

SSC CHSL T-I Similar Paper (Held on 15 Nov 2025 S3)

Q.1 Choose the correctly spelt word:

- A. Privilege
- B. Privilage
- C. Previlige
- D. Priviledge

Answer: A

Sol: The correct answer is option (a).

Explanation: Option (A) is the correctly spelt word: **Privilege**. It means a special right, advantage, or benefit given to a person or group (विशेषाधिकार/सुविधा). The spelling is commonly tested in competitive exams, and the correct pattern is **pri-vi-lege**.

Example: It is a **privilege** to represent the country in an international event.

Meanings of all the given options:

- **Option (A) Privilege:** A special right or advantage (विशेषाधिकार).
- **Option (B) Privilage:** Incorrect spelling (गलत वर्तनी).
- **Option (C) Previlige:** Incorrect spelling (गलत वर्तनी).
- **Option (D) Priviledge:** Incorrect spelling (गलत वर्तनी).

Parts of speech note: "Privilege" is commonly used as a **noun** (a right/advantage) and can also be used as a **verb** (to grant special advantage), but in this question it is tested as a noun form.

So the correct answer is (a)

Q.2 Rearrange the following sentences to form a meaningful and grammatically correct paragraph:

P: She studied the ancient manuscript carefully, noting the ink that had begun to fade.

Q: Afterwards, she gently turned the delicate pages to prevent any further damage.

R: Rich in history and stories, the book had been passed down through generations.

S: Before beginning the restoration process, she prepared all the necessary tools and materials.

- A. P, S, Q, R
- B. S, R, P, Q
- C. Q, S, P, R
- D. R, S, P, Q

Answer: D

Sol: The correct answer is option (d).

Explanation: The paragraph should start by introducing the manuscript/book, then show preparation for restoration, then describe careful study, and finally describe what she did afterwards.

- **R** is the best opening because it introduces the book and provides background (rich in history, passed down through generations).
- **S** follows naturally because it shows preparation **before beginning** the restoration process (tools and materials).
- **P** comes next because she then studies the manuscript carefully and observes the fading ink.
- **Q** is the correct ending because it begins with "Afterwards," indicating the final step after the careful study.

Therefore, the correct sequence is: **R, S, P, Q**.

So the correct answer is (d)

Q.3 Identify the part of the sentence that contains a grammatical error.

A. The reason for the delay B. is because he C. didn't prepare D. for the presentation.

- A. The reason for the delay

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- B. is because he
- C. didn't prepare
- D. for the presentation.

Answer: B

Sol: The correct answer is option (b).

Explanation: The error is in part (B): "is because" is considered a faulty or redundant construction in formal exam grammar. The phrase "The reason is because" mixes two patterns:

- Pattern 1: The reason is that + clause
- Pattern 2: This is because + clause

Therefore, we should correct it as either:

- The reason for the delay is that he didn't prepare for the presentation.
- Or: The delay occurred because he didn't prepare for the presentation.

Grammatical rule used: Avoid using "reason" with "because" together in the same structure; use **that** after "reason is" in formal English.

Example: Incorrect: The reason is because it rained. Correct: The reason is that it rained.

Why other parts are not the error:

- **Part (A):** Correct noun phrase introducing the subject.
- **Part (C):** Correct negative past tense verb form.
- **Part (D):** Correct prepositional phrase completing the idea.

So the correct answer is (b)

Q.4 Rearrange the following sentence parts to form a meaningful and grammatically correct paragraph:

P: The old man, with gentle eyes and timeworn hands, smiled warmly.

Q: He had spent his entire life as a woodcarver, and his shop stood like a museum filled with delicate creations.

R: He cradled a small bird he was carving, his thumb moving smoothly over the polished wood.

S: Each creation carried a story, a memory, and a fragment of his soul.

- A. PQRS
- B. QPRS
- C. QSRP
- D. SQPR

Answer: A

Sol: The correct answer is option (a).

Explanation: The paragraph should begin by introducing the main character and setting a visual scene, then provide background, followed by an ongoing action, and finally conclude with a reflective statement.

- P is the best opening because it introduces the old man and sets the tone and imagery.
- Q logically follows by giving his background as a woodcarver and describing his shop.
- R continues the scene by showing him actively carving a bird, which connects to the woodcarver identity.
- S works as a concluding line because it generalizes the meaning of his creations and provides an emotional closure.

Hence, the correct sequence is: PQRS.

So the correct answer is (a)

Q.5 Select the most appropriate synonym of the word: Reserved

- A. Confident
- B. Bold
- C. Reticent
- D. Assertive

Answer: C

Sol: The correct answer is option (c).

Explanation: The word **Reserved** means not showing emotions openly; quiet and not very talkative, especially with strangers (संकोची/कम बोलने वाला). A reserved person tends to hold back feelings or speech and behaves in a restrained manner.

Example (given word): Although he was friendly, he remained **reserved** during the interview.

Correct synonym: **Reticent** means unwilling to speak freely; quiet and restrained (संकोची/मितभाषी). It closely matches "reserved" because both imply holding back speech or emotions.

Example (correct word): She was **reticent** about discussing her personal life.

Synonyms: restrained, quiet, shy, uncommunicative.

Antonyms: outspoken, talkative, frank, expressive.

Meanings of the other options:

- **Option (A) Confident:** Sure of oneself; self-assured (आत्मविश्वासी).
- **Option (B) Bold:** Fearless and daring; not shy (निडर/साहसी).
- **Option (D) Assertive:** Confidently expressing opinions; forceful (दृढ़/आत्मविश्वास से बोलने वाला).

So the correct answer is (c)

Q.6 Which of the following sentences uses the word "bat" with the same meaning as in the following sentence?
"She bought a lightweight bat for practice."

- A bat flew out of the cave at dusk.
- He kept a bat in his sports bag for the match.
- The bat slept upside down in the old barn.
- Many bats use echolocation to find insects.

Answer: B

Sol: The correct answer is option (b).

Explanation: In the given sentence, "bat" refers to a **sports equipment** used in games like cricket or baseball (बल्ला). We must choose the option where "bat" carries the same meaning (sports implement), not the animal.

Why option (b) is correct: "He kept a bat in his sports bag for the match" clearly uses "bat" as sports equipment, matching the meaning in the given sentence.

Why other options are incorrect:

- **Option (A):** "bat" refers to the flying mammal (चमगादड़).
- **Option (C):** Again refers to the animal sleeping upside down (चमगादड़).
- **Option (D):** Refers to bats as animals using echolocation (चमगादड़).

So the correct answer is (b)

Q.7 Select the most appropriate antonym of the word: Eloquent

- Harmless
- Benign
- Inarticulate
- Safe

Answer: C

Sol: The correct answer is option (c).

Explanation: The word **Eloquent** means speaking or writing in a fluent, persuasive, and expressive manner (वाक्पटु/प्रभावशाली बोलने वाला). An eloquent person communicates ideas clearly and effectively.

Example (given word): The lawyer gave an **eloquent** speech that convinced the jury.

Correct antonym: Inarticulate means unable to express ideas clearly or fluently; not articulate (अस्पष्ट बोलने वाला/जो ठीक से बात न कर पाए). This is the direct opposite of "eloquent."

Example (correct word): He became **inarticulate** when asked to explain his decision.

Synonyms (Eloquent): fluent, expressive, articulate, persuasive.

Antonyms (Eloquent): inarticulate, tongue-tied, unclear, hesitant.

Meanings of the other options:

- **Option (A) Harmless:** Not causing harm or damage (हानिरहित).
- **Option (B) Benign:** Gentle and not harmful; kind (दयालु/हानिरहित).
- **Option (D) Safe:** Free from danger or risk (सुरक्षित).

So the correct answer is (c)

Q.8 Change the following sentence into the Active form.

The confidential file cannot be opened without the correct password.

- A. They cannot open the confidential file without the correct password.
- B. The confidential file cannot be opened without the correct password.
- C. Without the correct password, the confidential file was not opened.
- D. The correct password cannot open the confidential file.

Answer: A

Sol: The correct answer is option (a).

Explanation: The given sentence is in passive voice: "The confidential file cannot be opened ..." Here, the subject is the receiver of the action (the file), and the doer is not mentioned. To convert passive to active, we bring a suitable subject (agent) and change the verb according to the modal structure.

Structure used:

- **Passive:** Object + modal (cannot) + be + V3 + other words
- **Active:** Subject + modal (cannot) + V1 + object + other words

So, "The confidential file cannot be opened without the correct password" becomes "They cannot open the confidential file without the correct password." The subject **They** is used because the doer is not specified in the passive sentence, and in exams an indefinite agent is acceptable.

Example: Passive: The door cannot be closed without the key. Active: They cannot close the door without the key.

Why other options are incorrect:

- **Option (b):** This is the same passive sentence and does not convert it into active voice.
- **Option (c):** Changes the tense to past ("was not opened") and alters the meaning.
- **Option (d):** Makes "password" the doer, which is illogical because a password cannot perform the action of opening.

So the correct answer is (a)

Q.9 Identify the part of the sentence that contains a grammatical error.

A. The companys annual survey, B. which was circulated last week, C. provided the data that D. support our initial hypothesis.

- A. The companys annual survey
- B. which was circulated last week
- C. provided the data that
- D. support our initial hypothesis.

Answer: A

Sol: The correct answer is option (a).

Explanation: The error is in part (A): "companys" is missing the apostrophe required to show possession. The sentence intends to mean the annual survey belonging to the company, so the correct form is "The company's annual survey".

Correct sentence (relevant correction): The company's annual survey, which was circulated last week, provided the data that support our initial hypothesis.

Grammatical rule used:

- To show possession with a singular noun, use 's: company's, teacher's, student's.
- Without the apostrophe, the word becomes incorrect in standard written English.

Example: The teacher's notes were very helpful.

Why other parts are not the error:

- **Part (B):** "which was circulated last week" is a correct relative clause.
- **Part (C):** "provided the data that" is structurally correct.
- **Part (D):** "support our initial hypothesis" is acceptable because "data" is commonly treated as plural in formal writing; hence "support" is not an error here.

So the correct answer is (a)

Q.10 Which of the following sentences uses the word "board" with a different meaning from the others?

- The board of trustees held an emergency meeting.
- Passengers were asked to board the train immediately.
- The school board approved the new policy.
- The board of governors announced major reforms.

Answer: B

Sol: The correct answer is option (b).

Explanation: In options (A), (C), and (D), the word **board** is used as a **noun** meaning a group of people who manage or supervise an institution (समिति/प्रबंधन मंडल), such as trustees, a school board, or governors.

In option (B), **board** is used as a **verb** meaning to **get on or enter a vehicle** such as a train, bus, or plane (चढ़ना/सवार होना). This meaning is different from the "committee/group" meaning used in the other sentences.

Therefore, option (B) uses "board" with a different meaning.

So the correct answer is (b)

Q.11 Fill in the blank with the most appropriate phrasal verb:

The committee will ____ all the documents carefully before making a final decision.

- carry out
- go through
- turn down
- run into

Answer: B

Sol: The correct answer is option (b).

Explanation: The sentence requires a phrasal verb meaning to **examine or review carefully** (ध्यान से जांचना/देखना). The phrasal verb **go through** means to read, check, or inspect something thoroughly, which fits the context of reviewing documents before making a decision.

Correct sentence: The committee will **go through** all the documents carefully before making a final decision.

Example: Please **go through** the report once again before submitting it.

Why other options are incorrect:

- **Option (A) carry out:** Means to perform or execute a task (करना/निष्पादित करना), not to review documents.
- **Option (C) turn down:** Means to reject or refuse (अस्वीकार करना), which does not fit "documents carefully."
- **Option (D) run into:** Means to meet unexpectedly or encounter a problem (अचानक मिलना/टकरा जाना), not to examine documents.

So the correct answer is (b)

Q.12 Choose the correct one-word substitute for:

A person who speaks many languages.

- A. Linguist
- B. Philologist
- C. Polyglot
- D. Translator

Answer: C

Sol: The correct answer is option (c).

Explanation: A person who can speak many languages is called a **Polyglot** (बहुभाषी). This word is used for someone who has the ability to speak or use several languages fluently, not merely someone who studies languages or translates them.

Example: Being a **polyglot**, she could communicate comfortably in five different languages.

