

Answers

1. Answer: a

Explanation:

This question asks us to identify the correct meaning of the English idiom "**Mean business**" from the given alternatives.

Idiom Explanation: Mean Business

The idiom "**Mean business**" signifies seriousness and determination. When someone or something "means business," it indicates a strong intention to act decisively, achieve a goal, or follow through on a statement or threat without hesitation. It suggests that the situation or the person involved is not joking or trifling; they are genuinely committed to proceeding.

Analyzing Options for "Mean Business"

Let's examine each alternative to see how well it captures the essence of the idiom:

Option 1 Analysis

"**Being serious about what you announce.**" This option directly relates to the core meaning of the idiom. If you announce something and you "mean business," it implies you are serious about your announcement and likely intend to take action or expect others to take it seriously. This aligns perfectly with the determination and sincerity conveyed by the phrase.

Option 2 Analysis

"**Clever or expert way of doing something.**" This describes skill or proficiency. While someone who "means business" might be expert, the idiom itself doesn't primarily refer to the method but rather the intention and seriousness behind the action.

Option 3 Analysis

"Don't delay in getting something done." This emphasizes promptness or avoiding procrastination. While prompt action can be a characteristic of someone who "means business," the fundamental meaning is about seriousness and intent, not just the speed of execution.

Option 4 Analysis

"Works very well or has the desired effect." This option focuses on the outcome or effectiveness of an action or plan. The idiom "mean business" describes the *intention* or *attitude* behind an action, not necessarily its success or effectiveness.

Conclusion: Best Expression of Meaning

Comparing the options, the phrase "**Being serious about what you announce**" most accurately and directly reflects the meaning of the idiom "**Mean business**". It captures the element of genuine intent and seriousness that the idiom conveys.

2. Answer: d

Explanation:

Idiom Meaning: Exploring 'Keep one's finger on the pulse'

This section explains the meaning of the common English idiom 'Keep one's finger on the pulse' and analyzes the given options to find the best fit.

Understanding the Idiom 'Keep one's finger on the pulse'

The idiom '**Keep one's finger on the pulse**' means to stay informed about the very latest trends, news, or changes happening in a particular field, situation, or area of interest. It suggests being actively aware and up-to-date, much like checking someone's pulse to gauge their current condition. Successfully using this phrase involves understanding the current situation and knowing what's happening right now.

Analyzing the Options for 'Keep one's finger on the pulse'

Let's look at each alternative provided and see how well it matches the meaning of the idiom:

- **Option 1: Rating something higher on your priority list**

This option talks about prioritizing tasks or items. While staying informed might influence priorities, the idiom itself isn't directly about the act of prioritizing. It focuses more on the awareness of current happenings.

- **Option 2: Examining something carefully to not miss out any details**

This describes a meticulous and detailed examination. 'Keeping one's finger on the pulse' is broader; it's about being aware of general developments and trends, not necessarily scrutinizing every tiny detail.

- **Option 3: Trying out every possibility to get a result**

This option relates to experimentation or exploring different methods to achieve an outcome. It doesn't connect with the idea of staying informed about ongoing changes or news.

- **Option 4: Being constantly aware regarding the most recent developments**

This option perfectly captures the essence of the idiom 'Keep one's finger on the pulse'. It emphasizes continuous awareness and staying updated on the latest news, trends, and changes, which is exactly what the idiom signifies.

Final Conclusion on the Idiom

Based on the analysis, the phrase 'Keep one's finger on the pulse' directly relates to staying updated and aware of the latest happenings. Therefore, the best expression of its meaning is being constantly aware of recent developments.

3. Answer: a

Explanation:

Understanding the Idiom 'Cut to the Chase'

The question asks us to identify the meaning that best matches the English idiom "Cut to the chase". Idioms are phrases that have a figurative meaning, different from the literal meaning of the words. Understanding the context and common usage of "Cut to the chase" is important here.

Meaning and Origin of 'Cut to the Chase'

The idiom "Cut to the chase" generally means to get directly to the most important part or the main point of a matter, omitting preliminary details or introductions. The phrase is believed to have originated in early American filmmaking. Directors would often tell editors to "cut to the chase" scene, meaning to skip the slower narrative parts and get straight to the exciting action sequences, like car chases.

In modern usage, it's used in conversations, meetings, or writing to encourage getting straight to the main topic or conclusion, saving time and avoiding lengthy explanations or discussions.

Evaluating the Provided Options

Let's analyze each option provided:

- **Option 1: Come to the point.** This phrase perfectly encapsulates the meaning of "Cut to the chase". It implies stopping any beating around the bush and addressing the central issue directly.
- **Option 2: To run after somebody.** This is a literal interpretation of the words "run" and "chase". The idiom does not refer to the physical act of pursuing someone.
- **Option 3: To cut out the important bits of information** This option suggests removing key information. However, "Cut to the chase" means focusing on the important part, not removing it. It's about *getting* to the action or main point, not cutting it out.
- **Option 4: To take a short cut.** While getting to the point quickly might be seen as a shortcut, this option isn't as precise as Option 1. The idiom specifically refers to

reaching the main **subject** or **action**, rather than just any faster method.

Determining the Best Expressed Meaning

Based on the analysis, the phrase "Come to the point" is the most accurate synonym for the idiom "Cut to the chase". It correctly conveys the idea of moving directly to the core subject matter without unnecessary delay or detail.

Final Answer Selection

The alternative that best expresses the meaning of the idiom "Cut to the chase" is the one that suggests addressing the main issue directly. Therefore, "Come to the point" is the correct choice.

4. Answer: b

Explanation:

Understanding the Phrase: Having a Lot of Space Inside; Roomy

The question asks for the best word to replace the description "Showing or having a lot of space inside; roomy". This means we are looking for a synonym that describes something spacious or large in volume.

Analysis of Options

Let's examine each option provided:

- **Capricious:** This word describes someone or something that is unpredictable or changes suddenly and frequently. It has no relation to physical space.
 - *Example:* The weather today has been capricious, changing from sun to rain rapidly.

- **Capacious:** This word means having a lot of space inside; able to hold much; roomy. This directly matches the definition given in the question.
 - *Example:* The new car has a capacious boot, perfect for our holiday luggage.
- **Catechism:** This term refers to a summary of religious doctrine, often in a question-and-answer format, used for religious instruction. It is unrelated to the concept of space.
 - *Example:* The priest explained the catechism to the children.
- **Cramped:** This word means very small, confined, and uncomfortable due to lack of space. It is the opposite (antonym) of roomy.
 - *Example:* The tiny apartment felt cramped for the growing family.

Identifying the Best Substitute

Comparing the definitions, only "Capacious" accurately captures the meaning of being "roomy" or "having a lot of space inside". The other options, "Capricious", "Catechism", and "Cramped", have entirely different meanings.

Therefore, **Capacious** is the most suitable substitute for the given phrase.

5. Answer: c

Explanation:

The correct answer is- 'Tantrum'

★ Key Points

- Out of the given options, only 'tantrum' gives the meaning intended by the phrase. 'Tantrum' means 'an uncontrolled outburst of anger and frustration, typically in a young child.' (आमतौर पर एक छोटे बच्चे में क्रोध और हताशा का अनियंत्रित प्रकोप।)
 - *e.g. The child threw a tantrum to be able to go to the Circus.*
- Meanings of the other words:
- **Tandem**- alongside each other; together. (एक दूसरे के साथ; साथ में)

- **Tantamount** – equivalent in seriousness to; virtually the same as. (गंभीरता के बराबर; वस्तुतः उसी के समान।)
- **Tardy** – delaying or delayed beyond the right or expected time; late. (देरी या देरी सही या अपेक्षित समय से परे; देर।)

Therefore, the correct answer is **option 3**.

6. Answer: a

Explanation:

Understanding the Phrase: Bitterness and Ill Feeling

The question asks for the best word to replace the phrase "A bitterness or ill feeling about something." This phrase describes a strong sense of resentment, hostility, or anger directed towards someone or something, often due to past negative experiences or perceived unfairness.

Analyzing Substitute Word Options

To find the best substitute, let's examine the meaning of each option provided:

- **Acrimony**: This word specifically means bitterness, sharp hostility, or ill feeling in speech or behavior. It directly captures the essence of the phrase "a bitterness or ill feeling." For example, one might feel *acrimony* towards a former colleague after a bad breakup or workplace dispute.
- **Parsimony**: This term refers to extreme unwillingness to spend money or use resources; stinginess. It relates to financial behavior and has no connection to bitterness or ill feelings.
- **Hegemony**: This word means dominance or leadership, particularly by one country, group, or entity over others. It concerns power dynamics and control, not personal feelings of bitterness.
- **Impious**: This adjective describes someone or something that lacks respect or reverence, especially towards God or religious beliefs. It relates to piety and

morality, not the feeling of bitterness described in the phrase.

Identifying the Best Substitute for Bitterness

Comparing the meanings, **Acrimony** is the only word that accurately represents "a bitterness or ill feeling about something." The other options (Parsimony, Hegemony, Impious) relate to entirely different concepts like stinginess, dominance, and lack of religious respect, respectively.

Therefore, Acrimony serves as the most suitable substitute for the given phrase.

7. Answer: b

Explanation:

Understanding the Core Drivers of a Free Market

The provided passage defines a **free market** as an economic **system** where prices for goods and services are established by the open market and consumers. A defining characteristic is that the laws and forces governing **supply and demand** operate without interference from any government, price-setting monopoly, or other controlling authority. This concept aligns with the **laissez-faire** principle, which advocates for the absence of non-market pressures on prices and wages.

Key Forces Determining Prices in a Free Market

Based on the economic principles outlined in the text, the primary mechanisms that drive a **free market** are:

- The interaction of **supply and demand**: These forces are central to how prices are set. The passage explicitly states that prices are "determined by... the laws and forces of **supply and demand**" and are "set freely by the forces of **supply and demand**".
- Open market determination: Prices are allowed to reach their equilibrium point naturally through the voluntary exchange between buyers and sellers, without

external manipulation.

In contrast to regulated markets where governments might intervene with measures like tariffs, a **free market** operates on the principle of minimal intervention.

Analyzing the Given Options

Let's evaluate each option to determine which best represents the driving forces of a **free market** according to the passage:

- **Option 1: Regulations by governments**

This option is not accurate. The passage clearly states that a **free market** is characterized by the absence of government intervention. Government regulations are presented as a feature of regulated markets, which are distinct from free markets.

- **Option 2: Demand and supply**

This option correctly identifies the main drivers. The text repeatedly emphasizes that the "forces of **supply and demand**" are what determine prices and operate freely in a **free market** system. This is the core mechanism described.

- **Option 3: Capitalism forces**

While the passage mentions that **free markets** are often associated with **capitalism**, capitalism is a broader economic system. The question specifically asks for the *driving forces* within the market itself. The passage identifies **supply and demand** as these specific forces, rather than the general concept of capitalism.

- **Option 4: Market monopolies**

This option is incorrect. The passage explicitly states that a **free market** is free from intervention by "a price-setting monopoly, or other authority". Monopolies represent a concentration of market power that interferes with the free operation of supply and demand, and are therefore contrary to the principles of a free market.

In summary, the passage clearly indicates that the fundamental driving forces of a **free market** are the mechanisms of **demand and supply**.

8. Answer: d

Explanation:

Understanding Government Market Regulation Methods The question asks about the various methods a government can use to regulate a market, based on the provided economic passage. The passage defines a free market as one where prices are determined by supply and demand without government intervention. It contrasts this with a regulated market where the government intervenes.

Methods of Government Market Intervention

The passage explicitly lists several ways governments can exert influence or intervention in markets, deviating from the free market principles. These methods are aimed at controlling prices, wages, trade, and behavior within the economy. Key interventions mentioned include:

- **Discriminatory government taxes:** Taxes that unfairly impact certain goods, services, or market participants.
- **Subsidies:** Financial assistance provided by the government to support specific industries or activities, which can influence prices and supply.
- **Tariffs:** Taxes imposed on imported goods, often used to restrict trade and protect domestic industries.
- **Regulations of purely private behaviour:** Rules set by the government that govern how private entities operate.
- **Government-granted monopolies:** Exclusive rights given by the government to a single entity to provide a specific good or service.
- **Coercive monopolies:** Similar to government-granted monopolies, implying enforcement or establishment through government power.

Analyzing the Options

Let's examine each option in relation to the methods described in the passage:

- **Option 1: Discriminatory taxes** – The passage directly mentions "discriminatory government taxes" as a non-market pressure that can affect prices and wages.
- **Option 2: Subsidies and tariffs** – Both "subsidies" and "tariffs" are explicitly listed in the passage as methods of government intervention. Tariffs are highlighted as a way to "restrict trade and protect the economy."
- **Option 3: Coercive monopolies** – The passage refers to "government-granted or coercive monopolies" as forms of intervention that deviate from free market principles.
- **Option 4: All of the above** – Since Options 1, 2, and 3 all list methods that are clearly identified within the passage as forms of government regulation or intervention in a market, this option encompasses all the individually correct points.

Conclusion on Market Regulation

Based on the information provided in the text, discriminatory taxes, subsidies, tariffs, and coercive monopolies are all methods through which a government can regulate or intervene in a market. Therefore, the option that includes all these methods is the most comprehensive answer.

9. Answer: c

Explanation:

This solution explains the core principle guiding free markets, based on the provided economic passage.

Understanding the Free Market Principle

The passage describes a **free market** as an economic **system** where prices are determined by the forces of **supply and demand** in an **open market**. A key characteristic highlighted is the absence of intervention from any central authority, such as the **government** or monopolies.

Identifying the Guiding Principle

The passage directly states the principle that underpins the concept of a free market. It mentions:

- "The **laissez-faire** principle expresses a preference for an absence of non-market pressures on prices and wages..."

This indicates that **laissez-faire** is the fundamental economic philosophy that advocates for minimal government intervention, allowing the natural dynamics of the market to operate freely.

Analyzing the Options

Let's examine each option in the context of the provided passage:

- **Option 1: Unregulated markets**
While a free market is indeed unregulated by government intervention, "unregulated markets" describes the state or condition of the market rather than the specific underlying principle guiding it.
- **Option 2: Coercive monopolies**
The passage explicitly contrasts free markets with monopolies, stating that free markets are free from "government-granted or coercive monopolies." Therefore, coercive monopolies are contrary to the concept of a free market.
- **Option 3: Laissez faire**
As identified in the passage, the **laissez-faire** principle directly advocates for the absence of external pressures (like government intervention) on market forces, making it the guiding principle of free markets.
- **Option 4: Open market**
An **open market** is the environment where a free market operates, characterized by accessibility and lack of barriers. However, "open market" itself is not the guiding principle, but rather the arena where the principle of laissez-faire is applied.

Conclusion on the Guiding Principle

Based on the passage, the **laissez-faire** principle is the core philosophy that dictates how a **free market** operates. It emphasizes allowing the **supply and demand** forces to determine prices without interference, which is characteristic of an unregulated economic **system** where **consumers** play a vital role.

10. Answer: a

Explanation:

Selecting the Intensifier for "Worse"

This question asks us to choose the correct word to complete the sentence: "This is _____ worse than I thought it would be." The goal is to find a word that accurately modifies the comparative adjective "worse" to express the degree of difference from the expectation.

Understanding Adverbs and Comparatives

In English, adverbs are often used to modify adjectives, including comparative adjectives like "worse". These adverbs, sometimes called "intensifiers", show the extent or degree of the quality being described. We need to select the adverb that correctly fits the comparative structure "_____ worse than".

Analysis of Options

- **Option 1: far**

The phrase "**far** worse" is a standard and correct idiomatic expression in English. "Far" acts as an adverb here, strongly emphasizing that the situation is much worse than expected. It conveys a significant degree of difference. For example, "The traffic today is **far** worse than usual."

- **Option 2: about**

The word "about" typically indicates approximation or estimation. Using it as "about worse" does not form a grammatically correct or meaningful phrase in this comparative context.

- **Option 3: more**

The word "worse" is already the comparative form of the adjective "bad". Using "more" before an already comparative adjective, like "more worse", results in a grammatical error called a double comparative. Correct usage would be simply "worse" or intensified with words like "much" or "far".

- **Option 4: the**

"The" is a definite article used before nouns or in specific comparative structures like "the sooner, the better". It is not used as an adverb to intensify a comparative adjective in a sentence like this one.

Conclusion on Sentence Completion

Comparing the options, "far" is the most suitable word to fill the blank. It correctly intensifies the comparative adjective "worse", creating the grammatically sound and commonly used phrase "**far** worse".

Therefore, the completed sentence reads: "This is **far** worse than I thought it would be." This effectively communicates that the reality was significantly more negative than the initial thought.

11. Answer: d

Explanation:

Choosing the Correct Verb for Observation

This question asks us to select the most appropriate word to complete the sentence: "They _____ the storm approaching." We need to consider grammar and context to find the right verb.

Verb Tense and Usage Analysis

The sentence describes an action that happened in the past. The verb needs to fit the structure "Subject + Verb + Object". Let's look at the options provided:

- **seen:** This is the past participle form of the verb 'see'. It typically requires an auxiliary verb (like 'have', 'has', 'had') to form a complete verb phrase. For example, "They have seen the storm." Standing alone, "They seen the storm" is grammatically incorrect.
- **looked:** This is the simple past tense of 'look'. While it means to direct one's eyes, it is usually followed by a preposition like 'at' when referring to observing something specific. The structure "They looked the storm" is incorrect in this context. It should be "They looked *at* the storm".
- **admired:** This verb means to regard with respect or warm approval. While it's possible to admire a storm, the sentence primarily focuses on the act of noticing or perceiving its approach, not necessarily feeling admiration. 'Saw' or 'watched' would be more direct for observation.
- **saw:** This is the simple past tense of 'see'. It perfectly fits the sentence structure and context, indicating that they perceived the storm with their eyes as it was getting closer. "They **saw** the storm approaching" is grammatically correct and conveys the intended meaning of observation.

Conclusion on Sentence Completion

Comparing the options, 'saw' is the only word that functions correctly as the simple past tense verb in the given sentence structure and context. It accurately describes the act of observing the storm.

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12. Answer: d

Explanation:

Faith's Power to Inspire in Despair

This question requires us to select the most suitable word to fill in the blank within the sentence: "Faith is the only power that can inspire a human being who is in _____. The core idea presented is about the unique ability of **faith** to provide **inspiration**, particularly to individuals facing challenging situations.

Evaluating Word Options for the Blank

We need to carefully consider the meaning of each provided alternative to determine which one best fits the context of the sentence:

- **Flair:** This word means a natural talent, style, or exceptional ability. For example, "She handled the difficult situation with impressive *flair*." This option does not represent a state of need or hardship where inspiration is typically sought.
- **Glair:** This term usually refers to the white substance of an egg or, less commonly, a blinding glare of light. Neither of these meanings aligns logically with the context of needing inspiration in a difficult state.
- **Stair:** This word refers to a step or a series of steps used for walking between different levels of a building. It is a physical object and is unrelated to the emotional or mental state of a person.
- **Despair:** This word signifies a state where all hope is lost; a complete absence of hope. It describes a condition of profound sadness and hopelessness. When a person finds themselves in **despair**, they are often feeling overwhelmed and may lack the motivation or belief to persevere.

Connecting Faith, Inspiration, and Despair

The sentence highlights **faith** as a unique **power** capable of offering **inspiration**. This suggests that faith is most needed and effective when individuals are in a difficult or negative state. The state of **despair**, marked by hopelessness, is precisely when people often turn to faith for strength, hope, and encouragement. Faith can provide the necessary upliftment to help someone navigate through feelings of desolation and find the motivation to continue.

By placing the word '**despair**' into the blank, the sentence conveys a meaningful message about the resilience and hope that faith can bring during the darkest times.

13. Answer: a

Explanation:

Identifying Grammatical Errors in Sentences

This solution focuses on identifying grammatical errors within a given sentence, specifically addressing the incorrect usage of verb forms.

Sentence Analysis and Error Identification

Let's break down the sentence provided:

Original Sentence: As the country would lacking laws (1)/ and a regulatory framework to (2)/ steer the process. (3)/ No Error (4)

We need to examine each numbered part of the sentence to find any grammatical mistakes.

Part (1): Error in Verb Usage

The first part of the sentence reads: "As the country would lacking laws".

- The construction "would lacking" is grammatically incorrect in standard English.
- The modal verb "would" is typically followed by the base form of a verb (e.g., "would lack") or used in structures like "would be" + present participle (e.g., "would be lacking").
- The phrase "As the country..." suggests a reason or cause. The context implies a past state where the country was deficient in laws.
- Therefore, the correct verb form should indicate this past state. Options like "was lacking" or simply "lacked" would be appropriate here, depending on the intended nuance. For instance, "As the country **was lacking** laws..." correctly conveys the meaning.
- The use of "would" here is incorrect for stating a past fact or condition.

Based on this analysis, the error is located in the first part (1) of the sentence.

Part (2) and Part (3) Analysis

Part (2): "...and a regulatory framework to" – This part is grammatically correct. It links the lack of laws with the lack of a regulatory framework.

Part (3): "...steer the process." – This part is also grammatically correct. It describes the purpose of the laws and framework.

