

Answers

1. Answer: b

Explanation:

Understanding Gandhi's Conspicuous Role

The provided passage describes the arrival and impact of Mahatma Gandhi in India. It uses vivid imagery, comparing him to a "powerful current of fresh air," a "beam of light," and a "whirlwind." The text emphasizes his deep connection with the common people, stating he "seemed to emerge from the millions of India, speaking their language."

The passage highlights Gandhi's core message to those benefiting from the exploitation of peasants and workers: "Get off the backs of these peasants and workers... get rid of the system that produces this poverty and misery." This strong call to action focuses on dismantling oppressive structures and alleviating the suffering caused by the existing system.

Analyzing Gandhi's Role Based on the Passage

Let's examine the options in light of the passage's description of Gandhi's role:

- **Reformer:** The passage strongly supports this role. Gandhi's message directly targets the exploitative "system" and advocates for change to end "poverty and misery." He urged people to fundamentally alter the way society operated, aiming to improve the lives of the oppressed "peasants and workers." This aligns perfectly with the definition of a **reformer** – someone who seeks to improve a system or institution through reform.
- **Father:** While Gandhi is often revered as a father figure, the passage focuses more on his role as a catalyst for societal change rather than a parental one. The descriptions are about his impact on the nation's systems and people's minds, not familial relationships.

- **Teacher:** Gandhi certainly taught people principles of justice and non-violence. However, the passage emphasizes his role in initiating significant change ("whirlwind that upset many things") and challenging the status quo ("get rid of the system"). While teaching was part of his method, his primary conspicuous role described here is driving systemic transformation.
- **Lawyer:** The passage provides no information or hints about Gandhi practicing law. His actions described are social and political, aimed at systemic change.

Conclusion on Gandhi's Role

Based on the passage's emphasis on Gandhi's call to dismantle exploitative systems and address the "poverty and misery" of the masses, his most prominent and conspicuous role described is that of a **reformer**. He acted as a force for significant societal and systemic change, aiming to uplift the oppressed.

2. Answer: b

Explanation:

Analyzing Gandhi's Role Based on the Passage

The provided question asks us to determine what Mahatma Gandhi fought against, according to the text. We need to carefully read the passage and understand the specific message attributed to Gandhi.

Gandhi's Impact and Message

The passage describes Gandhi's arrival as invigorating, like "a powerful current of fresh air" and "a beam of light." It emphasizes that he connected with the common people ("emerge from the millions of India") and highlighted their difficult situation ("appalling condition"). A key part of his message mentioned is:

"Get off the backs of these peasants and workers, he told us, all of you who live by their exploitation; get rid of the system that produces this poverty and misery."

This quote is crucial for answering the question.

Evaluating the Options

Let's examine each option to see how it relates to Gandhi's message as described in the passage:

- **Option 1: rich**

The passage doesn't directly state Gandhi fought the 'rich'. While exploiters might often be wealthy, the focus here is on their exploitative actions, not their wealth status.

- **Option 2: oppressor**

The passage explicitly quotes Gandhi telling "all of you who live by their exploitation" to "Get off the backs of these peasants and workers." This group represents the **oppressors** – those benefiting from and perpetuating the suffering of others. Gandhi's command is directly aimed at them.

- **Option 3: apathetic masses**

The passage suggests Gandhi had an energizing effect, helping people "stretch ourselves and take deep breaths." This implies he was awakening or mobilizing people, not fighting against the apathy of the masses themselves.

- **Option 4: unjust system**

The passage does mention Gandhi's call to "get rid of the system that produces this poverty and misery." This is certainly something Gandhi fought against. However, the instruction to "Get off the backs" is directed at specific people – the exploiters. Between fighting the system and fighting the people who benefit from exploitation (oppressors), the passage's direct quote emphasizes confronting the **oppressors**.

Key Takeaway from the Passage

The core message highlighted is the direct address to those benefiting from exploitation. Gandhi identified these individuals as the ones whose actions needed to stop immediately ("Get off the backs"). Therefore, the most accurate description of who Gandhi fought, based strictly on this text, is the **oppressor**.

3. Answer: c

Explanation:

Gandhi's Impact on Exploitation Analysis

The provided passage describes the arrival and influence of Mahatma Gandhi in India. It highlights his connection with the common people, emphasizing his ability to articulate their struggles and advocate for change. Gandhi's message was direct and aimed at addressing the root causes of poverty and misery.

Understanding Gandhi's Message from the Passage

The passage states that Gandhi urged those living by the exploitation of peasants and workers to cease their actions. He specifically said, "Get off the backs of these peasants and workers... get rid of the system that produces this poverty and misery." This statement is a powerful call for justice and a direct challenge to the existing system of exploitation.

Evaluating the Options Based on the Passage

Let's examine how the options relate to the text:

- **Option 1: shocked people:** While Gandhi's arrival was impactful, described as a "whirlwind," the passage focuses more on awakening and change rather than simple shock.
- **Option 2: made India powerful:** The passage concentrates on Gandhi's focus on the plight of the poor and the need to end exploitation. While his movement eventually empowered India, this specific outcome isn't the direct point made in this excerpt.
- **Option 3: made the condemnation of the exploiter final:** This option strongly aligns with Gandhi's directive to the exploiters to "Get off the backs" of the people and dismantle the unjust system. His message was a clear and definitive rejection of exploitation, leaving no room for justification. It marked a decisive moral stance against those who profited from others' suffering.

- **Option 4: made women feel secure:** The passage mentions "peasants and workers" generally but does not specifically address the impact on women or their sense of security.

Conclusion on Gandhi's Role

Based on the passage, Gandhi's primary impact discussed here was his unequivocal condemnation of exploitation. He directly addressed the exploiters and demanded an end to the oppressive systems, effectively making the moral condemnation of their actions definitive and final within the context of the social and political awakening he initiated.

4. Answer: a

Explanation:

Understanding Gandhi's Arrival as a Powerful Current

The passage describes Mahatma Gandhi's arrival using powerful metaphors. He is compared to a "powerful current of fresh air" that invigorated people, enabling them to "take deep breaths." This suggests a revitalizing and awakening effect. Furthermore, he is likened to a "beam of light" that dispelled ignorance ("pierced the darkness") and clarified understanding ("removed the scales from our eyes"). Gandhi is also portrayed as a "whirlwind" that challenged existing norms and, most significantly, transformed people's thinking ("working of people's minds").

The passage highlights Gandhi's deep connection with the common people of India. It states he "emerge[d] from the millions of India, speaking their language" and consistently focused attention on "them and their appalling condition." His core message was a call for social justice, urging those benefiting from the exploitation of peasants and workers to cease their actions and dismantle the systems perpetuating poverty and misery.

Analyzing the Options Based on the Passage

Let's evaluate each option in the context of the provided text:

- **Option 1: awakened us to the plight of the masses in the grip of oppressors**

This option aligns well with the passage. Gandhi's role as a "beam of light" removing scales from eyes and his focus on the "appalling condition" of the millions, coupled with his demand to "get off the backs of these peasants and workers," clearly indicates he awakened people to the suffering and exploitation faced by the masses.

- **Option 2: made us patriotic**

The passage focuses on Gandhi's impact on awareness regarding social conditions and the need for systemic change. While his actions certainly fostered national spirit, the text itself does not explicitly mention patriotism as the primary effect described by the "fresh air" metaphor.

- **Option 3: emboldened us to attack and destroy the oppressors**

While Gandhi challenged the exploitative system and called for change, the passage emphasizes mental transformation ("working of people's minds") and awareness rather than explicitly encouraging direct physical attack or destruction. The core impact described is awakening and change in perspective.

- **Option 4: praised our culture**

The passage does not contain any information about Gandhi praising Indian culture. His focus, as described, was on the condition of the people and the exploitative systems.

Conclusion: Gandhi's Impact

Based on the passage, Gandhi's arrival as a "powerful current of fresh air" signifies a profound awakening. He brought attention to the severe hardships and exploitation faced by the common people (the masses) and challenged the systems that caused such suffering. Therefore, the option that best reflects this described impact is the one concerning awakening people to the plight of the masses.

5. Answer: d

Explanation:

Analyzing Word Choice for Life's Hardships

This question requires us to fill in the blanks in a short passage describing people living in slums. We need to select the most appropriate word for the blank marked (6) from the given options. The specific sentence we need to focus on is: "They don't (5)_____ hypertension and heart attacks because there is, after all (6)_____ to worry about."

Understanding the Context for Blank (6)

The word "because" indicates that the phrase following it provides a reason for the statement made before it. The statement is that the people described do not suffer from hypertension and heart attacks. These are conditions often associated with stress and worry.

The reason given is related to having something or nothing "to worry about". We need to determine which option logically explains why these individuals might be less prone to hypertension and heart attacks.

Evaluating Options for Blank (6)

Let's examine each option in the context of the sentence:

- **Everything:** If the sentence were "...because there is, after all *everything* to worry about," it would imply that these people have numerous concerns. This would contradict the idea that they don't suffer from stress-related illnesses; having many worries would likely increase the risk.
- **Something:** If the sentence were "...because there is, after all *something* to worry about," it doesn't provide a clear logical reason. Having "something" to worry about doesn't inherently prevent hypertension or heart attacks.

- **Somewhere:** This option is grammatically incorrect and nonsensical in this context. You worry **about** something, not **somewhere**.
- **Nothing:** If the sentence reads "...because there is, after all *nothing* to worry about," it suggests a lack of significant concerns. This can logically explain why they might not suffer from hypertension and heart attacks, implying that their specific hardships, while severe, do not translate into the typical anxieties that trigger these stress-related conditions. It suggests a form of resilience stemming from having less to lose or being accustomed to hardship without the added burden of constant worry about future security or status.

Selecting the Most Appropriate Word

Based on the analysis, the option that provides the most logical explanation for the preceding statement is "Nothing". The lack of things to worry about is presented as the reason for not experiencing hypertension and heart attacks.

Therefore, the completed sentence makes the most sense with "Nothing" in the blank:

"They don't (5) _____ hypertension and heart attacks because there is, after all **nothing** to worry about."

6. Answer: d

Explanation:

Understanding the Context for Blank (5)

The question asks us to find the most suitable word to fill in the blank labeled (5) in the provided sentences. The sentences describe the lives of people living in slums, suggesting they are resilient and perhaps less affected by certain modern ailments due to their circumstances.

The specific sentence we need to focus on is: "They don't (5) _____ hypertension and heart attacks because there is, after all (6) _____ to worry about."

The key is to understand what action or state is being negated by "don't" in relation to 'hypertension and heart attacks'. The reason provided ("because there is... less to worry about") implies a connection between worries and these health issues.

Analyzing Word Options for Blank (5)

Let's examine each option to see which one fits the context best:

- **1. Know:** If we use "Know", the sentence becomes "They don't know hypertension and heart attacks...". This doesn't make logical sense. People might be aware of these conditions (know *about* them), but the sentence seems to imply they don't *experience* or *suffer from* them.
- **2. Provide:** Using "Provide" results in "They don't provide hypertension and heart attacks...". This is grammatically incorrect and doesn't fit the meaning. People don't typically "provide" diseases.
- **3. Think:** The sentence "They don't think hypertension and heart attacks..." is also awkward. While they might not think *about* these problems often, "think" doesn't accurately capture the intended meaning of not suffering from the conditions themselves.
- **4. Have:** With "Have", the sentence reads: "They don't have hypertension and heart attacks...". This means they are free from these specific health problems. This fits perfectly with the idea that their lifestyle or lack of certain stressors might protect them from these ailments, especially given the reason that they have "less to worry about".

Conclusion on Appropriate Word Choice

Based on the analysis, the word **Have** is the most appropriate choice for blank (5). It correctly conveys that the people living in slums do not suffer from hypertension and heart attacks, which aligns with the context provided about their life circumstances and potential lack of specific types of worries.

Therefore, the completed phrase is: "They don't **Have** hypertension and heart attacks..."

7. Answer: c

Explanation:

Understanding Word Choice for Slum Life Description

Analyzing the Blank for 'Curtain Up'

The question asks to select the most appropriate word to fill in the blank marked (4) in the sentence: "It is like a drama where the curtain (4) _____ up in the morning and comes down in the evening." This sentence uses a metaphor comparing the start and end of the day for people in slums to a theatrical performance.

Evaluating Options for Blank (4)

We need to find the word that best completes the idiom related to a curtain and the start of a performance. Let's examine the given options:

- **Hangs:** "Curtain hangs up" is not a standard idiom for the start of an event. Curtains hang, but they don't typically "hang up" to signal the beginning.
- **Hand:** "Curtain hand up" makes no grammatical or idiomatic sense in this context.
- **Goes:** The phrase "the curtain goes up" is a common idiom in theatre, meaning the performance is about to begin or has begun. This fits perfectly with the idea of the day starting ("up in the morning").
- **Shines:** "Curtain shines up" is not a recognized idiom and doesn't fit the context of starting a performance or the day.

Determining the Correct Word Choice

The sentence compares the beginning of the day for slum dwellers to the start of a play. In theatre, the signal for the play to begin is when the **curtain goes up**. This idiom

signifies the start of the action. Applying this to the sentence, the curtain "goes up" in the morning, marking the start of their daily activities, and "comes down" in the evening, signifying the end of the day's activities. Therefore, "Goes" is the most fitting word.

The complete sentence reads: "It is like a drama where the curtain **Goes** up in the morning and comes down in the evening." This highlights the structured, albeit perhaps harsh, routine of their daily lives, framed metaphorically as a play.

8. Answer: d

Explanation:

Understanding the Rising Sun's Role in Daily Life

The question requires us to fill in the blank marked (3) in the sentence: "The rising sun (3) _____ the day and the setting sun closes the day for them." This sentence describes the daily existence of individuals residing in slums, emphasizing how the natural progression of sunrise and sunset governs their lives. Our task is to select the most fitting word from the given options to describe the action of the rising sun concerning the day.

Evaluating Options for Blank (3)

We need to carefully consider each option to determine which word best suits the context of the sentence:

- **Ends:** This verb means to conclude or finish. The rising sun, however, signifies the start of the day, not its conclusion. Therefore, "Ends" is not appropriate for blank (3).
- **Herald:** This word means to announce the arrival of something or someone. While the rising sun does serve as a signal for the day's beginning, using "heralds" might imply a more formal or poetic announcement, which may not be the most direct fit for this descriptive sentence.

- **Continued:** This verb means to proceed without interruption. The rising sun initiates the day; it doesn't merely continue an ongoing process in this context. Thus, "Continued" does not fit the meaning required here.
- **Brings:** This verb means to cause something to come or happen; to introduce. The phrase "The rising sun brings the day" clearly communicates that the sunrise marks the arrival and commencement of the daytime. This is a common and natural expression that fits the sentence structure and meaning perfectly, contrasting aptly with "the setting sun closes the day."

Justification for the Best Fit

After evaluating the options, the word "Brings" is identified as the most appropriate choice for blank (3). It accurately describes the role of the rising sun in initiating the day for the people mentioned in the context. The sentence structure highlights the cycle of day and night: the sun's rising action starts the day, and its setting action ends it. "Brings" fits this cause-and-effect relationship smoothly. The completed sentence, "The rising sun **brings** the day...", effectively conveys this idea, making it the most suitable option among the choices provided.

9. Answer: c

Explanation:

Understanding the Context for Blank (2)

The question asks us to fill in the blank marked (2) in the sentence: "Those living in the slums are (1) _____ and tough because they are totally (2) _____ to the vagaries and hardships of life." We need to find the word that best describes the relationship between the slum dwellers and the "vagaries and hardships of life" that makes them tough.

Analyzing the Options for Blank (2)

Let's examine each option to see which one fits the context:

- **Dependent:** This word means relying on something or someone. While people in slums might rely on certain things, saying they are "dependent to the vagaries and hardships" doesn't fit grammatically or logically. Dependence is usually "on" something.
- **Independent:** This means not relying on others. The sentence implies that the hardships faced make people tough, suggesting they are subjected to these difficulties, not detached from them. So, "independent" doesn't fit the context.
- **Exposed:** This word means being subjected to or vulnerable to something without protection. Being "exposed to the vagaries and hardships of life" means facing them directly and openly. This directly explains why they might develop toughness.
- **Tried:** This word usually refers to having attempted something or having undergone a difficult experience. "Tried to the vagaries" is grammatically incorrect and doesn't convey the intended meaning of being subjected to life's difficulties.

Selecting the Most Appropriate Word

The sentence structure suggests a cause-and-effect relationship: the reason slum dwellers are tough is that they are subjected to life's unpredictability ("vagaries") and difficulties ("hardships"). The word **exposed** perfectly captures this meaning, indicating they face these challenges directly and without adequate protection.

Therefore, the most suitable word for blank (2) is "Exposed". The complete sentence would read: "Those living in the slums are (1) _____ and tough because they are totally **exposed** to the vagaries and hardships of life."

10. Answer: c

Explanation:

Slum Dwellers' Resilience and Word Choice

This question asks us to fill in the blank (1) in the sentence: "Those living in the slums are (1) _____ and tough because they are totally _____ to the vagaries and

hardships of life." We need to select the most fitting word from the given options to describe people living in slums, considering they are also described as "tough" due to facing life's difficulties.

Analyzing Options for Blank (1)

Let's examine each option to see how well it fits the context:

- **Option 1: Rich** – People living in slums are typically associated with poverty, not wealth. Therefore, "rich" is contextually inappropriate and contradicts the likely situation.
- **Option 2: Sick** – While slum dwellers might face health challenges, describing them as "sick" doesn't align with the sentence's logic. The sentence implies that their toughness comes from enduring hardship, not from being perpetually ill. "Sick" doesn't explain why they are "tough".
- **Option 3: Hardy** – The word "hardy" means robust, strong, and able to endure difficult conditions or hardships. This perfectly complements the description "tough" and explains the reason given: being exposed to life's difficulties ("vagaries and hardships"). Someone who is hardy is resilient.
- **Option 4: Weak** – This word is the opposite of "tough" and doesn't make sense in the context. The sentence explicitly states they are "tough".

Selecting the Most Appropriate Word

The sentence explains that slum dwellers are "tough" and provides the reason: their adaptation to hardships. The word "hardy" directly relates to this characteristic of being able to withstand difficulties. Therefore, "hardy" is the most suitable word to describe people living in slums who are tough because they are accustomed to life's challenges.

The completed phrase would read: "Those living in the slums are **hardy** and tough..." This emphasizes their resilience built through enduring difficult circumstances.

11. Answer: b

Explanation:

TRANSGRESSOR Meaning and Nearest Synonym

The task is to identify the word among the given options that is nearest in meaning to the word 'TRANSGRESSOR'. We need to understand the definition of 'transgressor' and then compare it with the meanings of the provided choices.

Understanding the word TRANSGRESSOR

A 'TRANSGRESSOR' is an individual who violates a rule, law, or moral code. It signifies someone who oversteps boundaries or commits an offense against established norms or regulations.

Analyzing the Options for TRANSGRESSOR

Let's examine the meaning of each option provided:

- **Passenger:** This refers to a person traveling in a vehicle, vessel, or aircraft, but not a member of the crew. This meaning is unrelated to breaking rules.
- **Law-breaker:** This term describes someone who violates or breaks the law. This definition closely matches the meaning of 'transgressor'.
- **Protector:** This word refers to someone who defends or guards against harm or danger. It implies safety and defense, which is contrary to the concept of transgression.
- **Comrade:** This term denotes a companion, friend, or associate, typically someone who shares in activities or struggles. It does not relate to the violation of rules.

Comparing Meanings to Find the Best Match

Comparing the definitions helps us find the closest synonym:

- 'TRANSGRESSOR' = One who violates rules/laws.
- 'Passenger' = A traveler.
- 'Law-breaker' = One who violates laws.

- 'Protector' = One who guards or defends.
- 'Comrade' = A companion or friend.

It is clear that 'Law-breaker' shares the core meaning of violating rules or laws, just like 'TRANSGRESSOR'. The other options have distinctly different meanings.

Conclusion on Nearest Meaning

Therefore, the word nearest in meaning to 'TRANSGRESSOR' is 'Law-breaker'. Both words describe someone who fails to adhere to established rules or laws.

12. Answer: d

Explanation:

- **Understanding the Meaning of EGREGIOUS**

The word **EGREGIOUS** is used to describe something that is remarkably bad, shocking, or outstandingly offensive. It points to something that stands out distinctly, but usually in a negative way. For example, an **egregious** error is a mistake that is so bad it's very noticeable and unacceptable.

- **Analyzing the Options for EGREGIOUS Synonyms**

Let's examine the meanings of the choices provided to find the one closest to **EGREGIOUS**:

- **Common:** This means usual, ordinary, or frequently encountered. It doesn't carry the negative weight that **EGREGIOUS** does.
- **Social:** This term relates to society, company, or interaction between people. It is unrelated to the core meaning of **EGREGIOUS**.
- **Plain:** This describes something simple, undecorated, or easily understood. While it can sometimes imply ordinariness, it doesn't suggest extreme badness.
- **Atrocious:** This word means extremely bad, terrible, horrifying, or of very poor quality. It strongly conveys a sense of being shockingly bad.

- **Identifying the Nearest Meaning to EGREGIOUS**

Comparing the definitions, we need to find the word that best matches the idea of being "remarkably bad" or "shockingly bad" as in **EGREGIOUS**.

- 'Common', 'Social', and 'Plain' do not fit because they lack the intense negative connotation.
- 'Atrocious' perfectly captures the essence of being extremely bad or terrible, making it the closest synonym for **EGREGIOUS** among the given options. Both words highlight something negative that is particularly noticeable or outstanding.

Therefore, the word nearest in meaning to **EGREGIOUS** is **Atrocious**.

13. **Answer: c**

Explanation:

Understanding the Antonym for PREDILECTION

This explanation focuses on finding the best antonym for the word **PREDILECTION** among the provided choices.

Meaning of PREDILECTION

A **PREDILECTION** is essentially a preference or a special liking for something or someone. It indicates a bias or a tendency to favor a particular thing. For example, a person might have a **predilection** for reading historical novels.

What is an Antonym?

An antonym is a word that expresses the opposite meaning of another word. Identifying the correct antonym involves understanding the core meaning of the original word and finding a choice that represents its contrary.

Analyzing the Options

Let's examine each option to see how it relates to **PREDILECTION**:

- **Option 1: Oblivion** – This word refers to the state of being forgotten or unknown. It does not relate to the concept of preference or dislike, making it unsuitable as an antonym for **PREDILECTION**.
- **Option 2: Objectivity** – Objectivity means having a lack of bias or being impartial. While **PREDILECTION** implies a bias (a positive one, towards liking), objectivity is about fairness rather than a specific dislike. It's related but not the direct opposite.
- **Option 3: Aversion** – This word signifies a strong dislike or feeling of opposition towards something. This directly contrasts with the meaning of **PREDILECTION**, which is a strong liking or preference.
- **Option 4: Defeat** – Defeat means losing or being overcome. This term is unrelated to the concept of personal preference or liking, so it cannot be an antonym for **PREDILECTION**.