Meanings of the other options:

- **Option (A) Linguist:** A person who studies languages and their structure scientifically (भाषाविद्).
- **Option (B) Philologist:** A scholar who studies language in historical texts; an expert in literary and historical linguistics (भाषाशास्त्री/प्राचीन भाषा-अध्येता).
- **Option (D) Translator:** A person who translates from one language to another (अनुवादक).

So the correct answer is (c)

Q.13 According to the passage, what is the main ethical challenge associated with climate migration?

Read the following passage and answer the questions based on it:

The growing reality of climate migration poses a deep and vexing challenge to the existing ethical and planning paradigms of global society. As melting polar ice, desertification, and increasingly violent weather patterns render vast regions uninhabitable, millions of people are already being displaced from their homes. This process is creating a new generation of forced migrants who lack any formal legal recognition as "climate refugees." The central question is no longer whether such displacement will happen, but rather how countries should act together and fairly in response.

Addressing this crisis demands a multi-faceted strategy. First, there is a need for new international humanitarian and legal protocols that formally recognize and protect climate migrants, moving beyond the current, narrow definition of refugees. Second, effective action requires proactive rather than reactive policy, including the creation of legal and safe resettlement channels, robust humanitarian assistance for displaced populations, and substantial investment in climate resilience for vulnerable communities so that displacement can be prevented wherever possible. This issue also brings into sharp focus the difficult question of burden-sharing. From the perspective of climate justice, the primary responsibility lies with the industrialised world. These nations have historically been the largest per-capita producers of greenhouse gases, directly contributing to the magnitude of the climate crisis. Their economic prosperity was largely built on carbon-polluting industries, the very forces that now threaten the survival of least-developed countries that have contributed minimally to the problem. Consequently, an ethical and equitable response requires industrialised nations to take the lead by providing financial and logistical assistance, supporting adaptation projects in developing countries, and ensuring adequate resources for the resettlement and integration of climate migrants. Ultimately, the international community must recognize that responsibility for climate change is unequally shared, and any fair solution must involve those most responsible taking initiative to reduce its most severe humanitarian consequences.

- A. Deciding whether migrants should be permitted to resettle
- B. Determining how responsibility for climate migration should be fairly shared
- C. Assessing whether climate change is a natural phenomenon
- D. Finding ways to stop climate change in the future

Answer: B

Sol: The correct answer is option (b).

Explanation of context of the passage: The author calls climate migration a serious ethical and planning challenge because people displaced by climate conditions are not legally recognized as “climate refugees,” and countries must decide how to respond collectively and fairly. The passage highlights that the key issue is not whether displacement will occur, but how nations will share responsibility and support those affected.

Why option (b) is correct: The passage directly focuses on **burden-sharing** and fairness. It states that an ethical response requires countries to act together and fairly, and later explains that industrialised nations bear primary responsibility because they historically contributed most to greenhouse gas emissions. Thus, the central ethical challenge is determining fair responsibility-sharing in addressing climate migration.

Other options are incorrect because:

- **Option (A):** The passage does not primarily debate whether migrants should be permitted; it emphasizes recognition, protection, and fair shared action.
- **Option (C):** The passage treats climate change impacts as real and ongoing; it is not assessing whether climate change is natural.
- **Option (D):** Stopping climate change is important, but the passage specifically frames the ethical challenge as fair response and burden-sharing for migration already occurring.

So the correct answer is (b)

Q.14 In the passage, the word “vexing” most nearly means:

Read the following passage and answer the questions based on it:

The growing reality of climate migration poses a deep and vexing challenge to the existing ethical and planning paradigms of global society. As melting polar ice, desertification, and increasingly violent weather patterns render vast regions uninhabitable, millions of people are already being displaced from their homes. This process is creating a new generation of forced migrants who lack any formal legal recognition as “climate refugees.” The central question is no longer whether such displacement will happen, but rather how countries should act together and fairly in response.

Addressing this crisis demands a multi-faceted strategy. First, there is a need for new international humanitarian and legal protocols that formally recognize and protect climate migrants, moving beyond the current, narrow definition of refugees. Second, effective action requires proactive rather than reactive policy, including the creation of legal and safe resettlement channels, robust humanitarian assistance for displaced populations, and substantial investment in climate resilience for vulnerable communities so that displacement can be prevented wherever possible. This issue also brings into sharp focus the difficult question of burden-sharing. From the perspective of climate justice, the primary responsibility lies with the industrialised world. These nations have historically been the largest per-capita producers of greenhouse gases, directly contributing to the magnitude of the climate crisis. Their economic prosperity was largely built on carbon-polluting industries, the very forces that now threaten the survival of least-developed countries that have contributed minimally to the problem. Consequently, an ethical and equitable response requires industrialised nations to take the lead by providing financial and logistical assistance, supporting adaptation projects in developing countries, and ensuring adequate resources for the resettlement and integration of climate migrants. Ultimately, the international community must recognize that responsibility for climate change is unequally shared, and any fair solution must involve those most responsible taking initiative to reduce its most severe humanitarian consequences.

- A. Trivial
- B. Uncertain
- C. Straightforward
- D. Complex

Answer: D

Sol: The correct answer is option (d).

Explanation of context of the passage: The passage states that climate migration creates a “deep and vexing challenge” for global ethics and planning. It describes multiple causes (melting ice, desertification, violent weather), large-scale displacement, lack of legal recognition, and the difficult question of burden-sharing, showing that the problem is multi-layered and difficult to resolve.

Why option (d) is correct: The word “vexing” means causing difficulty, irritation, or persistent problems—something hard to deal with (परेशान करने वाला/उलझाने वाला). In the given context, it indicates that the challenge is complicated and troublesome. Among the options, **Complex** best matches this meaning.

Why the other options are incorrect:

- **Option (A) Trivial:** Means unimportant; the passage clearly treats the issue as serious, not trivial.
- **Option (B) Uncertain:** Means not sure; the passage says the question is no longer whether displacement will happen, implying certainty about occurrence.
- **Option (C) Straightforward:** Means easy; the passage stresses multi-faceted strategy and burden-sharing, showing it is not straightforward.

So the correct answer is (d)

Q.15 According to the passage, what does the term “climate justice” refer to?

Read the following passage and answer the questions based on it:

The growing reality of climate migration poses a deep and vexing challenge to the existing ethical and planning paradigms of global society. As melting polar ice, desertification, and increasingly violent weather patterns render vast regions uninhabitable, millions of people are already being displaced from their homes. This process is creating a new generation of forced migrants who lack any formal legal recognition as “climate refugees.” The central question is no longer whether such displacement will happen, but rather how countries should act together and fairly in response.

Addressing this crisis demands a multi-faceted strategy. First, there is a need for new international humanitarian and legal protocols that formally recognize and protect climate migrants, moving beyond the current, narrow definition of refugees. Second, effective action requires proactive rather than reactive policy, including the creation of legal and safe resettlement channels, robust humanitarian assistance for displaced populations, and substantial investment in climate resilience for vulnerable communities so that displacement can be prevented wherever possible. This issue also brings into sharp focus the difficult question of burden-sharing. From the perspective of climate justice, the primary responsibility lies with the industrialised world. These nations have historically been the largest per-capita producers of greenhouse gases, directly contributing to the magnitude of the climate crisis. Their economic prosperity was largely built on carbon-polluting industries, the very forces that now threaten the survival of least-developed countries that have contributed minimally to the problem. Consequently, an ethical and equitable response requires industrialised nations to take the lead by providing financial and logistical assistance, supporting adaptation projects in developing countries, and ensuring adequate resources for the resettlement and integration of climate migrants. Ultimately, the international community must recognize that responsibility for climate change is unequally shared, and any fair solution must involve those most responsible taking initiative to reduce its most severe humanitarian consequences.

- A. Equal sharing of resources across the world
- B. Responsibility of industrialised nations for the harm caused by climate change
- C. Fairness in international migration laws
- D. Collective global efforts to undo climate change

Answer: B

Sol: The correct answer is option (b).

Explanation of context of the passage: The passage introduces “climate justice” while discussing burden-sharing. It argues that responsibility for addressing climate migration should be linked to historical contribution to climate change. It states that industrialised nations have been major per-capita greenhouse gas producers and gained economic prosperity from carbon-polluting industries, while least-developed countries contributed little but suffer heavily.

Why option (b) is correct: The passage defines climate justice as an ethical principle where industrialised nations bear primary responsibility for the crisis and must lead in assistance because they contributed most to the problem. This includes financial and logistical support, adaptation projects, and resources for resettlement and integration.

Why the other options are incorrect because:

- **Option (A):** The passage does not define climate justice as equal resource sharing everywhere; it emphasizes unequal responsibility based on historical emissions.
- **Option (C):** Fair migration laws are part of the discussion, but climate justice specifically refers to responsibility for harm caused by emissions and ethical burden-sharing.
- **Option (D):** Collective efforts matter, but the passage stresses that those most responsible must take initiative, not merely general global effort.

So the correct answer is (b)

Q.16 According to the passage, how is the current definition of “refugees” viewed in relation to climate migrants?

Read the following passage and answer the questions based on it:

The growing reality of climate migration poses a deep and vexing challenge to the existing ethical and planning paradigms of global society. As melting polar ice, desertification, and increasingly violent weather patterns render vast regions uninhabitable, millions of people are already being displaced from their homes. This process is creating a new generation of forced migrants who lack any formal legal recognition as “climate refugees.” The central question is no longer whether such displacement will happen, but rather how countries should act together and fairly in response.

Addressing this crisis demands a multi-faceted strategy. First, there is a need for new international humanitarian and legal protocols that formally recognize and protect climate migrants, moving beyond the current, narrow definition of refugees. Second, effective action requires proactive rather than reactive policy, including the creation of legal and safe resettlement channels, robust humanitarian assistance for displaced populations, and substantial investment in climate resilience for vulnerable communities so that displacement can be prevented wherever possible. This issue also brings into sharp focus the difficult question of burden-sharing. From the perspective of climate justice, the primary responsibility lies with the industrialised world. These nations have historically been the largest per-capita producers of greenhouse gases, directly contributing to the magnitude of the climate crisis. Their economic prosperity was largely built on carbon-polluting industries, the very forces that now threaten the survival of least-developed countries that have contributed minimally to the problem. Consequently, an ethical and equitable response requires industrialised nations to take the lead by providing financial and logistical assistance, supporting adaptation projects in developing countries, and ensuring adequate resources for the resettlement and integration of climate migrants. Ultimately, the international community must recognize that responsibility for climate change is unequally shared, and any fair solution must involve those most responsible taking initiative to reduce its most severe humanitarian consequences.

- A. It is too broad and already accounts for climate migrants
- B. It is narrow and fails to adequately cover climate migrants
- C. It is accurate and universally accepted
- D. It is sufficient to address global migration issues

Answer: B

Sol: The correct answer is option (b).

Explanation of context of the passage: The passage explains that climate migrants are being forced to move due to environmental destruction, but they lack formal legal recognition as “climate refugees.” It argues that the current refugee definition is inadequate and that new legal and humanitarian protocols are needed to formally recognize and protect these displaced people.

Why option (b) is correct: The author explicitly calls the present refugee definition **narrow** and says it must be expanded because it does not properly include or protect climate migrants. Therefore, the current definition is viewed as insufficient to cover climate-based displacement.

Other options are incorrect because:

- **Option (A):** The passage does not say the definition is broad; it says the opposite—narrow and limited.
- **Option (C):** The passage implies the definition is not universally adequate because it fails to recognize climate refugees formally.
- **Option (D):** The passage argues it is not sufficient and demands new protocols; therefore this option contradicts the passage.

So the correct answer is (b)

Q.17 . According to the passage, which approach is suggested for addressing climate migration?

Read the following passage and answer the questions based on it:

The growing reality of climate migration poses a deep and vexing challenge to the existing ethical and planning paradigms of global society. As melting polar ice, desertification, and increasingly violent weather patterns render vast regions uninhabitable, millions of people are already being displaced from their homes. This process is creating a new generation of forced migrants who lack any formal legal recognition as “climate refugees.” The central question is no longer whether such displacement will happen, but rather how countries should act together and fairly in response.

