students who got the question right of those who attempted          | <b>76.46</b> |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 517

Consider the statements: '*An art film's point is usually more intellectual or aesthetic, and you usually have to do some interpretive work to get it*' and '*You could say that a commercial movie doesn't try to wake people up but rather to make their sleep so comfortable and their dreams so pleasant that they will fork over money to experience it – this seduction, a fantasy-for-money transaction, is a commercial movie's basic point*'.

Option A: The option takes the whole idea of sleeping mentioned in the passage literally. In the passage, it has been mentioned that art films try to wake the audience – in the sense, to make them more aware and more alive. More thoughtful. Commercial films don't aim to make the audience think and let them drift away, less aware of their life and the world. Hence, Option A is not the answer.

Option B: While the first half can be implied about commercial films (larger-than-life can be inferred from '*that life is somehow bigger and more coherent and more compelling and attractive and* in general just more entertaining than a moviegoer's life really is'), the second half cannot be implied (art films are true-to-life). Yes, they aim to awaken and make one 'conscious' but that doesn't imply that they depict reality. Hence, Option B is close but not the answer.

Option C: Art films can sometimes 'degenerate' into pretentiousness. That doesn't mean they are all pretentious or always pretentious. Hence, Option C is not the answer.

Option D: Art film's point is intellectual (thought-provoking - *you usually have to do some interpretive work to get it*). Commercial films aim to entertain (amuse). Hence, Option D best depicts the difference between the two. Option D is the answer.

Choice (D)

undefined

**DIRECTIONS** for questions 28 to 33: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Movies are an authoritarian medium. They make you vulnerable and dominate you. Part of the magic of going to a movie is surrendering to it, letting it dominate you. The sitting in the dark, the looking up, the tranced distance from the screen, the being able to see the people on the screen without being seen by the people on the screen, the people on the screen being so much bigger than you, prettier than you, more compelling than you, etc.

Film's overwhelming power isn't news. But, different kinds of movies use this power in different ways. Art film is essentially teleological: it tries in various ways to "wake the audience up" or render us more "conscious". This kind of agenda can easily degenerate into pretentiousness and self-righteousness and condescending twaddle, but the agenda itself is large-hearted and fine.

Commercial film doesn't seem like it cares very much about an audience's instruction or enlightenment. Commercial film's goal is to "entertain," which usually means enabling various fantasies that allow the movie-goer to pretend he's somebody else and that life is somehow bigger and more coherent and more compelling and attractive and in general just more entertaining than a moviegoer's life really is. You could say that a commercial movie doesn't try to wake people up but rather to make their sleep so comfortable and their dreams so pleasant that they will fork over money to experience it - this seduction, a fantasy-for-money transaction, is a commercial movie's basic point.

An art film's point is usually more intellectual or aesthetic, and you usually have to do some interpretive work to get it, so that when you pay to see an art film you're actually paying to do work, whereas the only work you have to do with most commercial films is whatever work you did to afford the price of the ticket.

David Lynch's movies are often described as occupying a kind of middle ground between art and commercial film. But, what they really occupy is a whole third different kind of territory. Most of Lynch's best films don't really have much of a point, and in lots of ways they seem to resist the film-interpretive process by which avant-garde movies are understood. The British critic Paul Taylor says that Lynch's movies are indeed 'to be experienced rather than explained.' Lynch's movies are susceptible to a variety of sophisticated interpretations, but it would be a serious mistake to conclude from this that his movies' point is "film-interpretation is necessarily multivalent" or something - they're just not that kind of movie. Nor are they seductive in the commercial sense. You never get the sense that the point is to entertain you, and never that the point is to get you to fork over money to see it. The unsettling thing is that you don't feel like you are entering into any of the standard unspoken contracts you normally enter into with other kinds of movies. In the absence of such an unconscious contract we lose some of the psychic protections we normally bring to bear on a medium as powerful as film.

**Q31.** The author mentioned the statement: 'Film-interpretation is necessarily multivalent' to show that

- a) Lynch's movies are open to several sophisticated interpretations.
- b) Lynch's movies cannot be accurately interpreted.
- c) the purpose of a film is not to interpret but to experience.
- d) the point of Lynch's movies is not to demonstrate that movies have several interpretations. Your answer is correct

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 102   |
| Avg. time spent on this question by all students                         | 123   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 118   |
| % of students who attempted this question                                | 44.04 |
| % of students who got the question right of those who attempted          | 50.47 |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 517

Consider the statements: 'Lynch's movies are susceptible to a variety of sophisticated interpretations, but it would be a serious mistake to conclude from this that his movies' point is "film-interpretation is necessarily multivalent" or something – they're just not that kind of movie.' So, the author is clearly saying that to conclude the given line is not the point of his movies despite the fact that these movies could be open to multiple interpretations.

Option A: While the statement itself is true, the point of that statement was to show that the multivalence of film-interpretation was not the point of David Lynch's movies. Hence, Option A is not the answer.

Option B: 'Accuracy' is sufficient reason to eliminate this option. Accuracy of interpretation has not been discussed in the passage. Also, the purpose of the line in the question was not to discuss how accurately or incorrectly David Lynch's movies can be interpreted but to show that possibility of multiple interpretations was not the point of the movies. Hence, Option B is not the answer.

Option C: While this may be true for Lynch's movies according to the critic Paul Taylor, this observation is not in any way connected to the line mentioned in the question. Hence, Option C is not the answer.

Option D: *The point of Lynch's movies is not to demonstrate that movies have several interpretations* – this despite the possibility that the movies can have several interpretations. This is what the author was trying to stress using the given line, that it is possible for one to draw fallacious conclusions. Hence, Option D is the answer.

Choice (D)

undefined

**DIRECTIONS** for questions 28 to 33: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Movies are an authoritarian medium. They make you vulnerable and dominate you. Part of the magic of going to a movie is surrendering to it, letting it dominate you. The sitting in the dark, the looking up, the tranced distance from the screen, the being able to see the people on the screen without being seen by the people on the screen, the people on the screen being so much bigger than you, prettier than you, more compelling than you, etc.

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**Q32.** The 'unsettling thing' referred to in the penultimate sentence of the passage is that

- a) not all movies can be segregated into art films and commercial films.
- b) sometimes a movie does not entertain the usual assumptions. Your answer is correct
- c) we are always vulnerable to a powerful medium like film.
- d) the effect of film is bigger when we don't enter into any of the unspoken contracts.

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 132   |
| Avg. time spent on this question by all students                         | 104   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 104   |
| % of students who attempted this question                                | 39.84 |
| % of students who got the question right of those who attempted          | 36.07 |

[Video Solution](#)

[Text Solution](#)

**Number of words and Explanatory notes for RC:**

Number of words: 517

Consider the sentences: '*The unsettling thing is that you don't feel like you are entering into any of the standard unspoken contracts you normally enter into with other kinds of movies. In the absence of such an unconscious contract we lose some of the psychic protections we normally bring* to bear on a medium as powerful as film.' From this we can understand that the 'unsettling thing' is the absence of unconscious contracts without which we lose the mental protections we normally have while dealing with a powerful medium such as film.

Option A: The line mentioned in the question is with respect to David Lynch's movies which fall into neither the category of art film nor the category of commercial film, according to the author. However, that is not unsettling. The unsettling bit is that one must watch Lynch's movies without the usual accepted norms/conventions/contracts/understanding associated with art film and commercial film, both of which have specific purpose and agenda. Hence, Option A is not the answer.

Option B: Movies that do not entertain the usual assumptions (contracts, e.g. it is understood that for a commercial movie, we pay money to be entertained and for an art film we pay money to do more work – indulge in interpretive process) leave the audience unguarded (without psychic protections we 'normally' bring) or rather more vulnerable to a medium that is powerful (read influential). So it is unsettling when we don't know what to expect from a movie. Hence, Option B is the answer.

Option C: While the author did imply that we are vulnerable to film, what is unsettling is the usual psychic protections we have for art and commercial films are absent in David Lynch movies. Hence, Option C is not the answer.

Option D: While the second half of this option is true for David Lynch movies, the author doesn't talk about whether the effect is bigger or smaller but rather that, we are susceptible and are without our psychic protections. Hence, Option D is close but not the answer.

Choice (B)

undefined

**DIRECTIONS** for questions 28 to 33: The passage given below is accompanied by a set of six questions. Choose the best answer to each question.

Movies are an authoritarian medium. They make you vulnerable and dominate you. Part of the magic of going to a movie is surrendering to it, letting it dominate you. The sitting in the dark, the looking up, the traced distance from the screen, the being able to see the people on the screen without being seen by the people on the screen, the people on the screen being so much bigger than you, prettier than you, more compelling than you, etc.

Film's overwhelming power isn't news. But, different kinds of movies use this power in different ways. Art film is essentially teleological: it tries in various ways to "wake the audience up" or render us more "conscious". This kind of agenda can easily degenerate into pretentiousness and self-righteousness and condescending twaddle, but the agenda itself is large-hearted and fine.

Commercial film doesn't seem like it cares very much about an audience's instruction or enlightenment. Commercial film's goal is to "entertain," which usually means enabling various fantasies that allow the movie-goer to pretend he's somebody else and that life is somehow bigger and more coherent and more compelling and attractive and in general just more entertaining than a moviegoer's life really is. You could say that a commercial movie doesn't try to wake people up but rather to make them sleep so comfortable and their dreams so pleasant that they will fork over money to experience it - this seduction, a fantasy-for-money transaction, is a commercial movie's basic point.

An art film's point is usually more intellectual or aesthetic, and you usually have to do some interpretive work to get it, so that when you pay to see an art film you're actually paying to do work, whereas the only work you have to do with most commercial films is whatever work you did to afford the price of the ticket.

David Lynch's movies are often described as occupying a kind of middle ground between art and commercial film. But, what they really occupy is a whole third different kind of territory. Most of Lynch's best films don't really have much of a point, and in lots of ways they seem to resist the film-interpretive process by which avant-garde movies are understood. The British critic Paul Taylor says that Lynch's movies are indeed 'to be experienced rather than explained.' Lynch's movies are

susceptible to a variety of sophisticated interpretations, but it would be a serious mistake to conclude from this that his movies' point is "film-interpretation is necessarily multivalent" or something - they're just not that kind of movie. Nor are they seductive in the commercial sense. You never get the sense that the point is to entertain you, and never that the point is to get you to fork over money to see it. The unsettling thing is that you don't feel like you are entering into any of the standard unspoken contracts you normally enter into with other kinds of movies. In the absence of such an unconscious contract we lose some of the psychic protections we normally bring to bear on a medium as powerful as film.

**Q33.** In the last line of the second para, "This kind of agenda can easily...the agenda itself is large-hearted and fine", the 'agenda' mentioned is

- a) to instruct and enlighten the audience. Your answer is correct
- b) to make one more conscious of the fantasy that is life.
- c) to use the power of movies in different ways.
- d) to instigate an unquestioning attitude.

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 122   |
| Avg. time spent on this question by all students                         | 87    |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 81    |
| % of students who attempted this question                                | 46.28 |
| % of students who got the question right of those who attempted          | 58.6  |

[Video Solution](#)

[Text Solution](#)

#### Number of words and Explanatory notes for RC:

Number of words: 517

Consider the following lines: '*Art film is essentially teleological: it tries in various ways to "wake the audience up" or render us more "conscious". This kind of agenda can easily degenerate into pretentiousness and self-righteousness and condescending twaddle, but the agenda itself is large-hearted and fine*' And in the next para, '*Commercial film doesn't seem like it cares very much about an audience's instruction or enlightenment*'. From this dichotomy or contrast we can figure out two things: The agenda is that of 'art films' which can worsen to become pretentiousness but is large-hearted in its intent – to wake the audience up or render them more conscious. This is exactly what commercial film doesn't intend to do.

Option A: 'Instruct' and 'enlighten' are synonymous metaphorically to 'waking someone up' or 'making someone conscious'. Even otherwise, the author has directly mentioned that commercial film doesn't try to do this, following up on the agenda of art film thereby implying that this was the agenda of art film. Hence, Option A is the answer.

Option B: Art film intends to make one more conscious. But of what? Definitely not of the 'illusion of life', as this option seems to suggest. In fact, this is rhetorical language that doesn't reflect the content of the para. That life itself is a fantasy is an extrapolation not mentioned or inferred in the passage. Hence, Option B is not the answer.

Option C: This statement is upstream to this discussion and was mentioned before the topic moved on to art films. We are discussing the 'agenda' of art films. Hence, the talk of two types of movies is irrelevant. Hence, Option C is not the answer.

Option D: 'Waking the audience' is more synonymous to raising awareness and creating a questioning attitude rather than developing an 'unquestioning attitude'. Also, 'instigating' is not appropriate when the intended result is developing an 'unquestioning attitude'. Hence, Option D is not the answer.

Choice (A)

**Q34. DIRECTIONS for question 34:** Each of the questions given below has a paragraph which is followed by five alternative summaries. Identify the alternative that best captures the essence of the text and enter its number as your answer in the input box provided.

The justification for the term, “abstract expressionist,” lies in the fact that most of the painters covered by it took their lead from German, Russian, or Jewish expressionism in breaking away from late Cubist abstract art. But they all started from French painting, for their fundamental sense of style from it, and still maintain some sort of continuity with it. Not least of all, they got from it their most vivid notion of an ambitious, major art, and of the general direction in which it had to go in their time.

1. French painting defines the sense of style of those painters who lean towards German, Russian or Jewish expressionism because of their disinclination for Cubist abstract art, and dominates their notion about ambitious, major art.
2. Abstract expressionists derive their notion of ambitious, major art from French painting, which not only colours their fundamental sense of style but also the vividness of their notions about major arts.
3. Painters indulging in abstract expressionism do so under the influence of German, Russian, or Jewish expressionism, breaking away from Cubist abstract art, a direction inspired by the fundamental sense of style borrowed from French painting.
4. Almost all abstract expressionists who drifted away from Cubist abstract art borrowed their sense of style from French painting which continued to influence their notion of ambitious art.
5. Abstract Expressionism derives its fundamental sense of style from German, Russian, or Jewish expressionism, which, in turn, borrowed its general direction from French painting.

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

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>46</b>    |
| Avg. time spent on this question by all students                         | <b>184</b>   |
| Difficulty Level   | <b>VD</b>    |
| Avg. time spent on this question by students who got this question right | <b>197</b>   |
| % of students who attempted this question                                | <b>33.28</b> |
| % of students who got the question right of those who attempted          | <b>18.21</b> |

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The introduction – Painters who are covered by (who are influenced by or whose work can be defined by) abstract expressionism generally are influenced by Jewish/German/Russian expressionism. They are drifting away from Cubist Abstract Art.

The elaboration – All these painters get their fundamental sense of style from Russian painting and there is a continuity in their work to demonstrate that.

The conclusion – The ambitious work of abstract expressionists still derives its sense of direction from the legacy of French painting.

Option 1: This option doesn't introduce the concept of Abstract Expressionism which is the central idea of the para. Hence, option 1 can be eliminated.

Option 2: The data has been misrepresented in the part 'which not only colours their fundamental sense of style' and in 'but also the vividness of their notions about major arts'. French painting is the chief influence for their sense of style. It doesn't just 'colour' (or add overtones to) their existing sense of style. Secondly, it influences their notion about the direction major art should take. An 'ambitious, major art' suggests a piece of art. Major arts suggests subjects which are considered under Arts. Hence, Option 2 can be eliminated.

Option 3: The data has been misrepresented in 'breaking away from Cubist abstract art, a direction inspired by the fundamental sense of style borrowed from French painting'. This suggest that the Abstract Expressionists broke away from Cubist abstract art because of their lenience towards French painting. That causation has not been established in the para. Hence, Option 3 is not the answer.

Option 4: Almost all abstract expressionists who drifted away from Cubist abstract art borrowed their sense of style from French painting which continued to influence their notion of an ambitious art. This option mentions all the major ideas. The sub-idea of their abstract expressionism being influenced by German, Russian and Jewish expressionism could be omitted, because according to the para, at the end of it, their fundamental sense of style was borrowed from French painting. Hence, Option 4 is the answer.

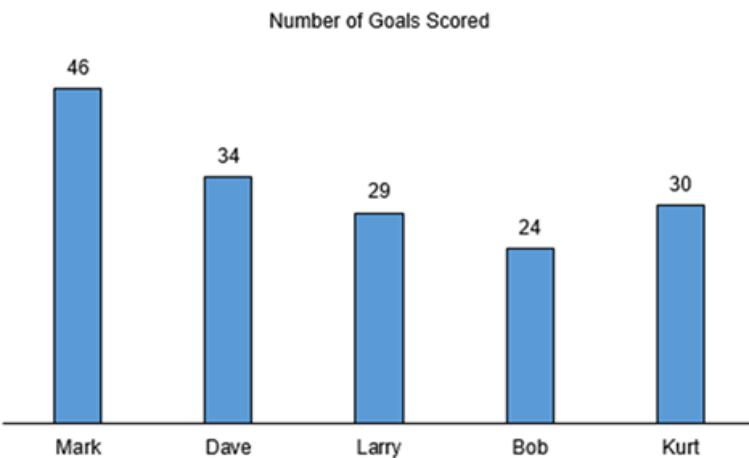
Option 5: The painters who follow abstract expressionism get their fundamental sense of style from French painting. We cannot conclude that German, Russian and Jewish expressionism lent its sense of style to the abstract expressionists. Also, German, Russian and Jewish expressionism has not been linked to French painting in the para. Hence, this is incorrect.

Ans: (4)

undefined

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

During a particular year, five football players, Mark, Dave, Larry, Bob and Kurt, played for a team called The Kickballers. The bar graph below provides the number of goals scored by each of these five players during that year. No other player scored any goal for The Kickballers during that year.



Further, it is also known that

- each player scored at least one goal in any match that he played and no player played more than 17 matches.
- one of them scored exactly two goals in every match that he played and no player scored more than 5 goals in a match.
- in every match that Dave scored at least one goal, Mark scored 3 goals. In every match that Mark scored 3 goals, Larry scored 4 goals.
- Kurt is the only player to have played in all the matches during the year, while Mark scored more number of goals than any other player in at least 6 matches.
- Bob played in a match if and only if Dave did not play in that match. Bob scored an equal number of goals in all the matches that he played.
- Mark did not play in only those matches in which Larry scored at least 1 goal and at most 3 goals.

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

What is the total number of matches that the Kickballers played during the year?

- a) **14**
- b) **15**
- c) **17**
- 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                                | <b>16</b>    |
| Avg. time spent on this question by all students                         | <b>367</b>   |
| Difficulty Level   | <b>VD</b>    |
| Avg. time spent on this question by students who got this question right | <b>433</b>   |
| % of students who attempted this question                                | <b>16.08</b> |
| % of students who got the question right of those who attempted          | <b>33.18</b> |

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Since each player scored at least one goal in any match that he played, from (iii), in all the matches that Dave played, he would have scored at least one goal.

In all the matches that Dave played, Mark scored 3 goals. Mark could have scored 3 goals in a maximum of 15 matches (since he scored 46 goals). Larry could have scored 4 goals in a maximum of 7 matches. Hence, the maximum number of matches that Dave could have played is 7.

However, from (ii), no player scored more than 5 goals in any match, Dave must have played at least 7 matches to score 34 goals (5 goals in 6 matches and 4 goals in 1 match).

Hence, Dave must have played exactly 7 matches (since the maximum and minimum number of matches that he played is 7).

In these 7 matches that Dave played, Larry scored 4 goals each (totalling 28 goals). Hence, he must have played 1 more match and scored 1 goal in that match.

Hence, Larry must have played 8 matches. Further, in the 7 matches that Dave played, Mark must have scored 3 goals each.

From (ii), one of them scored 2 goals in each match. This cannot be Mark (since he scored 3 goals each in 7 matches).

This cannot be Larry or Dave. Hence, this can only be Kurt or Bob.

From (v), Bob scored an equal number of goals in all the matches that he played. Hence, Bob could have scored 2/3/4 goals in each match (other values are not possible as he cannot score more than 5 goals in a match).

If Bob score 2 goals in each match, he must have played 12 matches. From (v), Bob played only in the matches that Dave did not play. Since Bob played 12 matches and Dave played 7 matches, the number of matches must be  $12 + 7 = 19$ .

From (iv), Kurt must have played in at least 19 matches. But this violates (i) since no player played more than 17 matches.

Hence, Bob could not have scored 2 goals in each match.

He could have scored 3 or 4 goals in each match.

Hence, Bob cannot be the person who scored 2 goals in each match. This can only be Kurt. Hence, Kurt scored 2 goals in each match and he played a total of 15 matches. The total number of matches played by the team is also 15 (from (iv)).

From (v), Bob must have played in 8 matches (since Dave played in 7 matches) scoring 3 goals in each.

Mark scored 3 goals each in 7 matches. He must score 25 goals in the other matches that he played.

In the remaining 8 matches, Mark definitely did not play in 1 match (from (vi), i.e., the game in which Larry scored only 1 goal).

In the 7 matches that Mark scored 3 goals (in which Larry scored 4 goals), Mark was not the highest scorer. Hence, in the remaining 7 matches, Mark must have been the highest goal scorer in at least 6 matches.

Further, in the 7 matches that Mark could have played, Bob would have played (since Dave did not play). Since Bob played in these 7 matches and scored 3 goals in each match, Mark must have scored at least 4 goals in 6 of these matches. Since he scored 25 goals in these 7 matches combined, he must have scored exactly 4 goals in 6 matches and 1 goal in 1 more match.

The following table provides the number of matches played by each player:

| Player | Number of Matches | Goals scored  |
|--------|-------------------|---|
| Dave   | 7                 | 5 goals each in 6 matches<br>4 goals in 1 match                             |
| Larry  | 8                 | 4 goals each in 7 matches<br>1 goal in 1 match                              |
| Mark   | 14                | 3 goals each in 7 matches<br>4 goals each in 6 matches<br>1 goal in 1 match |
| Bob    | 8                 | 3 goals each in 8 matches   |
| Kurt   | 15                | 2 goals each in 15 matches  |

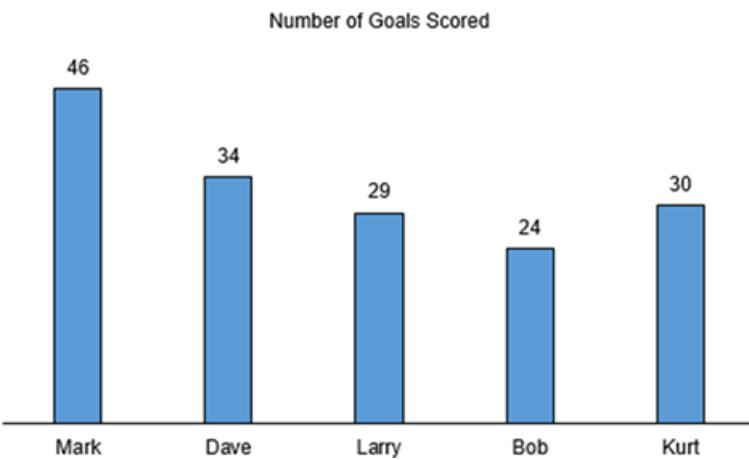
Total number of matches played during the year = 15.

Choice (B)

undefined

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

During a particular year, five football players, Mark, Dave, Larry, Bob and Kurt, played for a team called The Kickballers. The bar graph below provides the number of goals scored by each of these five players during that year. No other player scored any goal for The Kickballers during that year.



Further, it is also known that

- each player scored at least one goal in any match that he played and no player played more than 17 matches.
- one of them scored exactly two goals in every match that he played and no player scored more than 5 goals in a match.
- in every match that Dave scored at least one goal, Mark scored 3 goals. In every match that Mark scored 3 goals, Larry scored 4 goals.
- Kurt is the only player to have played in all the matches during the year, while Mark scored more number of goals than any other player in at least 6 matches.
- Bob played in a match if and only if Dave did not play in that match. Bob scored an equal number of goals in all the matches that he played.
- Mark did not play in only those matches in which Larry scored at least 1 goal and at most 3 goals.

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

What is the maximum number of goals scored by the Kickballers in any match during the year?