Conclusion on the Antonym

Based on the analysis, **Aversion** is the most appropriate antonym for **PREDILECTION** as it represents a strong dislike, which is the opposite of a special liking or preference.

14. Answer: b

Explanation:

Choosing the Opposite Meaning for CACOPHONOUS

This explanation focuses on finding the word that has a meaning closest to the opposite of the given word, **CACOPHONOUS**, from the provided options.

Understanding the Word CACOPHONOUS

The term **CACOPHONOUS** refers to a harsh, jarring, and unpleasant mixture of sounds. Think of loud, discordant noises that are difficult to listen to.

Analyzing the Opposite Word Options

We need to examine each option to see which one contrasts most strongly with the meaning of **CACOPHONOUS**:

- **Tamed**: This word means made less wild or violent, or brought under control. It usually applies to animals or behavior, not directly to the quality of sound.
- **Harmonious**: This describes sounds that are pleasing, musical, and well-blended. It signifies agreement and a lack of discord. This is the direct opposite of harsh, unpleasant sounds.
- **Domestic**: This relates to the home, family, or a specific country. It can also mean tame or domesticated, but it doesn't relate to the quality of sounds.
- **Silent**: This means making no sound at all. While the opposite of loud noise, **CACOPHONOUS** specifically describes the *quality* of sound (harsh and unpleasant), not just its presence. **Harmonious** describes a pleasant quality of sound, making it a better opposite.

Identifying the Best Antonym

Let's compare the meanings directly:

- **CACOPHONOUS**: Harsh, discordant sound.
- **Tamed**: Controlled (not related to sound quality).
- **Harmonious**: Pleasing, melodious sound.
- **Domestic**: Relating to home or being tame (not related to sound quality).
- **Silent**: No sound.

The most fitting opposite for a harsh, unpleasant sound (**CACOPHONOUS**) is a pleasing, well-blended sound (**Harmonious**).

Final Choice

Based on the analysis, the word that is nearly opposite in meaning to **CACOPHONOUS** is **Harmonious**.

15. Answer: b

Explanation:

Understanding the Meaning of 'Calumny'

The question asks us to find a word that is nearly opposite in meaning to the word 'CALUMNY'. To find the correct answer, we first need to understand what 'calumny' means.

Calumny refers to the making of false and defamatory statements about someone with the intention of spoiling their reputation. It essentially means slander or the act of spreading harmful lies about a person.

Analyzing the Options for Opposition to 'Calumny'

Let's look at the meaning of each given option to see which one is the opposite of 'calumny':

- **Apology:** This means admitting fault or wrongdoing and expressing regret. While related to statements about reputation, it's not the direct opposite of making false, damaging statements.
- **Eulogy:** This is a speech or text that praises someone or something highly, often delivered after their death. It involves speaking positively and commendably about a person.
- **Enjoyment:** This refers to the state of feeling pleasure or happiness. It has no relation to making statements about someone's reputation.
- **Reservation:** This typically means doubt or a feeling of holding back, or a booking for something. It is unrelated to the concept of slander or praise.

Identifying the Antonym of 'Calumny'

'Calumny' involves making false and harmful statements to damage reputation. The opposite of damaging someone's reputation with falsehoods would be praising

them or speaking highly of them. Among the options provided, '**Eulogy**' fits this description best.

A **eulogy** is a form of high praise, the exact opposite of the damaging intent behind **calumny**. While **calumny** aims to harm reputation through lies, a **eulogy** aims to honor and praise, often highlighting positive attributes.

Conclusion

Based on the meanings, '**Eulogy**' is the word that is nearly opposite in meaning to '**Calumny**'.

16. Answer: b

Explanation:

Defining 'Able to Use Both Hands Alike'

This question asks us to identify the single word that perfectly describes someone who is **able to use both hands alike**. This means the person has equal skill and comfort using either their left or right hand for various tasks. Let's break down the meaning and look at the options provided to find the best match.

Analyzing the Key Phrase: 'Able to Use Both Hands Alike'

The core idea is equal proficiency with both the left and right hands. Someone who fits this description doesn't strongly favour one hand over the other; they can perform actions smoothly and effectively with either hand.

Examining the Options Provided

We need to understand what each option means to determine which one fits the phrase '**able to use both hands alike**':

1. Dexterous

The word 'Dexterous' generally refers to being skillful with your hands or body. While it implies skill, it often relates more to agility and proficiency, typically with the preferred hand (often the right, historically). It doesn't specifically mean being equally skilled with **both** hands.

2. Ambidextrous

'Ambidextrous' comes from Latin roots: 'ambi-' meaning 'both' and 'dexter' meaning 'right' (or skillful/right-handed). The term specifically means someone who is **able to use both hands alike**, demonstrating equal skill with the left and right hands. This directly matches the definition provided in the question.

3. Skilful

'Skilful' is a broad term meaning having or showing skill. It indicates competence in doing something but doesn't specify whether this skill applies equally to both hands. A person can be skilful with their dominant hand only.

4. Expert

An 'Expert' is someone who has comprehensive knowledge or skill in a particular area. Like 'skilful', this term describes a high level of competence but doesn't relate specifically to the use of both hands. An expert might be highly skilled with only one hand.

Comparison and Conclusion

Comparing the definitions:

- **Dexterous:** Skillful, especially with hands.
- **Ambidextrous:** Able to use both hands equally well.
- **Skilful:** Having or showing skill.
- **Expert:** Having great knowledge or proficiency.

The term that precisely defines the ability to be **able to use both hands alike** is **Ambidextrous**. It captures the essence of equal hand proficiency, which the other terms do not necessarily imply.

17. Answer: c

Explanation:

Defining a Written Life Account

The question asks us to identify the single word that best describes the phrase: 'A written account of the life of an individual'. This means we are looking for a term that represents a narrative recording a person's life story.

Examining Options for Life Narratives

Let's break down the meaning of each provided option:

- **Biography:** This term refers specifically to a written record of the life of a person, usually written by someone other than the subject. It covers the individual's life experiences, achievements, and significant events. This fits the definition given in the question very well.
- **Autobiography:** This is a type of biography, but it is written by the person whose life is being described. The phrase in the question is general ('the life of an individual') and doesn't specify that the person wrote it themselves. Therefore, autobiography is a more specific term than what is needed.
- **Epigraph:** An epigraph is a short quote or saying placed at the beginning of a book, chapter, or poem, often used to set the tone or suggest a theme. It is not related to writing a life story.
- **Novel:** A novel is a work of fiction, typically a lengthy prose narrative. While novels can sometimes be based on real people or events, they are primarily imaginative creations and not factual accounts of a specific individual's life.

Selecting the Best Term for an Individual's Life Story

Based on the analysis, **biography** is the most fitting word for 'A written account of the life of an individual'. It accurately captures the essence of documenting someone's

life story, regardless of who writes it, making it the most suitable choice among the options.

18. Answer: c

Explanation:

Defining Disease Identification Using Symptoms

The question asks for the specific term that describes "The identification of a disease by its symptoms". This process is fundamental in healthcare for understanding a patient's condition. We need to carefully consider the meaning of each medical term provided in the options to find the best match for this definition.

Understanding the Medical Terminology

Let's break down the definitions of the given options:

- **Prescription:** This term refers to a formal instruction, usually written by a medical practitioner, that authorizes a patient to be provided a medicine or treatment. It is a step taken *after* a disease has been identified and is aimed at treating it. It does not mean the *identification* of the disease itself based on symptoms.
- **Prognosis:** This term relates to the prediction of the probable course and outcome of a disease. A prognosis is an educated guess about the future progression of an illness, often made after the disease has been diagnosed. It is not the initial identification process using symptoms.
- **Diagnosis:** This is the core process of identifying a specific disease or condition. It is achieved by evaluating a patient's signs, symptoms, medical history, and often the results of diagnostic tests. The phrase "The identification of a disease by its symptoms" directly aligns with the definition of **diagnosis**.
- **Biopsy:** This is a medical procedure that involves removing a small sample of tissue or cells from the body for examination under a microscope or other laboratory analysis. A biopsy is often used as a tool to help confirm or refine a

diagnosis, but it is a specific investigative method, not the general definition of identifying a disease through its symptoms.

Choosing the Correct Term for Symptom Identification

Based on the analysis of each option, the term that accurately defines "The identification of a disease by its symptoms" is **Diagnosis**. This process involves clinicians observing and interpreting the symptoms presented by a patient to determine the underlying illness.

Therefore, **Diagnosis** is the word that best defines the given phrase.

19. Answer: d

Explanation:

Understanding Prolonged Inability to Sleep

The phrase 'Prolonged inability to sleep' describes a persistent condition where an individual finds it difficult to fall asleep, stay asleep, or get restful sleep over an extended period. This difficulty can significantly impact a person's health and daily functioning.

Analyzing Terms Related to Sleep and Health

Let's examine the meaning of each option to find the word that best fits the description:

- **Amnesia:** This term refers to the loss of memory, either partially or totally. It is not related to sleep disturbances.
- **Utopia:** This word denotes an imagined community or society that possesses highly desirable or nearly perfect qualities for its citizens. It has no connection to medical conditions or sleep.
- **Nausea:** Nausea is a feeling of sickness with an inclination to vomit. While certain medical conditions causing nausea might indirectly affect sleep,

nausea itself is not the inability to sleep.

- **Insomnia:** This is the medical term used to describe a sleep disorder where a person consistently experiences difficulty falling asleep or staying asleep. This directly matches the definition of 'prolonged inability to sleep'.

Identifying the Correct Term for Sleep Difficulty

Comparing the definitions, **Insomnia** is the word that specifically and accurately defines the condition of having a 'prolonged inability to sleep'. The other options describe different concepts unrelated to sleep disorders.

20. Answer: b

Explanation:

Defining Writer's Style: Displaying Knowledge

This question requires identifying the best vocabulary term for a writer's specific style characterized by showing off their knowledge. We need to carefully consider the meaning of each option provided to find the most accurate match for the given phrase.

Understanding the Phrase: 'Display of Knowledge'

The core of the phrase is about a writer using their work to overtly exhibit or flaunt their learning, expertise, or knowledge. This often implies doing so in a way that might be perceived as excessive or attention-seeking.

Analyzing Vocabulary Choices

Let's break down the meaning of each potential answer:

- **Verbose:** This term describes language that uses more words than necessary. A verbose writer is wordy or long-winded. While they might happen to share

knowledge, the main characteristic is the excessive use of words, not necessarily the flaunting of knowledge itself.

- **Pedantic:** This word refers to a style or person who is excessively concerned with minor details, rules, or displaying academic learning in an ostentatious or overly formal way. It directly relates to making a show of one's knowledge or learning.
- **Ornate:** This describes a style that is highly decorated, elaborate, or embellished. It usually applies to the structure of sentences, use of adjectives, or overall artistic decoration of the writing, rather than specifically the display of knowledge.
- **Pompous:** This term describes someone or something that is affectedly grand, solemn, or self-important. While a pompous writer might display knowledge, the emphasis is on their inflated sense of importance, not solely on the knowledge itself.

Comparing Terms for Writer's Style

Here's a table summarizing how each word relates to the phrase:

Word	Primary Meaning	Relation to 'Display of Knowledge'
Verbose	Using more words than needed; wordiness.	Indirect; focuses on quantity of words, not necessarily showing knowledge.
Pedantic	Ostentatiously showing knowledge or learning; overly concerned with academic precision.	Direct match; specifically describes the act of showing off knowledge.
Ornate	Elaborately decorated or embellished style.	Relates to stylistic complexity, but not inherently the display of knowledge.
Pompous	Self-important; grand or pretentious manner.	Relates to attitude; may accompany knowledge display but isn't its definition.

Conclusion: Selecting the Best Term

The phrase 'A style in which a writer makes a display of his knowledge' is best defined by the word **Pedantic**. This term specifically captures the behaviour of showcasing one's learning or knowledge in a way that draws attention to it, often in a manner considered tiresome by the audience.

21. Answer: c

Explanation:

Identifying the Correctly Spelt Word: 'Reminiscent'

The question asks to identify the correctly spelt word to complete the sentence: "The school alumni gathering put us in a _____ mood." The word needed describes a feeling or atmosphere related to recalling the past, which is a common experience at alumni gatherings.

Understanding the Word 'Reminiscent'

The word "reminiscent" means tending to remind one of something or someone, or suggesting memories of the past. This fits the context of an alumni gathering perfectly, as such events often evoke memories and feelings from school days.

Analyzing Spelling Options

Let's examine the spelling of each option provided:

- **Remniscent:** This spelling is incorrect because it is missing the letter 'i' after 'n'.
- **Reminisent:** This spelling is incorrect as it is missing the letter 'c' before the final 'ent'.
- **Reminiscent:** This spelling is correct. It follows the standard English spelling pattern for this word, containing 'i', 's', 'c', 'e', 'n', 't'.
- **Reminicent:** This spelling is incorrect because it is missing the letter 's' after 'i'.

Correct Spelling and Usage

The correctly spelt word is "Reminiscent". It should be used in the sentence like this:

"The school alumni gathering put us in a **Reminiscent** mood."

This means the gathering made them feel thoughtful about the past or evoked memories.

Summary of Correct Spelling

Ensure you remember the correct spelling: R-E-M-I-N-I-S-C-E-N-T.

22. Answer: c

Explanation:

Identifying the Correctly Spelt Statement Word

This question requires us to find the correctly spelt word that fits into the sentence: 'God is Dead' is a _____ statement. The missing word should describe the nature of such a statement, likely relating to religious reverence or lack thereof.

Understanding the Contextual Word

The phrase 'God is Dead' is a philosophical statement often associated with expressing a loss of faith or the decline of traditional religious values in society. A word describing this sentiment, showing irreverence or contempt towards God or sacred things, is needed. This concept is related to **blasphemy**.

Evaluating Spelling Choices

Let's look at the spelling variations provided in the options:

- **Blasphemus**: This spelling is incorrect. It deviates from the standard English spelling for the adjective form.
- **Blaphemous**: This spelling is incorrect. It is missing the letter 's' required after 'p'.
- **Blasphemous**: This is the correct spelling for the adjective form of 'blasphemy', meaning showing irreverence or contempt towards God.
- **Blospheмос**: This spelling is incorrect due to multiple errors in vowel and consonant placement.

Confirming Correct Spelling

Based on standard English spelling rules, the word 'Blasphemous' is correctly spelled. It accurately describes a statement that shows contempt or irreverence towards God.

Thus, the correctly completed sentence is: 'God is Dead' is a **Blasphemous** statement.

23. Answer: a

Explanation:

Identifying the Correct Spelling for 'Alarm' Context

This question tests your knowledge of English spelling, specifically focusing on a word that describes a state of fear or anxiety. The sentence discusses how the **threat** of an **epidemic** created significant **alarm**, and we need to find the correctly spelt word to complete this thought.

Understanding the Word 'Trepidation'

'**Trepidation**' refers to a feeling of fear or anxiety about something that might happen. It signifies nervousness and apprehension. In the context of the sentence, it accurately describes the feeling caused by the threat of an epidemic.

Analyzing the Spelling Options

Let's examine each option to determine the correct spelling:

- **1. Trepidation:** This spelling follows the standard English rules for this word. It correctly uses 'trep', 'i', 'da', 'ti', 'on'.
- **2. Terpidation:** This spelling is incorrect because it replaces the 're' combination with just 'e' after 'T'.
- **3. Trepidition:** This spelling is incorrect. The correct form uses '-da-' in the middle, not '-di-'.
- **4. Trepidattion:** This spelling is incorrect due to the extra 't' inserted before the 'i'.

Therefore, the word '**Trepidation**' is the correctly spelt term that fits the sentence, meaning great fear and anxiety caused by the threat of the epidemic.

24. Answer: b

Explanation:

Correct Spelling Analysis for "Resurrect"

The task is to identify the correctly spelt word from the given options. The sentence provided uses a common idiom, "enough to ____ the dead," to emphasize the extreme loudness of the noise made by children. The missing word relates to bringing something back to life, fitting the context of overwhelming noise.

Identifying the Correct Spelling

We need to carefully check the spelling of the word "**resurrect**" in each option:

- **Option 1: Ressurect** – This spelling is incorrect. It contains an extra 's' after 'Re' and incorrectly places the 'e' after 'su'.
- **Option 2: Resurrect** – This is the correct spelling of the word. It accurately reflects the standard English spelling.
- **Option 3: Resurect** – This spelling is incorrect as it is missing the second 'r' in the word. The correct spelling requires 'rr' after 'su'.

- **Option 4: Resurecct** – This spelling is incorrect. It is missing the 'r' after 'su' and incorrectly uses a double 'c' at the end.

Detailed Breakdown of "Resurrect" Spelling

The word "**resurrect**" is often misspelled. Let's look at its correct structure:

- The prefix is "Re-" (meaning again or back).
- The root relates to "surrect," meaning to rise.
- The correct spelling combines these parts as R-E-S-U-R-R-E-C-T.
- Key points to remember are the double 'r' (rr) and the sequence 'e', 'c', 't' at the end.

The word means to bring back to life or consciousness, or to revive something that was forgotten or inactive. In the given sentence, it's used figuratively to emphasize the extreme volume of the children's noise.

Final Answer Confirmation

After reviewing the options, "**Resurrect**" is the only word spelled correctly. Therefore, it is the appropriate choice to complete the sentence, highlighting the intensity of the noise.

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25. Answer: c

Explanation:

Correct Spelling for Maneuvering a Car

This question tests your knowledge of English spelling, specifically for the word used when guiding or steering a vehicle, like a car, into a tight spot.

Understanding the Word's Meaning

The sentence "Can you ___ the car into that parking spot?" requires a verb that means to perform a skillful or careful movement. In the context of driving, this

means guiding the car precisely.

Analyzing the Options

Let's look at each spelling option:

- **Option 1: Manuer** – This is not a standard English word and is incorrectly spelled.
- **Option 2: Manever** – This spelling is also incorrect. It misses key letters from the standard word.
- **Option 3: Manoeuvre** – This is the correct spelling of the word, particularly common in British English. It accurately describes the action of carefully moving the car.
- **Option 4: Manuver** – This spelling is incorrect. While similar to the American English spelling ("maneuver"), it is missing the 'e' after the 'u'.

Identifying the Correct Spelling

The word needed is "manoeuvre", which refers to a movement or a series of moves requiring skill and care.

Therefore, the correctly spelt word to complete the sentence is:

"Can you **manoeuvre** the car into that parking spot?"

This option correctly uses the standard spelling for the term relating to careful vehicle movement.

26. Answer: c

Explanation:

Governor-General During the Sepoy Mutiny

The question asks to identify the Governor-General of India when the significant event known as the '**Sepoy Mutiny**' occurred. The 'Sepoy Mutiny', also known as India's First War of Independence, took place in 1857. It was a pivotal moment in

Indian history, marking a large-scale rebellion against the rule of the British East India Company.

Understanding the Role of Governor-General

The Governor-General was the head of the British administration in India during the colonial era. This position held immense power and responsibility for governing the territories under British control. It is crucial to know who held this office during major historical events like the 'Sepoy Mutiny' to understand the political context of the time.

Identifying the Governor-General in 1857

To answer the question accurately, we need to recall the timeline of British Governor-Generals in India and match it with the year 1857.

- **Lord Canning** served as the Governor-General of India from 1856 to 1862. His tenure precisely covered the period of the 'Sepoy Mutiny' in 1857. He was the Governor-General when the rebellion broke out and played a key role in managing the crisis and the subsequent administrative reforms. Notably, after the mutiny, the British Crown took direct control of India, and Lord Canning became the first Viceroy under the new Crown rule in 1858.

Evaluating Other Options

Let's look at why the other options are not the most appropriate:

- **Lord Dalhousie:** He was the Governor-General before Lord Canning, serving from 1848 to 1856. While his policies, such as the Doctrine of Lapse, contributed to the discontent that fueled the mutiny, he had already left India before the uprising began.
- **Lord Harding:** Henry Hardinge served as Governor-General from 1844 to 1848. This period predates the 'Sepoy Mutiny' significantly.
- **Lord Lytton:** Edward Bulwer-Lytton was the Governor-General much later, from 1876 to 1880. His tenure was associated with different significant events, like the Vernacular Press Act and the Arms Act, long after the 'Sepoy Mutiny'.

Conclusion on the Governor-General

Based on the historical timelines, **Lord Canning** was the Governor-General of India during the 'Sepoy Mutiny' of 1857. His administration faced the immediate challenge of the rebellion and oversaw the transition of power from the East India Company to the British Crown.

27. Answer: d

Explanation:

Identifying the Incorrect Statement about Indian Territories

This question requires identifying the statement that is factually incorrect regarding the historical and geographical details of Goa, Daman & Diu, and Dadar & Nagar Haveli. Let's examine each option:

Analysis of Statement 1: Goa's Statehood

The statement mentions that **Goa attained full statehood in 1987**. Historical records confirm that Goa was conferred its statehood on May 30, 1987, becoming the 25th state of India. Thus, this statement is **correct**.

Analysis of Statement 2: Diu's Geographical Location

This option states that **Diu is an island in the Gulf of Khambhat**. Diu is geographically situated off the southern coast of the Kathiawar peninsula in Gujarat, within the Gulf of Khambhat (also known as Cambay). Therefore, this statement is also **correct**.

Analysis of Statement 3: Daman & Diu Separation and Amendment

The statement claims that **Daman & Diu were separated from Goa by the 56th Amendment of the Constitution of India**. The Constitution (Fifty-sixth Amendment)

Act, 1987, specifically enabled Goa to become a state. Before this, Goa, Daman, and Diu were administered collectively as a Union Territory. When Goa achieved statehood, Daman and Diu continued as a separate Union Territory. The amendment facilitated this administrative change, but its primary focus was Goa's statehood, not the separation of Daman and Diu per se. While the phrasing could be debated, it's generally considered factually linked to the events of 1987.

Analysis of Statement 4: Dadar & Nagar Haveli Rule

This option asserts that **Dadar & Nagar Haveli were under French colonial rule till 1954**. This statement contains a significant historical inaccuracy. Dadar & Nagar Haveli were administered by the **Portuguese**, not the French, colonial power. They were liberated in 1954, ending Portuguese rule. French colonial administration was historically associated with territories like Puducherry (Pondicherry), Karaikal, and Yanam. Hence, the claim of French rule over Dadar & Nagar Haveli is factually incorrect.

Conclusion: Identifying the Incorrect Statement

Comparing the statements, Option 4 is demonstrably incorrect because it misidentifies the colonial power that ruled Dadar & Nagar Haveli. They were under Portuguese rule, not French rule, until their liberation in 1954.

