

Answers

1. Answer: d

Explanation:

Explaining the Significance of Patience Compared to Wisdom

The provided passage emphasizes the supreme importance of patience over wisdom. It uses a striking analogy to illustrate this point: "An ounce of patience is worth a pound of brains." The author suggests that while people acknowledge the virtue of patience, few actually cultivate it. Furthermore, the passage posits that personal difficulties often arise from a person's mindset and lack of patience rather than external fate.

Understanding the Core Analogy: Patience vs. Brains

The central remark, "An ounce of patience is worth a pound of brains," compares the value of patience to that of wisdom (represented metaphorically by 'brains').

- **Value Comparison:** The analogy sets up a clear value hierarchy. A small quantity of patience (one ounce) is presented as being significantly more valuable than a large quantity of wisdom (one pound).
- **Implication:** This suggests that wisdom, however great, might be ineffective or its potential unrealized without the enabling quality of patience. Patience acts as a catalyst or a necessary component for wisdom to be truly effective.

Analyzing the Options in Context

Let's examine each option to see how well it explains the author's statement:

- **Option 1:** *Wisdom can only be attained by practising patience.* While the passage values patience highly, it doesn't explicitly state that patience is the *sole*

method for achieving wisdom. It focuses more on the value and utility of patience once wisdom is present.

- **Option 2:** *Patience comes first, wisdom next.* The quote compares the *value* or *worth* of patience relative to wisdom, not the order in which they are acquired or practiced. The passage doesn't establish a necessary sequence.
- **Option 3:** *Patience is essential for every achievement in life.* This is a broad statement. While patience is generally helpful for success, the author's specific remark is a direct comparison between patience and *wisdom* ('brains'), suggesting a particular relationship between these two qualities, rather than a universal rule for all achievements.
- **Option 4:** *Without patience wisdom cannot be used properly.* This option aligns closely with the analogy. If `1 ounce of patience` is worth `1 pound of brains`, it implies that patience enhances the effectiveness of wisdom. Wisdom ('brains') might exist, but without patience, it cannot be applied correctly or yield its full benefits. Patience allows for the proper application, management, and execution of wise decisions.

Conclusion on the Best Explanation

The statement "`1 ounce of patience` is worth `1 pound of brains`" best signifies that the practical application and effectiveness of wisdom ('brains') are significantly amplified or even enabled by patience. Option 4 captures this relationship, explaining that the utility of wisdom is dependent on the presence and proper use of patience, making it the most suitable interpretation of the author's remark.

2. Answer: d

Explanation:

Understanding the 'Garden and Herbs' Metaphor

The author uses a metaphor comparing **patience** to a special medicinal herb and people to gardens. The statement, "it is not every garden that grows the herbs to make it with," means that the specific qualities needed to cultivate patience (the

'herbs') are not found in every person (the 'garden'). It highlights the idea that while patience might be beneficial like a medicine for various ailments, it's not something that can be easily found or grown in everyone.

Connecting Patience Metaphor to Passage Content

The passage explicitly supports this idea of scarcity. It states, "All men praise patience, but few can practice it." This directly links the metaphor to reality, suggesting that although people recognize the value of patience, very few actually possess or demonstrate it consistently. The difficulty in practicing patience is likened to the difficulty in finding the specific herbs in just any garden.

Analyzing MCQ Options for the Metaphor

Let's examine how each option relates to the author's metaphorical statement:

- **Option 1: Patience is a must for solving all our problems in life.**

While patience can be helpful in problem-solving, the metaphor focuses specifically on the *availability* or *presence* of patience itself, not its direct application to solving problems.

- **Option 2: Patience is a rare herb that cures all diseases.**

This option captures the "rare herb" and "cures all diseases" aspects, implying patience is valuable and perhaps uncommon. However, it misses the crucial part of the metaphor related to *where* the herb is found – the 'garden' or the people.

- **Option 3: Patience is virtue of a highest order.**

The passage does suggest patience is highly valuable ("better than wisdom"), but this option describes its rank, not the specific meaning behind the 'garden' metaphor, which emphasizes its rarity among people.

- **Option 4: It is only a small number of people that are found observing patience in life.**

This option perfectly aligns with the metaphor. The "herbs" (patience) are not found in "every garden" (every person), meaning patience is uncommon. This directly reflects the passage's comment that "few can practice it." It interprets the metaphor accurately by linking the scarcity of the herb to the limited number of people who exhibit the quality.

Final Explanation of the Metaphorical Statement

The author's statement, "it is not every garden that grows the herbs to make it with," serves to illustrate that the quality of **patience** is not universally present. Just as specific medicinal herbs might only grow in certain conditions or gardens, the ability to practice patience is found only in a limited number of individuals. Therefore, the most likely explanation is that patience is a quality possessed by only a few people, as stated in Option 4.

3. Answer: b

Explanation:

Understanding the Writer's Perspective on Personal Burdens

The question asks for the meaning of the specific remark made by the writer: "They think every person's burden to be light and their own feathers to be as heavy as lead". This statement appears in a passage discussing the virtue of patience and contrasting it with a tendency towards complaint and dissatisfaction.

Analyzing the Key Phrase

Let's break down the phrase to understand its core meaning:

- **"Every person's burden to be light"**: This part suggests that people who complain tend to view the problems or difficulties faced by others as minor, insignificant, or easily manageable.

- **"Their own feathers to be as heavy as lead":** This part signifies that these same people perceive their own challenges, troubles, or responsibilities (metaphorically called 'feathers') as overwhelmingly heavy and difficult, like lead.

The writer uses this contrast to highlight a common psychological tendency: the **biased comparison** of one's own situation versus others'. People often minimize others' struggles while magnifying their own.

Evaluating the Options

Now, let's look at the given options in light of this analysis:

- **Option 1: They are always worried and dejected**
While the passage mentions people living "complaining" and dying "disappointed," this option focuses solely on their emotional state (worry, dejection) and doesn't capture the comparative aspect central to the quoted sentence.
- **Option 2: They consider their own problems to be difficult to solve as compared to the problems of other people**
This option accurately reflects the comparison described. It addresses both parts of the quote: viewing others' problems as less difficult ('light') and their own problems as more difficult ('heavy as lead'). This aligns perfectly with the meaning of subjective exaggeration of personal hardship relative to others.
- **Option 3: They feel that they alone face serious problems while others have a nice time**
This option is similar but slightly different. It emphasizes the feeling of uniqueness in suffering and contrasts it with others having a 'nice time'. While related, Option 2 is more precise about comparing the *difficulty* of the problems themselves, which is the direct implication of "light burden" vs. "heavy lead".
- **Option 4: They remain very much worried about their own problem**
Similar to Option 1, this focuses only on the individual's worry about their own problems and misses the crucial comparative element present in the quote regarding other people's burdens.

Conclusion on the Remark

The writer's statement vividly describes a mindset where individuals consistently underestimate the challenges faced by others while overestimating the weight of their own troubles. The comparison highlights a distorted perception of fairness and difficulty. Therefore, the most fitting interpretation is that people perceive their own problems as significantly more difficult compared to those of others.

4. Answer: b

Explanation:

Analyzing the Word Choice for Blank (4)

The question asks to fill in the blank labeled (4) in the sentence: "Life is an (4) series of challenges and opportunities to be seized." We need to choose the most fitting adjective from the given options to describe the 'series' of life events.

Understanding the Context

The sentence portrays life as a sequence of events ('series') that includes both difficulties ('challenges') and favorable moments ('opportunities'). The phrase "to be seized" implies that these opportunities should be actively taken advantage of. Therefore, the word in blank (4) should describe a series that naturally involves such elements and encourages action.

Evaluating the Options for Blank (4)

- **enticing:** This word means attractive or tempting. While life can be enticing, it doesn't fully capture the active engagement required for challenges and opportunities.
- **exciting:** This word means causing great enthusiasm and eagerness or thrilling. This adjective fits well because facing challenges and seizing opportunities

often involves excitement and a sense of anticipation or thrill. It aligns perfectly with the idea of life's dynamic nature.

- **encharming** (likely intended to be 'enchancing'): This word means delightfully charming or attractive. Similar to 'enticing', while life can be charming, 'exciting' better reflects the active participation described in the sentence.
- **enhancing**: This word usually means improving or adding value. As an adjective modifying 'series' in this context, it doesn't fit grammatically or semantically. It suggests making something better, rather than describing the nature of the series itself in relation to challenges and opportunities.

Conclusion on Blank (4)

Comparing the options, '**exciting**' is the most appropriate word. It best describes a 'series' of life events characterized by challenges and opportunities that are meant to be actively seized, conveying a sense of enthusiasm and engagement.

5. Answer: c

Explanation:

Understanding Career Choices and Opportunities

The question asks us to identify the most suitable word to fill in the blank numbered '5' in the provided sentence. The sentence discusses the importance of planning for career choices and dealing with opportunities.

Analyzing the Sentence Context

The specific sentence is: "You have to plan for exercising the right career choices and (5) the right opportunities."

This sentence highlights two key aspects of career planning:

- Making the correct career choices.
- Actively engaging with available career opportunities.

The word for blank '5' should describe the action taken towards 'opportunities'. It implies actively pursuing or taking hold of them.

Evaluating Word Options for Blank 5

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

- **Option 1: freeing** – This word means to release or liberate. It doesn't logically connect with acting upon career opportunities.
- **Option 2: offsetting** – This means to balance or compensate for something. It doesn't fit the context of seizing opportunities.
- **Option 3: grabbing** – This means to seize or take hold of something suddenly and eagerly. In the context of career opportunities, it means actively pursuing and taking advantage of them. This fits the proactive approach mentioned in the passage.
- **Option 4: conceiving** – This means to form or devise a plan or idea. While planning is mentioned, this word doesn't describe the action taken towards existing opportunities.

Conclusion on the Best Fit

Comparing the options, 'grabbing' is the most appropriate word. It effectively conveys the idea of actively seizing and taking advantage of the career opportunities that arise, which is crucial for career planning alongside making the right choices.

Therefore, the completed sentence reads: "You have to plan for exercising the right career choices and **grabbing** the right opportunities."

6. Answer: d

Explanation:

Choosing Planned Execution for Career Decisions

The question requires selecting the most fitting word for the blank space numbered (6) in the provided sentence. The sentence reads: "Planned (6) rather than a hasty decision is (7) as far as your career is concerned." This context focuses on the significance of careful planning versus impulsive choices in career development.

Analyzing the Options for Blank (6)

We need to find a word that logically follows "Planned" and contrasts effectively with "hasty decision" within the context of career planning:

- **Option 1: delay** – "Planned delay" suggests intentionally postponing action. While sometimes part of a strategy, it doesn't directly contrast with making a hasty decision in the way the sentence implies a preferred method for career choices.
- **Option 2: hindrance** – "Planned hindrance" would mean creating obstacles deliberately. This makes little sense in the context of making sound career decisions and pursuing opportunities.
- **Option 3: command** – "Planned command" implies issuing orders. This concept doesn't align with the personal process of making career choices or the contrast presented.
- **Option 4: execution** – "Planned execution" refers to the act of carrying out or implementing a plan. This fits perfectly, as it highlights the benefit of thoughtfully implementing career strategies ("planned execution") as opposed to making a "hasty decision". It emphasizes methodical action.

Rationale for Selecting 'Execution'

The sentence contrasts a planned approach with a hasty one, advocating for the former in career decisions. "Planned execution" represents the systematic implementation of career goals and strategies. This methodical approach is presented as a superior alternative to making rash or impulsive choices ("hasty decision").

Therefore, 'execution' is the most appropriate word because it signifies the action-oriented, yet planned, implementation of career strategies, which is crucial for making sound career choices.

7. Answer: a

Explanation:

Understanding Career Choices and Planned Decisions

This question requires us to identify the most suitable word to fill in the blank numbered '7' in the provided passage. The passage emphasizes the importance of careful planning in making career choices.

Analyzing the Sentence Context

The sentence in question is: "Planned (6) rather than a hasty decision is (7) as far as your career is concerned." We need to determine which word best describes the nature of a planned decision compared to a hasty one in the context of a career.

Evaluating Options for Blank '7'

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

- **desirable**: This word means something that is wanted or considered good. Planning a career path rather than making a hasty decision is generally considered something positive and wanted. This aligns well with the sentence's meaning, suggesting that planned decisions are beneficial.
- **deciphered**: This word means to interpret or understand something, especially something difficult or coded. It doesn't logically fit the context of describing a planned decision itself.
- **inevitable**: This word means certain to happen or unavoidable. While career progression might have inevitable aspects, describing a planned decision as 'inevitable' doesn't make sense in this comparison.
- **rejected**: This word means dismissed or refused. Describing a planned decision as 'rejected' would contradict the passage's emphasis on the value of planning.

Conclusion on the Most Appropriate Word

Comparing the options, 'desirable' is the most fitting word for blank '7'. The sentence implies that making planned decisions is a positive approach that is sought after or beneficial for one's career, contrasting it with the potentially negative consequences of hasty choices.

Therefore, the completed sentence reads: "Planned (6) rather than a hasty decision is **desirable** as far as your career is concerned."

8. Answer: d

Explanation:

Choosing Words for Career Planning

Context for Blank 8: Evaluating Career Factors

The sentence we are looking at is: "You need to (8) what occupational groups, (9) and type of organizations are suitable for you." This part of the text discusses the careful planning needed for making good **career choices**. It highlights that deciding on a career path involves more than just picking something randomly; it requires understanding yourself and the world of work.

Examining Word Options for Blank 8

We need to select the best word for blank (8) from the given options to describe the action needed regarding occupational groups, interests, and organizations to determine what is **suitable**.

- **assemble**: This means to bring together or build something. It doesn't fit here because you don't "assemble" groups or organizations to find out if they suit you; you evaluate them.
- **classify**: This means to put things into different groups or categories based on their type. While you might classify jobs, the main goal here is understanding suitability, which requires more than just sorting.

- **divide:** This means to split something into smaller parts. This action is not relevant to figuring out which career factors are *suitable* for an individual.
- **analyze:** This means to examine something in detail to understand its parts, how they relate, and its overall meaning or structure. In the context of careers, you would *analyze* different **occupational groups**, your own interests, and the characteristics of various organizations to determine which ones are a good fit for you. This involves careful study and evaluation.

Determining the Best Fit for Blank 8

The core idea in the sentence is finding out what is "suitable". To determine suitability, a person needs to thoroughly examine and understand the different options available. This process of examination and understanding is best described by the word **analyze**. Analyzing the details of jobs, work environments, and your own preferences helps you make informed decisions about your career.

Therefore, the word that best completes the sentence is **analyze**, as it captures the necessary step of carefully examining career-related factors to find what is suitable.

9. Answer: c

Explanation:

Understanding Career Suitability Factors

This question requires selecting the most appropriate word to fill in the blank numbered (9) in a sentence about career planning. The sentence discusses identifying suitable elements for one's career path.

Analyzing the Context for Blank (9)

The sentence in focus is: "You need to (8) what occupational groups, (9) and type of organizations are suitable for you." The goal here is to understand what factors help determine suitability for different career paths. The sentence already mentions

'occupational groups' and 'type of organizations'. We need a word that logically fits alongside these elements when considering career suitability.

Evaluating the Options for Blank (9)

Let's examine the given options:

- **Assemble:** This word means to bring things or people together. It does not fit the context of determining career suitability.
- **disagreement:** This refers to a difference of opinion. It is irrelevant to identifying suitable career components.
- **qualifications:** This term refers to the skills, education, knowledge, and experience a person possesses that make them suitable for a particular job or role. Understanding your own *qualifications* is crucial for knowing which occupational groups and types of organizations would be a good fit.
- **identification:** While related to figuring things out, in this specific context, 'qualifications' is a more direct and relevant factor contributing to suitability for career groups and organizations. Identifying occupational groups and organizations is the action, but qualifications are the characteristics that make them suitable.

Determining the Best Fit

The sentence emphasizes planning and making the right career choices. To do this effectively, one needs to understand themselves and the opportunities available. Knowing your **qualifications** (like education, skills, and experience) directly helps in determining which *occupational groups* and *types of organizations* align with your abilities and aspirations. For example, specific technical **qualifications** might suit roles within tech companies or research organizations.

Therefore, **qualifications** is the most appropriate word to complete the sentence, as it represents a key personal attribute considered when evaluating career suitability alongside occupational groups and organizational types.

10. Answer: b

Explanation:

Nebulous Meaning Exploration

The question asks for the word that is nearest in meaning to the word '**Nebulous**'. To find the correct synonym, let's understand the meaning of '**Nebulous**' and then examine each option.

'**Nebulous**' generally means something that is unclear, hazy, indistinct, or lacking a definite form or boundary. Think of a faint cloud or a fuzzy concept – it's hard to grasp clearly.

Analyzing Synonym Options for Nebulous

Let's break down the meaning of each provided option in relation to 'Nebulous':

Analyzing Option 1: Tiny

- Meaning: 'Tiny' means extremely small in size.
- Comparison: 'Nebulous' refers to clarity and definition, not physical size. Something can be large yet nebulous, or small yet clearly defined. Therefore, 'Tiny' is not a good synonym for 'Nebulous'.

Analyzing Option 2: Vague

- Meaning: 'Vague' means unclear, imprecise, indefinite, or not expressed in detail.
- Comparison: This meaning closely matches 'Nebulous'. Both words describe something that lacks clear shape, form, or definition. For example, a **vague** idea is similar to a **nebulous** concept. This is a strong potential match.

Analyzing Option 3: Insignificant

- Meaning: 'Insignificant' means unimportant or too small to be considered.
- Comparison: While something that is unclear ('nebulous') might sometimes feel unimportant because it's hard to understand, the core meaning is about clarity,

not significance. 'Insignificant' relates to importance or value, which is different from the lack of definition implied by 'Nebulous'.

Analyzing Option 4: Inadequate

- Meaning: 'Inadequate' means lacking sufficient quality, quantity, or capability; insufficient.
- Comparison: 'Nebulous' relates to formlessness or lack of clarity. 'Inadequate' relates to not meeting a standard or requirement. These concepts are distinct. For instance, a plan might be **inadequate** because it lacks resources, not necessarily because it's unclear (though it could be both).

Conclusion on Nebulous Synonym

Comparing the meanings, the word '**Vague**' is the closest in meaning to '**Nebulous**' because both describe a lack of clarity, precision, and definite form.

11. Answer: a

Explanation:

Defining 'Debilitate': Finding the Closest Synonym

This question asks us to identify the word that most closely matches the meaning of the word '**Debilitate**'. Finding synonyms helps us understand words better and use them more effectively.

Understanding the Meaning of 'Debilitate'

'**Debilitate**' means to make a person or thing significantly weaker, often in terms of health, strength, or effectiveness. It implies a loss of vigor or vitality.

Analyzing the Meaning of Each Option

Let's examine the meaning of each given option to find the best synonym for 'Debilitate':

- **Weaken:** This term means to make or become less strong or powerful. It directly reflects the core meaning of reducing strength or vitality, just like 'Debilitate'.
- **Attack:** This refers to an act of aggression or hostility towards someone or something. While an attack can cause weakness, the word itself doesn't mean 'to make weak'.
- **Surmount:** This means to overcome a difficulty or obstacle. It's about successfully dealing with a challenge, not about becoming weaker.
- **Destroy:** This means to ruin something completely or put an end to its existence. While weakening can be a step towards destruction, 'Destroy' implies a much more severe and final outcome than simply making something weaker.

Identifying the Nearest Meaning

By comparing the meanings, we can see that '**Weaken**' is the word nearest in meaning to '**Debilitate**'. Both words describe the act of reducing strength, power, or effectiveness. '**Weaken**' captures the essence of '**Debilitate**' without necessarily implying the complete ruin associated with 'destroy' or the aggressive action of 'attack', nor the success implied by 'surmount'.

12. Answer: d

Explanation:

Anathema Meaning: Exploring Synonyms

The question asks to identify the word that has the nearest meaning to the given word, **Anathema**.

Understanding the Word "Anathema"

The word **Anathema** has a couple of related meanings:

- It can refer to a person or thing that is *detested* or *disliked* intensely.
- It can also mean a formal curse, ban, or the utterance of condemnation, often in a religious context.

Essentially, it signifies something that is strongly opposed, condemned, or hated.

Analyzing the Options

Let's examine the meaning of each option provided:

- **Religious Chant:** This refers to a repetitive song or recitation used in religious worship. It does not relate to hatred or condemnation.
- **Pun:** A pun is a form of wordplay that exploits multiple meanings of a term or similar-sounding words, usually for humorous or rhetorical effect. This is unrelated to the meaning of **Anathema**.
- **Musical Subject:** This refers to the theme or topic of a musical composition. It has no connection to the meaning of **Anathema**.
- **Curse:** A curse is an expression of ill will or the invocation of a supernatural power to inflict harm or misfortune. It can also signify a formal ban or condemnation. This meaning aligns closely with the strong negative connotation of **Anathema**, representing condemnation and intense dislike or opposition.

Determining the Nearest Meaning

Comparing the options with the definition of **Anathema**:

- Options 1, 2, and 3 (Religious Chant, Pun, Musical Subject) are unrelated concepts.
- Option 4 (Curse) shares the core meaning of condemnation and intense aversion found in **Anathema**. Both words denote something strongly disapproved of or cursed.

