JEECUP 2024 Group D Polytechnic Question Paper with Solution

Time Allowed :3 Hours	**Maximum Marks :**80	**Total Questions :**16

General Instructions

Read the following carefully and follow them strictly:

The paper consists of **100 multiple-choice questions (MCQs)**. For each correct answer, **+4 marks** will be awarded, and for each incorrect answer,**-1 mark** will be deducted.

2. If a candidate fills more than one circle for a question, the answer will be considered **invalid**.
3. The OMR answer sheet instructions will be given separately. Follow these instructions carefully, and ensure that all entries and circles are filled with a **ballpoint pen**.
4. Candidates must follow all instructions given by the **Centre Superintendent, Invigilator, or Board Authorities**. Failure to do so, or engaging in misconduct, such as tearing the question paper, exchanging written materials, or assisting others, will result in cancellation of the exam.
5. The use of **log tables, electronic calculators, pagers, mobile phones, and slide rules** is strictly prohibited during the examination.
6. The answer sheet should be filled carefully with a **ballpoint pen**. Make sure to mark the correct answer, as no changes will be allowed once the circle is filled.
7. After the examination, candidates may keep the question paper, but the answer sheet should be submitted as per the instructions.

Read the given passage carefully and answer questions that follow :
The role of participative plural governance is central to the inclusive growth model that India has instituted. It has led to a growth oriented, investor friendly and sustainable climate for business. India inherited the institutions of democracy at independence then strengthened and reinforced.it. This has enabled citizens to be active participants in governance. The judicial system allows for rule of law and recourse to justice. The media includes news channels, newspapers, journals and the like. Often vocal and noisy the media is one of the main sentinels of democratic process. Human rights are protected by National Human Rights Commission having civil rights activists and groups. Minority group interests are looked after by national commissions for minorities, scheduled castes and scheduled tribes. The Right to Information Act is a milestone legislation for transparency and accountability in governance processes. The Unique Identification Authority has rolled out ID Cards and expects to offer a number of social services. The UID project promises to be a game changer in governance in India. The Indian governance system is federal with responsibilities demarcated among Central and State Governments. While defence, foreign relations and economic management, among other areas rest with the

Central Government, crucial sector such as law and order, education, agriculture, rural development and health are the responsibility of the State Governments. This helps State Governments to experiment novel ideas. The strength and resilience of democracy not only articulates the aspirations of people but also sustains an investor friendly business climate. The governance agenda is constantly evolving and there is high awareness of the need for a more responsive, effective and transparent process. India's growth process under a democratic government is a sustainable, humane and the just path to development.

1. According to the author, what contributes to the inclusive growth model ?
(1) The delegation of powers at various levels in Central Government.
(2) Helping all sections of society in improving their standard of living by distributing items which the people need.
(3) By providing funds to the poor for their felt needs.
(4) By ensuring participative governance at various levels.
Correct Answer: (4) By ensuring participative governance at various levels.

Solution:
The passage explicitly states in the first sentence: "The role of participative plural governance is central to the inclusive growth model that India has instituted."

This directly identifies participative governance as the core contributor.

Option (4) accurately reflects this statement.

Quick Tip

When answering questions about core concepts like "inclusive growth model," look for introductory sentences that define the central mechanism, which is often found near the beginning of the passage.

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2. How has democracy helped in inclusive growth ?
(1) People's representatives are elected by people themselves, who pursue the matters related before the people responsible for it.
(2) The media works as a watch dog and acrs the infirmities in implementation of governance activities.
(3) People can approach the courts for their grievances regarding growth or other issues.
(4) All of the above.
Correct Answer: (4) All of the above.

Solution:
The passage implies that democracy contributes to inclusive growth through multiple mechanisms.

The media acts as a sentinel/watchdog (Option 2).

The judicial system ensures rule of law and recourse to justice (Option 3).

The existence of elected representatives (Option 1) is inherent in the strengthened institutions of democracy mentioned in the text.

Since the benefits of democracy listed in the options are all described or implied in the text, Option (4) is the most comprehensive answer.

Quick Tip

If multiple mechanisms listed in the options are supported by different sections of the text as contributing factors to a broader outcome, choose the option that combines them ("All of the above").

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3. How is the Indian governance system federal ?
(1) Central Government enforces all the needs in States and Union Territories.
(2) The powers of State and Central Government are clearly demarcated to ensure special measures in specific areas of their activity to be implemented by them.
(3) The Central Government gives guidelines on all issues to States who are responsible for their implementation.
(4) None of these.
Correct Answer: (2) The powers of State and Central Government are clearly demarcated to ensure special measures in specific areas of their activity to be implemented by them.

Solution:
The passage states: "The Indian governance system is federal with responsibilities demarcated among Central and State Governments."

It then lists examples of Central (defence, foreign relations) and State (law and order, education) responsibilities.

Option (2) uses the key term "demarcated" (clearly demarcated) and accurately describes the division of powers, which is the essence of federalism described in the text.

Quick Tip

Federalism is defined by the division or separation of powers between different levels of government, often referred to as 'demarcation' of responsibilities.