Therefore, the incorrect statement is: **Dadar & Nagar Haveli were under French colonial rule till 1954**.

28. Answer: a

Explanation:

River Basis for Washington D.C. Location

Washington D.C., the capital city of the United States, is located along a specific river. Understanding the geography of capital cities is important, and knowing which river a city is situated on provides key geographical context.

Situating Washington D.C. on the Potomac River

Washington D.C. is situated on the north bank of the **Potomac River**. The river flows into the Chesapeake Bay. Its location on the Potomac was a significant factor in its establishment as the nation's capital, offering advantages for transportation and access.

Analysis of Alternative River Options

The other options provided are rivers located in different regions and are not associated with Washington D.C.'s location:

- **Irrawaddy River:** This river is located in Southeast Asia, primarily flowing through Myanmar.
- **Mississippi River:** This is a major river system in the central United States, but Washington D.C. is not located on it. Cities like New Orleans and Memphis are on the Mississippi.
- **Hudson River:** This river is primarily associated with New York State and New York City.

Confirming the geographical facts, the **Potomac River** is the correct river associated with the location of Washington D.C.

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29. Answer: d

Explanation:

Acceleration and its Impact on Body's Motion

Acceleration is a fundamental concept in physics describing how an object's velocity changes over time. Velocity itself is a vector quantity, meaning it has both magnitude (which we call speed) and direction. Therefore, acceleration implies a change in velocity, which can manifest as a change in speed, a change in direction, or changes in both.

Mathematically, acceleration ($\vec{a}$) is defined as the rate of change of velocity ($\vec{v}$) with respect to time (t):

$$\vec{a} = \frac{d\vec{v}}{dt}$$

Since velocity is a vector ($\vec{v} = v\hat{d}$, where v is speed and $\hat{d}$ is the direction), acceleration means that $\frac{d\vec{v}}{dt} \neq 0$. This can occur if the speed (v) changes, or the direction ($\hat{d}$) changes, or both.

Analyzing Effects of Acceleration on Speed and Direction

Let's examine each option in the context of acceleration:

Acceleration vs. Velocity Change

Option 1: Its velocity never changes

This statement is incorrect. The very definition of acceleration is the rate of change of velocity. If a body is accelerating, its velocity must be changing. For example, if a car speeds up from 10 m/s to 20 m/s in the same direction, its velocity changes.

Acceleration and Speed Variation

Option 2: Its speed will always changes

This statement is also incorrect. Consider an object moving in a circle at a constant speed (uniform circular motion). Although its speed is constant, its direction is continuously changing. This change in direction means its velocity is changing, and therefore, it is accelerating (specifically, centripetal acceleration). In this case, the speed does not change, but acceleration is present.

Acceleration and Direction Change

Option 3: Its direction always changes

This statement is incorrect as well. Imagine a car moving in a straight line and increasing its speed. Its velocity is changing because its speed is increasing. However, its direction remains the same. This motion involves acceleration (tangential acceleration), but the direction doesn't change.

When Speed May or May Not Change During Acceleration

Option 4: Its speed may or may not change

This statement is correct. As discussed above:

- If acceleration is in the same direction as the velocity (like speeding up in a straight line), the speed increases.
- If acceleration is opposite to the direction of velocity (like braking in a straight line), the speed decreases.
- If acceleration is perpendicular to the velocity (like in uniform circular motion), the speed remains constant, but the direction changes.
- If acceleration has components both parallel and perpendicular to velocity, both speed and direction change.

Therefore, when a body is accelerated, its speed is not guaranteed to change; it might stay the same if the acceleration only affects the direction of motion.

30. Answer: d

Explanation:

Understanding United Nations Agencies

The United Nations (UN) system is a vast network of organizations, agencies, funds, and programs, each with specific mandates. Specialized agencies are autonomous intergovernmental organizations that work with the UN and its agencies within the broader UN system. Understanding the relationship between these different bodies and the UN itself is key to answering questions about UN affiliation.

Analyzing the Options Provided

Let's examine each option to determine its status within the UN framework:

1. World Bank's Relationship with the UN

The World Bank Group, comprising the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), is one of the principal agencies in the UN system. Established in 1944 at the Bretton Woods Conference, it officially became a specialized agency of the UN in 1947. Its primary goal is to reduce poverty by providing financial and technical assistance to developing countries for capital projects and programs.

2. International Atomic Energy Agency (IAEA) Status

The International Atomic Energy Agency (IAEA) was established in 1957 as an autonomous organization. While not technically a UN specialized agency in the same way as others, it operates independently but works closely with the United Nations. The IAEA reports annually to the UN General Assembly and, when necessary, to the UN Security Council. It is often considered part of the broader UN family due to its close relationship and reporting structure.

3. Universal Postal Union (UPU) Role

The Universal Postal Union (UPU) is a specialized agency of the United Nations. It became part of the UN system in 1974. The UPU is responsible for coordinating postal policies among member nations, thereby setting the groundwork for international mail exchange. Its headquarters are in Bern, Switzerland.

Conclusion: Identifying the Correct Option

Based on the analysis:

- The World Bank is a specialized agency of the UN.
- The International Atomic Energy Agency (IAEA) is a closely related organization that reports to the UN.

- The Universal Postal Union (UPU) is a specialized agency of the UN.

Since the World Bank, the International Atomic Energy Agency, and the Universal Postal Union are all integral parts of, or closely associated with, the United Nations system, none of them can be identified as NOT being an agency or related body of the UN.

Therefore, the correct option is "None of the above," as all the listed entities have significant ties and functions within the UN framework.

31. Answer: b

Explanation:

Understanding the BRAHMOS Missile Classification

The question asks about the classification of the BRAHMOS missile. Missiles are categorized based on various factors, including their trajectory, range, launch platform, and speed. Let's look at the options provided and determine the correct classification for BRAHMOS.

Missile Classification Types

Understanding the basic types of missiles helps in classifying BRAHMOS:

- **Ballistic Missiles:** These missiles follow a high, arcing trajectory. They are powered during the initial phase and then follow a free-flight path influenced by gravity. Their target is typically predicted before launch.
- **Cruise Missiles:** These missiles fly at a relatively low altitude and follow a guided path throughout their flight. They use aerodynamic lift and are powered throughout most of their flight. They are often used for precision strikes on specific targets.

Speed Classification for Cruise Missiles

Cruise missiles can be further classified by their speed relative to the speed of sound (Mach 1):

- **Subsonic:** Travels slower than Mach 1.
- **Supersonic:** Travels faster than Mach 1 but typically less than Mach 5.
- **Hypersonic:** Travels at Mach 5 or faster.
- **Ultrasonic:** This term is not a standard classification used in missile technology; supersonic is the correct term for speeds above Mach 1 up to Mach 5.

Analyzing BRAHMOS Missile Characteristics

The BRAHMOS is a joint venture between India (Defence Research and Development Organisation – DRDO) and Russia (NPO Mashinostroyeniya – NPO). The name BRAHMOS comes from the names of two rivers, the Brahmaputra of India and the Moskva of Russia.

- BRAHMOS is known for its ability to fly at very low altitudes and follow a programmed path, making it a [cruise missile](#).
- Its speed is consistently reported to be around Mach 2.8 to 3. This speed range is well above the speed of sound (Mach 1).
- Therefore, BRAHMOS is a [supersonic cruise missile](#).

Considering these characteristics, let's evaluate the given options:

1. Medium range ballistic missile: BRAHMOS is a cruise missile, not a ballistic missile. So, this is incorrect.
2. Supersonic cruise missile: BRAHMOS is a cruise missile that travels at supersonic speeds (Mach 2.8–3). This matches the known characteristics.
3. Short range tactical missile: While BRAHMOS is used tactically, its primary classification relates to its type (cruise) and speed (supersonic). Missile ranges are often categorized differently (e.g., short, medium, intermediate, intercontinental ballistic missiles – ICBMs), and classifying it only by "short range tactical" doesn't fully describe its key technical features like being a supersonic cruise missile. Its range is typically around 290–400 km depending on the version, which can be considered medium-range for some definitions, but the supersonic cruise aspect is a more defining characteristic.

4. Ultrasonic cruise missile: As noted earlier, "ultrasonic" is not standard missile terminology for speed; "supersonic" is the correct term for speeds above Mach 1 up to Mach 5. So, this is incorrect.

Based on its flight profile and speed, BRAHMOS is accurately classified as a supersonic cruise missile.

Missile Characteristic	BRAHMOS	Ballistic Missile Example
Type of Flight	Guided throughout, low altitude	Ballistic trajectory (arcing), powered launch, free-flight
Speed	Supersonic (Mach 2.8 - 3)	Can reach very high speeds upon re-entry
Targeting	Precision strikes	Area bombardment or specific targets
Propulsion	Ramjet/Rocket during flight	Rocket during launch phase

Revision Table: BRAHMOS Missile

Key Aspect	Description
Missile Type	Cruise missile
Speed Classification	Supersonic
Typical Speed	Mach 2.8 - 3
Developer	India (DRDO) & Russia (NPO) Joint Venture
Launch Platforms	Land, Sea, Air

Additional Information on Missile Types and Speeds

Missile technology involves various classifications. Understanding these helps differentiate missile capabilities:

- **Anti-ship missiles:** Designed specifically to target ships. BRAHMOS has variants used as anti-ship missiles.
- **Land-attack missiles:** Designed to target ground-based objectives. BRAHMOS also has land-attack variants.
- **Air-to-surface missiles:** Launched from aircraft towards ground or sea targets.
- **Surface-to-surface missiles:** Launched from ground or sea towards ground or sea targets.
- **Mach Number:** Represents the ratio of an object's speed to the speed of sound in the surrounding medium. Mach 1 is the speed of sound.
- **Hypersonic Missiles:** These represent the next frontier, traveling at speeds above Mach 5, making them extremely difficult to intercept.

The BRAHMOS's supersonic speed and cruise trajectory make it a potent weapon system for precision strikes against various targets.

32. Answer: d

Explanation:

Understanding Energy Units vs. Power Units

The question asks us to identify which of the given options is **not** a unit used to measure energy. Energy is the capacity to do work. Several units are used to quantify energy in different contexts.

Analyzing the Options for Energy Units

Let's examine each option:

- **Calorie:** A calorie is a unit of energy, commonly used to measure the energy content in food and the amount of heat. It's defined as the amount of heat needed to raise the temperature of one gram of water by one degree Celsius.

A related unit is the kilocalorie (kcal), often referred to as 'Calorie' (with a capital C) in nutrition.

- **Joule:** The Joule (J) is the standard international (SI) unit of energy and work. It is defined as the work done when a force of one Newton is applied over a distance of one meter. Mathematically, $1 \text{ Joule} = 1 \text{ Newton} \cdot \text{meter} (1 \text{ N} \cdot \text{m})$.
- **Electron Volt:** The electron volt (eV) is a unit of energy commonly used in atomic, nuclear, and particle physics. It represents the amount of kinetic energy gained by a single electron when it accelerates through an electric potential difference of one volt. It's related to Joules by the conversion factor $1 \text{ eV} \approx 1.602 \times 10^{-19} \text{ J}$.
- **Watt:** The Watt (W) is the SI unit of **power**, not energy.

Defining Power and Its Unit

Power is defined as the rate at which energy is transferred, used, or converted. In simpler terms, it's how quickly work is done or energy is used.

The relationship between power, energy (or work), and time is given by the formula:

$$\text{Power} = \frac{\text{Energy}}{\text{Time}}$$

Using standard units, this means:

$$1 \text{ Watt} = 1 \frac{\text{Joule}}{\text{second}} \quad (1 \text{ W} = 1 \frac{\text{J}}{\text{s}})$$

This shows that a Watt measures energy per unit time. For example, a 100W light bulb uses 100 Joules of energy every second.

Conclusion on Energy Units

Based on the analysis:

- Calorie is a unit of energy.
- Joule is the SI unit of energy.
- Electron Volt is a unit of energy used in physics.
- Watt is a unit of power (energy per time).

Therefore, the Watt is the option that is **not** a unit of energy.

33. Answer: b

Explanation:

Samudragupta: The 'Napoleon of India'

The question asks to identify the Indian ruler famously known as the '**Napoleon of India**'. This nickname is given to a ruler based on their exceptional military skills and the significant expansion of their kingdom, similar to Napoleon Bonaparte of France.

Analyzing the Title 'Napoleon of India'

The title '**Napoleon of India**' is attributed to rulers who demonstrated remarkable military conquests and expanded their empires considerably. This comparison emphasizes strategic brilliance, battlefield success, and the ambition to unite or dominate large territories.

Samudragupta's Military Achievements

Samudragupta, a prominent emperor of the Gupta dynasty, is the ruler referred to by this title. Historian Vincent Arthur Smith first used this comparison in his book 'The Early History of India'. The reasons for this association include:

- **Extensive Conquests:** Samudragupta undertook numerous military expeditions throughout his reign, successfully conquering many kingdoms across North India and extending his influence far beyond.
- **Military Prowess:** Inscriptions, such as the one on the Allahabad Pillar (Prayag Prashasti), detail his bravery, his ability to defeat numerous rulers, and his role in consolidating the Gupta Empire.
- **Unrivaled Military Success:** He is renowned for his military genius and is often described as having an undefeated military record, expanding the empire significantly through his campaigns.

Evaluating Other Options

The other rulers listed were also significant historical figures, but the specific title 'Napoleon of India' is not typically associated with them:

- **Ashoka:** Emperor Ashoka of the Mauryan Empire is famous for his conversion to Buddhism after the Kalinga War and his promotion of peace and welfare. While initially a conqueror, his later reign focused on moral governance rather than aggressive expansion.
- **Chandragupta:** Chandragupta Maurya founded the Mauryan Empire and was a great military leader who established a vast empire. However, the specific nickname 'Napoleon of India' is linked to Samudragupta.
- **Harshavardhana:** King Harshavardhana of the Vardhana dynasty ruled a large empire in North India and was known for his administration and patronage of arts. While a capable ruler, his military achievements don't draw the same comparison to Napoleon as Samudragupta's do.

Conclusion on the 'Napoleon of India'

Therefore, due to his extensive military campaigns, strategic brilliance, and the vast expansion of the Gupta Empire, **Samudragupta** is historically recognized and celebrated as the 'Napoleon of India'.

Your Personal Exams Guide

34. Answer: a

Explanation:

Identifying the 'Grand Old Man of India'

Understanding the historical context and the contributions of prominent leaders is crucial when studying India's freedom movement. Often, leaders are recognized with specific titles that reflect their stature and impact. This question asks to identify the individual known by the honorary title, 'Grand Old Man of India'.

Understanding the Title 'Grand Old Man of India'

The title 'Grand Old Man of India' was bestowed upon a key figure in India's national movement, acknowledging his long years of dedicated public service, his wisdom, and his significant role in shaping political thought and advocating for India's rights. This title signifies immense respect earned through decades of contribution to the nation.

Dadabhai Naoroji: The Recipient of the Title

Dadabhai Naoroji is widely revered and recognized as the 'Grand Old Man of India'. His association with this title stems from several key factors:

- **Long Public Life:** Naoroji had an exceptionally long and active public career, spanning many decades. He was a scholar, politician, and social reformer.
- **Pioneer of Swaraj:** He was one of the earliest proponents of *Swaraj* (self-rule) in the Indian National Congress, articulating the demand for self-government long before it became a mainstream objective.
- **Economic Analysis:** Naoroji meticulously analyzed the economic impact of British rule on India. His famous "Drain Theory" explained how British policies impoverished India by draining its wealth. He published his findings in his book, *Poverty and Un-British Rule in India*.
- **Leadership Roles:** He held significant positions, including being the President of the Indian National Congress thrice and was the first Indian to be elected to the British Parliament (House of Commons) in 1892.
- **Respected Elder Statesman:** Due to his vast experience, intellectual contributions, and unwavering commitment to India's cause, he was affectionately given the title 'Grand Old Man of India' by his contemporaries and the public.

Contributions of Other Figures

While the other options were also influential leaders during India's struggle for independence, the specific title 'Grand Old Man of India' is exclusively associated with Dadabhai Naoroji.

- **Gopal Krishna Gokhale:** Revered as a political guru by Mahatma Gandhi and Muhammad Ali Jinnah, Gokhale was a prominent moderate leader known for

his advocacy for social reform and political reforms within the British system.

- **Bal Gangadhar Tilak:** A key figure in the extremist faction of the Indian National Congress, Tilak was known for his slogan, '*Swaraj is my birthright, and I shall have it*'. He was a strong advocate for complete independence.
- **A.O. Hume:** A retired British civil servant, Allan Octavian Hume played a crucial role in the founding of the Indian National Congress in 1885. While instrumental in its formation, he was British and thus not associated with the title reflecting Indian national leadership stature.

In summary, Dadabhai Naoroji's extensive work, pioneering ideas on self-rule and economic exploitation, and his respected position as an elder statesman earned him the distinct honorific title of the 'Grand Old Man of India'.

35. Answer: b

Explanation:

Parliament's Authority on Indian Citizenship Regulation

Understanding the structure of government in India involves knowing which branch holds specific powers. The question asks which body has the authority to **regulate the right of citizenship in India**. This is a crucial aspect of Indian law and governance.

Constitutional Basis for Citizenship Regulation

The Constitution of India clearly defines the powers related to citizenship. Specifically, **Article 11 of the Constitution of India** is the key provision:

"Nothing in the second part of this Constitution shall be construed as preventing Parliament from making any provision for the acquisition and termination of citizenship and for all other matters relating to citizenship."

This article explicitly vests the power to legislate on all matters concerning citizenship in **Parliament**, excluding all other bodies from this primary legislative

function.

Role of Parliament in Citizenship Matters

Following the mandate from Article 11, **Parliament** has enacted laws to govern citizenship:

- The most significant legislation is the **Citizenship Act, 1955**.
- This Act details the various ways citizenship can be acquired (e.g., by birth, descent, registration, naturalisation) and also outlines the grounds on which citizenship can be renounced, terminated, or extinguished.
- Parliament also has the power to amend this Act or introduce new legislation pertaining to citizenship whenever deemed necessary.

Analysis of Other Options

Let's examine why the other options are not the correct answer:

- **Union Cabinet:** The Union Cabinet, being part of the executive branch, is responsible for implementing the laws passed by Parliament. While it advises the government on policy matters, it does not possess the constitutional authority to create or fundamentally **regulate citizenship** laws itself.
- **Supreme Court:** The Supreme Court is the highest judicial body. Its role is to interpret the Constitution and the laws passed by Parliament, including the Citizenship Act. It can adjudicate disputes related to citizenship but does not have the power to make the initial regulations or laws.
- **Law Commission:** The Law Commission of India is a statutory body that functions as an advisory body. It undertakes research and makes recommendations to the government for legal reform. However, its recommendations are not binding and require parliamentary approval to become law. It does not have the power to **regulate citizenship**.

Conclusion on Citizenship Regulation Authority

Based on the clear constitutional provision in Article 11, **Parliament** is the sole legislative body empowered to make laws and regulations concerning citizenship in

India. Therefore, Parliament holds the exclusive power to **regulate the right of citizenship in India**.

36. Answer: b

Explanation:

Baglihar Hydroelectric Project River Identification

The Baglihar Hydroelectric power project is a significant run-of-the-river power project located in the Doda district of the union territory of Jammu and Kashmir (J&K). Understanding which river this vital infrastructure project is built across is key to understanding its geographical and engineering context.

Identifying the River for the Baglihar Project

The Baglihar project harnesses the power of the **Chenab river**. The Chenab River is a major river in the northern Indian subcontinent. It is formed by the union of two rivers, the Chandra and the Bhaga, in the high mountains of Himachal Pradesh, India. It flows through Jammu and Kashmir before entering Pakistan. The Baglihar dam is strategically located on this river to generate hydroelectric power.

Analyzing the Options for the Baglihar Project River

The question asks to identify the specific river associated with the Baglihar Hydroelectric power project:

- **Beas River:** The Beas river is another important river in the region, but it is associated with different power projects and is not the river for the Baglihar project.
- **Chenab River:** This is the correct river. The Baglihar dam and power station are situated on the Chenab river, making it the correct answer.
- **Jhelum River:** The Jhelum river flows through J&K as well, but it is the location for other hydroelectric projects, not the Baglihar project.

- **Sutlej River:** The Sutlej river originates in Tibet and flows through India and Pakistan, but it is not associated with the Baglihar project.

Final Confirmation of the River

Based on the geographical facts and the location of the project infrastructure, the Baglihar Hydroelectric power project in J&K is definitively built across the **Chenab river**.

37. Answer: d

Explanation:

Indian Sportsperson Appointed UN Messenger of Peace in 2001

The United Nations (UN) designates certain globally recognized figures as **Messengers of Peace**. This is an honorary role given to individuals who contribute significantly to raising awareness and promoting the UN's objectives. The appointment aims to harness their influence to draw attention to the causes championed by the UN.

Vijay Amritraj's Role as UN Messenger of Peace

In **2001**, India's prominent tennis legend, **Vijay Amritraj**, was honored with the title of **UN Messenger of Peace**. He was appointed by the then UN Secretary-General Kofi Annan.

As a Messenger of Peace, Vijay Amritraj focused his efforts on promoting the UN's Millennium Development Goals (MDGs). These goals were a set of time-bound targets aimed at reducing poverty, improving health and education, and fostering global partnerships for development.

Understanding Vijay Amritraj's Background

Vijay Amritraj is a highly respected figure in the world of tennis. He achieved significant international success, reaching a career-high singles ranking of World No. 16 and doubles ranking of World No. 8. His appointment highlighted the role sports personalities can play in advancing global peace and development initiatives.

Evaluation of Other Sportspersons

The question asks specifically about the appointment as a UN Messenger of Peace in 2001. Let's consider the other athletes mentioned:

- **Prakash Padukone:** A legendary badminton player, he was the first Indian to win the All England Open Badminton Championships in 1980.
- **Vishwanathan Anand:** An Indian chess Grandmaster and a former five-time World Chess Champion. He is one of the greatest chess players in history.
- **Sachin Tendulkar:** A retired international cricketer, widely regarded as one of the greatest batsmen in cricket history. He holds numerous records in international cricket.

While these athletes are icons in their respective sports, the specific appointment as a **UN Messenger of Peace** in 2001 was given to **Vijay Amritraj**.

38. Answer: b

Explanation:

Indian Women's Hockey Team Performance: Asian Champions Trophy 2013

This section provides details on the performance of the **Indian Women's hockey team** during the **Asian Champions Trophy 2013**. Understanding the team's standing in major tournaments is crucial for tracking their progress in international hockey.

Ranking in the 2013 Asian Champions Trophy

The **Asian Champions Trophy** is a significant event in women's international hockey within the continent. In the 2013 edition of this prestigious tournament, the **Indian Women's hockey team** showcased a commendable performance throughout the competition.