Addressing this crisis demands a multi-faceted strategy. First, there is a need for new international humanitarian and legal protocols that formally recognize and protect climate migrants, moving beyond the current, narrow definition of refugees. Second, effective action requires proactive rather than reactive policy, including the creation of legal and safe resettlement channels, robust humanitarian assistance for displaced populations, and substantial investment in climate resilience for vulnerable communities so that displacement can be prevented wherever possible. This issue also brings into sharp focus the difficult question of burden-sharing. From the perspective of climate justice, the primary responsibility lies with the industrialised world. These nations have historically been the largest per-capita producers of greenhouse gases, directly contributing to the magnitude of the climate crisis. Their economic prosperity was largely built on carbon-polluting industries, the very forces that now threaten the survival of least-developed countries that have contributed minimally to the problem. Consequently, an ethical and equitable response requires industrialised nations to take the lead by providing financial and logistical assistance, supporting adaptation projects in developing countries, and ensuring adequate resources for the resettlement and integration of climate migrants. Ultimately, the international community must recognize that responsibility for climate change is unequally shared, and any fair solution must involve those most responsible taking initiative to reduce its most severe humanitarian consequences.

- A. Depending largely on reactive measures to control migration
- B. Implementing proactive policies to lessen vulnerability and prevent displacement
- C. Enforcing a total prohibition on climate migration
- D. Strengthening international immigration restrictions

Answer: B

Sol: The correct answer is option (b).

Explanation of context of the passage: The passage states that climate migration is already occurring due to environmental changes making regions uninhabitable. It emphasizes that the solution must be planned in advance and handled fairly through international cooperation. The author recommends legal recognition of climate migrants and policies that prevent displacement wherever possible.

Why option (b) is correct: The passage clearly recommends **proactive rather than reactive policy**. It mentions creating legal and safe resettlement channels, robust humanitarian assistance, and major investment in climate resilience for vulnerable communities. All these measures aim to reduce vulnerability and prevent displacement before it becomes unavoidable.

Other options are incorrect because:

- **Option (A):** The passage criticizes reactive approaches and explicitly calls for proactive policies; therefore this contradicts the author’s suggestion.
- **Option (C):** A total prohibition is neither practical nor suggested; the passage acknowledges displacement is happening and focuses on protection and planned response.
- **Option (D):** The passage does not argue for stricter immigration restrictions; instead it argues for legal recognition, safe channels, and fair burden-sharing.

So the correct answer is (b)

Q.18 Select the option that expresses the given sentence in indirect voice.

The manager said, "The employee will be arriving shortly."

- A. The manager said that the employee would be arriving shortly.
- B. The manager said that the employee will be arriving shortly.
- C. The manager said that the employee would arrive shortly.
- D. The manager said that the employee had been arriving shortly.

Answer: A

Sol: The correct answer is option (a).

Explanation: The sentence is in direct speech with the reporting verb **said** (past tense). When converting direct to indirect speech, the tense of the reported clause usually shifts one step back (backshifting). Here, **will** changes to **would**.

The direct sentence is: **The manager said, "The employee will be arriving shortly."** The reported clause uses **future continuous** ("will be arriving"). In indirect speech, it becomes **would be arriving**, which is the correct backshifted form.

Rules used for conversion:

- **Will** changes to **would** when the reporting verb is in the past.
- The continuous aspect is maintained: **will be arriving** → **would be arriving**.
- Quotation marks are removed and "that" is commonly used to introduce the reported clause.

Example: Direct: She said, "I will be leaving soon." Indirect: She said that she **would be leaving** soon.

Why other options are incorrect:

- **Option (b):** Does not change **will** to **would**, so it violates the standard backshift rule.
- **Option (c):** Changes the aspect from continuous to simple ("would arrive"), which changes the nuance of "be arriving."
- **Option (d):** "Had been arriving" is incorrect here and suggests an ongoing action in the past before another past point, which is not intended.

So the correct answer is (a)

Q.19 Select the option that expresses the given sentence in direct voice.

The researcher stated that although the method had been accepted for years, recent findings showed that it was flawed.

- A. The researcher stated, "Although the method had been accepted for years, recent findings show that it is flawed."
- B. The researcher stated, "Although the method was accepted for years, recent findings showed that it was flawed."
- C. The researcher stated, "Although the method had been accepted for years, recent findings showed that it was flawed."
- D. The researcher stated, "Although the method has been accepted for years, recent findings showed that it was flawed."

Answer: C

Sol: The correct answer is option (c).

Explanation: To convert indirect speech to direct speech, we place the exact reported words inside quotation marks and keep the tense relations consistent with the meaning given in the indirect form. The sentence says:

- "the method **had been accepted** for years" (past perfect passive)
- "recent findings **showed** that it **was** flawed" (simple past + simple past)

Option (c) reproduces the same tense sequence accurately in direct speech without changing time reference or meaning. It correctly keeps **had been accepted** and **showed/was** as given.

Rules used for conversion:

- Remove "that" and use quotation marks for the spoken part.
- Maintain the same tense pattern when it matches the intended time in the indirect statement.
- Keep connectors like "although" as they carry logical contrast in the statement.

Why other options are incorrect:

- **Option (A):** Changes "showed" to "show" and "was" to "is," shifting meaning to present time.
- **Option (B):** Changes "had been accepted" to "was accepted," weakening the sense of a long-established acceptance prior to the later finding.
- **Option (D):** Mixes present perfect "has been accepted" with past "showed," creating an inconsistent time frame compared to the indirect sentence.

So the correct answer is (c)

Q.20 Select the most appropriate synonym of the word: ABANDON

- A. Resist
- B. Desert
- C. Confront
- D. Oppose

Answer: B

Sol: The correct answer is option (b).

Explanation: The word **ABANDON** means to leave someone or something completely; to give up, stop supporting, or leave behind (त्याग देना/छोड़ देना). It can be used for leaving a place, a plan, or a person.

Example (given word): They had to **abandon** the building due to the fire.

Correct synonym: **Desert** means to leave someone or something, especially in a time of need; to abandon (छोड़ देना/त्याग देना). It matches the core meaning of abandoning.

Example (correct word): A true friend does not **desert** you in difficult times.

Synonyms: leave, forsake, quit, relinquish.

Antonyms: keep, stay, support, continue.

Meanings of the other options:

- **Option (A) Resist:** To oppose or fight against something (प्रतिरोध करना).
- **Option (C) Confront:** To face or challenge someone or something (सामना करना).
- **Option (D) Oppose:** To be against; to resist (विरोध करना).

So the correct answer is (b)

Q.21 Select the most appropriate antonym of the word: Frugal

- A. Arcane
- B. Extravagant
- C. Mystical
- D. Obscure

Answer: B

Sol: The correct answer is option (b).

Explanation: The word **Frugal** means careful and economical in the use of money or resources; not wasteful (मितव्ययी/किफायती). A frugal person spends wisely and avoids unnecessary expenses.

Example (given word): She is very **frugal** and saves money by avoiding luxury purchases.

Correct antonym: **Extravagant** means spending too much money or using more resources than necessary; wasteful (फिजूलखर्च/अपव्ययी). This is the opposite of being frugal.

Example (correct word): His **extravagant** lifestyle led him into heavy debt.

Synonyms (Frugal): economical, thrifty, prudent, sparing.

Antonyms (Frugal): extravagant, wasteful, lavish, reckless.

Meanings of the other options:

- Option (A) Arcane: Known or understood by very few; mysterious (गूढ़/रहस्यमय).
- Option (C) Mystical: Related to spiritual mysteries (अध्यात्मिक/रहस्यवादी).
- Option (D) Obscure: Not clear or not well-known (अस्पष्ट/अज्ञात).

So the correct answer is (b)

Q.22 Choose the correct meaning of the idiom: Off the grid

- A. Gained attention
- B. Not easily reachable
- C. Avoided detection
- D. Gained popularity

Answer: B

Sol: The correct answer is option (b).

Explanation: The idiom "Off the grid" means living or operating without being connected to the usual communication systems or public records, and therefore being **not easily reachable** (संपर्क से बाहर/आसानी से उपलब्ध न होना). It often suggests staying away from phones, internet, social media, or official tracking.

Example: After the stressful project, he went **off the grid** for a week and avoided all calls and messages.

Other related idioms and their meanings:

- **Under the radar:** Not noticed or attracting attention (चुपचाप/बिना ध्यान में आए).
- **Out of touch:** Not in contact; unaware of current information (संपर्क में नहीं/जानकारी से दूर).
- **Disappear into thin air:** To vanish suddenly (अचानक गायब हो जाना).

Why other options are incorrect:

- **Option (A):** "Gained attention" is the opposite of the idea of being unreachable.
- **Option (C):** "Avoided detection" is a possible consequence, but the primary meaning tested in such questions is "not easily reachable," which is broader and more direct.
- **Option (D):** "Gained popularity" is unrelated to the idiom.

So the correct answer is (b)

Q.23 Choose the correct meaning of the idiom: At death's door

- A. Very close to death
- B. Playing a dangerous game
- C. Having a narrow escape
- D. Being in complete control

Answer: A

Sol: The correct answer is option (a).

Explanation: The idiom "At death's door" means someone is extremely ill or in such a critical condition that they are **very close to death** (मौत के बहुत करीब/अंतिम अवस्था में). It is used to describe a life-threatening situation, usually due to severe illness or injury.

Example: After the accident, he was **at death's door** for several days in the hospital.

Other related idioms and their meanings:

- **On one's last legs:** Very weak or near failure/end (बहुत कमजोर/अंत के करीब).
- **Hanging by a thread:** In a very uncertain and dangerous condition (बहुत नाजुक स्थिति में).
- **Fight for one's life:** Struggle to survive (जीवन के लिए संघर्ष करना).

Why other options are incorrect:

- **Option (B):** Refers to risk-taking, not the condition of being near death.
- **Option (C):** Means surviving a danger narrowly; that is different from being close to death.
- **Option (D):** Means being fully in control, which is unrelated.

So the correct answer is (a)

Q.24 Choose the correct passive voice transformation of the sentence:

My brother designed this building in 2025.

- A. This building was designed by my brother in 2025.
- B. This building is designed by my brother in 2025.
- C. This building has been designed by my brother in 2025.
- D. This building was being designed by my brother in 2025.

Answer: A

Sol: The correct answer is option (a).

Explanation: The active sentence is in **simple past tense**: "My brother designed this building in 2025." To form the passive, we make the object "this building" the subject and use **was/were + V3** for simple past passive, followed by the agent introduced by **by**.

Structure:

- **Active:** Subject + V2 + object + time
- **Passive:** Object + was/were + V3 + by + subject + time

Correct passive sentence: This building was designed by my brother in 2025.

Example: Active: She wrote the letter. Passive: The letter was written by her.

Why other options are incorrect:

- **Option (B):** Uses present tense "is designed," which does not match the past time "in 2025."
- **Option (C):** Uses present perfect "has been designed," which is not the correct transformation of simple past.
- **Option (D):** Uses past continuous passive "was being designed," which changes the meaning to an ongoing action in the past, not a completed action.

So the correct answer is (a)

Q.25 Choose the most suitable option to replace the highlighted part of the sentence:

Each of the girls must submit their assignment on time.

- A. Each of the girls must submit **there** assignment on time.
- B. Each of the girls must submit **his** assignment on time.
- C. Each of the girls must submit **her** assignment on time.
- D. Each of the girls must submit **their** assignments on time.

Answer: C

Sol: The correct answer is option (c).

Explanation: The subject "Each" is singular, so it takes a singular pronoun. Since the phrase is "Each of the girls", the appropriate singular feminine pronoun is **her**. Therefore, "**their**" should be replaced with **her** to maintain correct agreement in traditional exam grammar.

Correct sentence: Each of the girls must submit her assignment on time.

Grammatical rule used (Pronoun agreement):

- Words like **each, every, everyone, anybody** are singular and require singular pronouns.
- When the noun is clearly feminine (girls), the pronoun used should match gender: **her**.

Example: Each student must bring his/her own identity card.

Why other options are incorrect:

- **Option (A):** "there" is an adverb of place, not a possessive pronoun; the correct possessive is "their" or "her."
- **Option (B):** "his" does not match the clearly feminine noun "girls" in standard exam usage.