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4. According to the author, what is desirable regarding growth in a democracy ?
(1) It should take care of the elected representatives by giving them facilities.
(2) It should include participative governance and have effective responsive, humane, sustainable and just processes of development.
(3) The Chief Ministers should be given better means for implementing schemes.
(4) None of the above.
Correct Answer: (2) It should include participative governance and have effective responsive,

humane, sustainable and just processes of development.

Solution:
The passage emphasizes several desirable qualities for growth under democracy.

It starts with "participative plural governance."

It mentions the need for a "more responsive, effective and transparent process."

It concludes by describing India's growth path as "sustainable, humane and the just path to development."

Option (2) integrates all these characteristics—participative, responsive, effective, humane, sustainable, and just—making it the comprehensive desirable vision described by the author.

Quick Tip

Look for comprehensive answers that synthesize multiple key adjectives used throughout the passage to describe the ideal outcome of a process.

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5. The main statement is followed by four sentences. Select a pair of sentences that relate logically with the given statement. Whenever Ram hears a tragedy, he loses sleep.
(a) Ram heard a tragedy.
(b) Ram did not hear a tragedy.
(c) Ram lost sleep.
(d) Ram did not lose sleep.
(1) (c) (d)

(2) (b) (c)
(3) (d) (b)
(4) (a) (d)
Correct Answer: (3) (d) (b)

Solution:
The main statement is a conditional rule: If Ram hears a tragedy (H), then Ram loses sleep (L). $H \to L$.

We are looking for a pair that represents a valid logical deduction.

Option (3) suggests the implication (d) $\to$ (b): If Ram did not lose sleep ($\neg L$), then Ram did not hear a tragedy ($\neg H$).

This is Modus Tollens, or the contrapositive, which is logically equivalent to the original statement and thus a valid deduction.

Quick Tip

In conditional logic ($P \to Q$), the only valid negative deduction is Modus Tollens: denying the consequence (not Q) allows you to deny the antecedent (not P).

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6. Choose the best alternative to complete the sentences. Shyam asked me to keep his secret _____
(1) amongst us
(2) in between us
(3) in myself
(4) to myself
Correct Answer: (4) to myself

Solution:
The phrase needed must express the action of keeping something private, known only to the speaker/listener.

The correct idiomatic expression for retaining information privately is "to myself."

"Keep his secret to myself" means "Keep his secret private from everyone else."

Quick Tip

The standard idiom for reserving something for one's own use or knowledge is "to oneself" (or "to myself" in the first person).

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7. The ideas that these companies used seem so clear with _____ that their rivals will now _____ themselves for not thinking of them first.
(1) technology, hit
(2) new ideas, disparage
(3) the passage of time, curse
(4) hind sight, kick
Correct Answer: (4) hind sight, kick

Solution:
The first blank requires a concept that makes ideas seem obvious only after they have occurred. This concept is "hindsight."

The second blank requires an action expressing regret or self-reproach for having missed the obvious ideas.

"To kick oneself" is an idiom meaning to be angry or annoyed with oneself for a missed opportunity or mistake.

The phrase "clear with hindsight" and the idiom "kick themselves" fit the context perfectly.

Quick Tip

"Hindsight is 20/20" means things are clear only after they happen; linking hindsight with an action of regret (like kicking oneself) forms a coherent statement about missed opportunities.

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8. I am always the first to admit that I have not accomplished everything that I _____ achieve five years ago.
(1) set out to
(2) went to
(3) thought to
(4) thought of
Correct Answer: (1) set out to

Solution:
The sentence requires a phrasal verb meaning "intended to begin" or "planned to achieve."

"Set out to" is the correct idiom for stating an initial purpose or objective.

The phrase means "everything that I intended to achieve" five years ago.

Quick Tip

The phrasal verb "set out to" is appropriate when discussing goals, plans, or intentions initiated in the past but possibly incomplete today.

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9. In India talent is astonishing and it increases _____
(1) each year.
(2) year by year.
(3) annually.
(4) progressively.
Correct Answer: (2) year by year.

Solution:
The sentence describes an increasing trend that occurs sequentially over time.

"Year by year" is the most natural and common way to express continuous, successive change over annual periods.

While (1) and (3) convey annual occurrence, (2) better conveys the steady, ongoing upward trend implied by "increases."

Quick Tip

Use "year by year" (or day by day, month by month) to emphasize a trend or change that is observed across consecutive, successive periods.

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10. This is not the first time that the management has done some _____
(1) tough talk.
(2) tough talking.
(3) firm talk.
(4) firm talking.

Correct Answer: (2) tough talking.

Solution:
The phrase "has done some" often precedes a non-count noun or a gerund phrase used as a noun.

"Tough talking" is an idiomatic noun phrase (a gerund phrase) referring to the activity of holding a strict or serious discussion.

This is the standard and correct idiom in this context.

Quick Tip

When referring to the activity of negotiating or discussing, the gerund form (e.g., 'tough talking,' 'hard bargaining') is usually required, especially following structures like "do some X."