The team battled through various stages, demonstrating skill and determination. Ultimately, after competing against other top Asian nations, the Indian team achieved a notable position in the final standings.

- Tournament: **Asian Champions Trophy 2013**
- Team: **Indian Women's hockey team**
- Final Position Achieved: **Second**

The team secured the runner-up position, reaching the final match of the tournament.

39. Answer: d

Explanation:

Longest Bone Human Body Identification

The human body contains over 200 bones, each with specific functions. Some bones are small and intricate, like those in the ear, while others are large and provide structural support. This explanation focuses on identifying the **longest bone** within the human body from the given options.

Examining Candidate Bones

To find the longest bone, let's look at the options provided and their characteristics:

- **Fibula:** This is one of the two bones located in the lower leg, situated below the knee on the lateral side (the side of the little toe). It runs parallel to the tibia. While important for ankle stability, it is not the longest bone in the body.

- **Radius:** The radius is one of the two bones in the forearm, located on the thumb side between the elbow and the wrist. It works with the ulna to allow for rotational movements of the forearm. The radius is a significant bone but shorter than the major bone of the thigh.
- **Stapes:** The stapes (also known as the stirrup) is one of the three ossicles found in the middle ear. It is the smallest bone in the entire human body, playing a crucial role in hearing by transmitting sound vibrations. Clearly, it is the opposite of the longest bone.
- **Femur:** The femur, commonly known as the thigh bone, extends from the hip joint down to the knee joint. It is the single bone located in the upper leg. The femur is known for its strength and considerable length, making it a primary support structure for the body's weight and movement.

Confirming the Longest Bone

Comparing the locations and general sizes, the **Femur** stands out due to its position in the thigh, spanning a large portion of the leg's length. It supports the body's weight and is essential for locomotion like walking and running.

The Fibula and Radius are located in the lower leg and forearm, respectively, and are considerably shorter than the Femur. The Stapes is microscopic in comparison, being the smallest bone.

Therefore, the **Femur** is anatomically recognized as the **longest bone in the human body**.

40. Answer: c

Explanation:

Understanding the Scientific Discovery on the Ageing Process Mechanism

A notable study conducted by a US team of scientists aimed to identify the location of the primary **mechanism responsible for the ageing process**. This research sought to understand where the fundamental biological clock or regulatory system governing ageing resides within the human body.

Identifying the Location of the Ageing Mechanism

The findings from this scientific team pinpointed a specific organ as the central hub for the ageing mechanism. According to their research, the core processes that drive ageing are predominantly located **inside the brain**.

Analysis of Findings Related to Ageing

The research explored various bodily systems, but the evidence strongly indicated the brain's critical role. Let's review the options in light of this discovery:

- **Inside the face:** While the face shows external signs of ageing, such as wrinkles and sagging skin, this is a consequence, not the originating mechanism.
- **Inside the skin:** Skin health and appearance are significantly impacted by ageing, but the study suggests the control centre lies deeper within the body's systems.
- **Inside the brain:** This location was identified by the US scientists as housing the key **mechanism** that dictates the **ageing process**. The brain's complex systems are thought to regulate cellular and systemic changes associated with getting older.
- **Inside the heart:** The heart is vital for overall health, and its efficiency can decline with age, but it wasn't identified as the primary location of the ageing control mechanism in this study.

Conclusion: The Brain's Role in Ageing

In summary, the investigation by the US team of scientists concluded that the fundamental **mechanism** underlying the human **ageing process** is situated **inside the brain**. This highlights the importance of neurological functions in the biological timeline of life.

41. Answer: a

Explanation:

Exploring the Sun's Layers

The Sun, like Earth, is structured in layers, each with unique characteristics. Understanding these layers is key to comprehending solar phenomena. The question asks us to identify the **outermost layer** of the Sun.

Defining the Sun's Visible and Outer Regions

Let's examine the different parts of the Sun mentioned:

- **Photosphere:** This is the visible surface of the Sun that we see every day. It's relatively thin, about **400 km** thick, and it's the primary source of the sunlight we receive. The temperature here is roughly **5,500 degrees Celsius**.
- **Chromosphere:** Situated directly above the photosphere, this layer is about **2,000 km** thick. It glows with a reddish color, mainly due to its hydrogen content, and becomes hotter as you move upwards.
- **Corona:** This is the outermost layer of the Sun's atmosphere. It stretches far out into space, sometimes millions of kilometers. Although incredibly hot (temperatures exceed **1 million degrees Celsius**), the corona is extremely rarified, meaning it has a very low density compared to the inner layers.

A **granule** is not a distinct atmospheric layer but rather a small, bright spot seen on the photosphere, resulting from the boiling motion of plasma beneath it.

The Corona: Extending into Space

The **Corona** is significant because it represents the Sun's vast outer atmosphere. It becomes visible as a beautiful, glowing halo around the Sun during a total solar eclipse. Its extremely high temperature and very low density are defining characteristics that set it apart from the layers beneath it.

Comparative Table of Solar Layers

Solar Layer	Position Relative to Center	Key Characteristics
Photosphere	Innermost layer, the visible surface	Source of most light, Approx. 5,500 °C
Chromosphere	Above the Photosphere	Reddish hue, Temperature increases with height
Corona	Outermost layer of the atmosphere	Extends millions of km, Very low density, Extremely hot (over 1 million °C), Visible during total eclipses

Considering the positions, the **Corona** is the layer furthest out from the Sun's core, enveloping the inner layers and extending into the solar system.

42. Answer: b

Explanation:

Founding of Indian Institute of Science Bangalore

The question asks about the individual responsible for founding the prestigious Indian Institute of Science (IISc) located in Bangalore. This institution is a globally recognized centre for advanced research and education in science and engineering.

Jamsetji Tata's Vision for IISc

The establishment of the Indian Institute of Science, Bangalore owes its existence to the foresight and philanthropic efforts of **Jamsetji Tata**. In the year 1898, **Jamsetji Tata** conceptualized the idea of creating a "University of Research" in India. His core vision was to establish a dedicated institution that would foster advanced scientific learning and research, aiming to benefit the nation's progress. He envisioned a

place for higher studies and scientific exploration, drawing inspiration from leading international academic centres.

Establishment of IISc

After **Jamsetji Tata** proposed the idea, significant planning and development followed. The proposal eventually led to the formal establishment of the institute. The foundation stone for the Indian Institute of Science was laid in 1909. This significant step was made possible through **Jamsetji Tata's** unwavering commitment and the crucial support received from the Maharaja of Mysore, Krishna Raja Wadiyar IV, who generously provided the land for the institute. Therefore, **Jamsetji Tata** is celebrated as the founder of the Indian Institute of Science, Bangalore.

Analysis of Other Options

- **CV Raman:** Sir C.V. Raman, a Nobel laureate in Physics, had a strong association with the Indian Institute of Science. He served as its Director from 1933 to 1948. However, his role was administrative and academic leadership, not as the founder.
- **Vikram Sarabhai:** Dr. Vikram Sarabhai was a distinguished physicist and a pivotal figure in India's space program, often regarded as its father. While he made immense contributions to science and technology in India, his work did not involve the founding of IISc.
- **None of the above:** Given that **Jamsetji Tata** is indeed the founder, this option is not applicable.

In summary, the founding of the Indian Institute of Science, Bangalore, was a direct result of the vision and initiative of **Jamsetji Tata**.

43. Answer: b

Explanation:

Distinguishing Gallantry Medals

The question requires identifying which award from the list is not a **gallantry medal**. Gallantry medals are honours given for acts of bravery, valor, or self-sacrifice, typically in military or dangerous situations. We need to examine the purpose and category of each mentioned award.

Examining Indian Awards

India confers various awards to recognize achievements in different fields. Understanding the specific domain of each award is crucial to answering this question.

Ashok Chakra Explained

The **Ashok Chakra** is awarded for 'most conspicuous bravery or some daring or pre-eminent act of valour or self-sacrifice' other than in the presence of an enemy. It is the highest peacetime military decoration for bravery.

Arjuna Award Explained

The **Arjuna Award** is presented by the Ministry of Culture, Government of India, to recognize outstanding achievement in sports. It is considered one of the highest honours in the field of sports in India.

Param Vir Chakra Explained

The **Param Vir Chakra** is India's highest military decoration, awarded for 'highest degree of valour' or 'self-sacrifice in the presence of the enemy'. It is given for acts of extraordinary gallantry during active combat.

Shaurya Chakra Explained

The **Shaurya Chakra** is awarded for 'an act of bravery or self-sacrifice or other eligible service'. It is the third-highest peacetime medal for gallantry, following the Ashoka Chakra and the Kirti Chakra.

Comparison of Award Categories

To determine which award is not a gallantry medal, let's compare their primary purpose:

Award Name	Primary Purpose	Recognition Field
Ashok Chakra	Gallantry	Military/Civilian (Peacetime Bravery)
Arjuna Award	Sporting Excellence	Sports
Param Vir Chakra	Gallantry	Military (Wartime Bravery)
Shaurya Chakra	Gallantry	Military/Civilian (Peacetime/Wartime Bravery)

This comparison clearly shows that the **Arjuna Award** is given for achievements in sports, whereas the Ashok Chakra, Param Vir Chakra, and Shaurya Chakra are all honours recognizing acts of bravery and gallantry.

Final Identification of Non-Gallantry Medal

Therefore, the **Arjuna Award** is the correct answer as it is a sports honour and not a gallantry medal.

44. Answer: c

Explanation:

Understanding the Suez Canal's Water Body Connections

The question asks us to identify which pair of water bodies are linked by the famous Suez Canal. The Suez Canal is a crucial man-made waterway, and understanding

which seas it connects is important for geography. Let's break down the options and the role of the Suez Canal.

The Role of the Suez Canal

The Suez Canal is an artificial sea-level waterway located in Egypt. Its primary purpose is to connect the Mediterranean Sea and the Red Sea. This connection provides a much shorter maritime route between Europe and Asia, avoiding the long and perilous journey around the southern tip of Africa (Cape of Good Hope). It is one of the world's most vital shipping lanes.

Analyzing the Options for Suez Canal Connections

We need to find the pair of water bodies directly connected by the Suez Canal.

- **Indian Ocean – Pacific Ocean:** These two major oceans are not directly connected by the Suez Canal. Ships traveling between them would typically use routes through Southeast Asia or via the Pacific coast of North/South America.
- **Mediterranean Sea – Black Sea:** The Mediterranean Sea and the Black Sea are connected, but not by the Suez Canal. They are linked through a series of Turkish Straits: the Dardanelles, the Sea of Marmara, and the Bosphorus.
- **Mediterranean Sea – Red Sea:** This is the correct pair. The Suez Canal runs from Port Said on the Mediterranean Sea to the city of Suez on the Red Sea, effectively joining these two significant bodies of water.
- **Atlantic Ocean – Pacific Ocean:** These two oceans are primarily connected by the Panama Canal in Central America or by navigating around the southern tip of South America. The Suez Canal does not play a role in connecting the Atlantic and Pacific.

Conclusion on Suez Canal Connectivity

Based on geographical facts, the Suez Canal serves as the direct link between the **Mediterranean Sea** and the **Red Sea**. This connection dramatically shortens travel distances for international shipping, particularly between Europe and Asia.

45. Answer: a

Explanation:

This question asks about the historical scope of Kalhana's famous work, the '*Rajatarangini*'. Let's explore the content of this significant historical text.

Defining Kalhana's Rajatarangini

'*Rajatarangini*', meaning "The River of Kings" or "The King's Chronicle", is a seminal work written in Sanskrit by the Kashmiri Brahmin historian and poet Kalhana.

- **Author:** Kalhana
- **Language:** Sanskrit
- **Composition Period:** Completed in 1148–1149 CE (12th century).
- **Subject Matter:** It provides a chronological narrative of the rulers and history of the region of Kashmir.

Historical Focus of the Rajatarangini

The '*Rajatarangini*' is celebrated for its detailed account of the kings and dynasties that ruled over the valley of **Kashmir**. Kalhana begins his narrative from the earliest mythical accounts of the region and traces the lineage and reigns of various rulers up until the period of the Lohara dynasty, culminating in the events of the 12th century.

The work covers:

- Political histories of different dynasties ruling Kashmir.
- Social and cultural life within the region.
- Details about the administration, economy, and religious conditions.

Analysis of Options

Let's look at why **Kashmir** is the correct focus:

- **1. Kashmir:** This option correctly identifies the primary geographical and historical focus of the '*Rajatarangini*'. Kalhana was a resident of Kashmir, and his chronicle is essentially the history of its kings.
- **2. Harsha's reign:** While specific rulers, possibly including one named Harsha who ruled in Kashmir or North India, might be mentioned within the extensive narrative, the book is not solely dedicated to Harsha's reign. The scope is much broader, covering centuries of Kashmiri rulers.
- **3. Rajasthan:** The '*Rajatarangini*' has no connection to the history of Rajasthan. Historical accounts of Rajasthan typically come from different sources and traditions.
- **4. Chandragupta's reign:** Chandragupta Maurya was an emperor of the Mauryan Empire, primarily based in North India. While Kalhana might touch upon earlier periods or events related to empires interacting with Kashmir, the '*Rajatarangini*' is not focused specifically on Chandragupta's reign.

Conclusion

Therefore, Kalhana's '*Rajatarangini*' is fundamentally a detailed history of **Kashmir** and its rulers over a vast period.

46. Answer: a

Explanation:

Significance of January 26, 1950: Constitution Promulgation Date

The Constitution of India, the supreme law of the land, was officially put into effect (promulgated) on **January 26, 1950**. This date holds profound historical significance for India, chosen specifically to commemorate a pivotal moment in the nation's struggle for independence.

Historical Context of January 26

The choice of January 26, 1950, is deeply rooted in India's pre-independence history:

- In December 1929, the Indian National Congress, during its Lahore session, passed a resolution calling for **Purna Swaraj** (complete self-rule).
- Following this resolution, January 26 was designated to be celebrated every year as **Independence Day** by the Indian people, starting from 1930.
- This tradition of celebrating January 26th as a symbol of freedom and self-determination continued for many years until India actually achieved independence on August 15, 1947.
- To honor the historical importance of this date and the sacrifices made, the framers of the Constitution decided that the Constitution of India would be effective from January 26, 1950. This day is therefore celebrated as **Republic Day** in India.

Analysis of Options

Let's examine the given options in light of this historical background:

- **Option 1: This day was being celebrated as the Independence Day since 1929** – This statement is historically accurate. The decision to celebrate January 26th as Independence Day was made in 1929 following the Purna Swaraj resolution, making this the primary reason for choosing January 26, 1950, as the date for the Constitution's commencement.
- **Option 2: This was desired by the farmers of India** – While farmers are a crucial part of India, there is no specific historical record or consensus indicating that the date was chosen solely based on their desire. The choice was driven by the national independence movement's timeline.
- **Option 3: The British did not want to leave India earlier than this date** – The date for the Constitution's implementation was decided by the Indian Constituent Assembly. While the British withdrawal timeline influenced independence, the specific choice of January 26, 1950, was based on Indian historical sentiment, not British preference for delaying departure.
- **Option 4: It was an auspicious day** – While many important dates are chosen considering auspiciousness, the predominant reason for January 26th was its established significance as the Purna Swaraj Day, a date already imbued with political and historical meaning for Indians striving for self-rule.

Conclusion

The promulgation of the Constitution on **January 26, 1950**, was a deliberate choice to commemorate the 1930 declaration of Independence Day, marking January 26th as a day of national significance in the long struggle for self-rule.

47. Answer: c

Explanation:

Matching Countries and Capitals

The question requires identifying which country-capital pair is **incorrectly matched** among the given choices. We need to verify the capital city for each listed country.

Detailed Analysis of Options

Let's review each option to determine the correct capital city:

- **Indonesia – Jakarta:** Jakarta is indeed the capital city of Indonesia. This pair is correctly matched.
- **Maldives – Male:** Male is the capital city of the Maldives. This pair is correctly matched.
- **North Korea – Seoul:** The capital city of North Korea is **Pyongyang**. Seoul is the capital city of South Korea. Therefore, this pair is incorrectly matched.
- **Zimbabwe – Harare:** Harare is the capital city of Zimbabwe. This pair is correctly matched.

Identifying the Incorrect Match

By comparing the listed pairs with the known capitals, we can identify the mismatch:

- Indonesia is correctly paired with Jakarta.
- Maldives is correctly paired with Male.

- North Korea is incorrectly paired with Seoul.
- Zimbabwe is correctly paired with Harare.

The option presenting an incorrect match is the one involving North Korea and Seoul.

Clarification on North Korean Capital

To confirm the correct information:

- The official capital of **North Korea** (Democratic People's Republic of Korea) is **Pyongyang**.
- **Seoul** is the capital of the neighboring country, South Korea (Republic of Korea).

This distinction highlights why the pairing of North Korea with Seoul is incorrect.

48. Answer: c

Explanation:

Future Cost Calculation with 300% Inflation

This solution explains how to calculate the future cost of an article when subjected to a high inflation rate over a specific period.

Inflation Rate Interpretation

Inflation represents the rate at which the general level of prices for goods and services is rising, and subsequently, purchasing power is falling. A 300% inflation rate is extremely high, meaning the cost of goods increases significantly each year.

- A 300% inflation rate means that for every Rs. 100 worth of goods, the price increases by Rs. 300 in one year.
- In decimal form, this rate is represented as $\frac{300}{100} = 3$.

Step-by-Step Cost Calculation

We need to determine the cost of the article after two years, considering the initial cost and the annual inflation rate.

Present Article Cost

The current cost of the article is given as Rs. 50.

Let P_0 represent the present cost.

$$P_0 = 50$$

Inflation Rate Conversion

The rate of inflation is given as 300%. To use this in calculations, we convert it into a decimal:

$$\text{Inflation Rate } (r) = \frac{300\%}{100\%} = 3$$

Cost After First Year

The cost after one year (P_1) is calculated by adding the inflation amount to the present cost.

$$\text{Increase in cost} = P_0 \times r$$

$$\text{Increase in cost} = 50 \times 3 = 150$$

$$\text{Cost after 1 year } (P_1) = \text{Present Cost} + \text{Increase in cost}$$

$$P_1 = P_0 + (P_0 \times r) = P_0 \times (1 + r)$$

$$P_1 = 50 \times (1 + 3)$$

$$P_1 = 50 \times 4$$

$$P_1 = 200$$

So, after one year, the article costs Rs. 200.

Cost After Second Year

The cost after the second year (P_2) is calculated based on the cost after the first year (P_1) plus the inflation for the second year.

$$\text{Increase in cost (Year 2)} = P_1 \times r$$

$$\text{Increase in cost (Year 2)} = 200 \times 3 = 600$$

$$\text{Cost after 2 years } (P_2) = \text{Cost after 1 year} + \text{Increase in cost (Year 2)}$$

$$P_2 = P_1 + (P_1 \times r) = P_1 \times (1 + r)$$

$$P_2 = 200 \times (1 + 3)$$

$$P_2 = 200 \times 4$$

$$P_2 = 800$$

Alternatively, using the compound inflation formula:

$$P_n = P_0 \times (1 + r)^n$$

Where:

- P_n is the cost after n years.
- P_0 is the present cost (Rs. 50).
- r is the inflation rate (3).
- n is the number of years (2).

Plugging in the values:

$$P_2 = 50 \times (1 + 3)^2$$

$$P_2 = 50 \times (4)^2$$

$$P_2 = 50 \times 16$$

$$P_2 = 800$$

Final Cost After Two Years

Following the step-by-step calculation and the compound inflation formula, the projected cost of the article after two years, with a 300% inflation rate, is Rs. 800.

49. Answer: b

Explanation:

Gain Percentage Calculation for a Dishonest Shopkeeper

This problem involves calculating the gain percentage for a shopkeeper who claims to sell goods at the cost price but uses a faulty weight measure, cheating the customer by providing less quantity than stated.

Understanding the Shopkeeper's Deception

The core of this problem lies in understanding the difference between the price the shopkeeper *charges* and the actual cost incurred by the shopkeeper. The shopkeeper's dishonesty comes from using a **false weight**.

- **Claim:** The shopkeeper professes to sell at the cost price. This means if the cost price of 1000 grams is C , he claims to sell 1000 grams for C .
- **Deception:** Instead of giving 1000 grams (1 kilogram), he uses a weight of only 900 grams.
- **Goal:** We need to find the **gain percentage** based on the shopkeeper's actual cost.

Calculating the Gain Percentage

To find the gain percentage, we use the standard formula:

$$\text{Gain Percentage} = \frac{\text{Profit}}{\text{Cost Price}} \times 100$$

In this scenario:

- The **Cost Price (CP)** for the shopkeeper is the cost of the actual amount of goods he gives to the customer (900 grams).
- The **Selling Price (SP)** for the shopkeeper is the price he charges the customer, which is based on the weight he claims to sell (1000 grams) at the cost price.
- **Profit** is the difference between the Selling Price and the Cost Price (SP - CP).

Step-by-Step Calculation

Let's assume the cost price of 1 gram of the grocery item is 1. This makes calculations simpler.

1. **Cost Price (CP) for the Shopkeeper:** The shopkeeper actually gives 900 grams. Since the cost price of 1 gram is 1, the cost price for 900 grams is:

$$CP = 900 \text{ grams} \times 1/\text{gram} = 900$$

2. **Selling Price (SP) Charged by the Shopkeeper:** The shopkeeper uses a 900-gram weight but charges for 1 kilogram (1000 grams) at the cost price. Since the cost price of 1 gram is 1, he charges the price equivalent to 1000 grams:

$$SP = 1000 \text{ grams} \times 1/\text{gram} = 1000$$

3. **Calculate the Profit:** Profit is the difference between the selling price charged and the actual cost incurred.

$$\text{Profit} = SP - CP$$

$$\text{Profit} = 1000 - 900 = 100$$

4. **Calculate the Gain Percentage:** Now, apply the gain percentage formula using the shopkeeper's actual cost price.

$$\text{Gain Percentage} = \frac{\text{Profit}}{CP} \times 100$$

$$\text{Gain Percentage} = \frac{100}{900} \times 100$$

$$\text{Gain Percentage} = \frac{1}{9} \times 100$$

$$\text{Gain Percentage} = \frac{100}{9} \%$$

5. **Convert to Mixed Fraction (Optional):** $\frac{100}{9}\%$ can also be written as $11\frac{1}{9}\%$.
However, the options provided use the improper fraction format.

Therefore, the gain percentage of the dishonest shopkeeper is $\frac{100}{9}\%$.

50. Answer: b

Explanation:

Finding the Cost Price of the Bullock

This problem requires us to determine the initial **cost price** of a **bullock**, given the combined purchase price of the bullock and a cart, the individual profit percentages on each item, and the overall profit percentage.