Conclusion on Sentence Structure

The primary grammatical error lies in the incorrect verb construction "would lacking" in the first segment of the sentence.

14. Answer: a

Explanation:

Identifying Grammatical Errors in the Sentence

The question requires us to identify the part of the given sentence that contains a grammatical error. We need to examine each numbered part of the sentence: "The opposition Party had called to its (1)/ lawmakers to vote against the bill (2)/ if the government failed to make concessions. (3)/ No Error (4)".

Analysis of Sentence Parts

Let's break down the sentence and analyze each part:

- **Part (1):** "The opposition Party had called to its lawmakers"
- **Part (2):** "lawmakers to vote against the bill"
- **Part (3):** "if the government failed to make concessions."
- **Part (4):** "No Error"

Focusing on Part (1): The Phrasal Verb Error

The phrase "called to" in the first part of the sentence is used incorrectly in this context. When we want to urge or ask someone to do something, the correct phrasal

verb is typically "call on" or "call upon". The phrasal verb "call to" usually implies being summoned or invited, which doesn't fit the meaning here. The opposition party was urging their lawmakers to take a specific action (vote against the bill).

Therefore, the phrase should be "The opposition Party had **called on** its lawmakers..." or "The opposition Party had **called upon** its lawmakers..."

Correcting the Sentence

The corrected sentence would read:

*"The opposition Party had called **on** its lawmakers to vote against the bill if the government failed to make concessions."*

Conclusion on the Error Location

Based on the analysis, the error lies in the preposition used with the phrasal verb "call" in the first part of the sentence.

- **Part (1)** contains the error. The preposition 'to' should be replaced with 'on' or 'upon'.

15. Answer: a

Explanation:

Identifying Sentence Errors: Subject-Verb Agreement

This question requires identifying a grammatical error within a given sentence. We need to examine each part of the sentence to find a mistake in grammar, punctuation, or word usage.

Analyzing the Sentence Parts

Let's break down the sentence into the numbered parts provided:

- **Part (1):** The regime clear a floor test as a result
- **Part (2):** the courts can still set
- **Part (3):** aside the disqualification.
- **Part (4):** No error

Identifying the Grammatical Error

The core of identifying the error lies in checking for **subject-verb agreement**. This rule states that a singular subject must have a singular verb, and a plural subject must have a plural verb.

Let's examine Part (1): "The regime clear a floor test as a result".

- The subject of the sentence is "regime".
- "Regime" is a singular noun.
- The verb used is "clear".
- For a singular subject like "regime", the present tense verb should be "clears" (e.g., "The regime clears..."). If the intended tense was past, the verb should be "cleared" (e.g., "The regime cleared...").
- The form "clear" is incorrect when paired with the singular subject "regime". This violates the subject-verb agreement rule.

Now, let's look at the other parts:

- **Part (2):** "the courts can still set" – Here, the subject "courts" is plural, and the verb phrase "can still set" is grammatically correct.
- **Part (3):** "aside the disqualification." – This phrase is grammatically sound.

Conclusion on Sentence Error

The grammatical error, specifically the incorrect verb form due to faulty subject-verb agreement, occurs in the first part of the sentence. The singular subject "regime" requires a singular verb form like "clears" or "cleared", not "clear". Therefore, Part (1) contains the error.

16. Answer: c

Explanation:

Passage Analysis for Fill in the Blanks

The question requires filling in the blanks in a passage describing a negative travel experience. We need to select the most appropriate word from the given options to complete the sentence contextually.

Understanding the Context of the First Blank

The passage starts by stating, "It was a horrible journey. The trains were late, and, of course, _____". The subsequent sentence provides a strong clue: "there was enough luggage in our compartment to have filled it, and still there was one more passenger than there ought to have been". This description points towards the train compartment being excessively full, both with luggage and people.

Evaluating Options for the First Blank

Let's examine the provided options for the blank:

- **Shameless:** This adjective describes someone lacking modesty or propriety. It doesn't fit the context of a physical condition of the train or compartment.
- **Cranky:** This refers to a person's irritable mood. While the journey might make someone cranky, it doesn't describe the state of the train itself.
- **Overcrowded:** This means having too many people or things in a space. This aligns perfectly with the description of having too much luggage and an extra passenger, indicating the compartment was filled beyond its capacity.
- **Dashing:** This word means stylish or elegant, which is completely irrelevant to the situation described.

Based on the context provided by the following sentence, the most fitting word to describe the state of the train compartment is **Overcrowded**.

Conclusion on the Best Fit

The phrase "and, of course, Overcrowded" logically connects the lateness of the trains to the uncomfortable conditions inside the compartment, as further detailed by the excessive luggage and passengers.

17. Answer: b

Explanation:

Understanding the Context: The Difficult Passenger

The question asks us to fill in the blank in the sentence: "He was _____-to reason." This sentence comes from a passage describing a **horrible journey**. The narrator encounters an difficult passenger, described as an "ill-conditioned old fellow," who causes trouble regarding the narrator's hat-box.

The narrator tries to reason with this passenger, explaining the situation with the hat-box, the rack's construction, and potential train jolts. The passenger's reaction is negative, leading to "wrangling." The key is to find a word that describes someone's inability or unwillingness to listen to or accept logical arguments or explanations (reason).

Evaluating the Word Options

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

- **Whimsical:** This word means playfully quaint or fanciful. It doesn't fit the context because the passenger isn't acting playful or fanciful; he's being difficult and unreasonable.
- **Impervious:** This word means unable to be affected by something, or immune to something. If someone is *impervious to reason*, it means they cannot be persuaded or influenced by logical arguments. This perfectly matches the

passenger's stubborn and unresponsive behavior towards the narrator's attempts to reason with him.

- **Common:** This word means common or ordinary. It doesn't describe the passenger's response to reason. Being difficult isn't necessarily 'common'.
- **Lazy:** This word means unwilling to work or use energy. While the passenger might be causing trouble, 'lazy' doesn't accurately describe his specific interaction regarding the argument or his response to reason. He is actively engaged in 'wrangling', which requires energy.

Selecting the Best Fit for 'Reason'

Based on the analysis, the passenger is unresponsive and unaffected by the narrator's logical points. He is stubborn and unwilling to accept the explanation. The word that best captures this state of being unaffected by reason is **impervious**.

The sentence would read: "He was **impervious**-to reason." This clearly conveys that the passenger was immune to logical arguments or explanations.

Final Answer Justification

The context describes an argument where one party is not listening to logic. The word **impervious** signifies being unable to be influenced or penetrated by something, in this case, reason. Therefore, it is the most suitable word to complete the sentence, accurately describing the passenger's stubborn refusal to engage rationally.

Word Analysis

Option	Meaning	Fit with Context
Whimsical	Playfully quaint or fanciful	Poor fit. Passenger is difficult, not fanciful.
Impervious	Unable to be affected by; immune	Excellent fit. Passenger is unaffected by reason.
Common	Ordinary; frequently occurring	Poor fit. Doesn't describe reaction to reason.
Lazy	Unwilling to work or use energy	Poor fit. Passenger is actively wrangling.

18. Answer: a

Explanation:

Understanding the Passage and Filling the Blanks

The question asks us to select the most appropriate word to fill in the blank in the sentence: "His wrangling and _____ so upset me...". We need to understand the context provided by the passage to make the best choice.

Context of the Journey

The passage describes a very unpleasant train journey. The narrator encounters a difficult passenger who argues ("wrangling") about luggage. This passenger is described as an "ill-conditioned old fellow". The interaction clearly causes the narrator distress.

Analyzing the Sentence and the Blank

The specific sentence highlights the combined effect of the passenger's actions: "His wrangling and _____ so upset me...". The word "wrangling" means a noisy quarrel or argument. We need a word that logically pairs with "wrangling" to describe behavior that would upset the narrator.

Evaluating the Options

Let's examine each option:

- **Jangling:** This word means making a loud, harsh, metallic noise, or engaging in noisy and unpleasant arguments. It fits perfectly with the idea of "wrangling" and describes a behavior that would certainly be upsetting during a journey. "Wrangling and jangling" suggests a combination of arguing and making harsh, discordant sounds or continuing the argument noisily.
- **Dangling:** This means hanging loosely. It doesn't relate to the passenger's argumentative or unpleasant behavior described in the passage.
- **Crying:** While crying can be upsetting, it doesn't typically fit the context of "wrangling" (arguing). The passage focuses on the passenger's argumentative nature, not sadness or distress expressed through crying.
- **Cooking:** This activity is unrelated to the interaction between the passenger and the narrator or the description of the passenger's behavior.

Selecting the Best Fit Word

Considering the context, the passenger is described as argumentative and ill-conditioned. "Wrangling" captures the argument aspect. "Jangling" complements this by suggesting a noisy, discordant, and persistent manner of arguing or making unpleasant sounds. Therefore, "jangling" is the most suitable word to describe the passenger's behavior alongside "wrangling" that would upset the narrator.

19. Answer: a

Explanation:

Identifying the Antonym for Parsimonious

The question asks us to find the word that has the opposite meaning to the given word, "Parsimonious". Let's break down the meaning of the key term and explore the options provided.

Understanding "Parsimonious"

The word **Parsimonious** describes someone who is very unwilling to spend money or use resources.

- It implies being extremely frugal, often to the point of being stingy or excessively careful with money.
- Someone who is parsimonious tries to save as much as possible and avoids spending.

Analyzing the Options

Let's look at the meaning of each option to find the best opposite for **Parsimonious**:

- **Munificent**: This word means very generous, especially in giving money or gifts. It describes someone who spends or gives freely and lavishly.
- **Cheap**: This word can mean low in price, but when referring to a person, it means unwilling to spend money, similar to stingy. This is related to being parsimonious, not the opposite.
- **Tightfisted**: This is another word for someone who is unwilling to spend money; it's essentially a synonym for parsimonious or stingy.
- **Miser**: A miser is a person who loves accumulating wealth and spends as little money as possible. This term is very close in meaning to parsimonious.

Determining the Opposite Meaning

Comparing the definitions, we can see which option contrasts most strongly with **Parsimonious**:

- **Parsimonious** means unwilling to spend.

- **Munificent** means very generous and willing to spend or give freely.
- **Cheap** and **Tightfisted** are similar to parsimonious (stingy).
- **Miser** describes a person who is extremely parsimonious.

Therefore, the word that means the opposite of being unwilling to spend (parsimonious) is being very generous and willing to spend (munificent).

The word opposite in meaning to **Parsimonious** is **Munificent**.

20. Answer: c

Explanation:

Understanding the Antonym of 'Virulent'

The main goal here is to find the word that has the **opposite meaning** to the word 'Virulent'. This involves understanding the meaning of 'Virulent' and comparing it with the meanings of the given options to identify the correct **antonym**.

Defining 'Virulent'

'Virulent' generally means something is extremely harmful, damaging, or severe. It's often used to describe diseases, poisons, or viruses that are highly potent and dangerous. It can also refer to a very bitter or hateful attitude.

Analyzing the Options for Opposite Meaning

We need to look at each option to see which one is the most suitable opposite to 'Virulent':

- **Angry**: This describes a feeling of strong displeasure or hostility. While 'virulent' can sometimes describe intense negative emotions (like virulent hatred), 'angry' is not the direct opposite of the primary meaning related to harm or severity.

- **Bestial:** This means relating to or characteristic of animals, often implying savagery or brutality. It doesn't directly contrast with the harmful or toxic nature implied by 'Virulent'.
- **Benignant:** This word means kind, gentle, or favorable. In a medical context, it signifies something not harmful (like a benignant tumor), which is clearly the opposite of the harmful and severe nature of 'Virulent'.
- **Harsh:** This means severe, cruel, or rough in effect or impact. While 'harsh' can relate to severity, it doesn't convey the opposite of harmfulness or toxicity in the same way 'Benignant' does.

Determining the Opposite Word

To find the word with the **opposite meaning** to 'Virulent' (harmful, severe, toxic), we compare the definitions:

- 'Virulent' = Harmful, severe, potent, poisonous.
- 'Benignant' = Kind, gentle, not harmful, favorable.

The meanings of 'Virulent' and 'Benignant' are clearly contrasting. 'Benignant' signifies a lack of harm, making it the direct opposite.

Final Answer Explanation

Based on the analysis, 'Benignant' is the word that represents the **opposite meaning** to 'Virulent'. It contrasts the concepts of harm and severity associated with 'Virulent' with kindness and a lack of harmfulness.

21. Answer: d

Explanation:

Understanding Predicament and Similar Meanings

This question requires identifying a word that is similar in meaning to the word **Predicament**. We need to analyze the options provided to find the best synonym that captures the essence of a difficult situation.

What is a Predicament?

A **predicament** is defined as a difficult, unpleasant, or embarrassing situation. It represents a state of trouble or a particularly awkward circumstance that is hard to resolve or escape from.

Analyzing the Given Options

Let's break down the meaning of each option to determine which one is most similar to **predicament**:

- **Nonsensical**: This term means something is foolish, absurd, or lacks logic and meaning. It does not relate to a difficult situation.
- **Nauseating**: This describes something that causes disgust or sickness. It pertains to a feeling or reaction, not a challenging circumstance.
- **Avaricious**: This adjective describes someone who has an intense desire for wealth or gain; it means greedy. This relates to a personal characteristic, not a situational difficulty.
- **Quagmire**: Literally, a quagmire is a soft, boggy area that traps things. Figuratively, as used in vocabulary, a **quagmire** refers to an awkward, complex, or hazardous situation from which it is difficult to escape. This is highly similar to the meaning of a predicament.

Identifying the Closest Synonym

Based on the definitions, the word **Quagmire** shares the most significant similarity with **Predicament**. Both terms effectively describe being stuck in a challenging or unpleasant situation that is difficult to overcome.

22. Answer: b

Explanation:

Understanding Narcissistic: Finding a Similar Meaning

This question asks us to identify a word from the given options that has a similar meaning to the word **Narcissistic**. This is a vocabulary question focused on synonyms.

Meaning of Narcissistic

The term **Narcissistic** describes someone who has an excessive sense of self-importance, a deep need for excessive attention and admiration, troubled relationships, and often a lack of empathy for others. People with narcissistic traits may seem overly pleased with themselves, boast about their achievements and talents, and expect others to recognize them as superior. It stems from vanity and an inflated ego.

Analyzing the Options

Let's look at each option to see how it relates to **Narcissistic**:

- **Option 1: Modest**
Meaning: Having or showing a moderate or humble view of one's merits. Someone who is modest does not boast or draw attention to themselves. This is the opposite of **Narcissistic**.
- **Option 2: Proud**
Meaning: Feeling deep pleasure or satisfaction as a result of one's own achievements, qualities, or possessions. While pride can be healthy, excessive pride or vanity is a key characteristic of narcissism. Therefore, **Proud** shares a similarity in terms of high self-regard.
- **Option 3: Self-effacing**
Meaning: Not wanting to bring attention to oneself; humble. This is very similar to modest and is the opposite of **Narcissistic**.
- **Option 4: Unselfish**
Meaning: Willing to put the needs or wishes of others before one's own. This

describes altruism and is contrary to the self-centered nature of being Narcissistic.

Comparison Table

Option	Meaning	Relation to Narcissistic
Modest	Humble, not boastful	Opposite
Proud	Feeling satisfaction in oneself	Similar (in excessive self-regard aspect)
Self-effacing	Humble, avoids attention	Opposite
Unselfish	Concerned about others	Opposite

Conclusion on Similarity

Based on the analysis, **Proud** is the word most similar in meaning to **Narcissistic** among the given choices. While **Narcissistic** implies an extreme and often negative level of self-admiration and self-importance, the core idea of having a very high opinion of oneself is captured by the word **Proud**.

23. Answer: d

Explanation:

Understanding the Idiom 'Shoot Through'

The question asks us to identify the meaning that best matches the idiom 'Shoot through'. Idioms are phrases where the words together have a different meaning than the literal meanings of the individual words. Understanding idioms is crucial for comprehending everyday English.

Meaning of 'Shoot Through'

The idiom '**Shoot through**' means to leave a place very quickly or depart rapidly. It often implies leaving suddenly, perhaps to avoid someone, escape a situation, or simply to move swiftly from one place to another.

Analysis of Options

Let's examine each option provided:

- **Option 1: Pass with flying colours.**

This phrase means to succeed brilliantly, especially in an exam or competition. It does not relate to the act of leaving quickly.

- **Option 2: Practice a difficult task so many times that you can do it easily.**

This describes the process of mastering a skill through repetition. It has no connection to the idiom '**Shoot through**'.

- **Option 3: Reach your target by breaking through an obstacle.**

This idiom relates to overcoming difficulties to achieve a goal. It involves persistence and breaking barriers, not the swift departure implied by '**Shoot through**'.

- **Option 4: Leave, typically to escape from or avoid someone or something.**

This option accurately defines the idiom. '**Shoot through**' means to leave quickly, often with the intention of escaping or avoiding contact, similar to making a rapid departure.

- **Option 5:**

This option is empty and therefore irrelevant.

Conclusion

Based on the analysis, the phrase that best expresses the meaning of the idiom 'Shoot through' is leaving quickly, especially to escape or avoid a situation or person. Therefore, Option 4 is the correct choice.

24. Answer: b

Explanation:

Understanding the Phrase: Capable of being imagined or grasped mentally

The core task is to find a single word that means the same as the phrase "Capable of being imagined or grasped mentally". This means something that you can think about, understand, or picture in your mind.

Analyzing Word Substitutes

Let's look at each option to see which one best fits the meaning:

- **Evaluating 'Dazzling'**

'Dazzling' means extremely bright or impressive, often to the point of overwhelming the senses. For example, a diamond might be described as dazzling. This word doesn't relate to the ability to be imagined or understood mentally.

- **Evaluating 'Conceivable'**

'Conceivable' means something that can be imagined or believed. It directly relates to the mind's ability to grasp or think about something. If something is conceivable, it is possible to imagine it happening or existing. This matches the definition provided.

Example: "It is **conceivable** that he might arrive late." means it's possible to imagine him arriving late.

- **Evaluating 'Stunning'**

'Stunning' describes something that is extremely impressive or beautiful, causing admiration or shock. Think of a stunning view or a stunning performance. Like 'dazzling', this relates to impressiveness, not mental grasp.

- **Evaluating 'Spectacular'**

'Spectacular' refers to something dramatic, impressive, or eye-catching. A fireworks display might be spectacular. This word focuses on outward appearance and impact, not the capacity for mental understanding or imagination.

Determining the Best Substitute

Comparing the definitions, 'Conceivable' is the only word that accurately captures the meaning of being "Capable of being imagined or grasped mentally". The other options relate to visual impressiveness or brightness.

Therefore, the best substitute for the given words/sentence is 'Conceivable'.

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25. Answer: a

Explanation:

Understanding the Idiom: 'Every Cloud Has a Silver Lining'

This question requires us to identify the precise meaning of the English idiom "Every cloud has a silver lining". Idioms are phrases where the words together have a

meaning that is different from the dictionary definitions of the individual words. Understanding this specific idiom is key to answering correctly.

Explaining the Idiom 'Every Cloud Has a Silver Lining'

The idiom "Every cloud has a silver lining" is used to express hope and optimism, even during difficult times. Let's break down its components:

- **Cloud:** In this context, the 'cloud' symbolizes a negative or difficult situation, like facing a problem, experiencing sadness, or going through a tough period.
- **Silver Lining:** The 'silver lining' represents the positive aspect or hopeful side of that difficult situation. It's the element of good that can be found within the bad circumstances.

Therefore, the core message of the idiom is that **every difficult or unpleasant situation**, no matter how bad it seems, contains or leads to some form of **advantage** or hopeful outcome.

Analyzing the Provided Options

We need to evaluate each option to find the one that best reflects this meaning:

- **Option 1:** Every difficult or unpleasant situation has some advantage – This statement directly matches the meaning explained above. It clearly links a negative circumstance ('difficult or unpleasant situation') with a positive element ('some advantage'), mirroring the 'cloud' and 'silver lining' concept.
- **Option 2:** Difficult times are tough to handle – This option focuses only on the negative aspect of the situation (the difficulty). It misses the crucial part of the idiom, which is finding something positive within that difficulty.
- **Option 3:** Difficult times need our attention – While it's true that challenging situations require attention, this statement doesn't convey the specific meaning of the idiom, which is about finding a positive aspect, not just acknowledging the need for focus.
- **Option 4:** Difficult times are not to be scared of – This option speaks to courage or resilience. While finding a 'silver lining' might help someone feel less

scared, the idiom's primary meaning isn't about overcoming fear, but rather about the existence of a positive element within the hardship itself.

Final Assessment: Selecting the Best Meaning

Based on the analysis, Option 1 is the most accurate representation of the idiom "Every cloud has a silver lining". It correctly captures the dual nature of the expression – acknowledging the difficulty ('cloud') while highlighting the presence of a positive aspect ('silver lining' or 'advantage'). This option aligns perfectly with the optimistic outlook conveyed by the idiom.

26. Answer: b

Explanation:

Understanding the 2018 Maldives Presidential Election

The question asks to identify the winner of the Maldivian presidential election that took place on **24th September 2018**. This election was a significant event in the Maldives' political history.