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11. Pair of underlined words are followed by four pairs of words. Choose the pair of words which best expresses the relationship similar to that expressed in the underlined pair of words.
Tree : Trunk
(1) pen : ink
(2) car : chassis
(3) cabin : log
(4) arm : body
Correct Answer: (2) car : chassis

Solution:
The relationship is: The Trunk is the primary structural support and central vertical element of the Tree.

(1) Pen : Ink (Container : Content) - Incorrect.

(2) Car : Chassis: The Chassis is the essential structural framework that supports the entire body and mechanism of the car.

The relationship (structural framework/support to the whole) is parallel.

Quick Tip

Focus on the structural function: the trunk is the rigid, supporting core of the tree, just as the chassis is the rigid, supporting core of the car.

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12. Pair of underlined words are followed by four pairs of words. Choose the pair of words which best expresses the relationship similar to that expressed in the underlined pair of words.
Circle : Arc
(1) line : segment
(2) part : whole
(3) percent : fraction
(4) small : big
Correct Answer: (1) line : segment

Solution:
The relationship is: An Arc is a continuous, curved section or portion of the circumference (boundary) of a Circle.

(1) Line : Segment: A Segment is a continuous, straight section or portion of a Line.

This maintains the mathematical geometric "part of a larger continuous whole" relationship.

(2) Part : Whole is too general; (3) Percentage : Fraction is a numerical relationship.

Quick Tip

In geometric analogies, look for relationships where a defined piece belongs to a larger, related geometric entity (Arc is to Circle boundary as Segment is to Line).

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13. In each of the following sentences, a part of the sentence is underlined. Beneath each sentence four different ways of phrasing the underlined part are indicated. Choose the best alternative among the four.
The customs followed in Sri Lanka are very similar to the South of India.
(1) are very similar to that of the South of India.
(2) often resemble that of South of India.
(3) are very similar to South of India's customs.
(4) are very similar to those followed in the South of India.
Correct Answer: (4) are very similar to those followed in the South of India.

Solution:
The original sentence compares "customs" (plural) to "the South of India" (a place), which is illogical.

We must compare customs to customs.

Option (1) uses "that of" (singular pronoun), which is incorrect for plural "customs."

Option (4) uses the plural demonstrative pronoun "those" to correctly substitute for "the customs."

This achieves a parallel and grammatically precise comparison: customs are similar to those [customs].

Quick Tip

When correcting comparisons involving plural nouns, use the demonstrative pronoun "those followed by" to refer back accurately to the noun being compared.

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14. In each of the following sentences, a part of the sentence is underlined. Beneath each sentence four different ways of phrasing the underlined part are indicated. Choose the best alternative among the four.
If psycho analysis teaches us that we are not internally free, sociology will tell us that there are powerful external constraints on our individual freedom.
(1) Sociology will tell us that powerful external constraints also exist.
(2) Sociology might tell us that there are powerful external constraints.
(3) Sociology might teach us that there are powerful external constraints.
(4) Sociology tells us that there are powerful external constraints.
Correct Answer: (4) Sociology tells us that there are powerful external constraints.

Solution:
The sentence structure requires parallelism in the conditional clause: "If psycho analysis *teaches* us..."

The main clause should use a simple present verb to state the established finding of the second field, sociology.

The original phrase "will tell us" uses the future tense, disrupting the factual nature of the statement.

Option (4) "Sociology tells us" uses the simple present tense, maintaining parallelism and stating a known sociological fact.

Quick Tip

Academic findings or universal facts, especially when contrasted with another fact, should be expressed in the simple present tense for accuracy and grammatical parallelism.

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15. In each of the following sentences, a part of the sentence is underlined. Beneath each sentence four different ways of phrasing the underlined part are indicated. Choose the best alternative among the four.
Of the many decisions facing the new government, as it meets to decide on new policies for the new budget, the question of taxation of agricultural produce is in all certainty most important
(1) appears to be the most important.
(2) is certainly the most important.
(3) seems to be in all certainty most important.
(4) seems to be certainty most important.
Correct Answer: (2) is certainly the most important.

Solution:
The phrase "in all certainty" is unnecessarily wordy and unidiomatic.

To express absolute importance, the adverb "certainly" is sufficient.

Option (2) "is certainly the most important" is the most concise, emphatic, and grammatically correct way to convey the intended meaning.

Quick Tip

In formal writing, avoid redundant phrases like "in all certainty" and use the single adverb "certainly" to express high confidence or emphasis.

(16-20) दिये गये अवतरण को ध्यानपूर्वक पढ़िये और उस पर आधारित प्रश्नों के उत्तर दिये गये विकल्पों में से चुनिये :
ऐसा माना जाता है कि परम्परा अब तक के सभी आचार-विचारों का जमाव है । सभी पुरानी बातें परम्परा कह दी जाती हैं जब कि सत्य यह है कि परम्परा भी एक गतिशील प्रक्रिया की देन है परम्परा का