Understanding the Purchase and Sale

We are given the following information:

- Total Cost Price (Bullock + Cart) = 1800
- Profit Percentage on Bullock = 20%
- Profit Percentage on Cart = 30%
- Overall Profit Percentage = $\frac{155}{6}\%$

Setting up the Calculation

Let's denote the cost price of the bullock as C_B and the cost price of the cart as C_C .

From the total cost price, we have:

$$C_B + C_C = 1800 \dots (\text{Equation 1})$$

The profit percentages can be used to establish a relationship between the cost prices and the overall profit.

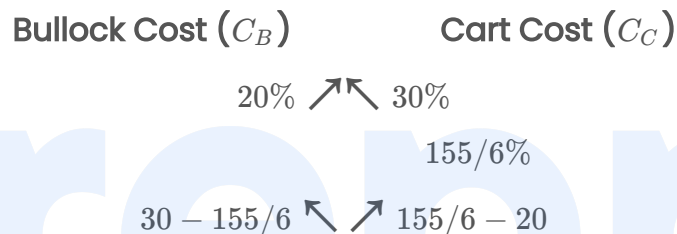
Using the Alligation Method for Profit Percentages

The alligation method is an efficient way to solve problems where two different rates (in this case, profit percentages) are mixed to produce a resultant rate (overall profit percentage).

The profit percentages are:

- Bullock Profit (P_B) = 20%
- Cart Profit (P_C) = 30%
- Mean Profit (P_M) = $155/6\%$

We can set up the alligation as follows, comparing the difference between the individual profits and the mean profit:



Calculating the differences:

- Difference for Bullock = $P_M - P_B = \frac{155}{6} - 20 = \frac{155-120}{6} = \frac{35}{6}$
- Difference for Cart = $P_C - P_M = 30 - \frac{155}{6} = \frac{180-155}{6} = \frac{25}{6}$

The ratio of the cost prices is inversely proportional to these differences:

$$\frac{C_B}{C_C} = \frac{\text{Difference for Cart}}{\text{Difference for Bullock}} = \frac{25/6}{35/6}$$

$$\frac{C_B}{C_C} = \frac{25}{35} = \frac{5}{7}$$

Calculating the Cost Price of the Bullock

The ratio of the cost price of the bullock to the cost price of the cart is 5 : 7. This means that for every 5 units of cost for the bullock, there are 7 units of cost for the cart.

The total number of parts in the ratio is $5 + 7 = 12$.

The total cost price is 1800.

To find the **cost price of the bullock** (C_B), we use the ratio:

$$C_B = \left(\frac{\text{Bullock Ratio Part}}{\text{Total Ratio Parts}} \right) \times \text{Total Cost Price}$$

$$C_B = \left(\frac{5}{12} \right) \times 1800$$

$$C_B = 5 \times \frac{1800}{12}$$

$$C_B = 5 \times 150$$

$$C_B = 750$$

Final Answer

The cost price of the bullock is Rs. 750.

51. Answer: c

Explanation:

Expenditure Calculation for Hostel Students

This problem involves calculating the initial daily expenditure on food for a hostel, given changes in the number of students and the total expenditure, along with the effect on the average expenditure per student.

Understanding the Hostel Expenditure Problem

We are given the initial number of students in a hostel and how the total expenditure changes when more students are added. We are also told how the average expenditure per student changes. Our goal is to find the original total daily expenditure on food.

- Initial number of students = 35.
- Increase in the number of students = 7.
- New number of students = $35 + 7 = 42$.

- Increase in daily expenditure = Rs. 42.
- Reduction in average expenditure per student = Rs. 1.

Step-by-Step Calculation of Initial Expenditure

Let's denote the initial average expenditure per student per day as ' a ' Rupees.

Therefore, the initial total expenditure on food per day (E_1) can be represented as:

$$E_1 = (\text{Initial number of students}) \times (\text{Initial average expenditure per student})$$

$$E_1 = 35 \times a$$

Now, let's consider the situation after the increase in students:

- New number of students (N_2) = 42.
- New average expenditure per student (a_2) = Initial average expenditure - 1 = $a - 1$.
- New total expenditure (E_2) = Initial total expenditure + 42 = $E_1 + 42 = 35a + 42$.

We also know that the new total expenditure is the product of the new number of students and the new average expenditure:

$$E_2 = N_2 \times a_2$$

$$35a + 42 = 42 \times (a - 1)$$

Now, we need to solve this equation for ' a ':

$$35a + 42 = 42a - 42$$

To solve for ' a ', we rearrange the terms:

$$42 + 42 = 42a - 35a$$

$$84 = 7a$$

Divide both sides by 7:

$$a = \frac{84}{7}$$

$$a = 12$$

So, the initial average expenditure per student was Rs. 12.

Calculating the Initial Total Expenditure

The question asks for the initial expenditure (in Rs.) on food per day, which is E_1 .

$$E_1 = 35 \times a$$

$$E_1 = 35 \times 12$$

Performing the multiplication:

$$E_1 = 420$$

Final Answer Verification

Let's check if this result fits the conditions:

- Initial expenditure = Rs. 420.
- Initial average = Rs. $420/35 = 12$.
- New number of students = 42.
- New expenditure = Rs. $420 + 42 = 462$.
- New average = Rs. $462/42 = 11$.

The new average (Rs. 11) is indeed Rs. 1 less than the initial average (Rs. 12), confirming our calculation.

The initial expenditure on food per day was Rs. 420.

52. Answer: c

Explanation:

Determining the Newcomer's Age Based on Class Average Change

This problem requires us to calculate the **age of the newcomer** in a **class** when one student leaves and is replaced. We are given information about the initial number of students, the age of the student who left, and how the **average age** changed.

Understanding the Concept of Average Age

The **average age** is calculated by summing up the ages of all individuals and dividing by the number of individuals. In this case:

$$\text{Average Age} = \frac{\text{Sum of ages of all students}}{\text{Number of students}}$$

When a student leaves and a newcomer joins, the total number of students in the class remains constant (24 students). However, the sum of the ages changes based on the ages of the departing and joining students.

We are told the average age was **lowered by 1 month**. This indicates that the newcomer is younger than the student who departed.

Calculating the Total Change in Age Sum

The decrease in the average age affects the total sum of ages for all students in the class. Let's calculate the total decrease in age:

- Number of students in the class = 24
- Decrease in average age = 1 month
- Total decrease in the sum of ages = (Number of students) $\times$ (Decrease in average age)
- Total decrease = $24 \times 1 \text{ month}$
- Total decrease = 24 months

This total decrease of 24 months represents the difference between the age of the student who left and the age of the newcomer. Specifically, the student who left was older than the newcomer by this amount.

Step-by-Step Calculation of the Newcomer's Age

First, convert the age of the student who left into months for consistency:

- Age of the student who left = 18 years
- Age in months = 18 years $\times$ 12 months/year
- Age in months = 216 months

Now, we can relate the ages and the total decrease:

$$\text{Total decrease in age} = (\text{Age of the student who left}) - (\text{Age of the newcomer})$$

We know the total decrease is 24 months and the age of the leaving student is 216 months. Let the newcomer's age be N years (or $N \times 12$ months).

$$24 \text{ months} = 216 \text{ months} - (N \times 12 \text{ months})$$

Rearrange the equation to solve for the newcomer's age in months:

$$\text{Age of newcomer (in months)} = 216 \text{ months} - 24 \text{ months}$$

$$\text{Age of newcomer (in months)} = 192 \text{ months}$$

Finally, convert the newcomer's age from months back to years:

$$\text{Age of newcomer (in years)} = \frac{192 \text{ months}}{12 \text{ months/year}}$$

$$\text{Age of newcomer} = 16 \text{ years}$$

Final Conclusion on the Newcomer's Age

The calculation shows that the newcomer's age is 16 years. This fits the condition that the average age of the **class** decreased, as the 16-year-old newcomer is younger than the 18-year-old student who left.

53. Answer: d

Explanation:

This problem asks us to find two natural numbers given their sum and their Least Common Multiple (LCM).

Understanding the Conditions for Natural Numbers

Let the two natural numbers be represented by a and b . We are given two conditions:

- The sum of the two numbers is 85: $a + b = 85$.
- The Least Common Multiple (LCM) of the two numbers is 102: $LCM(a, b) = 102$.

We need to find the values of a and b that satisfy both these conditions.

Method 1: Testing the Given Options

We can check each option provided to see if it satisfies both the sum and the LCM condition.

Option 1: Numbers are 30 and 55

- **Sum Check:** $30 + 55 = 85$. This condition is met.
- **LCM Check:**
 - Prime factorization of 30: $2 \times 3 \times 5$.
 - Prime factorization of 55: 5×11 .
 - $LCM(30, 55) = 2 \times 3 \times 5 \times 11 = 330$.

The calculated LCM is 330, which is not equal to the given LCM of 102. So, this option is incorrect.

Option 2: Numbers are 17 and 68

- **Sum Check:** $17 + 68 = 85$. This condition is met.
- **LCM Check:**
 - Prime factorization of 17: 17.
 - Prime factorization of 68: $2^2 \times 17$.
 - $LCM(17, 68) = 2^2 \times 17 = 4 \times 17 = 68$.

The calculated LCM is 68, which is not equal to the given LCM of 102. So, this option is incorrect.

Option 3: Numbers are 35 and 55

- **Sum Check:** $35 + 55 = 90$. This condition is not met (the sum should be 85). So, this option is incorrect.

Option 4: Numbers are 51 and 34

- **Sum Check:** $51 + 34 = 85$. This condition is met.
- **LCM Check:**

- Prime factorization of 51: 3×17 .
- Prime factorization of 34: 2×17 .
- $LCM(51, 34) = 2 \times 3 \times 17 = 102$.

The calculated LCM is 102, which matches the given LCM. Both conditions are met.

Therefore, the numbers 51 and 34 are the correct pair.

Method 2: Using the GCD Property

We can also solve this problem systematically using the relationship between two numbers (a, b) , their Greatest Common Divisor (GCD), and their Least Common Multiple (LCM). The property is:

$$a \times b = GCD(a, b) \times LCM(a, b)$$

Let $g = GCD(a, b)$. We are given $a + b = 85$ and $LCM(a, b) = 102$. Substituting the LCM value into the property, we get:

$$a \times b = g \times 102$$

We also know that a and b can be expressed in terms of their GCD:

$$a = gx$$

$$b = gy$$

where x and y are coprime natural numbers (i.e., $GCD(x, y) = 1$).

Now, substitute these into the sum condition:

$$a + b = gx + gy = g(x + y) = 85$$

And substitute into the product derived from the LCM property:

$$(gx)(gy) = g^2xy$$

We know $a \times b = g \times 102$, so:

$$g^2xy = g \times 102 \implies gxy = 102$$

From $g(x + y) = 85$, we see that g must be a divisor of 85. The divisors of 85 are 1, 5, 17, 85.

From $gxy = 102$, we see that g must also be a divisor of 102. The divisors of 102 are 1, 2, 3, 6, 17, 34, 51, 102.

Comparing the divisors of 85 and 102, the possible common values for g (the GCD) are 1 and 17.

Case 1: Assume $g = 1$

- If $g = 1$, then $x + y = 85/1 = 85$.
- And $xy = 102/1 = 102$.
- We need two coprime numbers (x, y) whose sum is 85 and product is 102. Let's check if such integers exist. We can think of x and y as roots of the quadratic equation $t^2 - (x + y)t + xy = 0$.
- $t^2 - 85t + 102 = 0$.
- The discriminant is $D = (-85)^2 - 4(1)(102) = 7225 - 408 = 6817$. Since $\sqrt{6817}$ is not an integer, the roots x and y are not integers. Thus, $g = 1$ is not possible.

Case 2: Assume $g = 17$

- If $g = 17$, then $x + y = 85/17 = 5$.
- And $xy = 102/17 = 6$.
- We need two coprime numbers (x, y) whose sum is 5 and product is 6.
- We look for pairs of numbers that multiply to 6: (1, 6) and (2, 3).
- Check the sum condition for these pairs:
 - For (1, 6): $1 + 6 = 7$. This is not 5.
 - For (2, 3): $2 + 3 = 5$. This matches the required sum.
- Check if the pair (2, 3) is coprime: $GCD(2, 3) = 1$. Yes, they are coprime.
- So, we have found $x = 2$ and $y = 3$ (or vice versa).

Now, we find the numbers a and b using $g = 17$, $x = 2$, $y = 3$:

- $a = gx = 17 \times 2 = 34$.
- $b = gy = 17 \times 3 = 51$.

The two natural numbers are 34 and 51.

Final Conclusion

By checking the conditions or using the properties of GCD and LCM, we find that the two natural numbers whose sum is 85 and LCM is 102 are 34 and 51.

54. Answer: b

Explanation:

Calculating Remaining Food Duration for Soldiers in Fort

This problem requires us to determine how long the remaining food supply in a fort will last after some soldiers have departed. We need to consider the initial food supply, consumption over time, and the reduced number of soldiers.

Initial Assessment of Food Supply

The problem states that there was enough food for a specific number of soldiers for a certain number of days.

- Initial number of soldiers: 200
- Number of days the food was initially sufficient for: 31 days

We can calculate the total food supply in terms of 'soldier-days'. A soldier-day represents the amount of food one soldier consumes in one day.

Total Food Supply = (Initial Soldiers) $\times$ (Initial Days)

Total Food Supply = $200 \times 31 = 6200$ soldier-days.

Calculating Food Consumed

The situation changes after 27 days. First, let's calculate how much food was consumed during these 27 days.

- Number of days passed: 27 days
- Number of soldiers during these days: 200

Food Consumed = (Number of Soldiers) $\times$ (Days Passed)

Food Consumed = $200 \times 27 = 5400$ soldier-days.

Calculating Remaining Food

Next, we determine the amount of food left in the fort after 27 days.

Remaining Food = Total Food Supply - Food Consumed

Remaining Food = $6200 - 5400 = 800$ soldier-days.

Calculating the Number of Remaining Soldiers

The problem states that 120 soldiers left the fort after 27 days. We need to find out how many soldiers are left.

Remaining Soldiers = Initial Soldiers - Soldiers Who Left

Remaining Soldiers = $200 - 120 = 80$ soldiers.

Final Calculation for Remaining Food Duration

Finally, we calculate how many days the remaining food (800 soldier-days) will last for the remaining soldiers (80).

Duration for Remaining Soldiers = Remaining Food / Remaining Soldiers

Duration for Remaining Soldiers = $\frac{800 \text{ soldier-days}}{80 \text{ soldiers}}$

Duration for Remaining Soldiers = 10 days.

Conclusion

Therefore, the remaining food will last for 10 days for the 80 soldiers left in the fort.

55. Answer: c

Explanation:

Solving for the Unknown Number: Step-by-Step Breakdown

This problem involves a series of arithmetic operations applied to an unknown number. We need to reverse these operations to find the original number. Let's denote the **certain number** as ' x '.

Translating the Problem into an Algebraic Equation

We can translate the steps described in the problem into a mathematical equation:

- "10 is added to a certain number": This translates to $x + 10$.
- "the sum is multiplied by 7": This becomes $7 \times (x + 10)$.
- "the product is divided by 5": This gives us $\frac{7 \times (x + 10)}{5}$.
- "5 is subtracted from the Quotient": The expression is now $\frac{7 \times (x + 10)}{5} - 5$.
- "The remainder left is half of 88": First, calculate half of 88.

$$\frac{88}{2} = 44$$

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So, the final result of the operations is 44.

Combining these steps, the equation we need to solve is:

$$\frac{7(x + 10)}{5} - 5 = 44$$

Step-by-Step Solution to Find the Number

Now, let's solve the equation for ' x ' by isolating it:

1. **Add 5 to both sides** of the equation to undo the subtraction:

$$\frac{7(x + 10)}{5} - 5 + 5 = 44 + 5$$

$$\frac{7(x + 10)}{5} = 49$$

2. **Multiply both sides by 5** to undo the division:

$$\frac{7(x + 10)}{5} \times 5 = 49 \times 5$$

$$7(x + 10) = 245$$

3. **Divide both sides by 7** to undo the multiplication:

$$\frac{7(x + 10)}{7} = \frac{245}{7}$$

$$x + 10 = 35$$

4. **Subtract 10 from both sides** to find the value of 'x':

$$x + 10 - 10 = 35 - 10$$

$$x = 25$$

Verification of the Result

Let's check if the number 25 satisfies the conditions given in the problem:

- Start with the number: 25
- Add 10: $25 + 10 = 35$
- Multiply by 7: $35 \times 7 = 245$
- Divide by 5: $\frac{245}{5} = 49$
- Subtract 5: $49 - 5 = 44$
- The result is 44, which is indeed half of 88 ($\frac{88}{2} = 44$).

The calculations confirm that the **certain number** is 25.

Identifying the Correct Option

Comparing our calculated result with the given options:

- Option 1: 21
- Option 2: 20
- Option 3: 25

- Option 4: 30
- Option 5: (No value provided)

The calculated value matches Option 3.

56. Answer: d

Explanation:

Understanding the Combined Dinner Party Expenditure

This problem asks us to calculate the total amount of money spent by a group of 19 persons at a combined dinner party. We are given details about how different subsets of the group spent their money, relating their spending to the average expenditure.

Calculating Spending for the First Group

We start by calculating the money spent by the first set of people. There were 19 persons in total. Out of these, 13 persons spent Rs. 79 each.

Amount spent by these 13 persons is found by multiplying the number of persons by the amount each spent.

$$\text{Amount spent} = 13 \times 79$$

Let's calculate this value:

$$13 \times 79 = 1027$$

So, the first 13 persons spent a total of Rs. 1027.

Calculating Spending for the Remaining Group

Next, we consider the remaining persons. The total number of people is 19, and we've accounted for 13.

Number of remaining persons = Total persons - Number of persons in the first group

$$\text{Remaining Persons} = 19 - 13 = 6$$

The problem states that these 6 persons spent Rs. 4 more than the **average expenditure** of all 19 persons. Let S represent the **total money spent** by all 19 persons. The average expenditure (A) is:

$$A = \frac{S}{19}$$

According to the question, each of the remaining 6 persons spent $A + 4$. The total amount spent by these 6 persons is:

$$\text{Amount spent by remaining 6} = 6 \times (A + 4)$$

Substituting the expression for A :

$$\text{Amount spent by remaining 6} = 6 \times \left(\frac{S}{19} + 4 \right)$$

Determining the Total Expenditure

The **total money spent** (S) is the sum of the amounts spent by the first 13 persons and the remaining 6 persons.

$$S = (\text{Amount spent by first 13}) + (\text{Amount spent by remaining 6})$$

$$S = 1027 + 6 \times \left(\frac{S}{19} + 4 \right)$$

Let's solve this equation for S . First, distribute the 6:

$$S = 1027 + \frac{6S}{19} + (6 \times 4)$$

$$S = 1027 + \frac{6S}{19} + 24$$

Combine the constant terms:

$$S = 1051 + \frac{6S}{19}$$

To find S , we need to gather all terms involving S on one side of the equation. Subtract $\frac{6S}{19}$ from both sides:

$$S - \frac{6S}{19} = 1051$$

Combine the S terms using a common denominator:

$$\frac{19S - 6S}{19} = 1051$$

$$\frac{13S}{19} = 1051$$

Isolate S by multiplying both sides by 19 and then dividing by 13:

$$S = \frac{1051 \times 19}{13}$$

Calculate the product in the numerator:

$$1051 \times 19 = 19969$$

So the equation becomes:

$$S = \frac{19969}{13}$$

Now, we convert this fraction to a decimal:

$$S \approx 1536.0769$$

The total money spent by the 19 persons is approximately Rs. 1536.08.

Comparing Calculated Total with Options

We need to check if our calculated total expenditure matches any of the given options.

- Option 1: Rs. 1628.4
- Option 2: Rs. 1534
- Option 3: Rs. 1492
- Option 4: None of these

Our calculated value is approximately Rs. 1536.08. Comparing this with the options, we see that it does not match Option 1 (1628.4), Option 2 (1534), or Option 3 (1492).

Final Answer Determination

Since the calculated total money spent (Rs. 19969/13) does not correspond to any of the first three numerical options, the correct choice is "None of these".

57. Answer: b

Explanation:

This problem requires us to determine the time needed for the **slower typist** to finish a **typing job** entirely on their own. We are given information about their combined work speed and a specific work scenario.

Determining Individual Typist Work Rates

To solve this, we first need to understand the rate at which each typist works. Let's denote:

- R_1 = Rate of the first typist (work done per minute).
- R_2 = Rate of the second typist (work done per minute).

The time taken to complete the job alone is the inverse of the rate. If T_1 is the time for the first typist and T_2 for the second, then $R_1 = 1/T_1$ and $R_2 = 1/T_2$.

Calculating the Combined Work Rate

We are told that when the two **typists** work together, they complete the entire **typing job** in **6 minutes**. The combined rate is the sum of their individual rates ($R_1 + R_2$). The total work is considered 1 unit.

The relationship between work, rate, and time is: $\text{Work} = \text{Rate} \times \text{Time}$.

Using the combined work information:

$$(R_1 + R_2) \times 6 \text{ minutes} = 1 \text{ (whole job)}$$

Dividing both sides by 6, we get the combined rate:

$$R_1 + R_2 = \frac{1}{6} \text{ (Equation 1)}$$

Analyzing the Mixed Work Scenario

Next, we consider the scenario where the first typist works alone for **4 minutes**, and the second typist works alone for **6 minutes**. After this, $\frac{1}{5}$ of the job remains undone. This means $\frac{4}{5}$ of the job was completed.

- Work done by the first typist in 4 minutes = $R_1 \times 4 = 4R_1$.
- Work done by the second typist in 6 minutes = $R_2 \times 6 = 6R_2$.
- The total work completed in this scenario is the sum of the work done by each: $4R_1 + 6R_2$.
- We know this total completed work is $\frac{4}{5}$ of the job.

