

Answers

1. Answer: d

Explanation:

Understanding Polar Bear Birth Timing

This question asks about the specific time of year when female polar bears give birth, based on the provided passage about polar bear mothers and their cubs.

Analyzing the Passage Details

The passage provides crucial information linking the age of the cubs to the season they emerge. Let's break down the key details:

- "In spring, polar bear mothers emerge from dens with three months old cubs." This statement is central to determining the birth season.
- If the cubs are already **three months old** when the mother emerges in the **spring**, it means they were born three months earlier.
- Counting back three months from the beginning of spring lands us in the winter months (late December, January, February).
- The passage also mentions the mother bear fasting for up to eight months. This fasting period includes gestation and nursing the cubs in the den, which primarily occurs during the winter months before emergence in spring.

Determining the Birth Season

Based on the timing mentioned in the passage:

- Cub age at emergence: 3 months
- Emergence season: Spring
- Therefore, the birth season must precede spring by three months.
- Calculating backwards: Spring - 3 months = Winter.

The information about the mother's extended fasting period further supports this, as polar bears typically den and give birth during the cold winter months, continuing their fast until they emerge with their cubs in the spring.

Conclusion on Birth Timing

The passage strongly suggests that female polar bears give birth during the **winter** season, allowing the cubs to develop for three months in the den before emerging in the spring.

2. Answer: b

Explanation:

Polar Bear Mother Feeding Behavior Explained

This solution delves into the feeding dynamics between a mother polar bear and her cubs, as described in the provided passage. We will analyze the mother's actions concerning her cubs' competition for food resources.

Understanding Mother Bear's Role in Cub Feeding

The passage highlights a critical period for polar bear cubs emerging in spring. Their mothers, having fasted for up to eight months, are recovering and providing milk. However, the cubs, even at three months old, demand significant nourishment from the mother's dwindling reserves. The passage focuses on how the mother bear manages (or rather, doesn't manage) the distribution of food among her cubs, especially when there are multiple cubs like triplets.

Analyzing Cub Competition and Mother's Response

Key observations from the text include:

- **Cub Demands:** Young cubs persistently demand milk from the mother's reserves.

- **Rivalry Among Triplets:** If a mother has triplets, the most persistent cub secures extra meals, disadvantaging the others.
- **The Weakest Cub's Struggle:** The smallest or weakest cub often misses meals because stronger siblings dominate the access to the mother.
- **Mother's Indifference:** Crucially, the passage states, "Females are protective of their cubs but tend to ignore family rivalry over food." This indicates a lack of direct intervention by the mother to ensure equal feeding.
- **Survival Rates:** The observation that the smallest of triplets rarely survives until autumn reinforces the idea that the mother does not actively equalize the food distribution, allowing natural selection dynamics to play out among the cubs.

Evaluating the Options Based on the Passage

Let's examine the given options in light of the passage:

- **Option 1: Takes sides over cubs** – This is incorrect. The passage explicitly states the mother tends to *ignore* rivalry, not take sides.
- **Option 2: Lets the cubs fend for themselves** – This aligns well with the passage. The mother's inaction in the face of sibling rivalry and the resulting unequal feeding suggests she allows the cubs to compete and largely fend for themselves in securing nourishment from her.
- **Option 3: Feeds only their favourites** – The passage emphasizes persistence ("most persistent stands to gain") rather than favouritism. The mother doesn't seem to choose favourites.
- **Option 4: Sees that all cubs get an equal share** – This is directly contradicted by the text, which describes unequal sharing due to sibling competition and the struggles of the smallest cub.

Conclusion on Mother Bear's Feeding Strategy

The passage strongly suggests that the mother polar bear, while protective, adopts a hands-off approach regarding the intense competition for food among her cubs. She does not intervene to ensure equal shares or favour specific cubs, effectively letting them compete amongst themselves for the limited milk reserves.

3. Answer: d

Explanation:

Analyzing Polar Bear Assumptions from Passage

This solution provides a detailed analysis of the assumptions made based on the provided passage about polar bear mothers and their cubs. We will examine each assumption individually to determine its validity according to the text.

Passage Summary: Key Insights on Polar Bears

The passage describes the challenging life of **polar bear** mothers and their young cubs emerging in spring. Key points include:

- Mothers emerge from dens after fasting for up to eight months.
- Newborn cubs are dependent and demand nourishment from the mother's reserves.
- Competition exists among cubs, especially triplets, for food.
- The smallest or weakest cubs often struggle to survive due to competition with stronger siblings.
- The author notes a low survival rate for the smallest of triplets until autumn.
- Mothers protect cubs but do not intervene in sibling food rivalry.

Assumption I: Polar Bear Fasting Duration and Cause

Assumption I states: Polar bears fast as long as eight months due to the nonavailability of prey.

- **Passage Evidence:** The text mentions, "The mother bear has fasted for as long as eight months..."
- **Analysis:** While the passage confirms the duration of the fast (up to eight months), it does not explicitly state the **reason** for this fasting. The passage links the fasting period to the mother's condition when she emerges with cubs after being in a den. Although non-availability of prey is a likely ecological reason for such fasting, the passage itself does not provide this specific

explanation. Therefore, the assumption includes information (the cause of fasting) not directly stated in the text.

Assumption II: Polar Bear Litter Size Frequency

Assumption II states: Polar bears always give birth to triplets.

- **Passage Evidence:** The text refers to scenarios involving "triplets" ("If there are triplets...", "...smallest of triplets survive...").
- **Analysis:** The passage mentions triplets as a specific situation regarding sibling rivalry and survival. However, it uses conditional language ("If there are triplets") and does not state that this is the **only** or **always** the case. It implies the existence of siblings and competition, but gives no information about the typical or mandatory litter size. The use of the word "always" makes this assumption demonstrably false based on the limited information provided. The passage does not support the claim that polar bears exclusively or invariably have triplets.

Conclusion on Assumptions

Based solely on the provided passage:

- Assumption I is not explicitly confirmed because the passage doesn't state the reason for the eight-month fast.
- Assumption II is not confirmed and is contradicted by the passage's focus on a specific scenario (triplets) without claiming it's universal.

Final Answer Determination

Since neither Assumption I nor Assumption II is explicitly stated or directly supported by the information given in the passage, the correct conclusion is that neither assumption is true based on the text.

Therefore, the correct option is the one stating that neither I nor II is true.

4. Answer: a

Explanation:

Choosing the Correct Word for Blank (6) in 'Travel Programs' Context

The question asks us to fill in the blank marked (6) in the sentence: "One of the advantages of travel programmes is the ___(5)___ of faraway places which many viewers would not ___(6)___ see." We need to find the most suitable word from the given options to complete the meaning accurately.

Context Analysis: Viewing Distant Places

The sentence discusses the benefits of television travel programs. Specifically, it highlights that these programs allow viewers to see places they might not otherwise have the chance to experience. The blank (6) needs a word that fits this idea of potential inability or lack of opportunity to see these locations in real life.

Evaluating the Options for Blank (6)

Let's examine how each option fits into the sentence structure and meaning:

- **possibly:** Inserting "possibly" creates the phrase "...would not **possibly** see." This implies that seeing these faraway places might be impossible or highly unlikely for the viewers under normal circumstances. This fits the context perfectly, as television provides a way to see these places when physical travel might not be feasible.
- **rather:** The phrase "...would not **rather** see" doesn't make logical or grammatical sense in this context. "Rather" is usually used for preference or comparison.
- **else:** Using "else" would result in "...would not **else** see." This is grammatically incorrect and doesn't convey a clear meaning related to the opportunity to see places.
- **then:** The phrase "...would not **then** see" suggests a consequence or a specific time, which doesn't align with the general advantage described. There's no condition set up that "then" would logically follow.

Conclusion: The Best Fit

Based on the analysis, the word "possibly" is the most appropriate choice for blank (6). It accurately reflects the idea that viewers might not have the opportunity or means to see these faraway places otherwise. The completed sentence reads: "One of the advantages of travel programmes is the ___(5)___ of faraway places which many viewers would not **possibly** see."

5. Answer: a

Explanation:

Choosing the Best Word for Viewing Faraway Places

This question asks us to fill in the blank marked as (5) in the provided sentence. The sentence discusses the benefits of travel programmes, focusing on how they allow viewers to experience faraway places. The specific sentence is: "One of the advantages of travel programmes is the ___(5)___ of faraway places which many viewers would not ___(6)___ see." We need to find the most suitable word for blank (5) from the given options.

Analyzing the Context for Blank (5)

The sentence highlights an **advantage** provided by **travel programmes**. This advantage relates to offering viewers a way to see or experience **faraway places** that they might not be able to visit in person. We need a word that describes this offering.

Evaluating the Options for Blank (5)

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

- **glimpses**: This word means a brief or partial view. Travel programmes often provide viewers with short but informative views of different locations. This fits the idea of experiencing faraway places that viewers might not otherwise see.
- **image**: This refers to a visual representation, like a photo or drawing. While travel programmes do show images, the word "glimpses" better captures the

experience of seeing these places, especially when contrasting it with the viewer's inability to visit.

- **portrait:** A portrait is typically a depiction of a person. This word is not suitable for describing places.
- **picture:** Similar to "image", this means a visual representation. While accurate, "glimpses" suggests a more dynamic and varied experience, reflecting the nature of travel shows offering views of multiple aspects of a place, fitting the context better than a single, static picture.

Determining the Most Appropriate Word

Considering the context that travel programmes offer viewers a way to experience **faraway places** they might not visit themselves, the word "glimpses" best describes the brief, yet valuable, views provided. It implies getting a taste or a partial look at these destinations, which is a key **advantage** of such programmes.

6. Answer: c

Explanation:

The correct answer is option 3 i.e. comfort.

★ Explanation

- The passage generally seems to speak of entertainment broadcasting.
- A phrase that is generally used to describe being at home is '**in / at / from comfort of one's home.**'
- This also translates to being comfortable at home or from the convenience of one's home.
- In sentence (4), it relates to the fact that films and shows could be **conveniently be viewed** from one's home, rather than having to go out and watch them.
- Additionally, the sentence provides the preceding phrase '**in the**' which is generally used with the word 'comfort' in this context.

Therefore, the sentence would read: " *Films could be viewed in the comfort (4) of the home and a variety of shows are also available.* "

7. Answer: d

Explanation:

Analyzing the Context for Blank (3)

The question asks us to find the most appropriate word to fill in the blank marked as (3) in the sentence: "A news broadcast becomes more immediate when people ___(2)___ actually see the scene ___(3)___ question and the movement of the figures." We need to focus on the phrase "scene ___(3)___ question".

Understanding the Idiom "In Question"

The phrase "in question" is a common English idiom. It refers to the specific thing or subject that is being discussed or considered at that moment.

For example, if someone says "Let's discuss the issue **in question**," they mean "Let's discuss the specific issue we are currently talking about."

Evaluating Options for Blank (3)

Let's look at how the options fit into the sentence "see the scene ___(3)___ question":

- **Option 1: of** – "scene **of** question" does not form a meaningful or grammatically correct phrase in this context.
- **Option 2: with** – "scene **with** question" is also grammatically incorrect and doesn't convey the intended meaning.
- **Option 3: as** – "scene **as** question" is incorrect. While "as" can be used to compare or describe roles, it doesn't fit here.
- **Option 4: in** – "scene **in** question" correctly uses the idiom "in question". It means seeing the actual scene related to the news event being discussed. This makes

the news feel more immediate and real for the viewer.

Conclusion for Blank (3)

The idiom "the scene **in** question" accurately describes seeing the specific location or event that is the subject of the news report. This enhances the immediacy of the broadcast, as stated in the sentence. Therefore, "**in**" is the most appropriate word for blank (3).

8. Answer: a

Explanation:

Analyzing the Fill-in-the-Blanks Question

The question asks us to find the most appropriate word to fill in the blank marked as (2) in the provided paragraph about television and home entertainment. The specific sentence we need to focus on is: "A news broadcast becomes more immediate when people ___(2)___ actually see the scene ___(3)___ question and the movement of the figures."

Identifying the Correct Word for Blank (2)

We need to determine which word from the options best fits grammatically and contextually into the sentence:

"A news broadcast becomes more immediate when people ___(2)___ actually see the scene..."

Evaluating the Options:

- Option 1: can

Using 'can' results in the sentence: "A news broadcast becomes more immediate when people **can** actually see the scene..." This fits perfectly. 'Can'

indicates the ability or possibility for people to see the scene, which directly contributes to the immediacy of the news broadcast.

- **Option 2: was**

Using 'was' results in: "A news broadcast becomes more immediate when people *was* actually see the scene..." This is grammatically incorrect because 'was' is singular past tense and does not agree with the plural subject 'people'. Also, the structure 'was see' is incorrect.

- **Option 3: have**

Using 'have' results in: "A news broadcast becomes more immediate when people *have* actually see the scene..." This is grammatically incorrect. The correct forms would be 'have seen' (present perfect) or 'have to see' (obligation), not 'have see'.

- **Option 4: shall**

Using 'shall' results in: "A news broadcast becomes more immediate when people *shall* actually see the scene..." While 'shall' can sometimes be used with 'people', it typically implies a future event or a formal context. In this sentence, 'can' better expresses the condition (ability/possibility) that enhances immediacy, making it the more natural and appropriate choice.

Conclusion for Blank (2)

Based on the grammatical structure and the context of enhancing immediacy through visual access, the word 'can' is the most suitable choice for blank (2). It correctly conveys the meaning that the broadcast becomes more immediate when people possess the capability to see the event unfolding.

9. Answer: b

Explanation:

Understanding Television's Growing Role in Home Entertainment

This question asks us to identify the most fitting word to complete a sentence about television as a form of home entertainment. We need to analyze the context of the sentence and the meaning of the provided options to select the best fit for the blank represented by (1).

Analyzing the Context for Blank (1)

The sentence reads: "As home entertainment, television is rapidly becoming more ____ (1) ____ than any other form." The key phrase here is "rapidly becoming more... than any other form." This suggests a trend where television is gaining an advantage or preference over other entertainment options. We need a word that reflects this increasing prevalence or appeal.

Evaluating the Options for Blank (1)

Let's examine each option provided:

- **boring**: If television were becoming 'boring', it would imply a decrease in its appeal, which contradicts the idea of it becoming more dominant compared to other forms.
- **popular** : 'Popular' means liked, admired, or enjoyed by many people. If television is becoming more popular, it means more people are choosing it as their preferred home entertainment, which aligns perfectly with the sentence's implication of growth and dominance over other forms.
- **hated**: 'Hated' signifies intense dislike. This option is the opposite of what the sentence context suggests.
- **annoying**: 'Annoying' means causing irritation or displeasure. Similar to 'boring' and 'hated', this word would imply a negative trend, which doesn't fit the sentence's comparative structure suggesting television is surpassing other forms.

Conclusion for Blank (1)

Based on the analysis, the word 'popular' best describes the trend of television becoming increasingly favoured and widespread as a form of home entertainment

compared to other options. Therefore, television is rapidly becoming more **popular** than any other form.

10. Answer: d

Explanation:

This explanation focuses on understanding the word **Intransigent** and identifying the option that is nearest in meaning among the choices provided.

Understanding Intransigent: Meaning and Context

The word **Intransigent** describes someone who is very stubborn and unwilling to change their opinions or negotiate. An intransigent person holds firmly to their beliefs or position and refuses to make concessions or compromise, even when it might be reasonable to do so. It signifies a lack of flexibility.

Identifying the Nearest Meaning: Option Analysis

We need to find the word from the options that best matches the meaning of **Intransigent**. Let's analyze each option:

- **Authoritative**: This term means having or using influence or command; it relates to authority or power. It does not imply stubbornness or an unwillingness to compromise.
- **Impersonal**: This word means not influenced by, showing, or involving personal feelings. It suggests objectivity or detachment, which is different from the stubbornness associated with being intransigent.
- **Strenuous**: This term describes something that requires great effort or exertion. It typically refers to physical activity or demanding tasks, not to a person's attitude in negotiations.
- **Unbending**: This word means not bending or changing; rigid or inflexible. It perfectly captures the essence of refusing to compromise or change one's position, making it the closest synonym for **Intransigent**.

Conclusion: Nearest Meaning Selection

Based on the analysis, the word **Unbending** shares the closest meaning with **Intransigent**. Both words describe a characteristic of inflexibility and a refusal to change one's stance or compromise.

11. Answer: c

Explanation:

Understanding the Meaning of Intimidate

The word "**Intimidate**" means to make someone feel timid or frightened. Often, this is done to persuade or control them by using threats, fear, or aggressive behaviour. Essentially, it's about making someone feel scared or less confident.

Analyzing the Options for the Nearest Meaning

The question asks us to find the word that has a meaning closest to "**Intimidate**". Let's examine the given choices:

- Mislead
- Misplace
- Frighten
- Dismay

Analyzing 'Mislead'

To "**Mislead**" means to lead someone in the wrong direction or into a mistaken belief, usually through deception. It's about causing confusion or error, not directly about causing fear.

Analyzing 'Misplace'

"**Misplace**" means to put something in the wrong place and be unable to find it again. This term usually applies to objects and has no relation to affecting a person's feelings or confidence.

Analyzing 'Frighten'

To "**Frighten**" means to make someone feel fear or sudden anxiety. This aligns very closely with the core meaning of **intimidate**, as intimidating someone often involves the act of making them feel afraid.

Analyzing 'Dismay'

"**Dismay**" means to cause someone to feel shock, distress, or disappointment. While **dismay** involves negative emotions, it's generally a reaction to something upsetting or unexpected, differing from the active process of instilling fear or apprehension implied by **intimidate**.

Identifying the Closest Synonym

When we compare the meanings, "**Frighten**" is the word that is nearest in meaning to "**Intimidate**". Both words focus on the creation of fear. Intimidation often uses frightening tactics to achieve control or influence, making "**Frighten**" the most suitable synonym among the choices.

12. Answer: c

Explanation:

Meaning of Sporadic

The core task is to find the word that has the closest meaning (a synonym) to the word **Sporadic**.

The term **Sporadic** refers to something that happens or appears in a way that is not regular, continuous, or widespread. It suggests occurrences that are scattered,

isolated, or happen only at irregular intervals.

Analyzing the Given Options for Sporadic Meaning

Let's examine the definitions of each provided option:

- **Epidemic:** This term typically relates to a disease that spreads quickly and affects many individuals in a community or region at the same time. It signifies widespread and often rapid occurrence.
- **Whirling:** This describes the action of moving rapidly around a central point or in a circle. It relates to motion and is unrelated to frequency or pattern of events.
- **Occasional:** This word means happening or done infrequently, from time to time, or at irregular intervals. It implies something that occurs sporadically.
- **Stagnant:** This term describes something that is not moving or flowing, such as stagnant water. It can also refer to a situation that is inactive, dull, or without progress.

Identifying the Nearest Synonym for Sporadic

We need to compare the meaning of **Sporadic** with each option:

- **Sporadic vs. Epidemic:** **Sporadic** implies scattered and infrequent occurrences, while **Epidemic** implies widespread and frequent occurrence (especially of disease). These meanings are quite different.
- **Sporadic vs. Whirling:** **Sporadic** relates to the timing and pattern of occurrence, whereas **Whirling** relates to movement. There is no connection in meaning.
- **Sporadic vs. Occasional:** **Sporadic** means occurring at irregular intervals or in scattered instances. **Occasional** means happening infrequently or at irregular times. These meanings are very similar. Both suggest a lack of regularity and continuity.
- **Sporadic vs. Stagnant:** **Sporadic** relates to occurrence, while **Stagnant** relates to lack of activity or flow. These meanings are unrelated.

Based on this analysis, the word **Occasional** is the closest in meaning to **Sporadic** because both describe events that happen infrequently and irregularly.

Final Word Choice Explanation

In summary, when looking for a word nearest in meaning to **Sporadic**, **Occasional** stands out as the best fit. It accurately reflects the idea of events happening from time to time or at irregular intervals, just like the definition of **Sporadic**.

13. Answer: b

Explanation:

Finding the Word Nearest in Meaning to Genesis

The question requires identifying the synonym for the word **Genesis** from the given options. This involves understanding the meaning of **Genesis** and comparing it with the meanings of the choices.

Understanding the Core Meaning of Genesis

Genesis fundamentally means the origin, creation, or the very start of something. It represents the point where something comes into existence or begins.

Analyzing Each Option for Synonymity

We need to examine each option to see how closely it matches the meaning of **Genesis**:

- **Style:** This term refers to a particular way of doing things or a characteristic manner. It is not related to the origin or beginning.
- **Beginning:** This word signifies the start or the point in time or space at which something commences. This is a direct synonym for **Genesis**.
- **Movement:** This refers to the act of moving or a change in position, or a group with a shared aim. It does not relate to the concept of origin.
- **Relevant:** This means connected to the current subject or applicable. It describes importance or connection, not the start of something.
- The fifth option provided is incomplete and cannot be assessed.