- a) 10
- b) 12
- c) 14
- d) 16

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 0     |
| Avg. time spent on this question by all students                         | 173   |
| Difficulty Level   | VD    |
| Avg. time spent on this question by students who got this question right | 178   |
| % of students who attempted this question                                | 9.94  |
| % of students who got the question right of those who attempted          | 43.27 |

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Since each player scored at least one goal in any match that he played, from (iii), in all the matches that Dave played, he would have scored at least one goal.

In all the matches that Dave played, Mark scored 3 goals. Mark could have scored 3 goals in a maximum of 15 matches (since he scored 46 goals). Larry could have scored 4 goals in a maximum of 7 matches. Hence, the maximum number of matches that Dave could have played is 7.

However, from (ii), no player scored more than 5 goals in any match, Dave must have played at least 7 matches to score 34 goals (5 goals in 6 matches and 4 goals in 1 match).

Hence, Dave must have played exactly 7 matches (since the maximum and minimum number of matches that he played is 7).

In these 7 matches that Dave played, Larry scored 4 goals each (totalling 28 goals). Hence, he must have played 1 more match and scored 1 goal in that match.

Hence, Larry must have played 8 matches. Further, in the 7 matches that Dave played, Mark must have scored 3 goals each.

From (ii), one of them scored 2 goals in each match. This cannot be Mark (since he scored 3 goals each in 7 matches).

This cannot be Larry or Dave. Hence, this can only be Kurt or Bob.

From (v), Bob scored an equal number of goals in all the matches that he played. Hence, Bob could have scored 2/3/4 goals in each match (other values are not possible as he cannot score more than 5 goals in a match).

If Bob score 2 goals in each match, he must have played 12 matches. From (v), Bob played only in the matches that Dave did not play. Since Bob played 12 matches and Dave played 7 matches, the number of matches must be  $12 + 7 = 19$ .

From (iv), Kurt must have played in at least 19 matches. But this violates (i) since no player played more than 17 matches.

Hence, Bob could not have scored 2 goals in each match.

He could have scored 3 or 4 goals in each match.

Hence, Bob cannot be the person who scored 2 goals in each match. This can only be Kurt. Hence, Kurt scored 2 goals in each match and he played a total of 15 matches. The total number of matches played by the team is also 15 (from (iv)).

From (v), Bob must have played in 8 matches (since Dave played in 7 matches) scoring 3 goals in each.

Mark scored 3 goals each in 7 matches. He must score 25 goals in the other matches that he played.

In the remaining 8 matches, Mark definitely did not play in 1 match (from (vi), i.e., the game in which Larry scored only 1 goal).

In the 7 matches that Mark scored 3 goals (in which Larry scored 4 goals), Mark was not the highest scorer. Hence, in the remaining 7 matches, Mark must have been the highest goal scorer in at least 6 matches.

Further, in the 7 matches that Mark could have played, Bob would have played (since Dave did not play). Since Bob played in these 7 matches and scored 3 goals in each match, Mark must have scored at least 4 goals in 6 of these matches. Since he scored 25 goals in these 7 matches combined, he must have scored exactly 4 goals in 6 matches and 1 goal in 1 more match.

The following table provides the number of matches played by each player:

| Player | Number of Matches | Goals scored  |
|--------|-------------------|---|
| Dave   | 7                 | 5 goals each in 6 matches<br>4 goals in 1 match                             |
| Larry  | 8                 | 4 goals each in 7 matches<br>1 goal in 1 match                              |
| Mark   | 14                | 3 goals each in 7 matches<br>4 goals each in 6 matches<br>1 goal in 1 match |
| Bob    | 8                 | 3 goals each in 8 matches   |
| Kurt   | 15                | 2 goals each in 15 matches  |

Among the 7 matches that Dave played, in 6 matches, Dave scored 5 goals, Larry scored 4 goals, Mark scored 3 goals and Kurt scored 2 goals. (Bob did not play in these matches).

In the other match that Dave played, Dave scored 4 goals, Larry scored 4 goals, Mark scored 3 goals and Kurt scored 2 goals.

Among the other 7 matches that Mark played, in 6 matches, Mark scored 4 goals, Bob scored 3 goals and Kurt scored 2 goals (Larry and Dave did not play in these matches).

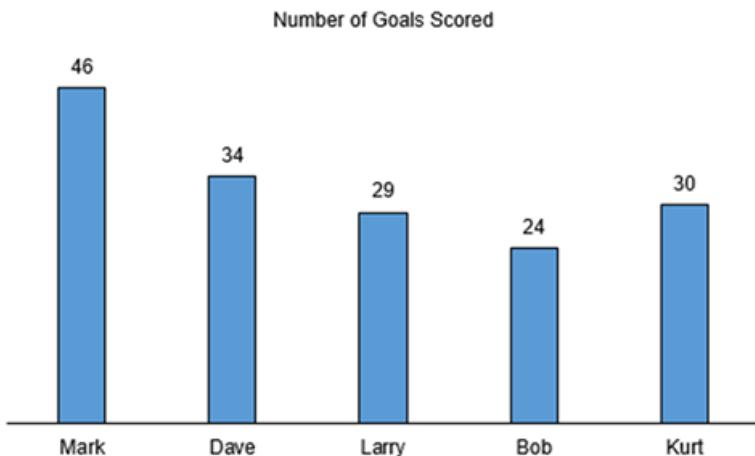
In the other match that Mark played, Mark scored 1 goal, Bob scored 3 goals and Kurt scored 2 goals.

In the other match that Larry played, Larry scored 1 goal, Bob scored 3 goals and Kurt scored 2 goals.

Hence, the maximum number of goals scored in any match was 14.      Choice (C)

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

During a particular year, five football players, Mark, Dave, Larry, Bob and Kurt, played for a team called The Kickballers. The bar graph below provides the number of goals scored by each of these five players during that year. No other player scored any goal for The Kickballers during that year.



Further, it is also known that

- i. each player scored at least one goal in any match that he played and no player played more than 17 matches.
- ii. one of them scored exactly two goals in every match that he played and no player scored more than 5 goals in a match.
- iii. in every match that Dave scored at least one goal, Mark scored 3 goals. In every match that Mark scored 3 goals, Larry scored 4 goals.
- iv. Kurt is the only player to have played in all the matches during the year, while Mark scored more number of goals than any other player in at least 6 matches.
- v. Bob played in a match if and only if Dave did not play in that match. Bob scored an equal number of goals in all the matches that he played.
- vi. Mark did not play in only those matches in which Larry scored at least 1 goal and at most 3 goals.

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

Which of the following cannot be the number of goals scored by the Kickballers in any match during the year?

- I. 13
- II. 10
- III. 9
- IV. 8

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

You did not answer this question

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>0</b>     |
| Avg. time spent on this question by all students                         | <b>121</b>   |
| Difficulty Level   | <b>VD</b>    |
| Avg. time spent on this question by students who got this question right | <b>139</b>   |
| % of students who attempted this question                                | <b>6.21</b>  |
| % of students who got the question right of those who attempted          | <b>24.93</b> |

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Since each player scored at least one goal in any match that he played, from (iii), in all the matches that Dave played, he would have scored at least one goal.

In all the matches that Dave played, Mark scored 3 goals. Mark could have scored 3 goals in a maximum of 15 matches (since he scored 46 goals). Larry could have scored 4 goals in a maximum of 7 matches. Hence, the maximum number of matches that Dave could have played is 7.

However, from (ii), no player scored more than 5 goals in any match, Dave must have played at least 7 matches to score 34 goals (5 goals in 6 matches and 4 goals in 1 match).

Hence, Dave must have played exactly 7 matches (since the maximum and minimum number of matches that he played is 7).

In these 7 matches that Dave played, Larry scored 4 goals each (totalling 28 goals). Hence, he must have played 1 more match and scored 1 goal in that match.

Hence, Larry must have played 8 matches. Further, in the 7 matches that Dave played, Mark must have scored 3 goals each.

From (ii), one of them scored 2 goals in each match. This cannot be Mark (since he scored 3 goals each in 7 matches).

This cannot be Larry or Dave. Hence, this can only be Kurt or Bob.

From (v), Bob scored an equal number of goals in all the matches that he played. Hence, Bob could have scored 2/3/4 goals in each match (other values are not possible as he cannot score more than 5 goals in a match).

If Bob score 2 goals in each match, he must have played 12 matches. From (v), Bob played only in the matches that Dave did not play. Since Bob played 12 matches and Dave played 7 matches, the number of matches must be  $12 + 7 = 19$ .

From (iv), Kurt must have played in at least 19 matches. But this violates (i) since no player played more than 17 matches.

Hence, Bob could not have scored 2 goals in each match.

He could have scored 3 or 4 goals in each match.

Hence, Bob cannot be the person who scored 2 goals in each match. This can only be Kurt. Hence, Kurt scored 2 goals in each match and he played a total of 15 matches. The total number of matches played by the team is also 15 (from (iv)).

From (v), Bob must have played in 8 matches (since Dave played in 7 matches) scoring 3 goals in each.

Mark scored 3 goals each in 7 matches. He must score 25 goals in the other matches that he played.

In the remaining 8 matches, Mark definitely did not play in 1 match (from (vi), i.e., the game in which Larry scored only 1 goal).

In the 7 matches that Mark scored 3 goals (in which Larry scored 4 goals), Mark was not the highest scorer. Hence, in the remaining 7 matches, Mark must have been the highest goal scorer in at least 6 matches.

Further, in the 7 matches that Mark could have played, Bob would have played (since Dave did not play). Since Bob played in these 7 matches and scored 3 goals in each match, Mark must have scored at least 4 goals in 6 of these matches. Since he scored 25 goals in these 7 matches combined, he must have scored exactly 4 goals in 6 matches and 1 goal in 1 more match.

The following table provides the number of matches played by each player:

| Player | Number of Matches | Goals scored  |
|--------|-------------------|---|
| Dave   | 7                 | 5 goals each in 6 matches<br>4 goals in 1 match                             |
| Larry  | 8                 | 4 goals each in 7 matches<br>1 goal in 1 match                              |
| Mark   | 14                | 3 goals each in 7 matches<br>4 goals each in 6 matches<br>1 goal in 1 match |
| Bob    | 8                 | 3 goals each in 8 matches   |
| Kurt   | 15                | 2 goals each in 15 matches  |

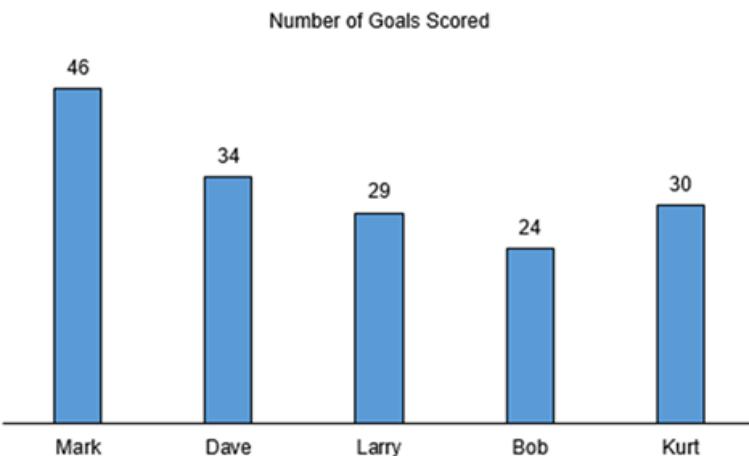
The number of goals scored can be 14 or 13 or 9 or 6. It cannot be 10 or 8. Therefore,  
II and IV are not possible.

Choice (D)

undefined

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

During a particular year, five football players, Mark, Dave, Larry, Bob and Kurt, played for a team called The Kickballers. The bar graph below provides the number of goals scored by each of these five players during that year. No other player scored any goal for The Kickballers during that year.



Further, it is also known that

- each player scored at least one goal in any match that he played and no player played more than 17 matches.
- one of them scored exactly two goals in every match that he played and no player scored more than 5 goals in a match.
- in every match that Dave scored at least one goal, Mark scored 3 goals. In every match that Mark scored 3 goals, Larry scored 4 goals.
- Kurt is the only player to have played in all the matches during the year, while Mark scored more number of goals than any other player in at least 6 matches.
- Bob played in a match if and only if Dave did not play in that match. Bob scored an equal number of goals in all the matches that he played.
- Mark did not play in only those matches in which Larry scored at least 1 goal and at most 3 goals.

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

What is the maximum number of goals scored by the team in any game that Mark did not play?

- a) 6
- b) 9
- c) 5
- d) 13

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                         | 96    |
| Difficulty Level   | VD    |
| Avg. time spent on this question by students who got this question right | 87    |
| % of students who attempted this question                                | 7.46  |
| % of students who got the question right of those who attempted          | 24.15 |

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

Since each player scored at least one goal in any match that he played, from (iii), in all the matches that Dave played, he would have scored at least one goal.

In all the matches that Dave played, Mark scored 3 goals. Mark could have scored 3 goals in a maximum of 15 matches (since he scored 46 goals). Larry could have scored 4 goals in a maximum of 7 matches. Hence, the maximum number of matches that Dave could have played is 7.

However, from (ii), no player scored more than 5 goals in any match, Dave must have played at least 7 matches to score 34 goals (5 goals in 6 matches and 4 goals in 1 match).

Hence, Dave must have played exactly 7 matches (since the maximum and minimum number of matches that he played is 7).

In these 7 matches that Dave played, Larry scored 4 goals each (totalling 28 goals). Hence, he must have played 1 more match and scored 1 goal in that match.

Hence, Larry must have played 8 matches. Further, in the 7 matches that Dave played, Mark must have scored 3 goals each.

From (ii), one of them scored 2 goals in each match. This cannot be Mark (since he scored 3 goals each in 7 matches).

This cannot be Larry or Dave. Hence, this can only be Kurt or Bob.

From (v), Bob scored an equal number of goals in all the matches that he played. Hence, Bob could have scored 2/3/4 goals in each match (other values are not possible as he cannot score more than 5 goals in a match).

If Bob score 2 goals in each match, he must have played 12 matches. From (v), Bob played only in the matches that Dave did not play. Since Bob played 12 matches and Dave played 7 matches, the number of matches must be  $12 + 7 = 19$ .

From (iv), Kurt must have played in at least 19 matches. But this violates (i) since no player played more than 17 matches.

Hence, Bob could not have scored 2 goals in each match.

He could have scored 3 or 4 goals in each match.

Hence, Bob cannot be the person who scored 2 goals in each match. This can only be Kurt. Hence, Kurt scored 2 goals in each match and he played a total of 15 matches.

The total number of matches played by the team is also 15 (from (iv)).

From (v), Bob must have played in 8 matches (since Dave played in 7 matches) scoring 3 goals in each.

Mark scored 3 goals each in 7 matches. He must score 25 goals in the other matches that he played.

In the remaining 8 matches, Mark definitely did not play in 1 match (from (vi), i.e., the game in which Larry scored only 1 goal).

In the 7 matches that Mark scored 3 goals (in which Larry scored 4 goals), Mark was not the highest scorer. Hence, in the remaining 7 matches, Mark must have been the highest goal scorer in at least 6 matches.

Further, in the 7 matches that Mark could have played, Bob would have played (since Dave did not play). Since Bob played in these 7 matches and scored 3 goals in each match, Mark must have scored at least 4 goals in 6 of these matches. Since he scored 25 goals in these 7 matches combined, he must have scored exactly 4 goals in 6 matches and 1 goal in 1 more match.

The following table provides the number of matches played by each player:

| Player | Number of Matches | Goals scored  |
|--------|-------------------|---|
| Dave   | 7                 | 5 goals each in 6 matches<br>4 goals in 1 match                             |
| Larry  | 8                 | 4 goals each in 7 matches<br>1 goal in 1 match                              |
| Mark   | 14                | 3 goals each in 7 matches<br>4 goals each in 6 matches<br>1 goal in 1 match |
| Bob    | 8                 | 3 goals each in 8 matches   |
| Kurt   | 15                | 2 goals each in 15 matches  |

Mark did not play in only one game. In this game, the team scored 6 goals.

Choice (A)

undefined

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

A certain number of men and women work in a factory, which was open on all days of a particular year. During the month of April, which began with a Friday, a few workers did not come to work on certain days. It is known that between every two consecutive Mondays of April, the number of men that came to work reduced by one-third and the number of women increased by 50%. Further, between any two consecutive days, the number of men that came to work did not change by more than 10% and the number of women that came to work did not change by more than 10%.

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

What is the maximum number of consecutive days during the month that the number of men that came to work remained the same?

- a) 7
- b) 8
- c) 9
- d) 10

You did not answer this question

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 138   |
| Avg. time spent on this question by all students                         | 290   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 293   |
| % of students who attempted this question                                | 12.09 |
| % of students who got the question right of those who attempted          | 16.81 |

[Video Solution](#)

**Text Solution**

Given that April 1<sup>st</sup> was a Friday. Let  $x$  be the number of men who came to work on the first Monday, i.e., April 4<sup>th</sup>. On the second Monday, i.e., on April 11<sup>th</sup>, the number of men who came to work will be  $2x/3$ , on April 18<sup>th</sup>, the number of men who came to work will be  $4x/9$ . On April 25<sup>th</sup>, the number of men who came to work will be  $8x/27$ . Let  $y$  be the number of women who came to work on the last Monday, i.e., April 25<sup>th</sup>. The number of women who came to work on April 4<sup>th</sup>, 11<sup>th</sup>, 18<sup>th</sup> and 25<sup>th</sup> will be  $8y/27$ ,  $4y/9$ ,  $2y/3$  and  $y$  respectively.

On April 4<sup>th</sup>, the number of men that came to work =  $x$   
On April 11<sup>th</sup>, the number of men that came to work =  $2x/3$   
Between any two consecutive days, the number of men that came to work did not decrease by more than 10%.  
For  $x$  to become  $2x/3$ , a minimum of four days is required (from  $x$  to  $0.9x$  to  $0.81x$  to  $0.729x$  to  $0.667x$ ).  
Hence, starting from any Monday, the number of men that came to work can remain constant for three days.  
If we consider April 11<sup>th</sup>, then the number of men that came to work can be constant from April 8<sup>th</sup> to April 14<sup>th</sup>, i.e., for 7 days.  
However, if we consider April 25<sup>th</sup>, it can be constant from April 22<sup>nd</sup> till April 30<sup>th</sup>, i.e., for 9 days.  
Hence, the maximum number of days that the number of men that came to work can remain constant is 9.

Choice (C)

undefined

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

A certain number of men and women work in a factory, which was open on all days of a particular year. During the month of April, which began with a Friday, a few workers did not come to work on certain days. It is known that between every two consecutive Mondays of April, the number of men that came to work reduced by one-third and the number of women increased by 50%. Further, between any two consecutive days, the number of men that came to work did not change by more than 10% and the number of women that came to work did not change by more than 10%.

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

The number of men that came to the factory on April 12<sup>th</sup> was 49. If it is known that on at least one day of the month all the men working in the factory came to the factory, what is the maximum possible number of men working in the factory?

- a) 72
- b) 111
- c) 101
- d) 121

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                         | 194   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 196   |
| % of students who attempted this question                                | 9.72  |
| % of students who got the question right of those who attempted          | 39.08 |

[Video Solution](#)

**Text Solution**

Given that April 1<sup>st</sup> was a Friday. Let  $x$  be the number of men who came to work on the first Monday, i.e., April 4<sup>th</sup>. On the second Monday, i.e., on April 11<sup>th</sup>, the number of men who came to work will be  $2x/3$ , on April 18<sup>th</sup>, the number of men who came to work will be  $4x/9$ . On April 25<sup>th</sup>, the number of men who came to work will be  $8x/27$ . Let  $y$  be the number of women who came to work on the last Monday, i.e., April 25<sup>th</sup>. The number of women who came to work on April 4<sup>th</sup>, 11<sup>th</sup>, 18<sup>th</sup> and 25<sup>th</sup> will be  $8y/27$ ,  $4y/9$ ,  $2y/3$  and  $y$  respectively.

The number of men that came to the factory on April 12<sup>th</sup> = 49  
The number of men that came to the factory on April 11<sup>th</sup> =  $2x/3$   
Since the number of men did not change by more than 10%, we can take the value of  $2x/3$  to be a maximum of 54.  
Hence,  $x = 81$   
On April 4<sup>th</sup>, 81 men came to the factory. Since the number of men that came to the factory did not change by more than 10%, we can increase the number of men that came to the factory on April 1<sup>st</sup>.  
On April 3<sup>rd</sup>, a maximum of 90 men could have come to the factory.  
On April 2<sup>nd</sup>, a maximum of 100 men could have come to the factory.  
On April 1<sup>st</sup>, a maximum of 111 men could have come to the factory.  
Hence, the maximum possible number of men working in the factory = 111.

Choice (B)

undefined

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

A certain number of men and women work in a factory, which was open on all days of a particular year. During the month of April, which began with a Friday, a few workers did not come to work on certain days. It is known that between every two consecutive Mondays of April, the number of men that came to work reduced by one-third and the number of women increased by 50%. Further, between any two consecutive days, the number of men that came to work did not change by more than 10% and the number of women that came to work did not change by more than 10%.

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

The number of women that came to the factory on April 7<sup>th</sup> was 19. If it is known that on at least one day of the month all the women working in the factory came to the factory, what is the maximum possible number of women working in the factory?

a) 84

b) 77

c) 74

d) 90

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 0     |
| Avg. time spent on this question by all students                         | 163   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 179   |
| % of students who attempted this question                                | 5.82  |
| % of students who got the question right of those who attempted          | 28.04 |

[Video Solution](#)

[Text Solution](#)

Given that April 1<sup>st</sup> was a Friday. Let  $x$  be the number of men who came to work on the first Monday, i.e., April 4<sup>th</sup>. On the second Monday, i.e., on April 11<sup>th</sup>, the number of men who came to work will be  $2x/3$ , on April 18<sup>th</sup>, the number of men who came to work will be  $4x/9$ . On April 25<sup>th</sup>, the number of men who came to work will be  $8x/27$ . Let  $y$  be the number of women who came to work on the last Monday, i.e., April 25<sup>th</sup>. The number of women who came to work on April 4<sup>th</sup>, 11<sup>th</sup>, 18<sup>th</sup> and 25<sup>th</sup> will be  $8y/27$ ,  $4y/9$ ,  $2y/3$  and  $y$  respectively.

The number of women that came to the factory on April 7<sup>th</sup> = 19

The number of women that came to the factory on April 11<sup>th</sup> =  $4y/9$

The maximum number of women that could have come to the factory on April 11<sup>th</sup> will be at most 26 (because the number of women did not change by more than 10%).

However,  $4y/9$  cannot be equal to 28, as  $y$  must be an integer. Hence, the maximum possible value of  $4y/9$  will be 24. In this case,  $y = 54$ .

Hence, on April 25<sup>th</sup>, 54 women came to the factory.

On April 26<sup>th</sup>, 27<sup>th</sup>, 28<sup>th</sup>, 29<sup>th</sup> and 30<sup>th</sup>, the number of women that came to the factory can be at most 59, 64, 70, 77 and 84 respectively.

Hence, a maximum of 84 women work in the factory.

Choice (A)

undefined

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

A certain number of men and women work in a factory, which was open on all days of a particular year. During the month of April, which began with a Friday, a few workers did not come to work on certain days. It is known that between every two consecutive Mondays of April, the number of men that came to work reduced by one-third and the number of women increased by 50%. Further, between any two consecutive days, the number of men that came to work did not change by more than 10% and the number of women that came to work did not change by more than 10%.

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

An equal number of men and women came to work on April 1<sup>st</sup>. If on at least one day, all the men came to work, and on at least one day, all the women came to work, the number of men as a percentage of women in the factory can be approximately at most

a) 94.76%.

b) **92.34%**.

c) **91.45%**.

d) **90.23%**.

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>0</b>     |
| Avg. time spent on this question by all students                         | <b>110</b>   |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>115</b>   |
| % of students who attempted this question                                | <b>2.31</b>  |
| % of students who got the question right of those who attempted          | <b>38.22</b> |

[Video Solution](#)

**Text Solution**

Given that April 1<sup>st</sup> was a Friday. Let  $x$  be the number of men who came to work on the first Monday, i.e., April 4<sup>th</sup>. On the second Monday, i.e., on April 11<sup>th</sup>, the number of men who came to work will be  $2x/3$ , on April 18<sup>th</sup>, the number of men who came to work will be  $4x/9$ . On April 25<sup>th</sup>, the number of men who came to work will be  $8x/27$ . Let  $y$  be the number of women who came to work on the last Monday, i.e., April 25<sup>th</sup>. The number of women who came to work on April 4<sup>th</sup>, 11<sup>th</sup>, 18<sup>th</sup> and 25<sup>th</sup> will be  $8y/27$ ,  $4y/9$ ,  $2y/3$  and  $y$  respectively.