Therefore, the word nearest in meaning to **Anathema** among the given choices is **Curse**.

13. Answer: a

Explanation:

Choosing the Closest Meaning for 'Pendant'

This question asks us to identify the word that has the **nearest meaning** to the given word, 'Pendant'. This is a vocabulary question focused on finding synonyms.

Understanding the Word 'Pendant'

'Pendant' refers to a strong feeling of liking for something or a habit of doing something. It suggests a particular fondness, inclination, or preference for something.

Analyzing the Options for 'Pendant'

Let's look at each option to see how it compares to the meaning of 'Pendant':

- **1. Liking:** This word means having a preference or feeling of enjoyment towards something. A '**Pendant**' is essentially a strong liking or fondness, making 'Liking' a very close synonym.
- **2. Eagerness:** This describes a strong desire or enthusiasm to do or have something. While a person with a **pendant** for something might be eager to do it, 'eagerness' focuses on the anticipation or desire, not the underlying fondness itself.
- **3. Disability:** This refers to a physical or mental condition that limits a person's abilities. This meaning is completely unrelated to '**Pendant**'.
- **4. Keenness:** This means showing eagerness or enthusiasm. Similar to 'eagerness', 'keenness' relates to interest and enthusiasm, which might accompany a **pendant**, but it doesn't directly mean the strong liking or preference itself.

Identifying the Best Synonym

Comparing the options, 'Liking' captures the core meaning of '**Penchant**' – a strong preference or fondness. While 'Eagerness' and 'Keenness' can sometimes be associated with having a penchant, they describe the resulting enthusiasm rather than the preference itself. 'Disability' is entirely irrelevant.

Therefore, the word nearest in meaning to '**Penchant**' among the given choices is 'Liking'.

14. Answer: d

Explanation:

Understanding the Meaning of the Word REFRACTORY

The question asks to find the word that is nearly opposite in meaning to the given word, **REFRACTORY**. To answer this correctly, we first need to understand what **REFRACTORY** means. The word **REFRACTORY** describes someone or something that is difficult to control or manage, stubborn, or resistant to authority or treatment.

Analyzing the Options for an Antonym

Let's look at each option provided and see how it relates to the meaning of **REFRACTORY**:

- **Option 1: Refreshing** – This word means invigorating or giving new strength and energy. It doesn't relate to stubbornness or manageability.
- **Option 2: Burdensome** – This means something that is difficult to carry or causes trouble. While a refractory person can be burdensome, this word isn't the direct opposite of being difficult to manage.
- **Option 3: Privileged** – This refers to having special rights or advantages due to one's status or circumstances. This meaning is completely unrelated to **REFRACTORY**.
- **Option 4: Manageable** – This word means something or someone is easy to deal with, control, or handle. This directly contrasts with the meaning of **REFRACTORY**, which implies being difficult to manage.

Identifying the Best Opposite (Antonym) for REFRACTORY

Comparing the options with the meaning of **REFRACTORY** (stubborn, unmanageable), we can see that:

- 'Refreshing' and 'Privileged' are unrelated.
- 'Burdensome' describes a consequence or characteristic sometimes associated with refractory behavior, but it is not the direct opposite.
- 'Manageable' directly opposes the core meaning of being difficult to control or handle. Therefore, 'Manageable' is the word that is nearly opposite in meaning to **REFRACTORY**.

15. Answer: b

Explanation:

Insolent Word Meaning Explanation

The question asks for a word that is nearly opposite in meaning to the word "Insolent". First, let's understand what "Insolent" means.

Insolent describes someone who is rude, disrespectful, and cheeky. It implies a lack of respect for authority or elders, often shown through bold or impudent behaviour. Think of someone who talks back rudely or acts defiantly.

Analyzing Word Meanings

To find the opposite of "Insolent", we need to look for a word that describes someone polite, respectful, and pleasant.

- **Sullen**: This word means bad-tempered, sulky, or gloomy. While someone who is sullen might not be pleasant, it doesn't directly contrast with the disrespect inherent in being insolent.
- **Affable**: This word means friendly, good-natured, and easy to talk to. An affable person is pleasant and approachable, showing warmth and politeness. This

quality is the direct opposite of being rude and disrespectful.

- **Determined:** This word means having made a firm decision or being resolute. It describes someone's persistence and resolve, not their social behaviour or level of respect.
- **Rich:** This word refers to having a lot of money or assets; being wealthy. It has no relation to a person's behaviour or attitude towards others.

Identifying the Antonym

Comparing the meanings:

- "Insolent" means rude and disrespectful.
- "Sullen" means gloomy or bad-tempered.
- "Affable" means friendly and pleasant.
- "Determined" means resolved.
- "Rich" means wealthy.

The word that stands out as the most direct opposite to "Insolent" (rude and disrespectful) is "Affable" (friendly and pleasant). Being affable implies politeness and good nature, contrasting sharply with the impudence of insolence.

Conclusion

Therefore, the word nearly opposite in meaning to "Insolent" among the given options is "Affable".

16. Answer: d

Explanation:

Finding the Opposite Meaning for 'Acrimonious'

The question asks us to identify the word that has the opposite meaning (an antonym) to the word 'Acrimonious'. Let's break down the meaning of 'Acrimonious' and compare it with the given options.

Understanding 'Acrimonious'

'Acrimonious' describes something (like remarks, discussion, or a relationship) that is characterized by bitterness, sharp hostility, or anger. It suggests a harsh, unpleasant, and often spiteful tone.

Analyzing the Options

We need to examine each option to see which one contrasts most effectively with the meaning of 'Acrimonious'.

- **Legal:** This word relates to the law or is permitted by law. It has no connection to the tone or emotional quality described by 'Acrimonious'.
- **Severe:** This means very harsh, cruel, or intense. While 'severe' can imply harshness, it doesn't necessarily carry the specific connotation of bitterness or angry hostility found in 'Acrimonious'. Something can be severe without being acrimonious (e.g., severe weather).
- **Cursive:** This refers to a style of handwriting where letters are joined together. It is completely unrelated to the meaning of 'Acrimonious'.
- **Harmonious:** This word describes a situation or relationship that is free from disagreement or conflict. It suggests pleasantness, accord, and agreement. This is the direct opposite of the bitterness and hostility implied by 'Acrimonious'.

Identifying the Antonym

Comparing the meanings, 'Harmonious' stands out as the word nearly opposite to 'Acrimonious'.

- 'Acrimonious' refers to bitterness and hostility.
- 'Harmonious' refers to peace and agreement.

Therefore, 'Harmonious' is the best choice for a word that is nearly opposite in meaning to 'Acrimonious'.

17. Answer: b

Explanation:

Understanding the Core Term: Sceptic

The question asks us to identify a word that has a meaning almost opposite to the given word, "Sceptic". A **Sceptic** is typically defined as a person who doubts accepted beliefs, theories, or statements. They require evidence before accepting something as true and often question things.

Examining the Vocabulary Options

Let's look at each option provided to see how its meaning compares to "Sceptic":

- **Option 1: Cryptic** – This word describes something that is mysterious, obscure, or has a hidden meaning. It does not relate to the concept of belief or doubt, so it is not an opposite of **Sceptic**.
- **Option 2: Believer** – A **Believer** is someone who accepts a particular idea, doctrine, or set of principles as true. This is the direct contrast to a **Sceptic**, who inherently doubts or questions.
- **Option 3: Support** – This term means to give assistance, encouragement, or to uphold something. While a person might support a particular belief, the word "Support" itself does not mean the opposite of doubting.
- **Option 4: Eminent** – This adjective means distinguished, prominent, or famous. It refers to a person's status or reputation and has no connection to the meaning of being a **Sceptic**.

Determining the Opposite Meaning

Based on the definitions, a **Sceptic** is characterized by doubt and a need for proof, while a **Believer** is characterized by acceptance and faith.

- **Sceptic:** Doubts, questions, lacks faith/belief without proof.
- **Believer:** Accepts, has faith, believes without necessarily needing proof.

The other options do not fit as antonyms:

- "Cryptic" relates to mystery.

- "Support" relates to help or backing.
- "Eminent" relates to fame or distinction.

Therefore, the word that is nearly opposite in meaning to "Sceptic" is "Believer".

18. Answer: a

Explanation:

Defining the Idiom "To hold something in leash"

The phrase "**to hold something in leash**" is an idiom. Its core meaning is to keep something or someone under control, or to limit their freedom and actions. Think of how a physical leash is used to guide and restrict a dog's movement; this idiom applies that concept figuratively to situations involving people or things.

Analyzing the Options for Phrase Definition

The task is to identify the word from the options provided that best captures the meaning of the idiom "**to hold something in leash**". The key concept here is **control** and **limitation**.

- **To restrain:** This term means to keep something or someone under control or within certain limits. It implies preventing actions that are excessive or unwanted.
- **To disappoint:** This means to fail to fulfill the hopes or expectations of someone. This deals with emotional outcomes and doesn't involve the concept of control.
- **To dismiss:** This word has meanings like rejecting something as unimportant or allowing someone to leave. Neither of these meanings aligns with the idea of holding back or controlling movement or action.
- **To discourage:** This means to cause a loss of confidence or enthusiasm in someone. While this might lead to reduced action, it focuses on morale rather than the direct control or restriction implied by the word "leash".

Selecting the Best Match for "Leash" Phrase

Comparing the definitions, we can see which option fits the idiom "to hold something in leash" most accurately:

- The option "**To restrain**" closely mirrors the meaning of keeping something or someone under control and preventing them from acting freely, which is the essence of the idiom.
- The other options, "**To disappoint**", "**To dismiss**", and "**To discourage**", do not convey the sense of direct control or the limitation of freedom that is central to the phrase.

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

19. Answer: b

Explanation:

Understanding the Idiom: 'To talk through one's hat'

The question asks us to identify the correct meaning of the English idiom "To talk through one's hat". Idioms are phrases where the words together have a meaning that is different from the dictionary definitions of the individual words. Finding the correct meaning requires understanding the figurative sense of the phrase.

Decoding 'To talk through one's hat'

The idiom "To talk through one's hat" refers to speaking foolishly, ignorantly, or without proper knowledge or sense. It implies that the person is talking nonsense, often confidently but without any basis in fact or reason. Imagine someone speaking with their head covered by a hat, suggesting their words are muffled, unclear, or not properly thought out.

Analyzing the Options

Let's look at each option provided:

- **Option 1: To speak fluently** – This means speaking smoothly and easily. It doesn't capture the nonsensical nature of the idiom.
- **Option 2: To talk nonsense** – This aligns perfectly with the meaning of the idiom. It describes speaking in a way that is foolish, illogical, or meaningless.
- **Option 3: To talk wisdom** – This is the opposite of the idiom's meaning. Talking wisdom means speaking intelligently and thoughtfully.
- **Option 4: To speak at random** – While talking nonsense can sometimes involve speaking at random, "speaking at random" focuses more on the lack of order or purpose, whereas "talking through one's hat" specifically emphasizes the foolishness or lack of knowledge behind the words. "To talk nonsense" is a more precise fit.

Conclusion on the Idiom's Meaning

Based on the analysis, the phrase "To talk through one's hat" means to speak foolishly or nonsensically. Therefore, the option that best expresses this meaning is "To talk nonsense".

20. Answer: a

Explanation:

Understanding the Idiom 'To throw up the sponge'

The phrase 'to throw up the sponge' is a common idiom used in English. It originates from the sport of boxing. In a boxing match, if a boxer's trainer or corner believes their fighter cannot safely continue or has no chance of winning, they would literally throw a sponge into the ring. This action served as a signal to the referee to stop the fight, effectively conceding defeat.

Therefore, the idiom means to give up, admit defeat, or surrender, especially in a difficult situation or contest.

Defining the Phrases: Option Analysis

Let's look at each option to see which one best defines the meaning of 'to throw up the sponge':

- **Option 1: To surrender or give up a contest**

This definition perfectly matches the meaning derived from the idiom's origin in boxing. When a boxer's corner throws the sponge, they are surrendering the fight. This option accurately captures the essence of quitting or conceding defeat.

- **Option 2: To offer a challenge**

This is the opposite of the idiom's meaning. Offering a challenge means initiating a contest or confrontation, whereas 'throwing up the sponge' means ending one by admitting defeat.

- **Option 3: To become utterly disappointed**

While disappointment can be a reason someone might choose to give up, it is not the direct meaning of the idiom itself. The idiom refers specifically to the act of quitting or surrendering, not just feeling disappointed.

- **Option 4: To maintain grit and enthusiasm until the end**

This option describes the act of persevering and fighting hard until the very end. It is the exact opposite of 'throwing up the sponge', which signifies giving up before the end.

Conclusion: Best Fit Definition

Based on the analysis, the phrase 'to throw up the sponge' clearly means admitting defeat and ceasing to participate in a contest. Option 1, 'To surrender or give up a contest', is the most accurate and direct definition among the choices provided.

21. Answer: c

Explanation:

Defining 'To Get Into Hot Waters'

Idioms are phrases where the words together have a meaning that is different from the dictionary definitions of the individual words. Understanding idioms is crucial for mastering the nuances of the English language. The phrase **'To get into hot waters'** is a common English idiom.

The idiom **'To get into hot waters'** means to get into a situation where you are in trouble, facing difficulties, or are in an awkward or dangerous position. It implies landing oneself in a problematic scenario, often as a consequence of one's own actions.

For example: "He didn't complete his assignment on time and now he's really gotten himself into hot waters with the teacher."

Analysis of Options for 'Hot Waters' Meaning

Let's examine the provided options to find the best definition for the phrase **'To get into hot waters'**:

- **Option 1: To be impatient** – Impatience relates to a feeling of wanting something to happen quickly or being annoyed by delays. This is different from being in a difficult or troublesome situation implied by **'hot waters'**.
- **Option 2: To suffer a huge financial loss** – While a significant financial loss can certainly cause trouble and difficulty, the idiom **'hot waters'** is a broader term. It refers to any kind of trouble or difficult situation, not exclusively financial problems.
- **Option 3: To get into trouble** – This definition accurately captures the essence of the idiom. Getting into trouble means finding oneself in a difficult, unpleasant, or problematic situation, which is precisely what **'getting into hot waters'** signifies.
- **Option 4: To be in a confused state of mind** – Confusion describes a mental state where someone is unable to think clearly. While trouble can sometimes lead to confusion, the idiom **'getting into hot waters'** primarily refers to facing external difficulties or consequences, not just a confused mental state.

Identifying the Best Definition for 'Hot Waters'

Comparing the idiom's meaning with the given choices helps us identify the most suitable definition. The table below summarizes the analysis:

Option	Meaning Provided	Suitability for 'Hot Waters'
1	To be impatient	Unsuitable. This refers to a feeling, not a situation of trouble.
2	To suffer a huge financial loss	Partially related, as financial loss is a type of trouble, but the idiom is more general.
3	To get into trouble	Suitable. This is the standard and direct meaning of the idiom.
4	To be in a confused state of mind	Unsuitable. This describes a mental condition, not necessarily the situation of trouble itself.

Therefore, the phrase **'To get into hot waters'** is best defined as getting into trouble.

22. Answer: a

Explanation:

Identifying the Correctly Spelt Word: Dolorous

Understanding the Spelling Task

This question requires us to identify the correctly spelled version of a word from the given options. We need to carefully examine each option to determine which one adheres to standard English spelling rules.

Analyzing the Spelling Options

Let's look at each option provided:

- **1. Dolorous:** This spelling uses the root 'dolor' (meaning sorrow or grief) combined with the common adjective-forming suffix '-ous'. This combination follows established English spelling patterns.
- **2. Dolurous:** This option appears to be a misspelling. The suffix '-urous' is not the standard way to form this adjective.
- **3. Doloreus:** This spelling is incorrect. The suffix '-eus' is less common in English, especially for words derived from Latin roots like 'dolor'.
- **4. Delorious:** This option is incorrect because the initial part of the word has been changed from 'Do-' to 'De-'. The correct root is 'dolor'.

The Meaning and Correct Spelling of 'Dolorous'

The word '**Dolorous**' is an adjective. It means feeling or showing great sorrow, grief, or distress. The word comes from the Latin word '*dolor*', which means pain or grief.

The correct way to spell this word, indicating sadness or causing grief, is by using the suffix '-ous', resulting in '**Dolorous**'.

Conclusion on Correct Spelling

After reviewing the options and considering standard English spelling conventions, '**Dolorous**' is confirmed as the correctly spelt word.

23. Answer: b

Explanation:

Conduit Spelling Check

This question requires identifying the correctly spelled word among the given options. Learning correct spellings is essential for effective communication.

Evaluating Spelling Options

We need to carefully examine each option provided:

- **Condiut:** This spelling is incorrect. It appears to be missing the letter 'n' which should follow the 'd'.
- **Conduit:** This is the correct spelling of the word.
- **Connduit:** This spelling is incorrect. It includes an extra 'n' between the two 'n's.
- **Condeut:** This spelling is incorrect. It incorrectly uses 'e' instead of 'i' in the second syllable.

Meaning of Conduit

The word **conduit** typically refers to a channel or pipe used for conveying fluids (like water) or protecting things like electrical wires. For example, water might flow through an underground *conduit*, or electrical cables might be run inside a protective *conduit*.

Conclusion on Correct Spelling

By comparing the given options with the standard English spelling, the word **Conduit** is confirmed as the correctly spelt option.

24. Answer: c

Explanation:

Identifying the Correct Spelling of 'Gregarious'

The question asks us to identify the correctly spelt word among the given options. The word relates to sociability and the tendency to live or gather in flocks or herds.

Understanding the Word 'Gregarious'

The word we are looking for is **Gregarious**. It means fond of company, sociable, or living in a colony or herd. It comes from the Latin word 'grex', meaning flock.

Analyzing the Spelling Options

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

- Option 1: Gragarious – This spelling is incorrect. The second vowel should be 'e', not 'a'.
- Option 2: Gragerious – This spelling is also incorrect. The first vowel after 'G' should be 'e', not 'a'.
- Option 3: Gregarious – This is the correct spelling. It follows the standard English spelling rules for this word, with 'e' appearing twice in the first syllable and 'a' in the second.
- Option 4: Grigareous – This spelling is incorrect. The second vowel should be 'a', not 'i'.

Confirming the Correct Spelling

Based on the analysis, the correctly spelt word is **Gregarious**.

The word describes someone who enjoys being with other people and is often found in social groups.

Therefore, the correct option is the one that spells the word as **Gregarious**.

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25. Answer: b

Explanation:

Identifying the Correctly Spelt Word: Intrinsic

This question tests our knowledge of English spelling. We need to find the option that correctly spells the word meaning essential or inherent.

Meaning of the Target Word

The word is **Intrinsic**. It refers to something that is a natural, built-in part of something else. For example, the value of gold is intrinsic.

Analyzing Spelling Options

Let's look closely at each choice provided:

- **Option 1: Intrnsic** This spelling is incorrect. The correct spelling requires an 'i' after 'r', not an 'e', making the sequence 'rinsic', not 'rensic'.
- **Option 2: Intrinsic** This spelling is the **correct** one. It accurately reflects the standard English spelling: I-N-T-R-I-S-I-C.
- **Option 3: Entrensic** This spelling is incorrect for two reasons. It mistakenly starts with 'E' instead of 'I', and it contains the incorrect 'rensic' sequence found in option 1.
- **Option 4: Entrinsec** This spelling is also incorrect. It incorrectly begins with 'E'. Furthermore, the ending 'sec' swaps the correct 'sic' sequence.

Final Check on Spelling

Comparing all the options, only **Intrinsic** is spelled correctly according to standard English.

26. Answer: a

Explanation:

Identifying the Correctly Spelt Word: Sepulchral

This question asks us to identify the correctly spelt word among the given options. Correct spelling is crucial for clear communication in writing. Let's examine each option to determine which one follows standard English spelling rules.

Analyzing the Spelling Options

We need to carefully check the letters and their order in each option, focusing on the word related to tombs or burial places.

- **Option 1: Sepulchral**
 - This spelling appears correct. Let's confirm its components: S-E-P-U-L-C-H-R-A-L.
 - The word refers to something relating to a **sepulchre**, which is a burial place or tomb.
- **Option 2: Sepalchrle**
 - This spelling is incorrect. The letters 'l' and 'e' at the end seem to be misplaced or swapped compared to the standard spelling.
- **Option 3: Sepalchral**
 - This spelling is incorrect. The vowel 'a' is used where 'u' should be (Sepalchral vs. Sepulchral).
- **Option 4: Sepulchrle**
 - This spelling is incorrect. Similar to Option 2, the ending 'le' deviates from the correct structure.

Confirming the Correct Spelling

Comparing the options with the standard English dictionary, the correct spelling is indeed **Sepulchral**.

Key features of the correct spelling:

- It correctly uses 'u' after 'p'.
- It correctly uses 'a' after 'r'.
- The ending is '-ral'.

Therefore, **Sepulchral** is the correctly spelt word.

27. Answer: b

Explanation:

Understanding the Idiom: To Flog a Dead Horse

The question asks us to identify the correct meaning of the English idiom "To flog a dead horse". Idioms are phrases with figurative meanings, often quite different from the literal meaning of the words. Understanding this specific idiom is crucial.