This gives us our second equation:

$$4R_1 + 6R_2 = \frac{4}{5} \text{ (Equation 2)}$$

Solving the System of Equations for Rates

We now have two equations:

1. $R_1 + R_2 = \frac{1}{6}$
2. $4R_1 + 6R_2 = \frac{4}{5}$

Let's solve for R_1 and R_2 . From Equation 1, we can express R_1 as:

$$R_1 = \frac{1}{6} - R_2$$

Substitute this into Equation 2:

$$4\left(\frac{1}{6} - R_2\right) + 6R_2 = \frac{4}{5}$$

Distribute the 4:

$$\frac{4}{6} - 4R_2 + 6R_2 = \frac{4}{5}$$

Simplify $\frac{4}{6}$ to $\frac{2}{3}$ and combine the R_2 terms:

$$\frac{2}{3} + 2R_2 = \frac{4}{5}$$

To find $2R_2$, subtract $\frac{2}{3}$ from both sides:

$$2R_2 = \frac{4}{5} - \frac{2}{3}$$

Find a common denominator (15) for the subtraction:

$$2R_2 = \frac{12}{15} - \frac{10}{15}$$

$$2R_2 = \frac{2}{15}$$

Now, solve for R_2 by dividing by 2:

$$R_2 = \frac{1}{15}$$

Substitute $R_2 = \frac{1}{15}$ back into Equation 1 to find R_1 :

$$R_1 + \frac{1}{15} = \frac{1}{6}$$

$$R_1 = \frac{1}{6} - \frac{1}{15}$$

Find a common denominator (30):

$$R_1 = \frac{5}{30} - \frac{2}{30}$$

$$R_1 = \frac{3}{30}$$

$$R_1 = \frac{1}{10}$$

Identifying the Slower Typist

The rates are:

- Typist 1 Rate (R_1) = $\frac{1}{10}$ of the job per minute.
- Typist 2 Rate (R_2) = $\frac{1}{15}$ of the job per minute.

The **slower typist** is the one with the lower rate. Comparing the fractions:

$$\frac{1}{15} < \frac{1}{10}$$

This means Typist 2 works slower than Typist 1.

Calculating Time for Slower Typist Alone

The question asks for the time the **slower typist** (Typist 2) takes to complete the entire **typing job** alone. This time (T_2) is the inverse of their rate (R_2).

$$T_2 = \frac{1}{R_2}$$

$$T_2 = \frac{1}{\frac{1}{15}}$$

$$T_2 = 15 \text{ minutes}$$

Therefore, it would take the **slower typist 15 minutes** to complete the typing job working alone.

58. Answer: a

Explanation:

Given:

Total number of coins = 220

Total value of coins = Rs. 160

Calculation:

Let number of 25 paise coins be x , then

$\Rightarrow$ Number of 1 rupee coins = $3x$

$\Rightarrow$ Number of 50 paise coins = $220 - 4x$

According to the question

$$(220 - 4x)/2 + x/4 + 3x = 160$$

$$\Rightarrow 110 - 2x + x/4 + 3x = 160$$

$$\Rightarrow x + x/4 = 160 - 110$$

$$\Rightarrow 5x/4 = 50$$

$$\Rightarrow x = 50 \times 4/5$$

$$\Rightarrow x = 40$$

$$\therefore \text{Number of 50 paise coins} = 220 - 4 \times 40 = 220 - 160 = 60$$

59. Answer: d

Explanation:

Solving the Number Problem: Sum vs. Difference

This problem asks us to find an unknown number based on a relationship between the sum and difference of two numbers, given that the smaller number is 10.

Understanding the Problem Statement

- We have two numbers.
- Let the larger number be denoted by x and the smaller number be denoted by y .
- We are given that the smaller number, y , is 10.
- The core condition is that the sum of the two numbers ($x + y$) is equal to thrice their difference ($3 \times (x - y)$).
- Our goal is to find the value of the other number, x .

Step-by-Step Solution

Step 1: Define Variables and Known Values

Let the two numbers be x and y . We assume x is the larger number and y is the smaller number.

Given:

- Smaller number, $y = 10$.

Step 2: Formulate the Algebraic Equation

The problem states: "The sum of two numbers is equal to thrice their difference."

Translating this into an equation:

$$\text{Sum} = x + y$$

$$\text{Difference} = x - y$$

$$\text{The relationship is: } x + y = 3 \times (x - y)$$

Step 3: Substitute the Known Value and Solve for the Unknown Number

Substitute $y = 10$ into the equation:

$$x + 10 = 3 \times (x - 10)$$

Now, we need to solve this equation for x . First, distribute the 3 on the right side:

$$x + 10 = 3x - 30$$

To isolate x , let's gather the x terms on one side and the constant terms on the other. Subtract x from both sides:

$$10 = 3x - x - 30$$

$$10 = 2x - 30$$

Now, add 30 to both sides:

$$10 + 30 = 2x$$

$$40 = 2x$$

Finally, divide both sides by 2:

$$x = \frac{40}{2}$$

$$x = 20$$

So, the other number is 20.

Step 4: Verify the Solution

Let's check if our numbers, $x = 20$ and $y = 10$, satisfy the condition:

$$\text{Sum} = x + y = 20 + 10 = 30$$

$$\text{Difference} = x - y = 20 - 10 = 10$$

$$\text{Thrice the difference} = 3 \times 10 = 30$$

The sum (30) is indeed equal to thrice the difference (30). Our calculation is correct.

Step 5: Compare the Result with the Given Options

The calculated value for the other number is 20.

Let's look at the provided options:

- Option 1: 15
- Option 2: 30
- Option 3: 40
- Option 4: None of these

Since 20 is not listed among the first three options, the correct choice is "None of these".

Final Conclusion

Based on the algebraic setup and calculations, the other number is 20. As 20 is not among the choices 15, 30, or 40, the correct answer is that none of the provided specific numerical options is correct.

60. Answer: b

Explanation:

Calculating the Original Loan Amount with Simple Interest

This explanation focuses on determining the initial amount borrowed (the principal) when the total amount repaid, the time duration, and the simple interest rate are known. We need to find the **loan amount** based on the details provided.

Understanding the Key Concepts for Loan Repayment

- **Principal (P):** This is the original amount of the loan that was borrowed. This is the value we need to calculate.
- **Rate (R):** The annual interest rate charged on the loan. In this problem, $R = 10\%$ per annum.
- **Time (T):** The duration, in years, for which the loan was taken. Here, $T = 10$ years.
- **Simple Interest (SI):** The interest calculated solely on the initial principal amount over the time period.
- **Total Amount (A):** The final sum repaid by the borrower, which includes both the principal and the accumulated simple interest. Here, $A = \text{Rs. } 22,500$.

Simple Interest Formulas Explained

The calculation involves two main formulas related to simple interest:

The formula to calculate Simple Interest (SI) is:

$$SI = \frac{P \times R \times T}{100}$$

The formula for the Total Amount (A) repaid is the sum of the Principal (P) and the Simple Interest (SI):

$$A = P + SI$$

Step-by-Step Calculation for the Loan Amount

To find the original loan amount (Principal, P), we can combine these formulas and substitute the known values.

1. First, substitute the expression for SI from the first formula into the second formula:

$$A = P + \left(\frac{P \times R \times T}{100} \right)$$

2. Next, we can factor out the Principal (P) from the right side of the equation:

$$A = P \left(1 + \frac{R \times T}{100} \right)$$

3. To find the Principal (P), we rearrange the formula:

$$P = \frac{A}{1 + \frac{R \times T}{100}}$$

4. Now, we input the given values into the formula: A = 22500, R = 10, and T = 10.

$$P = \frac{22500}{1 + \frac{10 \times 10}{100}}$$

5. Calculate the product of Rate and Time divided by 100:

$$\frac{10 \times 10}{100} = \frac{100}{100} = 1$$

6. Add 1 to the result from the previous step to get the denominator:

$$1 + 1 = 2$$

7. Finally, divide the Total Amount (A) by the calculated denominator to find the Principal (P):

$$P = \frac{22500}{2}$$

$$P = 11250$$

Analysis of the Calculated Loan Amount

The calculation reveals that the original loan amount, or the Principal, is Rs. 11,250. This amount represents the sum borrowed initially.

Summary Table of Calculation Inputs and Output

Parameter	Value
Total Amount Repaid (A)	Rs. 22,500
Rate of Interest (R)	10% per annum
Time Period (T)	10 years
Calculated Principal (P)	Rs. 11,250

Therefore, the person took a loan of Rs. 11,250.

61. Answer: c

Explanation:

Understanding Simple Interest and Growth Over Time

This problem involves calculating how a sum of money grows over time with **simple interest**. Simple interest means the interest earned each year is calculated only on the initial amount invested (the principal). We are given that the initial investment **triples itself in 8 years**, and we need to find out how many times the principal the investment will grow to in **20 years**.

Calculating the Simple Interest Rate

First, let's determine the rate of simple interest. Let the principal amount be P .

- When the sum **triples itself**, the final amount (A) becomes $3P$.

- The total **simple interest** (SI) earned over 8 years is the final amount minus the principal: $SI = A - P = 3P - P = 2P$.
- The formula for simple interest is:

$$SI = \frac{P \times R \times T}{100}$$

where P is the principal, R is the annual interest rate (in percent), and T is the time period in years.

- We know $SI = 2P$ and $T = 8$ years. Plugging these values into the formula:

$$2P = \frac{P \times R \times 8}{100}$$

- To find the rate R , we can cancel P from both sides (since P must be greater than 0):

$$2 = \frac{R \times 8}{100}$$

- Now, we solve for R :

$$2 \times 100 = R \times 8$$

$$200 = 8R$$

$$R = \frac{200}{8}$$

$$R = 25$$

Therefore, the annual simple interest rate is **25%**.

Determining the Amount in 20 Years

Now that we know the interest rate ($R = 25\%$), we can calculate how the principal amount will grow in **20 years**. Let the principal amount still be P . The time period T is now 20 years.

- Calculate the **simple interest** earned over 20 years using the formula:

$$SI = \frac{P \times R \times T}{100}$$

- Substitute the values P , $R = 25$, and $T = 20$:

$$SI = \frac{P \times 25 \times 20}{100}$$

$$SI = \frac{P \times 500}{100}$$

$$SI = 5P$$

- The total amount (A) after 20 years is the principal plus the simple interest earned:

$$A = P + SI$$

$$A = P + 5P$$

$$A = 6P$$

This means that after 20 years, the total amount will be 6 times the original principal amount (P).

Conclusion

Based on the calculations, the sum of money will become **6 times** itself in 20 years at the given simple interest rate.

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62. Answer: b

Explanation:

Formula:

$$(a^3 - b^3) = (a - b)(a^2 + ab + b^2)$$

Calculation:

$$\frac{69 \times 69 \times 69 - 65 \times 65 \times 65}{69 \times 69 + 69 \times 65 + 65 \times 65}$$

$$\left(\left(\text{Rightarrow} \frac{\{69^3\} - \{65^3\}}{\{69^2\} + \{69\} \times \{65\} + \{65^2\}} \right) \right)$$

$$\left(\left(\text{Rightarrow} \frac{\left(\{69 - 65\} \right) (\{69^2\} + \{69\} \times \{65\} + \{65^2\})}{\{69^2\} + \{69\} \times \{65\} + \{65^2\}} \right) \right)$$

$\Rightarrow 4$

63. Answer: c

Explanation:

Understanding the Letter Series Pattern

The question asks us to find the missing letter in the given alphabetical sequence: A, B, D, G, ?, P. To solve this, we need to identify the underlying pattern governing the progression of letters.

Decoding the Letter Series Progression

First, let's convert each letter in the series to its corresponding numerical position in the English alphabet:

- A is the 1st letter.
- B is the 2nd letter.
- D is the 4th letter.
- G is the 7th letter.
- P is the 16th letter.

So, the numerical series is 1, 2, 4, 7, ?, 16.

Now, let's examine the difference between consecutive terms in this numerical series:

Term	Letter	Position (n)	Difference (d = Current Position - Previous Position)
1st	A	1	-
2nd	B	2	$2 - 1 = 1$
3rd	D	4	$4 - 2 = 2$
4th	G	7	$7 - 4 = 3$
5th	?	?	?
6th	P	16	?

We observe a pattern in the differences: 1, 2, 3. It seems the difference increases by 1 for each subsequent step.

Calculating the Missing Term in the Series

Following the established pattern, the difference between the 4th term (G) and the 5th term (?) should be 4 (since the previous difference was 3).

To find the numerical position of the missing term, we add this difference to the position of the previous term (G):

Position of missing term = Position of G + Next difference

Position of missing term = $7 + 4 = 11$

Let's verify this. The difference between the 5th term (which we found to be 11) and the 6th term (P, position 16) should be 5 (following the pattern 1, 2, 3, 4, ...).

Check: $16 - 11 = 5$. The pattern holds true.

Identifying the Correct Option

The calculated numerical position for the missing term is 11. We need to find the letter corresponding to the 11th position in the alphabet.

The 11th letter of the alphabet is K.

Comparing this with the given options:

- 1. I
- 2. J
- 3. K
- 4. L

Our calculated letter, K, matches option 3. Therefore, the correct option is 3.

The complete series is A, B, D, G, K, P.

64. Answer: b

Explanation:

Completing the Alphabetical Series: Z, S, W, O, T, K, Q, G, ?, ?

This question requires identifying the pattern in the given sequence of letters: Z, S, W, O, T, K, Q, G, ?, ? and determining the next two letters to complete the series.

Identifying Interleaved Patterns

The series appears complex, suggesting it might be composed of two distinct patterns interleaved. Let's separate the letters based on their position in the original series:

- **Sequence 1 (Odd Positions):** Z, W, T, Q, ...
- **Sequence 2 (Even Positions):** S, O, K, G, ...

We will now analyze the pattern within each of these sequences.

Sequence 1 Analysis (Odd Positions)

The sequence at odd positions is Z, W, T, Q.

Let's find the numerical positions of these letters in the alphabet:

- Z is the 26th letter.
- W is the 23rd letter.
- T is the 20th letter.
- Q is the 17th letter.

Calculating the difference between consecutive letter positions:

- $23 (W) - 26 (Z) = -3$
- $20 (T) - 23 (W) = -3$
- $17 (Q) - 20 (T) = -3$

The pattern for Sequence 1 is consistently subtracting 3 from the alphabetical position. To find the next letter in this sequence, we apply the same rule to the last letter, Q (position 17):

Next letter position = $17 - 3 = 14$

The 14th letter of the alphabet is N.

Sequence 2 Analysis (Even Positions)

The sequence at even positions is S, O, K, G.

Finding their numerical positions in the alphabet:

- S is the 19th letter.
- O is the 15th letter.
- K is the 11th letter.
- G is the 7th letter.

Calculating the difference between consecutive letter positions:

- $15 (O) - 19 (S) = -4$
- $11 (K) - 15 (O) = -4$
- $7 (G) - 11 (K) = -4$

The pattern for Sequence 2 is consistently subtracting 4 from the alphabetical position. To find the next letter in this sequence, we apply this rule to the last letter, G (position 7):

$$\text{Next letter position} = 7 - 4 = 3$$

The 3rd letter of the alphabet is C.

Combining Sequences for the Final Answer

The original series alternates between Sequence 1 and Sequence 2. We have found the next letter for Sequence 1 is N, and the next letter for Sequence 2 is C.

Therefore, the two missing letters in the series Z, S, W, O, T, K, Q, G, ?, ? are N and C, respectively.

Matching with Provided Options

The determined missing letters are N, C. Let's compare this with the given options:

Option Number	Missing Letters
1	N, D
2	N, C
3	O, C
4	O, D

The calculated result (N, C) matches Option 2.

65. Answer: c

Explanation:

Understanding the Letter Series Pattern

The question requires us to complete the given letter series: BCD, RQP, LMN, TS?. To solve this, we need to identify the underlying pattern governing the sequence of these three-letter blocks. We will analyze the alphabetical positions of the letters within each block.

Breakdown of Each Series Block

Let's analyze the alphabetical order and sequence type (increasing or decreasing) for each block:

- **BCD:**
 - B is the 2nd letter of the alphabet.
 - C is the 3rd letter.
 - D is the 4th letter.
 - The sequence of positions (2, 3, 4) is **increasing**.
- **RQP:**
 - R is the 18th letter.
 - Q is the 17th letter.
 - P is the 16th letter.
 - The sequence of positions (18, 17, 16) is **decreasing**.
- **LMN:**
 - L is the 12th letter.
 - M is the 13th letter.
 - N is the 14th letter.
 - The sequence of positions (12, 13, 14) is **increasing**.
- **TS?:**
 - T is the 20th letter.
 - S is the 19th letter.
 - Based on the observed pattern (Increasing, Decreasing, Increasing), the next block should follow a **decreasing sequence**.

Determining the Missing Letter in TS?

The series exhibits an alternating pattern in the internal sequence of each block:

- The first block (BCD) has an increasing sequence.
- The second block (RQP) has a decreasing sequence.
- The third block (LMN) has an increasing sequence.

Following this alternating pattern, the fourth block (TS?) must have a decreasing sequence.

The first two letters of the fourth block are T (20th position) and S (19th position). This confirms the decreasing trend.

To find the missing third letter, we continue the decreasing sequence from S.

The position of the missing letter is calculated by subtracting 1 from the position of S:

$$\text{Position} = 19 - 1 = 18.$$

The 18th letter in the English alphabet is R.

Series Completion Result

Therefore, the missing letter to complete the series TS? is R.

The completed block is TSR.

The full series is BCD, RQP, LMN, TSR.

66. Answer: c

Explanation:

Decoding the Coding Rule

The question asks us to find the coded version of the word 'STUDENT' using a specific substitution pattern. The given rule is 'A = C, B = D, C = E and so on'. This pattern shows that each letter in the original word is replaced by the letter that appears two positions after it in the standard English alphabet. For example, A is replaced by C (A

+ 2 positions), B is replaced by D (B + 2 positions), and C is replaced by E (C + 2 positions).

This type of substitution is a simple form of a Caesar cipher, specifically a shift of +2.

Applying the +2 Shift to 'STUDENT'

To code the word 'STUDENT', we apply the +2 shift rule to each individual letter:

- **S**: The 19th letter of the alphabet. Applying the +2 shift results in the 21st letter, which is **U**.
- **T**: The 20th letter of the alphabet. Applying the +2 shift results in the 22nd letter, which is **V**.
- **U**: The 21st letter of the alphabet. Applying the +2 shift results in the 23rd letter, which is **W**.
- **D**: The 4th letter of the alphabet. Applying the +2 shift results in the 6th letter, which is **F**.
- **E**: The 5th letter of the alphabet. Applying the +2 shift results in the 7th letter, which is **G**.
- **N**: The 14th letter of the alphabet. Applying the +2 shift results in the 16th letter, which is **P**.
- **T**: The 20th letter of the alphabet. Applying the +2 shift results in the 22nd letter, which is **V**.

Constructing the Coded Word

By replacing each letter of 'STUDENT' with its corresponding shifted letter, we obtain the coded word: **UVWFGPV**.

Matching the Result with Options

Let's compare our resulting coded word 'UVWFGPV' with the options provided:

- Option 1: VWVFGPV
- Option 2: UUVFGPV
- Option 3: UVWFGPV
- Option 4: UVVFGPV

- Option 5: (No code provided)

Our derived code, **UVWFGPV**, precisely matches Option 3.

Conclusion on Coding STUDENT

Therefore, following the described coding rule (shifting each letter forward by two places), the word 'STUDENT' is correctly coded as 'UVWFGPV'.

67. Answer: a

Explanation:

Coding the Word 'EDITOR' Using Reverse Alphabet Cipher

This solution explains how to code the word 'EDITOR' based on a specific letter substitution rule where the alphabet is reversed. This is often called the Atbash cipher or a simple reverse alphabet cipher.

Understanding the Reverse Alphabet Rule

The rule states that the first letter of the alphabet (A) is coded as the last letter (Z), the second letter (B) as the second-to-last letter (Y), and this pattern continues. Essentially, each letter is replaced by the letter in the corresponding position from the opposite end of the alphabet.

We can observe a pattern here: the sum of the position of a letter (from the start) and the position of its corresponding coded letter (from the start) is always 27.

For example:

- A is the 1st letter, Z is the 26th letter. $1 + 26 = 27$.
- B is the 2nd letter, Y is the 25th letter. $2 + 25 = 27$.
- C is the 3rd letter, X is the 24th letter. $3 + 24 = 27$.

To find the coded letter for any given letter, we can find its position from the start, subtract it from 27, and find the letter corresponding to the resulting position.

Applying the Cipher to 'EDITOR'

Let's apply this reverse alphabet rule to each letter in the word 'EDITOR':

- **E**: E is the 5th letter of the alphabet. The corresponding letter is the $(27 - 5) = 22$ nd letter, which is **V**.
- **D**: D is the 4th letter of the alphabet. The corresponding letter is the $(27 - 4) = 23$ rd letter, which is **W**.
- **I**: I is the 9th letter of the alphabet. The corresponding letter is the $(27 - 9) = 18$ th letter, which is **R**.
- **T**: T is the 20th letter of the alphabet. The corresponding letter is the $(27 - 20) = 7$ th letter, which is **G**.
- **O**: O is the 15th letter of the alphabet. The corresponding letter is the $(27 - 15) = 12$ th letter, which is **L**.
- **R**: R is the 18th letter of the alphabet. The corresponding letter is the $(27 - 18) = 9$ th letter, which is **I**.

Resulting Code

Combining the coded letters, we get 'EDITOR' coded as 'VWRGLI'.

Mapping Table

Here is a summary table showing the mapping for the letters in 'EDITOR':

Original Letter	Position (Forward)	Position Calculation	Coded Letter
E	5	$27 - 5 = 22$	V
D	4	$27 - 4 = 23$	W
I	9	$27 - 9 = 18$	R
T	20	$27 - 20 = 7$	G
O	15	$27 - 15 = 12$	L
R	18	$27 - 18 = 9$	I

Therefore, the coded word for 'EDITOR' is 'VWRGLI'.

68. Answer: c

Explanation:

Understanding the Analogy: 'Rustle' to 'Leaves' and 'Patter'

This question tests your ability to understand word relationships, specifically the connection between a sound and its source. We need to find a word that has the same relationship with 'PATTER' as 'LEAVES' has with 'RUSTLE'. The core task is identifying the type of sound each word represents and the object or phenomenon that typically makes that sound.

Analyzing the First Pair: 'RUSTLE' and 'LEAVES'

Let's break down the first part of the analogy:

- **'RUSTLE':** This word describes a specific type of sound. It's typically a soft, crackling or swishing sound.

- **'LEAVES':** This word refers to the leaves of plants. When leaves move, especially dry ones, they often make a rustling sound.
- **Relationship:** The relationship here is *Sound* to *Source*. 'RUSTLE' is the characteristic sound produced by 'LEAVES'.

Analyzing 'PATTER' and Potential Sources

Now, we apply the same logic to the second part of the analogy. We are looking for the source that typically makes the sound 'PATTER'.

- **'PATTER':** This word describes a sound made by repeated light taps. Think of a quick succession of small, dull sounds.
- **Options Analysis:**
 - *Snow:* While snow falling can make a sound, it's often described differently (e.g., a soft hush) unless it's accompanied by wind. 'Patter' isn't the primary sound associated with falling snow.
 - *Wind:* Wind produces various sounds like whistling, howling, or sighing, depending on its speed and what it moves through. 'Patter' doesn't typically describe wind sounds.
 - *Rain:* Light or moderate rain, where raindrops fall individually or in small groups and strike surfaces like roofs, windows, or leaves, often creates a distinct 'patter' sound. This is a very common association.
 - *Storm:* A storm is a broader weather event that can include rain, wind, thunder, etc. While rain within a storm might patter, 'storm' itself is too general, and the sound 'patter' specifically applies more to the rain component.