On April 11<sup>th</sup>,  $2x/3$  men came to work and  $4y/9$  women came to work.

$$\text{Given that } \frac{2x}{3} = \frac{4y}{9} \Rightarrow \frac{x}{y} = \frac{2}{3}$$

Let  $x = 2k$  and  $y = 3k$ .

On April 4<sup>th</sup>,  $2k$  men came to work.

On April 1<sup>st</sup>, the number of men that came to work can be at most  $\frac{2k}{(0.9)^3} = 2.7435k$

On April 25<sup>th</sup>,  $3k$  women came to work.

This can be the number of women working in the factory (the number of women coming to work on April 26<sup>th</sup> to April 30<sup>th</sup> can decrease or remain constant to minimize the number of women who came to work).

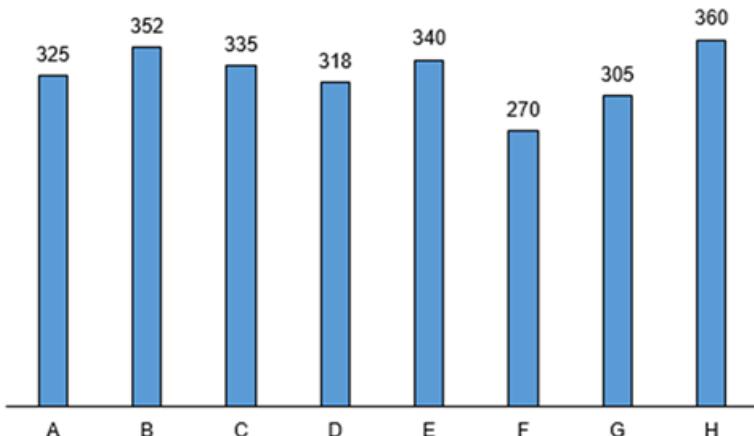
$$\text{Hence, the required percentage} = \frac{2.7435}{3} \times 100 = 91.45\%$$

Choice (C)

undefined

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

The following bar graph provides, for each of eight countries, A through H, the number of days it rained in 2017:



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

What is the maximum number of days during the year on which it could have rained in all the eight countries?

- a) **250**
- b) **260**
- c) **270** Your answer is correct
- d) **280**

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>38</b>    |
| Avg. time spent on this question by all students                         | <b>86</b>    |
| Difficulty Level   | <b>VE</b>    |
| Avg. time spent on this question by students who got this question right | <b>83</b>    |
| % of students who attempted this question                                | <b>58.46</b> |
| % of students who got the question right of those who attempted          | <b>97.57</b> |

[Video Solution](#)

[Text Solution](#)

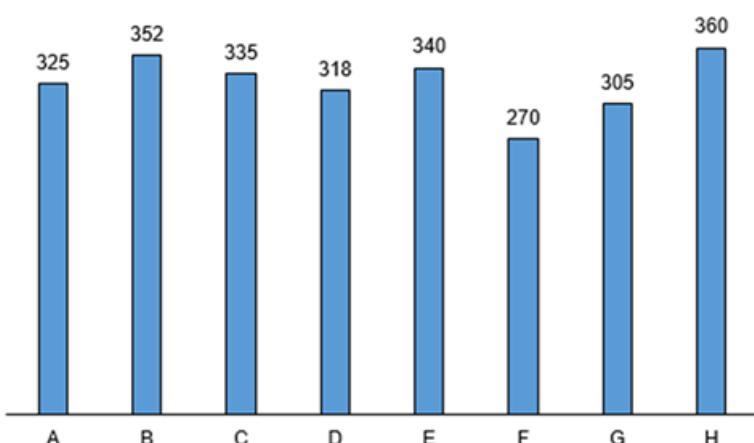
It rained on 270 days in February. On these 270 days, it could have rained in all the other seven countries as well.

Hence, the maximum number of days during the year in which it could have rained in all the eight countries is 270. Choice (C)

undefined

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

The following bar graph provides, for each of eight countries, A through H, the number of days it rained in 2017:



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

What is the minimum number of days during the year on which it could have rained in all the eight countries?

- a) **50**
- b) **40**
- c) **70** Your answer is incorrect

d) 60

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 190   |
| Avg. time spent on this question by all students                         | 191   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 212   |
| % of students who attempted this question                                | 23.98 |
| % of students who got the question right of those who attempted          | 32.23 |

[Video Solution](#)

**Text Solution**

We can imagine a table with countries along the columns and days along the rows. Each cell in this table represents a country and day combination.

If we mark a tick in each cell to indicate that it rained on that day in that country, there should be a total of  $325 + 352 + 335 + 318 + 340 + 270 + 305 + 360 = 2605$  ticks in the table.

To minimize the number of days in which it rained in all the eight countries, we can maximize the number of days in which it rained in seven countries. By doing so, we can accommodate maximum number of ticks in the table.

If it rained only in seven countries on each day, there can be a total of  $7 \times 365 = 2555$  ticks in the table.

However, we need an additional  $2605 - 2555 = 50$  ticks in the table.

We can place only one additional tick in each row (since there are seven ticks in each row). Placing an additional tick in any row indicates that it rained in all the eight countries on that day.

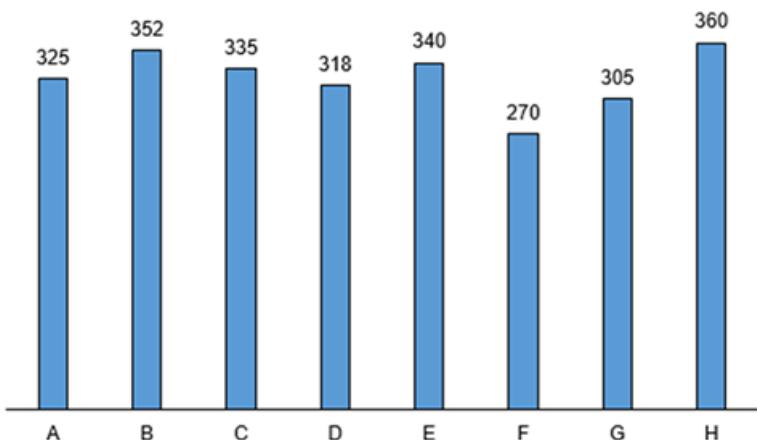
Hence, on at least 50 days, it must have rained in all the eight countries.

Choice (A)

undefined

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

The following bar graph provides, for each of eight countries, A through H, the number of days it rained in 2017:



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

In how many countries is it possible that the number of days it rained in each month was one more than that in the previous month?

a) 0

b) 1

c) 2 Your answer is incorrect

d) 3

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>300</b>   |
| Avg. time spent on this question by all students                         | <b>199</b>   |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>218</b>   |
| % of students who attempted this question                                | <b>35.37</b> |
| % of students who got the question right of those who attempted          | <b>29.63</b> |

[Video Solution](#)

**Text Solution**

Let the number of days it rained in each month from January to December be  $a - 5$ ,  $a - 4$ ,  $a - 3$ ,  $a - 2$ ,  $a - 1$ ,  $a$ ,  $a + 1$ ,  $a + 2$ ,  $a + 3$ ,  $a + 4$ ,  $a + 5$  and  $a + 6$  respectively.

Total number of days that it rained =  $12a + 6$

Hence, the number of days that it rained in any country must be of the form  $12a + 6$  for this condition to be satisfied.

This condition is satisfied for D and F.

In the case of D,  $a = 26$ . However, this is not possible as it must have rained for 32 days in December.

In the case of F,  $a = 22$ . This case is possible.

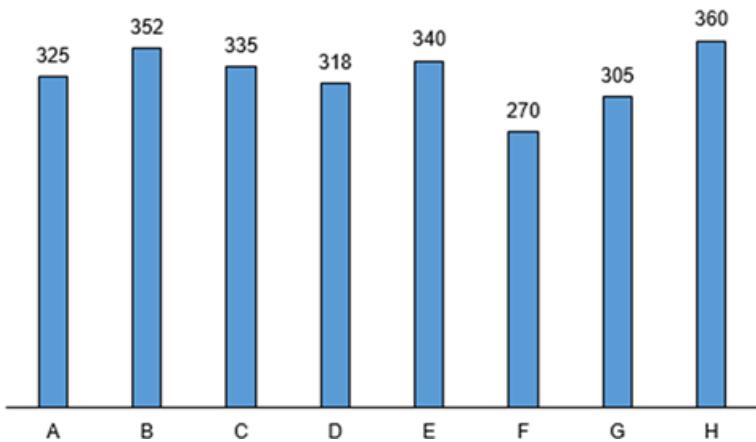
Hence, in only one country, the given condition is satisfied.

Choice (B)

undefined

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

The following bar graph provides, for each of eight countries, A through H, the number of days it rained in 2017:



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

In how many countries is it possible that the number of days it did not rain in each month was one more than that in the previous month?

a) 3

b) 2

c) 1    Your answer is incorrect

d) 0

Show Correct Answer

Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 205   |
| Avg. time spent on this question by all students                         | 121   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 138   |
| % of students who attempted this question                                | 28.02 |
| % of students who got the question right of those who attempted          | 42.88 |

[Video Solution](#)

[Text Solution](#)

Let the number of days it did not rain in each month from January to December be  $a - 5, a - 4, a - 3, a - 2, a - 1, a, a + 1, a + 2, a + 3, a + 4, a + 5$  and  $a + 6$  respectively.

Total number of days that it did not rain =  $12a + 6$

Hence, the number of days that it did not rain in any country must be of the form  $12a + 6$  for this condition to be satisfied.

This condition is satisfied only for C.

In the case of C, the value of  $a = 2$ .

Since the number of days that it did not rain cannot be negative, this is not possible in C as well.

Hence, the given condition is not possible for any country.

Choice (D)

undefined

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

Each of six persons, Ankit, Naman, Prajay, Satya, Jatin and Chetan, went to watch a different movie in a multiplex. All the six movies started at the same time but the length of each movie was different. Each of the six persons entered the multiplex at the same time as the movie that he went to watch began and exited the multiplex immediately after the end of the movie that he watched.

It is known that

- i. all the six persons were in the multiplex for exactly 150 minutes, at least four persons were in the multiplex for exactly 200 minutes.
- ii. Chetan, who was the last to exit the multiplex, exited the multiplex 60 minutes after Jatin, while Prajay watched a movie which was 220 minutes long.
- iii. the second person to exit the multiplex exited 30 minutes before the third person to exit the multiplex did so.
- iv. Ankit, who watched a movie whose length was at least 180 minutes, exited the multiplex immediately before Naman.

**Q13. DIRECTIONS** for questions 13 to 16: Type your answer in the text box provided below the question.

What is the length (in minutes) of the movie that Jatin watched?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 22    |
| Avg. time spent on this question by all students                         | 507   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 573   |
| % of students who attempted this question                                | 29.65 |
| % of students who got the question right of those who attempted          | 26.27 |

[Video Solution](#)

[Text Solution](#)

From (i), the six persons were in the multiplex for exactly 150 minutes. Hence, the first person to leave the multiplex must have left after 150 minutes and the length of the movie that he watched must be 150 minutes.

From (i), at least four persons were in the multiplex for exactly 200 minutes. Hence, the third person to leave the multiplex must have watched a movie of length 200 minutes.

From (ii), Chetan is the last person to leave the multiplex.

From (ii), Prajay must have been the fourth or fifth person to leave the multiplex.

From (iii), the second person must have watched a movie of length 170 minutes (since the third person exited after 200 minutes).

From (iv), Ankit must have been the third or fourth person to leave the multiplex. If Ankit is the fourth person to leave the multiplex, Naman must have been the fifth. However, Prajay must be either the fourth or fifth person to leave the multiplex. Hence, Ankit cannot be the fourth person to leave the multiplex.

If Ankit is the third person to leave the multiplex, Naman must be the fourth person.

Prajay must be the fifth person and the length of the movie that he watched must be 220 minutes.

The length of the movie that Chetan watched must be at least 220 minutes.

From (ii), the length of the movie that Jatin watched must be at least 160 minutes. Hence, Jatin must have been the second person to leave the multiplex and Satya must have been the first person to leave the multiplex.

The following table provides the order in which each person left the multiplex and the length of the movie that each person watched:

| Order  | 1     | 2     | 3     | 4         | 5      | 6      |
|--------|-------|-------|-------|-----------|--------|--------|
| Person | Satya | Jatin | Ankit | Naman     | Prajay | Chetan |
| Length | 150   | 170   | 200   | 200 - 220 | 220    | 230    |

The length of the movie that Jatin watched was 170 minutes.

Ans: (170)

undefined

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

Each of six persons, Ankit, Naman, Prajay, Satya, Jatin and Chetan, went to watch a different movie in a multiplex. All the six movies started at the same time but the length of each movie was different. Each of the six persons entered the multiplex at the same time as the movie that he went to watch began and exited the multiplex immediately after the end of the movie that he watched.

It is known that

i.

- all the six persons were in the multiplex for exactly 150 minutes, at least four persons were in the multiplex for exactly 200 minutes.

- ii. Chetan, who was the last to exit the multiplex, exited the multiplex 60 minutes after Jatin, while Prajay watched a movie which was 220 minutes long.
- iii. the second person to exit the multiplex exited 30 minutes before the third person to exit the multiplex did so.
- iv. Ankit, who watched a movie whose length was at least 180 minutes, exited the multiplex immediately before Naman.

**Q13. DIRECTIONS** for questions 13 to 16: Type your answer in the text box provided below the question.

What is the length (in minutes) of the movie that Jatin watched?

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

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>22</b>    |
| Avg. time spent on this question by all students                         | <b>507</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>573</b>   |
| % of students who attempted this question                                | <b>29.65</b> |
| % of students who got the question right of those who attempted          | <b>26.27</b> |

[Video Solution](#)

[Text Solution](#)

From (i), the six persons were in the multiplex for exactly 150 minutes. Hence, the first person to leave the multiplex must have left after 150 minutes and the length of the movie that he watched must be 150 minutes.

From (i), at least four persons were in the multiplex for exactly 200 minutes. Hence, the third person to leave the multiplex must have watched a movie of length 200 minutes.

From (ii), Chetan is the last person to leave the multiplex.

From (ii), Prajay must have been the fourth or fifth person to leave the multiplex.

From (iii), the second person must have watched a movie of length 170 minutes (since the third person exited after 200 minutes).

From (iv), Ankit must have been the third or fourth person to leave the multiplex. If Ankit is the fourth person to leave the multiplex, Naman must have been the fifth. However, Prajay must be either the fourth or fifth person to leave the multiplex. Hence, Ankit cannot be the fourth person to leave the multiplex.

If Ankit is the third person to leave the multiplex, Naman must be the fourth person.

Prajay must be the fifth person and the length of the movie that he watched must be 220 minutes.

The length of the movie that Chetan watched must be at least 220 minutes.

From (ii), the length of the movie that Jatin watched must be at least 160 minutes. Hence, Jatin must have been the second person to leave the multiplex and Satya must have been the first person to leave the multiplex.

The following table provides the order in which each person left the multiplex and the length of the movie that each person watched:

| Order  | 1     | 2     | 3     | 4         | 5      | 6      |
|--------|-------|-------|-------|-----------|--------|--------|
| Person | Satya | Jatin | Ankit | Naman     | Prajay | Chetan |
| Length | 150   | 170   | 200   | 200 - 220 | 220    | 230    |

The length of the movie that Jatin watched was 170 minutes.

Ans: (170)

undefined

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

Each of six persons, Ankit, Naman, Prajay, Satya, Jatin and Chetan, went to watch a different movie in a multiplex. All the six movies started at the same time but the length of each movie was different. Each of the six persons entered the multiplex at the same time as the movie that he went to watch began and exited the multiplex immediately after the end of the movie that he watched.

It is known that

- i. all the six persons were in the multiplex for exactly 150 minutes, at least four persons were in the multiplex for exactly 200 minutes.
- ii. Chetan, who was the last to exit the multiplex, exited the multiplex 60 minutes after Jatin, while Prajay watched a movie which was 220 minutes long.
- iii. the second person to exit the multiplex exited 30 minutes before the third person to exit the multiplex did so.
- iv. Ankit, who watched a movie whose length was at least 180 minutes, exited the multiplex immediately before Naman.

**Q14. DIRECTIONS** for questions 13 to 16: Type your answer in the text box provided below the question.

For how many minutes were exactly five of the six persons in the multiplex?

**You did not answer this question**

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>0</b>     |
| Avg. time spent on this question by all students                         | <b>73</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>81</b>    |
| % of students who attempted this question                                | <b>28.78</b> |
| % of students who got the question right of those who attempted          | <b>6.75</b>  |

[Video Solution](#)

[Text Solution](#)

From (i), the six persons were in the multiplex for exactly 150 minutes. Hence, the first person to leave the multiplex must have left after 150 minutes and the length of the movie that he watched must be 150 minutes.

From (i), at least four persons were in the multiplex for exactly 200 minutes. Hence, the third person to leave the multiplex must have watched a movie of length 200 minutes.

From (ii), Chetan is the last person to leave the multiplex.

From (ii), Prajay must have been the fourth or fifth person to leave the multiplex.

From (iii), the second person must have watched a movie of length 170 minutes (since the third person exited after 200 minutes).

From (iv), Ankit must have been the third or fourth person to leave the multiplex.

If Ankit is the fourth person to leave the multiplex, Naman must have been the fifth. However, Prajay must be either the fourth or fifth person to leave the multiplex. Hence, Ankit cannot be the fourth person to leave the multiplex.

If Ankit is the third person to leave the multiplex, Naman must be the fourth person.

Prajay must be the fifth person and the length of the movie that he watched must be 220 minutes.

The length of the movie that Chetan watched must be at least 220 minutes.

From (ii), the length of the movie that Jatin watched must be at least 160 minutes. Hence, Jatin must have been the second person to leave the multiplex and Satya must have been the first person to leave the multiplex.

The following table provides the order in which each person left the multiplex and the length of the movie that each person watched:

| Order  | 1     | 2     | 3     | 4         | 5      | 6      |
|--------|-------|-------|-------|-----------|--------|--------|
| Person | Satya | Jatin | Ankit | Naman     | Prajay | Chetan |
| Length | 150   | 170   | 200   | 200 - 220 | 220    | 230    |

Five of the six persons were in the multiplex for  $170 - 150 = 20$  minutes.

Ans: (20)

undefined

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

Each of six persons, Ankit, Naman, Prajay, Satya, Jatin and Chetan, went to watch a different movie in a multiplex. All the six movies started at the same time but the length of each movie was different. Each of the six persons entered the multiplex at the same time as the movie that he went to watch began and exited the multiplex immediately after the end of the movie that he watched.

It is known that

i.

all the six persons were in the multiplex for exactly 150 minutes, at least four persons were in the multiplex for exactly 200 minutes.

ii.

Chetan, who was the last to exit the multiplex, exited the multiplex 60 minutes after Jatin, while Prajay watched a movie which was 220 minutes long.

iii.

the second person to exit the multiplex exited 30 minutes before the third person to exit the multiplex did so.

iv.

Ankit, who watched a movie whose length was at least 180 minutes, exited the multiplex immediately before Naman.

**Q14. DIRECTIONS** for questions 13 to 16: Type your answer in the text box provided below the question.

For how many minutes were exactly five of the six persons in the multiplex?

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>0</b>     |
| Avg. time spent on this question by all students                         | <b>73</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>81</b>    |
| % of students who attempted this question                                | <b>28.78</b> |
| % of students who got the question right of those who attempted          | <b>6.75</b>  |

[Video Solution](#)

[Text Solution](#)

From (i), the six persons were in the multiplex for exactly 150 minutes. Hence, the first person to leave the multiplex must have left after 150 minutes and the length of the movie that he watched must be 150 minutes.

From (i), at least four persons were in the multiplex for exactly 200 minutes. Hence, the third person to leave the multiplex must have watched a movie of length 200 minutes.

From (ii), Chetan is the last person to leave the multiplex.

From (ii), Prajay must have been the fourth or fifth person to leave the multiplex.

From (iii), the second person must have watched a movie of length 170 minutes (since the third person exited after 200 minutes).

From (iv), Ankit must have been the third or fourth person to leave the multiplex. If Ankit is the fourth person to leave the multiplex, Naman must have been the fifth. However, Prajay must be either the fourth or fifth person to leave the multiplex. Hence, Ankit cannot be the fourth person to leave the multiplex.

If Ankit is the third person to leave the multiplex, Naman must be the fourth person.

Prajay must be the fifth person and the length of the movie that he watched must be 220 minutes.

The length of the movie that Chetan watched must be at least 220 minutes.

From (ii), the length of the movie that Jatin watched must be at least 160 minutes. Hence, Jatin must have been the second person to leave the multiplex and Satya must have been the first person to leave the multiplex.

The following table provides the order in which each person left the multiplex and the length of the movie that each person watched:

| Order  | 1     | 2     | 3     | 4         | 5      | 6      |
|--------|-------|-------|-------|-----------|--------|--------|
| Person | Satya | Jatin | Ankit | Naman     | Prajay | Chetan |
| Length | 150   | 170   | 200   | 200 - 220 | 220    | 230    |

Five of the six persons were in the multiplex for  $170 - 150 = 20$  minutes.

Ans: (20)

undefined

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

Each of six persons, Ankit, Naman, Prajay, Satya, Jatin and Chetan, went to watch a different movie in a multiplex. All the six movies started at the same time but the length of each movie was different. Each of the six persons entered the multiplex at the same time as the movie that he went to watch began and exited the multiplex immediately after the end of the movie that he watched.

It is known that

- i. all the six persons were in the multiplex for exactly 150 minutes, at least four persons were in the multiplex for exactly 200 minutes.
- ii. Chetan, who was the last to exit the multiplex, exited the multiplex 60 minutes after Jatin, while Prajay watched a movie which was 220 minutes long.
- iii. the second person to exit the multiplex exited 30 minutes before the third person to exit the multiplex did so.
- iv. Ankit, who watched a movie whose length was at least 180 minutes, exited the multiplex immediately before Naman.

**Q15. DIRECTIONS** for questions 13 to 16: Type your answer in the text box provided below the question.

If exactly three persons were in the multiplex for 15 minutes, what is the length (in minutes) of the movie that Naman watched?

**You did not answer this question**

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>0</b>     |
| Avg. time spent on this question by all students                         | <b>80</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>96</b>    |
| % of students who attempted this question                                | <b>21.21</b> |
| % of students who got the question right of those who attempted          | <b>25.33</b> |

[Video Solution](#)

[Text Solution](#)

From (i), the six persons were in the multiplex for exactly 150 minutes. Hence, the first person to leave the multiplex must have left after 150 minutes and the length of the movie that he watched must be 150 minutes.

From (i), at least four persons were in the multiplex for exactly 200 minutes. Hence, the third person to leave the multiplex must have watched a movie of length 200 minutes.

From (ii), Chetan is the last person to leave the multiplex.

From (ii), Prajay must have been the fourth or fifth person to leave the multiplex.

From (iii), the second person must have watched a movie of length 170 minutes (since the third person exited after 200 minutes).

From (iv), Ankit must have been the third or fourth person to leave the multiplex.

If Ankit is the fourth person to leave the multiplex, Naman must have been the fifth. However, Prajay must be either the fourth or fifth person to leave the multiplex. Hence, Ankit cannot be the fourth person to leave the multiplex.

If Ankit is the third person to leave the multiplex, Naman must be the fourth person.

Prajay must be the fifth person and the length of the movie that he watched must be 220 minutes.

The length of the movie that Chetan watched must be at least 220 minutes.

From (ii), the length of the movie that Jatin watched must be at least 160 minutes. Hence, Jatin must have been the second person to leave the multiplex and Satya must have been the first person to leave the multiplex.

The following table provides the order in which each person left the multiplex and the length of the movie that each person watched:

| Order  | 1     | 2     | 3     | 4         | 5      | 6      |
|--------|-------|-------|-------|-----------|--------|--------|
| Person | Satya | Jatin | Ankit | Naman     | Prajay | Chetan |
| Length | 150   | 170   | 200   | 200 - 220 | 220    | 230    |

Let the length of the movie that Naman watched be  $x$ .