Explaining "To Flog a Dead Horse"

The idiom "To flog a dead horse" refers to the action of continuing to put effort or energy into something that is pointless or has no chance of succeeding. It means trying to get a result from something that is already finished, unsuccessful, or incapable of responding, much like trying to make a horse run when it is already dead.

Analyzing the Options

Let's break down each option to see how it relates to the idiom's meaning:

- **Option 1: To act in a foolish way**

While spending effort on a hopeless cause might be considered foolish, this option is too broad. The idiom specifically describes the *nature* of the effort, not just the general behaviour.

- **Option 2: To waste one's efforts**

This option aligns perfectly with the idiom's meaning. "Flogging a dead horse" directly translates to expending energy (flogging) on something that cannot yield any result (a dead horse), hence, wasting one's efforts.

- **Option 3: To revive interest in an old subject**

This is incorrect. The idiom implies that revival or progress is impossible, not that one is trying to achieve it. It's about futility, not about the act of reviving itself.

- **Option 4: To revive old memories**

This meaning is entirely unrelated to the idiom "To flog a dead horse". The idiom focuses on effort and results, not on memory recall.

Final Determination

Comparing the idiom's meaning with the provided options, it's clear that putting energy into a situation that cannot yield results is the core idea. This is best described as wasting effort on something that cannot be changed or achieved.

Therefore, the phrase that best explains the meaning of "To flog a dead horse" is **To waste one's efforts**.

28. Answer: d

Explanation:

Explaining the Meaning of the Bull in a China Shop Idiom

This section delves into the meaning of the idiom **A bull in a china shop** and analyzes the given options to identify the most fitting explanation.

Understanding the Idiom: A bull in a china shop

The idiom **A bull in a china shop** refers to a person who is characterized by extreme clumsiness, awkwardness, and lack of care or subtlety in situations that require delicacy and precision. Imagine a large, powerful bull suddenly placed inside a shop filled with fragile porcelain items – it would inevitably cause chaos and break many things due to its sheer size and lack of finesse. Therefore, the core idea is about causing damage or disruption through clumsiness in a delicate environment.

Analyzing the Options for the Bull in a China Shop Idiom

- Option 1: A person who is very ugly but loves the beautiful things of life

This option focuses on physical appearance and appreciation for beauty. The idiom **A bull in a china shop** is not about appearance or how one appreciates

beauty, but rather about behavior and its consequences in specific settings. Thus, this option does not align with the idiom's meaning.

- **Option 2: A person who takes a sadistic delight in harming innocent people**

This option describes someone malicious who enjoys causing suffering. While the actions of someone described as **a bull in a china shop** can cause harm (by breaking things), the idiom doesn't imply intentional cruelty or sadistic pleasure. It emphasizes carelessness and clumsiness, not malicious intent. Hence, this option is incorrect.

- **Option 3: A person who becomes too excited where no excitement is warranted**

This option describes someone who overreacts emotionally or gets overly enthusiastic unnecessarily. While excessive excitement might lead to carelessness, it's not the direct meaning of the idiom. The idiom specifically points towards physical clumsiness and lack of grace in delicate situations, not necessarily emotional overexcitement.

- **Option 4: A rough and clumsy person at a place where skill and care are required**

This option perfectly captures the essence of the idiom. A "rough and clumsy person" directly reflects the nature of the bull. A "place where skill and care are required" represents the delicate environment, like the china shop. This description highlights the potential for damage and disruption caused by someone who lacks the necessary finesse for the situation, which is the central meaning of being **a bull in a china shop**.

Conclusion on the Idiom's Meaning

Based on the analysis, the phrase that best explains the meaning of the idiom **A bull in a china shop** is describing someone who is notably rough and clumsy, especially when they are in a situation demanding precision and careful handling.

29. Answer: a

Explanation:

Understanding the Idiom 'The Alpha and the Omega'

The phrase "**The alpha and the omega**" is an idiom used to describe someone or something that is the first and the last, the beginning and the end, or the most important part of something.

Origin and Meaning of Alpha and Omega

- The terms "alpha" and "omega" come from the first and last letters of the Greek alphabet, respectively.
- **Alpha** (Greek: α) represents the beginning.
- **Omega** (Greek: ω) represents the end.
- Together, they symbolize completeness, the entirety of something, or the ultimate beginning and conclusion.

Analyzing the Options

Let's examine the provided options to find the one that best explains the meaning of this idiom:

- **Option 1: The beginning and the end** – This option directly corresponds to the symbolic meaning of alpha (beginning) and omega (end) from the Greek alphabet. It captures the essence of completeness and the full cycle.
- **Option 2: A nice act** – This meaning is unrelated to the idiom "The alpha and the omega". The idiom does not refer to kindness or a specific action.
- **Option 3: The stars and the moon** – While these are celestial elements, they do not represent the concepts of beginning and end in the way alpha and omega do in the context of this idiom.
- **Option 4: Very costly** – The idiom "The alpha and the omega" has no connection to the price or cost of something.

Conclusion

Based on the origin and established meaning of the idiom, "The alpha and the omega" signifies the absolute beginning and the absolute end, encompassing everything in between. Therefore, the most accurate explanation among the choices is **"The beginning and the end"**.

30. Answer: c

Explanation:

Understanding the Idiom: 'A Fool's Errand'

The phrase **'A fool's errand'** is an idiom used to describe a task, mission, or activity that is pointless, futile, or doomed to failure from the start. It implies wasted effort because the goal is unattainable, nonsensical, or unlikely to be achieved. Someone sent on such an errand is often seen as being foolish or naive.

Analyzing the Options for 'A Fool's Errand'

Let's examine each option to see how well it matches the meaning of the idiom:

- **Option 1: A blunder**

A blunder is a significant mistake, usually resulting from carelessness or ignorance. While undertaking a fool's errand might be a mistake, the idiom specifically refers to the nature of the task itself (pointless or futile) rather than just a mistake made during an activity.

- **Option 2: An impossible task**

An impossible task is one that cannot be done. A fool's errand is often impossible, but the core idea emphasizes the **futility** and **uselessness** of the undertaking, often initiated by someone who doesn't realize its pointlessness, rather than just its difficulty or impossibility.

- **Option 3: A useless undertaking**

This option directly captures the essence of the idiom. A **'useless undertaking'** perfectly describes a task that yields no positive result, provides no benefit, and involves wasted time and effort, fitting the definition of a fool's errand.

- **Option 4: None of these**

Since Option 3 accurately describes the idiom, this option is not the best fit.

Conclusion on the Idiom's Meaning

Comparing the options, the phrase **'A useless undertaking'** most accurately and completely explains the meaning of the idiom **'A fool's errand'**. It highlights the pointlessness and lack of benefit associated with the task described by the idiom.

31. Answer: c

Explanation:

Serena Williams at Australian Open 2015

The question requires identifying the opponent whom **Serena Williams** defeated to win the **women's singles title** at the **Australian Open 2015** tournament.

Australian Open 2015 Final Matchup

The final of the women's singles competition at the **Australian Open 2015** featured a notable contest between two of the world's leading tennis players.

- Event: Australian Open 2015
- Category: Women's Singles
- Final Match Participants: Serena Williams and Maria Sharapova

2015 Women's Singles Final Details

In the championship match, **Serena Williams** competed against **Maria Sharapova**. Serena Williams ultimately prevailed in the match to claim the title.

The score of the final match was:

Serena Williams won against Maria Sharapova with a score of $6 - 3, 7 - 6^{(7-5)}$.

Serena Williams' Title Significance

Securing the **women's singles title** at the **Australian Open 2015** was a significant milestone for **Serena Williams**, adding to her collection of Grand Slam championships.

Confirming the 2015 Australian Open Winner

Historical records for the **Australian Open 2015** confirm that Serena Williams defeated Maria Sharapova in the women's singles final.

32. Answer: a

Explanation:

This solution explains the autobiography of the renowned Indian journalist, Vinod Mehta.

Vinod Mehta's Autobiography Identified

The question asks to identify the title of the autobiography written by Vinod Mehta, a prominent Indian journalist known for being the founder editor-in-chief of the magazine '*Outlook*'. We need to find the correct title from the given options.

Understanding Vinod Mehta's Literary Work

Vinod Mehta was a significant figure in Indian journalism. Besides his editorial work, he also authored books. This question specifically tests the knowledge of his personal memoir.

Analyzing the Options for Vinod Mehta's Memoir

Let's look at the provided options:

- **Option 1: Lucknow Boy: A Memoir** – This title suggests a personal account or memoir.
- **Option 2: One Life is Not Enough** – This book is an autobiography of K. Natwar Singh, a former diplomat and politician.
- **Option 3: Accidental Prime Minister** – This is a book by Sanjaya Baru, focusing on his time as Prime Minister Manmohan Singh's media advisor.
- **Option 4: The Substance and the Shadow** – This is a biography of the legendary actor Dilip Kumar, written by Faisal Devji.
- **Option 5:** This option is empty and thus invalid.

Determining the Correct Autobiography Title

Based on biographical information and literary records, Vinod Mehta published his autobiography titled '*Lucknow Boy: A Memoir*'. The book details his journey from his childhood in Lucknow to his prominent career in journalism.

The other options belong to different authors and subjects:

- '*One Life is Not Enough*' is by K. Natwar Singh.
- '*The Accidental Prime Minister*' is by Sanjaya Baru.
- '*The Substance and the Shadow*' is a biography of Dilip Kumar.

Conclusion on Vinod Mehta's Memoir

Therefore, the correct autobiography of Vinod Mehta, the founder editor-in-chief of '*Outlook*', is '*Lucknow Boy: A Memoir*'.

33. Answer: b

Explanation:

2022 Commonwealth Games Host City

The Commonwealth Games is a major international multi-sport event involving athletes from the Commonwealth of Nations. Determining the correct host city for a specific year involves checking historical records of the event.

Understanding the 2022 Commonwealth Games

The 2022 edition of the Commonwealth Games was a significant sporting event. The selection process for the host city is crucial, and specific cities are chosen based on bids and suitability.

Host City Selection

- The city awarded the hosting rights for the 2022 Commonwealth Games was **Birmingham, England**.
- These games took place from July 28 to August 8, 2022.
- The main venue for the athletics and opening/closing ceremonies was the Alexander Stadium in Birmingham.

Previous and Other Potential Hosts

- It's important to note that **Gold Coast, Australia** hosted the previous Commonwealth Games in 2018. While a past host, it was not the host for the 2022 games.
- **Lusaka, Zambia** and **Nairobi, Kenya** are cities within Commonwealth nations but were not selected to host the 2022 Commonwealth Games.

Therefore, based on the official host city designation, Birmingham, England is recognized as the location for the 2022 Commonwealth Games.

34. Answer: c

Explanation:

Rail Budget 2015 Innovative Council

The Rail Budget 2015 in India introduced several forward-thinking proposals aimed at modernizing and improving the Indian Railways. One significant aspect was the focus on encouraging new ideas and creative solutions to enhance the railway system's efficiency, safety, and passenger services. To achieve this objective, a specific body was proposed.

Purpose of the Innovative Council

The primary goal behind proposing an 'Innovative Council' was to create a structured mechanism within Indian Railways dedicated to promoting innovation. This council was envisioned to:

- Identify and nurture novel ideas generated by railway employees and external stakeholders.
- Facilitate the development and implementation of these innovative concepts.
- Foster a culture of continuous improvement and creative thinking across the organization.
- Address challenges and explore new opportunities for growth and modernization in railways.

Identifying 'Kayakalp'

The specific name designated for this proposed 'Innovative Council' in the Rail Budget 2015 was **Kayakalp**. The word 'Kayakalp' itself translates to rejuvenation or transformation, perfectly aligning with the council's mission to bring about significant positive changes through innovative approaches. This initiative aimed to drive progress by leveraging fresh perspectives and technological advancements.

The establishment of **Kayakalp** was a strategic move to institutionalize innovation management within Indian Railways, ensuring that the organization could adapt to changing needs and excel in its services.

35. Answer: a

Explanation:

February 4th Independence Day: Sri Lanka

This section provides a detailed explanation to identify which Asian country, from the choices given, celebrates its Independence Day on **February 4th**. We will look into the specific dates related to the independence of each mentioned nation.

Sri Lanka's Independence Day on February 4th

Sri Lanka, a prominent island nation in South Asia, commemorates its Independence Day on **February 4th** every year. This date marks a historic milestone as it signifies the nation gaining independence from British colonial rule on February 4, 1948. The day is celebrated nationwide with patriotic events and ceremonies.

Comparing Independence Dates of Asian Countries

To understand why Sri Lanka is the correct answer, it's useful to compare its Independence Day with those of the other options provided:

Country	Independence Day	Year of Independence	Historical Context
Sri Lanka	February 4	1948	Achieved independence from British rule.
Bahrain	December 16	1971	Celebrates its National Day; gained independence from the UK on August 15, 1971.
Cambodia	November 9	1953	Gained independence from French rule.
Bangladesh	March 26	1971	Marks the Declaration of Independence.

Based on the historical dates, Sri Lanka is the country among the options that celebrates its Independence Day on **February 4th**.

36. Answer: b

Explanation:

Understanding Animal Activity Patterns

Animals across the globe show diverse behaviors regarding when they are most active. This pattern of activity, often linked to daily cycles of light and darkness, helps them survive and thrive. The question asks for the specific name given to animals that are primarily **active at night**.

What Defines Nocturnal Animals?

The term specifically used for animals that are **active at night** is **Nocturnal**. These animals typically sleep during the day and emerge for their activities, such as foraging, hunting, or socializing, after sunset and before sunrise.

Nocturnal adaptations often include:

- Enhanced senses like sharp hearing, excellent night vision, or a keen sense of smell to navigate and find food in low light.
- Physiological traits suited for cooler night temperatures.
- Behavioral strategies to avoid daytime predators or competitors.

Examples of well-known **nocturnal** creatures include owls, bats, foxes, raccoons, and many species of insects and rodents.

Understanding Diurnal Activity

In contrast to **nocturnal** animals, **diurnal** animals are those that are primarily active during the daytime. They typically sleep during the night. Examples include humans, squirrels, monkeys, and most birds. The term **diurnal** highlights the contrast between day activity and night activity.

What are Parasites?

Parasites are organisms that live on or in another organism, known as a host, and gain nourishment from the host, often causing harm. This term relates to a mode of living and feeding, not the time of day an animal is active. Therefore, **parasites** is not the correct answer.

The option 'Nacto-diurnal' is not a standard biological term.

Considering the definitions, the correct term for animals **active at night** is indeed **Nocturnal**.

37. Answer: d

Explanation:

Planning Commission Replaced by India's New Think-Tank

The Government of India established a new institution to serve as its premier policy **think-tank**, replacing the Planning Commission. This significant change occurred on 01 January 2015.

Understanding the Planning Commission and its Successor

The Planning Commission was the apex body for formulating India's five-year plans and allocating resources. It played a crucial role in the country's socio-economic development since its inception in 1950.

On **01 January 2015**, the Planning Commission was dissolved. In its place, the National Institution for Transforming India, commonly known as **NITI Aayog**, was established. NITI Aayog functions differently from the Planning Commission. It acts as a policy **think-tank** and promotes a more collaborative approach between the central and state governments, focusing on a 'bottom-up' development model.

Analysis of Options

Let's examine the given options to identify the correct institution:

- **NITI Vakra:** This is not the name of the institution established by the Government of India.
- **NITI Dharma:** This is also not the correct name of the policy **think-tank**.
- **NITI Vajpayee:** This option incorrectly associates the institution with a political figure's name; it is not the official name.
- **NITI Aayog:** This is the correct name of the institution established on **01 January 2015** by the Government of India to replace the Planning Commission. Its full form is the National Institution for Transforming India.

Key Function of NITI Aayog

NITI Aayog serves as a crucial policy **think-tank** for the Government of India. Its mandate includes providing both strategic and long-term policy and programme inputs. It also addresses issues of national importance that were previously handled by the Planning Commission, but with a renewed focus on cooperative federalism and leveraging national and international expertise.

38. Answer: b

Explanation:

This solution discusses the authorship of the book 'Born Again on the Mountain', providing insights into the author and analyzing the given options.

Born Again on the Mountain Author Revealed

The question asks to identify the author of the book titled '**Born Again on the Mountain**'. This book chronicles a remarkable journey and is associated with a well-known personality in the realm of mountaineering and inspiration.

About the Author: Arunima Sinha

Arunima Sinha is the celebrated author of 'Born Again on the Mountain'. She is an Indian mountaineer and a former national volleyball and football player. Arunima Sinha is renowned for being the first Indian woman amputee to climb Mount Everest, Mount Kilimanjaro, Mount Elbrus, Mount Kosciuszko, and Mount Aconcagua.

- Her autobiography, 'Born Again on the Mountain: My Story of Climbing the Summit and Surviving a Critical Illness', details her experiences after losing a leg in an accident and her subsequent triumphant ascent of Mount Everest.
- The book serves as a testament to her resilience, determination, and spirit.

Analysis of Options

Let's look at the provided options in relation to the authorship of 'Born Again on the Mountain':

- **Pooja Rani:** While a notable figure, Pooja Rani is primarily known for her achievements in boxing, not authorship of this specific book.
- **Arunima Sinha:** Correct. As discussed, she is the author whose inspiring story is documented in the book.
- **Bachendri Pal:** Bachendri Pal is a legendary Indian mountaineer, the first Indian woman to climb Mount Everest. While she is a significant figure in Indian mountaineering, she is not the author of 'Born Again on the Mountain'.
- **Urbashi Lal:** Information linking Urbashi Lal to the authorship of this particular book is not prominent.

Therefore, based on the widely recognized accomplishments and literary contributions of the individuals listed, **Arunima Sinha** is the correct author of 'Born Again on the Mountain'.

39. Answer: c

Explanation:

Exploring the ISRO Chairman Position in 2015

This section provides a detailed explanation to identify the Chairman of the Indian Space Research Organisation (ISRO) during the year 2015. Understanding leadership roles in major scientific organizations is crucial for tracking progress and achievements.

Identifying the ISRO Chairman for 2015

The question asks specifically about the leadership of ISRO in the year 2015. We need to determine which individual held the position of Chairman during that particular year. Let's examine the options provided in the context of ISRO's leadership timeline.

Analysis of Options:

- **MYS Prasad:** While MYS Prasad had a significant career within ISRO, serving in key roles such as Director of the Satish Dhawan Space Centre (SDSC) at Sriharikota, he was not the Chairman of ISRO in 2015.
- **Shailesh Nayak:** Dr. Shailesh Nayak served as the Chairman of the Indian Space Research Organisation and Secretary, Department of Space from 2009 to 2013. He was succeeded by K Radhakrishnan.
- **AS Kiran Kumar:** Dr. K. Sivan took over as Chairman in January 2018. Dr. K. Radhakrishnan served until December 31, 2014. Dr. K. Kasturirangan served before him. S. Christopher was the director of ISRO's Liquid Propulsion Centre. A.S. Kiran Kumar assumed the chairmanship of ISRO on July 1, 2015, and continued until January 12, 2018. Therefore, he was the ISRO Chairman for the latter half of 2015.
- **K Radhakrishnan:** Dr. K. Radhakrishnan served as the Chairman of ISRO and Secretary of the Department of Space from 2009 until December 31, 2014. He was not the Chairman in 2015.

AS Kiran Kumar's Tenure as ISRO Chairman

Specifically focusing on the year 2015, the leadership transition occurred during the year. While K Radhakrishnan completed his term at the end of 2014, AS Kiran Kumar took over the mantle mid-year. His appointment marked a new phase for ISRO, continuing its trajectory of space exploration and technological advancement.

AS Kiran Kumar's leadership period effectively covered the second half of 2015, making him the relevant Chairman for that year.

Conclusion on 2015 ISRO Leadership

Based on the timelines of ISRO Chairmanship, **AS Kiran Kumar** was the Chairman of ISRO starting from July 1, 2015. Therefore, he held the position during the year 2015.

40. Answer: c

Explanation:

Discovering Natural Radioactivity

The question asks who discovered natural radioactivity. This phenomenon involves the spontaneous emission of radiation from the nucleus of an unstable atom. Let's look at the contributions of the scientists mentioned:

Pioneers of Radioactivity Research

- **Marie Curie:** While a very prominent figure in radioactivity research, Marie Curie extensively studied radioactivity, coined the term '*radioactivity*', and discovered new radioactive elements (polonium and radium). However, her work followed the initial discovery.
- **Ernest Rutherford:** Known as the father of nuclear physics, Rutherford made significant contributions to understanding the nature of radioactivity, classifying radiation into alpha, beta, and gamma rays, and describing the structure of the atom. His work built upon earlier discoveries.
- **Henry Becquerel:** This scientist is credited with the initial discovery of natural radioactivity.
- **Enrico Fermi:** Fermi was a key figure in nuclear physics, known for his work on nuclear reactions, especially the discovery of nuclear fission through neutron bombardment, and building the first nuclear reactor. His discoveries occurred later in the field's development.

Henry Becquerel's Discovery

In 1896, **Henry Becquerel** accidentally discovered that uranium salts emitted rays that could pass through opaque materials and expose photographic plates, even in the dark. He was investigating phenomena related to phosphorescence when he noticed this spontaneous emission of radiation from uranium, which was not dependent on external energy sources like sunlight. This marked the first observation of natural radioactivity.