Determining the Best Synonym for Genesis

Based on the analysis, the word **Beginning** shares the most similar meaning with **Genesis**, as both refer to the start or origin of something.

14. Answer: a

Explanation:

Understanding the Word Malevolent

The question asks us to identify the word that has the opposite meaning to the given word, **Malevolent**. First, let's understand what **Malevolent** means.

Malevolent describes someone or something that wishes to do harm or evil to others. It implies malice, ill will, or a desire to inflict suffering.

Finding the Opposite Meaning (Antonym)

Our goal is to find an antonym for **Malevolent** among the choices. An antonym is a word that means the reverse of another word.

Analyzing the Options

Let's look at the meaning of each alternative provided:

- **Kind:** This word describes someone who is friendly, generous, considerate, and shows goodwill towards others.
- **Vacuous:** This term refers to someone or something that lacks thought, intelligence, or serious content; it implies emptiness or mindlessness.
- **Ambivalent:** This means having mixed feelings or contradictory ideas about someone or something. It relates to uncertainty or conflicting emotions.
- **Primitive:** This refers to something that belongs to the earliest stages of development or evolution. It can also mean simple or basic.

Identifying the Correct Antonym

Comparing the meanings, we can see which word contrasts most directly with **Malevolent**:

- **Malevolent** = Wishing harm or evil.
- **Kind** = Wishing or showing goodwill and friendliness.

The word **Kind** clearly represents the opposite sentiment to **Malevolent**. While **Malevolent** is about ill will, **Kind** is about goodwill and positive intentions towards others.

The other options do not fit as opposites:

- **Vacuous** relates to intelligence or content, not malice.
- **Ambivalent** relates to conflicting feelings, not the intent to harm.
- **Primitive** relates to an early stage of development, not a character trait of wishing evil.

Therefore, the word opposite in meaning to **Malevolent** is **Kind**.

15. Answer: b

Explanation:

Understanding Antonyms for 'Purgatory'

The question asks us to identify the word that has a meaning closest to the opposite of the given word, 'Purgatory'. Finding the correct antonym involves understanding the meaning of the main word and then comparing the options provided.

Defining 'Purgatory'

'Purgatory' typically refers to a state or place, often associated with religious beliefs (specifically in Catholicism), where souls undergo a period of purification or suffering after death before they can enter heaven. It represents an intermediate,

often unpleasant or painful, condition. In a broader sense, it can mean any state of prolonged suffering or torment.

Analyzing the Options

Let's examine the meaning of each option in relation to 'Purgatory':

- **Reward:** A 'reward' is something given in recognition of service, effort, or achievement. While a reward is positive and contrasts with the suffering implied in 'Purgatory', it doesn't directly oppose the *state* or *place* concept. It's a consequence, not a contrasting state of being.
- **Celestial:** This word relates to the sky, outer space, or heaven. In a religious context, it signifies the divine or heavenly realm, often seen as the ultimate destination after earthly life and any intermediate states like Purgatory. 'Celestial' represents a state of perfection, bliss, and divine presence, making it a strong candidate for the opposite meaning of 'Purgatory', which implies temporary suffering or an intermediate condition.
- **Flawless:** Meaning 'perfect' or without any imperfections. While the ultimate goal after Purgatory might be a flawless state, 'flawless' itself doesn't directly contrast the concept of an intermediate state of purification or suffering.
- **Proximity:** This term refers to the state of being near or close to something in space or time. It has no relation to the meaning of 'Purgatory'.

Identifying the Opposite Meaning

Comparing the definitions, 'Purgatory' signifies a state of temporary suffering or purification, often experienced while awaiting entry into a higher state. The opposite would be a state of ultimate peace, perfection, or divine presence.

'Celestial' directly relates to heaven or the divine, representing the ultimate positive destination that contrasts sharply with the intermediate and often painful state described by 'Purgatory'. Therefore, 'Celestial' is the word most nearly opposite in meaning.

16. Answer: a

Explanation:

The correct answer is option 1 i.e. punishment.

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★ Key Points

- Clemency refers to mercy or leniency. (दया या उदारता को दर्शाता है।)
- It would also simply refer to compassion, forgiveness etc. (यह केवल करुणा, क्षमा आदि का भी उल्लेख करेगा।)
- From the above words, it is clear that 'punishment' is opposite to 'clemency;' since punishment refers to a more harsh form of behavior towards someone whereas clemency refers to the lenient reaction or even mercy shown towards people.

Therefore 'clemency' is opposite to the word 'punishment'.

★ Additional Information

- Let us take a look at what the options mean:-
- Punishment: Rough treatment or handling. (असभ्य इलाज या हैंडलिंग।)
- Intolerance : unwillingness to accept views, beliefs, or behavior that differ from one's own. (विचारों, विश्वासों या व्यवहार को स्वीकार करने की अनिच्छा जो किसी के स्वयं से भिन्न हो।)
- Compromise: An agreement or settlement of a dispute. (एक विवाद का एक समझौता या समझौता।)
- Sensibility : the quality of being able to appreciate and respond to complex emotional or aesthetic influences or sensitivity. (जटिल भावनात्मक या सौंदर्य प्रभावों या संवेदनशीलता की सराहना और प्रतिक्रिया करने में सक्षम होने की गुणवत्ता।)

17. Answer: c

Explanation:

Understanding the Task: Finding the Opposite of "Cajole"

The question asks us to identify the word from the given options that has a meaning nearly opposite to the word **Cajole**. This involves understanding the meaning of **Cajole** and comparing it with the meanings of the other words provided.

Meaning of Cajole Explained

The word **Cajole** means to persuade someone to do something by sustained coaxing or flattery. It implies using gentle, often insincere, encouragement or persuasion to get someone to agree to do something they might not otherwise want to do. It's like sweet-talking someone into something.

Analyzing the Options

Let's examine the meaning of each option provided:

- **Nestle Meaning**

Nestle means to settle or lie in a comfortable, warm, or cozy position. It can also mean to cuddle or hold someone closely. This word relates to comfort and security, which is unrelated to the meaning of **Cajole**.

- **Secede Meaning**

Secede means to formally withdraw from a larger group, federation, or political entity. This word signifies separation or leaving, and it doesn't relate to the persuasive nature of **Cajole**.

- **Bully Meaning**

Bully means to use superior strength or influence to intimidate someone, typically to force them to do something. A bully often uses threats or aggressive behaviour. This contrasts sharply with the gentle persuasion implied by **Cajole**. While cajoling is persuasion through flattery, bullying is coercion through intimidation.

- **Moisten Meaning**

Moisten means to make something slightly wet. This refers to a physical state and has no connection to the act of persuasion or influence over another person's actions.

Identifying the Opposite Word

Comparing the meanings, **Cajole** involves persuading someone through gentle means like flattery or coaxing. The opposite approach would be to compel or force someone using intimidation or threats. Out of the given options, **Bully** best represents this opposite meaning. A bully intimidates and forces, whereas someone who cajoles persuades gently.

Final Answer Summary

The word **Cajole** refers to persuading someone through gentle means. The word **Bully** refers to intimidating someone, often to force them to do something. Therefore, **Bully** is the word that is nearly opposite in meaning to **Cajole** among the choices provided.

18. Answer: c

Explanation:

Defining the Phrase: In Weal and Woe

This solution aims to identify the best definition for the common English idiom "In weal and woe" from the given options. Understanding the meaning of idioms is crucial for language proficiency.

Understanding the Idiom 'In Weal and Woe'

The phrase "In weal and woe" is an idiom that describes someone's presence or support through all circumstances, both good and bad.

- **Weal:** This term refers to happiness, prosperity, well-being, or good fortune.
- **Woe:** This term refers to great sorrow, distress, or misfortune.

Therefore, "In weal and woe" signifies being together through times of happiness and times of sadness, or through success and failure. It implies steadfastness and commitment regardless of the situation.

Analyzing the Options for 'In Weal and Woe'

Let's examine each option to see which one best captures the meaning of "In weal and woe":

Option Number	Option Text	Meaning	Match with "In Weal and Woe"?
1	By hook or crook	Achieving something by any means necessary, fair or unfair.	No match. This phrase is about methods, not circumstances.
2	During illness	Referring specifically to a period when someone is unwell.	Partial match, but incomplete. Illness falls under 'woe', but the phrase covers 'weal' (good times) too.
3	In prosperity and adversity	Through good times (prosperity) and bad times (adversity).	Strong match. 'Prosperity' aligns with 'weal', and 'adversity' aligns with 'woe'.
4	During the operation	Referring to the specific time an operation is taking place.	No match. This is a very specific event, unrelated to the general meaning of the idiom.

Conclusion: Best Definition for the Phrase

Comparing the options, the phrase "In weal and woe" means experiencing and supporting through both good times (prosperity) and bad times (adversity). Option 3, "In prosperity and adversity," accurately reflects this meaning by using synonyms that cover both aspects of the idiom.

19. Answer: d

Explanation:

Globetrotters: Meaning and Definition

Understanding the meaning of words involves looking at their components and common usage. The term "Globetrotters" refers to individuals with a specific passion or lifestyle related to travel.

Breaking Down the Term 'Globetrotters'

The word "Globetrotters" can be understood by examining its parts:

- **Global:** This prefix relates to the entire world or covering the whole planet.
- **Trotters:** This suffix comes from the verb "to trot," which means to walk or run at a moderate pace. In this context, it implies someone who travels or moves around frequently and extensively.

Combining these parts, a "Globetrotter" is essentially someone who travels all over the world.

Analyzing the Provided Options

Let's look at each option to see how well it defines "Globetrotters":

- **Option 1: People against global philosophy** – This option discusses opposition to a worldwide perspective or philosophy. It does not relate to the act of traveling.
- **Option 2: People indulging in treachery** – Treachery means disloyalty or betrayal. This definition is completely unrelated to the meaning of "Globetrotters".

- **Option 3: Intelligent minds** – While people who travel might gain knowledge and develop broad perspectives, being "intelligent" is a general trait and not the specific definition of a globetrotter.
- **Option 4: People who travel around the world** – This option directly aligns with the meaning derived from breaking down the word "Globetrotters". It describes individuals who engage in extensive travel across the globe.

Conclusion on the Definition

Based on the analysis, the most accurate and fitting definition for "Globetrotters" among the choices provided is **People who travel around the world**.

20. Answer: c

Explanation:

Understanding the Phrase: Defining 'A Curtain Lecture'

The question asks us to identify the best definition for the specific phrase "A Curtain Lecture". This is an example of an idiom, where the meaning isn't literal but figurative, referring to a particular situation or action. Understanding the context and common usage of such phrases is key to choosing the correct definition.

Meaning of 'A Curtain Lecture'

The idiom "A Curtain Lecture" specifically refers to a lecture or scolding that a wife gives to her husband in private. The term "curtain" evokes a sense of privacy, perhaps suggesting the lecture happens behind the curtains of a bedroom or in a similarly private setting. It highlights a domestic situation where the wife is expressing her disapproval or admonishing her husband about something.

Evaluating the Options for 'Curtain Lecture'

Let's examine each option provided to see which one best matches the meaning of "A Curtain Lecture":

- **Option 1: To speak plainly**

This option suggests speaking directly and frankly. While a curtain lecture might involve direct communication, the phrase itself is much more specific than just speaking plainly. It doesn't capture the private nature or the specific relationship context (wife to husband).

- **Option 2: Vulgar Ideas**

This refers to thoughts or concepts that are considered crude, indecent, or offensive. This meaning has no connection whatsoever to the idiom "A Curtain Lecture".

- **Option 3: Private scolding of a husband by his wife**

This option precisely defines the idiom. It includes the key elements: the act of scolding, the private setting implied by "curtain", and the specific roles of the individuals involved (a wife directing it towards her husband). This aligns perfectly with the established meaning of the phrase.

- **Option 4: Hate others**

This describes a general feeling of animosity or dislike towards other people. It is unrelated to the specific domestic scenario described by "A Curtain Lecture".

Conclusion on the Best Definition

Based on the analysis, the phrase "A Curtain Lecture" is most accurately defined as a private scolding delivered by a wife to her husband. This captures the specific context, action, and participants associated with the idiom.

21. Answer: c

Explanation:

Understanding the Idiom: Square pegs in round holes

The question asks us to identify the meaning of the specific phrase "Square pegs in round holes". This is an English idiom, which means its literal meaning (a peg with a square shape trying to fit into a hole with a round shape) is different from its figurative meaning.

The core idea behind the idiom is about **mismatch** or **incompatibility**. Just like a square object cannot smoothly fit into a round opening, the idiom describes a situation where a person or thing is not suited for a particular role, job, or environment.

Analyzing the Phrase's Meaning in Context

We need to find the option that best reflects this concept of being unsuitable or not fitting in.

Evaluating Option 1: A genuinely helpful person

- This describes someone who assists others willingly.
- The idiom "Square pegs in round holes" is not about helpfulness but about suitability.
- So, this option doesn't match the idiom's meaning.

Evaluating Option 2: A Clever person

- This describes someone intelligent or smart.
- Cleverness might help someone manage in a difficult situation, but the idiom itself focuses on the mismatch, not the person's cleverness.
- This option doesn't capture the essence of the idiom.

Evaluating Option 3: People in the unsuitable jobs

- This option refers to individuals placed in positions or jobs that do not match their skills, personality, or capabilities.
- This aligns perfectly with the idiom. The "square peg" represents the person, and the "round hole" represents the unsuitable job or situation. It describes a lack of fit.

- This seems to be the most accurate definition.

Evaluating Option 4: To be perplexed

- This describes a state of being confused or bewildered.
- While being in an unsuitable job (a "square peg in a round hole") might make someone feel perplexed, the idiom itself defines the situation of mismatch, not the feeling of confusion.
- Therefore, this is not the primary meaning of the phrase.

Final Determination for the Idiom

After reviewing all the options, the phrase "Square pegs in round holes" clearly signifies a situation where individuals are not suited for their roles or environments. Option 3, "People in the unsuitable jobs", best represents this meaning of incompatibility and lack of fit.

22. Answer: a

Explanation:

Identifying the Correctly Spelt Word: Equanimity

This question requires us to identify the word that is spelled correctly from the given options. The key focus is on the correct arrangement of letters to form the word 'Equanimity'.

Understanding the Word 'Equanimity'

'Equanimity' refers to mental calmness, composure, and evenness of temper, especially in a difficult situation. Understanding the meaning helps in recognizing the correct spelling pattern.

Analysis of Options

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

- **Option 1: Equanimity** – This spelling follows the standard English convention for this word. It correctly uses 'a' after 'qu', followed by 'n', then 'i', and ends with 'ty'.
- **Option 2: Equannimity** – This spelling is incorrect. The word 'Equanimity' has only one 'n' after the 'a', not a double 'nn'.
- **Option 3: Equanimmisty** – This spelling is incorrect. It incorrectly includes a double 'm' ('mm') and uses 'i' followed by 's' and 't' before the 'y', which deviates from the correct structure.
- **Option 4: Equinimity** – This spelling is incorrect. The correct word uses 'a' after 'qu' ('Equa-'), not 'i' ('Equi-').

Conclusion on Spelling

Based on the analysis, the only option that correctly spells the word meaning mental calmness and composure is 'Equanimity'. The correct spelling is crucial for accurate communication.

Therefore, the correctly spelt word is Equanimity.

23. Answer: c

Explanation:

Spelling Word Identification: Veterinary

This question focuses on identifying the correct spelling of the word related to the branch of medicine concerned with the prevention, diagnosis, and treatment of disease and injury in animals.

Analyzing Spelling Options

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

- **Vetarinary**: This spelling is incorrect. It is missing the letter 'e' after 't' and incorrectly places 'a' instead of 'e'.

- **Veteninary**: This spelling is incorrect. It is missing the letter 'r' after the first 'e'.
- **Veterinary**: This spelling is correct. It follows the standard English spelling for this word. The correct sequence is V-E-T-E-R-I-N-A-R-Y.
- **Vetniary**: This spelling is incorrect. It omits essential letters 'e' and 'r' in the middle of the word.

Understanding the Correct Term

The word "**Veterinary**" refers to:

- Adjective: Relating to or dealing with veterinary surgery and medicine. Example: "*veterinary services*".
- Noun: A person qualified to practise veterinary medicine; a veterinarian.

Correct spelling is crucial in communication. Recognizing common spelling patterns helps in accurately representing words like "**Veterinary**".

24. Answer: c

Explanation:

Mastering Correct Spelling: The Word 'Connoisseur'

This question tests your knowledge of English spelling, specifically the correct way to write the word often used to describe an expert judge in matters of taste. We need to carefully examine each option to find the correctly **spelt** word.

Analyzing the Options for Correct Spelling

Let's break down the spelling of the word 'connoisseur' and compare it with the given options:

- **Option 1: Konnoisseur**
This spelling is incorrect. The word begins with 'C', not 'K'. Also, the vowel combination 'ei' is not standard in this word.

- **Option 2: Connoisseur**

This spelling is incorrect. While it starts correctly with 'C', the sequence 'oi' after 'n' is wrong; it should be 'nn'. Additionally, the ending 'ei' is incorrect; it should be 'oi'.

- **Option 3: Connoisseur**

This spelling is correct. It accurately reflects the standard English spelling, which includes 'C', followed by 'on', then 'n', 'oi', 'ss', 'eu', and 'r'.

- **Option 4: Konoisseur**

This spelling is incorrect. Similar to option 1, it incorrectly starts with 'K'. It also uses 'oi' where 'nn' is needed and has the incorrect 'ei' ending.

- **Option 5:**

This option is empty and therefore cannot be the correctly **spelt** word.

Understanding the Word 'Connoisseur'

A **connoisseur** is someone who is especially competent and knowledgeable in a particular field, such as art, food, or wine. They have a refined taste and can judge quality expertly.

The correct spelling, **Connoisseur**, can be remembered by noting the double 'n' and double 's'.

Therefore, the correctly **spelt** word among the choices is 'Connoisseur'.

25. Answer: c

Explanation:

Correct Spelling of 'Munificent'

The task is to identify the correctly spelt word among the given choices. The word relates to the concept of generosity.

Understanding the Meaning: Munificent

The term **Munificent** describes someone who is extremely generous or lavish in giving. It refers to a grand or abundant level of giving.

Analyzing the Spelling Options

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

- Option 1: Munifisent – This spelling is incorrect. It contains a misspelling with 's' instead of 'c' and 'e' instead of the second 'i'.
- Option 2: Muneficent – This spelling is incorrect. The first 'i' in the stem is replaced with an 'e'.
- Option 3: Munificent – This is the **correctly spelt** word. Its spelling adheres to the standard English convention for this term.
- Option 4: Munificent – This spelling is incorrect. It incorrectly uses 'ie' after 'c' where the correct spelling uses 'e'.

Identifying the Correct Word

The correct spelling required is **Munificent**. This spelling accurately reflects the word's structure and meaning related to generosity.

26. Answer: b

Explanation:

Explaining the Idiom 'In a Jiffy'

The question asks for the meaning of the English idiom '**In a jiffy**'. Idioms are phrases where the words together have a meaning that is different from the dictionary definitions of the individual words. '**In a jiffy**' specifically means happening very quickly, in a very short amount of time, or almost immediately.

Analyzing the Provided Options

We need to find the word among the options that best represents this meaning of speed and quickness:

- **Outstanding:** This word means excellent or very good. It describes quality, not speed. Therefore, it does not match the meaning of 'In a jiffy'.
- **Suddenly:** This word implies something happening quickly, often unexpectedly. While 'In a jiffy' emphasizes the speed ('very quickly'), 'Suddenly' also relates to rapid occurrence. Among the choices, this is the closest synonym for the rapid nature implied by the idiom.
- **In a fix:** This is another idiom meaning to be in a difficult situation or trouble. This meaning is unrelated to 'In a jiffy'.
- **Appropriate:** This word means suitable or proper in the circumstances. It relates to suitability, not speed. Thus, it is not the correct meaning.

Determining the Best Fit for 'In a Jiffy'

Comparing the idiom's meaning ('very quickly') with the options, '**Suddenly**' is the most suitable choice because it conveys the sense of rapid action or occurrence, similar to how '**In a jiffy**' is used.

27. Answer: a

Explanation:

Understanding the Idiom: 'Up to the hilt'

The idiom '**Up to the hilt**' means something is done completely, thoroughly, or to the fullest extent possible. It often implies being deeply involved, sometimes in a negative situation like debt or trouble.

Explanation of 'Up to the hilt'

Imagine a sword's hilt, which is the handle. If the sword goes 'up to the hilt' into something, it means it goes in as far as it can go. This visual helps understand the meaning of being involved or filled completely.

Analyzing the Options for 'Up to the hilt'

Let's look at the options provided to see which one best explains the meaning of the idiom 'Up to the hilt':

- **Option 1: Completely** – This aligns perfectly with the meaning of doing something thoroughly or to the fullest extent. For example, if someone is 'in debt up to the hilt', it means they are completely and deeply in debt.
- **Option 2: Upto the mark** – This phrase means meeting a required standard or level. It doesn't convey the sense of completeness or full extent implied by 'up to the hilt'.
- **Option 3: Upto the final decision** – This refers to reaching the end of a decision-making process, which is different from the meaning of extent or completeness.
- **Option 4: None of these** – Since Option 1 accurately explains the idiom, this option is incorrect.