Given that  $x - 200 = 15 \Rightarrow x = 215$

Hence, the length of the movie that Naman watched was 215 minutes.

Ans: (215)

undefined

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

Each of six persons, Ankit, Naman, Prajay, Satya, Jatin and Chetan, went to watch a different movie in a multiplex. All the six movies started at the same time but the length of each movie was different. Each of the six persons entered the multiplex at the same time as the movie that he went to watch began and exited the multiplex immediately after the end of the movie that he watched.

It is known that

i.

all the six persons were in the multiplex for exactly 150 minutes, at least four persons were in the multiplex for exactly 200 minutes.

- ii. Chetan, who was the last to exit the multiplex, exited the multiplex 60 minutes after Jatin, while Prajay watched a movie which was 220 minutes long.
- iii. the second person to exit the multiplex exited 30 minutes before the third person to exit the multiplex did so.
- iv. Ankit, who watched a movie whose length was at least 180 minutes, exited the multiplex immediately before Naman.

**Q16. DIRECTIONS** for questions 13 to 16: Type your answer in the text box provided below the question.

How many persons left the multiplex after Prajay?

**You did not answer this question** Show Correct Answer

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>0</b>     |
| Avg. time spent on this question by all students                         | <b>33</b>    |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>29</b>    |
| % of students who attempted this question                                | <b>31.32</b> |
| % of students who got the question right of those who attempted          | <b>41.91</b> |

[Video Solution](#)

[Text Solution](#)

From (i), the six persons were in the multiplex for exactly 150 minutes. Hence, the first person to leave the multiplex must have left after 150 minutes and the length of the movie that he watched must be 150 minutes.

From (i), at least four persons were in the multiplex for exactly 200 minutes. Hence, the third person to leave the multiplex must have watched a movie of length 200 minutes.

From (ii), Chetan is the last person to leave the multiplex.

From (ii), Prajay must have been the fourth or fifth person to leave the multiplex.

From (iii), the second person must have watched a movie of length 170 minutes (since the third person exited after 200 minutes).

From (iv), Ankit must have been the third or fourth person to leave the multiplex. If Ankit is the fourth person to leave the multiplex, Naman must have been the fifth. However, Prajay must be either the fourth or fifth person to leave the multiplex. Hence, Ankit cannot be the fourth person to leave the multiplex.

If Ankit is the third person to leave the multiplex, Naman must be the fourth person.

Prajay must be the fifth person and the length of the movie that he watched must be 220 minutes.

The length of the movie that Chetan watched must be at least 220 minutes.

From (ii), the length of the movie that Jatin watched must be at least 160 minutes. Hence, Jatin must have been the second person to leave the multiplex and Satya must have been the first person to leave the multiplex.

The following table provides the order in which each person left the multiplex and the length of the movie that each person watched:

| Order  | 1     | 2     | 3     | 4         | 5      | 6      |
|--------|-------|-------|-------|-----------|--------|--------|
| Person | Satya | Jatin | Ankit | Naman     | Prajay | Chetan |
| Length | 150   | 170   | 200   | 200 - 220 | 220    | 230    |

Only one person left the multiplex after Prajay.

Ans: (1)

undefined

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

Four persons - Kishan, Ratan, Latif and Pavan - work in a factory and on each day, they have to fill water in nine containers which are arranged in three rows and three columns on the factory floor. Each container has a capacity of 100 litres. The nine containers are numbered as shown in the following figure:

1    2    3

4    5    6

7    8    9

However, some of the nine containers are defective, i.e., they have a hole in the bottom, because of which any quantity of water poured into these containers will be drained out fully in not more than 10 minutes. The four persons fill the containers on each day in the following manner:

- o At exactly 9:00 AM, Kishan fills each of containers 1, 2, 4 and 9 with 20 litres of water.
- o At exactly 11:00 AM, Ratan fills all the containers to the immediate right of the containers which are not empty. Ratan also fills any container with exactly 20 litres of water.
- o At exactly 1:00 PM, Latif fills all the containers which are immediately below the containers which are not empty. Latif also fills any container with exactly 20 litres of water.
- o At exactly 3:00 PM, Pavan fills all the containers which are to the immediate left of the containers which are not empty. Pavan also fills any container with exactly 20 litres of water.

At 6:00 PM, all the water in the containers are used for cleaning the machines in the factory. Until 6:00 PM, the water in the containers are not consumed in any way.

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

If, at 5:00 PM, none of the containers have more than 40 litres of water, what is the minimum number of defective containers?

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

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 51    |
| Avg. time spent on this question by all students                         | 393   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 391   |
| % of students who attempted this question                                | 13.77 |
| % of students who got the question right of those who attempted          | 30.74 |

[Video Solution](#)

### Text Solution

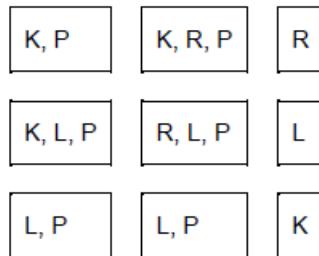
At 9:00 AM, Kishan fills containers 1, 2, 4 and 9.

If there are no defective containers, at 11:00 AM, Ratan will fill containers 2, 3 and 5.

At 1:00 PM, Latif will fill containers 4, 5, 6, 7 and 8.

At 3:00 PM, Pavan will fill containers 1, 2, 4, 5, 7 and 8.

The following figure provides the persons who fill each container provided there are no defective containers.



There are three containers – 2, 4 and 5 – which have more than 40 litres of water (if there were no defective containers).

If we consider that only one container is defective, then because of this defective container at least one of the four persons should not fill containers 2, 4 and 5. Each container by being defective will only affect the water being filled in a maximum of three containers – the one to the right, the one below and the one to the left. However, there is no single container which will affect water being poured into all of 2, 4 and 5. Hence, it is not possible for only one container to be defective.

If there are two containers defective, there are multiple ways in which we can get the required result.

Containers 2 and 4 can be defective OR containers 4 and 5 can be defective and so on.

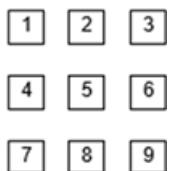
Hence, the minimum number of containers that must be defective is 2.

Choice (B)

undefined

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

Four persons - Kishan, Ratan, Latif and Pavan - work in a factory and on each day, they have to fill water in nine containers which are arranged in three rows and three columns on the factory floor. Each container has a capacity of 100 litres. The nine containers are numbered as shown in the following figure:



However, some of the nine containers are defective, i.e., they have a hole in the bottom, because of which any quantity of water poured into these containers will be drained out fully in not more than 10 minutes. The four persons fill the containers on each day in the following manner:

- o At exactly 9:00 AM, Kishan fills each of containers 1, 2, 4 and 9 with 20 litres of water.
- o At exactly 11:00 AM, Ratan fills all the containers to the immediate right of the containers which are not empty. Ratan also fills any container with exactly 20 litres of water.
- o At exactly 1:00 PM, Latif fills all the containers which are immediately below the containers which are not empty. Latif also fills any container with exactly 20 litres of water.
- o At exactly 3:00 PM, Pavan fills all the containers which are to the immediate left of the containers which are not empty. Pavan also fills any container with exactly 20 litres of water.

At 6:00 PM, all the water in the containers are used for cleaning the machines in the factory. Until 6:00 PM, the water in the containers are not consumed in any way.

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

If container 8 was not filled by any of the four persons during the day, which of the following containers must definitely be defective?

- a) Container 4
- b) Container 5
- c) Container 9
- d) More than one of the above

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 0     |
| Avg. time spent on this question by all students                         | 85    |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 92    |
| % of students who attempted this question                                | 15.07 |
| % of students who got the question right of those who attempted          | 12.08 |

[Video Solution](#)

[Text Solution](#)

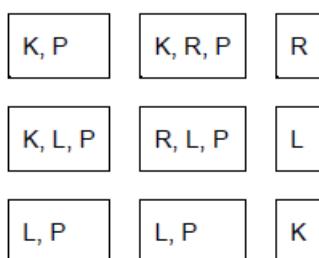
At 9:00 AM, Kishan fills containers 1, 2, 4 and 9.

If there are no defective containers, at 11:00 AM, Ratan will fill containers 2, 3 and 5.

At 1:00 PM, Latif will fill containers 4, 5, 6, 7 and 8.

At 3:00 PM, Pavan will fill containers 1, 2, 4, 5, 7 and 8.

The following figure provides the persons who fill each container provided there are no defective containers.



Given that container 8 was not filled by any person. From the above figure, we can see that Latif and Pavan would have filled container 8, if no container were defective. For Pavan not to fill container 8, container 9 must have been empty. Further, Kiran would definitely have filled container 9. Hence, container 9 must be defective.

Further, for Latif not to fill container 8, container 5 can be defective. In this case, Kiran will fill containers 1, 2, 4 and 9. Ratan will fill containers 2, 3 and 5. However, since container 5 is defective, this will become empty. Latif will fill containers 4, 5, 6, 7 and 9. Hence, if containers 5 and 9 are defective, no one will fill container 8.

However, even if containers 4 and 9 are defective, Ratan will fill containers 2 and 3. Latif will fill only containers 4, 5 and 6 (of which 4 is defective). Pavan will fill containers 1, 2, 4 and 5. Hence, even in this case, no one will fill container 8.

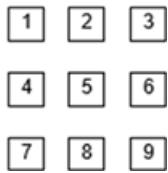
Hence, only container 9 will be definitely defective.

Choice (C)

undefined

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

Four persons - Kishan, Ratan, Latif and Pavan - work in a factory and on each day, they have to fill water in nine containers which are arranged in three rows and three columns on the factory floor. Each container has a capacity of 100 litres. The nine containers are numbered as shown in the following figure:



However, some of the nine containers are defective, i.e., they have a hole in the bottom, because of which any quantity of water poured into these containers will be drained out fully in not more than 10 minutes. The four persons fill the containers on each day in the following manner:

- At exactly 9:00 AM, Kishan fills each of containers 1, 2, 4 and 9 with 20 litres of water.
- At exactly 11:00 AM, Ratan fills all the containers to the immediate right of the containers which are not empty. Ratan also fills any container with exactly 20 litres of water.
- At exactly 1:00 PM, Latif fills all the containers which are immediately below the containers which are not empty. Latif also fills any container with exactly 20 litres of water.
- At exactly 3:00 PM, Pavan fills all the containers which are to the immediate left of the containers which are not empty. Pavan also fills any container with exactly 20 litres of water.

At 6:00 PM, all the water in the containers are used for cleaning the machines in the factory. Until 6:00 PM, the water in the containers are not consumed in any way.

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

If, at 2:00 PM, each of the non-defective containers has at most 20 litres of water, what is the minimum number of containers that must be defective?

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

You did not answer this question

Show Correct Answer

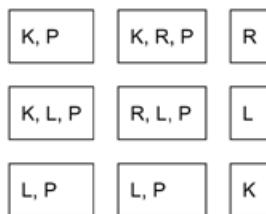
Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 0     |
| Avg. time spent on this question by all students                         | 104   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 123   |
| % of students who attempted this question                                | 10.49 |
| % of students who got the question right of those who attempted          | 32.62 |

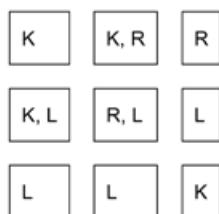
[Video Solution](#)

## Text Solution

At 9:00 AM, Kishan fills containers 1, 2, 4 and 9.  
If there are no defective containers, at 11:00 AM, Ratan will fill containers 2, 3 and 5.  
At 1:00 PM, Latif will fill containers 4, 5, 6, 7 and 8.  
At 3:00 PM, Pavan will fill containers 1, 2, 4, 5, 7 and 8.  
The following figure provides the persons who fill each container provided there are no defective containers.



At 2:00 PM, everyone except Pavan would have filled water in the containers.  
If none of the containers were defective, the four persons would have filled water in the containers in the following manner:

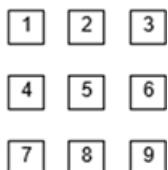


In this case, each defective container affects two containers – the container to the bottom and the container to the right.  
There are 3 containers which have 40 litres of water – containers 2, 4 and 5.  
For all these 3 containers to be affected, one of them must be defective. Even then it is not possible for any one container to be defective and get the required result,  
Hence, at least two containers must be defective. If containers 1 and 2 are defective, then all the non-defective containers will have 20 litres of water.      Choice (A)

undefined

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

Four persons - Kishan, Ratan, Latif and Pavan - work in a factory and on each day, they have to fill water in nine containers which are arranged in three rows and three columns on the factory floor. Each container has a capacity of 100 litres. The nine containers are numbered as shown in the following figure:



However, some of the nine containers are defective, i.e., they have a hole in the bottom, because of which any quantity of water poured into these containers will be drained out fully in not more than 10 minutes. The four persons fill the containers on each day in the following manner:

- o At exactly 9:00 AM, Kishan fills each of containers 1, 2, 4 and 9 with 20 litres of water.
- o At exactly 11:00 AM, Ratan fills all the containers to the immediate right of the containers which are not empty. Ratan also fills any container with exactly 20 litres of water.
- o At exactly 1:00 PM, Latif fills all the containers which are immediately below the containers which are not empty. Latif also fills any container with exactly 20 litres of water.

- At exactly 3:00 PM, Pavan fills all the containers which are to the immediate left of the containers which are not empty. Pavan also fills any container with exactly 20 litres of water.

At 6:00 PM, all the water in the containers are used for cleaning the machines in the factory. Until 6:00 PM, the water in the containers are not consumed in any way.

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

What is the maximum number of non-defective containers that would have been empty at 5:00 PM?

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

You did not answer this question

[Show Correct Answer](#)

#### Time spent / Accuracy Analysis

|  |      |
|--|------|
| Time taken by you to answer this question                                | 0    |
| Avg. time spent on this question by all students                         | 82   |
| Difficulty Level   | VD   |
| Avg. time spent on this question by students who got this question right | 93   |
| % of students who attempted this question                                | 6.53 |
| % of students who got the question right of those who attempted          | 44.3 |

[Video Solution](#)

[Text Solution](#)

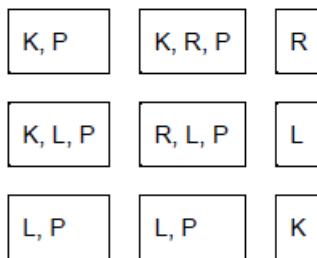
At 9:00 AM, Kishan fills containers 1, 2, 4 and 9.

If there are no defective containers, at 11:00 AM, Ratan will fill containers 2, 3 and 5.

At 1:00 PM, Latif will fill containers 4, 5, 6, 7 and 8.

At 3:00 PM, Pavan will fill containers 1, 2, 4, 5, 7 and 8.

The following figure provides the persons who fill each container provided there are no defective containers.



If containers 1, 2, 4 and 9 are defective, then none of the persons who fill the containers after Kiran will fill any container (because none of the containers will be filled when each of the next three persons try to fill the water).

In this case, 5 non-defective containers will be empty.

This cannot be more than 5 because Kiran will definitely fill water in 4 containers and if any of these are not defective, then other containers surrounding this non-defective container will be filled by any of the next three persons. Hence, the maximum number of non-defective containers that can be empty is 5. Choice (D)

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

Ravi, the HR manager of a company, wanted to conduct interviews for recruiting for six vacancies - AN, SA, TA, TL, SM and SR. The number of applicants for each of the six vacancies are 100, 120, 90, 80, 130 and 140 respectively. After a certain number of applicants were interviewed, he asked his assistant, Kiran, about the number of applicants whose interviews were yet to be conducted, i.e., pending, for each of the six vacancies. Kiran simply gave the six numbers, 35, 20, 70, 80, 15 and 95, to Ravi, without mentioning about which vacancy each number corresponds to. Further, Kiran also got confused between the number of persons whose interviews were already finished and the number of persons whose interviews were pending. Of the six numbers that he gave Ravi, three numbers indicate the former while the other three indicate the latter.

*Assume that every applicant will be interviewed and no person applied for more than one vacancy.*

**Q21. DIRECTIONS** for questions 21 to 24: Type your answer in the text box provided below the question.

If, for each vacancy, there were less than 40 applicants whose interviews are pending, what is the maximum total number of applicants (across the six vacancies) whose interviews were already conducted?

**You did not answer this question**

**Show Correct Answer**

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>66</b>    |
| Avg. time spent on this question by all students                         | <b>328</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>344</b>   |
| % of students who attempted this question                                | <b>26.4</b>  |
| % of students who got the question right of those who attempted          | <b>29.86</b> |

[Video Solution](#)

[\*\*Text Solution\*\*](#)

Given that there are less than 40 applicants whose interviews are yet to be conducted. Hence, of the six numbers, 15, 20 and 35 must be the number of applicants whose interviews are yet to be conducted.

The numbers 70, 80 and 95 must be the number of applicants whose interviews are already conducted.

We need to maximize the number of applicants whose interviews are already conducted. This will definitely include 70, 80 and 95. In addition to this, there will be three more numbers, which will depend on the vacancy to which we allot the number 15, 20 and 35. To maximize the number of applicants whose interviews are already conducted, we can allot these three numbers to the vacancies with the three highest number of applicants.

If 15, 20 and 35 correspond to the number of applicants whose interviews are yet to be conducted for SA, SM and SR, the number of applicants whose interviews are already conducted will be  $120 + 130 + 140 - 15 - 20 - 35 = 320$

Hence, the maximum number of applicants whose interviews are already conducted will be  $320 + 70 + 80 + 95 = 565$  Ans: (565)

undefined

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

Ravi, the HR manager of a company, wanted to conduct interviews for recruiting for six vacancies - AN, SA, TA, TL, SM and SR. The number of applicants for each of the six vacancies are 100, 120, 90, 80, 130 and 140 respectively. After a certain number of applicants were interviewed, he asked his assistant, Kiran, about the number of applicants whose interviews were yet to be conducted, i.e., pending, for each of the six vacancies. Kiran simply gave the six numbers, 35, 20, 70, 80, 15 and 95, to Ravi, without mentioning about which vacancy each number corresponds to. Further, Kiran also got confused between the number of persons whose interviews were already finished and the number of persons whose interviews were pending. Of the six numbers that he gave Ravi, three numbers indicate the former while the other three indicate the latter.

*Assume that every applicant will be interviewed and no person applied for more than one vacancy.*

**Q22. DIRECTIONS** for questions 21 to 24: Type your answer in the text box provided below the question.

If the number of applicants whose interviews are pending for the six vacancies combined is the minimum possible, what is the number of applicants who applied for AN whose interviews are already conducted?

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>0</b>     |
| Avg. time spent on this question by all students                         | <b>113</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>115</b>   |
| % of students who attempted this question                                | <b>21.51</b> |
| % of students who got the question right of those who attempted          | <b>43.84</b> |

[Video Solution](#)

[Text Solution](#)

We need to minimize the number of applicants whose interviews are yet to be conducted.

Of the six numbers, there must be three numbers which denote the number of applicants whose interviews are yet to be conducted.

To minimize the total number of applicants whose interviews are yet to be conducted, we can choose the lowest three numbers. Hence, 15, 20 and 35 can represent the number of applicants for three vacancies whose interviews are yet to be conducted.

Further, the other three numbers, 70, 80 and 95, must represent the number of applicants whose interviews are already conducted for the remaining three categories. We can assign these three numbers to the vacancies with the lowest applicants to minimize the required value.

Hence, 70, 80 and 95 can represent the number of applicants whose interviews are already conducted for the vacancies with 80, 90 and 100 applicants.

In this case, the 95 applicants whose interviews are already conducted must correspond to 100 total applicants, i.e., for the vacancy AN.

Hence, for AN, the interviews of 95 applicants is already conducted.

Ans: (95)

undefined

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

Ravi, the HR manager of a company, wanted to conduct interviews for recruiting for six vacancies - AN, SA, TA, TL, SM and SR. The number of applicants for each of the six vacancies are 100, 120, 90, 80, 130 and 140 respectively. After a certain number of applicants were interviewed, he asked his assistant, Kiran, about the number of applicants whose interviews were yet to be conducted, i.e., pending, for each of the six vacancies. Kiran simply gave the six numbers, 35, 20, 70, 80, 15 and 95, to Ravi, without mentioning about which vacancy each number corresponds to. Further, Kiran also got confused between the number of persons whose interviews were already finished and the number of persons whose interviews were pending. Of the six numbers that he gave Ravi, three numbers indicate the former while the other three indicate the latter.

Assume that every applicant will be interviewed and no person applied for more than one vacancy.

**Q23. DIRECTIONS** for questions 21 to 24: Type your answer in the text box provided below the question.

It is known that if the number of interviews that are pending for each vacancy are arranged in the ascending order, the difference between any pair of consecutive numbers is 15. Further, the number of interviews that are pending for any vacancy is at least 25.

What is the number of applicants who applied for SM whose interviews were already conducted?

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                         | 215   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 312   |
| % of students who attempted this question                                | 12.04 |
| % of students who got the question right of those who attempted          | 22    |

[Video Solution](#)

[Text Solution](#)

Given that the numbers form a progression with a difference of 15.

The given six numbers are 15, 20, 35, 70, 80 and 95. At least three of these numbers must appear in the progression.

Also, 15 and 20 cannot be the part of the progression (since it must be at least 25).

Hence, among 35, 70, 80 and 95, three numbers must appear in the progression.

This is possible only for 35, 80 and 95 (whose differences are multiples of 15).

Hence, 35 is the first term, and the next terms are 50, 65, 80, 95 and 110.

These are the numbers of the applicants whose interviews are yet to be conducted.

Also, the other three numbers, 15, 20 and 70 must represent the number of candidates whose interviews are already conducted.

Also, in the progression, the numbers 50, 65 and 110 must correspond to the same vacancies that the above the numbers correspond to.

The sum of the two numbers – one from the first triplet and one from the second triplet – must add to the total number of applicants for three vacancies.

We can see that for 50, the other number must be 70, which add up to 120 (total for SA).

We can see that for 65, the other number must be 15, which add up to 80 (total for TL).

For 110, the other number must be 20, which add up to 130 (total for SM).

The following table provides this information:

| Vacancy | Total Applicants | Interview Conducted | Interview Not Conducted |
|---------|------------------|---------------------|-------------------------|
| AN      | 100              | 65/20/5             | 35/80/95                |
| SA      | 120              | 70                  | 50                      |
| TA      | 90               | 55/10               | 35/80                   |
| TL      | 80               | 15                  | 65                      |
| SM      | 130              | 20                  | 110                     |
| SR      | 140              | 105/60/45           | 35/80/95                |

The number of applicants who applied for SM whose interviews are already conducted  
= 20

Ans: (20)

undefined

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

Ravi, the HR manager of a company, wanted to conduct interviews for recruiting for six vacancies - AN, SA, TA, TL, SM and SR. The number of applicants for each of the six vacancies are 100, 120, 90, 80, 130 and 140 respectively. After a certain number of applicants were interviewed, he asked his assistant, Kiran, about the number of applicants whose interviews were yet to be conducted, i.e., pending, for each of the six vacancies. Kiran simply gave the six numbers, 35, 20, 70, 80, 15 and 95, to Ravi, without mentioning about which vacancy each number corresponds to. Further, Kiran also got confused between the number of persons whose interviews were already finished and the number of persons whose interviews were pending. Of the six numbers that he gave Ravi, three numbers indicate the former while the other three indicate the latter.

Assume that every applicant will be interviewed and no person applied for more than one vacancy.

**Q24. DIRECTIONS** for questions 21 to 24: Type your answer in the text box provided below the question.

It is known that if the numbers of interviews that are yet to be conducted are arranged in the ascending order, the difference between any pair of consecutive numbers is 15. Further, the number of interviews that are yet to be conducted for any vacancy is at least 25.

What is the total number of applicants whose interviews are already conducted?

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

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>0</b>     |
| Avg. time spent on this question by all students                         | <b>96</b>    |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>119</b>   |
| % of students who attempted this question                                | <b>9.69</b>  |
| % of students who got the question right of those who attempted          | <b>24.84</b> |

[Video Solution](#)

**Text Solution**

From the above solution, we can observe that the total number of candidates whose interviews are already conducted will remain constant in any case.