- Option (D): Changes "assignment" to plural "assignments" and keeps "their," which does not correct the pronoun issue as required by the highlighted substitution.

So the correct answer is (c)

Q.26 Find the missing pair:
(4,16), (5,25), (6,36), ?, (8,64)

- A. 6,49
- B. 7,49
- C. 7,42
- D. 49,7

Answer: B

Sol: Given: (4,16), (5,25), (6,36), ?, (8,64)

Logic: 1st number² = 2nd number

$$4^2 = 16$$

$$5^2 = 25$$

$$6^2 = 36$$

Next number = 7

$$7^2 = 49$$

$$8^2 = 64$$

So, the missing term is **(7,49)**.

Thus, correct option is (b).

Q.27 How many such letter pairs are there in the word CARTOON which have as many letters between them in the word as in the English alphabet?

- A. One
- B. Two
- C. Three
- D. Four

Answer: C

Sol: Given: CARTOON

Positions: 1 2 3 4 5 6 7

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| Z | Y | X | W | V | U | T | S | R | Q | P | O | N |
| 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 |

Condition: Number of letters between two letters in the word

= Number of letters between them in the alphabet

Check valid pairs:

R (3) and O (6)

$$\text{Word gap} = 6 - 3 - 1 = 2$$

$$\text{Alphabet gap} = |18 - 15| - 1 = 3 - 1 = 2$$

R (3) and N (7)

$$\text{Word gap} = 7 - 3 - 1 = 3$$

$$\text{Alphabet gap} = |18 - 14| - 1 = 4 - 1 = 3$$

O (6) and N (7)

$$\text{Word gap} = 7 - 6 - 1 = 0$$

$$\text{Alphabet gap} = |15 - 14| - 1 = 1 - 1 = 0$$

Total valid pairs = 3

So, **three** pairs are there in the word in the English alphabet.

Thus, correct option is (c).

Q.28 If $+$ \rightarrow $-$, $-$ \rightarrow \div , \times \rightarrow $+$, \div \rightarrow \times Evaluate: $(20 + 10) \div (8 - 4) \times 2 = ?$

- A. 15
- B. 20
- C. 25
- D. 22

Answer: D

Sol: Given: $(20 + 10) \div (8 - 4) \times 2 = ?$

Given Sign $+ - \times \div$

New Sign $- \div + \times$

Using **BODMAS** rule.

| Operation preference wise | Symbol |
|---------------------------|------------------------------|
| Brackets | $[], , ()$ |
| Orders, of | $(power), \sqrt{(root)}, of$ |
| Division | \div |
| Multiplication | \times |
| Addition | $+$ |
| Subtraction | $-$ |

New equation: $(20 - 10) \times (8 \div 4) + 2 = ?$

$10 \times 2 + 2 = ?$

$20 + 2 = ?$

$? = 22$

Thus, correct option is (d).

Q.29 What is the product of the smallest even prime number and the smallest composite number?

- A. 6
- B. 2
- C. 4
- D. 8

Answer: D

Sol: Solution:

Smallest even prime number:

The only even prime number is 2.

Smallest composite number:

Composite numbers start from 4 (since 1 is neither prime nor composite, and 2 & 3 are prime).

Product: $2 \times 4 = 8$

So, **8** is the product of the smallest even prime number and the smallest composite number.

Thus, correct option is (d).

Q.30 Statement:

The government introduced free education for girls.

Inference:

- I. Girls were earlier denied education.
- II. The government supports women empowerment.
- III. Education will become compulsory.

- A. Only I
- B. Only II
- C. I and II
- D. II and III

Answer: B

Sol: Statement:

The government introduced free education for girls.

Inference:

I. Girls were earlier denied education.

Not necessarily, free education does not mean girls were denied education earlier.

II. The government supports women empowerment.

Introducing free education for girls clearly indicates support for women empowerment.

III. Education will become compulsory.

Free education does not imply compulsory education.

So, **Only II** follows.

Thus, correct option is (b).

Q.31 Find the next number:

2, 8, 32, 128, ?

- A. 256
- B. 384
- C. 512
- D. 640

Answer: C

Sol: Given: 2, 8, 32, 128, ?

Logic: Numbers are multiply by 4.

$$2 \times 4 = 8$$

$$8 \times 4 = 32$$

$$32 \times 4 = 128$$

$$128 \times 4 = \mathbf{512}$$

So, the missing term is **512**.

Thus, correct option is (c).

Q.32 Find the missing term in the series.

5, 25, 125, 625, ?

- A. 2525
- B. 1875
- C. 3125
- D. 5625

Answer: C

Sol: Given: 5, 25, 125, 625, ?

Logic: Numbers are multiply by 5.

$$5 \times 5 = 25$$

$$25 \times 5 = 125$$

$$125 \times 5 = 625$$

$$625 \times 5 = 3125$$

So, the missing term is **3125**.

Thus, correct option is (c).

Q.33 Find the next number:

12.5, 38, 78.5, 134, 204.5, ?

- A. 290
- B. 291
- C. 289.5
- D. 294

Answer: A

Sol: Given: 12.5, 38, 78.5, 134, 204.5, ?

Logic: Differences increase by 15 each time.

$$38 - 12.5 = 25.5$$

$$78.5 - 38 = 40.5$$

$$134 - 78.5 = 55.5$$

$$204.5 - 134 = 70.5$$

Differences: 25.5, 40.5, 55.5, 70.5 → increase by +15

Next difference = 85.5

$$\text{Next term} = 204.5 + 85.5 = \mathbf{290}$$

So, the missing term is **290**.

Thus, correct option is (a).

Q.34 If March 1, 2020, was a Sunday, what day of the week will March 1, 2024, be?

- A. Thursday
- B. Friday
- C. Saturday
- D. Sunday

Answer: B

Sol: Given:

March 1, 2020 = Sunday

Solution:

2020 → 2021: Leap year → +2 days

2021 → 2022: Normal year → +1 day

2022 → 2023: Normal year → +1 day

2023 → 2024: Normal year (up to March 1) → +1 day

Total shift = 2 + 1 + 1 + 1 = 5 days

Starting from Sunday, move 5 days ahead:

Sunday → Monday (1) → Tuesday (2) → Wednesday (3) → Thursday (4) → **Friday (5)**

So, **Friday** day of the week will March 1, 2024.

Thus, correct option is (b).

Q.35 Statement:

The factory increased production to meet rising demand.

Inference:

- I. Demand for the product has increased.
- II. The factory was earlier overproducing.
- III. The factory expects higher sales.

- A. Only I
- B. Only II
- C. I and III
- D. II and III

Answer: C

Sol: Statement:

The factory increased production to meet rising demand.

Inference:

I. Demand for the product has increased.

This is directly stated ("rising demand").

II. The factory was earlier overproducing.

This **cannot** be concluded. There is no information about earlier overproduction.

III. The factory expects higher sales.

Rising demand and increased production imply an expectation of higher sales.

So, **I and III** follows.

Thus, correct option is (c).

Q.36 What comes next?

5, 11, 17, 23, ?

- A. 27
- B. 29
- C. 31
- D. 33

Answer: B

Sol: Given: 5, 11, 17, 23, ?

Logic: Numbers are increasing + 6 place.

$5 + 6 = 11$

$11 + 6 = 17$

$17 + 6 = 23$

$23 + 6 = 29$

So, the missing term is **29**.

Thus, correct option is (b).

Q.37 Select the correct option to complete the series:
(1,1), (4,2), (9,3), (16,4), ?, (36,6)

- A. 20,5
- B. 25,5
- C. 25,6
- D. 30,5

Answer: B

Sol: Given: (1,1), (4,2), (9,3), (16,4), ?, (36,6)

Logic: 2nd number²= 1st number

$1^2 = 1$

$2^2 = 4$

$3^2 = 9$

$4^2 = 16$

Next number = 5

$5^2 = 25$

$6^2 = 36$

So, the missing term is **(25,5)**.

Thus, correct option is (b).

Q.38 Which number is divisible by both 9 and 11?

- A. 198
- B. 209
- C. 296
- D. 189

Answer: A

Sol: option a) 198

$198 \div 99 = 2$, **so it is divisible by both 9 and 11.**

option b) 209

209 is divisible by 11 but not divisible by 9.

option c) 296

296 is not divisible by 9 and not divisible by 11.

option d) 189

189 is divisible by 9 but not divisible by 11.

Thus, correct option is (a).

Q.39 Find the next term:

A1, B4, C9, D16, E25, ?

- A. F30
- B. F36
- C. G36
- D. F49

Answer: B

Sol: Given: A1, B4, C9, D16, E25, ?

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| Z | Y | X | W | V | U | T | S | R | Q | P | O | N |
| 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 |

Logic: Letters are increasing + 1 and number is increasing perfect square of natural number from 1.

For, letter

$A + 1 = B, B + 1 = C, C + 1 = D, D + 1 = E, E + 1 = F$

For, number

$1^2 = 1, 2^2 = 4, 3^2 = 9, 4^2 = 16, 5^2 = 25, 6^2 = 36$

So, the missing term is **F36**.

Thus, correct option is (b).

Q.40 Find the missing term in the series.
4.5, 8.5, ?, 14.5, 16.5

- A. 10
- B. 10.5
- C. 11
- D. 11.5

Answer: B

Sol: Given: 4.5, 8.5, ?, 14.5, 16.5

Logic: Numbers are increasing + 4 and + 2 place alternately.

$$4.5 + 4 = 8.5$$

$$8.5 + 2 = \mathbf{10.5}$$

$$10.5 + 4 = 14.5$$

$$14.5 + 2 = 16.5$$

So, the missing term is **10.5**

Thus, correct option is (b).

Q.41 How many such pairs of letters are there in the word EDUCATION, each pair having as many letters between them in the word as in the English alphabet?

- A. Five
- B. Two
- C. Three
- D. Four

Answer: D

Sol: Given: EDUCATION

Positions: 1 2 3 4 5 6 7 8 9

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| Z | Y | X | W | V | U | T | S | R | Q | P | O | N |
| 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 |

E D U C A T I O N

So, **four** pairs of letters are there in the word.
Thus, correct option is (d).

Q.42 The average age of 5 students is 16 years. If one student of age 21 years joins, what is the new average?

- A. 16.5
- B. 17
- C. 17.5
- D. 18

Answer: B

Sol: Given:

Average age of 5 students = 16 years

So, total age of 5 students =

$$5 \times 16 = 80 \text{ years}$$

One more student of age 21 years joins.

New total age: $80 + 21 = 101$

Total number of students = 6

$$\text{New average: } \frac{101}{6} \approx 16.83$$

Among the given options, the closest correct value is **17**.

So, **17** is the new average.

Thus, correct option is (b).

Q.43 The sum of three consecutive even numbers is 66. What is the smallest number?

- A. 20
- B. 22
- C. 24
- D. 26

Answer: A

Sol: Let the three consecutive even numbers be:

$$(x, x + 2, x + 4)$$

Given sum:

$$x + (x + 2) + (x + 4) = 66$$

$$3x + 6 = 66$$

$$3x = 60$$

$$x = 20$$

So, the three numbers are 20, 22, 24.

Thus, correct option is (a).

Q.44 Select the word that cannot be formed using letters of ASTRONOMER (each letter once).

- A. MOON
- B. STAR
- C. METER
- D. ROOM

Answer: C

Sol: Given: ASTRONOMER

Letters available in ASTRONOMER:

$$A \rightarrow 1, S \rightarrow 1, T \rightarrow 1, R \rightarrow 2, O \rightarrow 2, N \rightarrow 1, M \rightarrow 1, E \rightarrow 1$$

Now check each option:

Option (a): MOON \rightarrow M - 1, O - 2, N - 1 (possible)

Option (b): STAR \rightarrow S - 1, T - 1, A - 1, R - 1 (possible)

Option (c): METER \rightarrow M - 1, E - 2, T - 1, R - 1

Only one E is available, but two E's are required

Option (d): ROOM \rightarrow R - 1, O - 2, M - 1 (possible)

So, **METER** word that cannot be formed.

Thus, correct option is (c).