Conclusion on Idiom Meaning

The word that best explains the meaning of the idiom 'Up to the hilt' is 'Completely'. It signifies reaching the maximum extent or degree.

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28. Answer: d

Explanation:

Understanding the Idiom 'Man of Letters'

The idiom '**Man of Letters**' describes a person who has a deep and wide knowledge of literature and writing. This person is often skilled in writing and is knowledgeable about books, language, and literary studies. Think of someone who loves reading, writing critically, and perhaps teaches literature or writes essays and books.

Analyzing the Options for 'Man of Letters'

Let's look at each option provided to see which one best fits the meaning of '**Man of Letters**':

- **Option 1: Who writes too many letters**

This is a literal interpretation. While someone might write many letters, this doesn't necessarily mean they are knowledgeable or skilled in literature itself. The idiom is not just about the quantity of letters written.

- **Option 2: An important person**

This is too general. A '**Man of Letters**' might be important, but this description doesn't specify the reason for their importance, which is specifically related to literature and intellectual pursuits.

- **Option 3: A politician**

This option relates to government and public affairs, which is different from the literary focus of the idiom. A politician is not necessarily a '**Man of Letters**'.

- **Option 4: A literary person**

This option perfectly matches the definition. A '**literary person**' is someone involved with literature, possessing knowledge and skill in this area, which is exactly what the idiom '**Man of Letters**' means.

Identifying the Correct Meaning

By comparing the options with the established meaning of the idiom '**Man of Letters**', we can see that it refers specifically to someone's connection and expertise in the field of literature.

Conclusion: The Correct Answer

The most accurate explanation for the idiom '**Man of Letters**' among the given choices is '**A literary person**'.

29. Answer: a

Explanation:

Understanding the Idiom: Sangfroid

This question requires identifying the correct meaning of the English idiom **Sangfroid** from the given options. Idioms are phrases where the words together have a meaning that is different from the dictionary definitions of the individual words. Understanding the specific context and common usage of **Sangfroid** is key.

Defining Sangfroid

The term **Sangfroid** refers to a person's mental state of being calm, cool, and composed, especially during challenging, stressful, or dangerous circumstances. It emphasizes maintaining emotional stability and control when faced with adversity. The origin of the word is French, literally meaning "cold blood," which historically signified an unemotional or unfeeling disposition, but in modern usage, it specifically points towards composure under pressure.

Evaluating the Options

We need to assess each provided option against the established meaning of **Sangfroid**:

- **Option 1: Composure**
'Composure' means the state of being calm and in control of oneself, especially in a difficult situation. This definition aligns very closely with the meaning of **Sangfroid**, which is about maintaining calmness under stress.
- **Option 2: Go on leave**
This option refers to taking time off from work or duties. This action is unrelated to the quality of being calm or composed under pressure that defines **Sangfroid**.
- **Option 3: Changed Suddenly**
This phrase describes a rapid alteration in state or condition. It does not relate to the emotional control or calmness associated with **Sangfroid**.
- **Option 4: Make an attempt**
'Make an attempt' means to try doing something. While a person might need **Sangfroid** to successfully make an attempt in a tough situation, it is not the meaning of the idiom itself.

Identifying the Correct Meaning of Sangfroid

Comparing the options with the meaning of **Sangfroid**, 'Composure' is the most fitting definition. **Sangfroid** is specifically the ability to keep calm and composed, which is precisely what composure means. The other options describe actions or states that are distinctly different from maintaining calmness under pressure.

Therefore, the correct meaning for the idiom Sangfroid is Composure.

30. Answer: c

Explanation:

Nigeria Declared Ebola-Free by WHO

This explanation details the World Health Organization's (WHO) declarations concerning Ebola-free status, focusing on the countries mentioned and confirming Nigeria's status.

Understanding WHO Ebola Declarations

The World Health Organization (WHO) monitors global health and declares countries free from specific diseases after transmission has ceased. For Ebola Virus Disease (EVD), this declaration follows a period of intense surveillance and requires confirmation that all chains of transmission have been broken. This process is vital for signaling the end of an epidemic phase in a country.

West Africa Ebola Outbreak Context

The significant Ebola outbreak that occurred in West Africa from 2014 to 2016 heavily impacted several nations. The key countries affected included:

- Sierra Leone
- Liberia
- Guinea

Nigeria also experienced cases during this period, but its response was notably swift.

Status of Listed Countries Regarding Ebola-Free Declarations

Here's a breakdown of the WHO's Ebola-free declarations for the mentioned countries:

- **Sierra Leone:** After battling a severe outbreak, Sierra Leone was declared Ebola-free by the WHO on November 7, 2015.
- **Liberia:** Liberia faced multiple outbreaks and resurgences. It was first declared Ebola-free on May 9, 2015, and then again on June 2, 2016, after successfully containing further transmissions.
- **Guinea:** Following its outbreak, Guinea was declared Ebola-free by the WHO on December 29, 2015.
- **Nigeria:** Nigeria had a smaller, contained outbreak in 2014, primarily linked to international travel. The Nigerian government implemented effective public health measures, including rapid response and contact tracing. Due to these successful containment efforts, the WHO declared **Nigeria** Ebola-free on October 20, 2014.

Nigeria's Early Success in Containment

Nigeria's situation was unique among the heavily affected West African nations. The country reported its first Ebola case in July 2014, and through diligent efforts, managed to prevent widespread community transmission. The early declaration of being Ebola-free by the WHO showcased the effectiveness of Nigeria's public health infrastructure and response strategy during that critical time.

Conclusion

Considering the timeline of WHO declarations following the West African Ebola epidemic, **Nigeria** was declared Ebola-free on October 20, 2014. While Sierra Leone,

Liberia, and Guinea were also eventually declared Ebola-free, Nigeria achieved this status earlier due to the rapid containment of its outbreak.

31. Answer: b

Explanation:

Incheon Asian Games: India's Gold Medal Count

This question requires determining the exact number of **Gold medals** won by the Indian contingent at the **Incheon Asian Games** held in October 2014.

India's Performance at the 2014 Incheon Games

The 2014 Asian Games, officially the XVII Asiad, took place in Incheon, South Korea, from September 19 to October 4, 2014. India participated actively in this significant multi-sport event, fielding athletes across numerous disciplines.

Number of Gold Medals Secured by India

The Indian team demonstrated strong performance across various sports during the **Incheon Asian Games**. India successfully won **11 Gold medals** at the event.

Detailed Medal Breakdown for India

India's overall medal haul at the 2014 Incheon Asian Games included:

- **Gold Medals:** 11
- **Silver Medals:** 10
- **Bronze Medals:** 36

The total medal count for India was 57, securing the 8th position in the overall medal table. The **11 Gold medals** were a key part of this achievement.

32. Answer: b

Explanation:

Appointed Finance Secretary in India

The Finance Secretary is a senior civil servant in India, typically heading the Department of Economic Affairs within the Ministry of Finance. This position is critical for managing the nation's economic and financial policies, making it a key role in the government's administrative structure.

Role and Responsibilities of the Finance Secretary

The responsibilities associated with the Finance Secretary role are multifaceted and crucial for national economic health. Key duties include:

- Guiding the formulation of economic policies for the country.
- Supervising the fiscal management, which encompasses government budgets, revenue collection, and public debt.
- Serving as a principal advisor to the Finance Minister on various financial and economic matters.
- Coordinating with and representing India in international financial institutions and forums.

Identifying the New Finance Secretary

The question focuses on identifying the individual appointed to the significant position of Finance Secretary in India. In the context of government appointments, **Rajiv Mehrishi** assumed the position of Finance Secretary. His tenure involved overseeing critical aspects of India's financial management and contributing to the nation's economic strategy during his term.

The selection process for such a high-profile role typically involves evaluating candidates based on their extensive experience and proven expertise in economic affairs and public administration.

33. Answer: d

Explanation:

The correct answer is **option 4 i.e. Nirbhay**.

★ Key Points

- **Nirbhay** is India's first long range subsonic cruise missile.
 - Nirbhay was designed and developed in India by the Aeronautical Development Establishment under, **Defence Research and Development Organisation (DRDO)**.
 - The surface version of Nirbhay missile was test fired for the first time on **12 March 2013**.
 - Nirbhay project technically closed after completing six developmental trials.

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Agni II	• Second strategic ballistic missile of Agni (missile) family. • Medium-range ballistic missile (MRBM). • First tested on 11 April 1999 • Developed by Defence Research and Development Organisation (DRDO).
Prithvi	• Surface-to-surface short-range ballistic missile (SRBM). • Developed by the Defence Research and Development Organisation (DRDO). • Prithvi was the first missile to be developed under the Integrated Guided Missile Development Program.
Dhanush	• A variant of the surface-to-surface or ship-to-ship Prithvi III missile. • Short Range Ballistic Missile . • Developed by the Defence Research and Development Organisation (DRDO). • Developed for the Indian Navy .

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34. Answer: a

Explanation:

Defining the Branch of Science Studying Cells

The question asks to identify the specific branch of science dedicated to the **study of cells**. Understanding the different scientific disciplines helps us categorize biological research accurately. We need to find the correct term for the field that focuses on cellular structure, function, and life processes.

Cytology: The Core of Cell Study

Cytology is the branch of biology concerned with the **study of cells**. Cytologists investigate the structure, function, and behavior of cells. This field covers everything from the basic components of a cell, like the nucleus and cytoplasm, to complex cellular processes such as cell division, metabolism, and communication. Therefore, when we talk about the **science that studies cells**, **Cytology** is the precise term.

Analyzing Other Scientific Disciplines

To confirm why **Cytology** is the correct answer, let's look at the other options provided:

- **Entomology**: This is the scientific study of insects. It deals with insects and their relationships with humans, the environment, and other organisms, not the **study of cells**.
- **Homoplastic**: This term relates to similarity in structure due to convergence or analogy, not a specific branch for the **study of cells**. It's often related to evolutionary biology concepts like homoplasy.
- **Hormonology**: This term relates to the study of hormones. While hormones play roles within cells, this field (often called Endocrinology) focuses on the glands that produce hormones and their effects on the body, rather than the fundamental **study of cells** themselves.

Conclusion on Cell Study

Based on the definitions, **Cytology** is the scientific discipline specifically focused on the **study of cells**. It is the foundational science for understanding life at its most basic unit.

35. Answer: d

Explanation:

UN General Assembly Vice Presidents Election Overview

The United Nations General Assembly (UNGA) is a primary deliberative body within the UN structure. It convenes regularly to discuss and make recommendations on global issues.

Electing UNGA Vice Presidents

To manage the proceedings efficiently, the General Assembly elects a President and Vice Presidents at the beginning of each regular session. These elected officials help oversee the Assembly's work.

The election of Vice Presidents ensures broad geographical representation among the UNGA's leadership.

Number of Vice Presidents Elected

The UN General Assembly elects a total of **Twenty one** Vice Presidents.

These Vice Presidents are chosen at the start of every regular session, contributing to the smooth functioning and organization of the Assembly's debates and decision-making processes.

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36. Answer: c

Explanation:

Bharat Ratna Award: Identifying the Second Foreign Recipient

The question asks to identify the second foreigner, besides Nelson Mandela, who has been honored with India's highest civilian award, the **Bharat Ratna**. The **Bharat Ratna** signifies the highest level of recognition bestowed by the Government of India for exceptional service and performance of the highest order.

Understanding Foreign Recipients of the Bharat Ratna

While the **Bharat Ratna** is primarily awarded to citizens of India, there have been two notable exceptions where the award was conferred upon individuals who were not Indian citizens at the time of receiving the honour. Nelson Mandela, the anti-apartheid icon from South Africa, is one such recipient, awarded the honour in 1990. We need to identify the other individual from the given options.

Analysis of the Options

Let's examine each option provided:

- **Marshal Tito:** Josip Broz Tito was the leader of Yugoslavia. He did not receive the Bharat Ratna.
- **Mikhail Gorbachev:** Mikhail Gorbachev, the former leader of the Soviet Union, received the Nobel Peace Prize and other international honours, but he was not awarded the Bharat Ratna.
- **Khan Abdul Ghaffar Khan:** Khan Abdul Ghaffar Khan, often referred to as the 'Frontier Gandhi', was a prominent Pashtun independence activist against British rule in India. He was awarded the **Bharat Ratna** in 1987. He hailed from the North-West Frontier Province, which is now part of Pakistan. He is recognized as the first non-Indian to receive this award.
- **Abdul Wali Khan:** Abdul Wali Khan was the son of Khan Abdul Ghaffar Khan and a political figure in Pakistan. He did not receive the Bharat Ratna.

Conclusion on the Correct Recipient

Based on historical records, Khan Abdul Ghaffar Khan was awarded the **Bharat Ratna** in 1987. Nelson Mandela received it in 1990. Therefore, Khan Abdul Ghaffar Khan is the second foreigner to be honoured with India's highest civilian award, making option 3 the correct answer.

37. Answer: a

Explanation:

Sir CV Raman Nobel Prize Phenomenon

Sir CV Raman, a distinguished Indian physicist, was awarded the Nobel Prize in Physics in the year 1930. The prize specifically acknowledged his significant contributions concerning the phenomenon of radiation and his discovery of the effect that now bears his name, the Raman Effect.

Understanding Radiation Scattering

The fundamental discovery for which Sir CV Raman received the Nobel Prize is rooted in the concept of **scattering**. When light, which is a form of electromagnetic radiation, interacts with matter (like molecules in a gas or liquid), it can be deflected from its original path. This deflection process is called scattering.

Sir CV Raman investigated how light behaved when it passed through different transparent materials. He observed that while most of the scattered light retained its original wavelength (an effect known as Rayleigh scattering), a small portion of the light scattered had different wavelengths. This change occurs because the light interacts with the molecules, causing an exchange of energy. This specific type of scattering, where the energy of the scattered photon changes, is called inelastic scattering.

The Raman Effect: A Specific Scattering Phenomenon

The Raman Effect is precisely this phenomenon of inelastic scattering of photons. Key points include:

- Incident light interacts with molecules.
- Most scattering is elastic (wavelength unchanged).
- A small fraction exhibits inelastic scattering (wavelength changes).
- The change in wavelength (Raman shift) depends on the molecular structure and vibrational energy levels of the substance.

This discovery provided a powerful new tool for analyzing the composition and structure of materials, as the unique spectral signature created by the Raman scattering could identify specific substances.

Why Scattering is the Correct Phenomenon

Sir CV Raman's Nobel Prize was awarded for the discovery of the Raman Effect, which is a direct observation and explanation of inelastic **scattering**. His work demonstrated a new way radiation interacts with matter, fundamentally linked to the scattering process.

Distinguishing Scattering from Other Options

It's helpful to understand why the other options are not the primary focus of his Nobel Prize-winning work:

- **Diffraction:** This refers to the bending and spreading out of waves when they pass through an opening or around an obstacle. While it's a wave phenomenon, it wasn't the core discovery.
- **Interference:** This occurs when waves superpose, resulting in patterns of constructive (amplified) and destructive (canceled) effects. This is a key aspect of wave behavior but not the subject of Raman's Nobel Prize discovery.
- **Polarisation:** This relates to the direction of oscillation of waves. Light can be polarized, and Raman's experiments might have involved polarization, but the prize was specifically for the wavelength change observed during scattering.

In summary, the phenomenon of **scattering**, particularly the specific type known as the Raman Effect, is the scientific basis for Sir CV Raman's Nobel Prize.

38. Answer: a

Explanation:

Manila: Asian Development Bank Headquarters

The Asian Development Bank (ADB) is a vital regional development bank that aims to help its developing member countries reduce poverty and improve the quality of life of their citizens. Establishing a central location for its operations is crucial for coordinating its extensive work across Asia and the Pacific.

Understanding the Asian Development Bank Headquarters

The question asks for the specific city where the main office, or headquarters, of the Asian Development Bank is situated. Choosing the right location involves considering factors like accessibility, infrastructure, and international relations.

Key Information about ADB Headquarters

- The Asian Development Bank (ADB) was established in 1966.
- Its primary mission is to foster economic growth and cooperation in the Asia-Pacific region.
- The bank supports projects in areas like infrastructure, environment, poverty reduction, and governance.

Identifying the Correct City

After reviewing the provided options and general knowledge regarding international financial institutions, the headquarters of the Asian Development Bank is located in **Manila**, Philippines. The city serves as the central hub for the bank's administrative and operational activities, overseeing its vast network of projects and member countries.

The other cities mentioned, Singapore, Bangkok, and Jakarta, are also significant economic and political centers in Asia, but they do not host the ADB's main headquarters.

39. Answer: a

Explanation:

Understanding the K-15 Missile Classification

The question asks us to identify the type of ballistic missile that the K-15 missile is. This involves understanding the different categories of ballistic missiles based on their launch platforms or range.

What is the K-15 Missile?

The K-15 missile, also known by its operational name Sagarika, is an Indian nuclear-capable submarine-launched ballistic missile (SLBM). It is part of India's K family of missiles, designed to be launched from submarines, specifically the Arihant class of nuclear-powered submarines. Its primary role is to provide India with a credible second-strike nuclear capability, meaning it can be launched from a hidden submarine even if land-based nuclear assets are destroyed.

Analyzing the Options

Let's look at the types of ballistic missiles mentioned in the options:

- **Submarine Launched Ballistic Missile (SLBM):** These missiles are designed to be launched from submarines. They provide a nation with a mobile and stealthy platform for delivering nuclear or conventional warheads, crucial for deterrence, especially for a second strike capability.
- **Intercontinental Ballistic Missile (ICBM):** These are land-based or submarine-launched missiles with a very long range, typically over 5,500 kilometers (>3,400 miles). They are designed to travel across continents.
- **Medium Range Ballistic Missile (MRBM):** These missiles have a range between 1,000 to 3,000 kilometers (620 to 1,860 miles).
- **Short Range Ballistic Missile (SRBM):** These missiles have a range of less than 1,000 kilometers (<620 miles).

Classifying the K-15 Missile

Based on its design and intended use, the K-15 missile is explicitly built to be launched from submarines. Its range is generally considered to be around 700–750 kilometers, which, based on range classifications, technically places it in the SRBM category by range, but its primary defining characteristic is its launch platform.

However, the options provided categorize it primarily by its launch platform (SLBM) or range (ICBM, MRBM, SRBM). Since the question asks for the most appropriate classification among the given options, and the K-15's defining feature is its submarine launch capability, the "Submarine launched Ballistic Missile (SLBM)" option is the most fitting description, despite its range being short compared to typical SLBMs of other nations which often have intercontinental ranges. The 'SLBM' classification focuses on *how* it is launched, which is its unique operational aspect among the choices that focus only on range.

Why Other Options are Less Suitable

- **Inter Continental Ballistic Missile (ICBM):** The K-15 has a range of about 700–750 km, far short of the >5500 km required for an ICBM.
- **Medium Range Ballistic Missile (MRBM):** The K-15's range is less than 1000 km, which falls below the 1000–3000 km range of an MRBM.
- **Short Range Ballistic Missile (SRBM):** While its range technically fits the SRBM definition, the option "Submarine launched Ballistic Missile (SLBM)" provides a more specific and operationally relevant classification based on its launch platform, which is a key distinguishing feature and central to its strategic role. Among the given options, SLBM is the most accurate description highlighting its primary function and platform.

Therefore, the K-15 missile is classified as a Submarine launched Ballistic Missile (SLBM).

Missile Type	Description	Range (Approximate)
SRBM	Short-Range Ballistic Missile	< 1,000 km
MRBM	Medium-Range Ballistic Missile	1,000 – 3,000 km
IRBM	Intermediate-Range Ballistic Missile	3,000 – 5,500 km
ICBM	Intercontinental Ballistic Missile	> 5,500 km
SLBM	Submarine-Launched Ballistic Missile	Launched from submarines (Range varies, can be SRBM to ICBM)

Revision Table: K-15 Missile and Ballistic Missile Types

Term	Definition/Relevance to K-15
K-15 Missile	Indian nuclear-capable missile, also known as Sagarika.
SLBM	Submarine Launched Ballistic Missile; K-15's launch platform classification.
ICBM	Intercontinental Ballistic Missile; K-15 does not have this range.
MRBM	Medium Range Ballistic Missile; K-15's range is too short for this classification.
SRBM	Short Range Ballistic Missile; K-15's range fits this classification by range, but SLBM is the more specific type among options.
Sagarika	Another name for the K-15 missile.

Additional Information on K-15 and SLBMs

The development of the K-15 Sagarika is a significant step for India's nuclear deterrent. Having a credible SLBM capability enhances a country's second-strike capability, making its nuclear arsenal more survivable in case of a first strike by an adversary. Submarines provide a stealthy platform that is difficult to detect and track compared to land-based silos or bomber aircraft.