For AN, TA, SR, the required numbers can be (65, 10, 45) or (20, 55, 45) or (5, 10, 105) or (5, 55, 60). In any case, the three numbers add up to 120.

The total number of candidates whose interviews are already conducted  
 $= 120 + 70 + 15 + 20 = 225$

Ans: (225)

undefined

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

Each of six persons, Amit, Rohit, Urjit, Satish, Manish and Kapil, have a certain amount of money with them. The amounts with them are in the form of notes of only two different denominations - Rs.100 and Rs.50 - and the number of Rs.100 notes with any person is the twice the number of Rs.50 notes with him. Further, the number of Rs.50 notes with any person is distinct and each person has at least one Rs.50 note with him.

The following information is known about the amount of money and the number of notes with them:

- i. The number of Rs.50 notes with Satish is the same as the number of Rs.100 notes with Kapil, while Manish has Rs.750 more than Rohit.
- ii. Amit, who has the least amount, has Rs.250 less than Rohit.
- iii. Urjit has exactly six Rs.100 notes with him and the total number of Rs.50 notes with the six of them is 23.

**Q25. DIRECTIONS** for questions 25 to 28: Select the correct alternative from the given choices.

What is the total amount with Kapil?

- a) **Rs.750**
- b) **Rs.1000** Your answer is correct

c) **Rs.1250**

d) **Rs.1500**

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>557</b>   |
| Avg. time spent on this question by all students                         | <b>640</b>   |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>644</b>   |
| % of students who attempted this question                                | <b>44.06</b> |
| % of students who got the question right of those who attempted          | <b>84.41</b> |

[Video Solution](#)

#### Text Solution

Given that for each person the number of ₹100 notes is twice the number of ₹50 notes with him. Since the number of ₹50 notes is distinct for any person, the minimum difference in amount between any two persons must be ₹250 (if a person has one ₹50 note more than another, he must have two ₹100 notes more).

From (ii), Amit has the least amount. Since Rohit has ₹250 more than Amit, Rohit must have the second least amount.

From (iii), Urjit has six ₹100 notes. Hence, he must have three ₹50 notes.

Both Amit and Rohit must have lower than three ₹50 notes. Since each person has at least one ₹50 note, Amit must have only one ₹50 note and Rohit must have two ₹50 notes. They will have two ₹100 notes and four ₹100 notes respectively.

From (i), Manish has ₹750 more than Rohit. Hence, Manish must have three ₹50 notes more than Rohit. Manish must have five ₹50 notes and ten ₹100 notes.

Let the number of ₹50 notes with Satish be  $x$ . The number of ₹100 notes with Satish will be  $2x$ . From (i), the number of ₹100 notes with Kapil must be  $x$  and the number of ₹50 notes with Kapil must be  $x/2$ .

From (iii), the total number of ₹50 notes with them is 23.

$$\therefore x + \frac{x}{2} + 1 + 2 + 3 + 5 = 23 \Rightarrow x = 8$$

Hence, Satish has eight ₹50 notes and Kapil has four ₹50 notes.

The following table provides the number of notes and the amount with each person:

| Person | Number of ₹50 notes | Number of ₹100 notes | Total Amount (in ₹) |
|--------|---------------------|----------------------|---------------------|
| Amit   | 1                   | 2                    | 250                 |
| Rohit  | 2                   | 4                    | 500                 |
| Urjit  | 3                   | 6                    | 750                 |
| Kapil  | 4                   | 8                    | 1000                |
| Manish | 5                   | 10                   | 1250                |
| Satish | 8                   | 16                   | 2000                |

The total amount with Kapil is ₹1000.

Choice (B)

undefined

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

Each of six persons, Amit, Rohit, Urjit, Satish, Manish and Kapil, have a certain amount of money with them. The amounts with them are in the form of notes of only two different denominations - Rs.100 and Rs.50 - and the number of Rs.100 notes with any person is the twice the number of Rs.50 notes with him. Further, the number of Rs.50 notes with any person is distinct and each person has at least one Rs.50 note with him.

The following information is known about the amount of money and the number of notes with them:

i.

The number of Rs.50 notes with Satish is the same as the number of Rs.100 notes with Kapil, while Manish has Rs.750 more than Rohit.

- ii. Amit, who has the least amount, has Rs.250 less than Rohit.
- iii. Urjit has exactly six Rs.100 notes with him and the total number of Rs.50 notes with the six of them is 23.

**Q26. DIRECTIONS** for questions 25 to 28: Select the correct alternative from the given choices.

What is the maximum amount with any person?

a) **Rs.2000** Your answer is correct

b) **Rs.2250**

c) **Rs.2500**

d) **None of the above**

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 14    |
| Avg. time spent on this question by all students                         | 55    |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 50    |
| % of students who attempted this question                                | 43.75 |
| % of students who got the question right of those who attempted          | 81.16 |

[Video Solution](#)

[Text Solution](#)

Given that for each person the number of ₹100 notes is twice the number of ₹50 notes with him. Since the number of ₹50 notes is distinct for any person, the minimum difference in amount between any two persons must be ₹250 (if a person has one ₹50 note more than another, he must have two ₹100 notes more).

From (ii), Amit has the least amount. Since Rohit has ₹250 more than Amit, Rohit must have the second least amount.

From (iii), Urjit has six ₹100 notes. Hence, he must have three ₹50 notes.

Both Amit and Rohit must have lower than three ₹50 notes. Since each person has at least one ₹50 note, Amit must have only one ₹50 note and Rohit must have two ₹50 notes. They will have two ₹100 notes and four ₹100 notes respectively.

From (i), Manish has ₹750 more than Rohit. Hence, Manish must have three ₹50 notes more than Rohit. Manish must have five ₹50 notes and ten ₹100 notes.

Let the number of ₹50 notes with Satish be x. The number of ₹100 notes with Satish will be 2x. From (i), the number of ₹100 notes with Kapil must be x and the number of ₹50 notes with Kapil must be x/2.

From (iii), the total number of ₹50 notes with them is 23.

$$\therefore x + \frac{x}{2} + 1 + 2 + 3 + 5 = 23 \Rightarrow x = 8$$

Hence, Satish has eight ₹50 notes and Kapil has four ₹50 notes.

The following table provides the number of notes and the amount with each person:

| Person | Number of ₹50 notes | Number of ₹100 notes | Total Amount (in ₹) |
|--------|---------------------|----------------------|---------------------|
| Amit   | 1                   | 2                    | 250                 |
| Rohit  | 2                   | 4                    | 500                 |
| Urjit  | 3                   | 6                    | 750                 |
| Kapil  | 4                   | 8                    | 1000                |
| Manish | 5                   | 10                   | 1250                |
| Satish | 8                   | 16                   | 2000                |

The maximum amount with any person is ₹2000.

Choice (A)

undefined

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

Each of six persons, Amit, Rohit, Urjit, Satish, Manish and Kapil, have a certain amount of money with them. The amounts with them are in the form of notes of only two different denominations - Rs.100 and Rs.50 - and the number of Rs.100 notes with any person is the twice the number of Rs.50 notes with him. Further, the number of Rs.50 notes with any person is distinct and each person has at least one Rs.50 note with him.

The following information is known about the amount of money and the number of notes with them:

- i. The number of Rs.50 notes with Satish is the same as the number of Rs.100 notes with Kapil, while Manish has Rs.750 more than Rohit.
- ii. Amit, who has the least amount, has Rs.250 less than Rohit.
- iii. Urjit has exactly six Rs.100 notes with him and the total number of Rs.50 notes with the six of them is 23.

**Q27. DIRECTIONS** for questions 25 to 28: Select the correct alternative from the given choices.

What is the difference between the total number of notes with Manish and that with Satish?

- a) 3
- b) 6
- c) 9 Your answer is correct
- d) 12

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 19    |
| Avg. time spent on this question by all students                         | 49    |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 44    |
| % of students who attempted this question                                | 39.69 |
| % of students who got the question right of those who attempted          | 86.24 |

[Video Solution](#)

[Text Solution](#)

Given that for each person the number of ₹100 notes is twice the number of ₹50 notes with him. Since the number of ₹50 notes is distinct for any person, the minimum difference in amount between any two persons must be ₹250 (if a person has one ₹50 note more than another, he must have two ₹100 notes more).

From (ii), Amit has the least amount. Since Rohit has ₹250 more than Amit, Rohit must have the second least amount.

From (iii), Urjit has six ₹100 notes. Hence, he must have three ₹50 notes.

Both Amit and Rohit must have lower than three ₹50 notes. Since each person has at least one ₹50 note, Amit must have only one ₹50 note and Rohit must have two ₹50 notes. They will have two ₹100 notes and four ₹100 notes respectively.

From (i), Manish has ₹750 more than Rohit. Hence, Manish must have three ₹50 notes more than Rohit. Manish must have five ₹50 notes and ten ₹100 notes.

Let the number of ₹50 notes with Satish be  $x$ . The number of ₹100 notes with Satish will be  $2x$ . From (i), the number of ₹100 notes with Kapil must be  $x$  and the number of ₹50 notes with Kapil must be  $x/2$ .

From (iii), the total number of ₹50 notes with them is 23.

$$\therefore x + \frac{x}{2} + 1 + 2 + 3 + 5 = 23 \Rightarrow x = 8$$

Hence, Satish has eight ₹50 notes and Kapil has four ₹50 notes.

The following table provides the number of notes and the amount with each person:

| Person | Number of ₹50 notes | Number of ₹100 notes | Total Amount (in ₹) |
|--------|---------------------|----------------------|---------------------|
| Amit   | 1                   | 2                    | 250                 |
| Rohit  | 2                   | 4                    | 500                 |
| Urjit  | 3                   | 6                    | 750                 |
| Kapil  | 4                   | 8                    | 1000                |
| Manish | 5                   | 10                   | 1250                |
| Satish | 8                   | 16                   | 2000                |

The difference between the total number of notes with Manish and that with Satish = 9  
Choice (C)

undefined

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

Each of six persons, Amit, Rohit, Urjit, Satish, Manish and Kapil, have a certain amount of money with them. The amounts with them are in the form of notes of only two different denominations - Rs.100 and Rs.50 - and the number of Rs.100 notes with any person is the twice the number of Rs.50 notes with him. Further, the number of Rs.50 notes with any person is distinct and each person has at least one Rs.50 note with him.

The following information is known about the amount of money and the number of notes with them:

i.

The number of Rs.50 notes with Satish is the same as the number of Rs.100 notes with Kapil, while Manish has Rs.750 more than Rohit.

ii.

Amit, who has the least amount, has Rs.250 less than Rohit.

iii.

Urjit has exactly six Rs.100 notes with him and the total number of Rs.50 notes with the six of them is 23.

**Q28. DIRECTIONS** for questions 25 to 28: Select the correct alternative from the given choices.

For how many persons is the number of Rs.100 notes with them the same as the number of Rs.50 notes with any other person?

- a) 1
- b) 2
- c) 3 Your answer is correct
- d) More than 3

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 45    |
| Avg. time spent on this question by all students                         | 58    |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 57    |
| % of students who attempted this question                                | 40.56 |
| % of students who got the question right of those who attempted          | 77.61 |

[Video Solution](#)

[Text Solution](#)

Given that for each person the number of ₹100 notes is twice the number of ₹50 notes with him. Since the number of ₹50 notes is distinct for any person, the minimum difference in amount between any two persons must be ₹250 (if a person has one ₹50 note more than another, he must have two ₹100 notes more).

From (ii), Amit has the least amount. Since Rohit has ₹250 more than Amit, Rohit must have the second least amount.

From (iii), Urjit has six ₹100 notes. Hence, he must have three ₹50 notes.

Both Amit and Rohit must have lower than three ₹50 notes. Since each person has at least one ₹50 note, Amit must have only one ₹50 note and Rohit must have two ₹50 notes. They will have two ₹100 notes and four ₹100 notes respectively.

From (i), Manish has ₹750 more than Rohit. Hence, Manish must have three ₹50 notes more than Rohit. Manish must have five ₹50 notes and ten ₹100 notes.

Let the number of ₹50 notes with Satish be  $x$ . The number of ₹100 notes with Satish will be  $2x$ . From (i), the number of ₹100 notes with Kapil must be  $x$  and the number of ₹50 notes with Kapil must be  $x/2$ .

From (iii), the total number of ₹50 notes with them is 23.

$$\therefore x + \frac{x}{2} + 1 + 2 + 3 + 5 = 23 \Rightarrow x = 8$$

Hence, Satish has eight ₹50 notes and Kapil has four ₹50 notes.

The following table provides the number of notes and the amount with each person:

| Person | Number of ₹50 notes | Number of ₹100 notes | Total Amount (in ₹) |
|--------|---------------------|----------------------|---------------------|
| Amit   | 1                   | 2                    | 250                 |
| Rohit  | 2                   | 4                    | 500                 |
| Urjit  | 3                   | 6                    | 750                 |
| Kapil  | 4                   | 8                    | 1000                |
| Manish | 5                   | 10                   | 1250                |
| Satish | 8                   | 16                   | 2000                |

For three persons, Amit, Rohit and Kapil, the number of ₹100 notes with them the same as the number of ₹50 notes with any other person. Choice (C)

undefined

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

Rahul purchased three machines, Machine A, Machine B and Machine C, which manufacture spoons. Everyday, Rahul switches on all the machines at 8:00 AM and switches them off at 5:00 PM. However, each machine manufactures the spoons at a different rate and in a different manner.

- Machine A manufactures spoons at a constant rate of 19 spoons every hour.
- Machine B manufactures 27 spoons in the first 90 minutes that it is switched on. In every subsequent 90-minute interval, it manufactures three spoons more than what it manufactured in the previous 90-minute interval. Within each 90-minute interval, the machine manufactures the spoons at a uniform rate.
- Machine C, in the first hour that it is switched on, manufactures spoons for 57 minutes in the first hour and cools down for 3 minutes. In every subsequent hour, the time it takes to cool down increases by 6 minutes as compared to that in the previous hour. When the machine is not cooling down, it takes exactly 90 seconds to manufacture one spoon.

**Q29. DIRECTIONS** for questions 29 to 32: Select the correct alternative from the given choices.

What is the total number of spoons manufactured by the three machines until 1:00 PM?

- a) 345
- b) 347 Your answer is correct
- c) 349
- d) 351

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>1199</b>  |
| Avg. time spent on this question by all students                         | <b>513</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>492</b>   |
| % of students who attempted this question                                | <b>36.42</b> |
| % of students who got the question right of those who attempted          | <b>73.13</b> |

[Video Solution](#)

[Text Solution](#)

Given that Machine A manufactures 19 spoons every hour.  
 For Machine B, we can divide the time period (8 to 5) into 6 intervals of 90 minutes. Machine B manufactures 27 spoons in the first 90 minutes. In the subsequent 90 minute intervals, it manufactures 30, 33, 36, 39 and 42 spoons.  
 In each 90 minute interval, it manufactures at a uniform rate, in the first hour, it must have manufactured  $27 \times 60/90 = 18$  spoons.  
 In the first half of the second hour, it must have manufactured 9 spoons. In the second half of the second hour, it must have manufactured 10 spoons. Hence, in the second hour it must have manufactured 19 spoons.  
 Similarly, we can calculate the number of spoons manufactured by Machine B in each hour. The number of spoons manufactured by Machine B from the first hour to the ninth hour are 18, 19, 20, 22, 23, 24, 26, 27 and 28.  
 For Machine C, in the first hour, it manufactures for 57 minutes. Since it takes 90 seconds (1.5 minutes) to manufacture one spoon, in 57 minutes, it must manufacture  $57/1.5 = 38$  spoons.  
 In the next hour, it manufactures for 51 minutes and it must manufacture  $51/1.5 = 34$  spoons.  
 In every subsequent hour, the number of spoons manufactured will decrease by 4 (as the number of minutes it manufactures reduces by 3).  
 The following table provides the number of spoons manufactured by each machine in each hour:

| Machine   | 8 – 9 | 9 – 10 | 10 – 11 | 11 – 12 | 12 – 1 | 1 – 2 | 2 – 3 | 3 – 4 | 4 – 5 | Total |
|-----------|-------|--------|---------|---------|--------|-------|-------|-------|-------|-------|
| Machine A | 19    | 19     | 19      | 19      | 19     | 19    | 19    | 19    | 19    | 171   |
| Machine B | 18    | 19     | 20      | 22      | 23     | 24    | 26    | 27    | 28    | 207   |
| Machine C | 38    | 34     | 30      | 26      | 22     | 18    | 14    | 10    | 6     | 198   |

Total number of spoons manufactured by the three machines until 1:00 PM  
 $= 19 \times 5 + 102 + 150 = 347$  Choice (B)

undefined

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

Rahul purchased three machines, Machine A, Machine B and Machine C, which manufacture spoons. Everyday, Rahul switches on all the machines at 8:00 AM and switches them off at 5:00 PM. However, each machine manufactures the spoons at a different rate and in a different manner.

- o Machine A manufactures spoons at a constant rate of 19 spoons every hour.
- o Machine B manufactures 27 spoons in the first 90 minutes that it is switched on. In every subsequent 90-minute interval, it manufactures three spoons more than what it manufactured in the previous 90-minute interval. Within each 90-minute interval, the machine manufactures the spoons at a uniform rate.

- Machine C, in the first hour that it is switched on, manufactures spoons for 57 minutes in the first hour and cools down for 3 minutes. In every subsequent hour, the time it takes to cool down increases by 6 minutes as compared to that in the previous hour. When the machine is not cooling down, it takes exactly 90 seconds to manufacture one spoon.

**Q30. DIRECTIONS** for questions 29 to 32: Select the correct alternative from the given choices.

Considering one-hour intervals starting from 8:00 AM, during how many hours, between 8:00 AM and 5:00 PM, will at least two machines manufacture the same number of spoons?

- a) 3
- b) 2
- c) 1 Your answer is correct
- d) 0

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>441</b>   |
| Avg. time spent on this question by all students                         | <b>208</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>238</b>   |
| % of students who attempted this question                                | <b>27.18</b> |
| % of students who got the question right of those who attempted          | <b>50.26</b> |

[Video Solution](#)

[Text Solution](#)

Given that Machine A manufactures 19 spoons every hour.  
 For Machine B, we can divide the time period (8 to 5) into 6 intervals of 90 minutes. Machine B manufactures 27 spoons in the first 90 minutes. In the subsequent 90 minute intervals, it manufactures 30, 33, 36, 39 and 42 spoons.  
 In each 90 minute interval, it manufactures at a uniform rate, in the first hour, it must have manufactured  $27 \times 60/90 = 18$  spoons.  
 In the first half of the second hour, it must have manufactured 9 spoons. In the second half of the second hour, it must have manufactured 10 spoons. Hence, in the second hour it must have manufactured 19 spoons.  
 Similarly, we can calculate the number of spoons manufactured by Machine B in each hour. The number of spoons manufactured by Machine B from the first hour to the ninth hour are 18, 19, 20, 22, 23, 24, 26, 27 and 28.  
 For Machine C, in the first hour, it manufactures for 57 minutes. Since it takes 90 seconds (1.5 minutes) to manufacture one spoon, in 57 minutes, it must manufacture  $57/1.5 = 38$  spoons.  
 In the next hour, it manufactures for 51 minutes and it must manufacture  $51/1.5 = 34$  spoons.  
 In every subsequent hour, the number of spoons manufactured will decrease by 4 (as the number of minutes it manufactures reduces by 3).  
 The following table provides the number of spoons manufactured by each machine in each hour:

| Machine   | 8 – 9 | 9 – 10 | 10 – 11 | 11 – 12 | 12 – 1 | 1 – 2 | 2 – 3 | 3 – 4 | 4 – 5 | Total |
|-----------|-------|--------|---------|---------|--------|-------|-------|-------|-------|-------|
| Machine A | 19    | 19     | 19      | 19      | 19     | 19    | 19    | 19    | 19    | 171   |
| Machine B | 18    | 19     | 20      | 22      | 23     | 24    | 26    | 27    | 28    | 207   |
| Machine C | 38    | 34     | 30      | 26      | 22     | 18    | 14    | 10    | 6     | 198   |

Only for one hour, between 9 and 10, will two machines (A and B) manufacture the same number of spoons. Choice (C)

undefined

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

Rahul purchased three machines, Machine A, Machine B and Machine C, which manufacture spoons. Everyday, Rahul switches on all the machines at 8:00 AM and switches them off at 5:00 PM. However, each machine manufactures the spoons at a different rate and in a different manner.

- Machine A manufactures spoons at a constant rate of 19 spoons every hour.
- Machine B manufactures 27 spoons in the first 90 minutes that it is switched on. In every subsequent 90-minute interval, it manufactures three spoons more than what it manufactured in the previous 90-minute interval. Within each 90-minute interval, the machine manufactures the spoons at a uniform rate.
- Machine C, in the first hour that it is switched on, manufactures spoons for 57 minutes in the first hour and cools down for 3 minutes. In every subsequent hour, the time it takes to cool down increases by 6 minutes as compared to that in the previous hour. When the machine is not cooling down, it takes exactly 90 seconds to manufacture one spoon.

**Q31. DIRECTIONS** for questions 29 to 32: Select the correct alternative from the given choices.

For which of the following periods is the maximum difference in the number of spoons manufactured by any two machines the least?

- a) 10:00 AM to 11:00 AM
- b) 11:00 AM to 1:00 PM Your answer is incorrect
- c) 1:00 PM to 3:00 PM
- d) 12 noon to 2:00 PM

**Show Correct Answer**

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 117   |
| Avg. time spent on this question by all students                         | 169   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 194   |
| % of students who attempted this question                                | 25.15 |
| % of students who got the question right of those who attempted          | 29.51 |

[Video Solution](#)

[Text Solution](#)

Given that Machine A manufactures 19 spoons every hour.  
 For Machine B, we can divide the time period (8 to 5) into 6 intervals of 90 minutes. Machine B manufactures 27 spoons in the first 90 minutes. In the subsequent 90 minute intervals, it manufactures 30, 33, 36, 39 and 42 spoons.  
 In each 90 minute interval, it manufactures at a uniform rate, in the first hour, it must have manufactured  $27 \times 60/90 = 18$  spoons.  
 In the first half of the second hour, it must have manufactured 9 spoons. In the second half of the second hour, it must have manufactured 10 spoons. Hence, in the second hour it must have manufactured 19 spoons.  
 Similarly, we can calculate the number of spoons manufactured by Machine B in each hour. The number of spoons manufactured by Machine B from the first hour to the ninth hour are 18, 19, 20, 22, 23, 24, 26, 27 and 28.  
 For Machine C, in the first hour, it manufactures for 57 minutes. Since it takes 90 seconds (1.5 minutes) to manufacture one spoon, in 57 minutes, it must manufacture  $57/1.5 = 38$  spoons.  
 In the next hour, it manufactures for 51 minutes and it must manufacture  $51/1.5 = 34$  spoons.  
 In every subsequent hour, the number of spoons manufactured will decrease by 4 (as the number of minutes it manufactures reduces by 3).  
 The following table provides the number of spoons manufactured by each machine in each hour:

| Machine   | 8 – 9 | 9 – 10 | 10 – 11 | 11 – 12 | 12 – 1 | 1 – 2 | 2 – 3 | 3 – 4 | 4 – 5 | Total |
|-----------|-------|--------|---------|---------|--------|-------|-------|-------|-------|-------|
| Machine A | 19    | 19     | 19      | 19      | 19     | 19    | 19    | 19    | 19    | 171   |
| Machine B | 18    | 19     | 20      | 22      | 23     | 24    | 26    | 27    | 28    | 207   |
| Machine C | 38    | 34     | 30      | 26      | 22     | 18    | 14    | 10    | 6     | 198   |

- Let X be the maximum difference in the number of spoons manufactured by any two machines.  
 Option A: Value of X =  $30 - 19 = 11$   
 Option B: Number of spoons manufactured by A, B and C between 11 and 1 are 38, 45, 48.  
 Value of X =  $48 - 38 = 10$   
 Option C: Number of spoons manufactured by A, B and C between 1 and 3 are 38, 50, 32.  
 Value of X =  $50 - 32 = 18$   
 Option D: Number of spoons manufactured by A, B and C between 12 and 2 are 38, 47, 40.  
 Value of X =  $47 - 38 = 9$   
 The value of X is the least for option D.