Conclusion

Based on the historical timeline of scientific discoveries, **Henry Bacquerel** was the first to discover the phenomenon of natural radioactivity through his experiments with uranium salts.

41. Answer: a

Explanation:

Sir C.V. Raman's Nobel Prize Winning Phenomenon

Sir C.V. Raman, a renowned Indian physicist, was honored with the Nobel Prize in Physics in 1930 for his groundbreaking work on the properties of radiation when it interacts with matter. His discovery significantly advanced the understanding of light and its behaviour.

Understanding the Scattering of Radiation

The question asks which phenomenon of radiation led to Sir C.V. Raman receiving the Nobel Prize. This involves understanding how radiation, particularly light, behaves when it encounters obstacles or particles.

Scattering is a process where radiation (like light) is deflected from its straight path by irregularities in the medium it passes through. When light interacts with particles or molecules, it can be redirected in various directions.

The Raman Effect: Light Scattering Discovery

Sir C.V. Raman's Nobel Prize-winning work specifically relates to the **Raman Effect**. This effect is a type of **inelastic scattering** of photons. Here's a breakdown:

- When light travels through a substance, most of it undergoes elastic scattering (Rayleigh scattering), meaning the light bounces off particles without a change in wavelength or energy.
- However, Raman discovered that a small portion of light undergoes inelastic scattering. In this process, the light interacts with the molecules of the substance, causing the molecules to gain or lose vibrational energy.
- This exchange of energy changes the energy of the scattered photons, resulting in a shift in their wavelength. If a photon loses energy to the molecule, the scattered photon has a longer wavelength (Stokes line). If a photon gains energy from an excited molecule, the scattered photon has a shorter wavelength (anti-Stokes line).
- Mathematically, this energy change can be represented. If the initial photon energy is $E = h\nu$, where h is Planck's constant and ν is the frequency, the scattered photon energy (E') can be $E' = h\nu \pm h\nu_{vib}$, where $h\nu_{vib}$ represents the vibrational energy transition within the molecule.

This discovery provided a powerful tool for studying the vibrational modes and structure of molecules, forming the basis of Raman Spectroscopy.

Distinguishing from Other Optical Phenomena

Let's consider the other options:

- **Diffraction:** This is the bending of waves around obstacles or the spreading of waves when passing through narrow openings. While a phenomenon of radiation, it's not what Raman's prize was awarded for.
- **Interference:** This occurs when two or more waves overlap, resulting in a new wave pattern where the amplitudes combine. This is also a fundamental wave property but distinct from Raman's discovery.
- **Polarization:** This refers to the orientation of the oscillations of transverse waves, like light. While Raman also conducted research in polarization, his Nobel Prize

was specifically for the scattering phenomenon.

Therefore, the phenomenon of radiation directly associated with Sir C.V. Raman's Nobel Prize is **Scattering**, specifically the inelastic scattering known as the Raman Effect.

42. Answer: b

Explanation:

Understanding Earth's Atmospheric Layers and Satellite Communication

The Earth's atmosphere is divided into several layers, each with distinct characteristics. Understanding these layers helps us appreciate phenomena like weather, ozone protection, and even the operation of spacecraft like communication satellites. Let's explore the main layers and their relevance to the question.

The primary layers of the atmosphere, from bottom to top, are:

- **Troposphere:** This is the lowest layer, extending up to about 7-15 km. It's where most weather occurs. Air density is highest here.
- **Stratosphere:** Located above the troposphere, extending up to about 50 km. It contains the ozone layer, which absorbs ultraviolet radiation from the Sun. Air is much thinner here.
- **Mesosphere:** Above the stratosphere, reaching about 85 km. This is where most meteors burn up. The temperature decreases significantly with altitude.
- **Thermosphere:** Extends above the mesosphere up to around 600-1000 km. Temperatures can be very high due to absorption of solar radiation. The International Space Station orbits within this layer.
- **Exosphere:** The outermost layer, gradually fading into outer space. It starts from about 600-1000 km and extends much further. Satellites in higher orbits reside here.

The Ionosphere and Communication

The **ionosphere** is not a distinct layer based purely on temperature or composition, but rather a region within the upper Mesosphere, Thermosphere, and Exosphere where the air is significantly ionized by solar and cosmic radiation. This region typically starts from about 60 km and extends up to 1000 km. The ionization process creates a layer containing free electrons and ions.

This ionized region, the Ionosphere, is crucial for certain types of radio communication. Historically, it allowed long-distance radio transmission by reflecting radio waves back to Earth. While modern satellite communication doesn't rely on reflecting signals off the ionosphere in the same way, the Ionosphere is the atmospheric region most directly associated with radio wave propagation and its interaction with space-based systems.

Communication Satellites Location

Communication satellites operate in various orbits, primarily:

- **Low Earth Orbit (LEO):** Altitudes typically range from 160 to 2,000 km. Satellites in LEO are relatively close to Earth and move quickly. Some LEO orbits fall within or pass through the upper parts of the Thermosphere and the Ionosphere region.
- **Medium Earth Orbit (MEO):** Altitudes from 2,000 km to about 35,786 km.
- **Geostationary Earth Orbit (GEO):** Located at a specific altitude of approximately 35,786 km above the Earth's equator. Satellites in GEO appear to stay in a fixed position relative to the ground. This altitude is far above the traditional atmospheric layers and the Ionosphere.

Considering the options provided and the nature of atmospheric layers, the Ionosphere is the region that interacts most directly with radio signals used in communication and is also a region where some communication satellites (LEO) might operate within or pass through its upper reaches, whereas Geostationary satellites are located much higher.

Atmospheric Layers Summary

Layer/Region	Approximate Altitude Range (km)	Key Characteristics	Relevance to Communication
Troposphere	0 - 7-15	Weather occurs here; highest density	Minimal (affects ground signals, not satellite location)
Stratosphere	7-15 - 50	Ozone layer; stable air	Minimal
Mesosphere	50 - 85	Meteors burn up; coldest layer	Minimal
Thermosphere	85 - 600-1000	High temperatures; ISS orbit	Contains part of Ionosphere; some LEOs orbit here
Ionosphere (Region)	~60 - 1000	Ionized gas; affects radio waves	Reflects radio waves; LEOs may operate within or above
Exosphere	600-1000 +	Outermost layer; fades into space	Higher orbits (GEO) located here; contains upper Ionosphere

Based on the options, the Ionosphere is the most relevant atmospheric region associated with communication and satellite operations among the choices given.

Revision Table: Key Atmospheric Layers for Exams

Atmospheric Layer Key Points

Layer	Characteristic	Altitude Role
Troposphere	Weather	Lowest
Stratosphere	Ozone layer	Above Troposphere
Mesosphere	Meteors burn	Above Stratosphere
Ionosphere	Radio wave reflection/absorption, ionization	Within upper layers (Mesosphere, Thermosphere, Exosphere)

Additional Information on Communication Satellite Orbits

While the question links satellite location to atmospheric layers, it's important to note that many communication satellites, especially those in Geostationary Earth Orbit (GEO), are located far above the dense parts of the Earth's atmosphere and even above the main extent of the Ionosphere. GEO satellites orbit at an altitude of approximately 35,786 km. However, Low Earth Orbit (LEO) satellites operate at altitudes between 160 km and 2,000 km, which means they operate in the Thermosphere and Exosphere and traverse the region known as the Ionosphere. The interaction of satellite signals with the Ionosphere is a significant area of study in satellite communication.

43. Answer: c

Explanation:

Viceroy During Simon Commission Visit to India

The question asks to identify the Viceroy of India when the Simon Commission made its visit. Understanding the timeline of British Viceroys in India and significant

historical events is crucial for answering this question correctly.

The Simon Commission and its Visit

The Indian Statutory Commission, commonly known as the Simon Commission, was a group of seven Members of Parliament under the chairmanship of Sir John Simon, appointed in 1927 to report on the working of the constitutional system in India and to suggest new ones. A significant point of contention was that the Commission included no Indian members, leading to widespread protests and boycotts across India.

The Commission visited India twice:

- First Visit: February 1928 – March 1929
- Second Visit: October 1929 – April 1930

Identifying the Viceroy

We need to find out who held the office of Viceroy of India during the years 1928–1930.

Timeline of Viceroys Mentioned:

Let's examine the tenures of the Viceroys listed in the options:

- **Lord Chelmsford:** Served as Viceroy from 1916 to 1921. This was before the Simon Commission's visit.
- **Lord Reading:** Served as Viceroy from 1921 to 1926. This period also predates the Simon Commission's visit.
- **Lord Irwin:** Served as Viceroy from April 1926 to April 1931. This period covers both visits of the Simon Commission to India.
- **Lord Wellington:** Served as Viceroy from 1931 to 1936. This was after the Simon Commission had completed its visits and submitted its report.

Conclusion

Based on the timelines, **Lord Irwin** was the Viceroy of India when the Simon Commission visited the country in 1928-1929 and again in 1929-1930. His tenure aligns perfectly with the period of the Commission's activities in India.

44. Answer: b

Explanation:

Gandhi's Departure from South Africa for India

This section explains the historical context and the specific year Mahatma Gandhi concluded his lengthy stay in South Africa and departed for India.

Mahatma Gandhi's South African Journey

Mahatma Gandhi spent a significant period of his life, spanning over two decades, in South Africa. He first arrived in South Africa in 1893 and departed in 1914. During his time there, he developed and honed his unique philosophy and methods of non-violent civil disobedience, known as Satyagraha, while campaigning against racial discrimination and advocating for the rights of the Indian community.

Decision to Return to India

After establishing his principles and achieving certain objectives in South Africa, Gandhi felt it was time to return to his homeland, India. He aimed to apply the lessons learned and the techniques developed during his South African struggle to the larger fight for India's independence from British colonial rule.

Year of Departure

Mahatma Gandhi made the definitive decision to leave South Africa and return to India in **1914**. He sailed from South Africa in July 1914, marking the end of his transformative journey in that country and the beginning of his pivotal role in India's freedom movement.

Key Event Timeline

- **1893:** Gandhi arrives in South Africa.
- **1914:** Gandhi leaves South Africa to return to India.
- **1915:** Gandhi arrives in India.

Based on the historical timeline, Mahatma Gandhi left South Africa to commence his return journey to India in the year **1914**.

45. Answer: c

Explanation:

This question asks about the area of expertise or primary role associated with the historical figure **Todar Mal** during his time in **Akbar's durbar**.

Exploring Todar Mal's Role in Akbar's Court

Todar Mal was a key figure and a trusted minister in the court of the Mughal Emperor Akbar. He served in high-ranking positions, including as the Finance Minister. His contributions significantly shaped the administration and economic policies of the Mughal Empire.

Understanding Todar Mal's Association with Finance

Todar Mal's most notable contributions were in the field of revenue and finance. He is renowned for implementing systematic land revenue reforms.

- **Land Revenue System:** Todar Mal introduced a standardized system of land revenue collection known as the 'Zabt' or 'Dahsala' system. This system involved measuring land, classifying it based on fertility, and determining revenue rates.
- **Fiscal Reforms:** He brought order and efficiency to the empire's financial administration, ensuring fair taxation and timely collection of revenue. This strengthened the economic foundation of the Mughal Empire.

- **Diwan-i-Ashraf:** Todar Mal held the position of 'Diwan-i-Ashraf', which was essentially the head of the revenue department, overseeing all financial matters.

Because of these significant contributions to revenue collection, land measurement, and overall financial management, Todar Mal is strongly associated with **Finance** in Akbar's durbar.

Evaluating Other Associations

While ministers in Akbar's court often had diverse roles, Todar Mal's primary and most impactful association was not with Music, Literature, or specific Law Reforms, although he might have had some peripheral involvement or oversight in broader administrative areas.

- **Music & Literature:** These fields were generally associated with other courtiers, like Tansen for music or Abu'l Fazl for literature and administration.
- **Law Reforms:** While Akbar did implement various administrative and legal changes, Todar Mal's specific and widely recognized expertise was concentrated in financial and revenue administration.

Therefore, the most accurate association for **Todar Mal** in **Akbar's durbar** is **Finance**.

Your Personal Exams Guide

46. Answer: a

Explanation:

Understanding Lines of Equal Temperature

Maps often use special lines to represent areas with similar characteristics. These lines connect various locations that share a specific measurement, making it easier to understand geographical or meteorological data visually. The question asks for the specific term used for lines that connect places having the same temperature.

Defining Meteorological Lines

In fields like meteorology and geography, specific terms are used for lines connecting points of equal values:

- **Lines of Equal Temperature:** These lines connect locations across different geographical areas that are experiencing the exact same temperature at a given time or averaged over a period.
- **Lines of Equal Rainfall:** These lines connect locations that receive the same amount of precipitation over a specific duration.
- **Lines of Equal Pressure:** These lines connect locations with the same atmospheric pressure.

Analyzing the Options

Let's look at the provided options to identify the correct term for lines joining places of equal temperature:

- **Isotherms:** The prefix 'iso-' means 'equal', and 'therm' relates to temperature. Therefore, *Isotherms* are lines drawn on a map connecting points of equal temperature. For example, a map might show an isotherm connecting cities that all have a daily average temperature of $20^{\circ}C$.
- **Isohyets:** The prefix 'iso-' means 'equal', and 'hyet' refers to rain or rainfall. *Isohyets* are lines connecting places with equal amounts of rainfall. They are used in climatology to show rainfall distribution.
- **Isomers:** This term belongs to chemistry. *Isomers* are molecules that have the same chemical formula but differ in the arrangement of their atoms. This term is unrelated to geographical or meteorological lines.
- **Isobars:** The prefix 'iso-' means 'equal', and 'bar' relates to pressure (as in barometer). *Isobars* are lines connecting points of equal atmospheric pressure. They are commonly used on weather maps to show high and low-pressure systems.

Summary of Terms

Here is a summary to clarify the different types of lines:

Term	Meaning	Condition Represented
Isotherm	Line connecting places of equal temperature	Temperature (T)
Isohyet	Line connecting places of equal rainfall	Precipitation (P)
Isobar	Line connecting places of equal atmospheric pressure	Pressure (p)

Conclusion

Based on the definitions, the lines specifically used to join places of equal temperature are called **Isotherms**. These are essential tools for understanding temperature distribution and patterns on weather and climate maps.

47. Answer: b

Explanation:

The correct answer is option 2, i.e. Shashi Kapoor.

- The **Dadasaheb Phalke Award**, India's highest award in cinema is presented annually at the National Film Awards ceremony by the Directorate of Film Festivals, an organisation set up by the Ministry of Information and Broadcasting for honoring the recipients' "outstanding contribution to the growth and development of Indian cinema"
- First presented in 1969, the award was introduced by the Government of India to commemorate Dadasaheb Phalke's (1870–1944) contribution to Indian cinema, who is popularly known as and often regarded as "the father of Indian cinema"
- He was an Indian filmmaker who directed India's first full-length feature film, Raja Harishchandra (1913).
- Shashi Kapoor was awarded the Dada Saheb Phalke Award for the year **2014**.
- **Pran** was the recipient of the award for 2012.

- Dilip Kumar was the recipient of the award for 1994.
- Amitabh Bachchan was the recipient of the award for 2018.

48. Answer: b

Explanation:

Moon's Orbital Period Around Earth

The question asks for the time the Moon takes to complete one full orbit around our planet, the Earth. This duration is scientifically known as the Moon's **orbital period**.

Understanding the Moon's Revolution

The Moon orbits the Earth. The time it takes for the Moon to travel all the way around the Earth and return to the same position relative to the distant stars is called the sidereal period. This sidereal period is approximately $27\frac{1}{3}$ **days**.

It is worth noting that the time it takes for the Moon to cycle through its phases (like from one full moon to the next) is slightly longer, about 29.5 days. This is called the synodic period. However, the options provided relate to the sidereal period.

Evaluating the Given Options

The options provided are:

- Option 1: $26\frac{1}{3}$ days
- Option 2: $27\frac{1}{3}$ days
- Option 3: $28\frac{2}{3}$ days
- Option 4: $29\frac{1}{2}$ days

Based on astronomical data, the Moon's sidereal revolution period is closest to $27\frac{1}{3}$ **days**.

49. Answer: d

Explanation:

Understanding Ricky Kej's Grammy Award Winning Album

This solution focuses on identifying the album for which the Indian-American music composer Ricky Kej won a Grammy Award. We will explore the significance of this achievement and analyze the given options.

About Ricky Kej and the Grammy Award

Ricky Kej is a renowned music composer, producer, and musician, recognized globally for his work. He has achieved significant international acclaim, notably winning the prestigious Grammy Award. Winning a Grammy is a major milestone in the music industry, recognizing excellence in musical artistry and technical proficiency.

Analyzing the Album Options

The question asks to identify the specific album that earned Ricky Kej a Grammy Award. Let's look at the choices provided:

- *In the Lonely Hour*: This is the debut album of British singer Sam Smith.
- *Morning Phase*: This album by Beck won the Grammy Award for Album of the Year in 2015.
- *Beyonce*: This is the fifth studio album by American singer Beyoncé, released in 2013.
- *Winds of Samsara*: This album is associated with Ricky Kej's Grammy win.

The Landmark Achievement: Winds of Samsara

Ricky Kej, along with South African flutist Wouter Kellerman, won the Grammy Award for *Best New Age Album* for their collaborative album, *Winds of Samsara*. The award

ceremony took place in 2015.

The album *Winds of Samsara* is celebrated for its unique blend of Indian classical music and Western contemporary sounds, drawing inspiration from the philosophies of Mahatma Gandhi and Nelson Mandela. Its theme revolves around nature, spirituality, and global unity.

Therefore, the album that brought Ricky Kej his Grammy Award recognition among the given options is *Winds of Samsara*.

50. Answer: b

Explanation:

Agni-V Missile Payload Capacity Explained

The Agni-V missile is a significant advancement in India's strategic defence capabilities. This surface-to-surface, intercontinental ballistic missile (ICBM) is designed to carry substantial payloads over very long distances.

Understanding the Agni-V's Nuclear Payload

When discussing the **Agni-V missile** and its **nuclear payload**, it's important to look at its designed specifications. Defence analysts and reports indicate that the Agni-V is capable of carrying a payload weighing approximately **1500 kg**. This payload capacity is crucial as it determines the type and weight of the warhead the missile can deliver, including nuclear warheads.

Significance of the Payload Weight

- A **1500 kg payload** capacity allows the Agni-V to potentially carry advanced nuclear warheads.
- This weight class is also relevant for potential Multiple Independently targetable Re-entry Vehicle (MIRV) configurations, although specifics remain classified.

- The substantial payload capability contributes to the missile's status as an intercontinental ballistic missile, capable of reaching targets across continents.

Analysis of Options

Let's look at the given options regarding the Agni-V's nuclear payload capacity:

Option Number	Payload Capacity
1	1000 kg
2	1500 kg
3	2000 kg
4	2500 kg

Based on publicly available information and defence assessments, the Agni-V missile is widely reported to have a payload capacity suitable for a **1500 kg** warhead. This makes option 2 the most accurate representation of its known capabilities regarding nuclear payloads.

Your Personal Exams Guide

51. Answer: a

Explanation:

Vikramaditya's Russian Name Connection

This question asks about the original Russian name associated with the Indian Navy's aircraft carrier, INS Vikramaditya. Understanding the journey of this ship from its Russian origins to its current service is key to answering correctly.

The History Behind INS Vikramaditya

INS Vikramaditya is a significant asset in the Indian Navy's fleet. It is a modified Kiev-class aircraft carrier that was originally part of the Soviet Navy and later the Russian Navy. India acquired this vessel from Russia in 2004. Before its transfer and extensive modernization, the ship served under a different name, reflecting its Russian heritage.

Identifying the Original Russian Name

The aircraft carrier that became INS Vikramaditya was commissioned into the Soviet Navy in 1987 as 'Baku'. It was later renamed **Admiral Gorshkov** in honour of the Soviet Navy's last fleet commander, Admiral Sergey Gorshkov. Following the dissolution of the Soviet Union, it continued service with the Russian Navy under this name. India purchased the carrier in 2004 and renamed it Vikramaditya after its refit and commissioning into the Indian Navy.

Evaluating the Options

Let's look at the choices provided:

- **Admiral Groshkov:** This option is a very close representation of the original Russian name, 'Admiral Gorshkov'. This is historically the correct name of the vessel before its acquisition by India.
- **Admiral Gorbachev:** This name refers to Mikhail Gorbachev, a prominent political figure, not the aircraft carrier.
- **Admiral Nakhimov:** Admiral Pavel Nakhimov was a notable Russian naval commander, but this specific name was not used for the carrier that became INS Vikramaditya.
- **Admiral Petr Bezobrazov:** This refers to another Russian naval figure and is not associated with the history of INS Vikramaditya.
- The fifth option is blank.

Conclusion on the Russian Designation

The aircraft carrier INS Vikramaditya was known as **Admiral Gorshkov** during its service with the Russian Navy. Therefore, the option "Admiral Groshkov" is the correct identification among the choices given, representing its historical Russian name.