शब्दार्थ है एक से दूसरे को, दूसरे से तीसरे को दिया जाने वाला क्रम । पर परम्परा से हमें समूचा अतीत नहीं प्राप्त होता । उसका निरन्तर निखरता, छँटता, बदलता रूप प्राप्त होता है । उसके आधार पर हम आगे की जीवन पद्धति को रूप देते हैं। इस प्रकार परम्परा का अर्थ विशुद्ध अतीत नहीं है । वह एक निरन्तर गतिशील जीवन्त प्रक्रिया है । खड़ा पैर परम्परा है, और चलता पैर आधुनिकता । इसी के समान्तर आधुनिकता का अर्थ क्या केवल समय सापेक्ष है ? इस समय जो कुछ है क्या वही आधुनिक है ? ऐसा नहीं है । हम बराबर देखते हैं कि कुछ बातें इस समय ऐसी हैं जो आधुनिक नहीं हैं बल्कि मध्यकालीन हैं । वस्तुतः मनुष्य ने अनुभवों द्वारा जिन गहनीय मूल्यों को उपलब्ध किया है, उन्हें नये संदर्भ में देखने की दृष्टि आधुनिकता है । यह एक गतिशील प्रक्रिया है । सन्दर्भ बदल रहे हैं क्योंकि नई जानकारियों से नए साधन और नए उत्पादन सुलभ होते जा रहे हैं। नई सामग्रियाँ और नए कौशल नवीन संदर्भों की रचना कर रहे हैं । आधुनिकता ज्ञान की अत्याधुनिक उपलब्धियों के आलोक में रूप ग्रहण करने का प्रयास कोई भी आधुनिक विचार आसमान में नहीं पैदा होता । सबकी जड़ परम्परा में गहराई तक गई हुई है । सुन्दर से सुन्दर फूल यह दावा नहीं कर सकता कि वह पेड़ से भिन्न होने के कारण उससे एकदम अलग है । इसी प्रकार कोई भी आधुनिक विचार यह दावा नहीं कर सकता कि वह परम्परा से कटा हुआ है। कार्य-करण के रूप में, आधार आधेय के रूप में परम्परा की एक शृंखला अतीत में गहराई तक, बहुत गहराई तक गई हुई है ।

16. आधुनिकता और परम्परा में कैसा सम्बन्ध है ?
(1) अजर-अमर
(2) आकांक्षी
(3) विशिष्ट
(4) अविच्छिन्न
Correct Answer: (4) अविच्छिन्न

Solution:
गद्यांश के अंतिम पैरा में कहा गया है कि कोई भी आधुनिक विचार... परम्परा से कटा हुआ है ऐसा दावा नहीं कर सकता।

इसके बजाय, यह आधार-आधेय के रूप में परम्परा की एक शृंखला है जो गहराई तक गई हुई है।

यह सम्बन्ध अलगाव रहित और निरंतर होता है, जिसे अविच्छिन्न (न टूटने वाला) कहा जाता है।

Quick Tip

अविच्छिन्न शब्द एक ऐसे सम्बन्ध को दर्शाता है जो निरंतर, अटूट और मूलभूत रूप से जुड़ा हुआ हो, जैसा कि परम्परा और आधुनिकता के बीच दर्शाया गया है।

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17. आधुनिकता एक गतिशील प्रक्रिया है, क्योंकि
(1) गति ही जीवन है ।
(2) समय गतिशील है ।

(3) ज्ञान का विकास, चिन्तन प्रक्रिया को निरन्तर बदलता रहता है ।
(4) युग परिवर्तन की प्रक्रिया सतत गतिशील रहती है ।
Correct Answer: (3) ज्ञान का विकास, चिन्तन प्रक्रिया को निरन्तर बदलता रहता है ।

Solution:
दूसरे पैरा में बताया गया है कि आधुनिकता एक गतिशील प्रक्रिया है क्योंकि सन्दर्भ बदल रहे हैं।

सन्दर्भ बदलने का कारण है : नई जानकारियों से नए साधन और नए उत्पादन सुलभ होते जा रहे हैं।

नई जानकारी और ज्ञान का विकास (ज्ञान का विकास) ही चिंतन प्रक्रिया को निरंतर बदलकर आधुनिकता को गतिशील बनाए रखता है।

Quick Tip

आधुनिकता की गतिशीलता का मुख्य कारण ज्ञान और सूचना का निरंतर विस्तार है, जो संदर्भों और सोचने के तरीकों को बदल देता है।

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18. परम्परा का महत्त्व अक्षुण्ण क्यों है ?
(1) क्योंकि उसमें मनुष्य का इतिहास सुरक्षित है ।
(2) क्योंकि उसका आधार भविष्य की जीवन पद्धति को रूप देता है ।
(3) क्योंकि उसके साथ व्यक्ति का भावात्मक लगाव होता है ।
(4) वह प्राचीन विचारों का जमाव है ।
Correct Answer: (2) क्योंकि उसका आधार भविष्य की जीवन पद्धति को रूप देता है ।

Solution:
परम्परा की महत्ता पहले पैरा में बताई गई है : परम्परा के निरन्तर निखरता, छँटता, बदलता रूप के आधार पर हम आगे की जीवन पद्धति को रूप देते हैं।

इसका अर्थ है कि परम्परा का महत्त्व इसलिए अक्षुण्ण है क्योंकि वह भविष्य की जीवन पद्धति (जीवन पद्धति) को आकार (रूप देता है) प्रदान करती है।