Choice (D)

undefined

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

Rahul purchased three machines, Machine A, Machine B and Machine C, which manufacture spoons. Everyday, Rahul switches on all the machines at 8:00 AM and switches them off at 5:00 PM. However, each machine manufactures the spoons at a different rate and in a different manner.

- Machine A manufactures spoons at a constant rate of 19 spoons every hour.
- Machine B manufactures 27 spoons in the first 90 minutes that it is switched on. In every subsequent 90-minute interval, it manufactures three spoons more than what it manufactured in the previous 90-minute interval. Within each 90-minute interval, the machine manufactures the spoons at a uniform rate.

- Machine C, in the first hour that it is switched on, manufactures spoons for 57 minutes in the first hour and cools down for 3 minutes. In every subsequent hour, the time it takes to cool down increases by 6 minutes as compared to that in the previous hour. When the machine is not cooling down, it takes exactly 90 seconds to manufacture one spoon.

**Q32. DIRECTIONS** for questions 29 to 32: Select the correct alternative from the given choices.

Which of the following statements is false?

- a) The number of spoons manufactured by Machine C until 11:00 AM is the same as that by Machine B until 1:00 PM. Your answer is incorrect
- b) The number of spoons manufactured by Machine A until 4:00 PM is the same as that by Machine B until 3:00 PM.
- c) The number of spoons manufactured by Machine C until 2:00 PM is more than that by Machine A until 5:00 PM.
- d) The maximum number of spoons that any machine manufactured in any hour is 38.

**Show Correct Answer**

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 182   |
| Avg. time spent on this question by all students                         | 179   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 188   |
| % of students who attempted this question                                | 25.17 |
| % of students who got the question right of those who attempted          | 44.75 |

[Video Solution](#)

[Text Solution](#)

Given that Machine A manufactures 19 spoons every hour.  
 For Machine B, we can divide the time period (8 to 5) into 6 intervals of 90 minutes.  
 Machine B manufactures 27 spoons in the first 90 minutes. In the subsequent 90 minute intervals, it manufactures 30, 33, 36, 39 and 42 spoons.  
 In each 90 minute interval, it manufactures at a uniform rate, in the first hour, it must have manufactured  $27 \times 60/90 = 18$  spoons.  
 In the first half of the second hour, it must have manufactured 9 spoons. In the second half of the second hour, it must have manufactured 10 spoons. Hence, in the second hour it must have manufactured 19 spoons.  
 Similarly, we can calculate the number of spoons manufactured by Machine B in each hour. The number of spoons manufactured by Machine B from the first hour to the ninth hour are 18, 19, 20, 22, 23, 24, 26, 27 and 28.  
 For Machine C, in the first hour, it manufactures for 57 minutes. Since it takes 90 seconds (1.5 minutes) to manufacture one spoon, in 57 minutes, it must manufacture  $57/1.5 = 38$  spoons.  
 In the next hour, it manufactures for 51 minutes and it must manufacture  $51/1.5 = 34$  spoons.  
 In every subsequent hour, the number of spoons manufactured will decrease by 4 (as the number of minutes it manufactures reduces by 3).  
 The following table provides the number of spoons manufactured by each machine in each hour:

| Machine   | 8 – 9 | 9 – 10 | 10 – 11 | 11 – 12 | 12 – 1 | 1 – 2 | 2 – 3 | 3 – 4 | 4 – 5 | Total |
|-----------|-------|--------|---------|---------|--------|-------|-------|-------|-------|-------|
| Machine A | 19    | 19     | 19      | 19      | 19     | 19    | 19    | 19    | 19    | 171   |
| Machine B | 18    | 19     | 20      | 22      | 23     | 24    | 26    | 27    | 28    | 207   |
| Machine C | 38    | 34     | 30      | 26      | 22     | 18    | 14    | 10    | 6     | 198   |

Option A: The number of spoons manufactured by Machine C until 11:00 AM = 102  
 The number of spoons manufactured by Machine B until 1:00 PM = 102  
 Option B: The number of spoons manufactured by Machine A until 4:00 PM = 152  
 The number of spoons manufactured by Machine B until 3:00 PM = 152  
 Option C: The number of spoons manufactured by Machine C until 2:00 PM = 168  
 Total number of spoons manufactured by Machine A = 171  
 Option D: Machine C manufactured maximum number of spoons in an hour, i.e., 38.  
 Hence, option C is false.

Choice (C)

undefined

**Q1. DIRECTIONS for question 1:** Select the correct alternative from the given choices.

Find the ratio in which the line joining the points (-3, 3) and (2, 6) is divided by the y-axis.

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

You did not answer this question Show Correct Answer

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>118</b>   |
| Avg. time spent on this question by all students                         | <b>151</b>   |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>150</b>   |
| % of students who attempted this question                                | <b>37.94</b> |
| % of students who got the question right of those who attempted          | <b>72.15</b> |

[Video Solution](#)

[Text Solution](#)

The ratio in which the y-axis divides the line joining  $(x_1, y_1)$  and  $(x_2, y_2)$  is  $-x_1 : x_2$   
 $= -(-3) : 2 = 3 : 2$  Choice (B)

undefined

**Q2. DIRECTIONS** for questions 2 to 5: Type in your answer in the input box provided below the question.

Find the length (in m) of the platform which a 600 m long train, travelling at 72 kmph, can cross in 50 seconds.

**Your Answer:400 Your answer is correct**

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 114   |
| Avg. time spent on this question by all students                         | 93    |
| Difficulty Level   | VE    |
| Avg. time spent on this question by students who got this question right | 79    |
| % of students who attempted this question                                | 57.44 |
| % of students who got the question right of those who attempted          | 82.71 |

[Video Solution](#)

[Text Solution](#)

The total distance travelled by train in 50 sec.

$$= 50 \times 72 \times \frac{5}{18} = 1000 \text{ m.}$$

$$\therefore \text{The length of the platform} = 1000 - 600 = 400 \text{ m}$$

Ans: (400)

undefined

**Q3. DIRECTIONS** for questions 2 to 5: Type in your answer in the input box provided below the question.

A merchant purchased a pack of 15 bottles of soft drink, at a cost price of Rs.15 per bottle, and sold the pack at a profit of 20%. What is the additional profit (in Rs.) he would have made, if he had sold the pack at 15% more than what he sold it for?

Enter your answer as a decimal value, rounded off to two decimal places.

**Your Answer:40.50 Your answer is correct**

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 279   |
| Avg. time spent on this question by all students                         | 168   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 155   |
| % of students who attempted this question                                | 57.32 |
| % of students who got the question right of those who attempted          | 56.32 |

[Video Solution](#)

[Text Solution](#)

The total cost of buying the pack = 225  
 He sold it at  $225 \times 1.2 = 270$   
 Profit he made =  $270 - 225 = 45$   
 If he sold it the next day, the selling price increased by 15% (the increase in C.P. would not affect the merchant since he has already purchased the pack before the price change)  
 Next day S.P. =  $270 \times 1.15 = 310.5$   
 Profit if he sold it the next day =  $310.5 - 225 = 85.5$   
 Additional profit =  $85.5 - 45 = 40.5$ 
Ans: (40.5)

undefined

**Q4. DIRECTIONS** for questions 2 to 5: Type in your answer in the input box provided below the question.

A work can be done by P in 48 days, whereas Q and R together can do the same work in 20 days. If Q is thrice as efficient as R, then P and R can do the work in

**Your Answer:30 Your answer is correct**

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>93</b>    |
| Avg. time spent on this question by all students                         | <b>159</b>   |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>141</b>   |
| % of students who attempted this question                                | <b>50.64</b> |
| % of students who got the question right of those who attempted          | <b>76.59</b> |

[Video Solution](#)

[Text Solution](#)

As Q is thrice as efficient as R, when they work together, they work with 4 times the efficiency of R. If only R works, he will take  $4(20) = 80$  days to complete the work.

$\therefore$  Time taken by P and R to complete the same work is  $\frac{(80)(48)}{80 + 48} = 30$  days.

Ans: (30)

undefined

**Q5. DIRECTIONS** for questions 2 to 5: Type in your answer in the input box provided below the question.

Find the number of terms common to the series 1, 6, 11, 16, ..., 1001 and the series 2, 6, 12, 20, ..., 930.

**Your Answer:10 □ Your answer is incorrect**

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |            |
|--|------------|
| Time taken by you to answer this question                                | <b>46</b>  |
| Avg. time spent on this question by all students                         | <b>201</b> |
| Difficulty Level   | <b>VD</b>  |
| Avg. time spent on this question by students who got this question right | <b>276</b> |

### Time spent / Accuracy Analysis

|   |              |
|---|--------------|
| % of students who attempted this question                       | <b>20.9</b>  |
| % of students who got the question right of those who attempted | <b>15.71</b> |

[Video Solution](#)

### Text Solution

The  $n^{\text{th}}$  term of the series 1, 6, 11, ..., 1001, can be written as  $5(n - 1) + 1$ .  
 The  $n^{\text{th}}$  term of the series 2, 6, 12, 20, ..., 930, can be written as  $(n)(n + 1)$ .  
 $\Rightarrow$  The common term can be written in the format  $5k + 1$  as well as  $(n)(n + 1)$ .  
 i.e.,  $(n)(n + 1)$  when divided by 5 should leave 1 as the remainder. Now, since  $n$  may leave any of 0, 1, 2, 3, 4 as the remainder, when divided by 5, we get the following cases:

| $n$      | $\text{Rem} \left[ \frac{n(n+1)}{5} \right]$     |
|----------|--|
| $5k$     | $\text{Rem} \left[ \frac{(0)(1)}{5} \right] = 0$ |
| $5k + 1$ | $\text{Rem} \left[ \frac{(1)(2)}{5} \right] = 2$ |
| $5k + 2$ | $\text{Rem} \left[ \frac{(2)(3)}{5} \right] = 1$ |
| $5k + 3$ | $\text{Rem} \left[ \frac{(3)(4)}{5} \right] = 2$ |
| $5k + 4$ | $\text{Rem} \left[ \frac{(4)(5)}{5} \right] = 0$ |

$\Rightarrow n$  should be of the format  $5k + 2$ .  
 The last term of the second series is  $930 = (30)(31)$ .  
 $\Rightarrow$  The no. of terms in second series is 30.

The number of terms which are of the format  $5k + 2$  which are less than 30 is  $\frac{30}{5} = 6$ .

#### Alternative Solution:

For the terms of the two progressions to be equal  $5k + 1 = n(n + 1)$

$$\Rightarrow n^2 + n - (5k + 1) = 0$$

$$\Rightarrow n = \frac{-1 \pm \sqrt{1 + 4(5k + 1)}}{2}$$

$$\Rightarrow n = \frac{-1 \pm \sqrt{20k + 5}}{2}$$

Now, for  $n$  to be a natural number  $(20k + 5)$  must be a perfect square and  $k \leq 200$ , i.e.,  $(20k + 5) \leq 4005$ . Since, only numbers that end in a five will have their squares ending in a 5, we need only check for  $5^2, 15^2, 25^2, 35^2, 45^2$ , and  $55^2$  to be of the form  $20k + 5$  (since  $65^2 > 4005$ ). All of these, are of the form  $20k + 5$ . Hence exactly 6 possible values of  $n$  exist.  
 Ans: (6)

undefined

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

There are 50 students divided into two groups, P and Q, with 20 and 30 students respectively. One student from group P shifts to group Q. If as a result of this, the average weight of group P decreases, while the average weight of group Q increases, which of the following holds true?

- a) The weight of the student is greater than the initial average weight of either group.
- b) The weight of the student is less than the initial average weight of either group.
- c) The weight of the student is less than the initial average weight of group Q but greater than the initial average

**weight of group P.**

- d) The weight of the student is less than the average weight of group P but greater than the average weight of group Q.

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 7     |
| Avg. time spent on this question by all students                         | 112   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 108   |
| % of students who attempted this question                                | 46.95 |
| % of students who got the question right of those who attempted          | 77.11 |

[Video Solution](#)

[Text Solution](#)

Let the average weights of students in groups P and Q be  $p$  and  $q$  respectively. Total weights of students in groups P and Q are  $20p$  and  $30q$  respectively. Let the weight of the student who shifted from group P to group Q be  $w$ . After the shifting of the student,

the average weights of groups P and Q become  $\frac{20p-w}{19}$  and  $\frac{30q+w}{31}$  respectively.

Given that  $\frac{20p-w}{19} < p$ . Hence  $w > p$ .

Also given that  $\frac{30q+w}{31} > q$ . Hence  $w > q$ .

**Alternative Solution:**

If a higher-average group joins or a lower-average group leaves, the average increases.

If a lower-average group joins or a higher-average group leaves, the average decreases.

The student leaves P and the average decreases. Therefore the student's weight is more than initial (as well as the final) average weight of P. He joins Q and the average increases. Therefore, the student's weight is more than the initial (as well as final) average weight of Q.

Choice (A)

undefined

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

What is the least distance from the point  $(4, 0)$  to the curve  $x^2 + y^2 - 6y - 12x + 28 = 0$ ?

- a)

$\sqrt{13}$  units

- b)

$\sqrt{17} - \sqrt{13}$  units

- c)

$\sqrt{17} + \sqrt{13}$  units

- 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                                | 58    |
| Avg. time spent on this question by all students                         | 159   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 170   |
| % of students who attempted this question                                | 18.82 |
| % of students who got the question right of those who attempted          | 62.44 |

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}x^2 + y^2 - 6y - 12x + 28 &= 0 \\x^2 - 12x + 36 + y^2 - 6y + 9 + 28 &= 36 + 9 \\(x - 6)^2 + (y - 3)^2 &= 17\end{aligned}$$

The above curve is a circle with centre at (6, 3) and radius  $\sqrt{17}$  units. The least distance between the point and circle  
 $= |\text{Distance between the point and centre} - \text{Radius of the circle}|$

$$\begin{aligned}\text{Distance between the point } (4, 0) \text{ and the center } (6, 3) &\text{ is } \sqrt{(6-4)^2 + (3-0)^2} \\&= \sqrt{2^2 + 3^2} = \sqrt{13}\end{aligned}$$

$$\text{Radius} = \sqrt{17} \text{ units}$$

$$\Rightarrow \text{least distance} = \sqrt{17} - \sqrt{13} \text{ units.}$$

Choice (B)

undefined

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

What is the least distance from the point (4, 0) to the curve  $x^2 + y^2 - 6y - 12x + 28 = 0$ ?

- a)

$\sqrt{13}$  units

- b)

$\sqrt{17} - \sqrt{13}$  units

- c)

$\sqrt{17} + \sqrt{13}$  units

- 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                                | <b>58</b>    |
| Avg. time spent on this question by all students                         | <b>159</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>170</b>   |
| % of students who attempted this question                                | <b>18.82</b> |
| % of students who got the question right of those who attempted          | <b>62.44</b> |

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}x^2 + y^2 - 6y - 12x + 28 &= 0 \\x^2 - 12x + 36 + y^2 - 6y + 9 + 28 &= 36 + 9 \\(x - 6)^2 + (y - 3)^2 &= 17\end{aligned}$$

The above curve is a circle with centre at (6, 3) and radius  $\sqrt{17}$  units. The least distance between the point and circle  
= |Distance between the point and centre – Radius of the circle|

$$\begin{aligned}\text{Distance between the point } (4, 0) \text{ and the center } (6, 3) &\text{ is } \sqrt{(6-4)^2 + (3-0)^2} \\&= \sqrt{2^2 + 3^2} = \sqrt{13}\end{aligned}$$

$$\text{Radius} = \sqrt{17} \text{ units}$$

$$\Rightarrow \text{least distance} = \sqrt{17} - \sqrt{13} \text{ units.}$$

Choice (B)

undefined

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

This year, during the months of January and February, each day Ramu went to a fruit shop and bought exactly three varieties of fruits, such that for any two days, he bought at least one variety of fruit on one of the days that was different from what he bought on the other day. What is the minimum number of different varieties of fruits that he could have bought during that period?

$\sqrt{17} - \sqrt{13}$  units

$\sqrt{17} + \sqrt{13}$  units

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>68</b>    |
| Avg. time spent on this question by all students                         | <b>131</b>   |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>189</b>   |
| % of students who attempted this question                                | <b>21.73</b> |
| % of students who got the question right of those who attempted          | <b>5.01</b>  |

[Video Solution](#)

### Text Solution

Let the minimum number of varieties be  $n$ . Now, we have to select 3 fruits from these  $n$ . We have to choose  $n$  such that the number of selections (i.e., combinations of three out of  $n$  fruits) should be greater than (or) equal to the number of days, i.e.,  $31 + 28 = 59$ .

i.e.,  ${}^nC_3 \geq 59$

for  $n = 8$

$${}^8C_3 = \frac{(8)(7)(6)}{6} = 56 < 59$$

So minimum possible  $n$  is 9.

Ans: (9)

undefined

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

This year, during the months of January and February, each day Ramu went to a fruit shop and bought exactly three varieties of fruits, such that for any two days, he bought at least one variety of fruit on one of the days that was different from what he bought on the other day. What is the minimum number of different varieties of fruits that he could have bought during that period?

$\sqrt{17} - \sqrt{13}$  units

$\sqrt{17} + \sqrt{13}$  units

You did not answer this question

[Show Correct Answer](#)

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>68</b>    |
| Avg. time spent on this question by all students                         | <b>131</b>   |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>189</b>   |
| % of students who attempted this question                                | <b>21.73</b> |
| % of students who got the question right of those who attempted          | <b>5.01</b>  |

### Video Solution

### Text Solution

Let the minimum number of varieties be  $n$ . Now, we have to select 3 fruits from these  $n$ . We have to choose  $n$  such that the number of selections (i.e., combinations of three out of  $n$  fruits) should be greater than (or) equal to the number of days, i.e.,  $31 + 28 = 59$ .

i.e.,  ${}^nC_3 \geq 59$

for  $n = 8$

$${}^8C_3 = \frac{(8)(7)(6)}{6} = 56 < 59$$

So minimum possible  $n$  is 9.

Ans: (9)

undefined

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

During the placements in an MBA college, students were placed in four different sectors -Marketing (M), Finance (F), Operations (O) and IT (I). The averages of the annual CTCs of the students placed in M, F, O together and F, O, I together are Rs.13 lakh and Rs.14 lakh respectively, while the averages of the annual CTCs of the students placed in M, O, I together and M, F, I together are Rs.12 lakh and Rs.15 lakh respectively. Which of the following (in Rs. lakhs) could possibly be the average annual CTC of all the students placed?

- I. 12.5  
II. 13.6  
III. 14
- a) **Only I**  
 b) **Only II**  
 c) **Only I and III**  
 d) **Only II and III** Your answer is incorrect

**Show Correct Answer**

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>447</b>   |
| Avg. time spent on this question by all students                         | <b>214</b>   |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>212</b>   |
| % of students who attempted this question                                | <b>19.73</b> |
| % of students who got the question right of those who attempted          | <b>55.76</b> |

[Video Solution](#)

[Text Solution](#)

Let the number of students who get placed in Finance, Marketing, Operations and IT be f, m, o and i.

The average of the annual CTC's of the students who are placed in M, F and O is 13.

⇒ The sum of the annual CTC's of the students who are placed in M, F, O is  $13(m + f + o) \rightarrow (1)$

Similarly, the sum of the annual CTC's of the students who are placed in F, O, I is  $14(f + o + i) \rightarrow (2)$

The sum of the annual CTC's of the students who are placed in M, O, I is  $12(m + o + i) \rightarrow (3)$

The sum of the annual CTC's of the students who are placed in M, F, I is  $15(m + f + i) \rightarrow (4)$

We can observe that each of the four different sectors appears in exactly three of (1), (2), (3) and (4).

∴ The average annual CTC of the students placed

$$\begin{aligned} &= \frac{(1)+(2)+(3)+(4)}{3(m+f+o+i)} \\ &= \frac{13(m+f+o)+14(f+o+i)+12(m+o+i)+15(m+f+i)}{3(m+f+o+i)} \\ &= \frac{40m+42f+39o+41i}{3(m+f+o+i)} \\ &= 13 + \frac{m+2i+3f}{3(m+f+o+i)} \end{aligned}$$

Since,  $m + 2i + 3f$  will be less than  $3(m + f + o + i)$ , then average annual CTC of the students will be between 13 and 14.

∴ Among the given options only II is possible.

Choice (B)

undefined

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

A function  $f(x)$  is defined for a non-zero variable  $x$ , such that the value of  $f(y)$ , where  $y = x + \frac{1}{x}$ , equals  $x^2 + \frac{1}{x^2}$ . The function  $f(x)$  can be

a)  $x^2$

b)  $\frac{1}{x^2 + x}$

c)  $x^2 - 2$  Your answer is correct

d)  $x^2 + \frac{1}{x^2}$

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 134   |
| Avg. time spent on this question by all students                         | 88    |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 83    |
| % of students who attempted this question                                | 33.14 |
| % of students who got the question right of those who attempted          | 78.88 |

[Video Solution](#)

[Text Solution](#)

Given that for a variable 'x', 'f' is such that

$$f\left(x + \frac{1}{x}\right) = x^2 + \frac{1}{x^2} = f(y)$$

$$\Rightarrow \left(x + \frac{1}{x}\right)^2 - 2 = f(y) \Rightarrow y^2 - 2 = f(y)$$

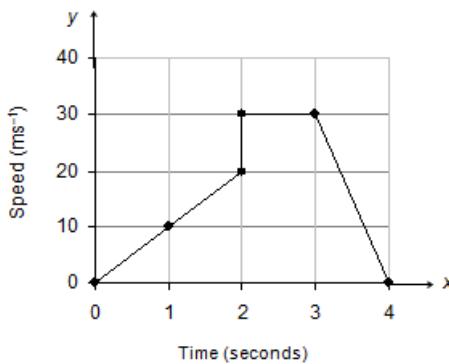
Hence the function should be  $f(x) = x^2 - 2$

Choice (C)

undefined

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

The following graph plots the time of travel (in seconds) and the speed of travel (in meters per second) of a particle. What is the total distance (in m) travelled by the particle from  $t = 0$  to  $t = 4$  seconds?



Your Answer:65 Your answer is correct

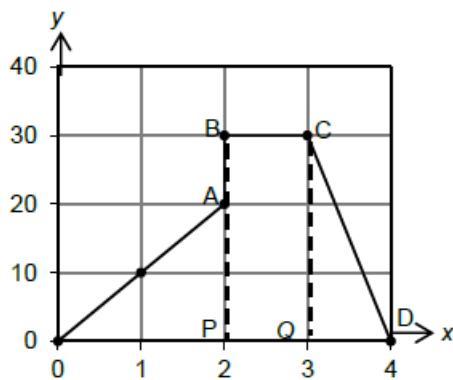
#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 162   |
| Avg. time spent on this question by all students                         | 113   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 91    |
| % of students who attempted this question                                | 41.64 |
| % of students who got the question right of those who attempted          | 56.4  |

[Video Solution](#)

### [Text Solution](#)

The *x*-axis has time in secs and the *y*-axis has speed in mts.  
Hence the area of the plotted region will give us the distance travelled in *m* (not km).  
Area of the graph is



= Area of  $\triangle OAP$  + Area of rectangle PBCQ + Area of triangle QCD

$$= \left(\frac{1}{2} \times 2 \times 20\right) + (1 \times 30) + \left(\frac{1}{2} \times 1 \times 30\right) = 20 + 30 + 15 = 65 \text{ m}$$

$\therefore$  Distance travelled is 65 m

Ans: (65)

undefined

### **Q12. DIRECTIONS** for questions 12 to 14: Select the correct alternative from the given choices.

Five identical tennis balls are kept in a cylindrical container whose length is such that the five balls just fit into it in a single column. Find the ratio of the volume of the unoccupied portion of the container to that of the occupied portion, given that each ball is of the maximum possible size that can fit inside the container.