52. Answer: d

Explanation:

Boat Travel Time Calculation

This problem involves calculating the distance a boat travels on a river, considering its movement both upstream (against the current) and downstream (with the current). We are given the boat's speed in still water, the speed of the river current, and the total time taken for a round trip.

Understanding Key Terms

- **Upstream Speed:** The speed of the boat when it travels against the river current.
- **Downstream Speed:** The speed of the boat when it travels with the river current.
- **Still Water Speed:** The speed of the boat in calm water, without any current affecting it.
- **Current Speed:** The speed of the river water flow.

Calculating Speeds

First, let's determine the boat's speed when traveling upstream and downstream.

- Speed of the boat in still water, $v_b = 9 \text{ Km/h}$.
- Speed of the current, $v_c = 3 \text{ Km/h}$.

We can represent these speeds:

Speed Type	Calculation	Result
Upstream Speed (v_{up})	$v_b - v_c$	$9 - 3 = 6 \text{ Km/h}$
Downstream Speed (v_{down})	$v_b + v_c$	$9 + 3 = 12 \text{ Km/h}$

Formulating the Distance Equation

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

The time taken to travel upstream (from B to A) is:

$$t_{up} = \frac{\text{Distance}}{\text{Upstream Speed}} = \frac{d}{v_{up}}$$

$$t_{up} = \frac{d}{6} \text{ hours}$$

The time taken to travel downstream (from A to B) is:

$$t_{down} = \frac{\text{Distance}}{\text{Downstream Speed}} = \frac{d}{v_{down}}$$

$$t_{down} = \frac{d}{12} \text{ hours}$$

We know the total time for the round trip (upstream + downstream) is 3 hours:

$$t_{up} + t_{down} = 3$$

$$\frac{d}{6} + \frac{d}{12} = 3$$

Solving for Distance

To find the distance ' d ', we solve the equation:

1. Find a common denominator for the fractions, which is 12.
2. Rewrite the equation with the common denominator:

$$\frac{2 \times d}{2 \times 6} + \frac{d}{12} = 3$$

$$\frac{2d}{12} + \frac{d}{12} = 3$$

3. Combine the fractions:

$$\frac{2d + d}{12} = 3$$

$$\frac{3d}{12} = 3$$

4. Simplify the fraction $\frac{3d}{12}$:

$$\frac{d}{4} = 3$$

5. Solve for 'd' by multiplying both sides by 4:

$$d = 3 \times 4$$

$$d = 12$$

So, the distance between A and B is 12 km.

Conclusion

The calculation shows that the distance between A and B is 12 km, based on the given speeds and the total travel time.

53. Answer: d

Explanation:

Calculating Steamer's Average Speed for Total Journey

This problem involves finding the average speed of a steamer that travels upstream and then returns downstream to the starting point. We need to consider the effect of the river's current on the steamer's speed during both parts of the journey.

Understanding Speed Components

The steamer's speed relative to the water (still water speed) and the river's flow speed are crucial. The river's current affects the actual speed over the ground.

- Speed of steamer in still water (v_s): 4.5 km/h
- Speed of river flow (v_r): 1.5 km/h

Calculating Upstream and Downstream Speeds

When the steamer travels upstream, it moves against the current, reducing its effective speed. When it travels downstream, it moves with the current, increasing its effective speed.

- **Upstream Speed (v_{up}):** This is the speed when the steamer is moving against the river flow.

$$v_{up} = v_s - v_r$$

$$v_{up} = 4.5 \text{ km/h} - 1.5 \text{ km/h} = 3.0 \text{ km/h}$$

- **Downstream Speed (v_{down}):** This is the speed when the steamer is moving with the river flow.

$$v_{down} = v_s + v_r$$

$$v_{down} = 4.5 \text{ km/h} + 1.5 \text{ km/h} = 6.0 \text{ km/h}$$

Calculating Time for Each Leg

Let the distance travelled upstream (and also downstream) be ' d ' km. The time taken for each part of the journey can be calculated using the formula: Time = Distance / Speed.

- **Time taken for upstream journey (t_{up}):**

$$t_{up} = \frac{d}{v_{up}} = \frac{d}{3.0} \text{ hours}$$

- **Time taken for downstream journey (t_{down}):**

$$t_{down} = \frac{d}{v_{down}} = \frac{d}{6.0} \text{ hours}$$

Calculating Total Distance and Total Time

The total distance covered is the sum of the distance travelled upstream and downstream. The total time is the sum of the times taken for each leg.

- **Total Distance (D_{total}):**

$$D_{total} = d(\text{upstream}) + d(\text{downstream}) = 2d \text{ km}$$

- **Total Time (T):**

$$T = t_{up} + t_{down}$$

$$T = \frac{d}{3.0} + \frac{d}{6.0}$$

To add these fractions, we find a common denominator, which is 6.0:

$$T = \frac{2d}{6.0} + \frac{d}{6.0} = \frac{3d}{6.0}$$

$$T = \frac{d}{2.0} \text{ hours}$$

Determining the Average Speed

The average speed for the total journey is defined as the total distance divided by the total time.

- **Average Speed (v_{avg}):**

$$v_{avg} = \frac{\text{Total Distance}}{\text{Total Time}}$$

$$v_{avg} = \frac{D_{total}}{T}$$

$$v_{avg} = \frac{2d}{\frac{d}{2.0}}$$

$$v_{avg} = 2d \times \frac{2.0}{d}$$

$$v_{avg} = 4.0 \text{ km/h}$$

Conclusion

The average speed of the steamer for the total journey, considering both the upstream and downstream trips, is 4.0 km/h.

54. Answer: a

Explanation:

Understanding the Work and Time Problem

This problem involves calculating the combined time required for two individuals, A and B, to complete a piece of work, given their individual rates of work.

We are given information about the fraction of work each person can complete in a specific number of days:

- **A's Work:** A completes $\frac{1}{2}$ of the work in 8 days.
- **B's Work:** B completes $\frac{1}{3}$ of the work in 8 days.

The goal is to find out how many days it will take for both A and B to complete the entire piece of work if they work together.

Calculating Individual Work Rates

To solve this, we first need to determine the rate at which each person works, meaning the fraction of the work they can complete in one day.

A's Daily Work Rate

If A can do $\frac{1}{2}$ of the work in 8 days, then to complete the entire work (1 whole work), A would need:

$$\text{Time for A to complete whole work} = 8 \text{ days} / \left(\frac{1}{2} \text{ work}\right) = 8 \text{ days} \times 2 = 16 \text{ days}$$

Therefore, A's work rate (the fraction of work A completes per day) is:

$$\text{A's Rate} = \frac{1}{\text{Total days for A}} = \frac{1}{16} \text{ of the work per day.}$$

B's Daily Work Rate

Similarly, if B can do $\frac{1}{3}$ of the work in 8 days, then to complete the entire work, B would need:

$$\text{Time for B to complete whole work} = 8 \text{ days} / \left(\frac{1}{3} \text{ work}\right) = 8 \text{ days} \times 3 = 24 \text{ days}$$

Therefore, B's work rate is:

$$\text{B's Rate} = \frac{1}{\text{Total days for B}} = \frac{1}{24} \text{ of the work per day.}$$

Determining the Combined Work Rate

When A and B work together, their individual work rates add up. The combined rate is the sum of A's rate and B's rate.

$$\text{Combined Rate} = \text{A's Rate} + \text{B's Rate}$$

$$\text{Combined Rate} = \frac{1}{16} + \frac{1}{24}$$

To add these fractions, we find the least common multiple (LCM) of the denominators (16 and 24). The LCM of 16 and 24 is 48.

$$\text{Combined Rate} = \frac{1 \times 3}{16 \times 3} + \frac{1 \times 2}{24 \times 2} = \frac{3}{48} + \frac{2}{48}$$

$$\text{Combined Rate} = \frac{3+2}{48} = \frac{5}{48} \text{ of the work per day.}$$

Finding the Time Taken Together

The time it takes for them to complete the entire work together is the inverse of their combined work rate.

$$\text{Time Together} = \frac{\text{Total Work}}{\text{Combined Rate}}$$

Assuming the total work is 1 unit:

$$\text{Time Together} = \frac{1}{\frac{5}{48}} = \frac{48}{5} \text{ days}$$

Converting this fraction to a decimal:

$$\text{Time Together} = 9.6 \text{ days}$$

Conclusion

Working together, A and B can complete the piece of work in 9.6 days.

55. Answer: b

Explanation:

Analyzing Work and Time Relationships

This problem involves understanding the relationships between the work rates of individuals (A, B, and C) and calculating the total time taken when they work together.

Understanding the Given Information

- Person A does half as much work as Person B. This can be written as:
 - Let the work done by A per day be A , and by B per day be B .
 - Mathematically, $A = \frac{1}{2}B$.
 - This implies $B = 2A$.
- Person C does half as much work as A and B combined. This can be written as:
 - Let the work done by C per day be C .
 - Mathematically, $C = \frac{1}{2}(A + B)$.
 - This implies $2C = A + B$.
- Person C alone can finish the work in 40 days.
 - This gives us C's work rate. If the total work is considered as 1 unit, then $C = \frac{1}{40}$ units of work per day.

Calculating Individual Work Rates

We need to find the work rates of A and B in terms of C, using the given relationships.

1. **Express B in terms of A:** From the first relationship, we have $B = 2A$.

2. **Substitute into the second relationship:** We know $2C = A + B$. Substitute $B = 2A$ into this equation:

- $2C = A + (2A)$
- $2C = 3A$
- Therefore, $A = \frac{2}{3}C$.

3. **Express B in terms of C:** Now substitute the expression for A back into the equation $B = 2A$:

- $B = 2 \times (\frac{2}{3}C)$
- $B = \frac{4}{3}C$

4. **Calculate the numerical rates:** Since $C = \frac{1}{40}$ work/day:

- $A = \frac{2}{3}C = \frac{2}{3} \times \frac{1}{40} = \frac{2}{120} = \frac{1}{60}$ work/day.
- $B = \frac{4}{3}C = \frac{4}{3} \times \frac{1}{40} = \frac{4}{120} = \frac{1}{30}$ work/day.

Determining Combined Work Rate

To find the time taken when all three work together, we first need to calculate their combined work rate ($A + B + C$).

Combined Rate = Rate of A + Rate of B + Rate of C

$$Rate_{A+B+C} = A + B + C = \frac{1}{60} + \frac{1}{30} + \frac{1}{40}$$

To add these fractions, we find the Least Common Multiple (LCM) of the denominators (60, 30, 40). The LCM is 120.

$$Rate_{A+B+C} = \frac{1 \times 2}{60 \times 2} + \frac{1 \times 4}{30 \times 4} + \frac{1 \times 3}{40 \times 3}$$

$$Rate_{A+B+C} = \frac{2}{120} + \frac{4}{120} + \frac{3}{120}$$

$$Rate_{A+B+C} = \frac{2+4+3}{120} = \frac{9}{120}$$

Simplifying the fraction: $Rate_{A+B+C} = \frac{3}{40}$ work/day.

Calculating Total Time Taken Together

The time taken to complete the work together is the inverse of their combined work rate.

$$\text{Time} = \frac{\text{Total Work}}{\text{Combined Rate}}$$

Assuming Total Work = 1 unit:

$$\text{Time}_{A+B+C} = \frac{1}{\frac{3}{40}}$$

$$\text{Time}_{A+B+C} = \frac{40}{3} \text{ days}$$

To express this as a mixed fraction:

$$\frac{40}{3} = 13\frac{1}{3} \text{ days}$$

Conclusion

If A does $\frac{1}{2}$ as much work as B, and C does $\frac{1}{2}$ as much work as A and B together, and C alone can finish the work in 40 days, then all three together will finish the work in $13\frac{1}{3}$ days.

56. Answer: c

Explanation:

Calculating Train Passing Time

This problem involves calculating the time it takes for a train to pass a man moving in the same direction. We need to consider the length of the train and the relative speed between the train and the man.

Understanding Relative Speed in Same Direction

When two objects move in the same direction, their relative speed is the difference between their individual speeds. This relative speed tells us how quickly the faster object gains on or passes the slower object.

- Train Length: 150 m
- Train Speed: 68 km/h

- Man's Speed: 8 km/h
- Direction: Same

Calculating Relative Speed

Since the train and the man are moving in the same direction, we calculate the relative speed by subtracting the man's speed from the train's speed.

$$\text{Relative Speed} = \text{Train Speed} - \text{Man's Speed}$$

$$\text{Relative Speed} = 68 \text{ km/h} - 8 \text{ km/h}$$

$$\text{Relative Speed} = 60 \text{ km/h}$$

Converting Speed to Meters per Second (m/s)

The length of the train is given in meters, so it's convenient to convert the relative speed from kilometers per hour (km/h) to meters per second (m/s). We use the conversion factor $\frac{5}{18}$.

$$\text{Relative Speed in m/s} = 60 \times \frac{5}{18} \text{ m/s}$$

$$\text{Relative Speed in m/s} = \frac{300}{18} \text{ m/s}$$

$$\text{Relative Speed in m/s} = \frac{50}{3} \text{ m/s}$$

Determining Distance for Passing

For the train to completely pass the man, it needs to cover a distance equal to its own length. The man is considered a point object in this context.

$$\text{Distance} = \text{Train Length} = 150 \text{ m}$$

Calculating the Time Taken

We can now calculate the time taken using the formula:

$$\text{Time} = \frac{\text{Distance}}{\text{Relative Speed}}$$

$$\text{Time} = \frac{150 \text{ m}}{\frac{50}{3} \text{ m/s}}$$

$$\text{Time} = 150 \times \frac{3}{50} \text{ seconds}$$

$$\text{Time} = 3 \times 3 \text{ seconds}$$

$$\text{Time} = 9 \text{ seconds}$$

Conclusion

Therefore, the train will take 9 seconds to pass the man running at 8 km/h in the same direction.

57. Answer: c

Explanation:

Analyzing the Train Speed Calculation

The question asks for the length of a train. We're given two pieces of information: the distance the train covers (12 km) in a specific time (10 minutes), and the time it takes to pass a telegraph post (6 seconds). To find the train's length, we first need to calculate its speed.

Calculating the Train's Speed in m/s

We know the train covers **12 km** in **10 minutes**. To calculate the speed effectively, especially when dealing with the time to pass the post in seconds, it's best to convert everything to meters and seconds.

- Convert the distance from kilometers (km) to meters (m):

$$12 \text{ km} = 12 \times 1000 \text{ m} = 12000 \text{ m}$$

- Convert the time from minutes to seconds (s):

$$10 \text{ minutes} = 10 \times 60 \text{ s} = 600 \text{ s}$$

Now we can calculate the speed using the formula:

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

Substitute the converted values:

$$\text{Speed} = \frac{12000 \text{ m}}{600 \text{ s}}$$

$$\text{Speed} = 20 \text{ m/s}$$

So, the speed of the train is **20 meters per second**.

Calculating the Train Length

The second part of the problem states that the train takes **6 seconds** to pass a telegraph post. When a train passes a stationary point object like a telegraph post, the distance the train travels during this time is exactly equal to its own length.

We can use the speed we just calculated (20 m/s) and the time it takes to pass the post (6 seconds) to find the length.

Using the formula:

$$\text{Distance} = \text{Speed} \times \text{Time}$$

In this context, the distance is the length of the train:

$$\text{Length of Train} = \text{Speed} \times \text{Time to pass post}$$

$$\text{Length of Train} = 20 \text{ m/s} \times 6 \text{ s}$$

$$\text{Length of Train} = 120 \text{ m}$$

Conclusion

The calculation shows that the length of the train is **120 meters**.

58. Answer: d

Explanation:

Salary Comparison: A vs B

This problem involves comparing the salaries of two people, A and B. We are given a specific relationship: A's salary is 50% larger than B's salary. Our task is to figure out, percentage-wise, how much smaller B's salary is compared to A's salary.

Expressing Salary Relationship Mathematically

Let's use variables to represent the salaries:

- Let B's salary be S_B .
- The problem states A's salary (S_A) is 50% more than B's salary.

We can write this relationship as an equation:

$$S_A = S_B + (50\% \text{ of } S_B)$$

To make calculations easier, let's convert the percentage to a decimal:

$$S_A = S_B + \left(\frac{50}{100} \times S_B\right)$$

$$S_A = S_B + 0.5 \times S_B$$

Combining the terms involving S_B :

$$S_A = (1 + 0.5) \times S_B$$

$$S_A = 1.5 \times S_B$$

This equation shows that A's salary is 1.5 times B's salary.

Calculating Percentage Difference for Salaries

Now, we need to find the difference between A's salary and B's salary:

$$\text{Difference} = S_A - S_B$$

Using the relationship $S_A = 1.5 \times S_B$, we substitute:

$$\text{Difference} = (1.5 \times S_B) - S_B$$

Factor out S_B :

$$\text{Difference} = (1.5 - 1) \times S_B$$

$$\text{Difference} = 0.5 \times S_B$$

The question asks for this difference as a percentage of A's salary. The formula is:

$$\text{Percentage Less} = \frac{\text{Difference}}{\text{A's Salary}} \times 100\%$$

Substitute the values we found:

$$\text{Percentage Less} = \frac{0.5 \times S_B}{1.5 \times S_B} \times 100\%$$

The S_B terms cancel out, leaving:

$$\text{Percentage Less} = \frac{0.5}{1.5} \times 100\%$$

Simplify the fraction $\frac{0.5}{1.5}$:

$$\text{Percentage Less} = \frac{5}{15} \times 100\% = \frac{1}{3} \times 100\%$$

Final Salary Comparison Result

Calculate the final percentage:

$$\text{Percentage Less} = \frac{100}{3}\%$$

To express this as a mixed number, we divide 100 by 3:

$$\text{Percentage Less} = 33\frac{1}{3}\%$$

This means B's salary is $33\frac{1}{3}\%$ less than A's salary.

59. Answer: a

Explanation:

Concept:

If a number increase by $x\%$, then

$$\text{Increase number} = \text{Actual number} \times (100 + x)/100$$

If the price of a commodity decrease by $x\%$, then the increase in price, so as not to change the original price = $[x/(100 - x)] \times 100$

Calculation:

Short Trick :

The percentage should an item increase the price so that there is no change in the original price = $[25/(100 - 25)] \times 100 = 33\frac{1}{3}\%$

Detailed Method:

Let the price of the item be Rs. 100

If price decrease by 25%, then decreased price = $100 \times (75/100) = \text{Rs. } 75$

If we want to get the original price again, then we increase the price by = $100 - 75 = \text{Rs. } 25$

If we want to get the original price again, then the increase % = $(25/75) \times 100 = 33\frac{1}{3}\%$

60. Answer: b

Explanation:

Overall Loss Calculation for Items Sold at Same Price

This solution explains how to calculate the total gain or loss when two items are sold at the same price, but with different profit and loss percentages. We will analyze the

specific scenario where Anmol sold two items for Rs. 1000 each, gaining 10% on one and losing 10% on the other.

Understanding the Problem

- Anmol sold two items.
- The selling price (SP) for each item is Rs. 1000.
- Item 1: Sold at a 10% gain.
- Item 2: Sold at a 10% loss.
- Objective: Find the overall gain or loss percentage for the entire transaction.

Calculating Cost Price (CP) for Each Item

To determine the overall profit or loss, we first need to find the cost price (CP) for each item.

Cost Price of Item 1 (10% Gain)

We know the formula relating SP, CP, and Gain is:

$$SP = CP * (1 + \text{Gain}\%/100)$$

Rearranging for CP:

$$CP = SP / (1 + \text{Gain}\%/100)$$

Given SP = Rs. 1000 and Gain = 10%:

$$CP1 = 1000 / (1 + 10/100)$$

$$CP1 = 1000 / (1 + 0.10)$$

$$CP1 = 1000 / 1.10$$

$$CP1 = 10000 / 11$$

$$CP1 \approx 909.09$$

Cost Price of Item 2 (10% Loss)

The formula relating SP, CP, and Loss is:

$$SP = CP * (1 - \text{Loss}\%/100)$$

Rearranging for CP:

$$CP = SP / (1 - \text{Loss}\%/100)$$

Given SP = Rs. 1000 and Loss = 10%:

$$CP2 = 1000 / (1 - 10/100)$$

$$CP2 = 1000 / (1 - 0.10)$$

$$CP2 = 1000 / 0.90$$

$$CP2 = 10000 / 9$$

$$CP2 \approx 1111.11$$

Calculating Total Cost Price and Total Selling Price

Now, let's calculate the total cost price and total selling price for the whole transaction.

Total Selling Price (Total SP)

Total SP is the sum of the selling prices of both items.

$$\text{Total SP} = SP1 + SP2$$

$$\text{Total SP} = 1000 + 1000$$

$$\text{Total SP} = 2000$$

Total Cost Price (Total CP)

Total CP is the sum of the cost prices of both items.

$$\text{Total CP} = CP1 + CP2$$

$$\text{Total CP} = (10000 / 11) + (10000 / 9)$$

To add these fractions, we find a common denominator (99):

$$\text{Total CP} = (10000 * 9 / 99) + (10000 * 11 / 99)$$

$$\text{Total CP} = (90000 + 110000) / 99$$

$$\text{Total CP} = 200000 / 99$$

$$\text{Total CP} \approx 2020.20$$

Determining Overall Gain or Loss

Compare the Total SP and Total CP to find the overall result.