Q.45 If $+$ \rightarrow \div , $-$ \rightarrow \times , \times \rightarrow $-$, \div \rightarrow $+$ Evaluate: $36 + 6 - 2 \times 4 \div 2 = ?$

- A. 10
- B. 12
- C. 14
- D. 16

Answer: A

Sol: Given: $36 + 6 - 2 \times 4 \div 2 = ?$

Given Sign $+$ $-$ \times \div

New Sign \div \times $-$ $+$

Using **BODMAS** rule.

| Operation preference wise | Symbol |
|---------------------------|------------------------------|
| Brackets | $[], , ()$ |
| Orders, of | $(power), \sqrt{(root), of}$ |
| Division | \div |
| Multiplication | \times |
| Addition | $+$ |
| Subtraction | $-$ |

New equation: $36 \div 6 \times 2 - 4 + 2 = ?$

$$6 \times 2 - 4 + 2 = ?$$

$$12 - 4 + 2 = ?$$

14 - 4 = ?

? = **10**

Thus, correct option is (a).

Q.46 Complete the series:

aaa_ccbb_aaaccc_bbaacc_bbb

- A. bbcc
- B. cbbc
- C. bcbb
- D. ccbb

Answer: B

Sol: Given: aaa_ccbb_aaaccc_bbaacc_bbb

Now, we check each options.

Option (a): bbcc

aaa/bcc/bbb/aaa/ccc/cbb/aaa/cc/bbb

Option (b): cbbc

aaa/ccc/bbb/aaa/ccc/bbb/aaa/cc/bbb

(It is a logical repeating pattern.)

Option (c): bcbb

aaa/bcc/bbb/aaa/ccc/bbb/aaa/cc/bbb

Option (d): ccbb

aaa/ccc/bbb/aaa/ccc/bbb/aaa/cc/bbb

So, the logical pattern is: **aaa/cc/bbb**

Thus, correct option is (b).

Q.47 Find the next term:

A1, B2, C3, D5, E8, F13, ?

- A. G18
- B. G21
- C. G20
- D. H21

Answer: B

Sol: Given: A1, B2, C3, D5, E8, F13, ?

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| Z | Y | X | W | V | U | T | S | R | Q | P | O | N |
| 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 |

Logic: Letters are + 1 and 1st number + 2nd number = 3rd number

For, letter

A + 1 = B, B + 1 = C, C + 1 = D, D + 1 = E, E + 1 = F, F + 1 = G

For, number

1 + 2 = 3, 2 + 3 = 5, 3 + 5 = 8, 5 + 8 = 13, 8 + 13 = 21

So, the missing term is **G21**.

Thus, correct option is (b).

Q.48 Find the missing term in the series.

1, 2, ?, 20, 45

- A. 5
- B. 6
- C. 7
- D. 8

Answer: C

Sol: Given: 1, 2, ?, 20, 45

Logic: Double difference is multiple of 4.

First differences:

$2 - 1 = 1$
 $7 - 2 = 5$
 $20 - 7 = 13$
 $45 - 20 = 25$
 Second differences:
 $5 - 1 = 4$
 $13 - 5 = 8$
 $25 - 13 = 12$
 Second differences are:
 $4, 8, 12 \rightarrow$ increasing by 4
 The missing number is **7**.
 Thus, correct option is (c).

Q.49 $13 : 196 :: 14 : ?$

- A. 225
- B. 196
- C. 256
- D. 169

Answer: A

Sol: Given: $13 : 196 :: 14 : ?$
Logic: $(1st\ number + 1)^2 = 2nd\ number$
For, $13 : 196$
 $13 + 1 = 14, 14^2 = 196$
 Similarly,
 $14 : ?$
 $14 + 1 = 15, 15^2 = 225$
 So, $14 : \mathbf{225}$
 Thus, correct option is (a).

Q.50 What is the result of $3.2 \times 2.5 + 14.6 - 5.6$?

- A. 17
- B. 18
- C. 19
- D. 20

Answer: A

Sol: Given: $3.2 \times 2.5 + 14.6 - 5.6 = ?$

Using **BODMAS:**

| Operation preference wise | Symbol |
|---------------------------|------------------------------|
| Brackets | $[], , ()$ |
| Orders, of | $(power), \sqrt{(root)}, of$ |
| Division | \div |
| Multiplication | \times |
| Addition | $+$ |
| Subtraction | $-$ |

Expression: $3.2 \times 2.5 + 14.6 - 5.6 = ?$

$8.0 + 14.6 - 5.6 = ?$

$22.6 - 5.6 = ?$

$? = \mathbf{17}$

Thus, correct option is (a).

Q.51 8 liters of honey are mixed in y liters of oil. If honey is 25% of the mixture, what is the value of y?

- A. 20 litres
- B. 24 litres
- C. 28 litres
- D. 32 litres

Answer: B

Sol: Given:

$$\text{Honey} = 8\text{L. Oil} = y\text{L.}$$

$$\text{Honey} = 25\% \text{ of Total Mixture.}$$

Solution:

$$\text{Total Mixture} = 8 + y$$

$$8 = 0.25(8 + y)$$

$$32 = 8 + y$$

$$y = 24$$

Final Answer

24 litres

Q.52 A square tile having a perimeter of 160 cm has been used to pave a floor of length and breadth 28.8 m and 19.2 m, respectively. If each tile is a square of side 40 cm, then find the number of tiles required to pave the floor completely.

- A. 2700
- B. 3200
- C. 3456
- D. 4000

Answer: C

Sol: Given:

$$\text{Floor: } 28.8 \text{ m} \times 19.2 \text{ m.}$$

$$\text{Tile: Square, Perimeter} = 160 \text{ cm} \Rightarrow \text{Side} = 40 \text{ cm.}$$

Solution:

$$\text{Convert dimensions to cm: } 2880 \text{ cm} \times 1920 \text{ cm.}$$

$$\text{Area of Floor} = 2880 \times 1920 = 55,29,600 \text{ cm}^2.$$

$$\text{Area of Tile} = 40 \times 40 = 1600 \text{ cm}^2.$$

$$\text{Number of Tiles} = \frac{5529600}{1600} = 3456.$$

Final Answer

3456

Q.53 M can finish the work in 20 days, and N can do the same work in 15 days. N worked for 10 days and left the job. In how many days will M alone finish the remaining work?

- A. 20/3 days
- B. 18/3 days
- C. 23/4 days
- D. 23/5 days

Answer: A

Sol: Given:

$$M = 20 \text{ days, } N = 15 \text{ days.}$$

N works for 10 days.

Solution:

$$\text{Work done by N} = \frac{10}{15} = \frac{2}{3}$$

$$\text{Remaining Work} = 1 - \frac{2}{3} = \frac{1}{3}$$

Time for M = Remaining Work \times Rate of M

$$= \frac{1}{3} \times 20 = \frac{20}{3} = 6.66 \text{ days.}$$

Final Answer

6.66 days

Q.54 The area of a square is 64 cm^2 less than that of a rectangle. If the side of the square is 2 cm more than the width of the rectangle and the length of the rectangle is 6 cm more than the side of the square, then find the perimeter of both.

- A. 74 cm, 52 cm
- B. 76 cm, 84 cm
- C. 72 cm, 64 cm
- D. 86 cm, 68 cm

Answer: B

Sol: Given:

$$A_{sq} = A_{rect} - 64.$$

Let Side of square = S .

$$S = W + 2 \Rightarrow W = S - 2.$$

$$L = S + 6.$$

Solution:

$$S^2 = L \times W - 64$$

$$S^2 = (S + 6)(S - 2) - 64$$

$$S^2 = S^2 + 4S - 12 - 64$$

$$0 = 4S - 76 \Rightarrow S = 19.$$

$$\text{Perimeter Square} = 4 \times 19 = 76 \text{ cm.}$$

$$\text{Rect Dimensions: } W = 17, L = 25.$$

$$\text{Perimeter Rect} = 2(17 + 25) = 84 \text{ cm.}$$

Final Answer

76 cm, 84 cm

Q.55 One of the angles of a quadrilateral is 96° . If the ratio of the remaining angles is 3:4:5, respectively, then find the difference between the largest and smallest angles.

- A. 24°
- B. 36°
- C. 44°
- D. 60°

Answer: C

Sol: Given:

One angle = 96° .

Others in ratio 3 : 4 : 5.

Solution:

Sum of angles of quadrilateral = 360° .

Sum of remaining three = $360 - 96 = 264^\circ$.

$$3x + 4x + 5x = 264$$

$$12x = 264 \Rightarrow x = 22.$$

Angles: $3(22) = 66$, $4(22) = 88$, $5(22) = 110$.

Largest = 110, Smallest = 66.

Difference = $110 - 66 = 44^\circ$.

Final Answer

44°

Q.56 Two circles C_1 and C_2 have radii 6 and 4 units, and their centers are 12 units apart. Then the number of common tangents they have is:

- A. 1
- B. 2
- C. 3
- D. 4

Answer: D

Sol: Given:

$r_1 = 6, r_2 = 4$, Distance (d) = 12.

Solution:

$$r_1 + r_2 = 6 + 4 = 10.$$

Since $d > r_1 + r_2$ ($12 > 10$), the circles are disjoint and separated.

Therefore, they have 2 direct common tangents and 2 transverse common tangents.

Total = 4.

Final Answer

4

Q.57 The cost of Type A tea is Rs. 120 per kg, and Type B tea is Rs. 80 per kg. If both Type A and Type B are mixed in the ratio of 2:3, then the price per kg of the mixed variety will be:

- A. ₹92
- B. ₹96
- C. ₹100
- D. ₹104

Answer: B

Sol: Given:

Price A = 120, Price B = 80. Ratio = 2 : 3.

Formula Used:

$$\text{Weighted Average} = \frac{n_1x_1 + n_2x_2}{n_1 + n_2}$$

Solution:

$$\text{Price} = \frac{2(120) + 3(80)}{2 + 3}$$

$$= \frac{240 + 240}{5}$$

$$= \frac{480}{5}$$

$$= 96$$

Final Answer

₹96

Q.58 Raj can finish a task in 18 days, and Sham can finish the same task in 27 days. They work together for 6 days. The rest of the task was finished by Raj and Tara in 3 days. How much time is required for Tara to finish this task alone?

- A. 22 days
- B. 10.8 days
- C. 12 days
- D. 15.6 days

Answer: B

Sol: Given:

Raj (R) = 18 days, Sham (S) = 27 days.

Work together for 6 days. Remaining by R + Tara (T) in 3 days.

Solution:

Total Work = LCM(18, 27) = 54 units.

$R = 3 \text{ u/d}, S = 2 \text{ u/d}.$

Work in first 6 days = $(3 + 2) \times 6 = 30$ units.

Remaining Work = $54 - 30 = 24$ units.

R and T finish 24 units in 3 days.

$(R + T) \times 3 = 24 \Rightarrow R + T = 8.$

$3 + T = 8 \Rightarrow T = 5$ units/day.

Time for Tara = $\frac{54}{5} = 10.8$ days.

Final Answer

10.8 days

Q.59 An alloy contains silver, gold and copper in the ratio 2:3:5 and another contains copper, gold and platinum in the ratio 3:4:3. If equal weights of both alloys are melted together to form a third alloy, then the weight of platinum per kg in new alloy will be:

- A. 0.15 kg
- B. 0.20 kg
- C. 0.30 kg
- D. 0.45 kg

Answer: A

Sol: Given:

Alloy 1 (Ag: Au: Cu) = 2:3:5 (Total 10 parts)

Alloy 2 (Cu: Au: Pt) = 3:4:3 (Total 10 parts)

Mixed in equal weights (1:1).

Solution:

Let we take 1 kg of each alloy.

Platinum in Alloy 1 = 0

Platinum in Alloy 2 = $\frac{3}{10}$ kg = 0.3 kg

Total Platinum in 2 kg mixture = $0 + 0.3 = 0.3$ kg

Weight of Platinum per kg = $\frac{0.3}{2} = 0.15$ kg

Final Answer

0.15 kg

Q.60 Ravi started a beverage counter with 200 liters of drink, which had 40% concentrate in it. He sold 50 liters of the drink. Then he added equal amounts of concentrate and water. Now the ratio of water to concentrate became 3:2. How much concentrate was added later?

- A. 15.5 litres
- B. 18.75 litres
- C. 0 litres
- D. 25.3 litres

Answer: C

Sol: Given:

Initial: 200L, 40% Concentrate.