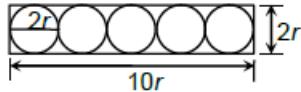
- a) 3 : 1
- b) 2 : 1
- c) 2 : 3
- d) 1 : 2   **Your answer is correct**

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>263</b>   |
| Avg. time spent on this question by all students                         | <b>159</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>158</b>   |
| % of students who attempted this question                                | <b>33.73</b> |
| % of students who got the question right of those who attempted          | <b>74.83</b> |

### [Video Solution](#)

### [Text Solution](#)



The above figure gives the side view of the container and the balls.

$$\text{Length of the box} = 5 \times 2r = 10r$$

$$\text{Radius of the box} = r$$

$$\text{Volume of the box} = \pi r^2 \times 10r = \pi 10r^3$$

$$\text{Total volume of the five balls} = 5 \times \frac{4}{3} \times \pi \times r^3 = \frac{20r^3\pi}{3}$$

$$\text{Unoccupied volume} = 10\pi r^3 (1 - 2/3) = 10\pi r^3 (1/3)$$

$$\therefore \text{Required ratio} = 10/3 \pi r^3 : 20/3 \pi r^3 = 1 : 2$$

Choice (D)

undefined

**Q13. DIRECTIONS** for questions 12 to 14: Select the correct alternative from the given choices.

The arithmetic mean of a set of numbers was calculated as 24. However, the frequency of one of the numbers was erroneously taken as 6, instead of 9. As a result, the arithmetic mean calculated was 5 less than the actual mean. If all the numbers in the set are integers, then which of the following could be the sum of all frequencies?

- a) 40 Your answer is incorrect
- b) 41
- c) 42
- d) 43

**Show Correct Answer**

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 336   |
| Avg. time spent on this question by all students                         | 171   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 175   |
| % of students who attempted this question                                | 9.88  |
| % of students who got the question right of those who attempted          | 60.44 |

[Video Solution](#)

[Text Solution](#)

Let the number whose frequency is taken erroneously be  $x$ .

Let the sum of frequencies initially considered be  $k$

$\Rightarrow$  The actual sum of frequencies =  $k + 3$

Calculated mean = 24

$\Rightarrow$  calculated sum of all observations =  $24k$

Actual sum =  $24k + 3x$

$$\text{Actual mean} = \frac{24k + 3x}{k + 3} = 24 + 5 = 29$$

$$\Rightarrow 24k + 3x = 29k + 87$$

$$\Rightarrow 5k = 3x - 87$$

$$\Rightarrow k = \frac{3(x - 29)}{5}$$

As both  $k$  and  $x$  are integers,  $x - 29$  must be a multiple of 5 and  $k$  must be a multiple of 3.

$\Rightarrow k + 3$  must be a multiple of 3.

Among the given options, only 42 is a multiple of 3.

Choice (C)

undefined

**Q13. DIRECTIONS** for questions 12 to 14: Select the correct alternative from the given choices.

The arithmetic mean of a set of numbers was calculated as 24. However, the frequency of one of the numbers was erroneously taken as 6, instead of 9. As a result, the arithmetic mean calculated was 5 less than the actual mean. If all the numbers in the set are integers, then which of the following could be the sum of all frequencies?

- a) 40   Your answer is incorrect
- b) 41
- c) 42
- d) 43

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 336   |
| Avg. time spent on this question by all students                         | 171   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 175   |
| % of students who attempted this question                                | 9.88  |
| % of students who got the question right of those who attempted          | 60.44 |

[Video Solution](#)

[Text Solution](#)

Let the number whose frequency is taken erroneously be  $x$ .

Let the sum of frequencies initially considered be  $k$

$\Rightarrow$  The actual sum of frequencies =  $k + 3$

Calculated mean = 24

$\Rightarrow$  calculated sum of all observations =  $24k$

Actual sum =  $24k + 3x$

$$\text{Actual mean} = \frac{24k + 3x}{k + 3} = 24 + 5 = 29$$

$$\Rightarrow 24k + 3x = 29k + 87$$

$$\Rightarrow 5k = 3x - 87$$

$$\Rightarrow k = \frac{3(x - 29)}{5}$$

As both  $k$  and  $x$  are integers,  $x - 29$  must be a multiple of 5 and  $k$  must be a multiple of 3.

$\Rightarrow k + 3$  must be a multiple of 3.

Among the given options, only 42 is a multiple of 3.

Choice (C)

undefined

**Q14. DIRECTIONS** for questions 12 to 14: Select the correct alternative from the given choices.

Find the sum of the first  $n$  terms of the series:  $\log x^2 + \log \frac{x^4}{y^3} + \log \frac{x^6}{y^6} + \log \frac{x^8}{y^9} + \dots$

C a)  $\log \left( \frac{x^{n+1}}{y^{3(\frac{n-1}{2})}} \right)^n$

C b)  $\log \left( \frac{x^{n+1}}{y^{3(\frac{n+1}{2})}} \right)^n$

C c)  $\log \left( \frac{x^{n+1}}{y^{3(\frac{n}{2})}} \right)^n$

C d)  $\log \left( \frac{x^{n+1}}{y^{(\frac{n-1}{2})}} \right)^n$

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question **14**

Avg. time spent on this question by all students **158**

Difficulty Level **M**

Avg. time spent on this question by students who got this question right **160**

% of students who attempted this question **26.02**

% of students who got the question right of those who attempted **63.37**

[Video Solution](#)

[Text Solution](#)

$$\log x^2 + \log \frac{x^4}{y^3} + \log \frac{x^6}{y^6} + \log \frac{x^8}{y^9} + \log \frac{x^{10}}{y^{12}} + \dots$$

$2 \log x + 4 \log x - 3 \log y + 6 \log x - 6 \log y + 8 \log x - 9 \log y + \dots + 2n \log x - 3(n-1) \log y$

$$= [\log x] [n(n+1)] - [\log y] \left[ 3 \frac{(n-1)(n)}{2} \right]$$

$$= \log \left( \frac{x^{n+1}}{y^{3\left(\frac{n-1}{2}\right)}} \right)^n$$

#### Alternative Solution:

This question can also be answered by eliminating the answer choices. By substituting  $n = 1$ , choices (B), (C) get eliminated and for  $n = 2$ ; choice (D) is eliminated.

$\therefore$  Only choice (A) can be the answer.

Choice (A)

undefined

**Q14. DIRECTIONS** for questions 12 to 14: Select the correct alternative from the given choices.

Find the sum of the first  $n$  terms of the series:  $\log x^2 + \log \frac{x^4}{y^3} + \log \frac{x^6}{y^6} + \log \frac{x^8}{y^9} + \dots$

C a)  $\log \left( \frac{x^{n+1}}{y^{3\left(\frac{n-1}{2}\right)}} \right)^n$

C b)  $\log \left( \frac{x^{n+1}}{y^{3\left(\frac{n+1}{2}\right)}} \right)^n$

C c)  $\log \left( \frac{x^{n+1}}{y^{3\left(\frac{n}{2}\right)}} \right)^n$

C d)  $\log \left( \frac{x^{n+1}}{y^{\left(\frac{n-1}{2}\right)}} \right)^n$

You did not answer this question

[Show Correct Answer](#)

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 14    |
| Avg. time spent on this question by all students                         | 158   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 160   |
| % of students who attempted this question                                | 26.02 |
| % of students who got the question right of those who attempted          | 63.37 |

[Video Solution](#)

[Text Solution](#)

$$\begin{aligned}
 & \log x^2 + \log \frac{x^4}{y^3} + \log \frac{x^6}{y^6} + \log \frac{x^8}{y^9} + \log \frac{x^{10}}{y^{12}} + \dots \\
 & 2 \log x + 4 \log x - 3 \log y + 6 \log x - 6 \log y + 8 \log x - 9 \log y + \dots + 2n \log x - 3(n-1) \log y \\
 & = [\log x] [n(n+1)] - [\log y] \left[ 3 \frac{(n-1)(n)}{2} \right] \\
 & = \log \left( \frac{x^{n+1}}{y^{3 \left( \frac{n-1}{2} \right)}} \right)^n
 \end{aligned}$$

**Alternative Solution:**

This question can also be answered by eliminating the answer choices. By substituting  $n = 1$ , choices (B), (C) get eliminated and for  $n = 2$ ; choice (D) is eliminated.  
 $\therefore$  Only choice (A) can be the answer.

Choice (A)

undefined

undefined

**Q15. DIRECTIONS** for questions 15 to 17: Type in your answer in the input box provided below the question.

If the area enclosed by the lines  $3x - 2y + 6 = 0$ ,  $3x + 5y - 15 = 0$  and the x-axis is A sq. units, find the value of  $4A$ .

You did not answer this question

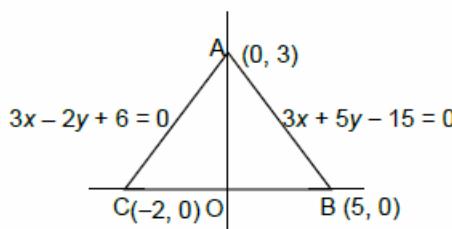
Show Correct Answer

Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 10    |
| Avg. time spent on this question by all students                         | 127   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 120   |
| % of students who attempted this question                                | 35.11 |
| % of students who got the question right of those who attempted          | 68.78 |

[Video Solution](#)

[Text Solution](#)



The given lines  $3x - 2y + 6 = 0$  and  $3x + 5y - 15 = 0$  intersect on the y-axis at  $(0, 3)$ .  
The area of the triangle formed by the lines  $3x - 2y + 6 = 0$ ,  $3x + 5y - 15 = 0$  and x-axis will be  $\frac{1}{2} \times AO \times BC = \frac{1}{2} \times 3 \times 7 = 10.5$  sq.units.

$$A = 10.5 \therefore 4A = 42$$

Ans: (42)

**Q15. DIRECTIONS** for questions 15 to 17: Type in your answer in the input box provided below the question.

If the area enclosed by the lines  $3x - 2y + 6 = 0$ ,  $3x + 5y - 15 = 0$  and the x-axis is A sq. units, find the value of  $4A$ .

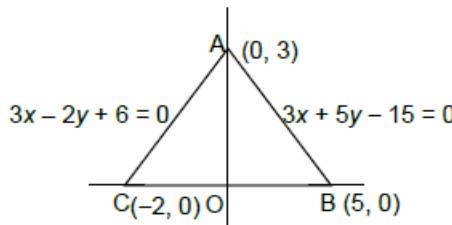
You did not answer this question [Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 10    |
| Avg. time spent on this question by all students                         | 127   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 120   |
| % of students who attempted this question                                | 35.11 |
| % of students who got the question right of those who attempted          | 68.78 |

[Video Solution](#)

[Text Solution](#)



The given lines  $3x - 2y + 6 = 0$  and  $3x + 5y - 15 = 0$  intersect on the y-axis at  $(0, 3)$ .

The area of the triangle formed by the lines  $3x - 2y + 6 = 0$ ,  $3x + 5y - 15 = 0$  and

$$x\text{-axis will be } \frac{1}{2} \times AO \times BC = \frac{1}{2} \times 3 \times 7 = 10.5 \text{ sq.units.}$$

$$A = 10.5 \therefore 4A = 42$$

Ans: (42)

undefined

**Q16. DIRECTIONS** for questions 15 to 17: Type in your answer in the input box provided below the question.

If a number has 20 factors, what is the maximum number of distinct prime factors that it can have?

**Your Answer:3 Your answer is correct**

**Time spent / Accuracy Analysis**

|  |      |
|--|------|
| Time taken by you to answer this question                                | 122  |
| Avg. time spent on this question by all students                         | 79   |
| Difficulty Level   | M    |
| Avg. time spent on this question by students who got this question right | 76   |
| % of students who attempted this question                                | 42.6 |
| % of students who got the question right of those who attempted          | 60.2 |

[Video Solution](#)

[Text Solution](#)

No. of factors of  $N = a^p b^q c^r$  where  $a, b, c$  are prime numbers is  $n = (p + 1)(q + 1)(r + 1)$ .

∴ Each part of this expression corresponds to a prime factor.

Now  $20 = 19 + 1 = (1 + 1)(9 + 1) = (1 + 1)(1 + 1)(4 + 1)$

The number can be of the form  $a^{10}, b^9, abc^4$

∴ It can have at most 3 prime factors.

Ans: (3)

undefined

**Q16. DIRECTIONS** for questions 15 to 17: Type in your answer in the input box provided below the question.

If a number has 20 factors, what is the maximum number of distinct prime factors that it can have?

**Your Answer:3 Your answer is correct**

Time spent / Accuracy Analysis

Time taken by you to answer this question **122**

Avg. time spent on this question by all students **79**

Difficulty Level **M**

Avg. time spent on this question by students who got this question right **76**

% of students who attempted this question **42.6**

% of students who got the question right of those who attempted **60.2**

[Video Solution](#)

[Text Solution](#)

No. of factors of  $N = a^p b^q c^r$  where  $a, b, c$  are prime numbers is  $n = (p + 1)(q + 1)(r + 1)$ .

∴ Each part of this expression corresponds to a prime factor.

Now  $20 = 19 + 1 = (1 + 1)(9 + 1) = (1 + 1)(1 + 1)(4 + 1)$

The number can be of the form  $a^{10}, b^9, abc^4$

∴ It can have at most 3 prime factors.

Ans: (3)

undefined

**Q17. DIRECTIONS** for questions 15 to 17: Type in your answer in the input box provided below the question.

P starts from city A towards city B. After some time, Q and R start from cities A and B respectively at 5 kmph and 12 kmph, towards B and A respectively. The distance between A and B is 100 km. If P and Q meet at 20 km from A, and P and R meet at 28 km from A, what is the speed of P (in kmph)?

**Your Answer:9 Your answer is incorrect**

Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question **158**

Avg. time spent on this question by all students **222**

Difficulty Level **M**

Avg. time spent on this question by students who got this question right **217**

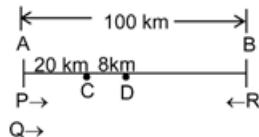
% of students who attempted this question **23.67**

% of students who got the question right of those who attempted **65.84**

[Video Solution](#)

[Text Solution](#)

Let P and Q meet at C and P and R meet at D.



To travel 20 km, time taken by Q =  $\frac{20}{5} = 4$  hrs

Let P started 'h' hours before Q and R

$$\Rightarrow \text{Speed of } P = \frac{20}{4+h} \rightarrow (1)$$

To travel  $100 - 28 = 72$  km, time taken by R =  $\frac{72}{12}$   
= 6 hours

$$\Rightarrow \text{Speed of } P = \frac{28}{6+h} \rightarrow (2)$$

(1) = (2)

$$\Rightarrow \frac{20}{4+h} = \frac{28}{6+h} \Rightarrow h = 1 \text{ hour}$$

$$\text{Speed of } P = \frac{20}{5} = 4 \text{ kmph}$$

**Alternative Solution:**

Let Q overtake P at C, where AC = 20 km

Now, Q took  $\frac{20}{5} = 4$  hours to catch up with P.

In these 4 hours R travelled from B to D, where BD  
=  $12 \times 4 = 48$  km.

$$\begin{aligned} \text{Hence, } CD &= AB - (AC + BD) \\ &= 100 - (20 + 48) = 32 \text{ km} \end{aligned}$$

Now, P and R are moving from points C and D, at speeds of p kmph (say) and 12 kmph and meet at, say E where AE = 28 km, or CE = 8 km.

$$\therefore \frac{p}{p+12} = \frac{8}{32} \Rightarrow p = 4 \text{ kmph}$$

Ans: (4)

undefined

**Q17. DIRECTIONS** for questions 15 to 17: Type in your answer in the input box provided below the question.

P starts from city A towards city B. After some time, Q and R start from cities A and B respectively at 5 kmph and 12 kmph, towards B and A respectively. The distance between A and B is 100 km. If P and Q meet at 20 km from A, and P and R meet at 28 km from A, what is the speed of P (in kmph)?

**Your Answer:9** □ **Your answer is incorrect**

Show Correct Answer

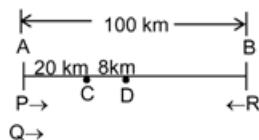
Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>158</b>   |
| Avg. time spent on this question by all students                         | <b>222</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>217</b>   |
| % of students who attempted this question                                | <b>23.67</b> |
| % of students who got the question right of those who attempted          | <b>65.84</b> |

[Video Solution](#)

## Text Solution

Let P and Q meet at C and P and R meet at D.



To travel 20 km, time taken by Q =  $\frac{20}{5} = 4$  hrs

Let P started 'h' hours before Q and R

$$\Rightarrow \text{Speed of P} = \frac{20}{4+h} \rightarrow (1)$$

To travel  $100 - 28 = 72$  km, time taken by R =  $\frac{72}{12}$   
= 6 hours

$$\Rightarrow \text{Speed of P} = \frac{28}{6+h} \rightarrow (2)$$

(1) = (2)

$$\Rightarrow \frac{20}{4+h} = \frac{28}{6+h} \Rightarrow h = 1 \text{ hour}$$

$$\text{Speed of P} = \frac{20}{5} = 4 \text{ kmph}$$

### **Alternative Solution:**

Let Q overtake P at C, where AC = 20 km

Now, Q took  $\frac{20}{5} = 4$  hours to catch up with P.

In these 4 hours R travelled from B to D, where BD  
=  $12 \times 4 = 48$  km.

Hence, CD = AB - (AC + BD)  
=  $100 - (20 + 48) = 32$  km

Now, P and R are moving from points C and D, at speeds of p kmph (say) and 12 kmph and meet at, say E where AE = 28 km, or CE = 8 km.

$$\therefore \frac{p}{p+12} = \frac{8}{32} \Rightarrow p = 4 \text{ kmph}$$

Ans: (4)

undefined

### **Q18. DIRECTIONS** for question 18: Select the correct alternative from the given choices.

WIMCO employs a total of 75 units to make coir products for export. The total monthly revenue from all the units is Rs.10,00,000. The total manufacturing cost and the total overheads (both of which vary with the number of units working) for all the units are Rs.1,50,000 and 1,00,000 every month respectively. If, in one month, the total profit reduced by Rs.35,000, how many units, on an average, were not working everyday during that month?

- a) 3
- b) 3.5
- c) 2.5
- d) 2

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 | 169 |

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Difficulty Level   | E            |
| Avg. time spent on this question by students who got this question right | <b>165</b>   |
| % of students who attempted this question                                | <b>13.95</b> |
| % of students who got the question right of those who attempted          | <b>76.46</b> |

[Video Solution](#)

[Text Solution](#)

Total revenue = 10,00,000  
Manufacturing Expenses = 1,50,000  
Overheads = 1,00,000  
Total Expenses = 2,50,000  
Profit = 7,50,000  
Profit/Unit = 10,000  
Reduction in profit = 35,000

$$\therefore \text{Average number of idle units} = \frac{35,000}{10,000} = 3.5$$

Choice (B)

undefined

undefined

**Q18. DIRECTIONS** for question 18: Select the correct alternative from the given choices.

WIMCO employs a total of 75 units to make coir products for export. The total monthly revenue from all the units is Rs.10,00,000. The total manufacturing cost and the total overheads (both of which vary with the number of units working) for all the units are Rs.1,50,000 and 1,00,000 every month respectively. If, in one month, the total profit reduced by Rs.35,000, how many units, on an average, were not working everyday during that month?

- a) 3
- b) 3.5
- c) 2.5
- d) 2

You did not answer this question

[Show Correct Answer](#)

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>10</b>    |
| Avg. time spent on this question by all students                         | <b>169</b>   |
| Difficulty Level   | E            |
| Avg. time spent on this question by students who got this question right | <b>165</b>   |
| % of students who attempted this question                                | <b>13.95</b> |
| % of students who got the question right of those who attempted          | <b>76.46</b> |

[Video Solution](#)

[Text Solution](#)

Total revenue = 10,00,000  
 Manufacturing Expenses = 1,50,000  
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 Total Expenses = 2,50,000  
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 Profit/Unit = 10,000  
 Reduction in profit = 35,000  
 $\therefore$  Average number of idle units =  $\frac{35,000}{10,000} = 3.5$

Choice (B)

**Q18. DIRECTIONS** for question 18: Select the correct alternative from the given choices.

WIMCO employs a total of 75 units to make coir products for export. The total monthly revenue from all the units is Rs.10,00,000. The total manufacturing cost and the total overheads (both of which vary with the number of units working) for all the units are Rs.1,50,000 and 1,00,000 every month respectively. If, in one month, the total profit reduced by Rs.35,000, how many units, on an average, were not working everyday during that month?

- a) 3
- b) 3.5
- c) 2.5
- d) 2

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                         | 169   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 165   |
| % of students who attempted this question                                | 13.95 |
| % of students who got the question right of those who attempted          | 76.46 |

[Video Solution](#)

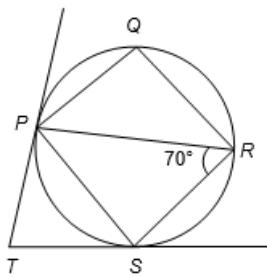
**Text Solution**

Total revenue = 10,00,000  
 Manufacturing Expenses = 1,50,000  
 Overheads = 1,00,000  
 Total Expenses = 2,50,000  
 Profit = 7,50,000  
 Profit/Unit = 10,000  
 Reduction in profit = 35,000  
 $\therefore$  Average number of idle units =  $\frac{35,000}{10,000} = 3.5$

Choice (B)

**Q19. DIRECTIONS** for questions 19 and 20: Type in your answer in the input box provided below the question.

In the given figure, PQRS is a cyclic quadrilateral. If  $\angle PRS = 70^\circ$  and T is a point outside the circle, such that TP and TS are tangents to the circle, find  $\angle PTS$  (in degrees).



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

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 115   |
| Avg. time spent on this question by all students                         | 126   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 120   |
| % of students who attempted this question                                | 30.82 |
| % of students who got the question right of those who attempted          | 49.73 |

[Video Solution](#)

[Text Solution](#)

In the given figure,  $\angle TSP = \angle PRS$  (alternate segment theorem)

$$\therefore \angle TSP = 70^\circ.$$

In triangle PTS,  $TP = TS$  (because, tangents drawn from a point to the same circle are equal).

$$\Rightarrow \angle TPS = \angle TSP = 70^\circ.$$

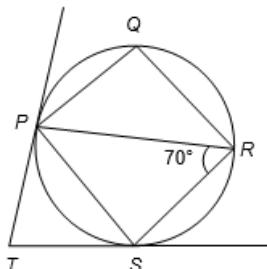
$$\angle PTS = 180^\circ - (70^\circ + 70^\circ) = 40^\circ.$$

Ans: (40)

undefined

**Q19. DIRECTIONS** for questions 19 and 20: Type in your answer in the input box provided below the question.

In the given figure, PQRS is a cyclic quadrilateral. If  $\angle PRS = 70^\circ$  and T is a point outside the circle, such that TP and TS are tangents to the circle, find  $\angle PTS$  (in degrees).



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

**Time spent / Accuracy Analysis**

|  |     |
|--|-----|
| Time taken by you to answer this question        | 115 |
| Avg. time spent on this question by all students | 126 |

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 120   |
| % of students who attempted this question                                | 30.82 |

% of students who got the question right of those who attempted 49.73

[Video Solution](#)

[Text Solution](#)

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In triangle PTS, TP = TS (because, tangents drawn from a point to the same circle are equal).

$$\Rightarrow \angle TPS = \angle TSP = 70^\circ.$$

$$\angle PTS = 180^\circ - (70^\circ + 70^\circ) = 40^\circ.$$

Ans: (40)

undefined

undefined

**Q20. DIRECTIONS** for questions 19 and 20: Type in your answer in the input box provided below the question.

Rohit purchased two apples, a mango and a banana and paid a total amount of Rs.20 for all the fruits together. If the prices (in Rs.) of the fruits were all positive integers, for how many combinations of prices of the fruits would this have been possible?

**Your Answer:81 Your answer is correct**

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 279   |
| Avg. time spent on this question by all students                         | 167   |
| Difficulty Level   | D     |
| Avg. time spent on this question by students who got this question right | 184   |
| % of students who attempted this question                                | 33.62 |
| % of students who got the question right of those who attempted          | 29.84 |

[Video Solution](#)

[Text Solution](#)

Let  $a, m, b$  be prices of apple, mango, and banana respectively. Then the problem is equivalent to finding no of positive integral solutions of

$$2a + m + b = 20 \quad \dots (1)$$

For  $a = 9$  is the maximum value possible for  $a = 9; m + b = 2$ . So, the number of solutions = 1.

For  $a = 8; m + b = 4$ . So, the number of solutions = 3; and so on. Finally, for  $a = 1; m + b = 18$ . So, the number of solutions = 17

$$\therefore \text{Total number of possible solutions is } 1 + 3 + \dots + 17 = \frac{9(1+17)}{2} = 81$$

Ans: (81)

**Q20. DIRECTIONS** for questions 19 and 20: Type in your answer in the input box provided below the question.

Rohit purchased two apples, a mango and a banana and paid a total amount of Rs.20 for all the fruits together. If the prices (in Rs.) of the fruits were all positive integers, for how many combinations of prices of the fruits would this have been possible?