- Total SP = Rs. 2000

- Total CP = Rs. 200000 / 99 (approximately Rs. 2020.20)

Since the Total CP (Rs. 2020.20) is greater than the Total SP (Rs. 2000), there is an overall **loss** in the transaction.

Calculating the Loss Amount

Loss Amount = Total CP - Total SP

$$\text{Loss Amount} = (200000 / 99) - 2000$$

$$\text{Loss Amount} = (200000 - 2000 * 99) / 99$$

$$\text{Loss Amount} = (200000 - 198000) / 99$$

$$\text{Loss Amount} = 2000 / 99$$

$$\text{Loss Amount} \approx 20.20$$

Calculating the Loss Percentage

The formula for loss percentage is:

$$\text{Loss \%} = (\text{Loss Amount} / \text{Total CP}) * 100$$

$$\text{Loss \%} = ((2000 / 99) / (200000 / 99)) * 100$$

$$\text{Loss \%} = (2000 / 200000) * 100$$

$$\text{Loss \%} = (1 / 100) * 100$$

$$\text{Loss \%} = 1\%$$

Shortcut Method

There's a quick way to solve problems 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 will always be an overall loss, and the loss percentage can be directly calculated using the formula:

$$\text{Overall Loss \%} = (x^2 / 100) \%$$

Here, $x = 10$.

$$\text{Overall Loss \%} = (10^2 / 100) \%$$

$$\text{Overall Loss \%} = (100 / 100) \%$$

$$\text{Overall Loss \%} = 1\%$$

This confirms our detailed calculation. The overall transaction resulted in a **Loss of 1%**.

Conclusion

Anmol incurred an overall loss of 1% in the transaction.

61. Answer: c

Explanation:

Profit Calculation: Doubled Selling Price Scenario

This explanation details how to calculate the initial profit percentage when the selling price is doubled, resulting in tripled profit. We will define variables, set up equations based on the problem statement, and solve them step-by-step.

Defining Initial Variables for Profit

To solve this problem, let's first establish the key variables involved in profit calculation:

- Let **\$CP\$** denote the Cost Price of the item.
- Let **\$SP\$** denote the initial Selling Price of the item.
- Let **\$P\$** denote the initial Profit made on the item.

The fundamental relationship connecting these is:

$$SP = CP + P$$

The initial profit percentage is calculated using the formula:

$$\text{Initial Profit Percent} = \frac{P}{CP} \times 100\%$$

Analyzing the Scenario Change

The question presents a specific change: the selling price is doubled, and this leads to the profit being tripled. Let's represent these new conditions:

- New Selling Price = $2 \times SP$
- New Profit = $3 \times P$
- The Cost Price (CP) remains constant throughout the transaction.

Using the standard relationship (Selling Price = Cost Price + Profit) for the new scenario, we get:

$$2 \times SP = CP + (3 \times P)$$

Step-by-Step Derivation for Profit Percent

We now have a system of two equations. Let's solve them to find the relationship between CP and P and then calculate the profit percentage.

1. **Initial Equation:** The relationship between the initial selling price, cost price, and profit is:

$$SP = CP + P \quad (1)$$

2. **New Scenario Equation:** The relationship after the changes is:

$$2 \times SP = CP + 3 \times P \quad (2)$$

3. **Substitution:** Substitute the value of SP from Equation (1) into Equation (2):

$$2 \times (CP + P) = CP + 3 \times P$$

4. **Expand:** Distribute the 2 on the left side of the equation:

$$2 \times CP + 2 \times P = CP + 3 \times P$$

5. **Rearrange Terms:** Group the CP terms on one side and the P terms on the other:

$$2 \times CP - CP = 3 \times P - 2 \times P$$

6. **Simplify:** Perform the subtraction on both sides:

$$CP = P$$

This crucial result indicates that the Cost Price (CP) is equal to the initial Profit (P).

Calculating the Initial Profit Percent

With the relationship $CP = P$ established, we can now calculate the initial profit percentage:

$$\text{Initial Profit Percent} = \frac{P}{CP} \times 100\%$$

Substitute CP with P in the formula:

$$\text{Initial Profit Percent} = \frac{P}{P} \times 100\%$$

$$\text{Initial Profit Percent} = 1 \times 100\%$$

$$\text{Initial Profit Percent} = 100\%$$

Final Answer Summary

Based on the calculations, the initial profit percentage is 100%.

62. **Answer: a**

Explanation:

Finding the Principal Amount with Simple Interest

This problem asks us to determine the initial amount of money (the **principal**) lent out. We are given the **rate of simple interest**, the **time** period, and a specific condition linking the interest earned to the principal. We need to use the simple interest formula to solve for the principal.

Understanding the Simple Interest Formula

Simple interest is calculated only on the initial amount borrowed or invested, known as the principal. The interest earned each year does not compound. The formula used to calculate simple interest (SI) is:

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

Where:

- P = Principal amount
- R = Rate of interest per annum (in percent)
- T = Time period (in years)

Applying the Given Conditions

From the question, we have the following information:

- Rate (R) = 4%
- Time (T) = 8 years
- The interest earned (SI) is Rs 340 less than the principal (P). This can be written as: $SI = P - 340$.

Now, let's substitute the known values of R and T into the simple interest formula:

$$SI = \frac{P \times 4 \times 8}{100}$$

$$SI = \frac{32P}{100}$$

We now have two expressions for the simple interest (SI):

1. $SI = P - 340$
2. $SI = \frac{32P}{100}$

By setting these two expressions equal to each other, we can form an equation to solve for P :

$$\frac{32P}{100} = P - 340$$

Step-by-Step Calculation for the Principal

Let's solve the equation step-by-step:

1. Start with the equation:

$$\frac{32P}{100} = P - 340$$

2. To eliminate the fraction, multiply both sides of the equation by 100:

$$100 \times \left(\frac{32P}{100} \right) = 100 \times (P - 340)$$

$$32P = 100P - 34000$$

3. Rearrange the equation to bring all terms involving P to one side. Subtract $32P$ from both sides and add 34000 to both sides:

$$34000 = 100P - 32P$$

$$34000 = 68P$$

4. Isolate P by dividing both sides by 68:

$$P = \frac{34000}{68}$$

5. Perform the division:

$$P = 500$$

Conclusion

The calculation shows that the principal amount is Rs. 500. This value satisfies the condition that the simple interest earned over 8 years at a 4% rate is Rs 340 less than the principal itself.

63. Answer: c

Explanation:

Understanding the Simple Interest Problem

This problem involves calculating the original principal sum (the amount invested) based on information about simple interest. We are told that a sum was invested for **3 years**. If the interest rate had been 4% higher than the original rate, the investment would have earned an additional Rs. 600. We need to find the value of the original sum invested.

Key Concepts of Simple Interest

Simple Interest (SI) is a method of calculating the interest charged on a sum of money (principal) over a period. The formula for Simple Interest is:

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

Where:

- P represents the Principal sum (the initial amount invested).
- R represents the Rate of interest per annum (in percent).
- T represents the Time period for which the sum is invested (in years).

Analyzing the Problem Conditions

Let's break down the information given:

- The time period (T) is **3 years**.
- Let the original rate of interest be $R\%$.
- Let the principal sum be P .
- The interest earned at the original rate ($SI_{original}$) would be $\frac{P \times R \times 3}{100}$.
- The new rate of interest is $(R + 4)\%$.
- The interest earned at the new, higher rate (SI_{new}) would be $\frac{P \times (R + 4) \times 3}{100}$.

- The difference between the new interest and the original interest is Rs. 600. This means $SI_{new} - SI_{original} = 600$.

Calculating the Principal Sum

We can use the difference in interest to find the principal sum P . Let's set up the equation:

$$SI_{new} - SI_{original} = 600$$

Substituting the formulas for SI_{new} and $SI_{original}$:

$$\frac{P \times (R + 4) \times 3}{100} - \frac{P \times R \times 3}{100} = 600$$

Now, let's simplify this equation. We can factor out $\frac{3P}{100}$ from both terms on the left side:

$$\frac{3P}{100} \times [(R + 4) - R] = 600$$

Simplify the expression inside the brackets:

$$\frac{3P}{100} \times [4] = 600$$

Multiply the terms:

$$\frac{12P}{100} = 600$$

To find the principal sum P , we rearrange the equation:

$$P = \frac{600 \times 100}{12}$$

Now, perform the calculation:

$$P = \frac{60000}{12}$$

$$P = 5000$$

Conclusion

The calculation shows that the principal sum invested is Rs. 5000. This is the amount that, if invested for 3 years, would yield Rs. 600 more interest if the rate were 4% higher.

64. Answer: d

Explanation:

Weight Calculation for Boy Who Left

This problem requires us to calculate the specific weight of a boy who departed from a class, given information about the initial average weight and how the average changed after his departure. We need to understand how averages work and how removing a data point affects the total and the average.

Initial Average Weight Analysis

We are given that there were initially **50 boys** in the class.

The **average weight** of these 50 boys was **45 Kg**.

The total weight of a group is calculated by multiplying the number of individuals in the group by their average weight.

So, the initial total weight of the 50 boys is:

$$\text{Initial Total Weight} = (\text{Number of Boys}) \times (\text{Average Weight})$$

$$\text{Initial Total Weight} = 50 \times 45 \text{ Kg} = 2250 \text{ Kg}$$

Average Weight Change Calculation

A key piece of information is that when one boy leaves:

- The number of boys remaining in the class is $50 - 1 = 49$.
- The average weight decreases by 100g. To work consistently in kilograms, we convert 100g to kg: $100 \text{ g} = \frac{100}{1000} \text{ Kg} = 0.1 \text{ Kg}$.

- The new average weight of the remaining 49 boys is $45 \text{ Kg} - 0.1 \text{ Kg} = 44.9 \text{ Kg}$.

New Total Weight Calculation

With the new average weight and the reduced number of boys, we can calculate the total weight of the remaining 49 boys.

$$\text{New Total Weight} = (\text{New Number of Boys}) \times (\text{New Average Weight})$$

$$\text{New Total Weight} = 49 \times 44.9 \text{ Kg}$$

Calculating this product:

$$49 \times 44.9 = 2200.1 \text{ Kg}$$

Boy's Weight Determination

The weight of the boy who left can be found by subtracting the total weight of the 49 boys from the initial total weight of the 50 boys. This difference represents the weight contribution of the boy who is no longer in the group.

$$\text{Weight of Boy Who Left} = (\text{Initial Total Weight}) - (\text{New Total Weight})$$

$$\text{Weight of Boy Who Left} = 2250 \text{ Kg} - 2200.1 \text{ Kg}$$

$$\text{Weight of Boy Who Left} = 49.9 \text{ Kg}$$

Final Answer

Following these calculations, the weight of the boy who left the class is determined to be **49.9 Kg**.

65. Answer: a

Explanation:

Understanding the Initial Mixture Ratio

We start with a total mixture of 35 litres. The initial ratio of milk to water is given as 4 : 1. This means that for every 4 parts of milk, there is 1 part of water.

To find the total number of parts in the ratio, we add the parts of milk and water:

Total parts = Milk parts + Water parts = 4 + 1 = 5 parts.

Calculating Initial Quantities of Milk and Water

Now, we can calculate the actual quantity of milk and water in the initial 35-litre mixture.

- Amount of Milk = (Ratio part of milk / Total parts) * Total mixture
- Amount of Water = (Ratio part of water / Total parts) * Total mixture

Using LaTeX for the calculation:

Amount of Milk = $\frac{4}{5} \times 35$ litres

Amount of Water = $\frac{1}{5} \times 35$ litres

Calculating these values:

- Milk = $4 \times \frac{35}{5} = 4 \times 7 = 28$ litres
- Water = $1 \times \frac{35}{5} = 1 \times 7 = 7$ litres

So, initially, there are 28 litres of milk and 7 litres of water in the mixture.

Calculating the New Ratio After Adding Water

The problem states that 7 litres of water are added to the mixture. The quantity of milk remains unchanged.

- Initial Milk = 28 litres
- Initial Water = 7 litres
- Water added = 7 litres

Calculate the new quantity of water:

New Water = Initial Water + Water Added

New Water = 7 litres + 7 litres = 14 litres

The amount of milk stays the same:

New Milk = 28 litres

Determining the Final Ratio

The new ratio of milk to water is calculated using the new quantities.

New Ratio (Milk : Water) = New Milk : New Water

New Ratio = 28 : 14

To simplify the ratio, we find the greatest common divisor (GCD) of 28 and 14, which is 14.

Divide both quantities by the GCD:

New Ratio = $\frac{28}{14} : \frac{14}{14}$

New Ratio = 2 : 1

Conclusion

After adding 7 litres of water to the initial 35-litre mixture (which had a milk to water ratio of 4:1), the new ratio of milk to water becomes 2 : 1.

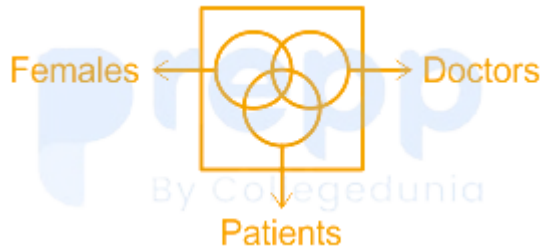
66. **Answer: c**

Explanation:

Females can be both doctors as well as patients.

All the three are connected to each other.

The correct Venn diagram is,



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

67. Answer: d

Explanation:

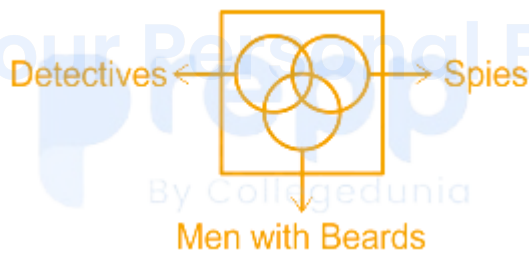
Detectives and spies can be men or women.

Men can be with or without beard.

And,

In men with beards there can be detectives or spies.

The correct Venn diagram is,



Hence, option 4 is the correct answer.

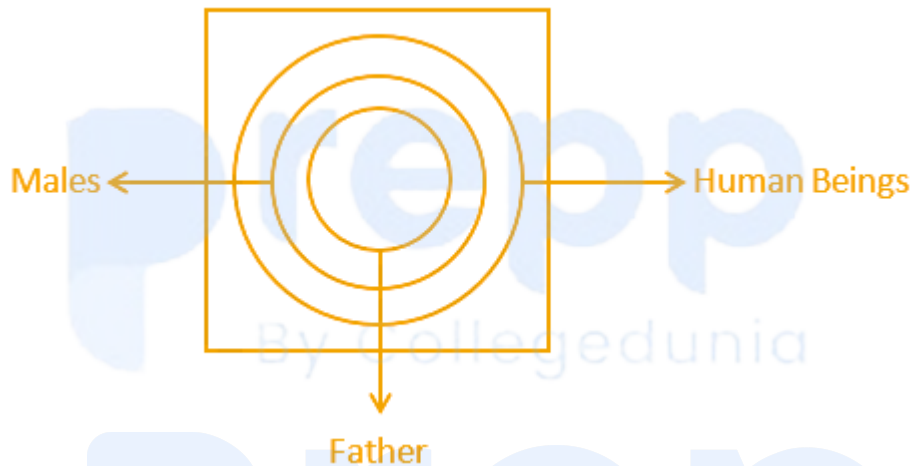
68. Answer: c

Explanation:

As all fathers are males.

And all males are human beings.

The correct Venn diagram is,



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

69. Answer: a

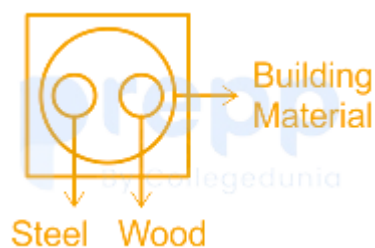
Explanation:

Steel and wood both are used as building material.

And,

There is no relation between steel and wood.

The correct Venn diagram is,



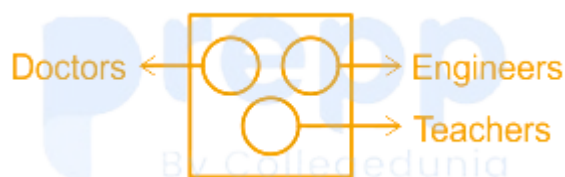
Hence, option 1 is the correct answer.

70. Answer: d

Explanation:

Doctors, Teachers and Engineers are different to each other in their profession.

The correct Venn diagram is,



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

71. Answer: a

Explanation:

Understanding the Analogy: Blizzard and Freeze

This question tests our ability to identify the relationship between two words and find a similar relationship in another pair. We need to figure out how **Blizzard** relates to **Freeze** and then find the option that shares this exact relationship.

Analyzing the Primary Pair: Blizzard : Freeze

A **Blizzard** is a severe snowstorm characterized by strong winds and low visibility, often accompanied by heavy snowfall. The primary effect or characteristic associated with a blizzard is extreme cold, leading to or causing things to **freeze**. The relationship is one of cause and effect, or a condition leading to a specific state.

Evaluating the Options

Option 1: Insult : Humiliation

An **Insult** is a disrespectful or scornfully abusive remark or action. **Humiliation** is the state of being embarrassed or disgraced. An insult often causes or leads to humiliation. This shows a cause-effect relationship, similar to the Blizzard causing freezing conditions.

Option 2: Bad : Immoral

Bad is a general term indicating something undesirable or of poor quality. **Immoral** specifically refers to something that violates moral principles. While an immoral act is bad, this is a relationship of classification or synonymy (improper) rather than cause and effect. Immoral is a specific type of bad.

Option 3: Caution : Careless

Caution means being careful to avoid potential dangers or problems. **Careless** means failing to take proper precautions; not being careful. These two words are opposites (antonyms). This relationship is not similar to Blizzard : Freeze.

Option 4: Jealousy : Respect

Jealousy is a feeling of discontent or envy towards someone else's possessions, qualities, or luck. **Respect** is a feeling of deep admiration for someone or something. These are distinct emotions and do not typically have a direct cause-effect relationship like the primary pair.

Finding the Best Match

Comparing the relationships:

- Blizzard : Freeze = Cause/Condition : Effect/Result (A blizzard causes freezing)
- Insult : Humiliation = Cause : Effect (An insult causes humiliation)
- Bad : Immoral = General : Specific / Type (Immoral is a type of bad)
- Caution : Careless = Antonyms (Opposites)

- Jealousy : Respect = Unrelated Emotions / Possibly Opposites

The relationship in Option 1 (Insult : Humiliation) most closely matches the cause-and-effect relationship presented in the primary pair (Blizzard : Freeze).

Conclusion

The alternative that best replaces the question marks follows the same logical connection where the first term leads to or causes the second term.

72. Answer: b

Explanation:

Analogy Explanation: Graceful vs. Clumsy

This question tests our ability to identify the relationship between a pair of words and find another pair with the same relationship. The first pair is "Graceful : Clumsy".

Understanding the Relationship: Graceful and Clumsy

"Graceful" describes someone or something that moves beautifully and smoothly, with elegance. For example, a graceful dancer moves without any awkwardness.

Conversely, "Clumsy" describes someone or something that is awkward, ungainly, and likely to trip or stumble. A clumsy person might often drop things or bump into furniture.

Therefore, the relationship between **Graceful** and **Clumsy** is one of **opposites** or **antonyms**. They represent contrary qualities.

Analyzing the Options

We need to find the option where the words also have an antonym relationship.

Option 1: Horror vs. Sympathy

- **Horror** is an intense feeling of fear or shock.
- **Sympathy** is a feeling of pity and sorrow for someone else's misfortune.

These words do not represent opposite meanings. While they are both emotions, they are not antonyms.

Option 2: Laugh vs. Cry

- **Laugh** is an expression of amusement or happiness, often involving sound and facial movements.
- **Cry** is an expression of sadness, pain, or distress, typically involving tears.

Laughing and crying are opposite expressions or actions, often associated with opposite emotions (happiness vs. sadness). This pair shows an **antonym** relationship, similar to Graceful : Clumsy.

Option 3: Recapitulate vs. Synopsis

- **Recapitulate** means to summarize or repeat the main points.
- **Synopsis** means a brief summary of the contents of a book, article, etc.

These words are related in meaning, as recapitulating involves providing a summary. They are not opposites.

Option 4: Encumber vs. Burden

- **Encumber** means to restrict or impede someone or something, often by hindering their freedom of movement or action.
- **Burden** means a load, especially one that causes hardship or distress, or the act of loading someone.

These words are similar in meaning (synonyms) or closely related, as to encumber often involves imposing a burden. They are not opposites.

Conclusion: Finding the Correct Analogy

The original pair "Graceful : Clumsy" demonstrates an antonym relationship. Comparing the options:

- Option 1 (Horror : Sympathy) – Not antonyms.
- Option 2 (Laugh : Cry) – Are antonyms (opposite actions/expressions).
- Option 3 (Recapitulate : Synopsis) – Related, not antonyms.
- Option 4 (Encumber : Burden) – Synonyms/related, not antonyms.

The pair that best matches the antonym relationship of "Graceful : Clumsy" is "Laugh : Cry".

73. Answer: d

Explanation:

The logic followed here is:

- Zenith and Nadir are antonyms.