Quick Tip

परम्परा का महत्त्व अतीत में निहित होने के बजाय उसके वर्तमान और भविष्य के निर्माण में निहित होने के कारण अक्षुण्ण बना रहता है।

19. आधुनिकता से क्या अभिप्राय है ?
(1) वर्तमान समय से जुड़ा होना ।
(2) परम्परा का पूर्ण तिरस्कार ।
(3) परम्परा से अर्जित मूल्यों की नए संदर्भ में परख ।
(4) नये मूल्यों की खोज ।
Correct Answer: (3) परम्परा से अर्जित मूल्यों की नए संदर्भ में परख ।

Solution:
दूसरे पैरा में आधुनिकता को स्पष्ट रूप से परिभाषित किया गया है : मनुष्य ने अनुभवों द्वारा जिन गहनीय मूल्यों को

यहाँ गहनीय मूल्यों को परम्परा से अर्जित मूल्यों के रूप में समझा जा सकता है, और नये संदर्भ में देखने की दृष्टि को परख (जांच) के रूप में।

ऑप्शन (3) इस परिभाषा को सटीक रूप से व्यक्त करता है।

Quick Tip

आधुनिकता केवल समय सापेक्ष नहीं है ; यह परम्परागत मूल्यों को नए समय के आलोक में जाँचने और अपनाने (परख) की प्रक्रिया है।

20. आधुनिकता की मूल अवधारणा बौद्धिक क्यों है ?
(1) क्योंकि आधुनिकता ज्ञान की अत्याधुनिक उपलब्धियों के साथ में विकसित होती है ।
(2) क्योंकि बुद्धि ही आधुनिकता का मार्ग प्रशस्त करती है ।
(3) क्योंकि केवल शिक्षित वर्ग ही आधुनिक होता है।
(4) क्योंकि यह आधुनिक बुद्धिजीवियों का विलास है ।
Correct Answer: (1) क्योंकि आधुनिकता ज्ञान की अत्याधुनिक उपलब्धियों के साथ में विकसित

होती है ।

Solution:
गद्यांश का तीसरा पैरा इस प्रश्न का सीधा उत्तर देता है : आधुनिकता ज्ञान की अत्याधुनिक उपलब्धियों के आलोक

इसका कारण (इसलिए) ज्ञान की अत्याधुनिक उपलब्धियों का सहारा लेना है।

ऑप्शन (1) इस कारण को स्पष्ट रूप से बताता है।

Quick Tip

जहाँ कहीं भी बौद्धिक शब्द का प्रयोग होता है, उसका सीधा संबंध ज्ञान या बुद्धि की श्रेष्ठ उपलब्धियों से होता है।

---

21. (21-23) दिये गये चार विकल्पों में से एक विकल्प में शब्द की शुद्ध वर्तनी दी गई है। उस शुद्ध वर्तनी का चयन करिये :

_____
(1) पुरूशार्थ
(2) पुरशार्थ
(3) पुरुषार्थ
(4) पुरूसार्थ
Correct Answer: (3) पुरुषार्थ

Solution:
शब्द है : पुरुषार्थ (मानवीय प्रयास)।

शुद्ध वर्तनी में 'प' पर छोटे 'उ' की मात्रा (पु), ष (षटकोण वाला श), और रेफ (र् ऊपर) का प्रयोग होता है।

ऑप्शन (3) पुरुषार्थ सही मानक वर्तनी है।

Quick Tip

पुरुषार्थ संस्कृत से लिया गया शब्द है जिसमें ष (retroflex sibilant) का प्रयोग होता है, न कि श (palatal sibilant) का।

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22. (21-23) दिये गये चार विकल्पों में से एक विकल्प में शब्द की शुद्ध वर्तनी दी गई है। उस शुद्ध वर्तनी का चयन करिये :

_____
(1) व्यावसायिक
(2) व्यवसायिक
(3) व्यावासायिक
(4) व्यवासायिक
Correct Answer: (1) व्यावसायिक

Solution:
मूल शब्द व्यवसाय है। जब इसमें -इक प्रत्यय जोड़ा जाता है, तो वृद्धि संधि के नियमानुसार पहले अक्षर व्य का स्वर दीर्घ होकर व्या हो जाता है।

सही शब्द है व्यावसायिक (व्यापार या व्यवसाय से संबंधित)।

ऑप्शन (1) व्यावसायिक सही वर्तनी है।

Quick Tip

संस्कृत और हिंदी में -इक प्रत्यय लगने पर प्रायः मूल शब्द के पहले स्वर में वृद्धि या दीर्घीकरण होता है (जैसे संविधान → सांविधानिक, व्यवसाय → व्यावसायिक)।

---

23. (21-23) दिये गये चार विकल्पों में से एक विकल्प में शब्द की शुद्ध वर्तनी दी गई है। उस शुद्ध वर्तनी का चयन करिये :