Identifying the 2018 Election Winner

The presidential election held on **24th September 2018** saw a contest primarily between the incumbent president and opposition candidates.

- The election results declared **Ibrahim Mohamed Solih** as the winner.
- He represented a coalition of opposition parties.
- His victory marked a notable shift in the country's political direction.

Comparing this outcome with the provided options, **Ibrahim Mohamed Solih** is the correct choice for the winner of the **Maldives' presidential election** on **24th September 2018**.

27. Answer: a

Explanation:

Nigeria Capital Identification

This question requires identifying the capital city of Nigeria from a list of options. Knowing the capitals of countries is a key aspect of geography.

What is the Capital of Nigeria?

The capital city of the Federal Republic of Nigeria is **Abuja**. Established as the country's capital city on December 12, 1991, it replaced Lagos, which remains Nigeria's economic powerhouse and most populous city.

Analyzing Geographic Options

Let's review the provided options:

- **Abuja:** This city is located in the center of Nigeria and serves as its federal capital.
- **Astana:** This is the capital city of Kazakhstan.
- **Harare:** This city is the capital of Zimbabwe.
- **La Paz:** This city is the administrative capital of Bolivia, while Sucre is the constitutional capital.

Confirming Nigeria's Capital

Comparing the options with known world capitals, **Abuja** is the correct capital of Nigeria. The other cities, Astana, Harare, and La Paz, are capitals of Kazakhstan, Zimbabwe, and Bolivia, respectively.

28. Answer: c

Explanation:

Understanding India's Oldest Mountain Ranges: The Aravallis

India is home to a variety of mountain ranges, each with a unique geological history. Understanding the age of these ranges helps us appreciate their formation processes and significance. This explanation focuses on identifying the oldest mountains among the options provided: Western Ghats, Satpura Range, Aravallis, and Eastern Ghats.

Detailed Analysis of Mountain Range Ages

Let's examine the geological age of each mentioned mountain range:

- **Western Ghats:** This mountain range runs parallel to the western coast of the Indian peninsula. Its formation is linked to the breakup of the supercontinent Gondwana, which occurred much later than the formation of the Aravallis. While ancient, they are not the oldest in India.
- **Satpura Range:** Located in central India, the Satpura Range is also a significant geological feature. However, it is considered younger compared to the Aravalli Range, having formed during the later stages of the Indian subcontinent's tectonic history.
- **Aravallis:** The **Aravalli Range**, primarily located in Rajasthan, is recognized as one of the oldest fold mountain systems not just in India, but in the world. Its origins date back to the Proterozoic Era, making it significantly older than the other ranges listed. It represents an ancient, eroded remnant of a once mighty mountain system.
- **Eastern Ghats:** This range is discontinuous and irregular, stretching along the eastern coast of India. While ancient, formed by tectonic folding and faulting processes, the **Aravallis** predate them in geological age.

Identifying the Oldest Mountains in India

Based on geological evidence and established timelines of mountain formation:

- The **Aravalli Range** stands out as the most ancient mountain system among the choices.
- It represents a geological history stretching back over 600 million years, possibly even older, making it a relic of the early stages of the Indian plate's geological evolution.
- The other ranges, while geographically important, were formed much later in geological time.

Therefore, the **Aravallis** are definitively the oldest mountains in India from the given options.

29. Answer: a

Explanation:

Understanding India's Primary Rainfall Season

This explanation focuses on identifying the specific monsoon system responsible for the significant **rainfall** experienced in **India** during the crucial months of **June** through **September**.

The Dominant Monsoon: South West Monsoon

The monsoon system that accounts for the vast majority of India's annual rainfall, especially during the period from **June** to **September**, is the **South West monsoon**.

Key Aspects of the South West Monsoon

- **Timing and Arrival:** This monsoon system typically begins its arrival in India around early June, usually making landfall first on the southwestern coast (Kerala). It then progresses across the subcontinent, covering most regions by mid-July. The duration extends until September.
- **Origin of Winds:** The winds originate from the high-pressure regions over the southern Indian Ocean. They blow across the equator, gain moisture from the

Arabian Sea and the Bay of Bengal, and then strike the Indian landmass.

- **Geographical Coverage:** The South West monsoon affects almost the entire country, bringing widespread rainfall, which is essential for agriculture and replenishing water resources.
- **Economic Importance:** This monsoon is often referred to as the 'true' monsoon of India due to its immense impact on the Indian economy, particularly the agricultural sector, which relies heavily on timely and adequate rainfall.

Evaluating Alternative Monsoon Systems

It is important to distinguish the South West monsoon from other seasonal wind patterns:

- **North West Monsoon:** This is not a recognized term for the main Indian monsoon system during the summer months. The predominant wind direction during the June–September rainy season is southwesterly.
- **South East Monsoon:** While wind directions can vary, the primary system responsible for widespread summer rains is not classified as the South East monsoon. This term might be confused with the South West monsoon or refer to different regional wind patterns.
- **North East Monsoon:** This monsoon occurs later in the year, typically from October to December. It affects the southeastern parts of India (like Tamil Nadu) and is characterized by winds blowing from the land towards the sea, bringing rainfall to a different region than the summer monsoon.

Summary of India's Monsoon Dynamics

In summary, the meteorological phenomenon driving the heavy **rainfall** across most of **India** between **June** and **September** is the seasonal inflow of moisture-laden winds associated with the **South West monsoon**.

30. Answer: b

Explanation:

Locating the Satish Dhawan Space Centre

This section explains the location of the **Satish Dhawan Space Centre (SDSC)**, which is a vital part of India's space exploration efforts managed by the Indian Space Research Organisation (ISRO).

Understanding the Satish Dhawan Space Centre

The **Satish Dhawan Space Centre**, also known as SDSC SHAR, serves as ISRO's primary spaceport. Its main purpose is to provide the necessary launch infrastructure for India's ambitious space missions, including the launch of satellites into Earth's orbit and beyond using launch vehicles like the PSLV and GSLV.

Sriharikota: The Correct Launch Site

The correct location for the **Satish Dhawan Space Centre** is **Sriharikota**.

- **Sriharikota** is an island located in the Nellore district of Andhra Pradesh, along India's eastern coast.
- Its coastal position is advantageous for space launches, allowing rockets to fly over the ocean, which enhances safety.
- This site has been the launchpad for numerous successful Indian space missions.

Analysis of Alternative Locations

It's helpful to understand why the other options are not the correct location for the SDSC:

- **Bengaluru**: While Bengaluru is the headquarters of ISRO and hosts other important centres like the ISRO Satellite Centre and ISTRAC, it is not the location of the main rocket launch facility.
- **Thumba**: The Thumba Equatorial Rocket Launching Station (TERLS) is located near Thiruvananthapuram in Kerala. It is mainly used for launching smaller sounding rockets for atmospheric and ionospheric research.

- **Byalalu:** Situated near Bengaluru, Byalalu hosts key tracking and communication facilities, such as the ISTRAC network, which supports launch operations but is not the launch centre itself.

Conclusion on SDSC Location

Therefore, the primary launch centre, the **Satish Dhawan Space Centre**, is definitively located in **Sriharikota**.

31. Answer: b

Explanation:

Satavahana Empire Founder: Identifying Simuka

This solution explains the historical context and identifies the founder of the ancient Indian Satavahana Empire, addressing the key question about who established this significant dynasty.

Understanding the Satavahana Empire

The Satavahana Empire, also known as the Andhra Empire, was a prominent ancient Indian dynasty. It flourished from roughly the 3rd century BCE to the early 3rd century CE. The empire's core territory was the Deccan Plateau, encompassing regions of modern-day Maharashtra, Andhra Pradesh, and Telangana. The Satavahanas played a crucial role in India's history, particularly in trade, administration, and the patronage of arts and religion.

Identifying the Founder: Simuka

The founder of the Satavahana Empire was **Simuka**. He laid the foundation for this powerful dynasty, likely emerging after the decline of the Mauryan Empire or the weakening of the preceding Kanva dynasty in the Deccan region.

- **Simuka:** Historical records and Puranic literature credit Simuka as the originator of the Satavahana lineage. He is recognized for establishing the dynasty's rule and expanding its initial territories.

Analysis of Other Options

While the other names listed were important figures in the Satavahana dynasty, they were not the founder:

- **Kanha:** Kanha (also referred to as Krishna) was the successor of Simuka, often considered his brother. He was the second ruler of the empire and continued the consolidation of power.
- **Hala:** Hala was a later and quite famous Satavahana king. He is celebrated for his literary contribution, attributed with compiling the 'Gahaḍḍavāe' (Gahaḍḍavāe Sattasai), a collection of Marathi folk verses.
- **Gautamiputra:** Gautamiputra Satakarni was one of the most renowned and powerful rulers of the Satavahana dynasty. He ruled in the 2nd century CE and is credited with reviving the empire's fortunes after a period of decline, achieving significant military victories.

Conclusion on Satavahana Founder

Based on historical consensus, **Simuka** is definitively identified as the founder of the Satavahana Empire. The other rulers mentioned, Kanha, Hala, and Gautamiputra, were significant figures who ruled later in the dynasty's history.

32. Answer: b

Explanation:

FIFA Best Player Award 2018 Winner Announced

The question asks to identify the winner of FIFA's best male player award for the year 2018. This prestigious award recognizes the most outstanding male footballer during

the calendar year.

Understanding the FIFA Best Player Award

The Best FIFA Men's Player award is an annual prize awarded by the international football governing body, FIFA, to the male player deemed to have performed the best in the preceding 12 months. The selection process involves votes from national team coaches, captains, selected journalists, and fans worldwide.

Luka Modric: The 2018 FIFA Best Player

In 2018, the FIFA's best male player award was given to **Luka Modric**. He achieved this recognition primarily due to his exceptional performances throughout the year for both his club, Real Madrid, and the Croatian national team.

Key achievements contributing to Modric's award:

- **Club Success:** Luka Modric was a pivotal player in Real Madrid winning their third consecutive UEFA Champions League title in the 2017–2018 season.
- **International Performance:** He captained Croatia to the final of the 2018 FIFA World Cup held in Russia. His leadership and midfield dominance were crucial for Croatia's surprising journey to the final, earning him the Golden Ball award for the tournament's best player.
- **Individual Accolades:** Besides the FIFA award, Modric also won the UEFA Men's Player of the Year award for 2017–18 and was recognized as the best player at the 2018 FIFA World Cup.

Analysis of Other Nominees

While several top players are often nominated, Luka Modric stood out in 2018.

- **Cristiano Ronaldo:** A consistent performer and previous winner, Cristiano Ronaldo had a strong year with Real Madrid, scoring many goals, including in the Champions League final, and later moving to Juventus. However, Modric's influence on his team's overall success, particularly his leadership on the international stage, tipped the balance.

- **Mario Mandžukić and Ivan Rakitić:** Both players had excellent World Cups for Croatia alongside Modric. Mario Mandžukić scored crucial goals, including in the final against France, and Ivan Rakitić provided midfield stability. However, their individual performances, while excellent, were not seen as being at the same level of overall impact and recognition as Modric's during that specific award cycle.

Therefore, Luka Modric's combination of club trophies, inspirational international leadership, and consistent individual brilliance made him the deserving winner of the FIFA's **best male player award** for 2018.

33. Answer: a

Explanation:

Indian Space Program: Identifying the Founding Father

Dr. **Vikram Sarabhai** is widely recognized and celebrated as the Father of the Indian Space Program. His visionary leadership and dedication were fundamental in shaping India's journey into space exploration and technology.

Dr. Sarabhai's Visionary Contributions

Dr. Sarabhai firmly believed in the potential of space technology to significantly contribute to national development and improve the lives of citizens. His forward-thinking approach laid the groundwork for India's independent space capabilities.

- He was the primary visionary behind establishing a space program tailored for India's specific needs.
- He played a crucial role in founding the **Indian Space Research Organisation (ISRO)** in 1969, which has since become the central agency for space activities in India.
- Dr. Sarabhai strongly advocated for the application of space technology in vital sectors like telecommunications, meteorology (weather forecasting), and

remote sensing for resource management.

- His efforts culminated in launching India's first satellite, Aryabhata, a landmark achievement in the country's scientific history.

Contributions of Other Notable Scientists

The other scientists mentioned are also highly respected figures in Indian science, but their primary contributions were in different fields:

- **Dr. Homi J. Bhabha:** Revered as the Father of the Indian Nuclear Program due to his foundational work in establishing nuclear energy and research institutions in India.
- **S. Chandrasekar:** An acclaimed astrophysicist celebrated for his Nobel Prize-winning work on the structure and evolution of stars, particularly the Chandrasekhar Limit.
- **C. V. Raman:** A Nobel laureate physicist renowned for his discovery of the Raman Effect, which explains the scattering of light, a phenomenon crucial in spectroscopy.

While all these individuals were pioneers, Dr. Vikram Sarabhai's specific vision, leadership, and foundational role in establishing and guiding the Indian Space Program make him uniquely known as its Father.

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34. Answer: b

Explanation:

Constitution Adoption Date Explained

The question asks about the specific date when the **Constitution of India** was **adopted** by the **Constituent Assembly**. Understanding these key events is crucial for grasping India's political history.

The Constituent Assembly's Role

The **Constituent Assembly** was the body responsible for drafting the **Constitution of India**. It was elected indirectly by the members of the provincial legislative assemblies in 1946.

Adoption of the Constitution

After extensive deliberations and several amendments, the **Constituent Assembly** formally **adopted** the **Constitution of India** on a specific historic date. This date marked the completion of the constitution-making process.

- **Adoption Date:** The **Constitution of India** was **adopted** by the **Constituent Assembly** on **26th November, 1949**.

On this day, the Constitution was signed by the members of the Assembly. While it was adopted on this date, certain provisions came into force later.

Analysis of Other Options

It's important to differentiate the adoption date from other significant dates:

- **15th August, 1947:** This is celebrated as India's Independence Day, the day India gained freedom from British rule. It is not the date the constitution was adopted.
- **26th January, 1950:** This date is celebrated as Republic Day. It is the date when the **Constitution of India** officially came into effect, and India became a sovereign republic. The Constitution was adopted earlier, but its commencement date is 26th January 1950.
- **2nd October, 1952:** This date marks the beginning of India's Second Five-Year Plan and is celebrated as Gandhi Jayanti. It has no direct relation to the adoption of the Constitution.

Therefore, the correct date for the **adoption** of the **Constitution of India** by the **Constituent Assembly** is **26th November, 1949**.

35. Answer: c

Explanation:

The question asks to identify the first Indian citizen to be honored with the **Bharat Ratna Award** among the given options. The **Bharat Ratna** is India's highest civilian award, presented for exceptional service and performance of the highest order without distinction of race, occupation, position, or sex.

Bharat Ratna Award: Key Information

- **Instituted:** The award was instituted on January 2, 1954.
- **Purpose:** It is awarded by the President of India.
- **Criteria:** Given for the highest achievements in any field of human endeavour.
- **Recipients:** The first recipients were honoured in 1954.

Evaluating Candidates for the First Bharat Ratna

Let's examine the provided options to determine who among them was the first Indian recipient of the **Bharat Ratna Award**:

- **Mahatma Gandhi:** Although a towering figure in India's independence movement, Mahatma Gandhi was never awarded the Bharat Ratna.
- **Jawaharlal Nehru:** India's first Prime Minister, Jawaharlal Nehru, received the Bharat Ratna award posthumously in 1955.
- **C. Rajagopalachari:** A prominent leader of the Indian National Congress, the last Governor-General of India, and a statesman, C. Rajagopalachari was among the first three recipients of the Bharat Ratna award in 1954. The other two recipients in the same year were Dr. Sarvepalli Radhakrishnan and Sir C. V. Raman.
- **Subhash Chandra Bose:** Subhash Chandra Bose was announced as a recipient in 1992, but the award was later rescinded due to a controversy regarding the criteria for posthumous awards. He was not among the initial recipients in 1954.

First Indian Bharat Ratna: The Recipient

Based on the historical records of the Bharat Ratna awards:

- The award was first given in 1954.
- The recipients in 1954 included C. Rajagopalachari, Sarvepalli Radhakrishnan, and C. V. Raman.
- Out of the given options, C. Rajagopalachari was one of the very first recipients of the **Bharat Ratna Award** in 1954.

Therefore, C. Rajagopalachari is the correct answer as he was among the initial group of Indians to receive this prestigious honour in the year the award was instituted.

36. Answer: d

Explanation:

Basketball Player Count on Court Explained

Understanding the rules of basketball is key to answering questions about the game. A common point of confusion can be the exact number of players allowed on the court.

Players Permitted in Basketball

In a standard game of basketball, each team is allowed to have a specific number of players on the court during play. This ensures fair competition and manages the game's flow.

- **Number of Players:** A team can have a maximum of 5 players on the court at any given time.

Why 5 Players is the Standard

Basketball is designed for five players per side to facilitate effective offense and defense within the court dimensions. This number allows for strategic play involving passing, dribbling, shooting, and defending without overcrowding the playing area.

Evaluating Other Options

Let's look at why the other options are not the correct number of players allowed on the court for a team:

- **8 Players:** While a team might have more players on the bench (substitutes), 8 players are too many to be on the court simultaneously according to official rules.
- **7 Players:** Similar to 8 players, 7 players on the court would violate the standard basketball regulations.
- **6 Players:** This number is also incorrect; the limit is strictly 5 players per team on the court.

Final Answer Confirmation

Based on the official rules of basketball, only 5 players from each team are permitted on the court during a game.

37. Answer: d

Explanation:

Indian Air Force First Women Fighter Pilots Batch Explained

The Indian Air Force (IAF) created history by inducting women into the fighter pilot stream. This significant milestone marked a new era for women in the defence forces, allowing them to pursue combat roles previously reserved for men. The question asks to identify the members of the very first batch of women fighter pilots commissioned into the IAF.

Identifying the Pioneer Women Fighter Pilots

The first batch of women fighter pilots in the Indian Air Force includes three pioneering officers who successfully completed their grueling training. These officers demonstrated exceptional skill, dedication, and courage to break barriers in aviation combat roles.

- **Mohana Singh:** One of the trailblazing pilots in the first intake.
- **Bhawna Kant:** Another key member of this historic first batch.
- **Avani Chaturvedi:** The third officer who completed the training alongside Singh and Kant.

Confirmation of the First Batch

Mohana Singh, Bhawna Kant, and Avani Chaturvedi were commissioned as fighter pilots after completing their Stage III fighter stream training in May 2018. They were part of the initial group selected for this specialized role, making them the first women fighter pilots in the Indian Air Force.

Given that all three individuals listed – Mohana Singh, Bhawna Kant, and Avani Chaturvedi – are indeed part of the first batch of women fighter pilots in the Indian Air Force, the option encompassing all of them is the correct identification.

38. Answer: d

Explanation:

South African Sprinter Shatters 400m Record

This question focuses on identifying a specific athlete from South Africa who excelled in track and field. The key achievement highlighted is breaking the world record in the **Men's 400m** race, a record previously held by the famous American sprinter Michael Johnson.

Michael Johnson's 400m Benchmark

Michael Johnson was a dominant figure in sprinting for many years. He set a world record in the **Men's 400m** that was considered almost unbreakable. His incredible time of 43.18 **seconds**, set in 1999, stood as the global benchmark for over 15 years. His record was a significant achievement in athletics history.

Wayde Van Niekerk's Record-Breaking Performance

The athlete who finally surpassed Michael Johnson's remarkable **400m world record** is **Wayde Van Niekerk**, a talented **South African track and field sprinter**. Van Niekerk achieved this historic feat at the 2016 Rio Olympic Games. He ran the race of his life from Lane 8, clocking an astonishing time of 43.03 **seconds**. This performance not only broke Johnson's record but also established a new Olympic record, showcasing Van Niekerk's extraordinary speed and skill.

Understanding the 400m Field

To provide context, let's look at the other athletes mentioned in the options:

- **Kirani James:** Hailing from Grenada, Kirani James is a world-class 400m runner, an Olympic gold medalist, and a World Champion. However, he did not break Michael Johnson's 400m world record.
- **LaShawn Merritt:** An accomplished American sprinter, LaShawn Merritt has won numerous accolades, including Olympic and World Championship titles in the 400m. He was a contemporary rival but not the one to break Johnson's specific world record.
- **Otis Davis:** An American athlete who won gold in the 400m at the 1960 Olympics. His achievements are significant but belong to a much earlier era of the sport, predating Michael Johnson's record by decades.

In summary, **Wayde Van Niekerk** is recognized as the **South African sprinter** who broke Michael Johnson's storied **Men's 400m world record**.

39. Answer: d

Explanation:

Geet Sethi is a renowned figure in the world of sports, celebrated for his contributions and achievements in a specific discipline. This explanation clarifies his association with the correct sport.

Geet Sethi's Sport Association

Geet Sethi is famously and primarily associated with the sport of **Billiards**. He is an Indian professional **billiards** and snooker player who has achieved legendary status in cue sports. Sethi has won multiple world championships in English Billiards, cementing his reputation as one of the greatest players in the history of the sport. His career highlights include winning the World Professional Billiards Championship multiple times and being awarded the Padma Shri, India's fourth-highest civilian honour, for his contributions to sports.