Identifying the Correct Source for 'PATTER'

Comparing the options, the sound 'PATTER' is most commonly and accurately associated with the falling of raindrops, especially in lighter rain. Therefore, 'Rain' is the most fitting source for the sound 'PATTER'.

Conclusion

Just as 'LEAVES' make a 'RUSTLE', 'RAIN' makes a 'PATTER'. The analogy follows the pattern of Sound → Source.

The most appropriate word is **Rain**.

69. Answer: b

Explanation:

Understanding Word Analogies

This question tests your ability to understand relationships between words, specifically analogies. An analogy presents a pair of words that have a certain relationship, and asks you to find a second pair with the same relationship. In this case, the relationship between the first pair needs to be identified and applied to find the missing word in the second pair.

Analyzing the First Word Pair: 'INDISCREET' and 'IMPRUDENT'

Let's examine the relationship between 'INDISCREET' and 'IMPRUDENT'.

- **INDISCREET** means not showing good judgment or caution; revealing private things unwisely.
- **IMPRUDENT** means not showing care for the consequences of an action; rash or injudicious.

The relationship between 'INDISCREET' and 'IMPRUDENT' is that they are synonyms, meaning they have very similar meanings. Both words describe a lack of care, judgment, or caution.

Applying the Relationship to 'INDISPOSED'

Now, we need to apply the same synonym relationship to the word 'INDISPOSED'.

- **INDISPOSED** means unwilling or disinclined to do something. It can also mean slightly unwell or ill, but in analogies, we often look for the most common or relevant synonym. The primary meaning relevant here is 'unwilling'.

We need to find an option that is a synonym for '**INDISPOSED**' (meaning unwilling or disinclined).

Evaluating the Options

Let's look at each option:

- **Concerned:** This means worried or anxious about something. It is not a synonym for 'indisposed'.
- **Reluctant:** This means unwilling and hesitant; having strong reservations. This is a direct synonym for 'indisposed' in the sense of being unwilling.
- **Crucial:** This means extremely important or necessary. It is not related to the meaning of 'indisposed'.
- **Clear:** This means easy to understand or free from doubt. It is not a synonym for 'indisposed'.

Conclusion

Since '**INDISCREET**' and '**IMPRUDENT**' are synonyms, we look for a synonym for '**INDISPOSED**'. '**Reluctant**' is the best fit as it means unwilling, which matches the meaning of 'indisposed'.

Therefore, the correct analogy is: '**INDISCREET**' is to '**IMPRUDENT**' as '**INDISPOSED**' is to '**Reluctant**'.

70. Answer: a

Explanation:

the logic followed here is:

- Lack of carefulness causes Accidents.

Similarly,

- Lack of sanitation causes diseases.

Hence, the correct answer is "**Sanitation**".

★ Additional Information

Word	Meaning
Sanitation	The promotion of hygiene and prevention of disease by maintenance of sanitary conditions
Treatment	The manner in which someone behaves towards or deals with someone or something.
Medicine	A drug or other preparation for the treatment or prevention of disease.
Doctor	A person who is qualified to treat people who are ill.

71. Answer: d

Explanation:

Understanding Logical Arguments

This question asks us to identify the logically incorrect statement among the four options provided. The key instruction is to focus on the **logical structure** of each argument (premises leading to a conclusion) and ignore any factual inaccuracies or absurdities mentioned in the statements. We need to find the one argument where the conclusion does not necessarily follow from its premises.

Analyzing Statement 1: Birds and Trees Validity

Statement: Birds fly in the air. Trees are birds. Therefore, trees fly in the air.

Breakdown:

- Premise 1: All birds fly. (If something is a bird, it flies)
- Premise 2: All trees are birds. (If something is a tree, it is a bird)
- Conclusion: All trees fly. (If something is a tree, it flies)

Logical Assessment: This argument uses a standard deductive reasoning structure known as a syllogism. If we accept the premises as true (even though Premise 2 is factually wrong), the conclusion logically follows. If all members of group B fly, and all members of group T are in group B, then all members of group T must fly. This is logically valid.

Analyzing Statement 2: Boys, Stealing, and Honesty Validity

Statement: Some boys steal. All who steal are naughty. All naughty are honest. Therefore, some boys are honest.

Breakdown:

- Premise 1: Some boys steal.
- Premise 2: All who steal are naughty.
- Premise 3: All naughty people are honest.
- Conclusion: Some boys are honest.

Logical Assessment: Let's trace the logic step-by-step:

1. From "Some boys steal" and "All who steal are naughty", we can logically conclude that "Some boys are naughty".
2. From this intermediate conclusion "Some boys are naughty" and the premise "All naughty are honest", we can logically conclude that "Some boys are honest".

This sequence of deductions is valid. The conclusion is a necessary consequence of the premises.

Analyzing Statement 3: Girls, Dance, and Artists Validity

Statement: All girls like dance. Some girls are Indians. All Indians are artists. Therefore, some artists like dance.

Breakdown:

- Premise 1: All girls like dance.
- Premise 2: Some girls are Indians.
- Premise 3: All Indians are artists.
- Conclusion: Some artists like dance.

Logical Assessment: We can follow the reasoning:

1. From "Some girls are Indians" and "All Indians are artists", it logically follows that "Some girls are artists".
2. Given that "All girls like dance" and we know that "Some girls are artists" (from the previous step), it must be true that those particular girls who are artists also like dance. Therefore, it logically follows that "Some artists like dance".

This argument is also logically valid.

Analyzing Statement 4: Liars, Thieves, and Criminals Validity

Statement: All liars are not thieves. All thieves are criminals. Therefore, all liars are criminals.

Breakdown:

- Premise 1: All liars are not thieves. (This is commonly interpreted in logic as: No liars are thieves.)
- Premise 2: All thieves are criminals.
- Conclusion: All liars are criminals.

Logical Assessment: Let's analyze the structure:

Premise 1 states that the set of liars (L) and the set of thieves (T) are completely separate (disjoint). Premise 2 states that the set of thieves (T) is entirely contained within the set of criminals (C).

The conclusion claims that the set of liars (L) is entirely contained within the set of criminals (C).

This does not necessarily follow. Imagine three circles:

- A large circle for Criminals (C).
- A smaller circle for Thieves (T) drawn entirely inside C.
- A circle for Liars (L) drawn entirely outside T.

The Liars circle (L) must be outside the Thieves circle (T), but it can be placed in various positions relative to the Criminals circle (C). It could be partially inside C, completely inside C, or completely outside C. The premises only guarantee that liars are not thieves, and thieves are criminals. They do not force all liars to be criminals.

For example, consider: Liars = {A, B}, Thieves = {C, D}, Criminals = {C, D, E}. Here, No Liars are Thieves is true, and All Thieves are Criminals is true, but All Liars are Criminals is false because A and B are not in the Criminals set. Since we found a scenario where the premises are true but the conclusion is false, the argument is logically invalid or doubtful.

Conclusion on Logical Correctness

Statements 1, 2, and 3 represent logically valid arguments, where the conclusion necessarily follows from the premises, irrespective of the factual accuracy of the premises themselves.

Statement 4 presents a logically invalid argument. The conclusion "All liars are criminals" does not logically follow from the premises "No liars are thieves" and "All thieves are criminals". Therefore, this is the statement which is wrong or doubtful in terms of logical structure.

72. Answer: a

Explanation:

Logical Analysis of Statements

The question asks us to identify the statement that is logically wrong or doubtful, disregarding any factual inaccuracies in the premises.

Option 1 Analysis: Ramesh is tall. Ramesh is a boy. Therefore, boys are tall.

- **Premises:**
 - Ramesh is tall.
 - Ramesh is a boy.
- **Conclusion:** Boys are tall.
- **Explanation:** This argument commits the fallacy of **hasty generalization**. It draws a universal conclusion ('Boys are tall') based on a single specific instance ('Ramesh is tall'). Just because one boy, Ramesh, is tall, it does not logically guarantee that all boys are tall. The conclusion is not sufficiently supported by the premises.

Option 2 Analysis: All who can fly are animals. Some birds can fly. Therefore, some birds are animals.

- **Premises:**
 - All who can fly are animals. (Symbolically: If X can fly, then X is an animal)
 - Some birds can fly.
- **Conclusion:** Some birds are animals.
- **Explanation:** This is a logically valid argument. If it's true that everything that can fly is an animal, and it's also true that some birds belong to the category of things that can fly, then it must follow logically that those specific birds are animals. The structure is sound, even if the first premise is factually questionable (e.g., airplanes can fly but are not animals).

Option 3 Analysis: Men live in houses. Houses grow on trees. Trees float in water. Therefore, men float in water.

- **Premises:**
 - Men live in houses.
 - Houses grow on trees.

- Trees float in water.
- **Conclusion:** Men float in water.
- **Explanation:** This argument demonstrates logical structure, often referred to as a chain argument or hypothetical syllogism. It follows the pattern: If A implies B, B implies C, and C implies D, then A implies D. In this case: Men $\rightarrow$ Live in Houses $\rightarrow$ Grow on Trees $\rightarrow$ Float in Water. Therefore, Men $\rightarrow$ Float in Water. Despite the absurd factual content, the chain of reasoning is logically connected and therefore valid.

Option 4 Analysis: All living things are mobile. Some non-living things are mobile. Therefore, some mobile are living and some non-living.

- **Premises:**
 - All living things are mobile. (Living $\rightarrow$ Mobile)
 - Some non-living things are mobile. (Some Non-living $\rightarrow$ Mobile)
- **Conclusion:** Some mobile are living and some non-living.
- **Explanation:** This argument is logically valid.
 - From "All living things are mobile", we can correctly infer that "Some mobile things are living things" (assuming there are living things).
 - From "Some non-living things are mobile", we can correctly infer that "Some mobile things are non-living things".

The conclusion combines these two valid inferences. The logic holds, connecting the categories correctly based on the premises.

Identifying the Logically Wrong Statement

Comparing the analyses:

- Option 1 uses faulty generalization.
- Options 2, 3, and 4 present arguments that are logically structured and valid, even though their premises might be factually incorrect.

The question asks for the statement that is **logically wrong**. Option 1 demonstrates a clear logical fallacy (hasty generalization), making its conclusion unreliable and logically doubtful.

Conclusion

The statement that is logically wrong or doubtful is the first one, regarding Ramesh and the general height of boys.

73. Answer: b

Explanation:

Logical Analysis of Statements

The question asks us to identify the statement that is logically wrong or doubtful, even if the content seems factually absurd. We need to evaluate the logical structure (syllogism) of each option.

Analyzing Option 1: Books, Pencils, and Cleverness

Let's break down the logic:

- **Premise 1:** All books can read. (If something is a book, then it can read)
- **Premise 2:** Some pencils are books. (There exists at least one pencil that is also a book)
- **Premise 3:** All pencils are clever. (If something is a pencil, then it is clever)
- **Conclusion:** Therefore, some clever [things] can read.

From Premise 2 ("Some pencils are books") and Premise 1 ("All books can read"), we can logically conclude that "Some pencils can read".

Now, combining this intermediate conclusion ("Some pencils can read") with Premise 3 ("All pencils are clever"), we can infer that if some pencils possess the ability to read, and all pencils are clever, then it must be true that "Some clever [things] can read".

Result: This statement follows a valid logical progression.

Analyzing Option 2: Failures, Criminals, and Stupidity

Let's examine the logical structure:

- **Premise 1:** Some who fail are stupid. (Some F are S)
- **Premise 2:** Some criminals are stupid. (Some C are S)
- **Conclusion:** Therefore, all criminals fail. (All C are F)

In this syllogism, the middle term is "stupid" (S). It appears in both premises.

- Premise 1 states a relationship between "fail" (F) and "stupid" (S).
- Premise 2 states a relationship between "criminals" (C) and "stupid" (S).

The problem is that the middle term ("stupid") is not distributed in either premise. Both premises are particular affirmative ('Some... are...'). From two "Some" premises, especially where the middle term is the predicate in both, we cannot logically conclude a universal affirmative statement like "All criminals fail". It's possible that the group of stupid criminals is entirely separate from the group of stupid failures. Therefore, we cannot establish a necessary link between criminals and failing based solely on them sharing the characteristic of being stupid.

Result: This statement contains a logical fallacy and is logically wrong or doubtful.

Analyzing Option 3: Liars, Thieves, and Criminals

Let's analyze the logic:

- **Premise 1:** Some liars are thieves. (Some L are T)
- **Premise 2:** All thieves are criminals. (All T are C)
- **Conclusion:** Therefore, some liars are criminals. (Some L are C)

This follows a standard valid syllogistic form. If some individuals belong to the group 'liars' and also to the group 'thieves', and every member of the group 'thieves' is also a member of the group 'criminals', then it necessarily follows that those specific liars who are thieves must also be criminals. Hence, some liars are criminals.

Result: This statement is logically correct.

Analyzing Option 4: Green, Black, and Trees

Let's examine the logical structure:

- **Premise 1:** All that is green is black. (All G are B)
- **Premise 2:** Trees are green. (All T are G)
- **Conclusion:** Therefore, trees are black. (All T are B)

This is a classic example of a valid syllogism (specifically, a categorical syllogism in the form AAA-1, known as Barbara). If every green thing is black, and every tree is green, then it logically follows that every tree must be black.

Result: This statement is logically correct.

Conclusion on Doubtful Statement

Comparing the analyses, Option 2 is the only statement that exhibits a clear logical fallacy. The conclusion does not necessarily follow from the premises provided.

Therefore, the statement which is wrong or doubtful is:

Some who fail are stupid. Some criminals are stupid. Therefore, all criminals fail.

74. Answer: d

Explanation:

Analyzing the Mother's Statement to Her Child

The question asks us to identify which assumptions are implied by a mother's statement to her child regarding sweets and dental health. The statement is: "You won't get sweets at any cost. I will not let you eat things that are not good for your teeth". We need to determine if the assumptions about the mother's care, the effect of sweets, and her authority are implicitly present in this statement.

Implicit Assumption: Mother's Care for Child

The mother's statement, specifically "I will not let you eat things that are not good for your teeth," clearly shows concern for the child's well-being. Preventing potential harm (bad for teeth) is a direct indicator of care. Therefore, the assumption that **the mother cares for her child** is implicit in her words.

Implicit Assumption: Sweets Harmful for Child's Teeth

The mother directly links denying sweets ("You won't get sweets at any cost") with not letting the child eat things "that are not good for your teeth." This connection implies that she views sweets as falling into the category of items detrimental to the child's dental health. Hence, the assumption that **sweets are not good for her child** (specifically, his teeth) is also implicit.

Implicit Assumption: Mother's Authority Over Child's Diet

The phrases "You won't get sweets" and "I will not let you eat..." demonstrate the mother actively controlling and restricting the child's food choices. This exercise of control implies her belief that she possesses the authority to make such decisions for her child. Thus, the assumption that **the mother has the authority to decide what her child is to eat** is implicit.

Evaluating the Assumptions Based on the Statement

- Assumption (i): The mother's protective statement implies she cares about the child's health. This is implicit.
- Assumption (ii): The direct link between denying sweets and avoiding things bad for teeth implies the mother believes sweets are bad for teeth. This is implicit.
- Assumption (iii): The prohibitive language ("won't get", "will not let") implies the mother assumes she has the authority to enforce these rules. This is implicit.

Conclusion on Implicit Assumptions

Based on the analysis of the mother's statement, all three assumptions are reasonably implied. Her words reflect concern for the child's health (care), a belief

about the negative impact of sweets on teeth, and the authority to enforce dietary rules.

Looking at the options provided:

- Option 1 suggests only (i) and (ii) are implicit.
- Option 2 suggests only (ii) and (iii) are implicit.
- Option 3 suggests only (i) and (iii) are implicit.
- Option 4 suggests all three assumptions (i), (ii), and (iii) are implicit.

Since all three assumptions are derived directly from the mother's statement, the correct choice is the one that includes all of them.

75. Answer: d

Explanation:

Understanding Implicit Assumptions in Judicial-Executive Relations Statement

This solution aims to identify which assumptions are logically implied by the given statement concerning the public's interaction with the judiciary and the executive branch, particularly the Supreme Court.

Analyzing the Statement on Public Reliance on the Supreme Court

The provided statement reads: "Clearly, the judiciary cannot provide all answers. But it seems the public, wary of an inactive Executive, is turning to the Supreme Court as a last resort." Let's break down the key elements:

- The statement acknowledges the judiciary's limitations.
- It highlights a trend: the public is increasingly approaching the Supreme Court.
- It provides a reason for this trend: the public is "wary" (concerned or distrustful) because the "Executive" is perceived as "inactive".

- The Supreme Court is viewed by the public as a "last resort," indicating a search for resolution when other options (specifically the Executive) are seen as failing or unavailable.

Evaluating Potential Assumptions Based on the Statement

We need to determine if the following assumptions are logically necessary inferences from the statement:

Assumption (i): The Supreme Court is above the Executive.

- The statement suggests the public is turning to the Supreme Court due to dissatisfaction with the Executive's inactivity.
- This reflects a public choice based on perceived performance, not necessarily a formal hierarchy where one branch is constitutionally "above" the other.
- While the judiciary can review executive actions, the statement doesn't imply institutional superiority, only that the public seeks recourse there when the Executive is perceived as failing.
- Therefore, this assumption is **not** necessarily implied.

Assumption (ii): The Supreme Court is more active than the Executive.

- The statement explicitly mentions the public is "wary of an inactive Executive". This directly points to the Executive's lack of action.
- Simultaneously, the public is turning to the Supreme Court as a "last resort".
- This juxtaposition implies that, in the context of addressing the public's concerns, the Supreme Court is seen as a more active or responsive institution compared to the perceived inactivity of the Executive.
- The public seeks the Court's intervention precisely because the Executive is **not** acting. This makes the assumption of the Court being perceived as more active implicitly true within the context described.
- Therefore, this assumption **is** implicit.

Assumption (iii): The Executive does not have sufficient powers.

- The statement mentions the Executive is "inactive".

- Inactivity is a description of behavior or performance, not necessarily a reflection of the extent of the Executive's powers.
- The Executive might have ample powers but may not be using them due to reasons like political considerations, internal policy disagreements, or lack of political will, rather than a lack of legal authority.
- The statement focuses solely on the **inactivity**, not the **capabilities** or **powers** of the Executive.
- Therefore, this assumption is **not** necessarily implied.

Conclusion on Implicit Assumptions

Based on the analysis, the statement directly implies that the public perceives the Supreme Court as a more active alternative due to the Executive's perceived inaction. Assumptions about hierarchy (i) or the extent of the Executive's powers (iii) are not directly supported by the text.

Final Answer Selection

The only assumption that is clearly and logically implied by the statement is (ii).

The correct option is the one stating that only assumption (ii) is implicit.

Only (ii) is implicit

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76. Answer: a

Explanation:

Identifying the Least Similar Word: Tsangpo, Hazaribagh, Kanha, Bandipur

The question requires us to identify the word from the given options that is different from the others. We need to find a common characteristic shared by most of the options and then pinpoint the option that doesn't fit this pattern.

Analyzing the Geographical Locations

Let's examine each provided option:

- **Tsangpo:** This name refers to the Yarlung Tsangpo River, which is a major river flowing through Tibet (China) and then into India, where it becomes known as the Brahmaputra River. Thus, Tsangpo is fundamentally a **river** name, primarily associated with Tibet.
- **Hazaribagh:** This is a city and a district located in the state of Jharkhand, India. It is a well-known **place name** within India.
- **Kanha:** This typically refers to Kanha National Park, a large and famous national park and tiger reserve situated in the state of Madhya Pradesh, India. It represents a specific **natural reserve** or geographical area within India.
- **Bandipur:** This refers to Bandipur National Park, another significant national park and tiger reserve located in the state of Karnataka, India. It is also a specific **natural reserve** or geographical area within India.

Identifying the Commonality

By examining the options, we can see a pattern:

- Hazaribagh is a city/district in India.
- Kanha is a National Park in India.
- Bandipur is a National Park in India.

These three options (Hazaribagh, Kanha, and Bandipur) are all specific **geographical locations** situated **within India**.

Determining the Outlier

The option **Tsangpo** is different from the others because:

- It is the name of a **river**, not a city, district, or national park on land.
- Its primary geographical association is with **Tibet (China)**, even though it flows into India. The other three are distinctly Indian locations.

Therefore, **Tsangpo** is the word that is least like the others in the group due to its nature as a river and its primary location outside India, compared to the other

options which are specific places within India.

77. Answer: b

Explanation:

Understanding the Grouping Task

The question asks us to identify the word that is least similar to the others in the given list: Wheat, Rice, Mustard, and Gram. To solve this, we need to examine the characteristics of each word and find a common feature shared by most of them, identifying the one that doesn't fit.

Analyzing Individual Crop Characteristics

Let's look at each item in the list:

- **Wheat:** This is a cereal grain, a fundamental staple food crop cultivated extensively around the world.
- **Rice:** Like wheat, rice is also a cereal grain and serves as a primary staple food for a large part of the world's population, particularly in Asia.
- **Mustard:** This refers to the seeds obtained from plants belonging to the Brassica family. These seeds are commonly used for producing oil or as a spice. It is categorized as an oilseed crop.
- **Gram:** Also known as chickpea, this belongs to the legume family and is classified as a pulse crop. Pulses are significant sources of protein in diets.

Identifying Commonalities and Differences

We can group these items based on their agricultural classification:

- Wheat and Rice are both **cereals**.
- Mustard is an **oilseed**.
- Gram is a **pulse** (legume).

Based on this classification (Cereal vs. Oilseed vs. Pulse), both Mustard and Gram are different from Wheat and Rice. However, questions like this often rely on a single distinguishing factor. Another common way to differentiate these crops, especially relevant in regions like India, is by their cultivation season.

Classifying Crops by Growing Season

Let's consider the typical agricultural seasons for these crops:

- **Wheat** is primarily cultivated during the winter season. It is known as a 'Rabi' crop in India.
- **Rice** is predominantly grown during the summer monsoon season and is typically classified as a 'Kharif' crop in India.
- **Mustard** is also usually planted and grown during the cooler winter months, making it a Rabi crop.
- **Gram** (Chickpea) thrives in winter conditions and is also cultivated as a Rabi crop.

Determining the Least Similar Word

Comparing the classifications:

- Wheat, Mustard, and Gram share the common characteristic of being primarily Rabi crops, meaning they are sown in the winter and harvested in the spring.
- Rice, however, is mainly a Kharif crop, grown during the monsoon or summer season and harvested in the autumn.

Therefore, **Rice** is the word that is least like the others because its primary cultivation season is different from Wheat, Mustard, and Gram.