Sold 50L. Remaining: 150L.

Added equal amount (x) of Water and Concentrate.

New Ratio Water:Conc = 3 : 2.

Solution:

In 150L, Conc = 40% of 150 = 60L.

Water = 150 - 60 = 90L.

New Water = $90 + x$, New Conc = $60 + x$.

$$\frac{90 + x}{60 + x} = \frac{3}{2}$$

$$2(90 + x) = 3(60 + x)$$

$$180 + 2x = 180 + 3x$$

$$x = 0.$$

Q.61 P can do a certain work in the same time that Q and R together can do it. If P and Q together could do it in 8 days and R alone in 35 days, then P alone could do it in (approximate):

- A. 12 days
- B. 13 days
- C. 16 days
- D. 18 days

Answer: B

Sol: Given:

$$(1) P = Q + R \text{ (efficiencies)}$$

$$(2) P + Q = \frac{1}{8}$$

$$(3) R = \frac{1}{35}$$

Solution:

Substitute R in (1): $P = Q + \frac{1}{35}$.

From (2): $Q = \frac{1}{8} - P$.

Substitute Q back into modified (1):

$$P = \left(\frac{1}{8} - P\right) + \frac{1}{35}$$

$$2P = \frac{1}{8} + \frac{1}{35} = \frac{35 + 8}{280} = \frac{43}{280}$$

$$P = \frac{43}{560}$$

$$\text{Time} = \frac{560}{43} \approx 13.02 \text{ days.}$$

Final Answer

13.02 days

Exam Hall Method:

$\text{Total Work} = \text{LCM}(8, 35) = 280$
 $\text{Eff}(P+Q) = 35$ $\text{Eff}(R) = 8$
 $\text{Total Eff} = 43$ Logic: $P = Q + R$
 $\rightarrow \text{Eff}(P) = \frac{43}{2} = 21.5$
 $\text{Time}(P) = \frac{280}{21.5} \approx 13 \text{ Days}$

Q.62 PQR is a triangle where PQ = 15 cm and PR = 20 cm. M is a point on QR such that QM = MR. If the perimeter of the triangle is 60 cm, then find the length of PM.

- A. 10.2 cm
- B. 12.5 cm
- C. 6.25 cm
- D. 12 cm

Answer: B

Sol: Given:

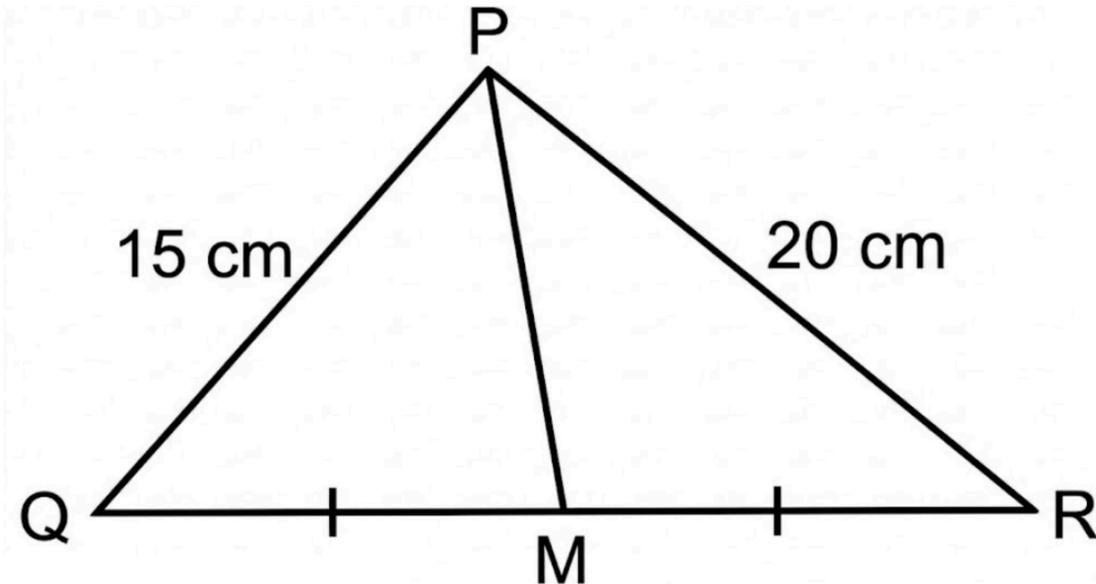
$$PQ = 15, PR = 20, \text{Perimeter} = 60.$$

M is the midpoint of QR .

Concept Used:

Median to the hypotenuse of a right triangle is half the length of the hypotenuse.

Solution:



$$QR = \text{Perimeter} - (PQ + PR) = 60 - (15 + 20) = 25 \text{ cm.}$$

Check for Right Triangle:

$$15^2 + 20^2 = 225 + 400 = 625 = 25^2.$$

Since $PQ^2 + PR^2 = QR^2$, $\triangle PQR$ is a right-angled triangle at P.

PM is the median to the hypotenuse QR.

$$PM = \frac{QR}{2} = \frac{25}{2} = 12.5 \text{ cm.}$$

Final Answer

12.5 cm

Q.63 In triangle XYZ, D and E are points on sides XY and XZ respectively, such that $DE \parallel YZ$. If $XD = 5$ cm, $DY = 10$ cm, and $XE = 7$ cm, find EZ.

- A. 10 cm
- B. 12 cm
- C. 14 cm
- D. 16 cm

Answer: C

Sol: Given:

$$DE \parallel YZ, XD = 5, DY = 10, XE = 7.$$

Theorem Used:

$$\text{Basic Proportionality Theorem (Thales Theorem): } \frac{XD}{DY} = \frac{XE}{EZ}$$

Solution:

$$\frac{5}{10} = \frac{7}{EZ}$$

$$\frac{1}{2} = \frac{7}{EZ}$$

$$EZ = 7 \times 2 = 14 \text{ cm.}$$

Final Answer

14 cm

Q.64 If $x = 5 \cos B + 12 \sin B$ and $y = 5 \sin B - 12 \cos B$, then find the value of $x^2 + y^2$.

- A. 169
- B. 144
- C. 225
- D. 196

Answer: A

Sol: Given:

$$x = 5 \cos B + 12 \sin B$$

$$y = 5 \sin B - 12 \cos B$$

Formula Used:

$$\sin^2 B + \cos^2 B = 1$$

$$(a + b)^2 + (a - b)^2 = 2(a^2 + b^2) \text{ (Specifically here applied to terms)}$$

Solution:

$$x^2 = (5 \cos B + 12 \sin B)^2 = 25 \cos^2 B + 144 \sin^2 B + 120 \sin B \cos B$$

$$y^2 = (5 \sin B - 12 \cos B)^2 = 25 \sin^2 B + 144 \cos^2 B - 120 \sin B \cos B$$

Adding both:

$$x^2 + y^2 = 25(\cos^2 B + \sin^2 B) + 144(\sin^2 B + \cos^2 B)$$

$$= 25(1) + 144(1)$$

$$= 169$$

Final Answer

169

Q.65 A right circular cylinder and a sphere have the same radius. What is the ratio of the volume of cylinder (height = $2r$) to that of sphere?

- A. 1:1
- B. 3:4
- C. 3:2
- D. 2:3

Answer: C

Sol: Given:

$$\text{Radius of cylinder} = \text{Radius of sphere} = r$$

$$\text{Height of cylinder}(h) = 2r$$

Formula Used:

$$\text{Volume of Cylinder} = \pi r^2 h$$

$$\text{Volume of Sphere} = \frac{4}{3} \pi r^3$$

Solution:

$$\text{Volume of Cylinder} = \pi r^2(2r) = 2\pi r^3$$

$$\begin{aligned} \text{Ratio} &= \frac{\text{Volume of Cylinder}}{\text{Volume of Sphere}} = \frac{2\pi r^3}{\frac{4}{3}\pi r^3} \\ &= \frac{2}{4/3} = \frac{6}{4} = 3 : 2 \end{aligned}$$

Final Answer

3 : 2

Q.66 If a pyramid is inscribed inside a rectangular prism of the same base and height, what is the ratio of the volume of the pyramid to that of the prism?

- A. 1:3
- B. 1:2
- C. 2:3
- D. 3:4

Answer: A

Sol: Given:

A pyramid and a prism have the same base Area (A) and Height (h).

Formula Used:

$$\text{Volume of Prism} = A \times h$$

$$\text{Volume of Pyramid} = \frac{1}{3}A \times h$$

Solution:

$$\begin{aligned} \text{Ratio} &= \frac{\text{Volume of Pyramid}}{\text{Volume of Prism}} \\ &= \frac{\frac{1}{3}Ah}{Ah} \\ &= \frac{1}{3} \end{aligned}$$

Final Answer

1 : 3

Q.67 Which of the following is the set that contains the natural numbers as a subset?

- A. Negative integers
- B. Whole numbers
- C. All integers
- D. Rational numbers

Answer: B

Sol: Given:

Sets of numbers: Negative integers, Whole numbers, Integers, Rational numbers.

Concept Used:

Definition of Number Sets.

Solution:

The set of Natural numbers (N) is defined as $\{1, 2, 3, \dots\}$.

The set of Whole numbers (W) is defined as $\{0, 1, 2, 3, \dots\}$.

The set of Integers (Z) includes negative numbers, zero, and positive numbers.

Rational numbers (Q) include fractions and integers.

Among the options, Natural numbers are a subset of Whole numbers, Integers, and Rational numbers. The option 'Whole numbers'

Final Answer

Whole numbers

Q.68 X started a business with ₹25,000. Y joined after 3 months with ₹35,000. At the end of the year, what is their profit-sharing ratio?

- A. 12:7
- B. 25:35
- C. 20:21
- D. 10:7

Answer: C

Sol: Given:

X's investment = ₹25,000 for 12 months.

Y's investment = ₹35,000 for $(12 - 3) = 9$ months.

Concept Used:

Ratio of Profit = $(\text{Investment}_X \times \text{Time}_X) : (\text{Investment}_Y \times \text{Time}_Y)$

Solution:

Ratio = $(25,000 \times 12) : (35,000 \times 9)$

= 3,00,000 : 3,15,000

= 300 : 315

Dividing by 15:

= 20 : 21

Final Answer

20 : 21

Q.69 If the graph of a linear equation passes through (0, 5) and has a slope 2, what is its equation?

- A. $y = 2x - 5$
- B. $y = 2x + 5$
- C. $y = -2x + 5$
- D. $y = -2x - 5$

Answer: B

Sol: Given:

Point (0, 5) \Rightarrow y-intercept $c = 5$.

Slope $m = 2$.

Formula Used:

$y = mx + c$

Solution:

Substituting values:

$$y = 2x + 5$$

Final Answer

$$y = 2x + 5$$

Q.70 The ratio of two angles of a triangle is 2:7. If the third angle is 30% more than the sum of the first two angles, then find the largest angle.

- A. 105°
- B. 101.7°
- C. 125°
- D. 135.5°

Answer: B

Sol: Given:

Angles A and B are in ratio 2:7.

$$\text{Angle } C = 1.3 \times (A + B)$$

Formula Used:

$$\text{Sum of angles in triangle} = 180^\circ$$

Solution:

$$\text{Let } A = 2x, B = 7x.$$

$$\text{Sum } (A + B) = 9x.$$

$$C = 9x + 30\% \text{ of } 9x = 1.3 \times 9x = 11.7x$$

$$A + B + C = 180^\circ$$

$$9x + 11.7x = 180$$

$$20.7x = 180$$

$$x = \frac{180}{20.7} \approx 8.696$$

Largest Angle is C:

$$C = 11.7 \times 8.696 \approx 101.7^\circ$$

Final Answer

$$101.7^\circ$$

Q.71 P and Q invest ₹60,000 and ₹45,000 respectively. After 4 months, P withdraws all of his capital. At the end of the year, what is their profit-sharing ratio?

- A. 8:3
- B. 4:9
- C. 4:3
- D. 5:4

Answer: B

Sol: Given:

P's investment = ₹60,000 for 4 months.

Q's investment = ₹45,000 for 12 months.