Analysis of Options

To understand Geet Sethi's sport affiliation, let's look at the options provided:

- **Polo:** Polo is a team sport played on horseback. Geet Sethi is not known for playing polo.
- **Shooting:** Shooting involves marksmanship with firearms or bows. While India has successful shooters, Geet Sethi's expertise lies elsewhere.
- **Hockey:** Hockey is a team sport played with sticks and a ball or puck. Geet Sethi's professional career is not linked to hockey.
- **Billiards:** This cue sport involves striking billiard balls with a cue stick and pocketing them in pairs of pockets. Geet Sethi is a world-renowned champion in this sport.

Geet Sethi's immense success and numerous titles are all achieved in the field of **Billiards**. His name is synonymous with excellence in this particular sport.

40. Answer: d

Explanation:

Usain Bolt Country: 4x100m Relay World Record Holder's Origin

This solution explains the nationality of the famous sprinter Usain Bolt, who holds the world record in the **4x100 meters relay**. Understanding the origins of celebrated athletes is often a key part of sports trivia and general knowledge.

Identifying Usain Bolt's Nationality

Usain Bolt is globally recognized as one of the greatest sprinters of all time. He achieved legendary status not only for his individual Olympic and World Championship titles in the 100m, 200m, and 4x100m relay events, but also for setting multiple world records. His performance as part of the Jamaican **4x100 meters relay** team, which set a world record, is particularly notable.

We need to determine which country Usain Bolt represents.

Analysis of Options for Usain Bolt's Country

Let's look at the provided options:

- Grenada
- Antigua
- Bahamas
- Jamaica

Fact Check: Usain Bolt's Home Country

Usain Bolt was born and raised in Sherwood Content, a small town in the parish of Trelawny, located in **Jamaica**. The Jamaican athletics team, including Usain Bolt, has consistently dominated international competitions, especially in sprinting events like the **4x100 meters relay**. The **world record** set by the Jamaican team in this event is a testament to the nation's sprinting prowess.

The other countries listed, Grenada, Antigua, and the Bahamas, are also Caribbean nations known for producing talented athletes. However, Usain Bolt's athletic career

and nationality are firmly associated with Jamaica.

Conclusion on Usain Bolt's Nationality

Based on widely available and verifiable information, Usain Bolt, the athlete holding the **world record** in the **4x100 meters relay**, hails from **Jamaica**.

Therefore, the correct option is Jamaica.

41. Answer: c

Explanation:

Exploring Thang ta: Martial Art of Manipur

The question asks to identify the Indian state associated with the traditional martial art form known as **Thang ta**. This martial art has deep historical roots and cultural significance within a specific region of India.

Understanding Thang ta

Thang ta, also known by its other name **Huyen langlon**, is a highly respected martial art originating from the northeastern state of **Manipur**, India. The name itself provides a clue to its nature: '*Thang*' translates to 'sword' and '*Ta*' translates to 'spear'. Therefore, the practice of Thang ta involves proficiency in wielding these traditional weapons, alongside unarmed combat techniques.

This martial art is more than just combat; it encompasses a philosophical and spiritual dimension, emphasizing discipline, focus, and physical conditioning. It has been an integral part of Manipuri culture for centuries, passed down through generations.

Analyzing State Associations for Thang ta

Let's review the options provided in the context of where **Thang ta** is practiced:

- **Mizoram:** Mizoram has its own distinct cultural heritage and traditional sports, but Thang ta is not primarily linked to this state.
- **Nagaland:** Nagaland is known for its diverse tribal cultures and warrior traditions, however, Thang ta is not native to Nagaland.
- **Manipur:** This is the correct association. **Thang ta** is a traditional martial art form indigenous to Manipur, deeply embedded in its history and culture.
- **Tripura:** Tripura shares cultural similarities with neighboring regions but does not claim Thang ta as its own traditional martial art.

Conclusion on Thang ta's Origin State

The martial art form **Thang ta** is historically and culturally recognized as belonging to **Manipur**. Its practice, techniques, and cultural importance firmly establish its connection to this northeastern Indian state.

42. Answer: c

Explanation:

Founder of Theosophical Society Identified

This question requires identifying the individual who founded the Theosophical Society, an organization focused on spiritual and philosophical exploration.

The Theosophical Society: An Overview

The Theosophical Society was established with specific objectives:

- To form a nucleus of the universal brotherhood of humanity without distinction of race, creed, sex, caste, or color.
- To encourage the study of comparative religion, philosophy, and science.
- To investigate unexplained laws of nature and the powers latent in humanity.

Key Figure in Theosophical Society Founding

Central to the founding of the Theosophical Society was Helena Petrovna Blavatsky, commonly referred to as Madame Blavatsky.

- **Madame Blavatsky** was a Russian thinker and spiritual teacher who co-founded the Society in New York City in 1875.
- Along with Colonel Henry Steel Olcott and William Quan Judge, she laid the groundwork for Theosophy.
- Her significant written works, such as "Isis Unveiled" and "The Secret Doctrine," provided the philosophical and spiritual basis for the movement.

Analysis of Other Figures

The other options presented are associated with different historical contexts and movements:

- **A.O. Hume:** Allan Octavian Hume was a significant figure in British India, notably involved in the founding of the Indian National Congress. His contributions were in the political sphere, not related to the Theosophical Society's establishment.
- **Stuart Mill:** John Stuart Mill was an influential English philosopher and economist, known for his advocacy of utilitarianism and individual liberty. His work belongs to a different intellectual tradition and time period, distinct from the founding of the Theosophical Society.
- **Raja Rammohan Roy:** Raja Rammohan Roy was a key social and religious reformer in 19th-century India and the founder of the Brahmo Samaj. While he championed spiritual and social reform, he was not involved in the founding of the Theosophical Society.

Identifying the Founder

Madame Blavatsky's role as a principal founder of the Theosophical Society is well-documented, making her the correct answer in relation to the question asked.

43. Answer: a

Explanation:

Continent Coastline Comparison

Understanding the lengths of coastlines helps us appreciate the geography of different continents. The coastline of a continent is the total distance around its edge where the land meets the sea or ocean. This length can vary depending on how detailed the measurement is (the coastline paradox), but relative comparisons are generally consistent.

Analyzing Continents' Coastlines

Let's examine the coastlines of the continents mentioned in the options:

- **Asia:** Asia is the largest continent by land area and also possesses the most intricate and extensive coastline. This is due to its vast size, numerous peninsulas (such as the Arabian Peninsula, Indian subcontinent, Indochina, Korean Peninsula, and Kamchatka Peninsula), and large archipelagos (like Indonesia, the Philippines, and Japan). The highly indented nature and the sheer number of islands contribute significantly to its overall coastline length.
- **Africa:** Africa has a coastline that is relatively smoother and less indented compared to Asia. While it's the second-largest continent by area, its coastline is considerably shorter than Asia's, mainly due to fewer large peninsulas and island groups.
- **Australia:** As an island continent, Australia has a significant coastline. However, its coastline is less complex and jagged than Asia's, resulting in a shorter total length.
- **South America:** Similar to Africa, South America's coastline is relatively less complex compared to Asia. It has fewer large indentations and islands, making its total coastline length shorter than Asia's.

Coastline Length Data

The approximate lengths of the coastlines for these continents are often cited as follows (Note: these figures can vary based on measurement scale):

Continent	Approximate Coastline Length (km)
Asia	130,000
Africa	30,500
Australia	25,760
South America	27,000

Conclusion on Largest Coastline

Based on geographical features like peninsulas, islands, and indentations, as well as commonly cited data, **Asia** has the longest coastline among all the continents.

44. Answer: a

Explanation:

Founder of Awadh State

The question asks to identify the founder of the historical state of Awadh. The state of Awadh, also known as the Kingdom of Awadh, was a significant princely state in northern India during the later Mughal period and the British Raj.

Establishing the Awadh State

The foundation of the independent state of Awadh is primarily attributed to **Saadat Ali Khan I**. He was appointed the governor (Nawab) of Awadh by the Mughal Emperor Muhammad Shah in 1722.

Saadat Ali Khan I's Role

- **Appointment:** Saadat Ali Khan I, whose original name was Mir Muhammad Amin Musavi, was dispatched by the Mughal emperor to curb the growing influence of the Marathas and consolidate Mughal authority in the region.
- **Foundation:** Upon his arrival, he established his capital at Faizabad and effectively asserted his autonomy, laying the groundwork for the independent Awadh state. He is widely recognized as the founder of the Awadh dynasty.
- **Autonomy:** Saadat Khan gradually reduced the influence of the Mughal Emperor, making the position of Nawab hereditary and transforming the province into a de facto independent state.

Context of Other Options

The other individuals mentioned in the options are not associated with the founding of the Awadh state:

- **Hyder Ali:** He was the ruler of the Kingdom of Mysore in southern India and is known for resisting British expansion there.
- **Ibrahim Zubayri:** Historical records do not prominently feature Ibrahim Zubayri as a founder of any major Indian state, including Awadh.
- **Yusuf Adil Shah:** He was the founder of the Bijapur Sultanate (part of the Deccan Sultanates) in the 15th century, a different region and era.

Therefore, **Saadat Ali Khan I** is historically recognized as the founder of the Awadh state, establishing its distinct political identity separate from the declining Mughal Empire.

45. Answer: a

Explanation:

- Sarojini Naidu authored the book 'The Golden Threshold'.

Understanding the Author of 'The Golden Threshold'

'The Golden Threshold' is a significant collection of poems written by the renowned Indian poet and freedom fighter, **Sarojini Naidu**. This book was published in 1905 and marked her debut in poetry collections.

About Sarojini Naidu's Literary Contributions

Sarojini Naidu, often referred to as the "Nightingale of India," was a prominent figure in the Indian independence movement and a celebrated poet. Her writings often reflected themes of love, nature, life, and patriotism. She used poetry as a medium to express her nationalist sentiments and the cultural richness of India.

'The Golden Threshold' – Key Work

'The Golden Threshold' contains poems that showcase her lyrical style and emotional depth. It includes famous poems like "The Sliding Pebble," "The Poet's Love," and "In the Valley of the Rupa." Her ability to blend Indian themes with English poetic traditions made her work unique and widely appreciated.

Analysis of Other Options

- **Anurag Mathur**: Known for his novel 'The Incomplete Man'.
- **Mahashweta Devi**: A celebrated Indian novelist and short-story writer, known for works like 'Hajar Churashir Jonya' and 'Aranyer Adhikar', primarily written in Bengali.
- **H.P.S. Ahluwalia**: An Indian mountaineer and author, known for his contributions to adventure and mountaineering literature.

Therefore, based on established literary history, **Sarojini Naidu** is the correct author of 'The Golden Threshold'.

46. Answer: c

Explanation:

Earth's Hardest Known Substance Explained

This question asks us to identify the **hardest substance available on Earth** from the given options. Hardness is a measure of how resistant a solid material is to various kinds of permanent deformation, such as scratching, abrasion, or indentation. When we talk about the hardest substance, we usually mean its resistance to scratching.

Comparing Material Hardness Options

Let's look at the options provided and compare their relative hardness:

Substance	Description	Mohs Hardness (Approx.)	Resistance to Scratching
Coal	A combustible black or brownish-black sedimentary rock, formed as rock strata called coal seams. It consists primarily of carbon, along with variable quantities of other elements.	0.5 – 2.5	Very Low (Easily scratched and crumbled)
Gold	A soft, yellow, lustrous, malleable, and ductile metal. It is a chemical element with the symbol Au.	2.5 – 3	Low (Can be scratched relatively easily)
Platinum	A dense, silvery-white, ductile, and malleable metal. It is highly resistant to corrosion and tarnishing.	3.5 – 4	Moderate (Harder than gold, but still scratchable)
Diamond	A solid form of the element carbon with its atoms arranged in a crystal structure called diamond cubic. It is a precious gemstone and one of the hardest naturally occurring substances.	10	Extremely High (Resists scratching by almost all other substances)

Understanding Material Hardness

The **Mohs scale of hardness** is a qualitative tool used in mineralogy to describe the scratch resistance of various minerals. It ranks minerals based on their ability to scratch one another. The scale ranges from 1 (very soft) to 10 (very hard). A harder material can scratch a softer material, but not vice versa. For instance, a mineral with a Mohs hardness of 7 can scratch minerals with hardness less than 7, like quartz (hardness 7), but cannot be scratched by them.

Detailed Analysis of Substances

Examining the options based on their known properties and hardness:

- **Coal:** Coal is a relatively soft material. It crumbles easily and can be scratched with minimal effort. Its position on the Mohs scale is very low.
- **Gold:** Gold is known more for its malleability (ability to be hammered into thin sheets) and ductility (ability to be drawn into wires) than its hardness. Pure gold is quite soft and easily scratched.
- **Platinum:** Platinum is a strong and durable metal, harder than gold. However, compared to the hardest known natural substances, its hardness is only moderate.
- **Diamond:** Diamond is an allotrope of carbon. Its extreme hardness comes from its unique crystal structure, where each carbon atom is strongly bonded to four other carbon atoms in a tetrahedral arrangement. This creates a very rigid and tightly packed lattice structure. On the Mohs scale, diamond ranks as 10, the highest possible value. This means diamond can scratch virtually any other material, and it is incredibly difficult to scratch itself.

Conclusion on Earth's Hardest Material

Based on the comparison and the widely accepted Mohs scale of hardness, **diamond** stands out as the hardest substance among the given options and is recognized as the hardest naturally occurring material on Earth. Its unique atomic structure provides exceptional resistance to scratching.

47. Answer: b

Explanation:

Understanding the Full Form of DRS

The question asks for the full form of the acronym DRS. Acronyms are common in various fields, and understanding their full forms is important for clarity.

Let's look at the provided options and determine which one correctly represents the full form of DRS.

The term DRS is most notably used in the sport of cricket. It refers to a technology-based system used to review decisions made by the on-field umpires.

Analyzing the Options for DRS Full Form

We are given four options:

1. Decisive Returning System
2. Decision Review System
3. Decision Returining System
4. Decision Regain System

Let's consider the context of the system used in cricket or similar sports for reviewing umpire decisions.

- **Option 1: Decisive Returning System** – This doesn't match the known purpose or name of the system used for reviewing decisions in sports. 'Decisive' might relate to an outcome, but 'Returning System' doesn't fit.
- **Option 2: Decision Review System** – This option directly aligns with the commonly known and official name for the system used to review umpire decisions in cricket and other sports. Players can ask for the umpire's 'decision' to be 'reviewed' using technology.
- **Option 3: Decision Returining System** – This appears to be a misspelling of 'Returning' and does not represent the correct full form.

- **Option 4: Decision Regain System** – While a review might help 'regain' a favourable outcome, 'Regain System' is not the official or commonly used full form of DRS.

Based on common knowledge and the logical meaning related to reviewing decisions, the correct full form of DRS is **Decision Review System**.

Conclusion on the Full Form of DRS

Comparing the options with the correct terminology used for the system, we find that Option 2 provides the accurate full form.

DRS Full Form Options Analysis

Option Number	Proposed Full Form	Correctness
1	Decisive Returning System	Incorrect
2	Decision Review System	Correct
3	Decision Returining System	Incorrect (Misspelling)
4	Decision Regain System	Incorrect

Revision Table: Key Terms and Full Forms

Important Acronyms

Acronym	Full Form	Context
DRS	Decision Review System	Cricket (and other sports)

Additional Information: The Decision Review System (DRS)

The Decision Review System (DRS) is a technology system used in sports, particularly cricket, to allow players or umpires to challenge a decision made by the on-field umpires. The system uses various technologies like ball tracking (e.g., Hawk-Eye), heat imaging (e.g., Hot Spot), and sound detection (e.g., Snicko or

UltraEdge) to provide additional information to the Third Umpire, who then makes the final decision. The goal of DRS is to reduce errors caused by human judgment and improve the accuracy of decisions in the game.

48. Answer: a

Explanation:

Understanding Latitudes on Earth

Latitudes are a fundamental concept used in geography to map locations on the Earth's surface. They measure the angular distance of any point north or south of the Earth's Equator. The value of latitude is expressed in degrees, ranging from 0 degrees at the Equator to 90 degrees north at the North Pole and 90 degrees south at the South Pole.

The Nature of Latitude Lines

Lines connecting points of equal latitude are called parallels. These lines have specific characteristics:

- They run in an east-west direction.
- Crucially, all lines of latitude are **parallel lines** to the Equator and to each other. They never meet or intersect, maintaining a constant distance between them.
- The Equator is the longest parallel of latitude (0 degrees). As you move towards the poles (North or South), the parallels of latitude become progressively smaller circles.

Analyzing the Given Options for Latitudes

Let's look at the provided options to determine the best description for latitudes:

- **Option 1: Parallel lines** – This statement correctly identifies a key characteristic of latitude lines. They are parallel circles that run east-west around the globe.

- **Option 2: Tilted to 35 degrees** – This is incorrect. Lines of latitude themselves are not described as being tilted. While the Earth's axis has a tilt (about 23.5 degrees), this doesn't define the nature of the latitude lines themselves as being tilted.
- **Option 3: Perpendicular lines** – This is incorrect. Perpendicular lines intersect at a 90-degree angle. Lines of latitude are parallel and do not intersect each other. Lines of longitude, however, are perpendicular to the Equator.
- **Option 4: None of the above** – Since Option 1 is a correct description, this option is invalid.

Final Conclusion on Latitudes

The most accurate and defining characteristic among the choices provided for latitudes is that they are **parallel lines**.

49. Answer: a

Explanation:

Understanding Ashoka's Records: Language and Script

This explanation delves into the primary language and script employed in the historical records of Emperor Ashoka, a pivotal figure in ancient Indian history. Understanding the linguistic and scriptural choices in **Ashoka's records** provides insight into his administration and communication strategies across his vast empire.

Dominant Language of Ashoka's Edicts

The vast majority of Emperor Ashoka's inscriptions, commonly known as edicts, were written in a vernacular form of Middle Indo-Aryan, primarily referred to as **Prakrit**.

- **Why Prakrit?** Ashoka aimed to disseminate his principles of 'Dhamma' (righteous conduct and social welfare) to all sections of society. Prakrit

languages were the common, everyday spoken languages across various regions of India during the Mauryan period. Using Prakrit instead of classical Sanskrit made the edicts accessible to a much wider audience, including common people, soldiers, and administrators.

- **Prakrit vs. Pali:** While **Pali** is a well-known literary Prakrit language, closely associated with early Buddhist texts, the language used in most of Ashoka's inscriptions is a more generalized Prakrit. While related, the inscriptions are typically categorized under the broader Prakrit umbrella rather than specifically Pali.
- **Sanskrit Context:** Classical Sanskrit was largely the language of religious rituals, elite scholarship, and sophisticated literature during Ashoka's reign. It was not the preferred language for widespread public communication through inscriptions.

Scripts Used in Ashoka's Records

Ashoka's empire spanned a diverse geographical area, and the choice of script often varied depending on the region:

- **Brahmi Script:** This was the most widely used script, found primarily in the central and southern parts of the empire. It is considered the ancestor of most modern Indian scripts. Many key Ashokan edicts, like those found at Girnar (Gujarat) and Kalsi (Uttarakhand), utilize the Brahmi script.
- **Kharosthi Script:** Found in the northwestern regions (modern Pakistan and parts of Afghanistan), Kharosthi was written from right to left and derived from the Aramaic script. Edicts like the Shahbazgarhi and Mansehra versions are in Kharosthi.
- **Greek and Aramaic Scripts:** In the northwestern frontier areas that had contact with Hellenistic kingdoms, inscriptions in Greek and Aramaic were also commissioned, such as the one found at Laghman (Afghanistan). This highlights the multilingual nature of the empire's administration in its western reaches.

Conclusion on Language and Script

In summary, while various scripts like Brahmi, Kharosthi, Greek, and Aramaic were used across different regions to ensure maximum reach for his messages, the predominant **language** used in the vast majority of **Ashoka's records** was **Prakrit**. This choice reflects a deliberate effort to communicate directly with the populace in their everyday tongue.

50. Answer: a

Explanation:

First Olympic Games Location Explained

The question asks to identify the location where the **First Olympic games** were held. The Olympic Games have a rich history, dating back to ancient times, but the modern Olympic Games, as we know them today, were revived in the late 19th century. Understanding the origins of these games is key to answering this question correctly.

The Revival of the Olympic Games

The ancient Olympic Games originated in Olympia, Greece, but were eventually abolished. The modern Olympic Games were revived thanks to the efforts of Baron Pierre de Coubertin. He was inspired by the ancient tradition and envisioned a modern international sporting event that would bring the world together.

Athens: Host of the First Modern Olympic Games

The **First modern Olympic Games** were officially held in **Athens**, Greece, in 1896. This choice was symbolic, honoring the birthplace of the ancient Olympic Games. Athens provided a fitting backdrop for the revival of this prestigious international competition.

- The 1896 Games marked the beginning of a new era for the Olympic movement.

- Athletes from 14 nations participated, competing in 43 events.
- The Panathenaic Stadium in Athens, Greece, was the main venue for these inaugural games.