78. Answer: a

Explanation:

Understanding the Crèche–Infants Relationship

The question asks us to identify a pair of words with a similar relationship to the given pair: **Crèche : Infants**.

First, let's analyze the core relationship in the original pair.

- A **Crèche** is a place or establishment that provides care for very young children, typically babies and toddlers, while their parents are away or working.
- **Infants** are very young children, usually from birth up to one year old.

Therefore, the relationship is: A **Crèche** is a specific type of facility or place primarily intended for the care and supervision of **Infants**.

Analyzing the Options for Analogous Relationships

Now, let's examine each alternative to find the one that mirrors this "Place for Young Occupants" relationship.

- **Option 1: School : Pupils**
 - A **School** is an institution dedicated to education, primarily for children and adolescents.
 - **Pupils** are students, typically children attending a school.
 - Relationship: A school is a place specifically designed for pupils to learn and receive education. This matches the original relationship where a crèche is a place specifically for infants.
- **Option 2: Deck : Sailors**
 - A **Deck** is a level or platform, often found on a ship or aircraft.
 - **Sailors** are people who work on ships.
 - Relationship: Sailors work on or might be found on a deck, but the deck is a part of the ship, not exclusively a place *for* sailors in the same sense as a crèche for infants. The relationship is more like "Part of a Vehicle : Personnel".
- **Option 3: Cottage : Guests**
 - A **Cottage** is a small, often picturesque house.
 - **Guests** are visitors or temporary residents.
 - Relationship: Guests stay in a cottage, but a cottage is a type of dwelling, and guests are not necessarily young children. The relationship is "Dwelling : Temporary Occupant", which is different from the original.

- **Option 4: Aircraft : Crew**
 - An **Aircraft** is a machine designed for flight.
 - The **Crew** are the people who operate and work on the aircraft.
 - Relationship: The crew works *on* the aircraft; the aircraft isn't primarily a place *for* the crew in the same way a crèche is for infants. It's "Vehicle : Operators".

Conclusion: Identifying the Best Analogy

Comparing the relationships, the pair **School : Pupils** exhibits the strongest similarity to the original pair **Crèche : Infants**.

Both pairs represent a specific type of facility or place designed for the primary care, supervision, or education of young individuals. A crèche is for infants, and a school is for pupils.

Therefore, **School : Pupils** is the best choice.

79. Answer: b

Explanation:

Analyzing the Pesticide : Plant Analogy

This question asks us to identify the word pair that shares the same relationship as the given pair: **Pesticide : Plant**.

First, let's understand the relationship between "Pesticide" and "Plant". A pesticide is applied to a plant to protect it from harmful pests or diseases. Therefore, the relationship is one of **protection** or prevention of harm.

Examining Option Relationships

We need to find an option where the first word represents something that protects the second word (the entity being protected) from potential harm or threats.

- **Option 1: Injection : Disease**

An injection is a method used to deliver medicine or other substances into the body. A disease is a condition that negatively affects an organism. While injections can be used in the treatment of diseases, the relationship isn't primarily about protection in the same preventative sense as the original pair. It's more related to treatment or intervention after a problem has arisen.

- **Option 2: Vaccination : Body**

Vaccination is a process that provides immunity or resistance to a particular disease by administering a vaccine. The body is the recipient of this protection. This mirrors the relationship between pesticide and plant, where the pesticide protects the plant from diseases or pests. Both involve administering something to protect an organism from future harm.

- **Option 3: Medicine : Cure**

Medicine is often used to cure diseases or alleviate symptoms. The relationship here is primarily focused on treatment and recovery from an existing condition, rather than preventative protection.

- **Option 4: Teacher : Student**

A teacher educates or guides a student. This relationship is about instruction and learning, not protection from harm.

Identifying the Best Match

Comparing the options, the pair "Vaccination : Body" shows the most analogous relationship to "Pesticide : Plant". Both pairs represent a method or substance used to protect an organism (plant or body) from potential threats (pests/diseases or diseases).

80. **Answer: a**

Explanation:

Analogy: Understanding Opposite Actions

This question asks us to identify the relationship between the words "Stare" and "Glance" and then find an option that shares the same relationship. The relationship here involves contrasting actions related to looking.

Analyzing the Original Pair: Stare : Glance

- **Stare:** This means to look fixedly or intently for a long time. It's a prolonged and often intense way of looking at something.
- **Glance:** This means to take a quick, brief look at something or someone. It's a short and cursory way of looking.

The relationship between "Stare" and "Glance" is one of contrast in the duration and intensity of the action of looking. Staring is long/intense, while glancing is short/brief.

Analyzing the Options

- **1. Gulp : Sip**
 - *Gulp:* To swallow food or drink quickly or in large amounts.
 - *Sip:* To drink something by taking small, slow mouthfuls.

This pair contrasts the manner and speed of drinking. Gulping is fast and involves large amounts, while sipping is slow and involves small amounts. This mirrors the contrast in duration/intensity seen in "Stare : Glance".

- **2. Confide : Tell**
 - *Confide:* To tell something secret or personal, trusting the listener.
 - *Tell:* To communicate information.

Confiding is a specific type of telling, involving trust and privacy. It's not an opposite action based on duration or intensity.

- **3. Hunt : Stalk**
 - *Hunt:* To pursue and kill animals.
 - *Stalk:* To pursue stealthily.

Stalking is often a part of hunting; it's a method used during the hunt. They are related actions, not opposites.

- **4. Step : Walk**
 - *Step*: A single movement of the foot.
 - *Walk*: To move along by stepping.

Walking is composed of steps. A step is a component of walking, not an opposite action.

- 5. (This option appears incomplete in the input)

Identifying the Correct Analogy

The relationship between "Stare" (long, intense look) and "Glance" (short, quick look) is a contrast in duration/manner. Option 1, "Gulp : Sip", shows a similar contrast: "Gulp" (swallowing large amounts quickly) versus "Sip" (drinking small amounts slowly). Both pairs represent opposite ways of performing a similar action (looking or drinking).

Therefore, "Gulp : Sip" is the best alternative that has the same relationship as the original pair "Stare : Glance".

81. Answer: b

Explanation:

Understanding the Ecstasy : Pleasure Analogy

The question asks us to find a pair of words from the options that share the same relationship as the given pair: **Ecstasy : Pleasure**. First, we need to understand the relationship between **Ecstasy** and **Pleasure**.

- **Pleasure** refers to a feeling of happy satisfaction and enjoyment.
- **Ecstasy** signifies an overwhelming feeling of great happiness or joyful excitement. It represents a much more intense and extreme state of pleasure.

Therefore, the relationship between **Ecstasy** and **Pleasure** is one of intensity, where **Ecstasy** is an extreme or heightened degree of **Pleasure**.

Analyzing Options for Similar Relationships

Now, let's examine the relationship between the words in each option:

- **1. Hatred : Affection**

- **Hatred** is intense dislike or ill will.
- **Affection** is a gentle feeling of fondness or liking.

These words are opposites (antonyms), representing contrary emotions, not a relationship of intensity.

- **2. Rage : Anger**

- **Anger** is a strong feeling of annoyance, displeasure, or hostility.
- **Rage** is violent, uncontrollable anger.

Similar to the original pair, **Rage** represents an extreme, intense form of **Anger**. This shows a relationship of intensity.

- **3. Joy : Grief**

- **Joy** is a feeling of great pleasure and happiness.
- **Grief** is deep sorrow, usually caused by loss.

These words are also opposites (antonyms), representing contrary emotional states.

- **4. Mumble : Speak**

- **Speak** means to utter words.
- **Mumble** means to speak indistinctly and quietly.

This pair describes a manner or quality of speaking. Mumbling is a way of speaking unclearly, rather than an extreme degree of the act of speaking itself. The relationship is different from the intensity seen in **Ecstasy : Pleasure**.

Selecting the Best Matching Pair

Comparing the options with the original relationship (**Ecstasy** is an intense form of **Pleasure**), the pair **Rage : Anger** demonstrates the same pattern. **Rage** is an extreme degree of **Anger**.

Therefore, the option that best matches the relationship between **Ecstasy : Pleasure** is **Rage : Anger**.

82. Answer: d

Explanation:

Understanding the Necromancy : Ghosts Relationship

The core task is to understand the connection between the first pair of words, "Necromancy" and "Ghosts", and then find another pair of words that shares this exact relationship. This is a common type of vocabulary question focusing on analogies.

Necromancy refers to a type of magic or sorcery that is specifically concerned with communicating with or controlling the dead.

Ghosts are commonly understood as the spirits or souls of the dead, often believed to linger in the earthly realm.

Therefore, the relationship between Necromancy and Ghosts is: **Practice : Entities involved**. Necromancy is the practice, and Ghosts are the specific entities that the practice deals with.

Analyzing the Options for Analogous Relationships

Now, let's examine each option to see which one best matches the "Practice : Entities involved" relationship identified above.

- Option 1: Romance : Stories

Romance is a genre or theme, often found within **Stories**. However, stories are a medium, not the specific entities directly manipulated or communicated with, unlike Ghosts in Necromancy. The relationship isn't as direct.

- **Option 2: Magic : Amulets**

Magic is a broad field. Amulets are objects often used as tools within magic, but they are not the primary entities that magic itself 'deals with' in the same way Necromancy deals with Ghosts. The relationship is tool-based, not entity-based.

- **Option 3: Alchemy : Gold**

Alchemy was an ancient practice aimed at transformation, often seeking to create **Gold**. Gold is typically the goal or product of alchemy, rather than the entities the practice directly interacts with or communicates with.

- **Option 4: Sorcery : Spirit**

Sorcery is a form of magic, often associated with spells and supernatural power, similar to Necromancy. **Spirit** refers to a supernatural being, often the disembodied soul or essence of a person or entity. Sorcery, like Necromancy, involves dealing with or manipulating spirits. This aligns perfectly with the relationship identified: Practice (Sorcery) : Entities involved (Spirit).

- The fifth option is missing content.

Conclusion on the Best Analogy

Comparing the options, the pair "Sorcery : Spirit" most accurately reflects the relationship between "Necromancy : Ghosts". Both pairs describe a practice or type of magic and the specific supernatural entities that are central to that practice.

83. Answer: c

Explanation:

Firm : Flabby :: Piquant : ? Analogy Explained

This question requires us to identify the relationship between the first pair of words, **Firm** and **Flabby**, and then find an option that has the same relationship with the word **Piquant**. This is a common type of vocabulary question that tests understanding of word relationships, specifically antonyms in this case.

Analyzing the Relationship: Firm to Flabby

Let's first understand the connection between **Firm** and **Flabby**:

- **Firm**: This word describes something that is solid, stable, and holds its shape well. It suggests a lack of give when pressure is applied. For example, a firm mattress provides good support.
- **Flabby**: This word describes the opposite state. It means loose, soft, lacking firmness, and often hanging loosely or weakly. For example, flabby skin lacks elasticity.

The relationship between **Firm** and **Flabby** is clearly one of ****opposites**** or ****antonyms****. 'Flabby' is the antonym of 'Firm'.

Applying the Relationship: Piquant to the Missing Word

Now, we apply this antonym relationship to the word **Piquant**:

- **Piquant**: This word typically describes a taste or smell that is pleasantly sharp, stimulating, or appetizing. It can also mean engaging, interesting, or stimulating in a broader sense. Think of a piquant sauce or a piquant remark.

We need to find a word from the options that means the opposite of stimulating, sharp, interesting, or appetizingly flavorful.

Evaluating the Options

Let's look at each alternative to see which one best fits as the opposite of **Piquant**:

- **1. Salty:** This describes a specific taste. While something might be salty, this doesn't represent the opposite of the stimulating or sharp quality of 'piquant'.
- **2. Pleasant:** This is a general term for something enjoyable. Although 'piquant' can be pleasant, 'pleasant' is not its direct opposite.
- **3. Bland:** This word describes something mild, dull, tasteless, or lacking in interest and character. It signifies a lack of the stimulating sharpness or excitement that 'piquant' implies. This is a strong candidate for the opposite.
- **4. Smell:** This refers to an odor or the sense of perceiving odors. It is not related to the taste or stimulating quality aspect of 'piquant'.

Conclusion: Identifying the Correct Alternative

Based on the analysis, the relationship between **Firm** and **Flabby** is that they are antonyms. The word that serves as the best antonym for **Piquant** among the given choices is **Bland**. 'Bland' captures the lack of stimulating sharpness or flavor that is characteristic of 'piquant'.

84. Answer: d

Explanation:

Understanding the Funk-Vitamins Relationship

The question presents an analogy problem. We first need to determine the relationship between the first pair of words: "Funk" and "Vitamins". Casimir Funk was a scientist who discovered the first vitamin (thiamine) and coined the term "vitamine" (later "vitamin").

So, the relationship is: **Discoverer** is to **Discovery**.

Analyzing the Curie-Question Pair

Next, we must apply this same relationship (Discoverer : Discovery) to the second part of the analogy, which starts with "Curie". The name "Curie" typically refers to Marie Curie, a famous scientist.

We need to find what Marie Curie discovered from the given options.

Evaluating the Options for Marie Curie's Discovery:

- **Uranium:** Uranium was discovered by Martin Heinrich Klaproth in 1789. Marie Curie did work with Uranium ore, but she didn't discover the element itself.
- **Radioactivity:** Marie Curie conducted pioneering research on radioactivity and even coined the term. However, the initial discovery of radioactivity is credited to Henri Becquerel. Her work expanded significantly upon it.
- **Photography:** This is unrelated to Marie Curie's main scientific achievements in chemistry and physics.
- **Radium:** Marie Curie and her husband, Pierre Curie, discovered the element Radium in 1898. This fits perfectly as a major scientific discovery attributed to her.

Connecting the Pairs and Finding the Answer

Since Funk is the discoverer of Vitamins, and Marie Curie is the discoverer of Radium, the relationship holds true.

Therefore, the analogy "Funk : Vitamins :: Curie : Radium" is established based on the discoverer-discovery relationship.

Conclusion on the Analogy

The correct answer completes the analogy by identifying a significant discovery made by Marie Curie, mirroring the relationship between Casimir Funk and vitamins.

85. Answer: b

Explanation:

Analogy Explanation: Contamination : Food vs Infection :
?

This question tests your ability to understand relationships between words, known as analogies. The goal is to find the word that has the same relationship to 'Infection' as 'Food' has to 'Contamination'. We need to carefully analyze the connection between the first pair to solve the second pair.

Understanding the Relationship: Contamination and Food

Let's break down the first pair: 'Contamination : Food'.

- **Contamination** refers to the process where something undesirable or harmful is introduced into a substance, making it impure or unsafe.
- **Food** is the substance that can be affected or spoiled by contamination.

The relationship here is that **contamination** is a process that negatively affects or spoils **food**, rendering it unfit for consumption or unsafe.

Applying the Relationship: Infection and Options

Now, let's apply this relationship to the second pair: 'Infection : ?'.

- **Infection** is the invasion and multiplication of harmful microorganisms (like bacteria, viruses, or fungi) in the body tissues of a host.
- We need to find what 'Infection' affects in a similar way that 'Contamination' affects 'Food'.

Let's examine the given options:

Option	Analysis	Relationship Match
1. Diseases	Infection can lead to diseases, but 'diseases' are the outcome or result, not the entity that gets infected. The analogy is about what is affected, not the consequence.	Incorrect
2. Body	The body is the host or the system that gets invaded and affected by an infection . Just as food gets contaminated, the body gets infected.	Correct
3. Germs	Germs (or microbes) are often the *cause* of infection. They are the agents that invade. In the first pair, contamination is the process, not the agent causing the impurity.	Incorrect
4. Microbes	Similar to germs, microbes are the agents that cause infection. They are the cause, not the recipient of the infection process.	Incorrect

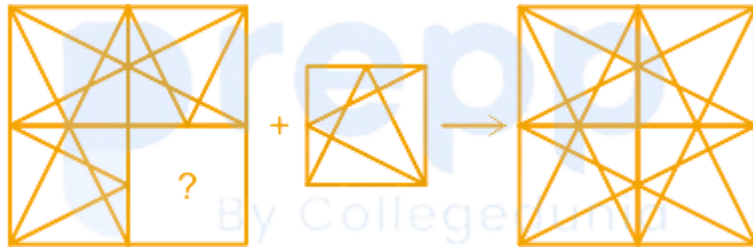
Conclusion: Identifying the Correct Analogy Match

The relationship between 'Contamination' and 'Food' is that contamination is a process that affects food. Applying this logic, 'Infection' is a process that affects the **body**. Therefore, the word that completes the analogy is 'Body'.

86. Answer: a

Explanation:

The figure which complete the pattern of question figure is given below:

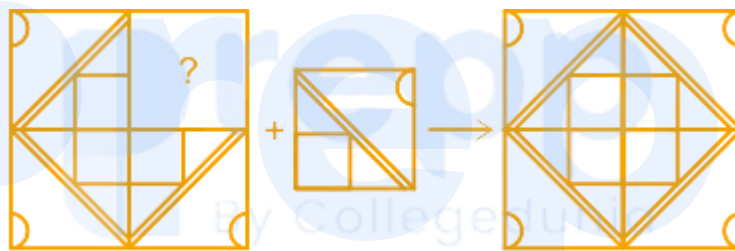


Hence, the correct answer is "option (1)".

87. Answer: b

Explanation:

The figure which complete the pattern of question figure is given below:



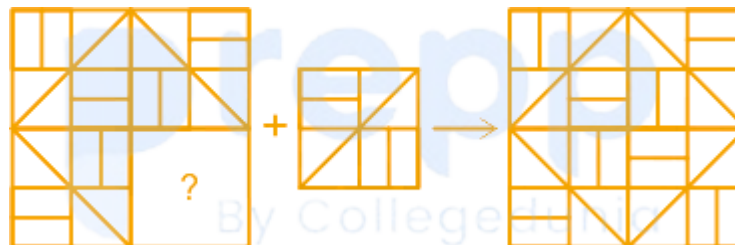
Hence, the correct answer is "option (2)".

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88. Answer: b

Explanation:

The figure which complete the pattern of question figure is given below:

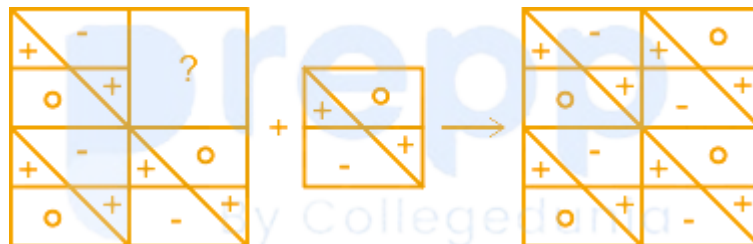


Hence, the correct answer is "option (2)".

89. Answer: d

Explanation:

The answer figure which fits into the blank column in incomplete figure in order to complete it is,



Hence, the correct answer is "option (4)".

90. Answer: d

Explanation:

The pattern followed is,

The codes for different figures are,

From JS and JQ, we get:



From RM and RS, we get:



From LM we get:



The code that matches the answer figure is 'LQ'.

Hence, "LQ" is the correct answer.

91. Answer: c

Explanation:

The pattern followed is,

The diagrammatical representation of the given letters is,



The code for the answer figure is 'SN'.

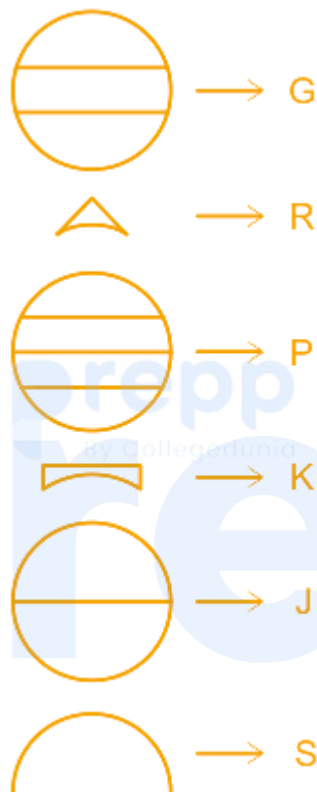
Hence, "SN" is the correct answer.

92. Answer: b

Explanation:

The pattern followed is,

The diagrammatical representation of the given letters is,



The code for the answer figure is 'JR'.

Hence, "JR" is the correct answer.

93. Answer: a

Explanation:

The pattern followed is,

The diagrammatical representation of the given letters is,



→ A



→ B



→ C



→ G



→ H

The figure given is B, with no lines on any side of the figure, which represents F.



→ B

The code for the answer figure is 'BF'.

Hence, "BF" is the correct answer.

94. Answer: d

Explanation:

We have checked each Figure:

Figure (a):



Here, **Upper circle** is complete.

Figure (b):



Here, **Upper circle** is complete.

Figure (c):



Here, **Upper circle** is complete.

Figure (d):



Here, **Lower circle** is complete.

Hence, the correct answer is "**Option (4)**".

95. Answer: b

Explanation:

We have checked each figure:

Figure (a):



Here, shaded region is common in only two circles.

Figure (b):



Here, shaded region is common in all three circles.

Figure (c):



Here, shaded region is common in only two circles.

Figure (d):



Here, shaded region is common in only two circles.

Hence, the correct answer is "Option (2)".

96. Answer: d

Explanation:

We have check the each figure:

Figure (a)



Here, the half squares are not open towards each other.

Figure (b):



Here, the half squares are not open towards each other.

Figure (c):



Here, the half squares are not open towards each other.

Figure (d):



Here, two half squares are open towards each other.

Hence, the correct answer is "Option (4)".

97. Answer: d

Explanation:

We have check each figure.

Figure (a):



This is a geometrical figures with **even number of lines**.

Figure (b):



This is a geometrical figures with even number of lines .

Figure (c):



This is a geometrical figures with even number of lines .

Figure (d):



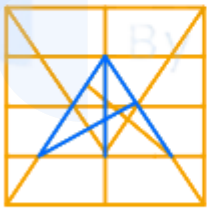
This is a geometrical figures with odd number of lines .

Hence, the correct answer is **"Option (4)"**.

98. Answer: b

Explanation:

The embedded part of this image is:

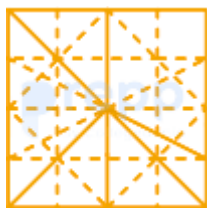
No.	Option	Question	Answer
1.			Not Embedded
2.			Embedded
3.			Not Embedded
4.			Not Embedded

Hence, the correct answer is "Option (2)"

99. Answer: c

Explanation:

The given figure is embedded in,



No.	Option	Question	Answer
1.			Not Embedded
2.			Not Embedded
3.			Embedded
4.			Not Embedded

Hence, the correct answer is "option (3)".

100. Answer: a

Explanation:

The given figure is embedded in,



No.	Option	Question	Answer
1.			Embedded
2.			Not Embedded
3.			Not Embedded
4.			Not Embedded

Hence, the correct answer is "option (1)".