Concept Used:

Ratio of Profit = Investment \times Time Period

Solution:

P's equivalent capital = $60,000 \times 4 = 2,40,000$

Q's equivalent capital = $45,000 \times 12 = 5,40,000$

Ratio P : Q = $2,40,000 : 5,40,000$

= $24 : 54$

= $4 : 9$

Final Answer

$4 : 9$

Q.72 A ceramic manufacturer produces solid blocks with a rectangular base of $12\text{ cm} \times 8\text{ cm}$ and height 20 cm . If the selling price is $\text{₹}0.80$ per cm^3 and the cost price is $\text{₹}0.50$ per cm^3 , what is the total profit earned on selling 10 such blocks?

- A. ₹4800
- B. ₹5760
- C. ₹6400
- D. ₹7200

Answer: B

Sol: Given:

Dimensions = $12\text{ cm} \times 8\text{ cm} \times 20\text{ cm}$

Selling Price (SP) = $\text{₹}0.80/\text{cm}^3$

Cost Price (CP) = $\text{₹}0.50/\text{cm}^3$

Quantity = 10 blocks

Formula Used:

Profit = $(\text{SP} - \text{CP}) \times \text{Volume} \times \text{Quantity}$

Solution:

Volume of one block = $12 \times 8 \times 20 = 1920\text{ cm}^3$

Profit per $\text{cm}^3 = 0.80 - 0.50 = \text{₹}0.30$

Total Profit = $1920 \times 0.30 \times 10$

Total Profit = $576 \times 10 = \text{₹}5760$

Final Answer

₹5760

Q.73 M can complete the work in 10 days, N in 12 days, and O in 15 days. They work in the following manner: On the first day M works, On the second day N works, On the third day O works. The cycle repeats in the same order. In how many days will the work be completed?

- A. 8 days
- B. 10 days
- C. 12 days
- D. 14 days

Answer: C

Sol: Given:

$$M = 10, N = 12, O = 15.$$

Cycle: M, then N, then O.

Solution:

$$\text{Total Work} = \text{LCM}(10, 12, 15) = 60 \text{ units.}$$

$$\text{Efficiencies: } M = 6, N = 5, O = 4.$$

$$\text{Work in 1 cycle (3 days)} = 6 + 5 + 4 = 15 \text{ units.}$$

$$\text{Cycles needed} = \frac{60}{15} = 4.$$

$$\text{Total Days} = 4 \times 3 = 12 \text{ days.}$$

Final Answer

12 days

Q.74 The point that is equidistant from all three vertices of a triangle is:

- A. Incenter
- B. Centroid
- C. Circumcenter
- D. Orthocenter

Answer: C

Sol: Given:

A point equidistant from all three vertices of a triangle.

Concept Used:

Properties of Triangle Centers.

Solution:

The Circumcenter is the point of intersection of the perpendicular bisectors of the sides.

By definition, the Circumcenter is equidistant from all three vertices of the triangle, and it is the center of the circumcircle passing through all three vertices.

Final Answer

Circumcenter

Q.75 A right prism has a base that is a regular triangle of side 8 cm. The height of the prism is 15 cm. A cylindrical hole of diameter 3 cm is drilled vertically through the center of the prism from top to bottom. Calculate the volume of the material remaining in the prism.

- A. 305.7 cm³
- B. 105.3 cm³
- C. 309.7 cm³
- D. 995.8 cm³

Answer: C

Sol: Given:

$$\text{Side of triangular base (} a \text{)} = 8 \text{ cm}$$

$$\text{Height of prism (} H \text{)} = 15 \text{ cm}$$

Diameter of cylindrical hole (d) = 3 cm \Rightarrow Radius (r) = 1.5 cm

Concept Used:

Volume of Prism = Base Area \times Height

Volume of Cylinder = $\pi r^2 h$

Solution:

the volume of the solid prism.

$$\text{Base Area} = \frac{\sqrt{3}}{4} a^2 = \frac{\sqrt{3}}{4} (8)^2 = 16\sqrt{3} \text{ cm}^2$$

$$\text{Volume of Prism} = 16\sqrt{3} \times 15 = 240\sqrt{3} \approx 415.7 \text{ cm}^3$$

the volume of the cylindrical hole.

$$\text{Volume of Cylinder} = \pi (1.5)^2 (15) = 3.14159 \times 2.25 \times 15 \approx 106.0 \text{ cm}^3$$

$$\text{Remaining Volume} = 415.7 - 106.0 = 309.7 \text{ cm}^3$$

Final Answer

309.7 cm³

Q.76 The oath of office to the Chief Minister of a State is administered by whom?

- A. President of India
- B. Governor of the State
- C. Chief Justice of India
- D. Speaker of the Legislative Assembly

Answer: B

Sol: The correct answer is **(B) Governor of the State**

Explanation:

- According to Article 164 of the Indian Constitution, the Chief Minister is appointed by the Governor.
- Before entering office, the Governor administers the oaths of office and secrecy to the Chief Minister.
- The Governor acts as the constitutional head of the state.

Information Booster:

- The forms of oath are mentioned in the Third Schedule of the Constitution.
- The Chief Minister holds office during the pleasure of the Governor, though practically as long as they enjoy a majority in the assembly.

Additional Knowledge:

- President of India (Option A): Administers the oath to the Prime Minister and Union Ministers.
- Speaker (Option D): Administers the oath to the members of the Legislative Assembly (MLAs).

Q.77 In early medieval India, land grants given to religious scholars were generally recorded on:

- A. Stone pillars
- B. Palm-leaf manuscripts
- C. Copper plates
- D. Wooden boards

Answer: C

Sol: The correct answer is **(C) Copper plates**

Explanation:

- In early medieval India, land grants (often called 'Agraharas' or 'Brahmadeyas') given to Brahmins or religious institutions were recorded on copper plates (Tamrapatra).
- These served as permanent legal documents and title deeds.

Information Booster:

- The inscriptions on these plates usually included the genealogy of the donor (king), details of the donee, and the specific rights granted.
- They were meant to last for generations, unlike perishable materials.

Additional Knowledge:

- Palm-leaf manuscripts (Option B): Were used for writing literary, scientific, and religious texts, but were too fragile for permanent land records.
- Stone pillars (Option A): Were used for royal edicts (like Ashoka's) but less commonly for individual land transactions in this period.

Q.78 Which ruler is credited with introducing the Persian system of land measurement in India?

- A. Babur
- B. Akbar
- C. Sher Shah Suri
- D. Humayun

Answer: C

Sol: The correct answer is **(C) Sher Shah Suri**

Explanation:

- Sher Shah Suri is credited with introducing a systematic method of land measurement in India for revenue purposes.
- He introduced the 'Gaz-i-Sikandari' (Sikandar's yard), which was approximately 32 inches, as the standard unit.

Information Booster:

- His land revenue system was known as 'Zabt'.
- This system laid the foundation for the agrarian administration later adopted and refined by Akbar.

Additional Knowledge:

- Akbar (Option B): Adopted Sher Shah's system and further improved it with the help of Raja Todar Mal (Dahsala System).

Q.79 The Integrated Check Post (ICP) at Raxaul connects India with which country?

- A. Bhutan
- B. Bangladesh
- C. Nepal
- D. Myanmar

Answer: C

Sol: The correct answer is **(C) Nepal**

Explanation:

- The Integrated Check Post (ICP) at Raxaul is located in Bihar on the India-Nepal border.
- It connects to Birgunj in Nepal and acts as a major gateway for bilateral trade and transit.

Information Booster:

- Around 40% of India-Nepal trade passes through the Raxaul-Birgunj route.
- Other ICPs with Nepal include Jogbani-Biratnagar.

Additional Knowledge:

- Bangladesh (Option B): Connected via ICPs like Petrapole-Benapole.
- Myanmar (Option D): Connected via Moreh ICP.

Q.80 The Mumbai–Ahmedabad High-Speed Rail project is being implemented by which Indian organisation?

- A. Indian Railways
- B. IRCON
- C. NHSRCL
- D. RITES

Answer: C

Sol: The correct answer is **(C) NHSRCL**

Explanation:

- The National High Speed Rail Corporation Limited (NHSRCL) is the implementing agency for the Mumbai–Ahmedabad High-Speed Rail Corridor.

- It is a Special Purpose Vehicle (SPV) incorporated for this specific purpose.

Information Booster:

- NHRCL is a joint venture between the Government of India and the participating State Governments (Gujarat and Maharashtra).
- The project employs Japanese Shinkansen technology.

Additional Knowledge:

- IRCON and RITES (Options B & D): These are PSUs under the Ministry of Railways involved in construction and consultancy but are not the primary agency for the Bullet Train project.

Q.81 Who was the first Indian woman to become a Fellow of the Royal Society (FRS), London?

- A. Bibha Chowdhury
- B. Asima Chatterjee
- C. Anna Mani
- D. Gagandeep Kang

Answer: D

Sol: The correct answer is (d) Gagandeep Kang

Explanation:

- Gagandeep Kang became the first Indian woman to be elected as a Fellow of the Royal Society (FRS), London, in 2019.
- She was elected for her pioneering research on enteric infections and childhood diseases in India.
- Her work significantly contributed to understanding disease transmission, vaccine development, and public health in low-resource settings.
- The Fellowship of the Royal Society is one of the highest scientific honors in the world.

Information Booster:

- The Royal Society was founded in 1660 and is the oldest scientific academy in continuous existence.
- Fellows are elected based on substantial contributions to scientific knowledge.

Additional Knowledge:

Bibha Chowdhury (Option a)

- First woman scientist at TIFR.
- Known for pioneering work in cosmic rays and particle physics.

Asima Chatterjee (Option b)

- First Indian woman to receive a D.Sc. from an Indian university.
- Renowned for contributions to anti-malarial and anti-epileptic drugs.

Anna Mani (Option c)

- Eminent physicist and meteorologist.
- Played a key role in developing meteorological instrumentation and solar radiation research in India.

Q.82 Which Prime Minister of India signed the Indo-Sri Lanka Accord (1987)?

- A. Indira Gandhi
- B. Rajiv Gandhi
- C. V.P. Singh
- D. P.V. Narasimha Rao

Answer: B

Sol: The correct answer is **(B) Rajiv Gandhi**

Explanation:

- The Indo-Sri Lanka Accord was signed on July 29, 1987.
- It was signed by Indian Prime Minister Rajiv Gandhi and Sri Lankan President J.R. Jayewardene in Colombo.

Information Booster:

- The accord aimed to resolve the Sri Lankan Civil War by addressing Tamil grievances.
- It led to the introduction of the 13th Amendment to the Sri Lankan Constitution and the deployment of the Indian Peace Keeping Force (IPKF).

Additional Knowledge:

- Indira Gandhi (Option A): Was assassinated in 1984, before this accord.
- V.P. Singh (Option C): Withdrew the IPKF from Sri Lanka during his tenure (1989-90).

Q.83 Bharatiya Nyaya Sanhita, 2023, replaced which colonial-era law?

- A. Code of Civil Procedure
- B. Indian Penal Code
- C. Criminal Procedure Code
- D. Evidence Act

Answer: B

Sol: The correct answer is **(B) Indian Penal Code**

Explanation:

- The Bharatiya Nyaya Sanhita (BNS), 2023, replaced the Indian Penal Code (IPC), 1860.
- The new law aims to decolonize the justice system and address modern crimes like cybercrime and terrorism.

Information Booster:

- Along with BNS, the Bharatiya Nagarik Suraksha Sanhita (replaced CrPC) and Bharatiya Sakshya Adhinyam (replaced Evidence Act) were also enacted.
- These laws came into effect on July 1, 2024.

Additional Knowledge:

- Evidence Act (Option D): Replaced by Bharatiya Sakshya Adhinyam.

Q.84 ULLAS scheme aims to achieve full literacy by which year?

- A. 2025
- B. 2027
- C. 2030
- D. 2035

Answer: C

Sol: The correct answer is (c) 2030

Explanation:

- ULLAS stands for Understanding Lifelong Learning for All in Society.
- The scheme is also known as Nav Bharat Saaksharta Karyakram (New India Literacy Programme).

- It is aligned with National Education Policy (NEP) 2020 and Sustainable Development Goal-4 (SDG-4).
- SDG-4 targets achieving universal literacy and numeracy for all youth and adults by 2030.
- Hence, the ULLAS scheme aims to achieve full literacy by the year 2030.