Analysis of Options

Let's look at the options provided:

- **Athens:** Correct. Host city of the 1896 Summer Olympics, the first modern Olympic Games.
- **Jakarta:** The capital of Indonesia. Jakarta has never hosted the Olympic Games.
- **Paris:** Paris, France, has hosted the Olympic Games twice (1900 and 1924) and will host again in 2024, but it was not the location of the first modern games.
- **Beijing:** Beijing, China, hosted the Summer Olympics in 2008 and the Winter Olympics in 2022, but it was not the site of the inaugural games.

Therefore, the historical records clearly indicate that the **First Olympic games** (referring to the modern era) took place in **Athens**.

51. Answer: b

Explanation:

Given:

Speed of the first person = 60 km/hr

Speed of the second person = 80 km/hr

Formula used:

Speed = Distance/Time

Calculation:

Speed difference = 80 - 60 = 20 km/hr

Every hour second Person covers 20 km more than the first person

The second person will cover 100 km more than the first person in

$$100/20 = 5 \text{ hrs}$$

Distance between P and Q = Total distance traveled by them in 5 hr.

Since Speed = Distance $\times$ Time

$$\Rightarrow \text{Distance between P and Q} = 5(60 + 80) = 700$$

$\therefore$ Distance between P and Q

52. Answer: a

Explanation:

Understanding Speed, Time, and Distance

This problem involves the fundamental relationship between speed, distance, and time, where **Distance = Speed $\times$ Time**. A key point here is that the **distance** remains the same regardless of the speed at which the person travels.

Setting Up the Problem Variables

Let's define the variables:

- Let S represent the person's **actual speed**.
- Let T represent the person's **actual time** taken to cover the distance.
- The **distance** (D) can be expressed as $D = S \times T$.

Now let's consider the scenario described:

- The person travels at a reduced speed, which is **4/5th of the actual speed**. So, the new speed is $\frac{4}{5}S$.

- Because of this slower speed, the person reaches the destination **1.5 hours late**. This means the time taken in this scenario is the actual time plus the delay: $T + 1.5$ hours.
- The distance covered is still the same (D). So, we can also write the distance as $D = \left(\frac{4}{5}S\right) \times (T + 1.5)$.

Calculating the Actual Time (T)

Since the distance (D) is the same in both cases, we can set the two expressions for distance equal to each other:

$$S \times T = \left(\frac{4}{5}S\right) \times (T + 1.5)$$

Our goal is to solve this equation for the **actual time** (T).

- We can simplify the equation by dividing both sides by the actual speed (S), assuming S is not zero:

$$T = \frac{4}{5} \times (T + 1.5)$$

- Now, distribute the $\frac{4}{5}$ on the right side:

$$T = \frac{4}{5}T + \left(\frac{4}{5} \times 1.5\right)$$

- Calculate the product $\frac{4}{5} \times 1.5$. We can write 1.5 as $\frac{3}{2}$:

$$\frac{4}{5} \times \frac{3}{2} = \frac{12}{10} = \frac{6}{5} = 1.2$$

- Substitute this value back into the equation:

$$T = \frac{4}{5}T + 1.2$$

- To solve for T , we need to gather all the T terms on one side. Subtract $\frac{4}{5}T$ from both sides:

$$T - \frac{4}{5}T = 1.2$$

- Combine the T terms. Remember that T is the same as $\frac{5}{5}T$:

$$\frac{5}{5}T - \frac{4}{5}T = 1.2$$

$$\frac{1}{5}T = 1.2$$

- Finally, to find T , multiply both sides by 5:

$$T = 1.2 \times 5$$

$$T = 6$$

Final Answer: The Actual Time

The calculation shows that the **actual time** the person usually takes to complete the journey is 6 hours.

53. Answer: a

Explanation:

Given:

$$\sqrt{78} \times (13654/123)$$

Calculation:

We have to find the value of $\sqrt{78} \times (13654/123)$

$$\sqrt{78} = 8.8317 \approx 9$$

$$13654/123 = 111.0081 \approx 111$$

So, We can write

$$\sqrt{78} \times (13654/123) = 9 \times 111$$

$$\Rightarrow 999 \approx 1000$$

∴ The approximate value of the given number is 1000.

54. Answer: a

Explanation:

Men Women Work Equivalence

This problem requires us to calculate the number of days a group of women will take to complete a specific task. We are given information about a group of men performing the same task, including the number of men, the time taken in days, and the hours worked each day. Crucially, we are also given the relative work efficiency: 3 women perform the same amount of work as 2 men.

Key Data Provided:

- Group 1 (Men): 15 men
- Time taken by men (D_1): 21 days
- Hours worked per day by men (H_1): 8 hours/day
- Group 2 (Women): 21 women
- Hours worked per day by women (H_2): 6 hours/day
- Relationship: 3 women's work = 2 men's work
- Unknown: Number of days for women (D_2)

Work Rate Comparison

The first step is to understand the difference in work rate between men and women. The problem states that $3 \text{ women} = 2 \text{ men}$ in terms of work done.

Let E_w represent the work rate of one woman and E_m represent the work rate of one man.

We can write the equivalence as:

$$3 \times E_w = 2 \times E_m$$

From this equation, we can find the ratio of their efficiencies:

$$\frac{E_w}{E_m} = \frac{2}{3}$$

This ratio tells us that one woman completes $\frac{2}{3}$ of the work a man does in the same amount of time. Conversely, one man is $\frac{3}{2}$ times as efficient as one woman ($E_m = \frac{3}{2}E_w$).

To simplify the calculation, we can convert the initial group of 15 men into an equivalent number of women:

$$\text{Equivalent number of women} = 15 \text{ men} \times \frac{3 \text{ women}}{2 \text{ men}}$$

$$\text{Equivalent number of women} = \frac{15 \times 3}{2} \text{ women} = \frac{45}{2} \text{ women} = 22.5 \text{ women}$$

This means that the total work accomplished by 15 men in 21 days (working 8 hours/day) is the same amount of work as 22.5 women would accomplish in 21 days (working 8 hours/day).

Days Calculation for Women

The total work done is calculated by multiplying the number of workers, the number of days, and the hours worked per day. We can express this as:

$$\text{Total Work} = (\text{Number of Workers}) \times (\text{Number of Days}) \times (\text{Hours per Day}) \times (\text{Efficiency per Worker})$$

We can equate the work done by the men's group (using the women equivalent) to the work done by the women's group:

$$(\text{Equivalent Women}) \times D_1 \times H_1 = (\text{Actual Women}) \times D_2 \times H_2$$

Substitute the known values into the equation:

$$22.5 \times 21 \times 8 = 21 \times D_2 \times 6$$

Now, we need to solve for D_2 . We can simplify the equation by cancelling common terms. Notice that 21 appears on both sides, so we can divide both sides by 21:

$$22.5 \times 8 = D_2 \times 6$$

Next, calculate the product on the left side:

$$180 = D_2 \times 6$$

Finally, to find D_2 , divide both sides by 6:

$$D_2 = \frac{180}{6}$$

$$D_2 = 30$$

This calculation shows that it takes 30 days for 21 women working 6 hours per day to complete the task.

Work Days Result

Based on the calculations comparing the work rates and applying the time-work principles, the 21 women working 6 hours daily would take 30 days to complete the job.

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55. Answer: c

Explanation:

Average Marks Calculation for A, B, and C

The problem begins by stating the average marks of three students: A, B, and C.

Let the marks obtained by students A, B, and C be denoted by M_A , M_B , and M_C , respectively.

The average marks are calculated by dividing the sum of marks by the number of students.

Given average = 66

Number of students = 3

Average marks of A, B, C = $\frac{M_A + M_B + M_C}{3}$

Therefore, we can write the equation:

$$\frac{M_A + M_B + M_C}{3} = 66$$

To find the total sum of marks for these three students, we multiply the average by the number of students:

Sum of marks (A, B, C) = $M_A + M_B + M_C = 66 \times 3$

Sum of marks (A, B, C) = 198

Determining D's Marks

The scenario changes when D's marks are included. The average marks increase by 4.

New average = Original average + 4

New average = $66 + 4 = 70$

Now, there are four students: A, B, C, and D.

Let M_D be the marks obtained by student D.

The average marks for these four students is:

Average marks of A, B, C, D = $\frac{M_A + M_B + M_C + M_D}{4}$

We know this new average is 70:

$$\frac{M_A + M_B + M_C + M_D}{4} = 70$$

Calculating the sum of marks for A, B, C, and D:

Sum of marks (A, B, C, D) = $70 \times 4 = 280$

We can find D's marks by subtracting the sum of marks of A, B, and C from the sum of marks of A, B, C, and D:

$$M_D = \text{Sum of marks (A, B, C, D)} - \text{Sum of marks (A, B, C)}$$

$$M_D = 280 - 198$$

$$M_D = 82$$

So, student D scored 82 marks.

Calculating New Average After Replacing A with E

The problem describes another change: student A is replaced by student E. The group now includes E, B, C, and D.

The average marks for this new group decrease by 2 compared to the previous average (which was 70).

$$\text{New average after replacement} = \text{Previous average} - 2$$

$$\text{New average} = 70 - 2 = 68$$

Let M_E be the marks obtained by student E.

The sum of marks for the group (E, B, C, D) is calculated using the new average:

$$\text{Sum of marks (E, B, C, D)} = M_E + M_B + M_C + M_D$$

$$\text{Average marks of E, B, C, D} = \frac{M_E + M_B + M_C + M_D}{4}$$

Setting this equal to the new average:

$$\frac{M_E + M_B + M_C + M_D}{4} = 68$$

$$\text{Sum of marks (E, B, C, D)} = 68 \times 4 = 272$$

Finding Marks of A

To find the marks of A (M_A), we can compare the sum of marks of the group (A, B, C, D) with the sum of marks of the group (E, B, C, D).

$$\text{Sum}(A, B, C, D) = M_A + M_B + M_C + M_D = 280$$

$$\text{Sum}(E, B, C, D) = M_E + M_B + M_C + M_D = 272$$

The difference in sums is the difference between A's marks and E's marks:

$$\text{Sum}(A, B, C, D) - \text{Sum}(E, B, C, D) = (M_A + M_B + M_C + M_D) - (M_E + M_B + M_C + M_D)$$

$$280 - 272 = M_A - M_E$$

$$8 = M_A - M_E$$

The problem provides E's marks (M_E) as 52.

Substituting this value into the equation:

$$8 = M_A - 52$$

Now, we solve for M_A :

$$M_A = 8 + 52$$

$$M_A = 60$$

Therefore, student A scored 60 marks.

Sum of Marks for A and D

The final step is to calculate the sum of marks for students A and D.

We found the following marks:

- Marks of A (M_A) = 60
- Marks of D (M_D) = 82

$$\text{Sum of marks of A and D} = M_A + M_D$$

$$\text{Sum} = 60 + 82$$

Sum = 142

The sum of the marks of A and D is 142.

56. Answer: b

Explanation:

Understanding the Simple Interest Calculation with Increasing Rates

This question asks us to calculate the total **interest** generated over 5 years for a principal amount of Rs. 1000 invested in a scheme. The scheme works on the principle of **simple interest**, and the key feature is that the **rate of interest increases** by 0.5% per annum each year. The **rate** for the **first year** is given as 14% per annum.

Calculating Yearly Interest Rates

First, let's determine the specific interest rate applicable for each of the 5 years:

- **Year 1 Rate:** The problem states the rate is 14% per annum.
- **Year 2 Rate:** The rate increases by 0.5%, so it becomes $14\% + 0.5\% = 14.5\%$ per annum.
- **Year 3 Rate:** The rate increases again by 0.5%, becoming $14.5\% + 0.5\% = 15\%$ per annum.
- **Year 4 Rate:** The rate increases by 0.5%, making it $15\% + 0.5\% = 15.5\%$ per annum.
- **Year 5 Rate:** The rate increases by 0.5%, reaching $15.5\% + 0.5\% = 16\%$ per annum.

Calculating Total Interest Generated

Since the interest calculation is simple interest, we can calculate the interest for each year separately and sum them up. The formula for simple interest (SI) for one

year is:

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

Where:

- P is the Principal amount (Rs. 1000)
- R is the Rate of interest per annum
- T is the Time period in years (here, T=1 for each year's calculation)

Step-by-Step Interest Calculation:

We can calculate the interest generated in each year:

- Interest for Year 1:

$$SI_1 = \frac{1000 \times 14 \times 1}{100} = 10 \times 14 = \text{Rs. 140}$$

- Interest for Year 2:

$$SI_2 = \frac{1000 \times 14.5 \times 1}{100} = 10 \times 14.5 = \text{Rs. 145}$$

- Interest for Year 3:

$$SI_3 = \frac{1000 \times 15 \times 1}{100} = 10 \times 15 = \text{Rs. 150}$$

- Interest for Year 4:

$$SI_4 = \frac{1000 \times 15.5 \times 1}{100} = 10 \times 15.5 = \text{Rs. 155}$$

- Interest for Year 5:

$$SI_5 = \frac{1000 \times 16 \times 1}{100} = 10 \times 16 = \text{Rs. 160}$$

Total Interest Calculation:

To find the total interest generated over the 5 years, we sum the interest from each year:

$$\text{Total Interest} = SI_1 + SI_2 + SI_3 + SI_4 + SI_5$$

$$\text{Total Interest} = 140 + 145 + 150 + 155 + 160$$

$$\text{Total Interest} = \text{Rs. } 750$$

Alternative Method: Sum of Rates

Another way to solve this is to find the sum of all the interest rates over the 5 years and then apply the simple interest formula once.

The yearly rates form an arithmetic progression: 14, 14.5, 15, 15.5, 16.

The sum of an arithmetic progression is given by:

$$\text{Sum} = \frac{n}{2}[2a + (n - 1)d]$$

Where:

- n = number of terms (years) = 5
- a = first term (rate for year 1) = 14
- d = common difference (annual increase) = 0.5

Calculating the sum of the rates:

$$\text{Sum of Rates} = \frac{5}{2}[2(14) + (5 - 1)(0.5)]$$

$$\text{Sum of Rates} = \frac{5}{2}[28 + (4)(0.5)]$$

$$\text{Sum of Rates} = \frac{5}{2}[28 + 2]$$

$$\text{Sum of Rates} = \frac{5}{2}[30]$$

$$\text{Sum of Rates} = 5 \times 15 = 75$$

Now, we calculate the total interest using the total sum of rates:

$$\text{Total Interest} = \frac{P \times (\text{Sum of Rates}) \times 1}{100}$$

$$\text{Total Interest} = \frac{1000 \times 75 \times 1}{100}$$

$$\text{Total Interest} = 10 \times 75 = \text{Rs. } 750$$

Conclusion

Both methods confirm that the total **interest generated** from the **investment** of Rs. 1000 over 5 years, with the specified increasing **rate of interest** under **simple interest**, is Rs. 750.

57. Answer: d

Explanation:

This problem involves calculating the total number of candidates who appeared for an examination based on the pass percentages in English and Mathematics, and the percentage of candidates who failed in both subjects.

Examining Candidate Performance Percentages

We need to determine the total number of candidates based on the following information:

- Percentage of candidates passed in English = 60%
- Percentage of candidates passed in Mathematics = 70%
- Percentage of candidates failed in both English and Mathematics = 20%
- Number of candidates passed in both English and Mathematics = 2500

Calculating Pass Percentages

To find the total number of candidates, we first need to figure out the percentage of candidates who passed in both subjects.

Finding the Percentage Who Passed at Least One Subject

If 20% of the candidates failed in both subjects, it means the remaining candidates must have passed in at least one of the subjects (English, Mathematics, or both).

Percentage passed in at least one subject = $100\% - \text{Percentage failed in both subjects}$

Percentage passed in at least one subject = $100\% - 20\% = 80\%$

Let $P(E)$ represent the percentage of candidates who passed in English, and $P(M)$ represent the percentage of candidates who passed in Mathematics. The percentage who passed in at least one subject is represented as $P(E \cup M)$.

So, $P(E \cup M) = 80\%$

Calculating the Percentage Who Passed Both Subjects

We can use the Principle of Inclusion-Exclusion for percentages:

$$P(E \cup M) = P(E) + P(M) - P(E \cap M)$$

Where $P(E \cap M)$ represents the percentage of candidates who passed in both subjects.

Substituting the known values:

$$80\% = 60\% + 70\% - P(E \cap M)$$

$$80\% = 130\% - P(E \cap M)$$

Now, we rearrange the formula to solve for $P(E \cap M)$:

$$P(E \cap M) = 130\% - 80\%$$

$$P(E \cap M) = 50\%$$

This means 50% of the candidates passed in both English and Mathematics.

Determining the Total Number of Candidates

We are given that 2500 candidates passed in both subjects. We just calculated that this number represents 50% of the total candidates.

Let 'T' be the total number of candidates who appeared for the examination.

We can set up the equation:

$$50\% \text{ of } T = 2500$$

Converting the percentage to a fraction:

$$\frac{50}{100} \times T = 2500$$

Simplifying the fraction:

$$\frac{1}{2} \times T = 2500$$

To find the total number of candidates (T), we multiply both sides by 2:

$$T = 2500 \times 2$$

$$T = 5000$$

Final Conclusion

Therefore, the total number of candidates that appeared for the examination is 5000.

58. Answer: a

Explanation:

Analyzing the Pen Purchase and Sale Transaction

This question asks us to determine the overall profit or loss from a transaction involving two identical items (pens) bought at the same price but sold under

different profit and loss conditions. We need to calculate the total cost incurred and the total revenue earned.

Calculating the Total Cost Price (CP)

The initial cost for each pen is provided:

- Cost Price (CP) of the first pen = Rs 20
- Cost Price (CP) of the second pen = Rs 20

To find the total cost price, we sum the cost of both pens:

$$\text{Total CP} = \text{CP of Pen 1} + \text{CP of Pen 2}$$

$$\text{Total CP} = \text{Rs } 20 + \text{Rs } 20 = \text{Rs } 40$$

Calculating Selling Prices (SP)

We need to calculate the selling price for each pen based on the given profit and loss percentages.

Calculating SP for the First Pen (25% Profit)

The first pen was sold at a 25% profit. The profit amount is calculated on the cost price (Rs 20).

- Profit Percentage = 25%
- Profit Amount = 25% of Rs 20
- Using LaTeX for calculation: Profit = $\frac{25}{100} \times 20 = \frac{1}{4} \times 20 = 5$
- So, the profit on the first pen is Rs 5.

The Selling Price (SP) is the Cost Price plus the Profit Amount.

$$\text{SP}_1 = \text{CP}_1 + \text{Profit Amount}$$

$$\text{SP}_1 = \text{Rs } 20 + \text{Rs } 5 = \text{Rs } 25$$

Calculating SP for the Second Pen (25% Loss)

The second pen was sold at a 25% loss. The loss amount is also calculated on the cost price (Rs 20).

- Loss Percentage = 25%
- Loss Amount = 25% of Rs 20
- Using LaTeX for calculation: $\text{Loss} = \frac{25}{100} \times 20 = \frac{1}{4} \times 20 = 5$
- So, the loss on the second pen is Rs 5.

The Selling Price (SP) is the Cost Price minus the Loss Amount.

$$\text{SP}_2 = \text{CP}_2 - \text{Loss Amount}$$

$$\text{SP}_2 = \text{Rs } 20 - \text{Rs } 5 = \text{Rs } 15$$

Calculating the Total Selling Price (SP)

The total revenue generated from selling both pens is the sum of their individual selling prices.

$$\text{Total SP} = \text{SP}_1 + \text{SP}_2$$

$$\text{Total SP} = \text{Rs } 25 + \text{Rs } 15 = \text{Rs } 40$$

Determining the Overall Profit or Loss

To find the net result of the transaction, we compare the Total Selling Price (Total SP) with the Total Cost Price (Total CP).

- Total CP = Rs 40
- Total SP = Rs 40

The overall profit or loss is calculated as:

$$\text{Overall Profit/Loss} = \text{Total SP} - \text{Total CP}$$

$$\text{Overall Profit/Loss} = \text{Rs } 40 - \text{Rs } 40 = \text{Rs } 0$$

Conclusion on Profit/Loss

The calculation shows that the Total Selling Price equals the Total Cost Price (Rs 40). This means there was no change in the total amount of money the shopkeeper had before buying the pens and after selling them.

Therefore, there is no profit and no loss in this entire transaction.

Summary of the Transaction

Transaction Details

Particulars	Pen 1	Pen 2	Total
Cost Price (CP)	Rs 20	Rs 20	Rs 40
Profit/Loss (%)	+25%	-25%	-
Amount Gain/Loss	+Rs 5	-Rs 5	Rs 0
Selling Price (SP)	Rs 25	Rs 15	Rs 40

The table summarizes that the Rs 5 profit from the first pen exactly offsets the Rs 5 loss from the second pen, leading to a net result of Rs 0 for the whole transaction.

59. Answer: b

Explanation:

Determining the Second Meeting Time of Two Boats

This problem involves calculating when two boats, traveling between two cities X and Y on a flowing stream, will meet for the second time. We need to consider the distance between the cities, the speeds of the boats in still water, and the speed of the stream.