_____
(1) सांविधुनिक
(2) संविधानिक
(3) सांविधानिक
(4) संविधनिक
Correct Answer: (3) सांविधानिक

Solution:
मूल शब्द संविधान (Constitution) है।

इसमें -इक प्रत्यय जोड़ने पर, सं का स्वर सां में बदल जाता है (वृद्धि नियम)।

सही शब्द सांविधानिक (संवैधानिक) है।

ऑप्शन (3) सांविधानिक शुद्ध वर्तनी है।

Quick Tip

यह भी -इक प्रत्यय के कारण उत्पन्न हुई वृद्धि संधि का उदाहरण है, जहाँ संविधान का पहला स्वर दीर्घ होकर सां हो जाता है।

(24-25) प्रत्येक मुहावरे के अर्थ के लिए चार विकल्प दिये गये हैं । उनमें से उचित विकल्प का चयन करिए ।

24. अन्न को कन्न करना
(1) नमकहरामी करना
(2) झूठ बोलना
(3) धोखा देना
(4) बनी बात बिगाड़ना
Correct Answer: (4) बनी बात बिगाड़ना

Solution:
अन्न को कन्न करना मुहावरे का अर्थ है किसी अच्छे काम को या जो काम सफलतापूर्वक पूरा होने वाला था, उसे अपनी मूर्खता या गलती से बिगाड़ देना।

ऑप्शन (4) बनी बात बिगाड़ना इस अर्थ को सटीक रूप से व्यक्त करता है।

Quick Tip

मुहावरों में, एक सकारात्मक स्थिति (अन्न) को नकारात्मक (कन्न) में बदलने का भाव 'बने-बनाये काम को नष्ट करना' दर्शाता है।

---

25. गर्दन न उठाना
(1) अधीन होना
(2) लज्जित होना
(3) अपमानित होना
(4) विरोध न करना
Correct Answer: (1) अधीन होना

Solution:
गर्दन न उठाना का शाब्दिक अर्थ है सिर ऊपर न उठा पाना।

यह अक्सर किसी व्यक्ति के पूर्ण नियंत्रण, दासता या प्रभुत्व (अधीनता) में होने का भाव व्यक्त करता है, जहाँ वह विरोध या आत्म-अभिव्यक्ति नहीं कर सकता।

ऑप्शन (1) अधीन होना इस अर्थ के सबसे निकट है।

Quick Tip

यदि कोई व्यक्ति शारीरिक या सामाजिक रूप से गर्दन न उठा पाए, तो यह उसकी पराधीनता या किसी के नियंत्रण में होने (अधीन होना) को दर्शाता है।

---

26. आँख के अंधे _____ नयन सुख
(1) नाक
(2) कान
(3) काम
(4) नाम
Correct Answer: (4) नाम

Solution:
सही लोकोक्ति है : आँख के अंधे, नाम नयन सुख।

अर्थ: व्यक्ति आँखों से अंधा है, लेकिन उसका नाम 'नयन सुख' (आँखों का सुख) है।

यह लोकोक्ति तब प्रयोग की जाती है जब किसी व्यक्ति का नाम उसके गुण या परिस्थिति के ठीक विपरीत हो।

लुप्त शब्द नाम है।

Quick Tip

लोकोक्तियाँ अक्सर विरोधाभास या विडंबना का उपयोग करती हैं, यहाँ अंधे का विरोधाभास नयन सुख नाम से जोड़ा गया है।

---

27. _____ धतूरे सों कहत गहनो गढ़ो न जात
(1) रजत
(2) कनक
(3) कंचन
(4) स्वर्ण
Correct Answer: (2) कनक

Solution:
सही लोकोक्ति है : कनक धतूरे सों कहत गहनो गढ़ो न जात।

यह लोकोक्ति कनक शब्द के दो अर्थों पर आधारित है : सोना (gold) और धतूरा (poisonous weed)।

अर्थ: धतूरे को भी कनक कहते हैं, पर उससे गहने नहीं बनाए जा सकते ; केवल नाम समान होने से मूल्य समान नहीं होता।

लुप्त शब्द कनक है।

Quick Tip

इस लोकोक्ति में यमक अलंकार का प्रयोग होता है, जहाँ एक ही शब्द (कनक) के दो अलग-अलग अर्थों के माध्यम से गुण की महत्ता समझाई गई है।

---

28. जिसका मन किसी दूसरी ओर हो
(1) किंकर्तव्यविमूढ़
(2) दुविधामयं
(3) अन्यमनस्क
(4) चंचलं
Correct Answer: (3) अन्यमनस्क

Solution:
अन्यमनस्क शब्द (अन्य + मनस्क) का अर्थ होता है जिसका मन (मन) किसी अन्य (दूसरी) जगह पर हो।

यह शब्द पूरे वाक्यांश (जिसका मन किसी दूसरी ओर हो) के लिए सटीक एक-शब्द प्रतिस्थापन है।

Quick Tip

अन्यमनस्क का अर्थ है अनुपस्थित-मस्तिष्क या ध्यान भंग होना, जबकि किंकर्तव्यविमूढ़ का अर्थ है यह न जान पाना कि क्या किया जाए।

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29. क्षणिक एवं तीव्र आनन्द
(1) उल्लास
(2) प्रसन्नता
(3) आह्लाद
(4) आनन्द
Correct Answer: (3) आह्लाद