While the K-15 has a shorter range compared to many modern SLBMs operated by other major nuclear powers (which often have ranges exceeding 5,000–10,000 km and are therefore also ICBMs by range), it is considered sufficient for its intended operational area within India's strategic doctrine. Subsequent missiles in the K family, such as the K-4 and K-5, are designed to have much longer ranges, extending India's SLBM capabilities significantly.

The classification of ballistic missiles can be based on several factors, including:

- **Launch Platform:** Land-based (silo, mobile launcher), Sea-based (submarine – SLBM, ship), Air-launched.
- **Range:** SRBM, MRBM, IRBM, ICBM.
- **Guidance System:** Inertial, GPS, etc.
- **Payload:** Conventional, Nuclear.

For the K-15, its defining characteristic among the options is its launch method from a submarine.

40. Answer: a

Explanation:

India's Role in UN Counter-Terrorism Efforts

The question asks about India's decision in **2014** to accept an offer from UN Chief **Ban Ki-moon** to join the advisory board of a specific United Nations entity.

Understanding the mandates of the different UN organizations listed is key to identifying the correct one.

Understanding the UN Organizations Involved

Let's look at the options provided:

- **UNICEF** (United Nations Children's Fund): This organization primarily focuses on the rights, survival, development, and protection of children worldwide.
- **UNEP** (United Nations Environment Programme): This body works on environmental issues, promoting sustainable development and coordinating environmental activities within the UN system.
- **UNCTAD** (United Nations Conference on Trade and Development): This organization deals with issues related to trade, investment, and development, particularly for developing countries.
- **UNCCT** (United Nations Counter-Terrorism Committee): Established by the UN Security Council, this committee works to promote and support the implementation of specific UN counter-terrorism resolutions.

India's Membership on the Advisory Board

In **2014**, India accepted the invitation extended by UN Secretary-General **Ban Ki-moon** to become a member of the Advisory Board of the UN Counter-Terrorism Committee (**UNCCT**). This membership highlighted India's commitment to global counter-terrorism efforts and its active participation in UN initiatives aimed at combating terrorism.

The advisory board provides guidance and recommendations on the work of the **UNCCT**. India's joining this board underscored the importance of international cooperation in addressing the complex challenges posed by terrorism.

Therefore, the specific entity for which India agreed to remain a member of the advisory board in 2014, following an offer from Ban Ki-moon, was the **UNCCT**.

41. Answer: a

Explanation:

Kaziranga National Park's Fame

Kaziranga National Park, located in Assam, India, is a renowned wildlife sanctuary celebrated for its ecological significance and conservation efforts. It holds the prestigious status of a UNESCO World Heritage Site, highlighting its importance on a global scale.

Kaziranga's Key Wildlife: One-horned Rhinos

The primary reason for Kaziranga's international acclaim is its role as the world's leading habitat for the Indian One-horned Rhinoceros (*Indian Rhinoceros*). This species, often simply called the one-horned rhino, is found in the highest density within Kaziranga's borders. The park's dedicated conservation programs have been remarkably successful in protecting this large herbivore, which was once critically endangered. Kaziranga is instrumental in the species' survival and recovery.

Kaziranga's Diverse Fauna

Beyond the iconic one-horned rhinos, Kaziranga National Park supports a rich variety of other animal species, contributing to its status as a vital biodiversity hotspot.

These include:

- **Tigers:** The park boasts one of the highest tiger densities found anywhere globally, making it a significant habitat for the Royal Bengal Tiger.
- **Elephants:** Large populations of Asian Elephants inhabit Kaziranga, utilizing the park's extensive grasslands and forests.
- **Swamp Deer (Barasingha):** This species of deer, distinguished by its impressive antlers, is also found within the park's diverse habitats.
- **Other Notable Species:** Kaziranga is also home to animals like the Wild Water Buffalo, Wild Boar, various species of deer (like Sambar and Barking Deer), and critically endangered species such as the Pygmy Hog and Hispid Hare.
- **Birdlife:** The park is a haven for birdwatchers, supporting a vast number of resident and migratory bird species.

Summary of Kaziranga's Significance

In essence, while Kaziranga National Park is home to a wide array of wildlife, including significant populations of tigers and elephants, its global fame is intrinsically tied to the spectacular success in conserving the Indian One-horned Rhinoceros. The park is fundamentally recognized as the foremost sanctuary for this particular species.

42. Answer: d

Explanation:

Tracing the First Indian Individual Olympic Medal Winner

The question asks to identify the very first Indian athlete to achieve an individual medal at the prestigious Olympic Games. This is a significant milestone in Indian sports history, and understanding who holds this distinction is important.

Examining the Achievements of Indian Olympians

Let's look at the athletes mentioned in the options and their Olympic performances:

- **Milkha Singh:** Known as the "Flying Sikh," Milkha Singh famously competed in the 400 meters race at the 1960 Rome Olympics. He finished fourth, just missing out on a medal.
- **PT Usha:** A legendary track and field athlete, PT Usha achieved incredible success. At the 1984 Los Angeles Olympics, she finished fourth in the 400 meters hurdles final, narrowly missing a medal.
- **Karnam Malleshwari:** A celebrated weightlifter, Karnam Malleshwari created history by winning a bronze medal in the 69 kg category at the 2000 Sydney Olympics. This was a monumental achievement, being the first Olympic medal won by an Indian woman.
- **KD Jadhav:** A courageous wrestler, Khashaba Dadasaheb Jadhav (KD Jadhav) won a bronze medal in the freestyle bantamweight category at the 1952 Helsinki Olympics.

Identifying the Pioneer

Comparing the timelines of these achievements:

- KD Jadhav's bronze medal in wrestling at the **1952 Helsinki Olympics** precedes all other mentioned achievements.
- Milkha Singh and PT Usha, while iconic, did not secure Olympic medals, finishing fourth in their respective events.
- Karnam Malleshwari's medal in 2000 was a historic win, but it came much later than KD Jadhav's accomplishment.

Therefore, KD Jadhav was the first Indian athlete to win an **individual medal** at the Olympics, securing a bronze medal in wrestling.

Conclusion: The First Individual Olympic Medalist

The distinction of being the first Indian to win an individual medal at the Olympic Games belongs to **KD Jadhav** for his bronze medal victory in wrestling at the 1952 Helsinki Games.

43. Answer: b

Explanation:

Madras Session 1927: Congress President and Simon Commission Boycott

The Indian National Congress held its annual session in Madras (present-day Chennai) in December **1927**. This session is notably remembered for the significant decision to **boycott** the newly formed **Simon Commission**.

The Simon Commission and Indian Opposition

The **Simon Commission** was established by the British government in 1927 to investigate the state of government in India and propose potential reforms. A key

point of contention was the complete exclusion of Indians from its membership. This led to widespread resentment across India, fueling calls for a boycott.

Congress President during the 1927 Madras Session

The Indian National Congress, during its **Madras Session** in **1927**, officially adopted the stance to **boycott** the **Simon Commission** in all its stages and capacities. The leader who presided over this pivotal session as the **Congress President** was **Dr. Mukhtar Ahmed Ansari**, commonly referred to as **M.A. Ansari**.

- Under M.A. Ansari's presidency, the Congress clearly articulated its opposition to the Simon Commission due to its all-white composition.
- This decision marked a strong assertion of Indian nationalism and self-determination.

Key Figures in Indian National Congress

It is important to place the mentioned leaders in the correct historical context:

- **M.A. Ansari**: Served as the **Congress President** in **1927** at the **Madras Session**.
- **Maulana Abul Kalam Azad**: A prominent scholar and leader, he was Congress President in 1923 and again in 1940–1946.
- **Lala Lajpat Rai**: A veteran freedom fighter, he presided over the Amritsar session in 1919 and the Gauhati session in 1920.
- **Subhash Chandra Bose**: A key figure in the independence movement, he became Congress President in 1938 (Haripura) and 1939 (Tripuri).

Therefore, the correct answer is **M.A. Ansari**, who led the Congress during the crucial **1927 Madras Session** when the party decided to **boycott** the **Simon Commission**.

44. Answer: c

Explanation:

Kalinga War: A Profound Turning Point for Ashoka

The Kalinga war, fought around 260 BCE between the Mauryan Empire under Ashoka and the state of Kalinga (modern-day Odisha), is widely considered a major turning point in Ashoka's life and reign. While the war resulted in the conquest of Kalinga, the immense bloodshed and suffering profoundly impacted Ashoka, leading to a significant shift in his perspective and governing principles.

Understanding Ashoka's Transformation After the Kalinga Conflict

The Battle of Kalinga was particularly brutal, resulting in hundreds of thousands of deaths and widespread devastation. Witnessing the aftermath firsthand, Ashoka was deeply remorseful and horrified by the violence. This experience triggered a deep personal crisis and introspection.

- **The Horrors of War:** The sheer scale of death and destruction caused by the Kalinga campaign deeply disturbed Ashoka. Reports suggest he was overwhelmed by the suffering inflicted upon innocent civilians and soldiers alike.
- **Moral and Ethical Reflection:** The war forced Ashoka to confront the moral implications of his actions and the pursuit of territorial expansion through violence. He began to question the value of military conquest.
- **Shift Towards Peace:** The remorseful emperor renounced violence as a means of political expansion and administration. This marked a fundamental change in his approach to ruling.

Impact of Kalinga on Ashoka's Policies and Beliefs

Following the Kalinga war, Ashoka embraced the teachings of Buddhism. The principles of peace, non-violence (ahimsa), and compassion central to Buddhism resonated deeply with his newfound remorse and desire for a more ethical way of life.

- **Embracing Buddhism:** Ashoka converted to Buddhism, becoming a devout follower. He actively promoted Buddhist principles throughout his empire and beyond.

- **Dhamma Policy:** He introduced his concept of 'Dhamma', a code of conduct based on Buddhist ethics, emphasizing righteousness, tolerance, kindness, and respect for all beings. His famous edicts, inscribed on pillars and rocks across India, propagated these principles.
- **Welfare Activities:** Ashoka shifted his focus from military campaigns to promoting the welfare of his subjects. He undertook various social welfare measures, including building hospitals, rest houses, and digging wells, and planting trees along roadsides.
- **Spread of Buddhism:** He sent missionaries to spread the message of Buddhism to various parts of Asia, significantly contributing to its global dissemination.

Therefore, the Kalinga war served as a catalyst for Ashoka's profound personal transformation, leading him to adopt Buddhism and dedicate his life to peace, righteousness, and the welfare of humanity, fundamentally altering the course of his rule and influencing history significantly.

45. Answer: c

Explanation:

Understanding Kautilya's Espionage System and its Wings

The question asks to identify which specific wing was not part of the espionage system detailed by Kautilya in his ancient Indian treatise, the **Arthashastra**. Kautilya's work is renowned for its insights into statecraft, economics, and military strategy, including a highly organized intelligence network.

Kautilya's Intelligence Network Explained

Kautilya described a sophisticated espionage system integral to the functioning of the Mauryan state. This system relied heavily on a network of spies who performed various crucial functions:

- **Information Gathering:** Spies were employed to collect vital information about the state's internal affairs, the activities of enemies, economic conditions, and public morale.
- **Surveillance:** The network conducted surveillance on citizens, officials, and even potential traitors to maintain law and order and ensure the security of the kingdom.
- **Maintaining Order:** Spies played a role in detecting and preventing conspiracies, corruption, and other internal threats that could destabilize the state.

Kautilya categorized spies into different types, such as *Sanstha* (stationary spies) and *Sanchara* (traveling spies), each performing specific roles.

Analyzing the Options in Kautilya's Context

Let's examine the functions associated with each potential wing mentioned in the options:

- **Crime Branch:** Kautilya placed significant emphasis on internal security and the administration of justice. His spies were tasked with investigating crimes, uncovering conspiracies, and rooting out corruption. Therefore, functions aligning with a 'Crime Branch' were indeed a core part of the espionage system.
- **Special Branch:** This term typically refers to specialized intelligence operations, often focusing on internal security threats, counter-espionage, or sensitive investigations. Kautilya's spies, engaging in widespread surveillance and uncovering plots, effectively performed duties that would fall under a 'Special Branch' in modern terms.
- **Political Branch:** Gathering intelligence related to political affairs, such as the intentions of neighboring kingdoms, diplomatic relations, and internal political stability, was critically important for Kautilya. His spies were extensively used for these purposes.

Identifying the Wing Not Explicitly Described

While Kautilya's espionage system covered all the functional areas mentioned (crime investigation, special surveillance, and political intelligence), the question specifically asks which *wing* was not part of the *described* system. This implies looking at how Kautilya might have structured or named these functions.

Kautilya extensively detailed the use of spies for political intelligence gathering. However, he may not have explicitly carved out a distinct organizational unit named the "Political Branch". Instead, political intelligence functions were likely integrated within the broader activities of his spies and the general intelligence apparatus. The focus was on the *function* of gathering political information, rather than necessarily a separately named administrative 'branch' dedicated solely to it.

Considering the options provided and the likely interpretation of Kautilya's text:

- Functions related to crime investigation (Crime Branch) were clearly part of the system.
- General and specific surveillance tasks (Special Branch) were also fundamental.
- While political intelligence was crucial, a distinct organizational entity called the "Political Branch" might not have been a formal classification within Kautilya's described structure.

Therefore, the "Political Branch" is the wing least likely to have been explicitly defined as a separate unit within Kautilya's described espionage framework, even though the tasks associated with it were vital.

46. Answer: d

Explanation:

Examining Alauddin Khalji's Architectural Works

Alauddin Khalji, a prominent ruler of the Delhi Sultanate, was known for his significant contributions to architecture and city planning. He commissioned

several important structures in Delhi. The question asks us to identify which building among the given options was **not** built by him. Let's examine each option:

Construction of Siri Fort

Siri Fort, also known as Siri Qila or Siri Palace, was indeed built during the reign of Alauddin Khalji. He started its construction in 1303 CE. It was a major defensive fortification and housed his palace complex. Therefore, Siri Fort is one of the constructions attributed to Alauddin Khalji.

The Significance of Alai Darwaza

The **Alai Darwaza** is a magnificent main gateway to the Quwwat-ul-Islam Mosque, located within the Qutub Minar complex in Delhi. Historical records confirm that Alauddin Khalji commissioned its construction. It is celebrated for its beautiful Islamic architecture, including pointed arches and intricate geometric patterns. Thus, Alai Darwaza is also a known construction by Alauddin Khalji.

Hauz-i-Alai: Alauddin Khalji's Reservoir

Hauz-i-Alai, later known as Hauz Khas, refers to a large water reservoir tank built by Alauddin Khalji. This tank was constructed to meet the water needs of the inhabitants of Siri city. Its existence signifies Alauddin Khalji's efforts in urban development and infrastructure. Hence, Hauz-i-Alai is another structure built by Alauddin Khalji.

Jamaat Khana Masjid: The Unbuilt Structure

The **Jamaat Khana Masjid**, situated within the complex of the Sufi saint Nizamuddin Auliya's shrine in Delhi, is the structure that Alauddin Khalji did not build, according to the question's premise. While there might be historical discussions regarding its exact timeline or who initiated its construction completely, based on the options provided and the established context of the question, this is the intended answer.

Conclusion on Alauddin Khalji's Buildings

Based on the analysis of the provided options:

- Siri Fort was built by Alauddin Khalji.
- Alai Darwaza was built by Alauddin Khalji.
- Hauz-i-Alai was built by Alauddin Khalji.
- Jamaat Khana Masjid is the structure identified as not built by Alauddin Khalji in this context.

Therefore, the correct answer identifies the building that is not part of Alauddin Khalji's known constructions among the choices given.

47. Answer: a

Explanation:

Understanding Alexander's Invasion and North Indian Dynasties

This solution explains which dynasty ruled North India during the time of Alexander the Great's invasion, providing historical context for the provided options.

Historical Context of Alexander's Invasion

Alexander the Great, the king of Macedon, launched his famous campaign into Asia and eventually reached the Indian subcontinent. His invasion of the Indian region occurred around the year 326 BCE. Understanding the political landscape of North India during this specific period is key to answering the question.

Dynasties in North India during 326 BCE

At the time of Alexander's arrival on the Indian frontiers, the dominant empire in the vast plains of North India, particularly the Ganges valley, was the **Nanda Empire**. The Nanda dynasty was known for its immense wealth, large army, and efficient administration.

Analysis of Options:

- **Nanda Dynasty:** This empire, centered in Magadha, controlled a significant portion of North India. Historical records and accounts from Greek sources suggest that the Nanda ruler was a powerful king whose kingdom bordered the territories invaded by Alexander.
- **Maurya Dynasty:** The Maurya Empire was established by Chandragupta Maurya shortly *after* Alexander's invasion, around 322 BCE. Chandragupta Maurya overthrew the last Nanda ruler, Mahapadma Nanda or Dhana Nanda, and established his own dynasty. Therefore, the Mauryas were not ruling during Alexander's invasion.
- **Shunga Dynasty:** The Shunga dynasty came to power much later, in the 2nd century BCE (around 185 BCE), after the decline of the Maurya Empire.
- **Kanva Dynasty:** The Kanva dynasty succeeded the Shunga dynasty, ruling in the 1st century BCE.

Conclusion on Ruling Dynasty

Based on historical timelines, the **Nanda Dynasty** was the ruling power in North India when Alexander the Great campaigned in the region around 326 BCE. The subsequent rise of the Maurya Empire marked the end of Nanda rule.

48. Answer: d

Explanation:

Indian Intercontinental Ballistic Missiles Under Development

India has been advancing its strategic capabilities, particularly in the field of missile technology. The Agni missile series represents a cornerstone of India's nuclear deterrence capability. These are ballistic missiles, designed to carry nuclear warheads over long distances. The question asks to identify which specific missile from the Agni series is currently under development.

Understanding the Agni Missile Series

The Agni program includes several variants, each representing an incremental improvement in range and capability. Let's look at the status of the options provided:

- **Agni-I:** This was one of the earlier versions in the series. It is a short-range ballistic missile (SRBM) and has been operational with the Indian military for some time.
- **Agni-II:** This is an intermediate-range ballistic missile (IRBM). Like Agni-I, it has successfully completed developmental flights and is operational in the armed forces.
- **Agni-IV:** This missile is a longer-range variant, also classified as an IRBM or potentially touching intercontinental ranges depending on the payload. It has undergone successful tests and is considered operational.
- **Agni-VI:** This is the most advanced iteration planned in the Agni series. It is conceptualized as an intercontinental ballistic missile (ICBM), potentially capable of striking targets at ranges exceeding 5,000 km (3,100 miles). Reports indicate that Agni-VI is under development, potentially featuring capabilities like Multiple Independently targetable Re-entry Vehicles (MIRVs).

Identifying the Missile Under Development

Comparing the status of each missile in the Agni series:

- Agni-I, Agni-II, and Agni-IV are all established and operational systems within India's strategic forces.
- Agni-VI represents the next step in the program, focusing on achieving true ICBM capabilities and potentially MIRV technology. Its development is ongoing, distinguishing it from the operational status of the earlier versions.

Therefore, the Intercontinental Ballistic Missile (ICBM) from the given options that is currently under development in India is Agni-VI.

49. Answer: b

Explanation:

MVP Award at the 17th Asian Games

The 17th Asian Games, a major multi-sport event, were held in Incheon, South Korea. During these games, a prestigious award, the Most Valuable Player (MVP) award, is presented to the athlete who demonstrates outstanding performance and makes a significant impact. This recognition highlights exceptional athletic prowess and sportsmanship.

Identifying the 17th Asian Games MVP

The Most Valuable Player (MVP) award for the 17th Asian Games (2014) was presented to an exceptional athlete based on their performance across various events. Let's look at the athletes mentioned:

- **Kosuke Hagino (Japan):** A highly accomplished swimmer, Kosuke Hagino had a stellar performance at the 17th Asian Games. He competed in several swimming events and achieved remarkable success.
- **Mary Kom (India):** A renowned boxer from India, Mary Kom also delivered a commendable performance, securing a gold medal for her country.
- **Ning Zetao (China):** This Chinese swimmer was another standout athlete, winning multiple gold medals, including a memorable victory in the 100m freestyle.

Analyzing the MVP Performance

The MVP award aims to recognize the single most impactful athlete of the Games. While multiple athletes performed brilliantly, the honor was bestowed upon:

- **Kosuke Hagino** from Japan was officially adjudged the Most Valuable Player (MVP) of the 17th Asian Games.
- Hagino's success included winning a total of **six medals**: four gold, one silver, and one bronze. His dominance in the swimming pool made him a standout candidate for the award.

While athletes like Mary Kom and Ning Zetao were celebrated for their achievements, Kosuke Hagino's overall medal haul and consistent high-level

performance across multiple events earned him the MVP title.

Conclusion on the 17th Asian Games MVP

The Most Valuable Player award recognizes exceptional individual achievement during the 17th Asian Games in Incheon. Based on his performance, Kosuke Hagino of Japan was the recipient of this prestigious honor.