1. Understanding the Setup

- The distance between City X and City Y is **700 km**.
- The stream flows from X to Y (downstream direction) at a speed of **5 km/hr**.
- Boat A starts from City X with a speed of **45 km/hr** in still water.
- Boat B starts from City Y at the same time with a speed of **25 km/hr** in still water.

2. Calculating Effective Speeds

The speed of the stream affects the boats' speeds relative to the ground. Since the journey from X to Y is downstream:

- **Boat A's speed (X to Y, downstream):** Boat A moves with the stream's current.
Effective Speed $v_A = \text{Speed of Boat A} + \text{Speed of Stream}$ $v_A = 45 \text{ km/hr} + 5 \text{ km/hr} = 50 \text{ km/hr}$
- **Boat B's speed (Y to X, upstream):** Boat B moves against the stream's current.
Effective Speed $v_B = \text{Speed of Boat B} - \text{Speed of Stream}$ $v_B = 25 \text{ km/hr} - 5 \text{ km/hr} = 20 \text{ km/hr}$

3. Calculating the First Meeting Time

When the boats travel towards each other, their relative speed is the sum of their effective speeds. They start 700 km apart.

- Relative speed for the first meeting $v_{rel1} = v_A + v_B = 50 \text{ km/hr} + 20 \text{ km/hr} = 70 \text{ km/hr}$
- Time to meet for the first time $t_1 = \frac{\text{Distance}}{\text{Relative Speed}}$ $t_1 = \frac{700 \text{ km}}{70 \text{ km/hr}} = 10 \text{ hours}$

At the time of the first meeting (10 hours):

- Distance covered by Boat A from City X $= v_A \times t_1 = 50 \text{ km/hr} \times 10 \text{ hours} = 500 \text{ km}$
- Distance covered by Boat B from City Y $= v_B \times t_1 = 20 \text{ km/hr} \times 10 \text{ hours} = 200 \text{ km}$
- The meeting point is 500 km from X and 200 km from Y.

4. Tracking Movements After the First Meeting

After meeting at $t = 10$ hours, the boats continue their journeys towards their destinations before turning back.

- **Boat A's Journey:** It has covered 500 km from X and continues towards Y. Time for Boat A to reach City Y (700 km mark) = $\frac{\text{Remaining Distance}}{\text{Speed of A}} = \frac{700 \text{ km} - 500 \text{ km}}{50 \text{ km/hr}} = \frac{200 \text{ km}}{50 \text{ km/hr}} = 4 \text{ hours}$. Total time when Boat A reaches City Y = $t_1 + 4 \text{ hours} = 10 + 4 = 14 \text{ hours}$.
- **Boat B's Journey:** At the time Boat A reaches City Y ($t = 14$ hours), Boat B has been traveling for 4 hours (from $t = 10$ to $t = 14$) towards City X from the meeting point (500 km from X). Distance covered by Boat B in these 4 hours = $v_B \times 4 \text{ hours} = 20 \text{ km/hr} \times 4 \text{ hours} = 80 \text{ km}$. Boat B's position at $t=14$ hours = Position at $t=10$ - Distance covered = $500 \text{ km} - 80 \text{ km} = 420 \text{ km}$ from City X. Boat B is still moving towards City X.

5. Calculating the Second Meeting Time

At $t = 14$ hours:

- Boat A is at City Y (700 km from X) and turns back towards City X. Its journey towards X is upstream. Effective speed of Boat A (Y to X) = $v_{A, \text{still}} - v_s = 45 \text{ km/hr} - 5 \text{ km/hr} = 40 \text{ km/hr}$.
- Boat B is at 420 km from X and continues its journey towards City X (upstream). Effective speed of Boat B (Y to X) = $v_B = 20 \text{ km/hr}$.

Now, Boat A (at 700 km) is chasing Boat B (at 420 km), both moving towards City X.

- The distance between Boat A and Boat B at $t = 14$ hours is $700 \text{ km} - 420 \text{ km} = 280 \text{ km}$.
- Since they are moving in the same direction (towards X), the relative speed at which Boat A catches up to Boat B is the difference between their speeds:
Relative speed $v_{rel2} = v_{A, \text{upstream}} - v_{B, \text{upstream}} = 40 \text{ km/hr} - 20 \text{ km/hr} = 20 \text{ km/hr}$.
- Time taken for Boat A to catch Boat B after $t = 14$ hours = $\frac{\text{Distance between them}}{\text{Relative Speed}}$ Time to catch up = $\frac{280 \text{ km}}{20 \text{ km/hr}} = 14 \text{ hours}$.

- The time they meet for the second time is the time when Boat A reached City Y plus the time taken to catch up: Second Meeting Time $t_2 = 14 \text{ hours} + 14 \text{ hours} = 28 \text{ hours}$.

6. Verification

Let's check the positions at 28 hours:

- **Boat A:** Traveled 14 hours from X to Y (700 km). Then traveled for another 14 hours (from $t = 14$ to $t = 28$) upstream towards X at 40 km/hr. Distance covered =

$$40 \text{ km/hr} \times 14 \text{ hours} = 560 \text{ km}$$

. Position from X =

$$700 \text{ km} - 560 \text{ km} = 140 \text{ km}$$

- **Boat B:** Traveled from Y towards X for 28 hours at 20 km/hr. Distance covered =

$$20 \text{ km/hr} \times 28 \text{ hours} = 560 \text{ km}$$

. Position from X =

$$700 \text{ km} - 560 \text{ km} = 140 \text{ km}$$

Since both boats are at the same position (140 km from City X) at 28 hours, this confirms the time of the second meeting.

Final Answer

The two boats will meet for the second time after **28 hours**.

60. Answer: c

Explanation:

Summer Class Attendance Ratio Calculation

This explanation breaks down how to find the ratio between regular and irregular students below 11 years old in the summer class, based on the given percentages and numbers.

Key Information on Summer Class Attendance

- Percentage of students enrolled who are below 11 years old: 80%.
- Percentage of students *below 11* who attend regularly: 80%.
- Number of students below 11 who attend regularly: 320.

Calculating Total Students Below 11

We need to determine the total number of students who are below 11 years old. Let's denote this number as N . We know that 80% of these students attend regularly, and this number is 320.

We can express this relationship mathematically:

$$\text{Number of regular students (below 11)} = 80\% \times N$$

Substituting the known values:

$$320 = 0.80 \times N$$

To find N , we rearrange the equation:

$$N = \frac{320}{0.80}$$

$$N = \frac{3200}{8}$$

$$N = 400$$

Therefore, there are **400** students below 11 years old in the summer class.

Determining the Number of Irregular Students

Now we need to find the number of students below 11 who attend irregularly. If 80% attend regularly, the remaining percentage must attend irregularly.

Percentage of irregular students (below 11) = $100\% - 80\% = 20\%$.

We can calculate the number of irregular students:

$$\text{Number of irregular students (below 11)} = 20\% \times N$$

$$\text{Number of irregular students} = 0.20 \times 400$$

$$\text{Number of irregular students} = 80$$

Alternatively, we can find the number of irregular students by subtracting the regular students from the total students below 11:

$$\text{Number of irregular students} = \text{Total students (below 11)} - \text{Regular students (below 11)}$$

$$\text{Number of irregular students} = 400 - 320 = 80$$

So, there are **80** irregular students below 11 years old.

Final Ratio Calculation: Regular to Irregular

The question asks for the ratio of the number of students below 11 who are **regular** to those who are **irregular**.

$$\text{Ratio} = \frac{\text{Number of regular students (below 11)}}{\text{Number of irregular students (below 11)}}$$

$$\text{Ratio} = \frac{320}{80}$$

To simplify the ratio, we divide both numbers by their greatest common divisor, which is 80:

$$\text{Ratio} = \frac{320 \div 80}{80 \div 80} = \frac{4}{1}$$

The ratio is **4 : 1**.

61. Answer: c

Explanation:

This question asks us to determine the ratio in which the total revenue collected from a fair has changed, given specific changes in the entry ticket price and the number of visitors.

Understanding the Initial Collection Ratio

Let's start by defining the initial state of the fair's collection. We can represent the initial price of an entry ticket as P_1 and the initial number of visitors as V_1 . The total collection (C_1) is the product of the ticket price and the number of visitors:

$$C_1 = P_1 \times V_1$$

Analyzing Changes in Price and Visitors

The problem provides information about how the price and visitor count have changed:

- **Entry Ticket Price Change:** The price increased in the ratio 9 : 13. This means that the new price (P_2) is $\frac{13}{9}$ times the original price (P_1). We can write this relationship as:

$$\frac{P_2}{P_1} = \frac{13}{9} \implies P_2 = \frac{13}{9}P_1$$

- **Number of Visitors Change:** The number of visitors decreased in the ratio 7 : 4. This signifies that the new number of visitors (V_2) is $\frac{4}{7}$ times the original number of visitors (V_1). This can be expressed as:

$$\frac{V_2}{V_1} = \frac{4}{7} \implies V_2 = \frac{4}{7}V_1$$

Calculating the New Total Collection Ratio

Now, we need to find the new total collection (C_2) using the new price (P_2) and the new number of visitors (V_2):

$$C_2 = P_2 \times V_2$$

Let's substitute the expressions for P_2 and V_2 that we found:

$$C_2 = \left(\frac{13}{9}P_1\right) \times \left(\frac{4}{7}V_1\right)$$

To find the ratio of the new collection to the old collection, we can rearrange this equation:

$$C_2 = \left(\frac{13 \times 4}{9 \times 7}\right) \times (P_1 \times V_1)$$

Calculate the product of the numerical ratios:

$$C_2 = \frac{52}{63} \times (P_1 \times V_1)$$

Since $C_1 = P_1 \times V_1$, we can express the new collection in terms of the initial collection:

$$C_2 = \frac{52}{63}C_1$$

The ratio of the new total collection to the initial total collection is:

$$\frac{C_2}{C_1} = \frac{52}{63}$$

Interpreting the Total Collection Ratio

The calculated ratio $\frac{52}{63}$ is less than 1. This indicates that the total collection has decreased.

The ratio of the new collection to the old collection is 52 : 63.

Therefore, the ratio representing the decrease in total collection (from old to new) is the inverse of this, showing how much the collection reduced relative to its original amount.

The ratio of the initial collection to the final collection is $C_1 : C_2$, which is 63 : 52.

Conclusion on Collection Ratio Change

Based on the calculations, the total collection at the fair has decreased. The ratio of the initial total collection to the final total collection is 63 : 52.

62. Answer: c

Explanation:

Analyzing the Work and Time Problem

This problem requires us to calculate the time the third son takes to complete a job. We are given the time taken by the first two sons and the man to complete the same job, along with a relationship between the man's working capacity and that of his three sons. We need to determine the individual work rates and use the provided relationship to find the unknown time.

Key Concepts in Work Rate Problems

- **Work Rate:** The efficiency of a person is measured by the amount of work they can do in one unit of time (e.g., per day). If someone completes a job in 'T' days, their work rate is $\frac{1}{T}$ jobs per day.
- **Combined Work Rate:** When people work together, their individual rates add up to give the combined rate.
- **Problem Statement Interpretation:** The statement "The man can do twice the work of three sons" is interpreted as the man's work rate equals twice the sum of the work rates of the three sons. Mathematically: $\text{Man's Rate} = 2 * (\text{Son 1 Rate} + \text{Son 2 Rate} + \text{Son 3 Rate})$.

Step-by-Step Solution

Step 1: Determine Individual Work Rates

Let's calculate the work rate for each person involved. We assume the total work to be done is 1 unit.

Calculating Work Rates

Person	Time Taken (Days)	Work Rate (Work/Day)
Son 1	24	$\text{Rate}(S1) = \frac{1}{24}$
Son 2	36	$\text{Rate}(S2) = \frac{1}{36}$
Man	$3\frac{1}{11} = \frac{3 \times 11 + 1}{11} = \frac{34}{11}$	$\text{Rate}(M) = \frac{1}{34/11} = \frac{11}{34}$

Step 2: Apply the Given Work Rate Relationship

The problem states that the man's rate is twice the combined rate of the three sons. We write this relationship as:

$$\text{Rate}(M) = 2 \times (\text{Rate}(S1) + \text{Rate}(S2) + \text{Rate}(S3))$$

Substitute the calculated rates into this equation:

$$\frac{11}{34} = 2 \times \left(\frac{1}{24} + \frac{1}{36} + \text{Rate}(S3) \right)$$

Step 3: Calculate the Combined Rate of Son 1 and Son 2

To proceed, we first sum the rates of Son 1 and Son 2. The least common multiple (LCM) of their time denominators (24 and 36) is 72.

- Convert rates to have the common denominator:
 - $\text{Rate}(S1) = \frac{1}{24} = \frac{3}{72}$
 - $\text{Rate}(S2) = \frac{1}{36} = \frac{2}{72}$
- Add the rates: $\text{Rate}(S1) + \text{Rate}(S2) = \frac{3}{72} + \frac{2}{72} = \frac{5}{72}$

Now, plug this combined rate back into the equation from Step 2:

$$\frac{11}{34} = 2 \times \left(\frac{5}{72} + \text{Rate}(S3) \right)$$

Step 4: Solve for Son 3's Work Rate

Let's solve the equation for $\text{Rate}(S3)$.

Divide both sides by 2:

$$\frac{11}{34 \times 2} = \frac{5}{72} + \text{Rate}(S3)$$

$$\frac{11}{68} = \frac{5}{72} + \text{Rate}(S3)$$

Isolate $\text{Rate}(S3)$:

$$\text{Rate}(S3) = \frac{11}{68} - \frac{5}{72}$$

To subtract these fractions, we find the LCM of 68 and 72, which is 1224.

$$\text{Rate}(S3) = \frac{11 \times (1224 \div 68)}{1224} - \frac{5 \times (1224 \div 72)}{1224}$$

$$\text{Rate}(S3) = \frac{11 \times 18}{1224} - \frac{5 \times 17}{1224}$$

$$\text{Rate}(S3) = \frac{198}{1224} - \frac{85}{1224}$$

$$\text{Rate}(S3) = \frac{198 - 85}{1224} = \frac{113}{1224}$$

Thus, the work rate of the third son is $\frac{113}{1224}$ work per day.

Step 5: Calculate the Time Taken by Son 3

The time taken by the third son ($T3$) is the inverse of his work rate.

$$\text{Time}(S3) = \frac{1}{\text{Rate}(S3)} = \frac{1}{113/1224}$$

$$\text{Time}(S3) = \frac{1224}{113} \text{ days}$$

To find the approximate value:

$$\frac{1224}{113} \approx 10.83 \text{ days}$$

Final Answer Conclusion

The calculation shows that the third son takes approximately 10.83 days to complete the work. Among the given options, 11 days is the closest approximation to this value.

63. Answer: a

Explanation:

Understanding Aditya's Internship Earnings Calculation

The problem asks us to determine how many days Aditya was absent from his internship. We are given the total duration of the internship, the amount he earns for each day worked, the amount he is fined for each day absent, and his total net earnings after the internship period.

Internship Details Analysis

Let's break down the information provided:

- Total internship duration = 30 days.
- Daily earning rate = Rs. 68 per day worked.
- Daily penalty for absence = Rs. 10 per day absent.
- Aditya's final calculated earnings = Rs. 1650.

Setting Up Algebraic Equations

To find the number of absent days, we can use algebra. Let's assign variables:

- Let W represent the number of days Aditya **worked**.
- Let A represent the number of days Aditya was **absent**.

We can form two main equations based on the given details:

1. **Total Days Equation:** The sum of the days worked and the days absent equals the total duration of the internship.

$$W + A = 30$$

2. **Total Earnings Equation:** The total earnings are calculated by taking the earnings from the days worked and subtracting the fines from the days absent.

$$(\text{Earnings per day} \times W) - (\text{Fine per day} \times A) = \text{Total Earnings}$$

Substituting the given values:

$$68W - 10A = 1650$$

Solving for the Number of Absent Days

We now have a system of two linear equations with two variables:

1. $W + A = 30$
2. $68W - 10A = 1650$

We can solve this system. First, let's express W from the first equation:

$$W = 30 - A$$

Next, substitute this expression for W into the second equation:

$$68(30 - A) - 10A = 1650$$

Now, distribute the 68:

$$2040 - 68A - 10A = 1650$$

Combine the terms with A :

$$2040 - 78A = 1650$$

To solve for A , rearrange the equation to get the terms with A on one side and the constants on the other:

$$2040 - 1650 = 78A$$

Calculate the difference:

$$390 = 78A$$

Finally, divide by 78 to find the value of A :

$$A = \frac{390}{78}$$

$$A = 5$$

Verification of the Result

Let's check if this result is consistent with the problem statement.

- If Aditya was absent for $A = 5$ days, then he worked for $W = 30 - 5 = 25$ days.
- Calculate his total earnings: $(25 \text{ days} \times \text{Rs. } 68/\text{day}) - (5 \text{ days} \times \text{Rs. } 10/\text{day})$
- Earnings = $(25 \times 68) - (5 \times 10)$
- Earnings = $1700 - 50$
- Earnings = Rs. 1650

This matches the total earnings given in the question, confirming our calculation.

Final Answer on Absent Days

Aditya was absent for **5 days** during his internship.

64. Answer: c

Explanation:

Assume 100 kg purchased. **Total CP** = $100 \times 30 = 3000$.

After 20% wastage, 80 kg remains. **Required SP for 40% profit:**

$$\text{Total SP} = 3000 \times 1.40 = 4200$$

$$\text{Price per kg} = \frac{4200}{80} = \text{Rs. } 52.5$$

65. Answer: a

Explanation:

Loan Details and Compound Interest

This problem involves calculating the final payment needed to clear a loan taken from a bank. The loan has an initial principal amount, accrues **compound interest** annually, and requires specific **annual installments** to be paid over a period. We need to find the exact amount Vipul must pay in the fourth year to completely settle his loan.

Here are the key details:

- Initial Loan Principal (P): Rs. 10000
- Annual Interest Rate (R): 10% (or 0.10) compounded annually
- Annual Installment Amount (I): Rs. 1000
- Installment Frequency: Annually

Yearly Balance Calculation

We need to track the loan balance year by year, considering the compound interest added and the installment paid.

Year 1 Calculation

- The interest for the first year is calculated on the initial principal:

$$\text{Interest Year 1} = P \times R = \text{Rs. } 10000 \times 0.10 = \text{Rs. } 1000$$

- The total amount owed at the end of Year 1, before paying the installment, is the principal plus the interest:

$$\text{Amount Year 1} = P + \text{Interest Year 1} = \text{Rs. } 10000 + \text{Rs. } 1000 = \text{Rs. } 11000$$

Alternatively, using the compound interest formula $A = P(1 + R)$:

$$A_1 = \text{Rs. } 10000 \times (1 + 0.10) = \text{Rs. } 10000 \times 1.10 = \text{Rs. } 11000$$

- After paying the first installment of Rs. 1000, the remaining loan balance is:

$$\text{Balance Year 1} = \text{Amount Year 1} - I = \text{Rs. } 11000 - \text{Rs. } 1000 = \text{Rs. } 10000$$

Year 2 Calculation

- The interest for the second year is calculated on the balance from the previous year (Rs. 10000):

$$\text{Interest Year 2} = \text{Balance Year 1} \times R = \text{Rs. } 10000 \times 0.10 = \text{Rs. } 1000$$

- The total amount owed at the end of Year 2 (before installment) is:

$$\text{Amount Year 2} = \text{Balance Year 1} + \text{Interest Year 2} = \text{Rs. } 10000 + \text{Rs. } 1000 = \text{Rs. } 11000$$

Alternatively:

$$A_2 = \text{Rs. } 10000 \times (1.10) = \text{Rs. } 11000$$

- After paying the second installment of Rs. 1000, the remaining loan balance is:

$$\text{Balance Year 2} = \text{Amount Year 2} - I = \text{Rs. } 11000 - \text{Rs. } 1000 = \text{Rs. } 10000$$

Year 3 Calculation

- The interest for the third year is calculated on the balance from Year 2 (Rs. 10000):

$$\text{Interest Year 3} = \text{Balance Year 2} \times R = \text{Rs. } 10000 \times 0.10 = \text{Rs. } 1000$$

- The total amount owed at the end of Year 3 (before installment) is:

$$\text{Amount Year 3} = \text{Balance Year 2} + \text{Interest Year 3} = \text{Rs. } 10000 + \text{Rs. } 1000 = \text{Rs. } 11000$$

Alternatively:

$$A_3 = \text{Rs. } 10000 \times (1.10) = \text{Rs. } 11000$$

- After paying the third installment of Rs. 1000, the remaining loan balance is:

$$\text{Balance Year 3} = \text{Amount Year 3} - I = \text{Rs. 11000} - \text{Rs. 1000} = \text{Rs. 10000}$$

We can summarize this yearly calculation in a table:

Year	Starting Balance (Principal)	Interest (10%)	Amount Before Installment	Installment Paid	Ending Balance
1	Rs. 10000	Rs. 1000	Rs. 11000	Rs. 1000	Rs. 10000
2	Rs. 10000	Rs. 1000	Rs. 11000	Rs. 1000	Rs. 10000
3	Rs. 10000	Rs. 1000	Rs. 11000	Rs. 1000	Rs. 10000

Notice that because the installment amount (Rs. 1000) is exactly equal to the interest charged each year (Rs. 1000), the principal amount of the loan does not decrease over the first three years. The balance remains Rs. 10000 after each installment is paid.