Information Booster:

- The scheme targets non-literate persons aged 15 years and above.
- A State/UT is considered "fully literate" when it attains 95% literacy under ULLAS norms.

Q.85 Which tournament is regarded as the oldest football competition in Asia?

- A. Federation Cup
- B. Santosh Trophy
- C. Durand Cup
- D. Subroto Cup

Answer: C

Sol: The correct answer is **(C) Durand Cup**

Explanation:

- The Durand Cup was established in 1888, making it the oldest football tournament in Asia.
- It is also the third oldest football competition in the world.

Information Booster:

- The first edition was held in Shimla.
- The tournament is organized by the Indian Armed Forces.

Additional Knowledge:

- Santosh Trophy (Option B): The national state-level championship started in 1941.
- Subroto Cup (Option D): An inter-school football tournament.

Q.86 Which country hosted the ICC Men's T20 World Cup 2024 final?

- A. USA
- B. England
- C. Australia
- D. West Indies

Answer: D

Sol: The correct answer is **(D) West Indies**

Explanation:

- The final of the ICC Men's T20 World Cup 2024 was played at the Kensington Oval in Bridgetown, Barbados.
- Barbados is part of the West Indies cricket board.

Information Booster:

- The tournament was co-hosted by the USA and the West Indies.
- India won the tournament by defeating South Africa in the final.

Additional Knowledge:

- USA (Option A): Hosted several group stage matches, including the high-profile India vs Pakistan match in New York.

Q.87 Which team finished runners-up in the Ranji Trophy 2024-25 season?

- A. Tamil Nadu

- B. Kerala
- C. Delhi
- D. Mumbai

Answer: B

Sol: The correct answer is **(B) Kerala**

Explanation:

- According to the results of the Ranji Trophy 2024–25 season, Kerala reached the final but was defeated.
- Finishing second in the final makes them the runners-up for the season.

Information Booster:

- The Ranji Trophy is India's premier domestic first-class cricket championship.
- Mumbai is historically the most successful team in Ranji history.

Q.88 Keoladeo National Park, a Ramsar site, is located in which state?

- A. Uttar Pradesh
- B. Madhya Pradesh
- C. Rajasthan
- D. Gujarat

Answer: C

Sol: The correct answer is **(C) Rajasthan**

Explanation:

- Keoladeo National Park is located in Bharatpur, Rajasthan.
- It was formerly known as the Bharatpur Bird Sanctuary.

Information Booster:

- It is a UNESCO World Heritage Site (1985) and a Ramsar Wetland site.
- It is famous for hosting thousands of birds, including migratory species like the Siberian Crane, during the winter.

Additional Knowledge:

- Madhya Pradesh (Option B): Has the highest number of National Parks in India (e.g., Kanha, Bandhavgarh).

Q.89 Which city will host the Commonwealth Games 2026?

- A. London
- B. Glasgow
- C. Manchester
- D. Cardiff

Answer: B

Sol: The correct answer is **(B) Glasgow**

Explanation:

- Glasgow, Scotland, has been selected to host the 2026 Commonwealth Games.
- This decision came after the Australian state of Victoria withdrew as the host due to rising costs.

Information Booster:

- The 2026 Games will be a scaled-down version, featuring fewer sports than usual to manage costs.
- Glasgow previously hosted the Commonwealth Games successfully in 2014.

Additional Knowledge:

- London (Option A): Hosted the 2012 Olympics but not the upcoming CWG.

Q.90 Santosh Trophy is associated with which sport?

- A. Hockey
- B. Cricket
- C. Football
- D. Badminton

Answer: C

Sol: The correct answer is (c) Football

Explanation:

- Santosh Trophy is a prestigious annual domestic football tournament in India.
- It is contested by state teams and government institutions such as Services and Railways.
- The tournament is organized by the All India Football Federation (AIFF).
- It was instituted in 1941 by Sir Manmatha Nath Roy Chowdhury, the Maharaja of Santosh.
- The competition has played a major role in developing grassroots football in India.

Information Booster:

- Santosh Trophy is one of the oldest football tournaments in India.
- West Bengal is the most successful team in the history of the Santosh Trophy.

Additional Knowledge:

Hockey (Option a)

- Major hockey tournaments include the Hockey World Cup and Sultan Azlan Shah Cup.
- Santosh Trophy has no association with hockey.

Cricket (Option b)

- Domestic cricket tournaments include Ranji Trophy and Vijay Hazare Trophy.
- Santosh Trophy is not related to cricket.

Badminton (Option d)

- Badminton tournaments include Thomas Cup and Uber Cup.
- Santosh Trophy is exclusively a football tournament.

Q.91 Which of the following statements is correct regarding the Red Fort, Delhi?

- I. It was constructed by Emperor Shah Jahan.
 - II. It is located in Agra, Uttar Pradesh.
- A. Only I
 - B. Only II
 - C. Both I and II
 - D. Neither I nor II

Answer: A

Sol: The correct answer is **(A) Only I**

Explanation:

- Statement I is Correct: The Red Fort (Lal Qila) in Delhi was commissioned by Mughal Emperor Shah Jahan in 1639 when he shifted his capital from Agra to Delhi (Shahjahanabad).
- Statement II is Incorrect: The Red Fort is located in Old Delhi. The famous fort in Agra is the Agra Fort, built primarily by Akbar.

Information Booster:

- The Red Fort is made of red sandstone.
- The Prime Minister of India hoists the national flag here on Independence Day.

Additional Knowledge:

- Both Agra Fort and Red Fort are UNESCO World Heritage Sites.

Q.92 'Laho Dance' is traditionally performed by which tribe?

- A. Khasi
- B. Garo
- C. Jaintia
- D. Mizo

Answer: C

Sol: The correct answer is **(C) Jaintia**

Explanation:

- 'Laho Dance' is a traditional folk dance of the Jaintia (Pnar) tribe of Meghalaya.
- It is performed as part of the Behdienkhlam festival rituals to seek divine blessings.

Information Booster:

- In this dance, a woman dances flanked by two men on either side, linking arms.
- It is also referred to as the 'Chipiah Dance'.

Additional Knowledge:

- Khasi (Option A): Famous for the 'Nongkrem' dance.
- Mizo (Option D): Famous for the 'Cheraw' (Bamboo) dance.

Q.93 The folk dance 'Hojagiri' belongs to which state?

- A. Assam
- B. Tripura
- C. Mizoram
- D. Manipur

Answer: B

Sol: The correct answer is **(B) Tripura**

Explanation:

- Hojagiri is the most famous folk dance of Tripura.
- It is performed by the Reang (Bru) community.

Information Booster:

- The dance is characterized by the balancing of objects like bottles or earthen lamps on the head while moving the lower body rhythmically.
- It is usually performed during the harvest festival or Laxmi Puja.

Additional Knowledge:

- Assam (Option A): Famous for Bihu.
- Manipur (Option D): Famous for Manipuri Raas Leela (Classical dance).

Q.94 Light from the Moon takes approximately how much time to reach Earth?

- A. 1.3 seconds
- B. 8.3 minutes
- C. 2.5 seconds

D. 60 seconds

Answer: A

Sol: The correct answer is (a) 1.3 seconds

Explanation:

- The average distance between the Earth and the Moon is about 384,400 km.
- The speed of light is approximately 300,000 km per second.
- Time taken = Distance \div Speed of light.
- $384,400 \div 300,000 \approx 1.28$ seconds.
- Hence, light from the Moon reaches Earth in about 1.3 seconds.

Information Booster:

- Light travels at a constant speed in vacuum, known as the universal speed limit.
- Astronomical distances are often measured using light-time (seconds, minutes, years).

Additional Knowledge:

8.3 minutes (Option b)

- This is the approximate time taken by sunlight to reach Earth from the Sun.

2.5 seconds (Option c)

- This overestimates the actual light travel time from the Moon.

60 seconds (Option d)

- This is far greater than the actual time taken by moonlight to reach Earth.

Q.95 How many Lagrange points exist in a two-body system?

- A. Three
- B. Four
- C. Five
- D. Six

Answer: C

Sol: The correct answer is **(C) Five**

Explanation:

- There are five Lagrange points in the orbital configuration of two large bodies.
- They are labeled L1, L2, L3, L4, and L5.

Information Booster:

- These are points of equilibrium where the gravitational forces of the two large bodies and the centrifugal force balance each other.
- Satellites placed at these points can stay in a fixed position relative to the two bodies with minimal fuel consumption.
- Aditya-L1 is placed at the L1 point of the Sun-Earth system.

Additional Knowledge:

- L1, L2, and L3 are unstable equilibrium points, while L4 and L5 are stable.

Q.96 A body continues to remain at rest or moves with constant velocity unless acted upon by an external force. This statement describes:

- A. Law of conservation of energy
- B. Newton's first law of motion
- C. Newton's second law of motion
- D. Law of gravitation

Answer: B

Sol: The correct answer is **(B) Newton's first law of motion**

Explanation:

- Newton's First Law is also known as the Law of Inertia.
- It states that an object will not change its motion (speed or direction) unless a force acts on it.

Information Booster:

- Inertia is the inherent property of a body that resists any change in its state of rest or motion.
- Mass is the quantitative measure of inertia; heavier objects have greater inertia.

Additional Knowledge:

- Newton's Second Law (Option C): Relates Force, Mass, and Acceleration ($F = ma$).
- Conservation of Energy (Option A): Energy cannot be created or destroyed, only transformed.

Q.97 India's National Quantum Mission was approved in which year?

- A. 2021
- B. 2022
- C. 2023
- D. 2024

Answer: C

Sol: The correct answer is **(C) 2023**

Explanation:

- The Union Cabinet approved the National Quantum Mission (NQM) in April 2023.
- The mission has a total outlay of over ₹6,000 crore.

Information Booster:

- The mission aims to seed, nurture, and scale up scientific and industrial R&D in Quantum Technology.
- It targets the development of intermediate-scale quantum computers with 50-1000 physical qubits in 8 years.

Additional Knowledge:

- India is the seventh country to have a dedicated mission for quantum technology.

Q.98 The Permanent Settlement was introduced during the Governor-Generalship of:

- A. Warren Hastings
- B. Lord Cornwallis
- C. Lord Wellesley
- D. Lord Dalhousie

Answer: B

Sol: The correct answer is **(B) Lord Cornwallis**

Explanation:

- The Permanent Settlement of Bengal was introduced by Lord Cornwallis in 1793.
- It created a class of Zamindars who were recognized as the owners of the land.

Information Booster:

- Under this system, the land revenue was fixed permanently and was not to be increased in the future.
- It was primarily implemented in Bengal, Bihar, and Odisha.

Additional Knowledge:

- Lord Wellesley (Option C): Introduced the Subsidiary Alliance system.
- Warren Hastings (Option A): Was the first Governor-General of Bengal.

Q.99 Which organ secretes bile juice in humans?

- A. Pancreas
- B. Stomach
- C. Liver
- D. Gall bladder

Answer: C

Sol: The correct answer is **(C) Liver**

Explanation:

- Bile juice is a greenish-yellow fluid produced and secreted by the Liver.
- It is essential for the digestion of fats.

Information Booster:

- Although the liver produces bile, it is stored and concentrated in the Gallbladder (Option D) before being released into the small intestine.
- Bile contains bile salts that emulsify fats, making them easier for enzymes to break down.

Additional Knowledge:

- Pancreas (Option A): Secretes insulin and glucagon (hormones) as well as digestive enzymes.

Q.100 Which crop was widely cultivated by the Harappans besides wheat and barley?

- A. Rice
- B. Cotton
- C. Sugarcane
- D. Maize

Answer: B

Sol: The correct answer is **(B) Cotton**

Explanation:

- The Harappans (Indus Valley Civilization) are believed to be the first people to cultivate Cotton.
- Pieces of woven cotton cloth were discovered at Mohenjodaro.

Information Booster:

- The Greeks referred to cotton as 'Sindon', derived from the word 'Sindh', indicating its origin.
- Wheat and Barley were the main food crops, but cotton was a vital commercial crop.

Additional Knowledge:

- Rice (Option A): Evidence of rice cultivation (like rice husks) is found in Lothal and Rangpur but was less common than wheat/barley.
 - Sugarcane (Option C): Was not known to the Harappans.
-