Similarly,

- Genuine and Phony are antonyms.

Hence, the correct answer is **"genuine : phony"**.



Additional Information Indigent and Poverty are synonyms.

Zeal and Eagerness are synonym.

74. Answer: d

Explanation:

Pedagogy and Teaching Relationship Explained

The question asks us to find an equivalent relationship for the pair 'Pedagogy : Teaching'. Let's first understand the connection between 'Pedagogy' and 'Teaching'.

- **Pedagogy** is defined as the method, practice, and theory of teaching. It's essentially the discipline or the scientific study of how people teach and learn.
- **Teaching** is the activity or profession of imparting knowledge or skill to others.
- Therefore, the relationship is: Pedagogy is the *study of* or the *science behind* Teaching.

Analyzing Analogy Options

We need to find an option where the first word represents the study or science of the subject mentioned in the second word.

- **Option 1: Telepathy : Emotions**
Telepathy relates to communication through thought or psychic means, not specifically the study of emotions.
- **Option 2: Radiology : Sound**
Radiology is the branch of medicine using radiation (like X-rays) for diagnosis and treatment. It does not primarily study sound. Acoustics is the study of sound.
- **Option 3: Mycology : Fossils**
Mycology is the scientific study of fungi. Paleontology is the study of fossils.
- **Option 4: Entomology : Insects**
Entomology is the scientific study of **Insects**. This perfectly matches the relationship we identified: Study of X :: X.

Identifying the Correct Analogy: Entomology and Insects

Comparing the options with the initial relationship (Pedagogy is the study of Teaching), the pair 'Entomology : Insects' shows the same pattern.

- Just as Pedagogy is the study concerning Teaching, Entomology is the study concerning Insects.

This makes Option 4 the correct replacement for the question marks in the analogy.

75. Answer: b

Explanation:

Analogy Analysis: Identifying the Correct Replacement

This question asks us to find a pair of words that mirrors the relationship presented in the first pair: Capriciousness : Reliability.

Understanding the Relationship: Capriciousness and Reliability

First, let's analyze the relationship between **Capriciousness** and **Reliability**.

- **Capriciousness** refers to a tendency to be unpredictable, changeable, or whimsical. It implies acting on sudden impulses or changes of mood, without clear reason or consistency.
- **Reliability** refers to the quality of being dependable, trustworthy, and consistent. A reliable person or thing performs consistently over time.
- The relationship between **Capriciousness** and **Reliability** is one of **opposites** or **antonyms**. Capriciousness represents unpredictability, while Reliability represents predictability.

Evaluating the Options

Now, we need to find an option where the words also have a similar relationship, ideally opposites, or at least a parallel contrast.

Option 1: Heated : Boiling

- **Heated** means having become warm or hot.
- **Boiling** is the process where a liquid turns into vapor when heated to its boiling point.
- The relationship here is one of **cause and effect** or a progression (heating leads to boiling). This is not the relationship of opposites seen in the original pair.

Option 2: Tenacious : Practicality

- **Tenacious** describes someone who is persistent, determined, and doesn't give up easily. It implies holding firm or sticking to something.
- **Practicality** refers to the quality of being sensible, realistic, and concerned with actual results rather than theory.
- While not direct antonyms, let's examine the connection. **Capriciousness** (unpredictable) is contrasted with **Reliability** (predictable). **Tenacious** describes persistence (a form of consistency in effort), and **Practicality** describes sensibility and realism. The analogy might be contrasting unpredictability (Capriciousness) with predictability (Reliability), and then contrasting persistence (Tenacious) with sensibility (Practicality). Both Reliability and Practicality often imply a grounded, consistent, and sensible approach, contrasting with the erratic nature of Capriciousness. Tenaciousness itself is a trait of consistency (in effort). This option presents a contrast between persistence and sensibility, which parallels the contrast between unpredictability and predictability, albeit less directly than a simple antonym pair. Given the other options, this seems the most plausible intended parallel.

Option 3: Arbitrary : Whimsical

- **Arbitrary** means based on random choice or personal whim, rather than any reason or system.
- **Whimsical** means playfully quaint or fanciful, especially in an appealing and amusing way, or implies capriciousness.
- These two words are very similar in meaning; they are essentially **synonyms** or closely related concepts (both relating to whim or lack of rational basis). This is the opposite of the relationship in the original pair.

Option 4: Unreliable : Inhuman

- **Unreliable** means not able to be relied on. This is the direct opposite of Reliable.
- **Inhuman** means lacking compassion or benevolence; cruel.
- The first word (Unreliable) is the opposite of the second word in the first pair (Reliability). However, **Inhuman** does not relate logically to Capriciousness or

the concept of predictability/consistency. It describes a moral quality unrelated to the analogy's core theme.

Conclusion: Finding the Best Fit

Comparing the options:

- Option 1 shows progression, not opposition.
- Option 3 shows similarity (synonyms), not opposition.
- Option 4 starts with an opposite but doesn't complete the parallel.
- Option 2, **Tenacious : Practicality**, provides the best analogy. While not perfect antonyms, it contrasts the quality of persistence (Tenacious) with the quality of sensibility (Practicality), mirroring the original pair's contrast between unpredictability (Capriciousness) and predictability/dependability (Reliability). Both Reliability and Practicality represent more stable, grounded qualities compared to Capriciousness.

76. Answer: d

Explanation:

Choosing the Different Word: An Analysis of Niagara, Alamere, Kempt, and Andes

This question requires us to identify which word out of the given four is different from the others. We need to find a common characteristic shared by three words and identify the one that does not possess this characteristic.

Word Characterization: Niagara, Alamere, Kempt, and Andes

Let's examine each word provided in the options:

- **Niagara:** This word typically refers to Niagara Falls, one of the most famous waterfalls in the world, located on the border between Canada and the United States.

- **Alamere:** This name is associated with Alamere Falls, a waterfall located in the Point Reyes National Seashore in California, USA.
- **Kempty:** This refers to Kempty Falls, a popular waterfall and tourist spot located near Mussoorie in Uttarakhand, India.
- **Andes:** This word refers to the Andes Mountains, a major mountain range located along the western coast of South America.

The Common Link: Waterfalls

Upon reviewing the definitions, we can see a pattern connecting three of the words:

- Niagara is primarily known for its famous **waterfall**.
- Alamere is known as a **waterfall** (Alamere Falls).
- Kempty is also known as a **waterfall** (Kempty Falls).

Therefore, Niagara, Alamere, and Kempty are all names associated with significant waterfalls.

The Distinctive Word: Andes

The word **Andes** stands apart from the others because it refers to a geographical feature of a different kind:

- The Andes is a vast **mountain range**, not a waterfall.

While waterfalls are often found in mountainous regions, the name 'Andes' itself denotes the mountains, whereas the other names specifically denote waterfalls.

Conclusion: Identifying the Odd One Out

Based on the analysis, Niagara, Alamere, and Kempty are all associated with waterfalls. The Andes, however, is a mountain range. This makes **Andes** the word that is different from the rest.

77. Answer: b

Explanation:

Identifying the Different Phrase

The task is to select the phrase that does not fit with the others. We must identify a common characteristic shared by three of the phrases and find the one that deviates from this pattern.

Phrase Breakdown

Let's examine each option to understand its meaning and nature:

- **Small Betrayals:** This phrase refers to minor acts of disloyalty or betrayal. It functions as a descriptive phrase and is often used as a title for literary works or discussions.
- **We Indians:** This phrase serves as a collective identifier for people of Indian nationality. It emphasizes a shared identity based on nationality and is also the title of a notable book.
- **Shooting from the Hip:** This is a well-known idiom that means speaking or acting spontaneously and impulsively, without careful thought. Like the other options, it has also been used as a title.
- **Surviving Men:** This phrase describes men who are enduring or overcoming difficult circumstances or challenges. It is a descriptive phrase, sometimes used as a title for books or articles focusing on resilience.

Pattern Recognition

To find the distinct phrase, we look for a unifying theme among three options:

- The phrases "Small Betrayals", "Shooting from the Hip", and "Surviving Men" are descriptive phrases or idioms.
- "Shooting from the Hip" specifically describes a style of action or speech (impulsive).
- "Small Betrayals" and "Surviving Men" describe abstract concepts (disloyalty) or states of being (endurance) for specific groups.

- These three phrases often serve as titles that suggest a particular theme, concept, or narrative focus.
- "We Indians", conversely, is fundamentally a statement of collective national identity. Its primary function is to classify people based on their nationality.

The key difference lies in function: while "We Indians" names a group based on nationality, the other phrases describe actions, concepts, or conditions, often acting as thematic titles.

Final Answer Rationale

The phrase that is different from the others is **We Indians**. The phrases "Small Betrayals", "Shooting from the Hip", and "Surviving Men" are descriptive phrases or idioms, commonly used as titles to signify specific actions, concepts, or situations. In contrast, "We Indians" primarily functions as a broad identifier of national identity.

78. Answer: c

Explanation:

Analyzing the Four Words

This question requires us to identify which of the four given words—Brass, Bronze, Silver, and Steel—is different from the others. We need to find a common characteristic shared by three words but not the fourth.

Properties of Brass, Bronze, Silver, and Steel

Let's examine the nature of each substance:

- **Brass** is an alloy made mainly from copper and zinc.
- **Bronze** is an alloy typically composed of copper and tin.
- **Silver** is a chemical element (Ag). While it can form alloys, it is fundamentally a pure element.
- **Steel** is an alloy, primarily an iron and carbon mixture.

Identifying the Alike Manner

The key similarity among Brass, Bronze, and Steel is that they are all **alloys**. An alloy is a mixture composed of two or more chemical elements, where at least one element is a metal. These mixtures are created to achieve specific properties that pure metals might not possess.

Silver, in contrast, is primarily known and classified as a **chemical element**. It is a distinct substance found on the periodic table.

Word	Primary Classification	Composition Basis
Brass	Alloy	Mixture (Copper, Zinc)
Bronze	Alloy	Mixture (Copper, Tin)
Silver	Element	Pure Element (<i>Ag</i>)
Steel	Alloy	Mixture (Iron, Carbon)

The Fourth Different Word

Based on the analysis presented in the table and descriptions, Brass, Bronze, and Steel share the characteristic of being alloys. Silver stands apart as it is fundamentally classified as a chemical element.

Therefore, Silver is the word that is different from the rest.

79. Answer: b

Explanation:

Choosing the Different Word

This question asks us to identify which word from the list – Documentary, Puppet, Commentary, Feature – does not belong with the others. We need to find a common characteristic shared by three words, which the fourth word lacks.

Understanding Word Meanings

Let's look at the definitions of each word to understand their meaning and context:

- **Documentary:** This refers to a type of film or television program that focuses on real events, people, or issues, aiming to document reality.
- **Puppet:** A puppet is a figure, typically resembling a person or animal, that is animated or manipulated by a person called a puppeteer, often using strings, rods, or hands. It can also refer to a person controlled by others.
- **Commentary:** This typically means a series of comments, explanations, or interpretations. In media, it often refers to spoken narration or analysis provided alongside a program or event (like sports commentary).
- **Feature:** This term usually refers to a film of a certain length, typically the main attraction at a cinema. It often implies a fictional or narrative film, distinct from shorts or documentaries.

Finding the Common Link

By examining the definitions, we can see a commonality among three of the words:

- **Documentary** is a type of film/media content.
- **Feature** is also a type of film/media content.
- **Commentary**, while often spoken, is a form of content related to media presentation and explanation.

Therefore, **Documentary**, **Feature**, and **Commentary** can all be considered types of media content or forms of media presentation.

Identifying the Odd One Out

The word **Puppet** stands apart from the others. While puppets can be used in films or performances (like a puppet show film), the word 'Puppet' itself refers to the object or the performer doing the manipulating. It does not represent a genre or

type of media content in the same direct way as 'Documentary', 'Feature', or 'Commentary'.

Documentary, **Feature**, and **Commentary** describe forms or elements of media content, whereas **Puppet** describes an object or entity used within a performance or potentially within media.

Thus, **Puppet** is the word that is different from the rest.

80. Answer: d

Explanation:

Analyzing the Grouping of Words

The question asks us to identify the word that doesn't fit with the others based on some common characteristic. We need to examine each word: Deccan, Kaas, Chhota Nagpur, and Nanda Devi.

Deccan, Kaas, and Chhota Nagpur: A Common Geographical Identity

- **Deccan**: Refers to the Deccan Plateau, a vast geographical region in western and southern India.
- **Kaas**: Refers to the Kaas Plateau, a famous plateau in the Sahyadri mountain range, known for its natural beauty and biodiversity.
- **Chhota Nagpur**: Refers to the Chota Nagpur Plateau, a significant plateau in eastern India, rich in mineral resources.

As we can see, the first three options are all names associated with major **plateaus** in India. They represent large, elevated areas of land.

Nanda Devi: A Different Geographical Feature

Nanda Devi is primarily known as the second-highest mountain peak in India, located in the Uttarakhand Himalayas. While there is also a Nanda Devi National Park and Biosphere Reserve, its most prominent identity is as a **mountain peak**.

Spotting the Outlier

The task is to find the word that is **different** from the rest. The key difference lies in the primary geographical classification:

- Deccan is a plateau.
- Kaas is a plateau.
- Chhota Nagpur is a plateau.
- Nanda Devi is a mountain peak.

Since the first three words are all related to plateaus, and the fourth word, Nanda Devi, represents a mountain peak, Nanda Devi is the one that is **different**.

Comparison Table

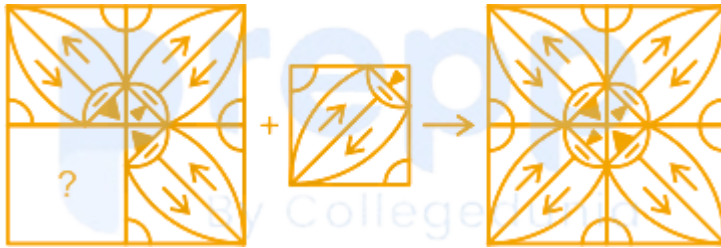
Word	Primary Geographical Feature
Deccan	Plateau
Kaas	Plateau
Chhota Nagpur	Plateau
Nanda Devi	Mountain Peak

This comparison clearly shows that Nanda Devi stands apart from the other three words based on the type of geographical feature they represent.

81. Answer: d

Explanation:

The figure which would complete the given pattern is,

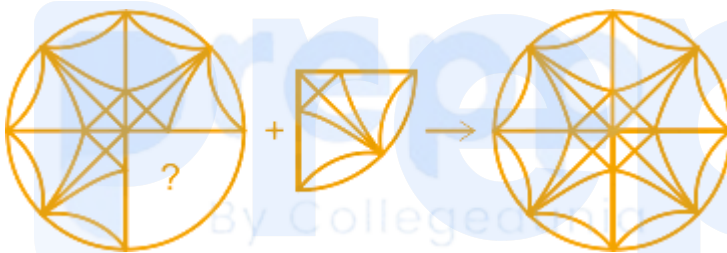


Hence, the correct answer is "Option (4)" ..

82. Answer: c

Explanation:

The figure which would complete the given pattern is,

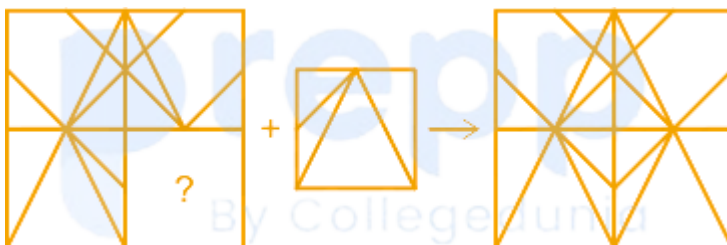


Hence, the correct answer is "Option (3)" .

83. Answer: b

Explanation:

The figure which would complete the given pattern is,

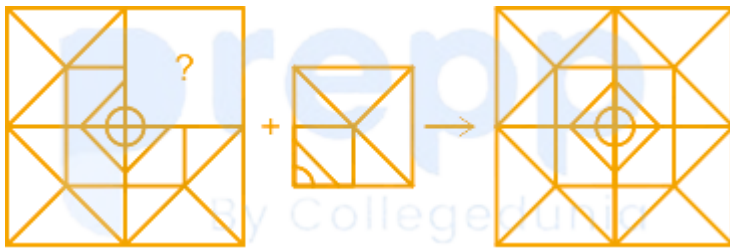


Hence, the correct answer is "Option (2)" .

84. Answer: c

Explanation:

The figure which would complete the given pattern is,

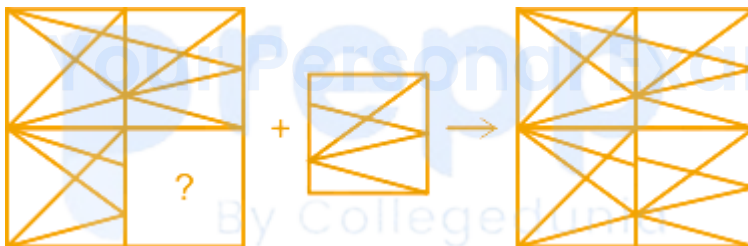


Hence, the correct answer is "Option (3)".

85. Answer: c

Explanation:

The figure which would complete the given pattern is,



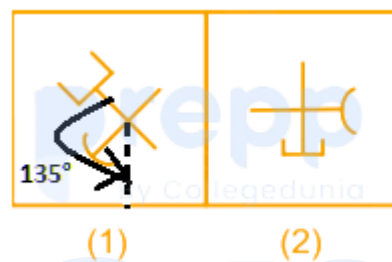
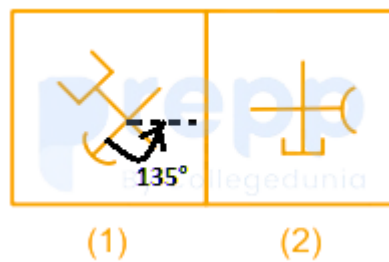
Hence, the correct answer is "Option (3)".

86. Answer: c

Explanation:

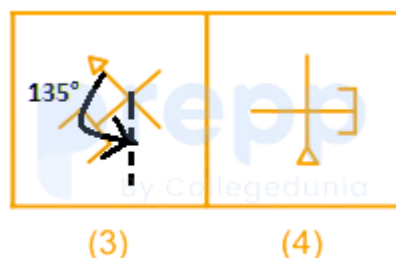
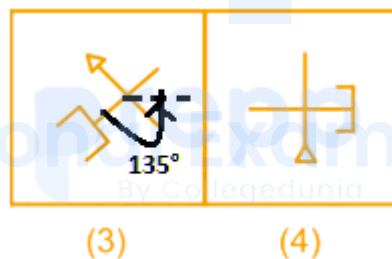
The pattern followed is,

Figure 1 is rotated 135° anti clock – wise to obtain figure 2 and the symbols at the ends of the lines **change their orientation**.



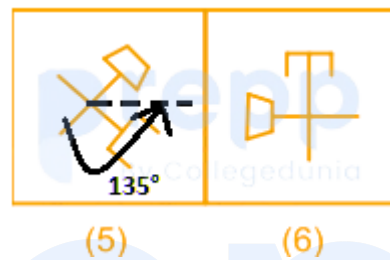
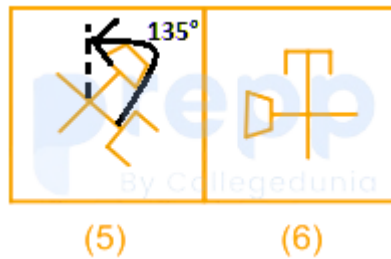
And,

Figure 3 is rotated 135° anti clock – wise to obtain figure 4 and the symbols at the ends of the lines **change their orientation**.



Similarly,

Figure 5 should be rotated 135° anti clock – wise and the symbols at the end of the lines should **change their orientation**.



The figure which will come next in the pattern is,



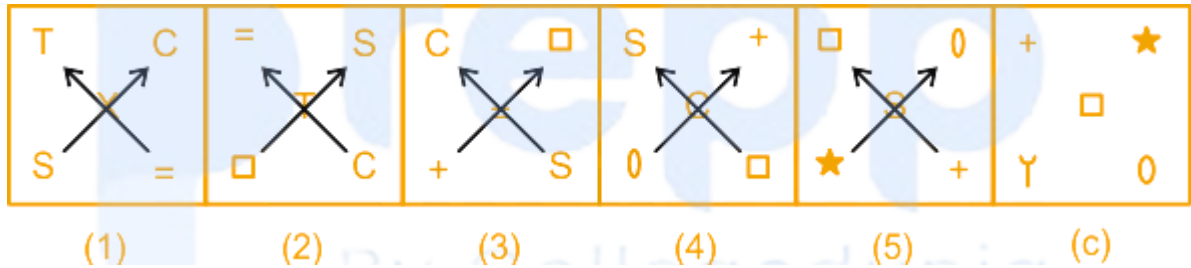
Hence, **option 3** is the correct answer.