50. Answer: b

Explanation:

Lok Sabha Opposition Party Status Criteria Explained

In India's parliamentary system, the role of the opposition party is crucial for a healthy democracy. It acts as a check on the ruling government, questions its policies, and provides alternative viewpoints. To formally recognize a political party as the 'opposition party' in the Lok Sabha (the lower house of Parliament), specific criteria must be met.

Understanding Opposition Recognition in Lok Sabha

The primary condition for a political party to be accorded the status of the official opposition in the Lok Sabha relates to the number of seats it secures in the elections. This ensures that the opposition is a substantial and recognized force within the parliament.

Key Requirement for Opposition Status

- A political party must secure at least **10%** of the total seats in the Lok Sabha to be eligible for recognition as the official opposition.

Breakdown of the 10% Rule

The total strength of the Lok Sabha is currently 543 elected members. Therefore, a party needs to win a minimum of seats calculated as follows:

$$\text{Minimum Seats} = 10\% \times \text{Total Seats}$$

$$\text{Minimum Seats} = 10\% \times 543 \approx 54.3$$

In practical terms, this means a party must have at least 55 Members of Parliament (MPs) to potentially claim the opposition status, provided it is the largest party among those meeting this threshold and is in opposition to the government.

Significance of the Threshold

This **10%** threshold was established to ensure that the opposition party has a significant presence and voice in the Lok Sabha, enabling it to effectively scrutinize the government's actions and debate legislative matters. It prevents smaller parties, while important, from claiming the specific role and privileges of the main opposition party without a substantial mandate from the people. The 'Leader of the Opposition' is granted statutory recognition and certain benefits, making this threshold important for formal acknowledgement.

51. Answer: b

Explanation:

Identifying the Author of 'A Bend in the River'

This question asks to identify the author of the well-known book titled 'A Bend in the River'. We need to examine the works of the authors provided in the options to determine who wrote this specific novel.

Author Analysis for 'A Bend in the River'

Let's look at each author mentioned:

- **Chetan Bhagat:** An Indian author known primarily for his contemporary novels often focused on youth and societal issues in India, such as 'Five Point Someone', 'The 3 Mistakes of My Life', and '2 States'. He is not the author of 'A Bend in the River'.
- **VS Naipaul:** Sir Vidiadhar Surajprasad Naipaul was a Trinidadian-British author who won the Nobel Prize in Literature in 2001. His works often explore the complexities of post-colonial societies, identity, and migration. His notable books include 'A House for Mr Biswas', 'An Area of Darkness', and importantly, 'A Bend in the River', published in 1979.
- **Kiran Desai:** An Indian author, daughter of Anita Desai. She won the Man Booker Prize for her novel 'The Inheritance of Loss'. Her works are distinct from 'A Bend in the River'.
- **Anita Desai:** An Indian author, mother of Kiran Desai, and multiple Booker Prize nominee. Her acclaimed novels include 'Fire on the Mountain', 'Games at Twilight', and 'Clear Light of Day'. She did not write 'A Bend in the River'.

Key Information on 'A Bend in the River'

The novel '**A Bend in the River**' is a significant work of fiction that delves into themes of history, identity, and the impact of colonialism and modernization in Africa. It was critically acclaimed upon its release.

Conclusion on Authorship

Based on literary records and the known works of the authors listed:

- VS Naipaul is the celebrated author of the book '**A Bend in the River**'.

Therefore, VS Naipaul is the correct author among the choices provided for the book '**A Bend in the River**'.

52. Answer: c

Explanation:

Book: 'Long Walk to Freedom' Author Revealed

The question asks to identify the author of the renowned autobiography titled '**Long Walk to Freedom**'. This book is a seminal work detailing the life journey of a significant historical figure.

Author: Nelson Mandela's Life Story

'**Long Walk to Freedom**' is the autobiography of **Nelson Mandela**. Mandela was a pivotal figure in the fight against apartheid in South Africa. The book covers his early life, his education, his role in the African National Congress (ANC), his 27 years of imprisonment, and his eventual rise to become the first black president of South Africa. It vividly portrays his struggles, resilience, and vision for a democratic nation.

Nelson Mandela's life and his contributions to social justice and racial equality are extensively documented in this influential memoir. The title itself reflects his long and arduous journey towards achieving freedom and equality for all South Africans.

Identifying Other Figures

To clarify, the other individuals listed as options are notable in their own right but are not associated with the authorship of '**Long Walk to Freedom**':

- **Sonia Gandhi** is an Indian politician, prominent in the Indian National Congress party.
- **L.K. Advani** is a veteran Indian politician, formerly associated with the Bharatiya Janata Party (BJP).
- **Benazir Bhutto** was a former Prime Minister of Pakistan and a key political figure in her country.

Therefore, the correct author of the book '**Long Walk to Freedom**' is **Nelson Mandela**.

53. Answer: d

Explanation:

IAF Group Captain Honor for Sports Personality

The Indian Air Force (IAF), often referred to as the 'Guardian of the Skies', occasionally confers honorary ranks upon distinguished individuals from various walks of life. This gesture recognizes exceptional achievements and serves as a symbol of respect and connection between the armed forces and the nation's prominent figures.

Identifying the Honored Sports Personality

The question asks specifically about a **sports personality** who has been awarded the honorary rank of **Group Captain** by the **IAF**. Let's look at the known recipients of such honors:

- **Sachin Tendulkar:** The legendary Indian cricketer was conferred the honorary rank of Group Captain by the Indian Air Force on September 16, 2010. This recognition came as a tribute to his unparalleled career in cricket and his status as an inspiration to millions.
- Other athletes like Kapil Dev (former cricket captain), Sania Mirza (tennis star), and Saina Nehwal (badminton player) are highly respected figures in Indian sports, but the specific honorary rank of Group Captain by the IAF was awarded to Sachin Tendulkar.

Significance of the IAF Group Captain Rank

The rank of Group Captain is a senior commissioning rank in the Indian Air Force, typically held by experienced officers. Awarding this rank, even in an honorary capacity, to a civilian sports icon like Sachin Tendulkar underscores the immense respect and admiration he commands nationally. It highlights the IAF's acknowledgment of his contributions not just to sports, but also to the spirit of the nation.

Therefore, the sports personality awarded the honorary rank of Group Captain by the IAF is **Sachin Tendulkar**.

54. Answer: c

Explanation:

Calculating Distance Between A and B Using Speeds and Time

This problem asks us to find the distance between two points, A and B, given the speed of travel from A to B, the speed of travel back from B to A, and the total time taken for the entire journey. We need to use the relationship between distance, speed, and time.

Understanding the Problem Details

Here's the information provided:

- Speed from point A to point B: 25 Kmph
- Speed walking back from point B to point A: 4 Kmph
- Total time for the whole journey: 5 hours and 48 minutes

Converting Total Time to Hours

First, let's convert the total journey time into a single unit, hours. We have 5 hours and 48 minutes.

To convert minutes to hours, we divide by 60:

$$48 \text{ minutes} = \frac{48}{60} \text{ hours}$$

$$\frac{48}{60} = \frac{4 \times 12}{5 \times 12} = \frac{4}{5} = 0.8 \text{ hours}$$

So, the total time taken is:

$$5 \text{ hours} + 0.8 \text{ hours} = 5.8 \text{ hours}$$

Setting Up the Equations

Let the distance between point A and point B be ' d ' kilometers.

We know the formula: $\text{Time} = \frac{\text{Distance}}{\text{Speed}}$

Let ' t_1 ' be the time taken to travel from A to B.

$$t_1 = \frac{d}{25} \text{ hours}$$

Let ' t_2 ' be the time taken to travel back from B to A.

$$t_2 = \frac{d}{4} \text{ hours}$$

The total time for the journey is the sum of the time taken for each leg:

$$t_1 + t_2 = \text{Total Time}$$

Substituting the values we have:

$$\frac{d}{25} + \frac{d}{4} = 5.8$$

Solving for the Distance

Now, we need to solve this equation for ' d '.

To add the fractions on the left side, we find a common denominator, which is the least common multiple (LCM) of 25 and 4. The LCM is 100.

$$\frac{d \times 4}{25 \times 4} + \frac{d \times 25}{4 \times 25} = 5.8$$

$$\frac{4d}{100} + \frac{25d}{100} = 5.8$$

Combine the terms on the left side:

$$\frac{4d + 25d}{100} = 5.8$$

$$\frac{29d}{100} = 5.8$$

Now, isolate ' d ' by multiplying both sides by 100 and dividing by 29:

$$29d = 5.8 \times 100$$

$$29d = 580$$

$$d = \frac{580}{29}$$

Performing the division:

$$d = 20$$

Conclusion

The distance between point A and point B is **20 Km**.

55. Answer: d

Explanation:

This question involves calculating the speed of a train based on the time it takes to pass a stationary object (telegraph post) and a stationary object of a known length (platform).

Calculating Train Speed: Platform and Post Scenario

To solve this problem, we need to understand how the distance covered by the train changes when it passes a point object versus an object with length.

Understanding the Concepts

- **Passing a Telegraph Post:** When a train passes a telegraph post (or a pole, or a person standing), it covers a distance equal to its own length. The time taken is the time for the entire length of the train to move past the post.
- **Passing a Platform:** When a train passes a platform, it covers a total distance equal to the length of the platform plus its own length. The time taken is the time from when the front of the train reaches the platform's start to when the rear of the train leaves the platform's end.

Step-by-Step Calculation

1. Define Variables:

- Let the length of the train be L meters.
- Let the uniform speed of the train be S meters per second (m/s).

2. Analyze Passing the Telegraph Post:

- The distance covered is the length of the train, L .
- The time taken is 5 seconds.
- Using the formula: Distance = Speed $\times$ Time
- We get the equation: $L = S \times 5$ (Equation 1)

3. Analyze Passing the Platform:

- The length of the platform is 200 meters.
- The total distance covered is the length of the platform plus the length of the train: $200 + L$ meters.
- The time taken is 10 seconds.
- Using the formula: Distance = Speed $\times$ Time
- We get the equation: $200 + L = S \times 10$ (Equation 2)

4. Solve the Equations:

- Substitute the value of L from Equation 1 into Equation 2:
- $200 + (S \times 5) = S \times 10$
- Rearrange the equation to solve for S :
- $200 = S \times 10 - S \times 5$
- $200 = S \times (10 - 5)$
- $200 = S \times 5$
- $S = \frac{200}{5}$
- $S = 40$ m/s

5. Convert Speed to km/h:

- The speed is currently in meters per second (m/s). We need to convert it to kilometers per hour (km/h).
- The conversion factor is: $1 \text{ m/s} = \frac{18}{5} \text{ km/h}$
- Speed in km/h = $40 \times \frac{18}{5}$
- Speed in km/h = 8×18
- Speed in km/h = 144 km/h

Final Speed Result

The speed of the train is calculated to be **144 km/h**.

Comparing with Options

The calculated speed matches option 4.

56. Answer: c

Explanation:

Understanding the Sugar Price and Consumption Scenario This question involves analyzing how a change in the price of a commodity affects its consumption while keeping the total expenditure constant. Specifically, we need to determine the percentage decrease in sugar consumption when its price increases by 20%, ensuring the family's overall spending on sugar remains unchanged. We need to find the correct percentage reduction in **sugar consumption**.

Key Relationship: Expenditure, Price, and Consumption

The fundamental relationship between expenditure, price, and consumption is given by:

$$\text{Expenditure} = \text{Price} \times \text{Consumption}$$

In this problem, the **expenditure** on sugar is fixed. This means that if the **price** of sugar increases, the **consumption** must decrease proportionally to maintain the same level of expenditure. This demonstrates an inverse relationship between price and consumption when expenditure is constant.

Step-by-Step Calculation for Consumption Reduction

Let's break down the calculation step-by-step:

- **Step 1: Assume Initial Values** Let the initial price of sugar be P per unit, and the initial consumption be C units. The initial expenditure E is therefore:

$$E = P \times C$$

- **Step 2: Calculate the New Price** The price of sugar increases by 20%. The increase in price is 20% of P , which is $0.20P$. The new price, let's call it P' , is the initial price plus the increase:

$$P' = P + 0.20P = 1.20P$$

- **Step 3: Maintain Constant Expenditure** The family wants to ensure there is no change in expenditure. So, the new expenditure must equal the initial expenditure. Let the new consumption be C' . The new expenditure is $P' \times C'$. We set the new expenditure equal to the initial expenditure:

$$P' \times C' = P \times C$$

- **Step 4: Determine the New Consumption Level** Substitute the value of the new price ($P' = 1.20P$) into the equation:

$$1.20P \times C' = P \times C$$

Now, solve for C' :

$$C' = \frac{P \times C}{1.20P}$$

Cancel out P from the numerator and denominator:

$$C' = \frac{C}{1.20}$$

To simplify $\frac{1}{1.20}$, we can write 1.20 as a fraction $\frac{120}{100} = \frac{6}{5}$.

$$C' = \frac{C}{6/5} = C \times \frac{5}{6} = \frac{5}{6}C$$

This means the new consumption is $\frac{5}{6}$ of the original consumption.

- **Step 5: Calculate the Reduction in Consumption** The reduction in consumption is the difference between the initial consumption and the new consumption:

$$\text{Reduction in Consumption} = C - C' = C - \frac{5}{6}C$$

$$\text{Reduction in Consumption} = \frac{6}{6}C - \frac{5}{6}C = \frac{1}{6}C$$

- **Step 6: Calculate the Percentage Reduction** To find the percentage reduction, we compare the reduction in consumption to the initial consumption and

multiply by 100:

$$\text{Percentage Reduction} = \frac{\text{Reduction in Consumption}}{\text{Initial Consumption}} \times 100$$

$$\text{Percentage Reduction} = \frac{\frac{1}{6}C}{C} \times 100$$

$$\text{Percentage Reduction} = \frac{1}{6} \times 100 = \frac{100}{6}\%$$

- **Step 7: Convert to Mixed Fraction** Simplify the fraction $\frac{100}{6}\%$:

$$\frac{100}{6}\% = \frac{50}{3}\% = 16\frac{2}{3}\%$$

Explanation of the Result

When the price of an item increases, to maintain the same spending, you must consume less of it. If the price goes up by a certain fraction, the consumption must go down by a related fraction. In this case, the price increased by 20%, which is $\frac{1}{5}$ of the original price ($P' = P + \frac{1}{5}P = \frac{6}{5}P$). Because expenditure must remain constant ($P \times C = P' \times C'$), the new consumption C' must be $\frac{P}{P'} \times C = \frac{P}{(\frac{6}{5}P)} \times C = \frac{5}{6}C$. This means the consumption decreased from C to $\frac{5}{6}C$, representing a decrease of $\frac{1}{6}C$. As a percentage, this decrease is $\frac{1}{6} \times 100 = 16\frac{2}{3}\%$.

Conclusion on Sugar Consumption Percentage

The calculation shows that the family should reduce its consumption of sugar by $16\frac{2}{3}\%$ to keep the expenditure unchanged after a 20% price increase. **Final Answer:** The correct percentage by which a family should reduce the consumption of sugar is $16\frac{2}{3}\%$.

57. Answer: d

Explanation:

Salary Comparison: Calculating Percentage Difference

Understanding the Salary Scenario

The question involves comparing salaries based on percentage decreases. We are given that A's salary is 20% less than B's salary, and B's salary is 15% less than C's salary. The objective is to find the percentage by which C's salary is greater than A's salary.

Setting up the Salary Relationships

To solve this, let's denote the salaries as follows:

- Let S_C represent C's salary.
- Let S_B represent B's salary.
- Let S_A represent A's salary.

We can translate the given information into mathematical equations:

- "A's salary is 20% lower than B's salary" means: $S_A = S_B - 0.20 \times S_B$ This simplifies to: $S_A = (1 - 0.20)S_B = 0.80S_B$
- "B's salary is 15% lower than C's salary" means: $S_B = S_C - 0.15 \times S_C$ This simplifies to: $S_B = (1 - 0.15)S_C = 0.85S_C$

Calculating A's Salary Relative to C's Salary

Now we need to find how S_A relates to S_C . We can do this by substituting the expression for S_B (from the second point) into the equation for S_A .

$$S_A = 0.80 \times S_B$$

Substitute $S_B = 0.85S_C$:

$$S_A = 0.80 \times (0.85S_C)$$

Multiply the values:

$$S_A = 0.68S_C$$

This calculation shows that A's salary is 68% of C's salary.

Determining How Much More C's Salary Is Than A's

The question asks by what percentage C's salary (S_C) is more than A's salary (S_A). We use the percentage increase formula:

$$\text{Percentage More} = \left(\frac{S_C - S_A}{S_A} \right) \times 100\%$$

Substitute the value of S_A we found ($S_A = 0.68S_C$):

$$\text{Percentage More} = \left(\frac{S_C - 0.68S_C}{0.68S_C} \right) \times 100\%$$

Factor S_C out from the numerator:

$$\text{Percentage More} = \left(\frac{S_C(1 - 0.68)}{0.68S_C} \right) \times 100\%$$

Cancel S_C :

$$\text{Percentage More} = \left(\frac{1 - 0.68}{0.68} \right) \times 100\%$$

$$\text{Percentage More} = \left(\frac{0.32}{0.68} \right) \times 100\%$$

Simplify the fraction:

$$\text{Percentage More} = \left(\frac{32}{68} \right) \times 100\%$$

Reduce the fraction by dividing the numerator and denominator by 4:

$$\text{Percentage More} = \left(\frac{8}{17} \right) \times 100\%$$

Calculate the final percentage:

$$\text{Percentage More} \approx 0.470588 \times 100\%$$

$$\text{Percentage More} \approx 47.0588\%$$

Final Answer Check

The calculated percentage is approximately 47.06%. Comparing this with the options provided, 47.05% is the closest value.

58. Answer: d

Explanation:

Analyzing Average Weight Changes with Man Replacement

This problem involves understanding how the average weight of a group changes when one member is replaced. We need to determine the weight of the new man based on the given information about the group's average weight increase.

Understanding the Core Concept: Average Weight

The average weight is calculated by dividing the total weight of the group by the number of individuals in the group. When someone leaves and another person joins, the total weight changes, and consequently, the average weight might change.

The key relationship is:

$$\text{Total Weight} = \text{Average Weight} \times \text{Number of Individuals}$$

A change in the average weight, when the number of individuals remains constant, implies a corresponding change in the total weight.

Key Information from the Question

Let's break down the information provided:

- Number of men in the group: 5
- Weight of the man who was replaced: 60 Kg
- Increase in the average weight of the group: 2 Kg
- The number of men in the group remains the same (5) because one man is replaced by another.

Step-by-Step Solution for New Man's Weight

Calculating the Total Weight Increase

The average weight of the 5 men increased by 2 Kg. This increase in the average applies to all 5 men in the group. Therefore, the total increase in the weight of the group can be calculated as:

$$\text{Total Increase in Weight} = (\text{Increase in Average Weight}) \times (\text{Number of Men})$$

Plugging in the values:

$$\text{Total Increase in Weight} = 2 \text{ Kg} \times 5 = 10 \text{ Kg}$$

Determining the New Man's Weight

The total increase in the group's weight (10 Kg) is solely due to the difference between the new man's weight and the replaced man's weight. The new man must weigh more than the old man to cause this increase.

We can express this relationship as:

$$\text{New Man's Weight} - \text{Replaced Man's Weight} = \text{Total Increase in Weight}$$

Let W_{new} be the weight of the new man and W_{old} be the weight of the replaced man (60 Kg).

So, the equation becomes:

$$W_{\text{new}} - W_{\text{old}} = 10 \text{ Kg}$$

$$W_{\text{new}} - 60 \text{ Kg} = 10 \text{ Kg}$$

To find the weight of the new man, we rearrange the equation:

$$W_{\text{new}} = 60 \text{ Kg} + 10 \text{ Kg}$$

$$W_{\text{new}} = 70 \text{ Kg}$$

Conclusion

The weight of the new man is 70 Kg. This makes sense because he is heavier than the man he replaced, causing the average weight of the group to increase.

59. Answer: c

Explanation:

Understanding the Work and Time Problem

This problem requires us to calculate the duration it takes for individual B to complete a task, given information about how long pairs of workers (A and B, B and C, A and C) take to finish the same task.

Key Information for Work Calculation:

- A and B together finish the work in 18 days.
- B and C together finish the work in 24 days.
- A and C together finish the work in 36 days.

The goal is to find how many days **B alone** needs to complete the work.

Calculating Daily Work Rates

We start by determining the portion of the work each pair completes in a single day.

- The fraction of work done by A and B in 1 day is $\frac{1}{18}$.
- The fraction of work done by B and C in 1 day is $\frac{1}{24}$.
- The fraction of work done by A and C in 1 day is $\frac{1}{36}$.

Combining Work Rates: Setting Up Equations

Let a , b , and c represent the fraction of the total work that A, B, and C can complete individually in one day, respectively. Based on the given information, we can establish the following equations:

$$1. a + b = \frac{1}{18}$$

$$2. b + c = \frac{1}{24}$$

$$3. a + c = \frac{1}{36}$$

Finding the Combined Rate of A, B, and C

To determine B's individual rate, we first find the combined rate of all three workers (A, B, and C) working together.