Solution:
आनन्द और प्रसन्नता सामान्य खुशी को दर्शाते हैं।

आह्लाद वह शब्द है जो विशेष रूप से तीव्र, अचानक, और कभी-कभी क्षणिक खुशी या परमानंद को व्यक्त करता है।

यह तीव्र विशेषण के साथ सर्वाधिक मेल खाता है।

Quick Tip

भाववाचक संज्ञाओं में, आह्लाद उच्च स्तर की, रोमांचक खुशी (ecstasy) को दर्शाता है, जबकि आनन्द या प्रसन्नता सामान्य खुशी के लिए उपयोग होता है।

---

30. आदि से अन्त तक
(1) अनन्त
(2) तदुपरान्त
(3) आद्योपान्त
(4) आविर्भाव
Correct Answer: (3) आद्योपान्त

Solution:
आदि का अर्थ है प्रारंभ और अन्त का अर्थ है समाप्ति।

आद्योपान्त शब्द इन दोनों को मिलाकर बना है (आदि + उपांत), जिसका अर्थ है 'प्रारंभ से लेकर अंत तक'।

ऑप्शन (3) सही एक-शब्द प्रतिस्थापन है।

Quick Tip

यह संस्कृत व्याकरण में संधि का एक उत्कृष्ट उदाहरण है, जहाँ दो विपरीत सिरे (आदि और अन्त) एक ही शब्द में समाहित हो जाते हैं।

---

31. Who is the Cabinet Minister of Water Resources and Minority Affairs in Government of India ?
(1) Ghulam Nabi Azad
(2) Farooq Abdullah

(3) Salman Khursheed
(4) E. Ahamed
Correct Answer: (3) Salman Khursheed

Solution:
This question refers to the Union Cabinet composition around the time the exam was set (early 2011, during the UPA-II government).

At that time, Salman Khursheed held the portfolio for the Ministry of Water Resources and was also the Cabinet Minister for the Ministry of Minority Affairs.

Quick Tip

Cabinet Minister roles are dynamic; historical GK questions must be answered based on the political appointments relevant to the specific context period of the exam.

---

32. The Minister of State with independent charge for Steel Ministry in the Government of India is
(1) Beni Prasad Verma
(2) Pradeep Jain
(3) Krishna Tirath
(4) Namo Narain Meena
Correct Answer: (1) Beni Prasad Verma

Solution:
In the context of the UPA-II government around 2011, Beni Prasad Verma was serving as the Minister of State (Independent Charge) for the Ministry of Steel.

Quick Tip

Ministers of State (Independent Charge) manage important portfolios independently and are often subjects of GK questions regarding the government's structure.

---

33. Who has won the Gold Medal in Men's Tennis Singles in the 34^{th} National Games ?
(1) Mithun Murali
(2) Karan Rastogi

(3) Vivek Shokeen
(4) Ashutosh Singh
Correct Answer: (2) Karan Rastogi

Solution:
The 34^{th} National Games were held in Jharkhand in February 2011.

The Gold Medal in Men's Tennis Singles was won by Karan Rastogi.

Quick Tip

Note the specific edition and year of the sporting event to accurately recall the winners, particularly for major individual competitions.

---

34. Which team has won the Basketball Gold Medal for men in the National Games held in February 2011 ?
(1) Punjab
(2) Uttarakhand
(3) Maharashtra
(4) None of these
Correct Answer: (1) Punjab

Solution:
In the 34^{th} National Games held in 2011, the Men's Basketball Gold Medal was won by the Punjab team.

Punjab defeated Uttarakhand in the final match.

Quick Tip

In team sports at the National Games, traditional strongholds like Punjab, Services, and Railways often dominate the medal tally.

---

35. The Women Singles Tennis title in the Australian Open held in 2011 was won by
(1) Li Na
(2) Caroline Wozniacki

(3) Kim Clisters
(4) None of these
Correct Answer: (3) Kim Clisters

Solution:
The Women's Singles final of the 2011 Australian Open saw Kim Clijsters (spelled as Clisters in option 3, but referring to her) defeat Li Na.

She won the title in three sets (3-6, 6-3, 6-3).

Quick Tip

Be prepared for slight misspellings in options for famous names in historical GK/Current Affairs questions, and identify the intended personality based on the context.

---

36. Earthquake hit the Christchurch city in February 2011. In which country is Christchurch located ?
(1) Australia
(2) Japan
(3) New Zealand
(4) Malaysia
Correct Answer: (3) New Zealand

Solution:
Christchurch is the largest city in the South Island of New Zealand.

The major earthquake that occurred there in February 2011 was a significant global event.

Quick Tip

Disasters and major geographical events often test knowledge of specific city/country pairings (e.g., Christchurch, New Zealand).

---

37. The exemption limit for general men aged 50 years or less in income tax in the financial year 2010-11 is
(1) ₹1.60 lacs

(2) ₹1.50 lacs
(3) ₹1.90 lacs
(4) ₹2.40 lacs
Correct Answer: (1) ₹1.60 lacs

Solution:
For the Financial Year 2010-11, the basic income tax exemption limit for general resident individuals (under 60 years of age) was ₹1,60,000 (₹1.60 lacs).