Fourth Year Disbursement Amount

To disburse the loan in the fourth year, Vipul needs to pay the outstanding balance plus the interest accrued during the fourth year.

- The loan balance at the beginning of the fourth year (which is the ending balance of Year 3) is Rs. 10000.
- The interest for the fourth year is calculated on this balance:

$$\text{Interest Year 4} = \text{Balance Year 3} \times R = \text{Rs. 10000} \times 0.10 = \text{Rs. 1000}$$

- The total amount needed to pay off the loan completely at this point is the balance plus the final interest charge:

$$\text{Final Payment} = \text{Balance Year 3} + \text{Interest Year 4} = \text{Rs. 10000} + \text{Rs. 1000} = \text{Rs. 11000}$$

This is the amount Vipul needs to pay in the fourth year to disburse the loan.

Therefore, the amount Vipul needs to pay in the fourth year to disburse the loan is Rs. 11000.

66. Answer: d

Explanation:

66.67

To find the profit percentage, we first need to calculate the profit made on each item and then express this profit as a percentage of the cost price

67. Answer: b

Explanation:

Evaluating the Arithmetic Expression with Fractions

This problem requires us to calculate the value of a mathematical expression involving fractions. The expression contains multiplication, division, and subtraction operations. We need to perform these operations in the correct order to find the missing value represented by the question mark (?).

The expression is given by:

$$\left(\frac{3}{4} \times \frac{2}{9}\right) + \left(\frac{8}{5} \div \frac{12}{5}\right) - \left(\frac{2}{3} \times \frac{1}{4}\right) = ?$$

Step-by-Step Evaluation of Fraction Operations

We will evaluate each part of the expression separately:

Evaluating the First Fraction Multiplication: $\left(\frac{3}{4} \times \frac{2}{9}\right)$

- To multiply fractions, we multiply the numerators together and the denominators together.
- Numerator multiplication: $3 \times 2 = 6$
- Denominator multiplication: $4 \times 9 = 36$
- The result is $\frac{6}{36}$.
- Simplifying this fraction by dividing both the numerator and the denominator by their greatest common divisor, which is 6: $\frac{6 \div 6}{36 \div 6} = \frac{1}{6}$.

Evaluating the Fraction Division: $(\frac{8}{5} \div \frac{12}{5})$

- Dividing by a fraction is the same as multiplying by its reciprocal. The reciprocal of $\frac{12}{5}$ is $\frac{5}{12}$.
- So, the operation becomes: $\frac{8}{5} \times \frac{5}{12}$.
- Multiply the numerators: $8 \times 5 = 40$.
- Multiply the denominators: $5 \times 12 = 60$.
- The result is $\frac{40}{60}$.
- Simplifying this fraction by dividing both the numerator and the denominator by their greatest common divisor, which is 20: $\frac{40 \div 20}{60 \div 20} = \frac{2}{3}$.

Evaluating the Second Fraction Multiplication: $(\frac{2}{3} \times \frac{1}{4})$

- Multiply the numerators: $2 \times 1 = 2$.
- Multiply the denominators: $3 \times 4 = 12$.
- The result is $\frac{2}{12}$.
- Simplifying this fraction by dividing both the numerator and the denominator by their greatest common divisor, which is 2: $\frac{2 \div 2}{12 \div 2} = \frac{1}{6}$.

Combining the Evaluated Fraction Parts

Now, we substitute the simplified results back into the original expression:

$$\frac{1}{6} + \frac{2}{3} - \frac{1}{6}$$

We perform the addition and subtraction from left to right, or we can rearrange terms.

- First, let's combine the terms $\frac{1}{6}$ and $-\frac{1}{6}$: $\frac{1}{6} - \frac{1}{6} = 0$.

- Now, add the remaining term: $0 + \frac{2}{3}$.
- The final result is $\frac{2}{3}$.

Determining the Value for the Question Mark

The calculation shows that the expression evaluates to $\frac{2}{3}$. Therefore, the value that will come in place of the question mark (?) is $\frac{2}{3}$.

68. Answer: d

Explanation:

Calculating Initial Marble Count in the First Hall

The problem starts by describing the initial situation in the first hall. We need to calculate the total number of marbles present there before any children were moved.

- There are 396 children, each with 5 marbles. The total marbles these children have is calculated as:

$$396 \times 5 = 1980 \text{ marbles}$$

- There are also 225 children, each with 7 marbles. The total marbles these children have is:

$$225 \times 7 = 1575 \text{ marbles}$$

- Therefore, the total number of marbles initially in the first hall is the sum of marbles from both groups of children:

$$\text{Total initial marbles} = 1980 + 1575 = 3555 \text{ marbles}$$

Calculating Marbles Transferred to the Second Hall

Next, we identify the number of marbles that were moved from the first hall to the second hall.

- 198 children, each with 5 marbles, were moved. The total marbles they have is:

$$198 \times 5 = 990 \text{ marbles}$$

- 225 children, each with 7 marbles, were moved. The total marbles they have is:

$$225 \times 7 = 1575 \text{ marbles}$$

- The total number of marbles in the second hall is the sum of marbles from these transferred children:

$$\text{Total marbles in second hall} = 990 + 1575 = 2565 \text{ marbles}$$

Calculating Remaining Marbles in the First Hall

After the transfer, we need to determine how many marbles are left in the first hall.

- Number of children originally with 5 marbles = 396. Number moved = 198.
Number of children remaining = $396 - 198 = 198$.
- Marbles held by the remaining children with 5 marbles each = $198 \times 5 = 990$ marbles.
- Number of children originally with 7 marbles = 225. Number moved = 225.
Number of children remaining = $225 - 225 = 0$.
- Marbles held by the remaining children with 7 marbles each = $0 \times 7 = 0$ marbles.
- The total number of marbles remaining in the first hall is:

$$\text{Total remaining marbles} = 990 + 0 = 990 \text{ marbles}$$

Determining the Ratio of Marbles

The question asks for the ratio of the number of marbles in the second hall to the number of marbles remaining in the first hall.

- Ratio = (Total marbles in the second hall) : (Total marbles remaining in the first hall)
- Ratio = 2565 : 990

To simplify this ratio, we can divide both numbers by common factors.

- Both numbers are divisible by 5:

$$2565 \div 5 = 513$$

$$990 \div 5 = 198$$

The ratio is now 513 : 198.

- Both 513 (sum of digits = 9) and 198 (sum of digits = 18) are divisible by 9.

$$513 \div 9 = 57$$

$$198 \div 9 = 22$$

The simplified ratio is 57 : 22.

Summary of Marbles Distribution

Details	Marbles in Second Hall	Marbles Remaining in First Hall
Children with 5 marbles	$198 \times 5 = 990$	$(396 - 198) \times 5 = 198 \times 5 = 990$
Children with 7 marbles	$225 \times 7 = 1575$	$(225 - 225) \times 7 = 0 \times 7 = 0$
Total Marbles	$\$990 + 1575 = \mathbf{2565\$}$	$\$990 + 0 = \mathbf{990\$}$

The ratio of the number of marbles in the second hall to the number of marbles remaining in the first hall is **57 : 22**.

69. Answer: d

Explanation:

On observing the given figure carefully, we get:

In the question figure (X),

- One dot is in the common area of the only circle and triangle.

2. One dot is in the common area of the only hexagon and triangle.

Figure (A) → Common area of the only circle and triangle isn't present.

Figure (B) → All the required conditions are fulfilled as shown below:



Figure (C) → Common area of the only circle and triangle isn't present.

Figure (D) → Common area of the only circle and triangle isn't present.

Hence, the correct answer is **"Figure (B)"**.

★ Important Points

We should not think of the exact shape and size of the figures in these questions.

Just resemblance will work like if an Equilateral triangle is given in the question figure, any shape of the triangle in the answer figure will work, be it right triangle or scalene triangle.

70. Answer: d

Explanation:

Identifying Munshi Premchand's Books from Jumbled Words

This question asks us to identify which of the given jumbled words does not represent a book title written by the famous Indian author Munshi Premchand. We need to unscramble each word to find the actual book title and then check if it belongs to Munshi Premchand's literary works.

Analysis of Jumbled Word Options

Let's examine each option:

- **Option 1: ODAGN**

Unscrambling 'ODAGN' gives us 'GODAN'. **Godan** is one of Munshi Premchand's most celebrated novels, often considered his masterpiece. It was published in 1936 and deals with the life of peasants in rural India.

- **Option 2: BANGA**

Unscrambling 'BANGA' likely results in 'GABAN'. **Gaban** is another significant novel by Munshi Premchand, first published in 1931. It explores themes of middle-class aspirations and the consequences of debt.

- **Option 3: SANDAVESA**

Unscrambling 'SANDAVESA' gives us 'SEVASADAN'. **Sevasadan** (also known as The House of Service) is an important early novel by Munshi Premchand, published in 1919. It addresses social issues, particularly the plight of women and the devadasi system.

- **Option 4: ATHP AK ATHSI**

Unscrambling 'ATHP AK ATHSI' results in 'PATH KA SAATHI'. **Path Ka Saathi** is a collection of essays and poems. However, this work was written by Harivansh Rai Bachchan, a renowned poet, and not by Munshi Premchand.

Conclusion on Premchand's Works

Based on the analysis, 'Godan', 'Gaban', and 'Sevasadan' are indeed well-known books by Munshi Premchand. The jumbled word 'ATHP AK ATHSI', which unscrambles to 'Path Ka Saathi', does not correspond to any known work by Munshi Premchand. Therefore, 'ATHP AK ATHSI' is the correct answer because it is not the name of a book written by Munshi Premchand.

71. Answer: c

Explanation:

Analogy Explanation: Journey and Voyage

This question requires identifying the relationship between the first pair of words, "Journey : Voyage", and applying that same relationship to find the missing word related to "Praise". This is a common type of verbal reasoning question focused on understanding word relationships.

Understanding the Journey-Voyage Relationship

Let's examine the first pair: "Journey : Voyage".

- **Journey** refers to the act of travelling from one place to another, typically over a considerable distance or duration.
- **Voyage** specifically refers to a long journey involving travel by sea or in space. It often implies a significant undertaking or exploration.

The relationship here is that a 'Voyage' is a specific, often longer or more significant, type of 'Journey'. 'Voyage' specifies the mode (sea/space) or scale of the 'Journey'.

Applying the Relationship to Praise

Now, we need to find a word related to "Praise" that mirrors the relationship observed between "Journey" and "Voyage". "Praise" means expressing approval, admiration, or commendation.

We are looking for a word that is a specific instance or form of expressing praise.

Evaluating the Options

Let's look at the given options:

- **1. Conception:** This word means the formulation of an idea or the beginning of something. It doesn't relate to expressing praise.
- **2. Induce:** This means to persuade or influence someone to do something. It is not related to expressing praise.
- **3. Compliment:** This word means a polite expression of praise or admiration. It is a specific way to express praise, much like a 'Voyage' is a specific way to

undertake a 'Journey'.

- **4. Arrogance:** This refers to an exaggerated sense of one's own importance and an overbearing manner. It is unrelated to giving praise.

Identifying the Correct Analogy

Comparing the options with the relationship established ('Voyage' as a specific type of 'Journey'), we see that 'Compliment' is a specific expression of 'Praise'.

Therefore, the analogy holds as follows:

Journey is to Voyage

as

Praise is to Compliment

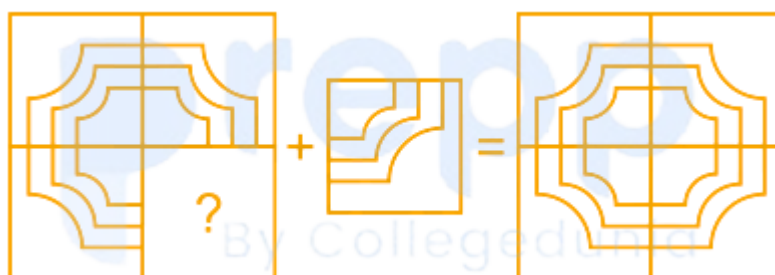
Conclusion

The word that best completes the analogy by sharing a similar relationship with "Praise" as "Voyage" does with "Journey" is "Compliment".

72. Answer: a

Explanation:

The figure which will complete the pattern of the question figure is given below:



Hence, the correct answer is "Option (1)".

73. Answer: a

Explanation:

The figure which will complete the pattern of the question figure is given below:

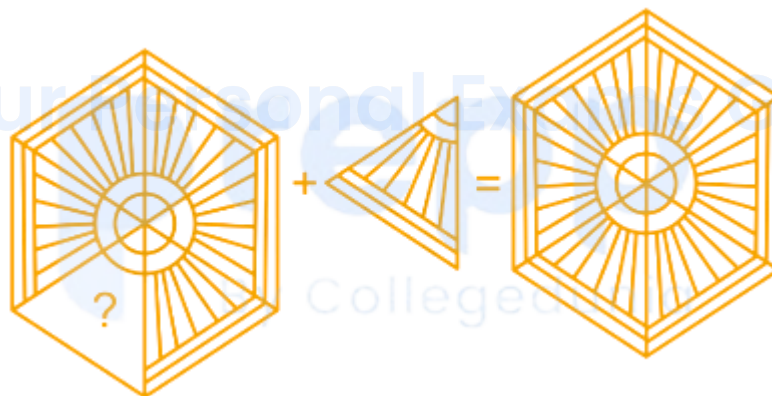


Hence, the correct answer is "Option (1)".

74. Answer: a

Explanation:

The figure which will complete the pattern of question figure is given below:



Hence, the correct answer is "Option (1)".

75. Answer: d

Explanation:

The logic followed here is:

Dog : Bark → As Dog are Barks .

Similarly,

Goat : Bleats → Goats are Bleats.

★ Additional Information

Animal	Sound
Bear	Growl
Chickens	Cluck
Cattle	Bawl
Goat	Bleat

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

76. Answer: b

Explanation:

On observing the given figure carefully, we get:

In the question figure (X),

1. One dot is in the common area of the circle only.
2. One dot is in the common area of the circle and the quadrilateral only.

Figure (A) → All the required conditions are fulfilled as shown below:



Figure (B) → Common area of the only circle is not present.

Figure (C) → Common area of the only circle and the quadrilateral is not present.

Figure (D) → Common area of the only circle is not present.

Hence, the correct answer is "Figure (A)".

★ Important Points

We should not think of the exact shape and size of the figures in these questions.

Just resemblance will work like if an Equilateral triangle is given in the question figure, any shape of the triangle in the answer figure will work, be it right triangle or scalene triangle.

77. Answer: d

Explanation:

On observing the given figure carefully, we get:

In the question figure (X),

1. One dot is in the common area of the only circle and triangle.
2. One dot is in the common area of the circle, triangle, and pentagon.

Figure (A) → All the required conditions are fulfilled as shown below:



Figure (B) → Common area of the circle, pentagon, and triangle isn't present.

Figure (C) → Common area of only circle and triangle and common area of all shapes is not present.

Figure (D) → Common area of only circle, triangle is not present.

Hence, the correct answer is "Figure (A)".

★ Important Points

We should not think of the exact shape and size of the figures in these questions.

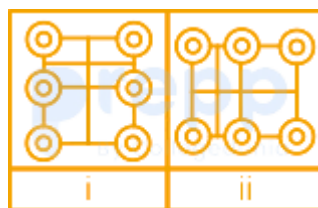
Just resemblance will work like if an Equilateral triangle is given in the question figure, any shape of the triangle in the answer figure will work, be it right triangle or scalene triangle.

78. Answer: d

Explanation:

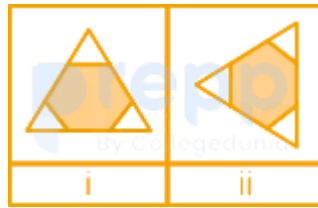
We have checked the each pair of figure:

Figure (1):



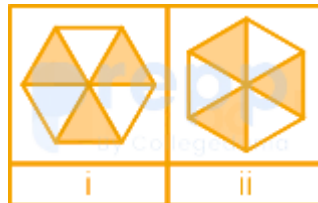
Here, figure (i) is rotated 90 degree anticlockwise to form figure (ii).

Figure (2):



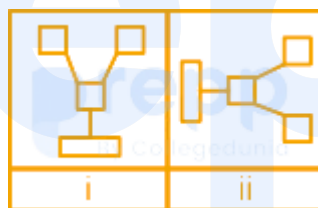
Here, figure (i) is rotated 90 degree anticlockwise to form figure (ii).

Figure (3):



Here, figure (i) is rotated 90 degree anticlockwise to form figure (ii).

Figure (4):



Here, when figure (i) is rotated 90 degree anticlockwise, it does not form figure (ii).

We have to rotated figure (i), 90 degree **Clockwise** to form figure (ii).

Hence, the correct answer is "Option (4)".

79. Answer: a

Explanation:

On observing the given figure carefully, we get:

In the question figure (X),

1. One dot is in the common area of the only circle and triangle.
2. One dot is in the common area of the circle, triangle, and hexagon.

Figure (A) → Common area of the circle, triangle, and hexagon isn't present.

Figure (B) → Common area of the circle, triangle, and hexagon isn't present.

Figure (C) and Figure (D) → All the required conditions are fulfilled as shown below:



and



Hence, the correct answer is "Figure (C) and (D)".

★ Important Points

We should not think of the exact shape and size of the figures in these questions.

Just resemblance will work like if an Equilateral triangle is given in the question figure, any shape of the triangle in the answer figure will work, be it right triangle or scalene triangle.

80. Answer: a

Explanation:

The diagram which best represents the relationship among the **Father, Uncle, Man** is given below:



1.all uncle and Father are men.

2. Some father could be uncle and some uncle could be father.

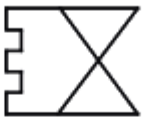
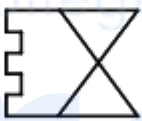
Hence, the correct answer is "Option (1)".

81. Answer: b

Explanation:

The embedded part of this image is:

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No.	Option	Question	Answer
1.			Not Embedded
2.			Embedded
3.			Not Embedded
4.			Not Embedded

Hence, the correct answer is "Option (2)".

82. Answer: a

Explanation:

Exploring the Bandy and Rugby Union Association

This question asks us to identify the relationship between two pairs of items: a sport and a country. We need to find a country that has a similar strong association with Rugby Union as Russia has with Bandy.

Analyzing the First Pair: Bandy and Russia

- **Bandy** is a winter sport played on ice, often compared to ice hockey but with different rules and equipment. It involves two teams trying to score by hitting a ball into the opposing team's goal using sticks.
- **Russia** has a deep historical and cultural connection with Bandy. The sport is widely played and followed in Russia, and it is often considered one of the country's traditional sports. The association between Bandy and Russia is very strong and significant.

Analyzing Rugby Union and the Options

We need to find a country from the options that has a comparable strong association with **Rugby Union**.

- **Rugby Union** is a popular team sport known for its physical nature and specific rules regarding handling the oval-shaped ball.

Let's look at the association of Rugby Union with each option:

- **New Zealand:** Rugby Union is incredibly popular in New Zealand and is widely regarded as the national sport. The success and fame of the national team, the All Blacks, highlight this strong cultural connection.
- **UK:** Rugby Union is popular in the United Kingdom, particularly in countries like England, Wales, and Scotland. However, the UK is a collection of nations, and while the sport has roots and popularity there, the association might be spread across multiple nations rather than a single, dominant pairing like Bandy-Russia.
- **Spain:** While Rugby Union is played in Spain, it is not as dominant or culturally significant compared to other sports like football (soccer).
- **Scotland:** Scotland is a part of the UK where Rugby Union is popular and has a significant following. However, similar to the UK option, the association might not be as singularly defining as New Zealand's.

Establishing the Analogy

The question implies finding a sport's primary or most iconic national association. Bandy is strongly linked to Russia. We need to find which country has the most prominent and culturally

significant association with Rugby Union among the choices.

Comparing the strength of association:

- Russia's connection to Bandy is profound.
- New Zealand's connection to Rugby Union is also profound, arguably making it the country most identified with the sport globally, similar to Russia's identity with Bandy.
- While Scotland and the UK have connections to Rugby Union, they are generally considered less defining or singular compared to New Zealand's relationship with the sport. Spain's connection is weaker still.

Conclusion on the Correct Association

Based on the analysis, the strongest parallel to the Bandy-Russia relationship is found with Rugby Union and New Zealand. Both represent a sport deeply embedded in the national culture and identity of the respective country.

83. Answer: a

Explanation:

Understanding the Relationship: Lethargy vs. Alertness

The question presents a relationship between two words: 'Lethargy' and 'Alertness'. Let's analyze this relationship.

- **Lethargy** refers to a state of weariness, lack of energy, or sluggishness.
- **Alertness** refers to a state of being watchful, responsive, and fully aware.

Clearly, 'Lethargy' and 'Alertness' are opposites, meaning they are antonyms. Lethargy is the lack of alertness.