Add the three equations:

$$(a + b) + (b + c) + (a + c) = \frac{1}{18} + \frac{1}{24} + \frac{1}{36}$$

This simplifies to:

$$2a + 2b + 2c = \frac{1}{18} + \frac{1}{24} + \frac{1}{36}$$

To add the fractions on the right side, we find the least common multiple (LCM) of 18, 24, and 36. The LCM is 72.

$$2(a + b + c) = \frac{4}{72} + \frac{3}{72} + \frac{2}{72}$$

$$2(a + b + c) = \frac{4+3+2}{72} = \frac{9}{72}$$

Simplify the fraction:

$$2(a + b + c) = \frac{1}{8}$$

Now, divide by 2 to find the combined daily work rate of A, B, and C:

$$a + b + c = \frac{1}{8} \times \frac{1}{2} = \frac{1}{16}$$

Calculating B's Individual Work Rate

To find B's individual work rate (b), we can subtract the combined rate of A and C ($a + c$) from the combined rate of A, B, and C ($a + b + c$).

$$b = (a + b + c) - (a + c)$$

Substitute the known values:

$$b = \frac{1}{16} - \frac{1}{36}$$

Find the LCM of 16 and 36, which is 144, to subtract the fractions:

$$b = \frac{9}{144} - \frac{4}{144}$$

$$b = \frac{9-4}{144} = \frac{5}{144}$$

This means B completes $\frac{5}{144}$ of the work in one day.

Determining Days B Needs Alone to Finish Work

The total number of days B needs to complete the work alone is the reciprocal of B's daily work rate.

$$\text{Time for B alone} = \frac{1}{b} = \frac{1}{\frac{5}{144}}$$

$$\text{Time for B alone} = \frac{144}{5} \text{ days.}$$

To express this improper fraction as a mixed number:

$$\frac{144}{5} = 28\frac{4}{5}$$

Therefore, B alone can finish the work in $28\frac{4}{5}$ days.

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60. Answer: b

Explanation:

Understanding the Work and Time Problem

This problem involves calculating the total time required to complete a piece of work when the working pattern is specific. We are given the individual times A, B, and C take to complete the work, and the condition that A works alone for two days and is assisted by both B and C on the third day. We need to find the total number of days this cycle takes to complete the entire work.

Calculating Individual Work Rates

First, let's determine the rate at which each person works. The work rate is the fraction of the total work they can complete in one day.

- A completes the work in 20 days. So, A's daily work rate is $\frac{1}{20}$ of the work.
- B completes the work in 30 days. So, B's daily work rate is $\frac{1}{30}$ of the work.
- C completes the work in 60 days. So, C's daily work rate is $\frac{1}{60}$ of the work.

Analyzing the Work Cycle

The work happens in cycles of 3 days. In each cycle:

- **Days 1 and 2:** A works alone.
- **Day 3:** A, B, and C work together.

Calculating Work Done Per Cycle

Let's calculate the amount of work done in one 3-day cycle.

- **Work done by A in the first 2 days:** $\text{Work} = \text{Rate} \times \text{Time}$ $\text{Work}_A = \frac{1}{20} \times 2 = \frac{2}{20} = \frac{1}{10}$ of the work.
- **Work done by A, B, and C together on the 3rd day:** First, find their combined daily rate: $\text{Combined Rate} = \text{Rate}_A + \text{Rate}_B + \text{Rate}_C$ $\text{Combined Rate} = \frac{1}{20} + \frac{1}{30} + \frac{1}{60}$ To add these fractions, we find the least common denominator, which is 60. $\text{Combined Rate} = \frac{3}{60} + \frac{2}{60} + \frac{1}{60} = \frac{3+2+1}{60} = \frac{6}{60} = \frac{1}{10}$ of the work per day. Work_{ABC} (on Day 3) = $\text{Combined Rate} \times \text{Time}$ $\text{Work}_{ABC} = \frac{1}{10} \times 1 = \frac{1}{10}$ of the work.
- **Total work done in one 3-day cycle:** $\text{Total Work per Cycle} = \text{Work done by A (2 days)} + \text{Work done by A, B, C (1 day)}$ $\text{Total Work per Cycle} = \frac{1}{10} + \frac{1}{10} = \frac{2}{10} = \frac{1}{5}$ of the work.

Determining the Total Time

We found that $\frac{1}{5}$ of the work is completed in every 3-day cycle.

To complete the entire work (which is 1 unit), we need to find how many such cycles are required.

Number of cycles = Total Work $\div$ Work per Cycle

Number of cycles = $1 \div \frac{1}{5} = 1 \times 5 = 5$ cycles.

Since each cycle lasts for 3 days, the total number of days required to complete the work is:

Total Days = Number of cycles $\times$ Days per cycle

Total Days = $5 \times 3 = 15$ days.

Conclusion

Therefore, if A is assisted by B and C on every third day, the work can be completed in 15 days.

61. Answer: d

Explanation:

Determining Rowing Speed in River Currents

This problem requires us to calculate the speed of the river current. We are given the speed of a man rowing in still water and information about the time taken for upstream versus downstream travel over the same distance.

Understanding the Concepts

To solve this, we need to understand how the speed of the current affects the rower's speed:

- **Speed in Still Water (S_m):** This is the rower's speed without the river's influence. Given as 9 kmph.
- **Speed of Current (S_c):** This is the speed of the river's flow. This is what we need to find.

- **Speed Downstream (S_{down}):** When rowing downstream, the rower moves with the current. Their effective speed is the sum of their speed in still water and the current's speed. $S_{down} = S_m + S_c$
- **Speed Upstream (S_{up}):** When rowing upstream, the rower moves against the current. Their effective speed is the difference between their speed in still water and the current's speed. $S_{up} = S_m - S_c$
- **Time, Distance, Speed Relationship:** The fundamental formula connecting these is Time = Distance / Speed.

Analyzing the Given Information

We are provided with the following:

- The man's speed in still water is $S_m = 9$ kmph.
- Let the distance rowed be d km for both upstream and downstream journeys.
- The time taken to row upstream (t_{up}) is three times the time taken to row downstream (t_{down}). Mathematically, $t_{up} = 3 \times t_{down}$.

Step-by-Step Calculation

- Express the speeds upstream and downstream using the given value of S_m :
 - Speed downstream: $S_{down} = 9 + S_c$ kmph.
 - Speed upstream: $S_{up} = 9 - S_c$ kmph.
- Express the time taken for each journey using the distance d and the calculated speeds:
 - Time downstream: $t_{down} = \frac{d}{S_{down}} = \frac{d}{9+S_c}$.
 - Time upstream: $t_{up} = \frac{d}{S_{up}} = \frac{d}{9-S_c}$.
- Apply the given condition that t_{up} is thrice t_{down} :

$$t_{up} = 3 \times t_{down}$$

Substituting the expressions for time:

$$\frac{d}{9-S_c} = 3 \times \frac{d}{9+S_c}$$

4. Simplify the equation. Since the distance d is the same and non-zero, we can cancel it from both sides:

$$\frac{1}{9-S_c} = \frac{3}{9+S_c}$$

5. Cross-multiply to solve for S_c :

$$1 \times (9 + S_c) = 3 \times (9 - S_c)$$

$$9 + S_c = 27 - 3S_c$$

6. Rearrange the equation to isolate S_c :

Move S_c terms to the left and constants to the right:

$$S_c + 3S_c = 27 - 9$$

$$4S_c = 18$$

7. Calculate the value of S_c :

$$S_c = \frac{18}{4}$$

$$S_c = \frac{9}{2} \text{ kmph}$$

8. Convert the result to a mixed fraction:

$$S_c = 4\frac{1}{2} \text{ kmph}$$

Final Answer Derivation

The calculation shows that the speed of the current is $4\frac{1}{2}$ kmph. Comparing this result with the given options, it matches the fourth option.

62. Answer: c

Explanation:

Calculating Boat and Stream Speed

This question asks us to find the **speed of the stream**. We are given the speed of a boat in still water and information about the distances it travels downstream and upstream in the same amount of time.

Understanding Key Concepts

To solve this, we need to understand how the speed of the boat and the speed of the stream affect the boat's overall speed when traveling downstream (with the current) and upstream (against the current).

- **Speed of Boat in Still Water:** This is the boat's speed without any current affecting it. It is given as 10 Kmph.
- **Speed of the Stream:** This is the speed of the water current. Let's represent this unknown speed as ' v_s ' Kmph.
- **Downstream Speed:** When the boat moves with the current, its effective speed is the sum of its speed in still water and the stream's speed.

$$\text{Downstream Speed } (v_d) = \text{Speed of Boat} + \text{Speed of Stream} = 10 + v_s \text{ Kmph.}$$

- **Upstream Speed:** When the boat moves against the current, its effective speed is the difference between its speed in still water and the stream's speed.

$$\text{Upstream Speed } (v_u) = \text{Speed of Boat} - \text{Speed of Stream} = 10 - v_s \text{ Kmph.}$$

Relating Distance, Speed, and Time

The fundamental relationship we use is: $\text{Time} = \frac{\text{Distance}}{\text{Speed}}$.

We are given:

- Distance traveled downstream (d_d) = 26 Km.
- Distance traveled upstream (d_u) = 14 Km.

The problem states that the time taken for both journeys is the same. Let this time be ' t ' hours.

- Time downstream (t_d) = $\frac{d_d}{v_d} = \frac{26}{10+v_s}$ hours.
- Time upstream (t_u) = $\frac{d_u}{v_u} = \frac{14}{10-v_s}$ hours.

Formulating the Equation

Since $t_d = t_u$, we can set the expressions for time equal to each other:

$$\frac{26}{10 + v_s} = \frac{14}{10 - v_s}$$

Solving for the Stream Speed

Now, we solve this equation step-by-step to find the value of ' v_s ', the **speed of the stream**.

1. **Cross-Multiply:** To eliminate the denominators, we cross-multiply:

$$26 \times (10 - v_s) = 14 \times (10 + v_s)$$

2. **Distribute:** Apply the distributive property on both sides:

$$260 - 26v_s = 140 + 14v_s$$

3. **Isolate v_s Terms:** Gather all terms containing ' v_s ' on one side and the constant numbers on the other. Move $-26v_s$ to the right and 140 to the left:

$$260 - 140 = 14v_s + 26v_s$$

4. **Combine Terms:** Simplify both sides of the equation:

$$120 = 40v_s$$

5. **Calculate v_s :** Divide both sides by 40 to find the value of ' v_s ':

$$v_s = \frac{120}{40}$$

$$v_s = 3$$

Final Result Verification

The calculated **speed of the stream** is 3 Kmph.

We can check this by calculating the time taken for each journey:

- Downstream Speed = $10 + 3 = 13$ Kmph. Time Downstream = $\frac{26 \text{ Km}}{13 \text{ Kmph}} = 2$ hours.
- Upstream Speed = $10 - 3 = 7$ Kmph. Time Upstream = $\frac{14 \text{ Km}}{7 \text{ Kmph}} = 2$ hours.

The times are indeed the same (2 hours), confirming that our calculated speed of the stream is correct.

63. Answer: a

Explanation:

Understanding Simple Interest Growth

This question explores how a sum of money grows over time with simple interest. We are given a scenario where the initial investment doubles over 16 years, and we need to find out how much it will grow to in just 8 years.

Core Concepts of Simple Interest

Let's review the basic terms used in simple interest calculations:

- **Principal (P):** This is the initial amount of money.
- **Rate (R):** This is the annual interest rate, usually expressed as a percentage.
- **Time (T):** This is the duration for which the money is invested or borrowed, measured in years.
- **Simple Interest (SI):** This is the interest earned solely on the principal amount. The formula is $SI = \frac{P \times R \times T}{100}$.
- **Amount (A):** This is the total sum after adding the interest to the principal. The formula is $A = P + SI$.

Analyzing the First Condition: Sum Doubles in 16 Years

We are told that the sum becomes double in 16 years. Let's break this down:

- Principal = P
- Time (T1) = 16 years

- Amount (A_1) = $2P$ (since the sum doubles)

The interest earned during this period (SI_1) is the difference between the final amount and the principal:

$$SI_1 = A_1 - P$$

$$SI_1 = 2P - P$$

$$SI_1 = P$$

This tells us that the interest earned in 16 years is equal to the original principal amount.

Finding the Interest Earned in 8 Years

Simple interest is calculated at a constant rate each year. This means the interest earned is directly proportional to the time period. If the principal and rate remain the same, more time means more interest.

We can use this relationship:

$$\frac{\text{Simple Interest}}{\text{Time}} = \text{constant}$$

So, for our problem:

$$\frac{SI_1}{T_1} = \frac{SI_2}{T_2}$$

We know:

- $SI_1 = P$
- $T_1 = 16$ years
- $T_2 = 8$ years

Let SI_2 be the interest earned in 8 years. Plugging the values into the formula:

$$\frac{P}{16} = \frac{SI_2}{8}$$

To find SI_2 , we rearrange the equation:

$$SI_2 = P \times \frac{8}{16}$$

$$SI_2 = P \times \frac{1}{2}$$

$$SI_2 = \frac{1}{2}P$$

This calculation shows that in 8 years, the simple interest earned will be half of the principal amount.

Calculating the Total Amount After 8 Years

The question asks how many times the sum will be in 8 years. This means we need to calculate the total amount (A_2) after 8 years.

The total amount is the principal plus the interest earned:

$$A_2 = P + SI_2$$

Substitute the value of SI_2 we found:

$$A_2 = P + \frac{1}{2}P$$

Combining the terms:

$$A_2 = \frac{2P}{2} + \frac{1P}{2}$$

$$A_2 = \frac{3P}{2}$$

Determining How Many Times the Sum Has Grown

To find out how many times the original sum (P) the total amount (A_2) has become, we calculate the ratio $\frac{A_2}{P}$:

$$\text{Multiple} = \frac{A_2}{P}$$

$$\text{Multiple} = \frac{\frac{3}{2}P}{P}$$

$$\text{Multiple} = \frac{3}{2}$$

Converting the fraction $\frac{3}{2}$ into a mixed number gives us:

$$\frac{3}{2} = 1\frac{1}{2}$$

Therefore, in 8 years, the sum will become $1\frac{1}{2}$ times its original value.

64. Answer: b

Explanation:

Solving for Time Period in Semi-Annual Compounding

This problem asks us to determine the number of years it takes for an initial investment (principal) to grow to a specific future amount, given an annual interest rate that is compounded semi-annually. We need to find the time period (t) for a principal sum of Rs. 800 to become Rs. 926.10 at an annual interest rate of 10% compounded semi-annually.

Understanding Compound Interest Formula for Semi-Annual Compounding

The formula for compound interest is generally given by:

$$A = P \left(1 + \frac{r}{n}\right)^{nt}$$

Where:

- A is the future value of the investment/loan, including interest
- P is the principal investment amount (the initial deposit or loan amount)
- r is the annual interest rate (as a decimal)
- n is the number of times that interest is compounded per year
- t is the number of years the money is invested or borrowed for

In this specific problem, the interest is compounded **semi-annually**. This means the interest is calculated twice a year. Therefore:

- The number of compounding periods per year (n) is 2.
- The interest rate per compounding period is half the annual rate, i.e., $\frac{r}{2}$.

The formula adapted for semi-annual compounding becomes:

$$A = P \left(1 + \frac{r}{2 \times 100} \right)^{2t}$$

Calculating the Time Period

Let's substitute the given values into the formula:

- Principal (P) = Rs. 800
- Amount (A) = Rs. 926.10
- Annual Interest Rate (r) = 10%
- Number of compounding periods per year (n) = 2

Plugging these into the formula:

$$926.10 = 800 \left(1 + \frac{10}{2 \times 100} \right)^{2t}$$

Simplify the expression inside the parenthesis:

$$926.10 = 800 \left(1 + \frac{10}{200} \right)^{2t}$$

$$926.10 = 800 (1 + 0.05)^{2t}$$

$$926.10 = 800(1.05)^{2t}$$

Now, we need to solve for t . First, isolate the term with the exponent by dividing both sides by 800:

$$\frac{926.10}{800} = (1.05)^{2t}$$

Calculate the value on the left side:

$$1.157625 = (1.05)^{2t}$$

We need to find the power to which 1.05 must be raised to get 1.157625. Let's test some powers of 1.05:

- $1.05^1 = 1.05$
- $1.05^2 = 1.1025$
- $1.05^3 = 1.157625$

We found that $1.05^3 = 1.157625$. So, we can rewrite the equation as:

$$(1.05)^3 = (1.05)^{2t}$$

Since the bases are the same (1.05), the exponents must be equal:

$$3 = 2t$$

Solve for t by dividing by 2:

$$t = \frac{3}{2}$$

Converting the fraction to a mixed number:

$$t = 1\frac{1}{2} \text{ years}$$

Conclusion

Therefore, it will take **1 and a half years** for a sum of Rs. 800 at an annual interest rate of 10% compounded semi-annually to become Rs. 926.10.

65. Answer: a

Explanation:

Understanding Overall Profit and Loss in Transactions

This question involves calculating the net percentage change in profit or loss when two items are sold at the **same selling price**, but under different profit and loss

conditions. We need to find the overall **loss/gain percentage** for the entire transaction involving the two TV sets.

Key Information Recap:

- Number of items sold: 2 TV sets
- Selling Price: Same for both TVs
- Transaction 1: Sold at a **loss of 15%**
- Transaction 2: Sold at a **profit of 15%**
- Goal: Calculate the overall **loss/gain percentage**.

Method 1: Using the Standard Formula

There's a specific formula for situations where two items are sold at the same selling price, one at a profit of $x\%$ and the other at a loss of $x\%$. In such cases, there is always an overall **loss**.

The formula for the overall loss percentage is:

$$\text{Loss \%} = \left(\frac{x}{10} \right)^2 \%$$

Here, x is the percentage profit or loss, which is 15 in this case.

Substituting $x = 15$ into the formula:

$$\text{Loss \%} = \left(\frac{15}{10} \right)^2 \%$$

$$\text{Loss \%} = (1.5)^2 \%$$

$$\text{Loss \%} = 2.25\%$$

Therefore, the overall transaction results in a loss of 2.25%.

Method 2: Step-by-Step Calculation

To understand this better, let's assume a convenient **selling price (SP)** for each TV set. Let the SP of each TV be \$100.

Calculating Cost Prices (CP)

TV 1: Sold at 15% Loss

When sold at a 15% loss, the SP is 85% of the Cost Price (CP1).

$$SP = CP1 \times (1 - \text{Loss } \%)$$

$$100 = CP1 \times (1 - 0.15)$$

$$100 = CP1 \times 0.85$$

$$CP1 = \frac{100}{0.85} = \frac{10000}{85} = \frac{2000}{17}$$

TV 2: Sold at 15% Profit

When sold at a 15% profit, the SP is 115% of the Cost Price (CP2).

$$SP = CP2 \times (1 + \text{Profit } \%)$$

$$100 = CP2 \times (1 + 0.15)$$

$$100 = CP2 \times 1.15$$

$$CP2 = \frac{100}{1.15} = \frac{10000}{115} = \frac{2000}{23}$$

Calculating Overall Transaction Values

Total Selling Price (Total SP)

The total selling price for both TVs is the sum of their individual selling prices.

$$\text{Total SP} = 100 + 100 = 200$$

Total Cost Price (Total CP)

The total cost price is the sum of the cost prices of both TVs.

$$\text{Total CP} = CP1 + CP2 = \frac{2000}{17} + \frac{2000}{23}$$

To add these fractions, find a common denominator ($17 \times 23 = 391$):

$$\text{Total CP} = \frac{2000 \times 23}{17 \times 23} + \frac{2000 \times 17}{23 \times 17}$$

$$\text{Total CP} = \frac{46000}{391} + \frac{34000}{391}$$

$$\text{Total CP} = \frac{46000 + 34000}{391} = \frac{80000}{391}$$

Determining Overall Profit or Loss

Now, compare the Total SP and Total CP:

$$\text{Total SP} = 200 = \frac{200 \times 391}{391} = \frac{78200}{391}$$

$$\text{Total CP} = \frac{80000}{391}$$

Since Total CP ($\frac{80000}{391}$) is greater than Total SP ($\frac{78200}{391}$), there is an overall loss.