**Your Answer:81 Your answer is correct**

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>279</b>   |
| Avg. time spent on this question by all students                         | <b>167</b>   |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>184</b>   |
| % of students who attempted this question                                | <b>33.62</b> |
| % of students who got the question right of those who attempted          | <b>29.84</b> |

[Video Solution](#)

[Text Solution](#)

Let  $a, m, b$  be prices of apple, mango, and banana respectively. Then the problem is equivalent to finding no of positive integral solutions of

$$2a + m + b = 20 \text{ --- (1)}$$

For  $a = 9$  is the maximum value possible for  $a = 9; m + b = 2$ . So, the number of solutions = 1.

For  $a = 8; m + b = 4$ . So, the number of solutions = 3; and so on. Finally, for  $a = 1; m + b = 18$ . So, the number of solutions = 17

$$\therefore \text{Total number of possible solutions is } 1 + 3 + \dots + 17 = \frac{9(1+17)}{2} = 81$$

Ans: (81)

undefined

**Q20. DIRECTIONS** for questions 19 and 20: Type in your answer in the input box provided below the question.

Rohit purchased two apples, a mango and a banana and paid a total amount of Rs.20 for all the fruits together. If the prices (in Rs.) of the fruits were all positive integers, for how many combinations of prices of the fruits would this have been possible?

**Your Answer:81 Your answer is correct**

**Time spent / Accuracy Analysis**

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>279</b>   |
| Avg. time spent on this question by all students                         | <b>167</b>   |
| Difficulty Level   | <b>D</b>     |
| Avg. time spent on this question by students who got this question right | <b>184</b>   |
| % of students who attempted this question                                | <b>33.62</b> |
| % of students who got the question right of those who attempted          | <b>29.84</b> |

[Video Solution](#)

[Text Solution](#)

Let  $a$ ,  $m$ ,  $b$  be prices of apple, mango, and banana respectively. Then the problem is equivalent to finding no of positive integral solutions of

$$2a + m + b = 20 \quad \dots (1)$$

For  $a = 9$  is the maximum value possible for  $a = 9$ ;  $m + b = 2$ . So, the number of solutions = 1.

For  $a = 8$ ;  $m + b = 4$ . So, the number of solutions = 3; and so on. Finally, for  $a = 1$ ;  $m + b = 18$ . So, the number of solutions = 17

$$\therefore \text{Total number of possible solutions is } 1 + 3 + \dots + 17 = \frac{9(1+17)}{2} = 81$$

Ans: (81)

undefined

**Q21. DIRECTIONS** for questions 21 to 23: Select the correct alternative from the given choices.

The breadth of a rectangle is decreased by 25%, as a result of which the perimeter of the rectangle decreased by 10%. By what percentage should the length of the rectangle now be increased, such that the perimeter of the rectangle will be the same as the initial one (i.e., before the breadth was decreased)?

- a) 12%
- b) 25%
- c) 20%
- d) 16.67% Your answer is correct

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 252   |
| Avg. time spent on this question by all students                         | 190   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 193   |
| % of students who attempted this question                                | 32.22 |
| % of students who got the question right of those who attempted          | 64.73 |

[Video Solution](#)

[Text Solution](#)

Given,

Let the length and breadth be  $\ell$  and  $b$  respectively.

$$2(\ell + 0.75b) = 0.9 \times (2(\ell + b))$$

$$\Rightarrow \ell + 0.75b = 0.9\ell + 0.9b$$

$$\Rightarrow 0.1\ell = 0.15b$$

$$\Rightarrow \ell : b = 3 : 2$$

Let  $\ell = 30$  and  $b = 20$

$\Rightarrow$  Present  $\ell, b = (30, 15)$ , i.e., after decrease in breadth.

Now, the length should be increased by 5 in order to compensate (i.e., retain  $\ell + b = 30 + 20 = 50$ ) for the decrease in breadth.

$$\text{Hence } \frac{5}{30} \times 100 = 16.67\%$$

Choice (D)

undefined

**Q22. DIRECTIONS** for questions 21 to 23: Select the correct alternative from the given choices.

What is the radius (in cm) of the largest possible circle that can be cut out from a quadrant of a circle of radius 6 cm?

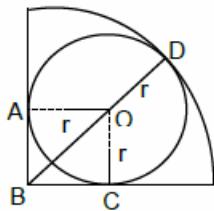
- a)  $\frac{6\sqrt{2}}{\sqrt{2}+1}$
- b)  $6(\sqrt{3}-1)$
- c)  $6(\sqrt{2}-1)$  Your answer is correct
- d)  $\frac{3\sqrt{6}}{\sqrt{2}+1}$

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 63    |
| Avg. time spent on this question by all students                         | 124   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 127   |
| % of students who attempted this question                                | 10.42 |
| % of students who got the question right of those who attempted          | 67.25 |

[Video Solution](#)

[Text Solution](#)



The largest circle that can be cut from the quadrant must touch the two radii and the arc of the quadrant. Let its radius be  $r$ .

$AOCB$  is a square where  $O$  is the centre of the circle to be cut.

The radius of the quadrant  $BD = BO + OD$

$$= r\sqrt{2} + r = 6$$

$$\Rightarrow r = \frac{6}{\sqrt{2} + 1} = 6(\sqrt{2} - 1)$$

Alternately, the radius of the smaller circle must be less than half the radius of the larger circle. Hence  $r < 3$ . By simple calculation, only choice (C) satisfies.

Choice (C)

undefined

**Q23. DIRECTIONS** for questions 21 to 23: Select the correct alternative from the given choices.

Find the positive square root of  $13 + \sqrt{48} + \sqrt{72} + \sqrt{96}$ .

- a)  $\sqrt{5} + \sqrt{2}(\sqrt{3} + 1)$
- b)  $\sqrt{2} + \sqrt{3} + \sqrt{8}$
- c)  $\sqrt{2} + \sqrt{5} + \sqrt{6}$
- d)  $2 + \sqrt{3}(\sqrt{2} + 1)$  Your answer is correct

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>120</b>   |
| Avg. time spent on this question by all students                         | <b>160</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>163</b>   |
| % of students who attempted this question                                | <b>18.76</b> |
| % of students who got the question right of those who attempted          | <b>75.02</b> |

[Video Solution](#)

[Text Solution](#)

Let the required square root be  $\sqrt{a} + \sqrt{b} + \sqrt{c}$

Now,  $(\sqrt{a} + \sqrt{b} + \sqrt{c})^2 = a + b + c + 2\sqrt{ab} + 2\sqrt{bc} + 2\sqrt{ac}$

$$13 + \sqrt{48} + \sqrt{72} + \sqrt{96} = 13 + 2\sqrt{12} + 2\sqrt{18} + 2\sqrt{24}$$

$$= 13 + 2\sqrt{3 \times 4} + 2\sqrt{3 \times 6} + 2\sqrt{6 \times 4} = (\sqrt{3} + \sqrt{4} + \sqrt{6})^2$$

Therefore the square root is  $\sqrt{a} + \sqrt{b} + \sqrt{c} = \sqrt{4} + \sqrt{3} + \sqrt{6}$   
i.e.  $2 + \sqrt{3}(\sqrt{2} + 1)$

Choice (D)

**Alternative Solution:**

Choices (A) and (C) can be easily eliminated since none of the surds in the given expression has  $\sqrt{5}$  as factor. Choice (B) is also eliminated since  $\sqrt{2} \times \sqrt{8}$  would make the rational part much more ( $2 + 8 + 3 + 4 = 17$ ) than 13 (in the given expression). Hence, by elimination, Choice (D).

undefined

**Q24. DIRECTIONS for question 24:** The question is followed by two statements, I and II. You have to decide whether the information provided in the statements is sufficient for answering the question and select the correct answer option.

Gayatri spent less than Rs.180 to buy three kg of each of rice, wheat and jowar. Which of the three cereals she bought was the cheapest?

- I.  
4 kg rice and 2 kg wheat cost less than 2 kg rice and 4 kg wheat.
- II.  
2 kg wheat and 4 kg jowar cost the same as 4 kg rice and 2 kg jowar.

- a) The question can be answered by using only one of the statements.
- b) The question can be answered by using either statement alone.
- c) The question can be answered by using both the statements together, but cannot be answered by using either statement alone.
- d) The question cannot be answered even when both the statements are used together.

You did not answer this question Show Correct Answer

Time spent / Accuracy Analysis

Time taken by you to answer this question

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Avg. time spent on this question by all students                         | <b>129</b>   |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>127</b>   |
| % of students who attempted this question                                | <b>25.67</b> |
| % of students who got the question right of those who attempted          | <b>62.39</b> |

[Video Solution](#)

#### Text Solution

Let the cost of 1 kg of rice, 1 kg of wheat and 1 kg of jowar be ₹ $r$ , ₹ $w$ , ₹ $j$  respectively.

From I alone, we have

$$4r + 2w < 2r + 4w$$

$$\Rightarrow r < w.$$

It is not sufficient.

From II alone we have

$$2w + 4j = 4r + 2j \Rightarrow w + j = 2r$$

It is not sufficient

By combining both I and II, we can say that  $w > r > j$ .

Choice (C)

undefined

**Q25. DIRECTIONS** for questions 25 and 26: Select the correct alternative from the given choices.

Robert bought an equal number of each of three kinds of articles, whose cost prices were Rs.8, Rs.25 and Rs.38 per article respectively. If, on the whole, he spent Rs.2,769, what is the total number of articles that he bought?

- a) 117 Your answer is correct
- b) 51
- c) 39
- d) 37

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>14</b>    |
| Avg. time spent on this question by all students                         | <b>93</b>    |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>96</b>    |
| % of students who attempted this question                                | <b>47.93</b> |
| % of students who got the question right of those who attempted          | <b>53.17</b> |

[Video Solution](#)

#### Text Solution

Price of each type of article is ₹8, ₹25, ₹38.

Let us assume Robert bought  $x$  articles of each kind.

$$\text{Total Amount spent} = 8x + 25x + 38x = 2769$$

$$\Rightarrow 71x = 2769$$

$$\Rightarrow x = 39$$

∴ Robert bought 39 articles of each kind.

⇒ a total of 117 articles.

Choice (A)

undefined

**Q26. DIRECTIONS** for questions 25 and 26: Select the correct alternative from the given choices.

The range of  $\cos^6x + \sin^6x$  is

- a)  $[-1, 1]$ .
- b)  $\left[\frac{1}{4}, 1\right]$ .
- c)  $[0, 1]$ . Your answer is incorrect
- d)  $[-\sqrt{2}, \sqrt{2}]$ .

[Show Correct Answer](#)

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 35    |
| Avg. time spent on this question by all students                         | 73    |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 86    |
| % of students who attempted this question                                | 26.03 |
| % of students who got the question right of those who attempted          | 54.36 |

[Video Solution](#)

**Text Solution**

$$\begin{aligned} \text{Let } E &= \cos^6x + \sin^6x \\ &= (\cos^2x + \sin^2x)^3 - 3 \cos^2x \sin^2x (\cos^2x + \sin^2x) \\ &= 1 - 3 \cos^2x \sin^2x = 1 - \frac{3}{4} (2\sin x \cos x)^2 \\ &= 1 - \frac{3}{4} \sin^2 2x \end{aligned}$$

For all  $x$ ,  $0 \leq \sin^2 2x \leq 1$ .

If  $\sin^2 2x = 0$ , then  $E = 1$  and if  $\sin^2 2x = 1$ , then  $E = \frac{1}{4}$

$\therefore$  The required range is  $\left[\frac{1}{4}, 1\right]$

**Alternative Solution:**

Since  $\sin^6x + \cos^6x$  is always positive, choices (A) and (D) can be eliminated. Further, since both  $\sin x$  and  $\cos x$  cannot be simultaneously zero, even choice (C) is eliminated. Hence, choice (B).

Choice (B)

undefined

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

If  $N$  is the least five-digit number which leaves remainders of 1, 2, 3, 4 and 6 when it is divided by 4, 5, 6, 7 and 9 respectively, find the sum of the digits of  $N$ .

You did not answer this question

Show Correct Answer

Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 11    |
| Avg. time spent on this question by all students                         | 154   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 155   |
| % of students who attempted this question                                | 22.36 |
| % of students who got the question right of those who attempted          | 32.58 |

[Video Solution](#)

[Text Solution](#)

Given problem has the form LCM model 2.

∴ General form of the number satisfying the given conditions

=  $k$  L.C.M (4, 5, 6, 7, 9) – (constant difference between each divisor and the remainder it leaves)

(where  $k$  is any positive integer)

∴ The required number is of the form  $1260k - 3$ .

$N$  is the least 5 digit number of this form.

∴  $1260k - 3 \geq 10000$  and  $k$  has the least possible value.

$$\therefore k \geq 7 \frac{1180}{1260}$$

$$\therefore k = 8$$

$$\therefore N = 10077$$

Sum of the digits of  $N = 15$

Ans: (15)

undefined

**Q28. DIRECTIONS** for questions 28 and 29: Select the correct alternative from the given choices.

A milkman has two containers, containing mixtures of milk and water. The first container has 110 litres of a mixture of milk and water in the ratio of 5 : 6. The second container has a mixture of milk and water in the ratio of 7 : 3. How much mixture should be taken from the second container and added to the first so that the ratio of the milk and water in the first container will become 6 : 5?

- a) 65.92 litres
- b) 64.71 litres
- c) 64.85 litres
- d) 59.62 litres

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                         | 163   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 160   |
| % of students who attempted this question                                | 19.59 |
| % of students who got the question right of those who attempted          | 83.05 |

[Video Solution](#)

### Text Solution

The quantity of milk in the first container = 50 litres  
Quantity of water in the first container = 60 litre.  
Let the quantity of mixture added from the second container be  $10x$ .  
 $50 + 7x : 60 + 3x = 6:5$   
 $\Rightarrow x = 6.471$   
Hence,  $10x = 64.71$  litres of mixture must be added.

Choice (B)

undefined

**Q28. DIRECTIONS** for questions 28 and 29: Select the correct alternative from the given choices.

A milkman has two containers, containing mixtures of milk and water. The first container has 110 litres of a mixture of milk and water in the ratio of 5 : 6. The second container has a mixture of milk and water in the ratio of 7 : 3. How much mixture should be taken from the second container and added to the first so that the ratio of the milk and water in the first container will become 6 : 5?

- a) **65.92 litres**
- b) **64.71 litres**
- c) **64.85 litres**
- d) **59.62 litres**

You did not answer this question

Show Correct Answer

#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>3</b>     |
| Avg. time spent on this question by all students                         | <b>163</b>   |
| Difficulty Level   | <b>E</b>     |
| Avg. time spent on this question by students who got this question right | <b>160</b>   |
| % of students who attempted this question                                | <b>19.59</b> |
| % of students who got the question right of those who attempted          | <b>83.05</b> |

[Video Solution](#)

### Text Solution

The quantity of milk in the first container = 50 litres  
Quantity of water in the first container = 60 litre.  
Let the quantity of mixture added from the second container be  $10x$ .  
 $50 + 7x : 60 + 3x = 6:5$   
 $\Rightarrow x = 6.471$   
Hence,  $10x = 64.71$  litres of mixture must be added.

Choice (B)

undefined

**Q29. DIRECTIONS** for questions 28 and 29: Select the correct alternative from the given choices.

A man has a special rechargeable electric vehicle, which can maintain a speed of  $x$  km/hr for  $(100 - x)$  minutes, after which it has to be recharged. What is the maximum distance (in km) that the man can cover on the vehicle without recharging in between?

a)  $33\frac{3}{4}$

b)  $41\frac{2}{3}$

c) 45

d) 2500

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                         | 121   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 125   |
| % of students who attempted this question                                | 21.86 |
| % of students who got the question right of those who attempted          | 71.08 |

[Video Solution](#)

**Text Solution**

If the speed of  $x$  km/hr be maintained for  $100 - x$  minutes, the maximum distance that can be covered occurs when  $x = 100 - x$ , i.e.,  $x = 50$  and it is  $\frac{50}{60} (50) = 41\frac{2}{3}$  km  
Choice (B)

undefined

**Q29. DIRECTIONS** for questions 28 and 29: Select the correct alternative from the given choices.

A man has a special rechargeable electric vehicle, which can maintain a speed of  $x$  km/hr for  $(100 - x)$  minutes, after which it has to be recharged. What is the maximum distance (in km) that the man can cover on the vehicle without recharging in between?

a)  $33\frac{3}{4}$

b)  $41\frac{2}{3}$

c) 45

d) 2500

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                         | 121   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 125   |
| % of students who attempted this question                                | 21.86 |
| % of students who got the question right of those who attempted          | 71.08 |

[Video Solution](#)

### Text Solution

If the speed of  $x$  km/hr be maintained for  $100 - x$  minutes, the maximum distance that can be covered occurs when  $x = 100 - x$ , i.e.,  $x = 50$  and it is  $\frac{50}{60} (50) = 41\frac{2}{3}$  km  
Choice (B)

undefined

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

If the area (in sq. units) of the region enclosed by the graph of  $|x - 1| + |y + 2| = 3$  is  $P$ , find  $2P$ .

**Your Answer:** 9   Your answer is incorrect

Show Correct Answer

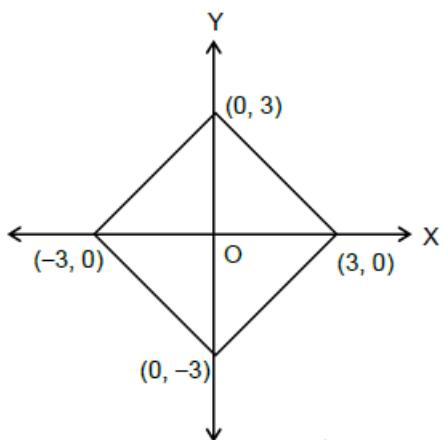
#### Time spent / Accuracy Analysis

|  |              |
|--|--------------|
| Time taken by you to answer this question                                | <b>128</b>   |
| Avg. time spent on this question by all students                         | <b>106</b>   |
| Difficulty Level   | <b>M</b>     |
| Avg. time spent on this question by students who got this question right | <b>104</b>   |
| % of students who attempted this question                                | <b>17.32</b> |
| % of students who got the question right of those who attempted          | <b>28.89</b> |

[Video Solution](#)

### Text Solution

Put  $x - 1 = X$  and  $y + 2 = Y$ . Then the given function becomes  $|X| + |Y| = 3$   
The graph of this function is as follows:



$$\therefore \text{Area of the required region} = \frac{1}{2} \times 6 \times 6 = 18 \text{ sq units}$$

$$P = 18 \Rightarrow 2P = 36$$

Ans: (36)

undefined

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

A fund of Rs.15,000 was invested at an interest rate of 10% p.a., interest compounded annually. If every year, after

compounding the interest at the end of the year, 10% of the amount was withdrawn, what will be the amount left (in Rs.) immediately after three such withdrawals?

Enter your answer as a decimal value, rounded off to two decimal places.

You did not answer this question

Show Correct Answer

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 11    |
| Avg. time spent on this question by all students                         | 179   |
| Difficulty Level   | E     |
| Avg. time spent on this question by students who got this question right | 164   |
| % of students who attempted this question                                | 25.82 |
| % of students who got the question right of those who attempted          | 36.07 |

[Video Solution](#)

[Text Solution](#)

If the initial amount is ₹15,000, the required amount at the end of three years

$$\begin{aligned} &= 15,000[(1.1)(0.9)]^3 \\ &= 15,000 \times (0.99)^3 = 14554.485 \approx 14554.49 \end{aligned}$$

Ans: (14554.49)

undefined

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

If it takes 60 seconds to fill  $\frac{2}{3}$ rd of a tank, of dimensions 6 m  $\times$  10 m  $\times$  8 m, how many seconds would it take to fill the remaining part of the tank at the same rate?

**Your Answer:30 Your answer is correct**

**Time spent / Accuracy Analysis**

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 56    |
| Avg. time spent on this question by all students                         | 75    |
| Difficulty Level   | VE    |
| Avg. time spent on this question by students who got this question right | 73    |
| % of students who attempted this question                                | 39.96 |
| % of students who got the question right of those who attempted          | 90.58 |

[Video Solution](#)

[Text Solution](#)

As in 60 seconds  $\frac{2}{3}$ rd of the tank is filled, in 30 seconds  $\frac{1}{3}$ rd of the tank will be filled.

$\therefore$  The remaining part i.e.,  $1 - \frac{2}{3} = \frac{1}{3}$ rd of the tank is filled in 30 seconds.

Ans: (30)

undefined

**Q33. DIRECTIONS** for question 33: Select the correct alternative from the given choices.

Ashok told his son, 'x years ago, my age was twice your age and 5x years ago, my age was thrice your age.' If the difference of their present ages is 24 years, find the sum of their present ages (in years).

- a) 91
- b) 78 Your answer is correct
- c) 65
- d) Cannot be determined

#### Time spent / Accuracy Analysis

|  |       |
|--|-------|
| Time taken by you to answer this question                                | 18    |
| Avg. time spent on this question by all students                         | 196   |
| Difficulty Level   | M     |
| Avg. time spent on this question by students who got this question right | 198   |
| % of students who attempted this question                                | 27.87 |
| % of students who got the question right of those who attempted          | 76.35 |

[Video Solution](#)

#### Text Solution

Let the present ages of Ashok and his son be A years and S years respectively.

Given  $A - S = 24$

$$\Rightarrow A = S + 24 \quad \text{--- (1)}$$

Also, x years ago  $(A - x) = 3(S - x)$

$$\Rightarrow (S + 24 - x) = 2(S - x) \quad \text{--- (2)}$$

Similarly, 5x years ago

$$(S + 24 - 5x) = 3(S - 5x) \quad \text{--- (3)}$$

Solving (2) and (3),  $x = 3$ ,  $S = 27$  and  $A = 51 \Rightarrow S + A = 78$

#### Alternative solution:

Since the difference  $A - S$  is even (i.e., 24) the sum also must be even. We could check for choice (B) and (D). Hence choices (1) and (3) are eliminated.

Further, for choice (B)

$$A + S = 78 \text{ and } A - S = 24 \Rightarrow A = 51, S = 27$$

By some observation,  $(51 - 3) = 2(27 - 3)$  and  $(51 - 15)$

$$= 3(27 - 15) \text{ i.e., } x = 3$$

Choice (B)

undefined

**Q34. DIRECTIONS** for question 34: Type in your answer in the input box provided below the question.

At a parking lot, there are total of 50 two-wheelers and four-wheelers. The total number of wheels of these vehicles is 160. Find the number of two-wheelers at the parking lot.

**Your Answer:20** Your answer is correct

#### Time spent / Accuracy Analysis

|  |    |
|--|----|
| Time taken by you to answer this question        | 55 |
| Avg. time spent on this question by all students | 95 |
| Difficulty Level                                 | VE |

#### Time spent / Accuracy Analysis

Avg. time spent on this question by students who got this question right **91**

% of students who attempted this question **38.12**

% of students who got the question right of those who attempted **89.37**

[Video Solution](#)

[Text Solution](#)

Let the numbers of two-wheelers and four-wheelers at the parking lot be T and F respectively

$T + F = 50$  and  $2T + 4F = 160$ .

Solving these,  $T = 20$  and  $F = 30$ .

Ans: (20)

undefined

**Q34. DIRECTIONS** for question 34: Type in your answer in the input box provided below the question.

At a parking lot, there are total of 50 two-wheelers and four-wheelers. The total number of wheels of these vehicles is 160. Find the number of two-wheelers at the parking lot.

**Your Answer:20 Your answer is correct**

#### Time spent / Accuracy Analysis

Time taken by you to answer this question **55**

Avg. time spent on this question by all students **95**

Difficulty Level **VE**

Avg. time spent on this question by students who got this question right **91**

% of students who attempted this question **38.12**

% of students who got the question right of those who attempted **89.37**

[Video Solution](#)

[Text Solution](#)

Let the numbers of two-wheelers and four-wheelers at the parking lot be T and F respectively

$T + F = 50$  and  $2T + 4F = 160$ .

Solving these,  $T = 20$  and  $F = 30$ .

Ans: (20)