Finding the Related Word for Lazy

The question asks us to find a word related to 'Lazy' in the same way 'Alertness' is related to 'Lethargy'. This means we need to find the antonym of 'Lazy'.

Lazy describes someone who is unwilling to work or exert effort; idle.

Analyzing the Options

Let's examine each option to find the word that means the opposite of 'Lazy':

- **1. Industrious:** This word means diligent, hardworking, and always busy. This is the direct opposite of being lazy.
- **2. Coward:** This word describes someone who lacks courage. It is not related to laziness.
- **3. Ignorance:** This means a lack of knowledge or information. It is unrelated to being lazy.
- **4. Unclean:** This means not clean or pure. It has no connection to the concept of laziness.

Conclusion

Based on the analysis, 'Industrious' is the antonym of 'Lazy', just as 'Alertness' is the antonym of 'Lethargy'. Therefore, 'Industrious' is the correct word to complete the analogy.

Correct Answer: 1. Industrious

84. Answer: d

Explanation:

Understanding the Letter Shift Pattern

The question describes a specific **code language** where letters are systematically replaced. We are given examples to understand the rule:

- The letter **A** is coded as **C**.
- The letter **B** is coded as **D**.
- The letter **C** is coded as **E**.

Let's analyze the relationship between the original letters and their coded counterparts. We can look at their positions in the English alphabet:

- A is the 1st letter, and C is the 3rd letter. The difference is $3 - 1 = 2$.
- B is the 2nd letter, and D is the 4th letter. The difference is $4 - 2 = 2$.
- C is the 3rd letter, and E is the 5th letter. The difference is $5 - 3 = 2$.

The consistent difference of 2 indicates that the coding rule involves shifting each letter forward by 2 positions in the alphabet. This is a common type of substitution cipher, often called a Caesar cipher with a shift of +2.

Encoding the Word "PALACE"

To find the code for the word "PALACE", we need to apply the identified +2 shift rule to each letter of the word sequentially.

We will determine the coded letter for each letter in "PALACE":

- **P**: P is the 16th letter of the alphabet. Applying the shift means finding the letter 2 positions after P. We calculate the new position as $16 + 2 = 18$. The 18th letter of the alphabet is **R**.
- **A**: A is the 1st letter. Applying the shift: $1 + 2 = 3$. The 3rd letter is **C**.
- **L**: L is the 12th letter. Applying the shift: $12 + 2 = 14$. The 14th letter is **N**.
- **A**: A is the 1st letter. Applying the shift: $1 + 2 = 3$. The 3rd letter is **C**.
- **C**: C is the 3rd letter. Applying the shift: $3 + 2 = 5$. The 5th letter is **E**.
- **E**: E is the 5th letter. Applying the shift: $5 + 2 = 7$. The 7th letter is **G**.

Final Coded Word Formation

After applying the +2 shift to each letter in "PALACE", we get the corresponding coded letters: R, C, N, C, E, G.

Combining these letters in order, the encoded word for "PALACE" is **RCNCEG**.

85. Answer: c

Explanation:

Identifying the Different Word in Timekeeping Concepts

This question requires us to identify the word that does not belong with the others based on a common characteristic. We need to analyze the function and nature of each given word related to time.

Analyzing the Options for Time Measurement

Let's examine each option to understand its relationship with time:

- **Hour Glass:** An **Hour Glass** is a device used for measuring the passage of time. It typically consists of two connected glass bulbs containing sand that slowly flows from the upper bulb to the lower one. It is a classic *timekeeping device*.
- **Sundial:** A Sundial is another instrument designed to measure time. It works by the position of the sun's shadow falling on a marked surface. Like the Hour Glass, it functions as a *timekeeping device*.
- **Schedule:** A **Schedule** is a plan or list that outlines planned events or activities in a chronological order. It is a tool for organizing time and activities but is not a device for directly measuring the passage of time itself.
- **Cuckoo Clock:** A Cuckoo Clock is a type of pendulum clock, often housed in a decorative casing, that marks time with the sound of a Cuckoo bird. This is clearly a *timekeeping device*.

Determining the Outlier

By comparing the options, we can see a clear distinction:

- The **Hour Glass**, **Sundial**, and **Cuckoo Clock** are all physical instruments specifically designed to measure or indicate time.
- A **Schedule**, while related to time, serves a different purpose. It's an organizational plan or timetable rather than a measuring tool.

Conclusion on the Different Word

Therefore, the word that is different from the rest is **Schedule** because it represents a plan related to time, unlike the other options which are actual devices for measuring time.

86. Answer: b

Explanation:

Odd Word Identification: Analyzing Inference, Indication, Conclusion, and Thesis

This question requires us to identify the word that does not belong with the others from the given list: Inference, Indication, Conclusion, and Thesis. We need to find the common theme connecting most of the words and then identify the outlier.

Defining the Terms: Understanding Each Word

Let's look at the meaning of each word to understand their individual roles:

- **Inference:** This is a process of reasoning where you arrive at a conclusion based on evidence and facts. It's like figuring something out using the clues you have. For example, seeing wet streets might lead you to infer that it rained.
- **Indication:** This refers to a sign, signal, or suggestion that points towards something or hints at a future possibility or condition. It's often a clue that something might be happening or might happen. For instance, a fever is an indication of illness.
- **Conclusion:** This is the final judgment, decision, or summary reached after considering all the information or arguments. It's the outcome of a thinking process. For example, after reviewing the evidence, the conclusion was that the suspect was innocent.
- **Thesis:** This is a statement or main idea put forward as a premise to be supported or proved, typically in an academic essay or research paper. It's the

central argument or proposition you aim to demonstrate. For example, the author's thesis was that social media negatively impacts mental health.

Connecting Inference, Conclusion, and Thesis

When we examine 'Inference', 'Conclusion', and 'Thesis', we can see a common link. All three words are closely related to the process and outcome of logical reasoning, argumentation, and structured thought:

- **Inference** is the act of deriving a conclusion.
- **Conclusion** is the final result of reasoning.
- **Thesis** is the core statement that forms the basis of a reasoned argument or proof.

These terms are often used in contexts involving logical deduction, establishing arguments, and drawing final judgments based on evidence or premises.

Spotting the Dissimilar Word: Why 'Indication' is Different

The word 'Indication' stands apart from the others. While an indication can serve as a clue that might later lead to an inference or conclusion, it is not, in itself, the result of a reasoning process or a formal argumentative statement.

- 'Indication' is about a sign or a hint.
- 'Inference', 'Conclusion', and 'Thesis' are about the process or result of reasoning and argument.

Therefore, 'Indication' is the odd word out because it represents a clue or symptom, whereas the other words represent outcomes or components of logical reasoning and argumentation.

87. Answer: d

Explanation:

Jumbled Word Identification: Finding the Non-Continent

The objective is to examine the provided jumbled words, unscramble them, and identify which one does not correspond to a continent. We will analyze each option to determine the correct answer.

Analyzing Jumbled Words to Identify Continents

Let's unscramble each of the given options:

- **UORPEE**: This jumbled word can be rearranged to form **EUROPE**. Europe is recognized as a continent.
- **ISAA**: Unscrambling this word gives us **ASIA**. Asia is the largest continent by land area and population.
- **IFRCAA**: Rearranging the letters forms the word **AFRICA**. Africa is the world's second-largest continent.
- **RITACC**: This jumbled word unscrambles to **ARCTIC**.

Understanding Continents vs. Regions

A continent is generally defined as a very large landmass. The commonly accepted list of continents includes:

- Asia
- Africa
- North America
- South America
- Antarctica
- Europe
- Australia

The **ARCTIC**, formed from the jumbled word 'RITACC', refers to the region around the North Pole. This includes the Arctic Ocean, as well as parts of Alaska (USA), Canada, Greenland (Denmark), Norway, Sweden, Finland, and Russia. While it is a significant geographical region, it is not classified as a continent in the same way as the others listed.

Conclusion: Identifying the Non-Continent Word

Based on the analysis:

- EUROPE is a continent.
- ASIA is a continent.
- AFRICA is a continent.
- ARCTIC is a geographical region, not typically considered a continent.

Therefore, the jumbled word 'RITACC' is the one that does not represent the name of a continent.

88. Answer: d

Explanation:

Understanding the Newspaper and Country Analogy

This question requires identifying a specific relationship between a newspaper and a country and applying it to find the missing country for another newspaper. The core task is to solve an analogy problem.

Analyzing the First Pair: Dawn and Pakistan

The first part of the analogy is 'Dawn : Pakistan'.

- **Newspaper:** Dawn is a major English-language newspaper.
- **Country:** Pakistan is a country in South Asia.

The connection is that **Dawn** is a prominent newspaper published in **Pakistan**.

Applying the Analogy to the Second Pair: The Guardian

The second part of the analogy is 'The Guardian : ?'. We need to find the country where **The Guardian** newspaper is published, following the same pattern identified

above.

- **Newspaper:** The Guardian is a well-known British daily newspaper.
- **Country:** ?

Identifying the Country of Publication for The Guardian

The newspaper **The Guardian** is published in the **United Kingdom (UK)**. It is one of the most respected and widely read newspapers originating from the UK.

Evaluating the Given Options

We need to find the option that matches the country of publication for The Guardian.

Option Number	Country Name	Is this the country for The Guardian?
1	USA	No
2	France	No
3	Germany	No
4	UK	Yes

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The analysis shows that the **UK** is the correct country associated with **The Guardian** newspaper.

Final Answer Determination

By establishing the relationship (Newspaper : Country of Publication) from 'Dawn : Pakistan' and applying it to 'The Guardian', we find that The Guardian is published in the **UK**. Thus, the UK correctly replaces the question mark.

89. Answer: c

Explanation:

- Here, the father of A can be an uncle to B.
- Similarly, A's uncle could be the father of B.
- All fathers and uncles are men.
- Applying this logic, we get the following Venn diagram:



Hence, the figure given in **option 3** is the correct one.

90. Answer: a

Explanation:

This question tests our ability to understand and apply a specific encoding rule within a given **code language**. The task is to first decipher the logic used to transform the word 'EXPECTED' into 'DPCEXETE' and then use that same logic to encode the word 'PRACTICE'.

Identifying the EXPECTED Word Transformation Pattern

Let's carefully examine the relationship between the original word and its coded form.

- Original Word: EXPECTED
- Coded Word: DPCEXETE

To find the pattern, we can number the positions of the letters in the original word:

E(1) X(2) P(3) E(4) C(5) T(6) E(7) D(8)

Now, let's see where these letters end up in the coded word 'DPCEXETE':

- The 1st letter 'E' moves to the 8th position.
- The 2nd letter 'X' moves to the 5th position.
- The 3rd letter 'P' moves to the 2nd position.
- The 4th letter 'E' stays in the 4th position.
- The 5th letter 'C' moves to the 3rd position.
- The 6th letter 'T' moves to the 7th position.
- The 7th letter 'E' moves to the 6th position.
- The 8th letter 'D' moves to the 1st position.

So, the sequence of original positions (1 2 3 4 5 6 7 8) transforms into the sequence of new positions (8 3 5 4 2 7 6 1) in the coded word.

Encoding PRACTICE Using the Identified Pattern

We will now apply the established positional rearrangement pattern (8 3 5 4 2 7 6 1) to the word 'PRACTICE'.

First, let's list the letters of 'PRACTICE' with their original positions:

- P = 1st position
- R = 2nd position
- A = 3rd position
- C = 4th position
- T = 5th position
- I = 6th position
- C = 7th position
- E = 8th position

Now, we construct the new word based on the pattern (8 3 5 4 2 7 6 1):

- New 1st position: Letter from original 8th position = E
- New 2nd position: Letter from original 3rd position = A
- New 3rd position: Letter from original 5th position = T
- New 4th position: Letter from original 4th position = C
- New 5th position: Letter from original 2nd position = R
- New 6th position: Letter from original 7th position = C
- New 7th position: Letter from original 6th position = I

- New 8th position: Letter from original 1st position = P

Putting these letters together in the new order, we get the coded word: EATCRCIP.

Conclusion and Option Matching

The calculated coded word for 'PRACTICE' is EATCRCIP. Comparing this result with the provided options:

- Option 1: EATCRCIP
- Option 2: EATCCRIP
- Option 3: ATCPCEIR
- Option 4: ATECRCP

The result EATCRCIP matches exactly with Option 1.

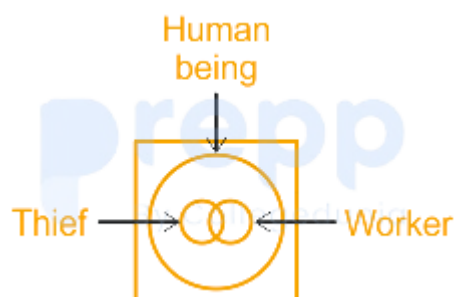
91. Answer: d

Explanation:

Some workers can be thief and some thieves may be workers in some office/factories.

For example: a worker (employee) can indulge in a theft in his company. Then he would be a thief.

Both workers and thieves are human beings.



Hence, the figure given in option 4 is the correct one.

92. Answer: b

Explanation:

Identifying the Odd Word: Camera, Refrigerator, Microscope, Telescope

The task is to select the word that is different from the others in the provided list. This involves finding a common characteristic or function among most of the words and identifying the outlier.

Analysis of the Given Alternatives

- **Camera:** This is a device primarily used for capturing images or recording visual information. It typically uses lenses to focus light onto a sensor or film.
- **Refrigerator:** This is a common household appliance used for cooling and preserving food. It works using a refrigeration cycle.
- **Microscope:** This is an optical instrument designed to view objects that are too small to be seen with the naked eye. It uses lenses to magnify the object significantly.
- **Telescope:** This is an optical instrument used for observing distant objects, such as stars, planets, and galaxies. It uses lenses or mirrors to gather and focus light.

Commonality: Optical Instruments

When we examine the options, we can see that the **camera**, **microscope**, and **telescope** all fall into the category of **optical instruments**. Their main function involves the manipulation of light, typically using lenses or mirrors, to capture or view the world – either close-up (microscope), far away (telescope), or to record moments (camera).

The Differentiating Item: Refrigerator

The **refrigerator** stands apart from the others. Its core function is not related to optics or viewing. Instead, it is a **domestic appliance** designed for cooling purposes, utilizing a refrigeration system based on principles of thermodynamics and heat transfer.

Conclusion: The Odd Word

Therefore, the **refrigerator** is the odd word out because, unlike the camera, microscope, and telescope, it is not an optical instrument. Its purpose is cooling and food preservation, not the capture or observation of light and images.

93. Answer: c

Explanation:

The embedded part of this image is:

prepp

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No.	Option	Question	Answer
1.			Not Embedded
2.			Not Embedded
3.			Embedded
4.			Not Embedded

Hence, the correct answer is "Option (3)".

94. Answer: c

Explanation:

Selecting the Odd Word

This question requires us to find the word that is different in meaning from the other given options. We need to carefully examine the meaning of each alternative word.

Analyzing the Word Meanings

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

- **Observant:** This means being good at noticing or watching things; paying close attention.
- **Vigilant:** This means keeping a careful watch for any trouble or danger; being alert.
- **Ignorant:** This means lacking knowledge, information, or awareness about something; not knowing.
- **Watchful:** This means watching someone or something very closely; being alert and attentive.

Identifying the Outlier Word

When we compare the meanings, we can see a common theme among most of the words:

- 'Observant', 'Vigilant', and 'Watchful' all describe a state of being aware, alert, and paying close attention to one's surroundings or a particular situation.

On the other hand, 'Ignorant' describes a state of **lacking** awareness or knowledge. It is the opposite of being observant or watchful.

Conclusion

Based on the analysis of their meanings, the word **Ignorant** does not fit with the group comprising 'Observant', 'Vigilant', and 'Watchful'. The first three words relate to alertness and awareness, while 'Ignorant' relates to a lack of these qualities.

Therefore, the odd word out is **Ignorant**.

95. Answer: d

Explanation:

The figure which will complete the pattern in the question figure is given below:

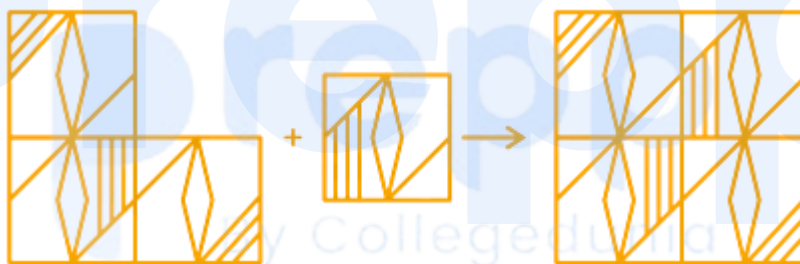


Hence, the correct answer is "Option (4)".

96. Answer: c

Explanation:

The figure which will complete the pattern in the question figure is given below:



Hence, the correct answer is "Option (3)".

97. Answer: a

Explanation:

On observing the given figures carefully, we get:

In the question figure,

1. One dot is in the common region of the only star and square.
2. One dot is in the common region of the star, square, and triangle.

Figure (A) → Common region of the only star and square isn't present.

Figure (B) → Common region of the star, square, and triangle isn't present.

Figure (C) → Common region of the star, square, and triangle isn't present.

Figure (D) → All the required conditions are fulfilled as shown below:



Hence, the correct answer is "**Figure (D)**".

★ Important Points

We should not think of the exact shape and size of the figures in these questions.

Just resemblance will work like if an Equilateral triangle is given in the question figure, any shape of a triangle in the answer figure will work, be it right triangle or scalene triangle.

98. Answer: b

Explanation:

The diagram that best represents the relationship among the Singer, Musician, Woman is given below:



Hence, the correct answer is "**option (2)**".

99. Answer: b

Explanation:

- Understanding the task: The goal is to find a word that relates to 'Acquiesce' in the same way that 'Cordial' relates to 'Genial'. This is a word analogy problem.
- Key terms: Genial, Cordial, Acquiesce, Related word, Alternatives.

Analogy Basics Explained

Word analogies test your ability to recognize the relationship between two words and apply that same relationship to find a missing word. We need to figure out how 'Genial' and 'Cordial' are connected.

Analyzing the First Word Pair: Genial : Cordial

Let's look at the meanings of the first pair:

- **Genial**: This word means friendly, cheerful, and welcoming. It describes someone pleasant and kind.
- **Cordial**: This word also means warm, friendly, and polite. It suggests friendliness and sincerity.

Relationship Identified: The relationship between 'Genial' and 'Cordial' is one of similarity or synonymy. Both words describe a warm, friendly disposition.

Analyzing the Second Word Pair: Acquiesce : ?

Now, we apply the same relationship (similarity) to the second word:

- **Acquiesce**: This word means to accept something reluctantly but without protest, or to agree to something without arguing.

We need to find an option that is similar in meaning to 'Acquiesce'. Let's examine the given choices:

- **Option 1: Mysterious** – This means having an unknown quality or being difficult to understand. This is not related to accepting something without protest.
- **Option 2: Accept** – This means to agree to receive or do something, or to agree to a proposal or suggestion. While 'Acquiesce' often implies reluctance, 'Accept' captures the core idea of agreeing or not protesting, making it the closest synonym among the options.
- **Option 3: Forbid** – This means to refuse to allow something. This is the opposite (antonym) of accepting or agreeing.
- **Option 4: Popular** – This means liked or admired by many people. This meaning is unrelated to the concept of acquiescing.

Conclusion: Finding the Related Word

Since 'Cordial' is similar in meaning to 'Genial', we look for a word similar in meaning to 'Acquiesce'. Based on the definitions:

- 'Acquiesce' means to accept without protest.
- 'Accept' means to agree or consent.

The word 'Accept' shares the core meaning of agreement and consent with 'Acquiesce', making it the most suitable choice to complete the analogy.

Therefore, the relationship is established as: *Genial* is similar to *Cordial*, and *Acquiesce* is similar to *Accept*.

100. Answer: c

Explanation:

Identifying the Odd Animal Word

The question asks us to identify the animal that does not belong with the others in the given list. We need to look for a common characteristic shared by most of the animals but not by one specific animal.

Analyzing the Animal Options

Let's examine each option provided:

- **Lizard:** Lizards are reptiles. They are cold-blooded (ectothermic), typically live on land, and breathe air using lungs.
- **Snake:** Snakes are also reptiles. Like lizards, they are cold-blooded and breathe air. Most snakes live on land, though some are aquatic.
- **Whale:** Whales are marine mammals. Unlike reptiles, they are warm-blooded (endothermic), breathe air using lungs (even though they live in water), give birth to live young, and nurse their offspring.
- **Crocodile:** Crocodiles are large reptiles. They are cold-blooded, live in tropical regions (often near water), and breathe air.

Determining the Odd Word Out

By comparing the characteristics of the animals, we can see a clear distinction:

- Lizards, Snakes, and Crocodiles all belong to the class Reptilia (reptiles).
- Whales belong to the class Mammalia (mammals).

The primary difference is the biological classification. Lizards, snakes, and crocodiles are reptiles, sharing traits like being cold-blooded. Whales, however, are mammals and are warm-blooded, which is a fundamental difference from the other three.

Conclusion

Therefore, the odd word out is **Whale** because it is a mammal, while the others (Lizard, Snake, Crocodile) are reptiles.