Calculating the Loss Amount

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

$$\text{Loss Amount} = \frac{80000}{391} - \frac{78200}{391} = \frac{1800}{391}$$

Calculating the Overall Loss Percentage

$$\text{Overall Loss \%} = \left(\frac{\text{Loss Amount}}{\text{Total CP}} \right) \times 100$$

$$\text{Overall Loss \%} = \left(\frac{1800/391}{80000/391} \right) \times 100$$

$$\text{Overall Loss \%} = \left(\frac{1800}{80000} \right) \times 100$$

$$\text{Overall Loss \%} = \frac{180000}{80000}$$

$$\text{Overall Loss \%} = \frac{18}{8} = \frac{9}{4}$$

$$\text{Overall Loss \%} = 2.25\%$$

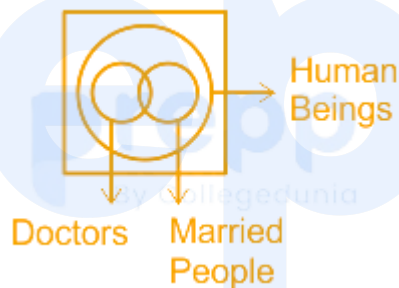
Conclusion

Both methods confirm that when two items are sold at the same selling price, one incurring a 15% loss and the other a 15% profit, the overall result is a **loss of 2.25%**.

66. Answer: d

Explanation:

The diagram that indicates the best relation between Doctors, Human Beings and Married People is shown below:



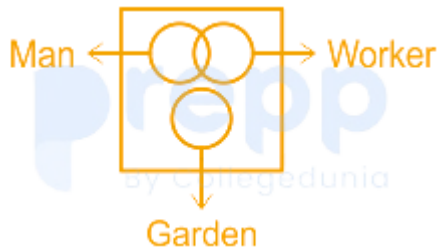
Some Doctors are Married People and all the Doctors and Married People are Human Beings.

Hence, 'option 4' is the correct answer.

67. Answer: d

Explanation:

The diagram that indicates the best relation between Man, Worker and Garden Is shown below:



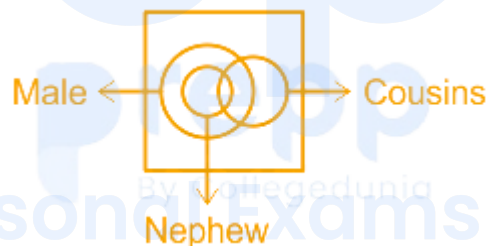
Some Man are Worker. Garden does not shares any common relation with Man and Worker.

Hence, 'option d' is the correct answer.

68. Answer: a

Explanation:

The diagram that indicates the best relation between Males, Cousins and Nephews is shown below:



All Nephews are male.

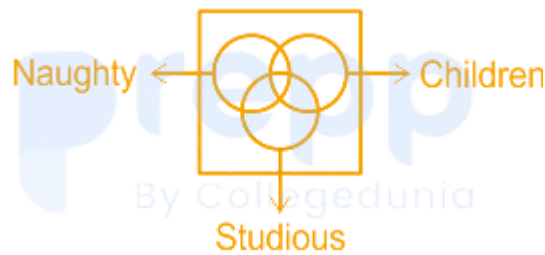
Cousin of A can Nephew of B. So, some Cousins are Nephew as well as Male.

Hence, 'option 1' is the correct answer.

69. Answer: c

Explanation:

The diagram that indicates the best relation between Children, Naughty, and Studios is shown below:



Some Children are Naughty and Studios, some studios are naughty and children and some naughty are studios and children.

Hence, 'option 3' is the correct answer.

70. Answer: a

Explanation:

The diagram that indicates the best relation between Thief, Criminal and Police is shown below:



A Thief is a Criminal. So, Thief belongs to Criminal. Police is a person whose duty is to maintain law and order and catch criminals. So, Police has no relation between thief and criminal.

Hence, 'option 1' is the correct answer.

71. Answer: d

Explanation:

This question asks us to identify the pair of words that share the same relationship as the given pair: **Loath : Coercion**.

Understanding the Analogy: Loath : Coercion

Let's break down the relationship between the first pair of words:

- **Loath:** This word means to feel intense dislike, disgust, or aversion towards something or someone. It signifies a strong negative feeling.
- **Coercion:** This refers to the practice of persuading or influencing someone strongly, often by using force, threats, or other unfair means, to do something they are unwilling to do.

The relationship between **Loath** and **Coercion** can be understood as: A strong feeling of aversion or unwillingness (Loath) is met with a method of compulsion or force (Coercion) to make someone act.

Analyzing the Options

Now, let's examine each option to see which one best mirrors the relationship identified above:

- **Option 1: Detest : Caressing**
 - **Detest:** Similar to 'Loath', it means to dislike intensely.
 - **Caressing:** This is a gentle and loving touch or stroke.

The relationship here is between intense dislike and a gentle, affectionate action. Caressing is not typically a method used to overcome detestation; it might even be unwelcome. This does not match the first pair's relationship.

- **Option 2: Irritate : Caressing**
 - **Irritate:** To annoy or make slightly angry.
 - **Caressing:** A gentle touch.

'Irritate' represents a milder negative feeling than 'Loath'. Again, 'Caressing' doesn't fit as a method to overcome irritation in a way that parallels 'Coercion'.

- **Option 3: Irrate : Antagonism**

- **Irate**: Feeling or characterized by great anger.
- **Antagonism**: Active hostility or opposition.

Both 'Irate' and 'Antagonism' describe states of hostility or anger. This pair represents a similar state or a cause-and-effect between negative emotions/actions, rather than a feeling countered by a method of influence. It doesn't match the structure of the original pair.

- **Option 4: Reluctant : Persuasion**

- **Reluctant**: Unwilling and hesitant; disinclined. This signifies a state of resistance or unwillingness, though generally less intense than 'Loath'.
- **Persuasion**: The action or process of convincing someone or of being convinced to do or believe something through reasoning or argument. This is a method used to influence action.

This pair represents a relationship where a state of unwillingness or hesitation (Reluctant) is addressed by a method aimed at achieving compliance (Persuasion). This mirrors the structure of **Loath : Coercion** (Strong Aversion : Forceful Method) in that it connects a state of resistance with a method to overcome that resistance. While the intensity differs ('Loath' is stronger than 'Reluctant', and 'Coercion' is more forceful than 'Persuasion'), the fundamental relationship type is the most similar.

Conclusion

The relationship in the original pair is essentially **State of Resistance : Method to Overcome Resistance**. Option 4, **Reluctant : Persuasion**, best fits this pattern by linking a state of unwillingness (Reluctant) with a method used to gain compliance (Persuasion).

72. Answer: c

Explanation:

Understanding the Analogy: Trilogy : Novel :: ? : ?

This question requires us to identify an analogy. We are given the first pair, **Trilogy : Novel**, and need to find a second pair from the options that exhibits the same relationship between its components. The task involves recognizing the pattern in the first pair and applying it to find the matching pair.

Analogy Breakdown: Trilogy : Novel

Let's examine the relationship between **Trilogy** and **Novel**:

- A **Trilogy** is a set of three literary works (or other works like films or plays) that are related, often forming a continuous narrative or exploring a common theme.
- A **Novel** is a type of book, typically a long fictional narrative.

The relationship is that a **Trilogy** is a specific type of collection or series, composed of three individual **Novels**. It represents a whole composed of related parts.

Evaluating the Options for Analogous Relationships

We will now analyze each option to find a similar relationship:

- **Option 1: Rice : Husk**
A **Husk** is the outer protective covering of a grain like **Rice**. The relationship is one of covering and being covered, or outer layer to the core item. This is different from a collection composed of parts.
- **Option 2: Milk : Cream**
Cream is a fatty component derived from **Milk**. This represents a relationship where one item is a component or product obtained from another source material. It's not a collection of multiple units.
- **Option 3: Serial : Episode**
A **Serial** is a work presented in installments or parts, such as a TV series or a serialized novel. An **Episode** is a single installment within that **Serial**. This means a **Serial** is a collection or sequence made up of multiple **Episodes**. This structure strongly matches the relationship between a **Trilogy** (a collection of three novels) and a **Novel** (the individual part).
- **Option 4: Gun : Cartridge**
A **Cartridge** serves as the ammunition for a **Gun**. This is a relationship between

a device and its ammunition or operational component, not a collection of similar parts.

Conclusion: Finding the Best Match

Based on the analysis, the relationship in Option 3 (**Serial : Episode**) is the most analogous to the relationship in the given pair (**Trilogy : Novel**). Both pairs represent a larger work or structure that is composed of multiple, individual, and related parts.

Therefore, **Serial : Episode** correctly completes the analogy.

73. Answer: c

Explanation:

Wife : Marriage Analogy Explained

The question asks us to identify an analogous relationship. We are given the pair **Wife : Marriage** and need to find a similar relationship among the options provided.

In the pair **Wife : Marriage**, 'Wife' signifies a role or status. 'Marriage' represents the event, ceremony, or social union that establishes or defines this role. Thus, the relationship is one of Role/Status established by an Event/Context.

Analysis of Analogy Options

Let's analyze the relationship between the terms in each option:

- **Option 1: Bank : Money**

A **Bank** is a financial institution. **Money** is the resource or commodity that banks manage and process. The relationship is Institution : Associated Resource. This does not match the Role/Status : Event/Context pattern.

- **Option 2: Nationality : Citizenship**

Nationality pertains to a person's origin or sense of belonging to a nation. **Citizenship** is the legal status conferred by a nation-state, granting rights and responsibilities. While related, Nationality is not strictly the event or context that *establishes* Citizenship in the way Marriage establishes the role of Wife. The connection is conceptual rather than event-based.

- **Option 3: Service : Qualification**

In this pair, 'Service' can represent a role, function, or action performed by someone. 'Qualification' refers to the necessary skills, credentials, or attributes required to perform that service. For example, one needs a medical **qualification** to provide medical **service**. This relationship, where a role/action is enabled or defined by a prerequisite/context, closely parallels the relationship between Wife (Role) and Marriage (Context/Event).

- **Option 4: Attendance : Register**

Attendance is the state or act of being present. A **Register** is a book or system used to record attendance. The relationship here is Action/State : Record/Tool. This is different from the pattern identified in the original pair.

Identifying the Correct Analogy Pair

Comparing the relationships, the connection between **Service** and **Qualification** provides the best parallel to the relationship between **Wife** and **Marriage**. In both cases, the first term is a role, status, or action that is inherently linked to, or established by, the second term which acts as the context or requirement.

Therefore, the alternative that correctly replaces the question marks is **Service : Qualification**.

74. Answer: d

Explanation:

Understanding the East : Orient Analogy

The question presents an analogy: East : Orient. We need to find a similar relationship among the given options.

The relationship between **East** and **Orient** is based on the meaning and origin of the word **Orient**. The term **Orient** comes from the Latin word '*oriens*', which means 'rising'. This refers to the direction where the sun rises, which is the **East**. Historically, the **Orient** also referred to the regions of Eastern Asia.

So, the analogy is based on a direction and a term strongly associated with that direction, often linked to the phenomenon of sunrise or the geographical/cultural region.

Analyzing Options for the East : Orient Analogy

Let's examine each option to see which one mirrors the relationship between **East** and **Orient**:

- **Option 1: North : Polar**

The **North** direction is associated with the North Pole, and '*Polar*' relates to the poles. While geographically connected, '*Polar*' doesn't directly represent the 'rising' aspect or a historical designation derived from the direction itself in the same way '*Orient*' does for **East**.

- **Option 2: North : Tropic**

'*Tropic*' usually refers to lines of latitude like the Tropic of Cancer or Capricorn. While the North Pole is in the northern hemisphere, the connection between **North** and '*Tropic*' isn't as direct or etymologically parallel as **East** and **Orient**.

- **Option 3: South : Capricorn**

'*Capricorn*' refers to a constellation and the Tropic of Capricorn, located in the Southern Hemisphere. Similar to Option 1, it's a geographical association but lacks the direct etymological link related to a primary characteristic (like sunrise/sunset) seen in the original pair.

- **Option 4: West : Occident**

The term **Occident** comes from the Latin word '*occidens*', meaning 'setting'. This refers to the direction where the sun sets, which is the **West**. Historically, the **Occident** also referred to Western countries. This mirrors the relationship between **East** and **Orient** perfectly, as both terms relate to the cardinal direction and the associated phenomenon of sunrise (East/Orient) or sunset (West/Occident).

Conclusion on the Analogy

The relationship between **East** and **Orient** is that **Orient** is a term derived from the concept of the rising sun and associated with the **East**. The pair **West : Occident** shares the exact same structure, where **Occident** is derived from the concept of the setting sun and associated with the **West**.

Therefore, **West : Occident** is the alternative that correctly replaces **East : Orient**.

75. Answer: c

Explanation:

Understanding the Analogy: Ignominy and Disloyalty

This question presents an analogy that requires identifying the relationship between the first pair of words and applying that same relationship to find the correct second pair.

Analyzing Ignominy and Disloyalty

Let's first understand the core concepts:

- **Ignominy**: This term refers to public shame, disgrace, or dishonor. It's a state of severe reputational damage.
- **Disloyalty**: This means a failure to be loyal, often involving betrayal or treachery.

The relationship between **Ignominy** and **Disloyalty** is one of cause and effect. **Disloyalty** is an action or trait that typically leads to or results in **Ignominy**. In simpler terms, being disloyal often causes public shame or dishonor.

Evaluating the Options

We need to find an option where the first word is a cause or action, and the second word is its common effect or consequence, similar to the **Disloyalty : Ignominy** relationship.

Option 1: Death : Victory

- **Death** is the end of life.
- **Victory** is an act of defeating an enemy or opponent.
- Relationship: While death can occur during a conflict leading to victory, or be a sacrifice for victory, it is not a direct or necessary consequence of victory itself. Victory doesn't inherently cause death. This relationship doesn't match the initial pair.

Option 2: Martyr : Man

- **Martyr** is a person who is killed because of their religious or other beliefs, often seen as a heroic figure.
- **Man** refers to a human male.
- Relationship: A martyr is a type of person, and often that person is a man. This is a category or instance relationship, not a cause-and-effect one. It doesn't parallel **Disloyalty** causing **Ignominy**.

Option 3: Fame : Heroism

- **Fame** is the condition of being widely known and recognized.
- **Heroism** is great courage or bravery, often in the face of danger.
- Relationship: Acts of **Heroism** frequently lead to public recognition, which results in **Fame**. Similar to how **Disloyalty** leads to **Ignominy**, **Heroism** leads to **Fame**. This establishes a strong cause-and-effect link.

Option 4: Destruction : Victory

- **Destruction** is the act or process of destroying something.
- **Victory** is achieving triumph over an opponent.

- Relationship: Destruction might happen during the process of achieving victory (e.g., in war), but victory itself is not typically the cause of destruction. Often, victory aims to prevent destruction or occurs despite it. The cause-effect link is weak or reversed compared to the original pair.

Conclusion on Analogy

The analogy **Ignominy : Disloyalty** shows that **Disloyalty** causes **Ignominy**. The option that best mirrors this relationship is **Fame : Heroism**, where **Heroism** causes **Fame**.

76. Answer: c

Explanation:

Identifying the Different Word: Hill Ranges vs. Animal Mounds

The question asks us to find the word that is **different** from the others in the given list. We need to identify a common characteristic shared by three words and identify the one that does not fit this characteristic.

Analyzing the Options:

- **Aravalli hills:** This refers to an ancient mountain range located in the northwestern part of India. It's a significant **geological** feature.
- **Shivalik hills:** These are the foothills of the Himalayas, forming the youngest mountain range of the Himalayas. They are also a major **geological** feature.
- **Mole hills:** This term describes the small mounds of earth pushed up to the surface by burrowing moles (animals). These are *not* large-scale **geological** formations like mountain ranges.
- **Satpura hills:** This is another major mountain range in central India, known for its geological significance and landscape.

Comparison of the Hill Types:

Let's compare the nature of these places:

- Aravalli hills, Shivalik hills, and Satpura hills are all recognized as **mountain ranges** or significant **hill systems** that are natural, large-scale **geological** formations.
- "Mole hills", on the other hand, are very small mounds created by the activity of moles. They are distinct from natural **geological** landforms like mountain ranges.

Conclusion: Why "Mole hills" is Different

The commonality among Aravalli hills, Shivalik hills, and Satpura hills is that they are all natural, significant **geological** features, specifically **mountain ranges** or extensive **hill systems**. "Mole hills" stands apart because it refers to small, localized mounds created by animal activity, not a large-scale **geological** structure.

Therefore, "Mole hills" is the word that is **different** from the rest.

77. Answer: c

Explanation:

Identifying the Different Word Among Animals

This question requires us to find the odd word out from the given list of animals: Beaver, Alpaca, Walrus, and Koala. We need to analyze the characteristics of each animal to determine which one is different from the rest based on a common criterion.

Analyzing the Characteristics of Each Animal

- **Beaver:** Beavers are large, semi-aquatic rodents known for building dams and lodges. They primarily live in freshwater environments like rivers, streams, and lakes, but they spend significant time on land as well.

- **Alpaca:** Alpacas are domesticated South American camelids, closely related to llamas. They are herbivores that live on land, primarily in mountainous regions. They are known for their soft fleece.
- **Walrus:** Walruses are large marine mammals found in the Arctic Ocean. They spend most of their lives in the sea and are characterized by prominent tusks and thick blubber. They come ashore or onto ice floes to rest.
- **Koala:** Koalas are arboreal marsupials native to Australia. They live in eucalyptus forests and spend most of their time in trees, feeding on eucalyptus leaves. They are land-dwelling animals.

Determining the Basis for Difference

When comparing these animals, a key difference emerges based on their primary habitat and lifestyle:

- Beavers are semi-aquatic/terrestrial.
- Alpacas are terrestrial.
- Koalas are terrestrial/arboreal.
- Walruses are marine mammals.

The Beaver, Alpaca, and Koala are primarily associated with land or freshwater environments. The Walrus, however, is distinctly a marine animal, adapted to life in the ocean.

Conclusion: The Odd One Out

Based on the primary habitat, the **Walrus** is different from the Beaver, Alpaca, and Koala. While Beavers are semi-aquatic, they are not primarily ocean dwellers like the Walrus. Alpacas and Koalas are clearly land animals. Therefore, the Walrus stands out due to its marine existence.

78. Answer: c

Explanation:

Identifying the Different Word: Literary Classification

The main goal here is to pinpoint the word that doesn't fit with the others in the list. This involves recognizing a common theme or category shared by three of the options, which the fourth option lacks.

Analyzing the Choices Provided

Let's look closely at each word given:

- **Othello**: This is recognized as one of William Shakespeare's tragedy plays.
- **King Lear**: Similar to Othello, this is another famous tragedy play written by William Shakespeare.
- **Oliver Twist**: This is a well-known novel, authored by Charles Dickens. It tells the story of a young orphan.
- **Macbeth**: This is also a significant tragedy play by William Shakespeare.

Finding the Common Link

When we examine the nature of these literary works, a clear pattern emerges:

- **Othello**, **King Lear**, and **Macbeth** are all plays, specifically tragedies.
- A unifying factor for these three is their author: William Shakespeare.
- **Oliver Twist**, however, belongs to a different category. It is a novel, not a play.
- Furthermore, **Oliver Twist** was written by Charles Dickens, who is a different author from William Shakespeare.

Conclusion on the Different Word

Based on this analysis, **Oliver Twist** is the word that differs from the rest. The other three options are all tragedy plays written by William Shakespeare, while Oliver Twist is a novel by Charles Dickens.

79. Answer: d

Explanation:

Identifying the Different Word: Military Leaders Comparison

The task is to find the word that is different from the others in the list. This involves identifying a common theme or characteristic shared by three of the options and selecting the one that does not share this characteristic.

Examining Each Option

Let's look at the individuals represented by each name:

- **Nimitz:** Fleet Admiral Chester W. Nimitz was a highly influential commander in the U.S. Navy during World War II.
- **Yamamoto:** Isoroku Yamamoto was the Commander-in-Chief of Japan's Imperial Navy during World War II.
- **Nelson:** Admiral Lord Nelson was a famous British naval hero, renowned for his command during the Napoleonic era, especially at the Battle of Trafalgar.
- **Montgomery:** Field Marshal Bernard Montgomery was a prominent British Army officer, famous for leading ground forces in World War II, including battles like El Alamein.

The Commonality: Naval Leadership

The names Nimitz, Yamamoto, and Nelson are all strongly associated with significant achievements and leadership roles in **naval** history. They were celebrated admirals and commanders of naval forces.

The Distinction: Army Command

Conversely, Montgomery, while a crucial military figure in World War II, is recognized primarily for his command of **army** or ground forces. His fame comes from land warfare, distinguishing him from the others.

Determining the Different Word

Considering their primary roles, Montgomery is the outlier. Nimitz, Yamamoto, and Nelson were prominent naval commanders, whereas Montgomery was a prominent army commander.

80. Answer: c

Explanation:

This question is a classic example of an 'odd one out' verbal reasoning task. The goal is to identify the word that does not share a common characteristic with the other three words provided in the options. We need to carefully examine the meaning of each word to find the pattern.

Choosing the Different Word

The question presents four words: Blaze, Glint, Simmer, and Shimmer. We must **choose** the word that is dissimilar to the others based on their meanings.