87. Answer: c

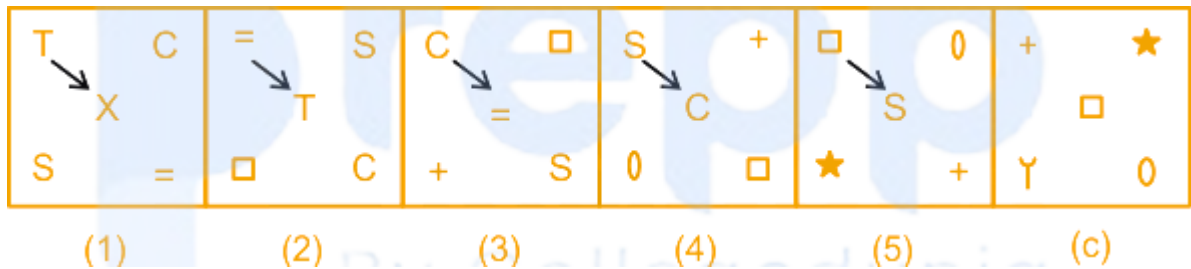
Explanation:

The logic followed here is:

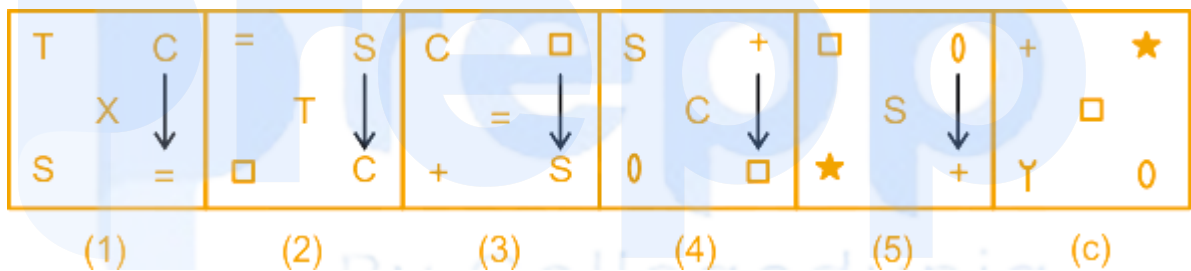
1) **Movements of bottom most symbol:** The symbols at the bottom shift to the top and interchange their positions in the next figure.



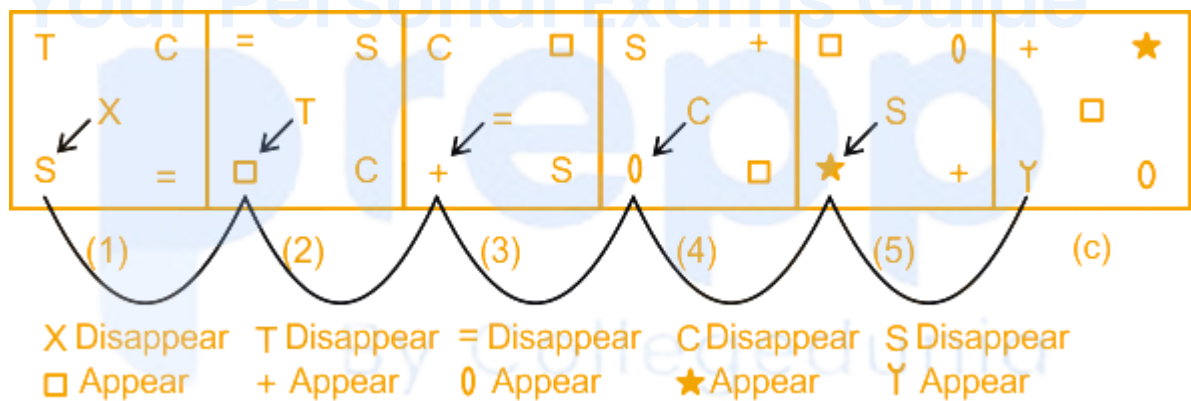
2) Movement of top left most figure: Shift diagonally middle



3) Movement of top left most figure: Shift vertically downwards



4) Movement of middle symbol and appearance of new symbol.



Only figure (c) satisfies this condition.

Hence, **option (3)** is the correct answer.

88. Answer: a

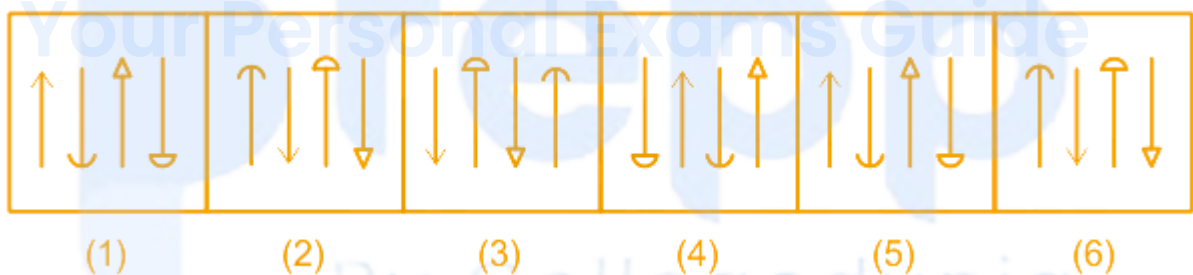
Explanation:

The pattern followed here is:

We only need to observe the first two arrows of each pair of consecutive figures in the series to eliminate the wrong options and find the correct one.

- 1) In each pair of consecutive figures (pairs 1-2, 3-4), the first two arrows interchange their positions and then rotated in order to point in the opposite direction.
- 2) In each pair of consecutive figures (pairs 1-2, 3-4), the last two arrows interchange their positions and then rotated in order to point in the opposite direction.
- 3) Thus, the answer figure will have the same pair of arrows as in the 5th figure, wherein the positions will be interchanged and then the arrows will be rotated to point in the opposite direction

Only figure (a) satisfies this condition.



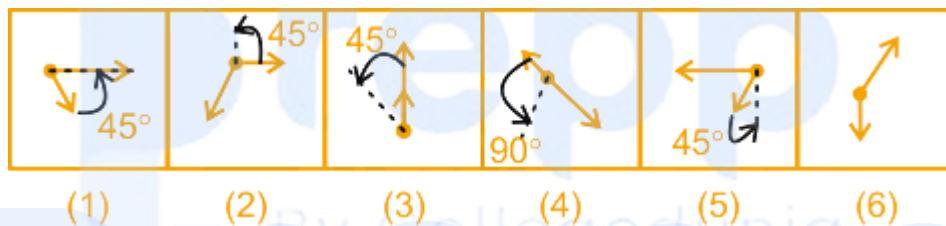
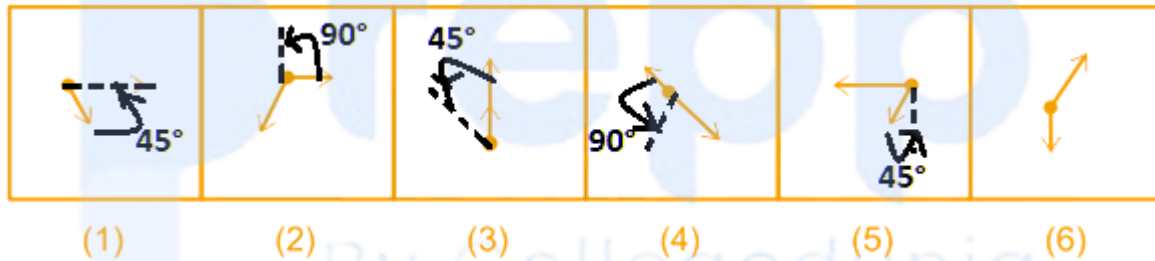
Hence, the correct answer is "Option 1".

89. Answer: d

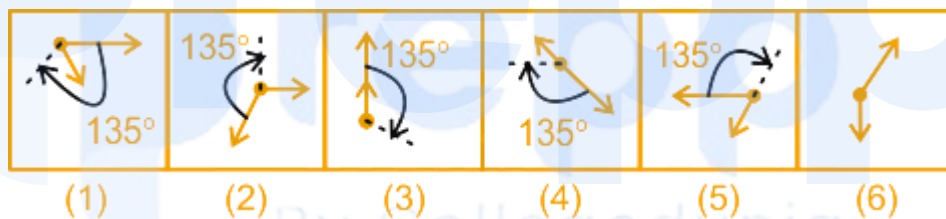
Explanation:

The pattern followed is,

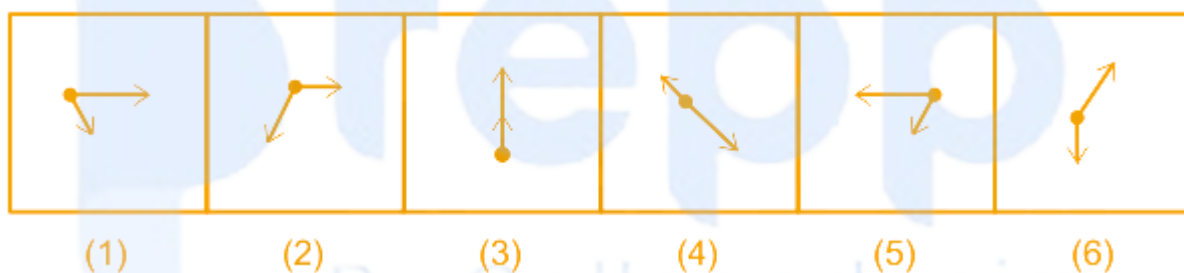
1) The smaller arrow alternately moves 45° and 90° anticlockwise direction.



2) The bigger arrow moves 135° clockwise direction.



The figure which will come next in the pattern is,



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

90. Answer: a

Explanation:

The pattern followed is,

- 1) Elements of first row exchange their positions with those of the third row in each figure.
- 2) After applying step 1, in each row, the elements interchange their positions. This is done alternately.
- 3) Elements in middle row is interchanged their position in next figure. This is done alternately.
- 4) Figures (1, 2) (3, 4) and (5, 6) have the same elements in the middle row.

The figure which will come next in the pattern is,

X	☆	△	O	☆	X	O	△	X	☆	△	O
=	□	□	=	C	S	S	C	□	○	○	□
O	△	☆	X	△	O	X	☆	O	△	☆	X
(1)	(2)	(3)	(4)	(5)	(6)						

Hence, the correct answer is "Option 1".

91. Answer: b

Explanation:

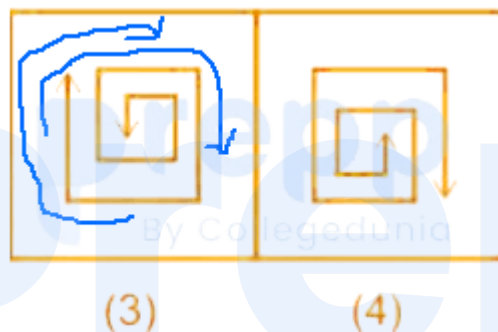
The pattern followed is,

Figure 1 is rotated 180° clock wise to obtain figure 2.

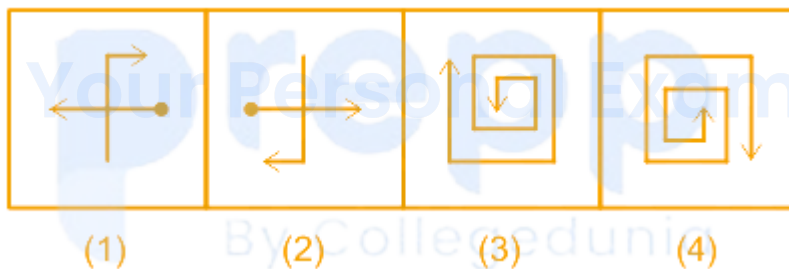


Similarly,

Figure 3 should be rotated 180° clockwise to obtain figure 4.



This is the complete figure series.



Hence, the correct answer is "Option 2".

92. Answer: a

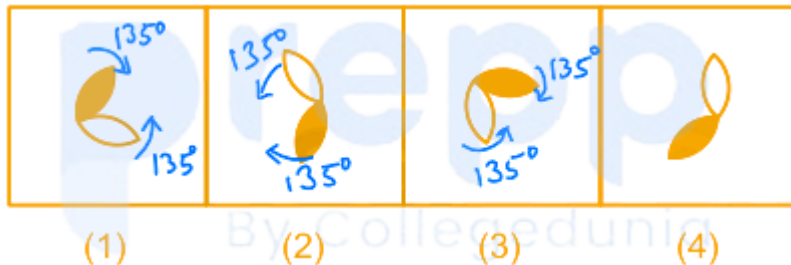
Explanation:

The pattern followed is,

1. The shaded leaf is rotated 135° clock wise.

2. The leaf which is not shaded is rotated 135° anticlockwise.

The figure which will come next in the series is,



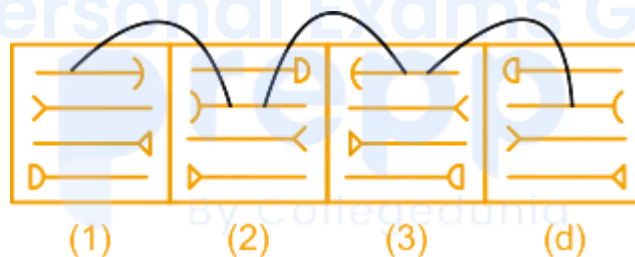
Hence, the correct answer is "Figure (a)".

93. Answer: d

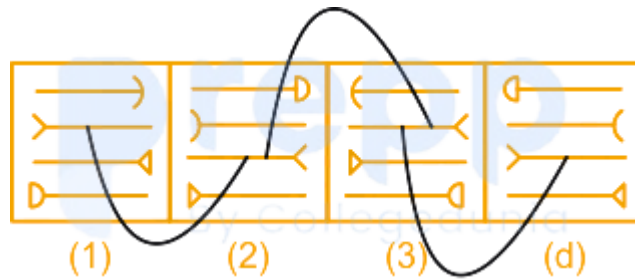
Explanation:

The pattern followed is,

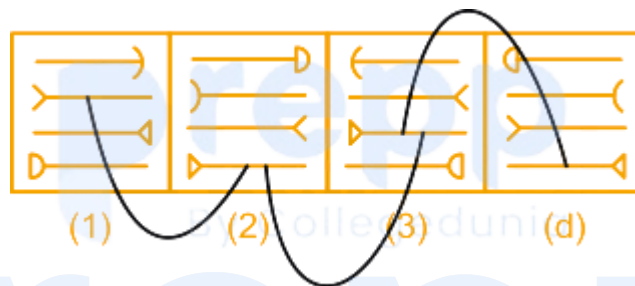
1) The **arrow with curved head** shifts alternately between the first and second positions from the top. At alternate steps, the curve faces outwards.



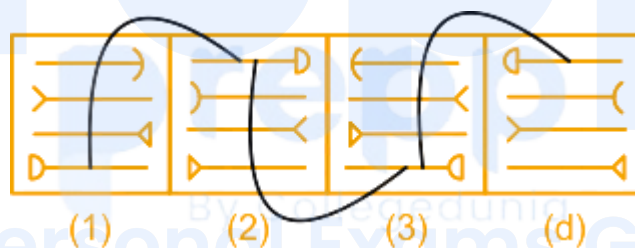
2) The **arrow with v shaped head** shifts alternatively between second and third positions from top. Every steps mirror arrow will occur.



3) The arrow **with triangular head** move down simultaneously one step and then back to their original positions



4) The **arrow with semi-circular head** has its flat surface facing inside and outside alternately.



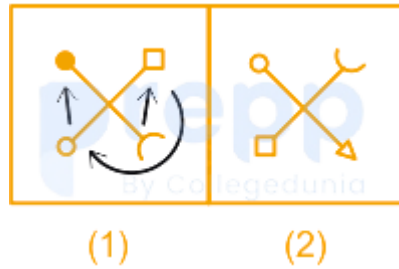
Hence, **option 4** is the correct answer.

94. Answer: d

Explanation:

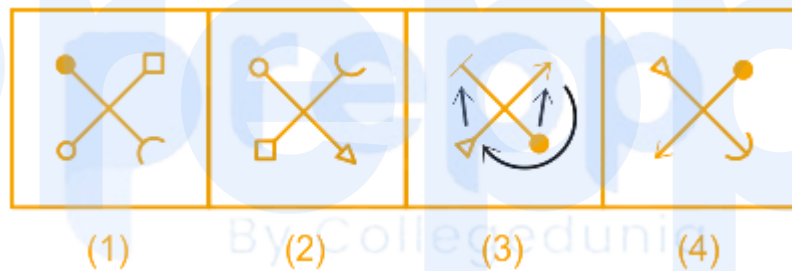
The pattern followed is,

The empty circle rotates 90° clockwise and the curve rotates 90° anticlockwise whereas the square rotates 180° . A new symbol replaces the filled circle which rotates 180° .

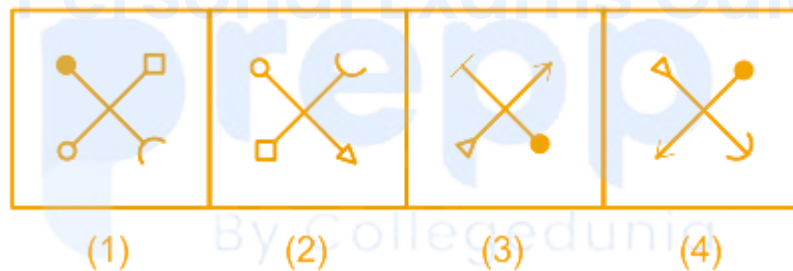


In figure 3, we have

- 1) a bar in the place of a filled circle
- 2) a pointed arrowhead in the place of a square
- 3) a triangular arrowhead in the place of an empty circle
- 4) a filled circle in the place of a curve



The figure which will come next in the pattern is,



Hence, the correct answer is "Option 4".

95. Answer: c

Explanation:

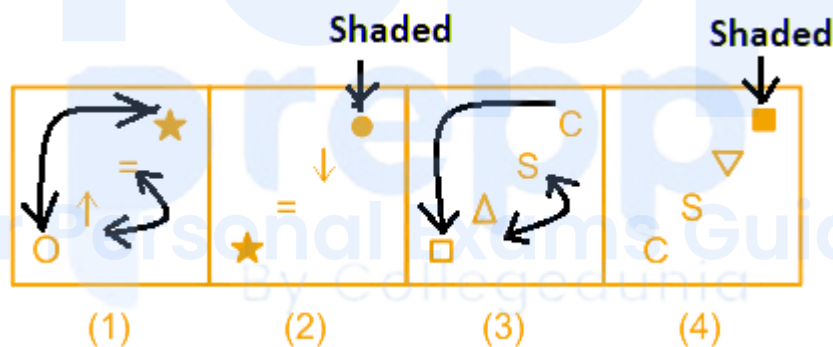
The pattern followed is,

- 1) In figure 1, **the first and last symbols exchange** their places and the circle is **shaded** after changing its position to obtain figure 2.
- 2) The middle symbols **are interchanged** and the direction of **the arrow is also interchanged** to obtain figure 2.

Similarly,

- 1) In figure 3, **the first and last symbols exchange** their places and the square is **shaded** after changing its position to obtain figure 4.
- 2) The middle symbols **are interchanged** and **the triangle is reversed** to obtain figure 4.

The figure which will come next in the pattern is,



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

96. Answer: c

Explanation:

We have to check each figure:

Figure (a):



Here, Both the angles are **Obtuse angle**.

Figure (b):



Here, both the angles are **Acute angles**.

Figure (c):



Here, One angle is **Acute angle** and other is **Obtuse angle**.

Figure (d):



Here, Both the angles are **Obtuse angle**.

In each figure both angles are same except the **figure (c)**.

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

97. Answer: a

Explanation:

The pattern followed is,

The shading pattern of figures 'b', 'c' and 'd' is same.

Whereas,

In figure 'a', the first petal has a different shading pattern.

Hence, the correct answer is "Option 1".

98. Answer: b

Explanation:

The pattern followed is,

The dots are placed at the middle of the sides in figures 'a', 'c' and 'd'.

Whereas,

In figure 'b', dots are placed at corners.

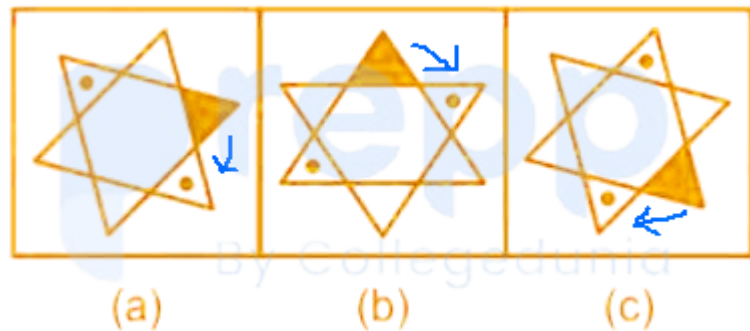
Hence, option 2 is different from the rest.

99. Answer: d

Explanation:

The pattern followed is,

Out of the two dots, one dot is placed on the right side of the shaded triangle in figures 'a', 'b' and 'c'.



Whereas,

In figure 'd', it is at the left of the shaded triangle.



Hence, the correct answer is "Option 4".

100. Answer: b

Explanation:

The pattern followed is,

The leaves without colours are placed at an angle of 90° from each other in figures 'a', 'c' and 'd'.

Whereas,

In figure 'b', without colours leave are placed at an angle of 45° .

Hence, the correct answer is "Option 2".

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