Detailed Word Meaning Analysis

To solve this, let's analyze the definition of each word:

- **Blaze:** This word refers to a strong, bright fire or light, often characterized by flames. It implies intensity and brightness.
- **Glint:** This term describes a quick flash or gleam of light, typically reflected light. It suggests a brief, sharp shine.
- **Simmer:** This word primarily means to cook food gently in liquid just below the boiling point. It can also refer to a state of suppressed anger or excitement.
- **Shimmer:** This describes a soft, unsteady light that seems to flicker or waver. It implies a gentle, often beautiful, shining quality.

Identifying the Commonality Among Words

By comparing the definitions, we can group three of the words based on a shared theme:

- **Blaze** is related to bright light/fire.
- **Glint** is related to a flash of light.
- **Shimmer** is related to a wavering light.

The words Blaze, Glint, and Shimmer all describe different forms or qualities of **light** or **shining**.

Explanation for the Different Word

Now, let's consider the word 'Simmer' in relation to the others:

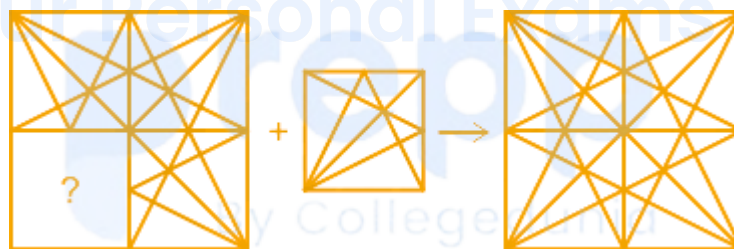
- 'Simmer' primarily relates to the process of cooking or a state of subdued emotion. It does not describe a type of light or shining phenomenon.

Since Blaze, Glint, and Shimmer are all related to light, and Simmer is not, 'Simmer' is the word that is **different** from the **rest**.

81. Answer: d

Explanation:

The figure which completes the pattern of question figure is given below:

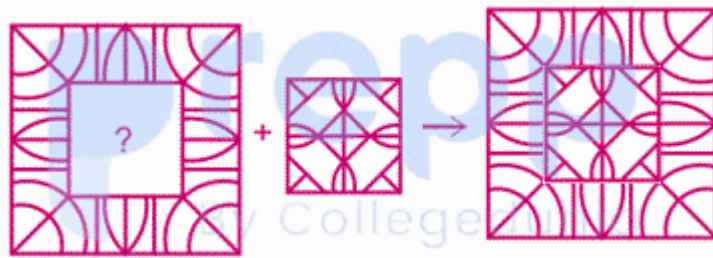


Hence, the correct answer is "option (4)".

82. Answer: c

Explanation:

The figure that best completes the pattern given is shown below:

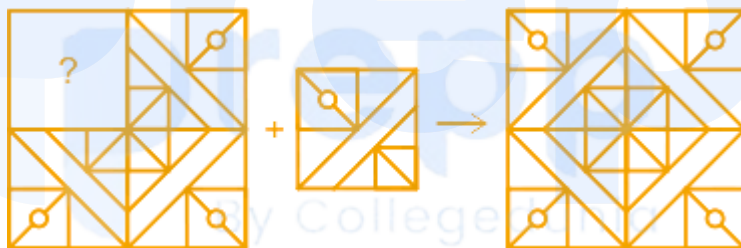


Hence, the correct answer is "Option (3)".

83. Answer: a

Explanation:

The figure that best completes the pattern given is shown below:



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

84. Answer: b

Explanation:

The figure that best completes the pattern given is shown below:

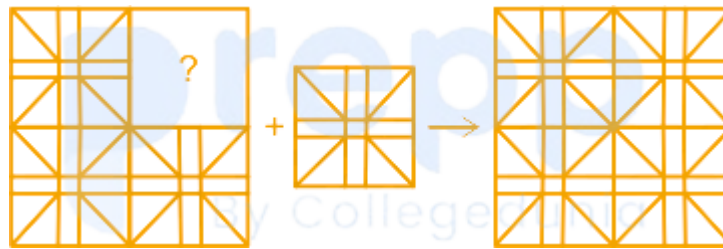


Hence, the correct answer is "Option (2)".

85. Answer: d

Explanation:

The figure which completes the pattern of question figure is given below:



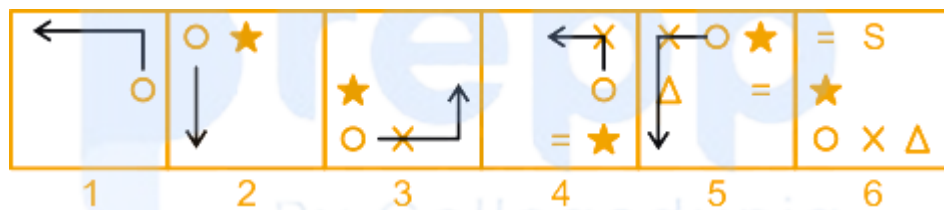
Hence, the correct answer is "option (4)".

86. Answer: c

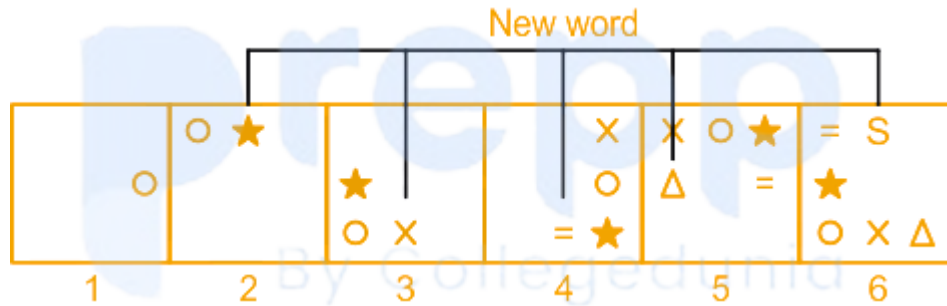
Explanation:

The logic followed here is :

1) In every step circle is shifted to three places or two places anticlockwise alternatively.



2) A new element is added either side of the circle alternatively in every step. So, after fifth step circle should be at lower left corner and a new element should be added nearby "=" sign.



Hence, **option (3)** should be the correct answer.

87. Answer: c

Explanation:

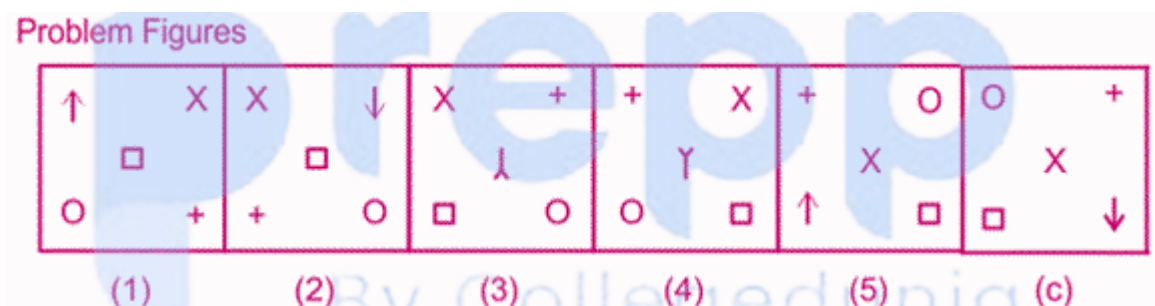
The pattern followed here is:

- 1) In the series, we see that in the 2nd image is, the left side symbols and right side symbols are interchange their position.
- 2) Each symbol in the figure 1st get inverted vertically.

Similarly,

in the 4th image, the left side symbols and right side symbols are interchange their position and each symbol in the figure get inverted vertically.

So, the figure that will continue the series is answer figure c, in which the same logic follows.



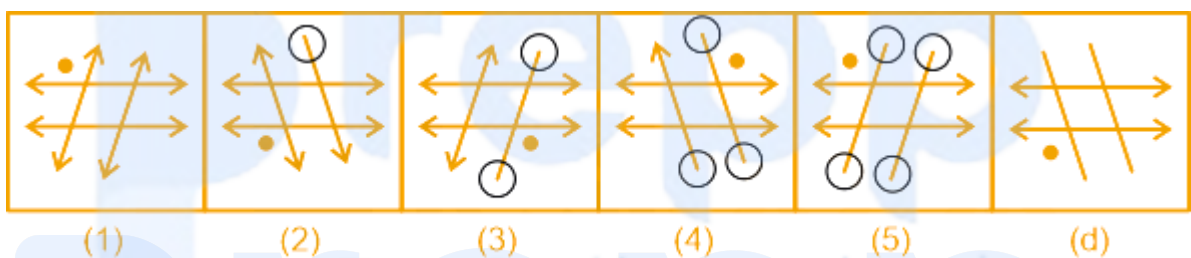
Hence, the correct answer is **"Option 3"**.

88. Answer: d

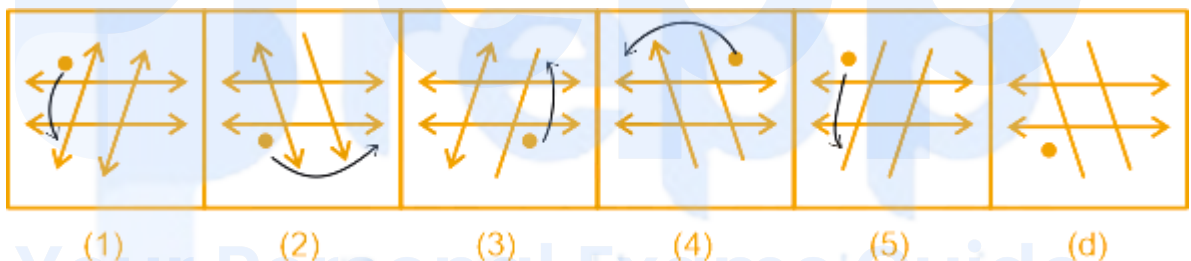
Explanation:

The logic followed here is:

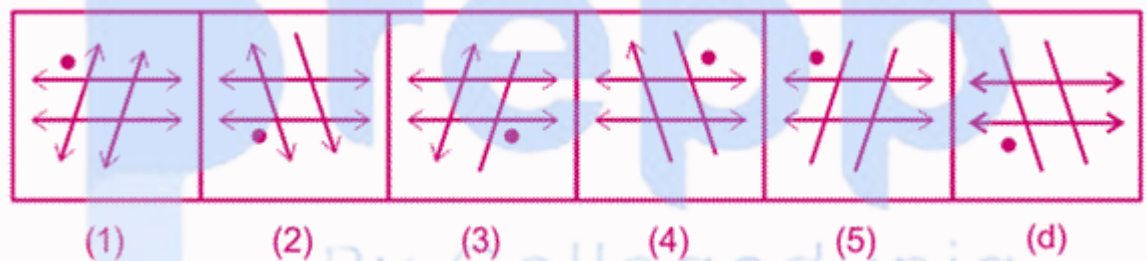
1) we observe that the arrow sign in each figure reduces by one. So, in the fifth figure there is **no vertical line left** with arrow sign.



2) Dot is shifted after a gap **anticlockwise direction** in each step.



So in the figure that will continue the series, there should be no arrow sign in the vertical lines and dot should be placed according in anticlockwise direction. as in answer figure 'd'.



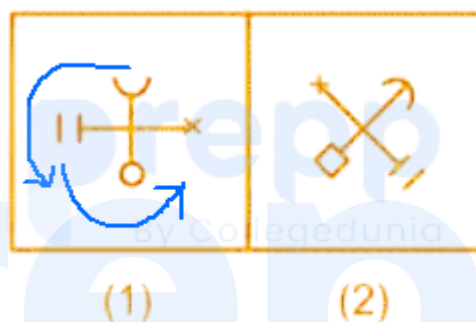
Hence , **option 4** is the correct answer.

89. Answer: d

Explanation:

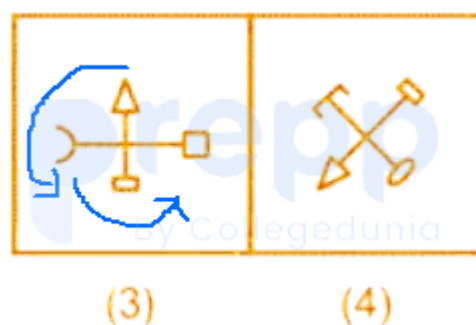
The pattern followed here is:

1) From 1st image to 2nd image one line is moving 135° anticlockwise with same head symbol and other line is moving 135° anticlockwise and the head symbols are changed.

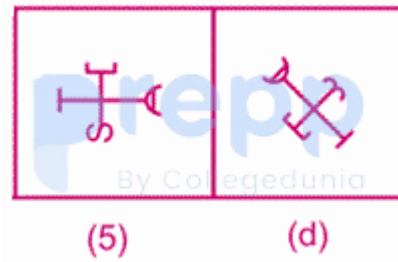


Similarly,

2) From 3rd image to 4th image one line is moving 135° anticlockwise with same head symbol and other line is moving 135° anticlockwise and the head symbols are changed.



Applying same logic in next figure 5th, figure (d) should be the answer.



Hence, the correct answer is "Option 4".

90. Answer: c

Explanation:

The logic followed here is:

1) As we move along the series, one line with a symbol is added in each step, and the line with which the figure series starts is moving in 45° anti-clockwise direction.

So, the figure that will continue the series must have six lines and the line with unshaded circle must be facing south-east direction.

Answer figure 'C' satisfies the above given conditions.

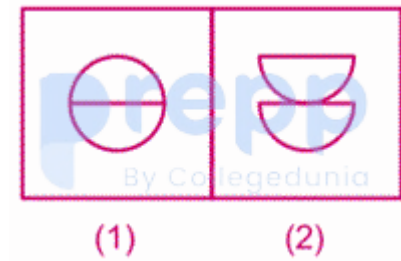


Hence, the correct answer is "Option 3".

91. Answer: c

Explanation:

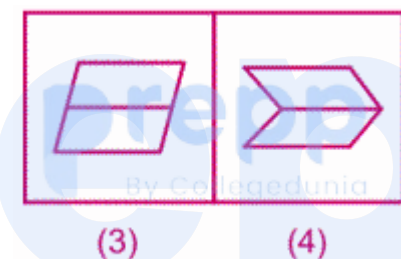
The logic is:



1st image is divided horizontally and then the upper part of the figure is inverted and placed on the lower part.

Similarly,

When the 3rd image is divided horizontally and then the upper part of the figure is inverted and placed on the lower part, it will look like answer figure 'c'.



Hence, the correct answer is "Option 3".

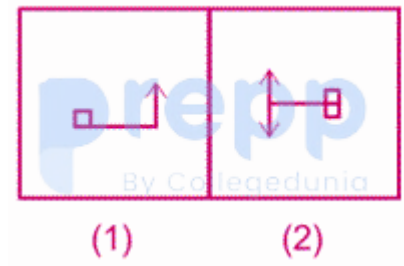
92. Answer: c Your Personal Exams Guide

Explanation:

The logic is:

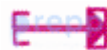
In the first two figures,

1) Firstly image is merged with its water image and then the mirror image of this picture is placed in 2nd image.



Similarly,

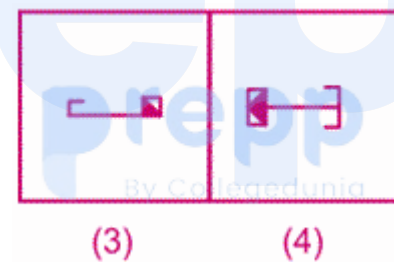
When 3rd image is merged with its water image, the figure will be as shown below:



The mirror image of the above figure is as shown below:



So, the figure that will complete the analogy is shown below:

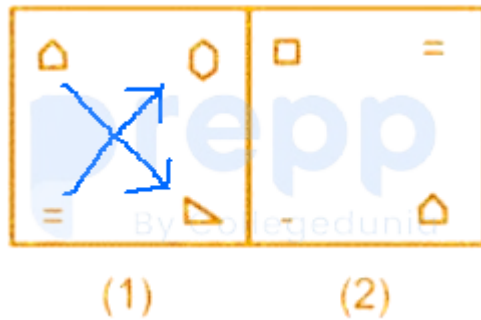


Hence, the correct answer is "Option 3".

93. Answer: a

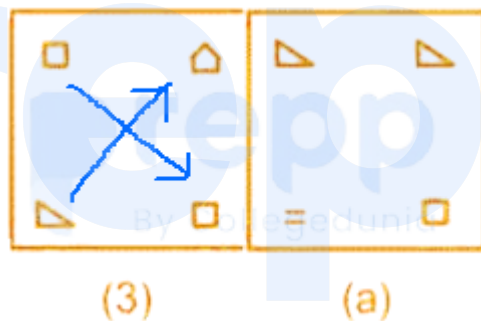
Explanation:

Symbol given in figure (1) at lower left corner shifted to upper right corner in figure (2). Symbol at upper left corner is shifted to lower right corner. Symbol at right side are changed with some other new symbols and are placed to left side of the rectangle.



Similarly,

Symbol given in figure (3) at lower left corner shifted to upper right corner in figure (4). Symbol at upper left corner is shifted to lower right corner. Symbol at right side are changed with some other new symbols and are placed to left side of the rectangle.



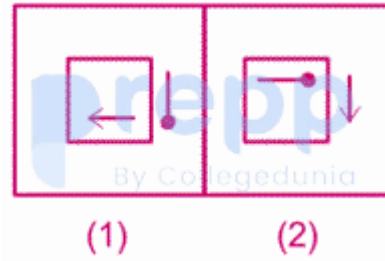
Hence, the correct answer is "Option 1".

94. Answer: d

Explanation:

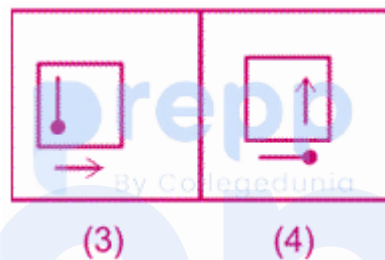
The logic is:

1) In the first two image, the arrow shifts from inside to outside and the line with dot shifts from outside to inside in anticlockwise direction.



Similarly,

2) In the 4th image, following the above pattern, the arrow will shift inside facing north direction and the line with dot will shift outside facing east.



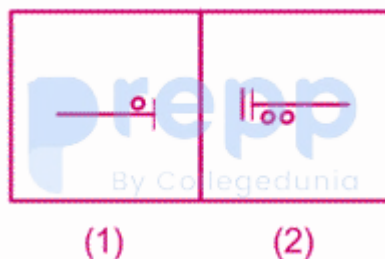
Hence, the correct answer is "Option 4".

95. Answer: c

Explanation:

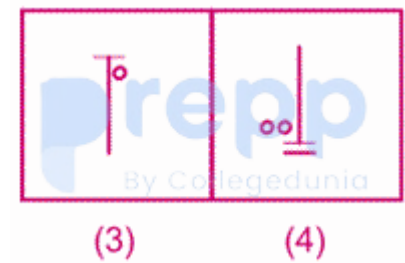
The logic is:

1) In 1st and 2nd image, we see that circles in 1st image is 1, which becomes 2 in the second image. Also, the small line attached with the horizontal line is in east direction, which increases by one in the 2nd image and shifts to west direction.



Similarly,

In the '?' image there will be two circles and the two small lines attached with the vertical line will be in south direction.



Hence, the correct answer is "Option 3".

96. Answer: d

Explanation:

We have check the each figure:

Figure (a):



Here, the arrow is pointing to the side of filled dot.

Figure (b):



Here, the arrow is pointing to the side of filled dot.

Figure (c):



Here, the arrow is pointing to the side of filled dot.

Figure (d):



Here, the arrow is Not pointing to the side of filled dot.

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

97. Answer: a

Explanation:

We have checked each figure:

Figure (a):



Here, all the symbols with the horizontal line are facing **East**.

Figure (b):



Here, all the symbols with the horizontal line are facing **West**.

Figure (c):



Here, all the symbols with the horizontal line are facing **West**.

Figure (d):



Here, all the symbols with the horizontal line are facing **West**.

So, figure (a) is the odd one out.

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

98. **Answer: c**

Explanation:

We checked the each figure:

Figure (a):



Here, two lines with same head (Either T or arrow) are parallel to each other.

Figure (b):



Here, two lines with same head (Either T or arrow) are parallel to each other

Figure (c):



In this figure there is No parallel lines.

Figure(d):



Here, two lines with same head (Either T or arrow) are parallel to each other.

So, figure (c) is the odd one out.

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

99. Answer: c

Explanation:

We have checked the all figures:

Figure (a):



Here, if we move in clockwise direction, the arrow comes first and then dot.

Figure (b):



Here, if we move in clockwise direction, the arrow comes first and then dot.

Figure (c):



Here, if we move in clockwise direction, the dot comes first and then arrow.

Figure(d):



Here, if we move in clockwise direction, the arrow comes first and then dot.

So, Figure (c) is the odd one out.

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

100. **Answer: c**

Explanation:

In each option except 'c', the two lines intersect exactly at the mid-point of the two lines, while, in option 'c', the lines do not intersect exactly at the mid-point.

So, figure (C) is the odd one out.

Hence, 'option 3' is the correct answer.

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