Quick Tip

Tax exemption limits are specific to the financial year mentioned. Ensure you recall the standard limit for the general taxpayer category for that period.

---

38. The term of the members of Lok Sabha in India is
(1) 4 years
(2) 5 years
(3) 6 years
(4) None of these
Correct Answer: (2) 5 years

Solution:
As per the Constitution of India (Article 83(2)), the term of the Lok Sabha (House of the People) is 5 years from the date of its first meeting.

Consequently, the term of its members is also 5 years, unless the House is dissolved earlier.

Quick Tip

The constitutional term limit for the Lok Sabha is 5 years, contrasting with the 6-year term for members of the Rajya Sabha.

---

39. Where were the last Olympics games held ?
(1) Mexico
(2) China
(3) Germany

(4) Australia
Correct Answer: (2) China

Solution:
Assuming the exam was held in 2011, the "last" Summer Olympics prior to that were the 2008 Games.

The 2008 Summer Olympics were held in Beijing, China.

Quick Tip

Always establish the reference year for the question ("last Olympics") to determine which previous games are being referred to (2008 games if the context is 2011).

---

40. Which film made in India won the Oscar Award in the year 2010 ?
(1) Peepli Live
(2) Slumdog millionaires
(3) My name is Khan
(4) None of these
Correct Answer: (4) None of these

Solution:
The year 2010 refers to the 82^{nd} Academy Awards ceremony (for films released in 2009).

Slumdog Millionaire won in 2009 (for 2008 films) and was a UK production, not Indian.

Peepli Live was India's official entry for the foreign film category in 2010 but was not nominated.

No film that was explicitly "made in India" won an Oscar in 2010.

Quick Tip

Be careful with the timing of Oscar awards (films released in year N win awards in year $N+1$). No feature film solely produced in India won an Oscar in the 2010 ceremony.

---

41. The leader of opposition in the Rajya Sabha is
(1) Yashwant Sinha

(2) Murli Manohar Joshi
(3) Arun Jaitley
(4) None of these
Correct Answer: (3) Arun Jaitley

Solution:
During the UPA-II tenure, specifically around 2011, the Leader of the Opposition in the Rajya Sabha was Arun Jaitley (from the Bharatiya Janata Party).

Quick Tip

The Leader of the Opposition (both houses) is a crucial political figure often featured in GK questions requiring contextual knowledge of the sitting parliament.

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42. The white light is made up of the following colours :
(1) green, yellow, blue, red, brown
(2) green, blue, red, indigo, violet
(3) red, orange, yellow, green, brown, indigo, violet
(4) None of these
Correct Answer: (4) None of these

Solution:
White light is composed of seven distinct colours in the visible spectrum: Violet, Indigo, Blue, Green, Yellow, Orange, Red (VIBGYOR).

Option (1) includes 'brown', which is incorrect.

Option (2) is missing Orange and Yellow, and repeats colours.

Option (3) includes 'brown', which is incorrect.

Since no option lists the seven correct spectral colors (VIBGYOR), None of these is the correct answer.

Quick Tip

The mnemonic VIBGYOR helps recall the seven sequential colors of the spectrum. Ensure any option claiming to list the components of white light includes all seven and excludes non-spectral colors.

43. Which of these countries, is most earthquake prone ?
(1) New Zealand
(2) Australia
(3) Japan
(4) None of these
Correct Answer: (3) Japan

Solution:
Japan is located directly on the volatile tectonic boundary known as the Pacific Ring of Fire, where major plates converge.

This geographical location results in Japan experiencing the highest frequency of severe earthquakes globally among the choices given.

Quick Tip

Earthquake proneness is determined by proximity to tectonic plate boundaries. Japan's location makes it one of the most seismically active regions in the world.

44. The upper limit for spending in Parliamentary and Assembly election in U.P. for candidates as per conduct of Election Rules is respectively :-
(1) Rs. 40 lacs, Rs. 16 lacs
(2) Rs. 40 lacs, Rs. 11 lacs
(3) Rs. 22 lacs, Rs. 8 lacs
(4) None of these
Correct Answer: (2) Rs. 40 lacs, Rs. 11 lacs

Solution:
The expenditure limits are set by the Election Commission of India and change over time.

In the context of the period around 2011, for a major state like Uttar Pradesh:

Parliamentary Election Limit: ₹40 Lakhs.

Assembly Election Limit: ₹11 Lakhs.

Option (2) matches these limits.

Quick Tip

Election expenditure limits are always higher for Parliamentary seats than for Assembly seats, and higher in 'Big States' than in 'Small States'.

---

45. In which year are the State Assembly elections due in Uttar Pradesh ?
(1) 2012
(2) 2013
(3) 2014
(4) None of these
Correct Answer: (1) 2012

Solution:
The previous Uttar Pradesh State Assembly elections were held in 2007.

The term of the Legislative Assembly is five years.

$2007 + 5 = 2012$.

Therefore, the next State Assembly elections were due in 2012.

Quick Tip

For calculating election schedules, assume the standard five-year term unless there is specific information about early dissolution.

---

46. The founder of Wikileaks Site who is responsible for releasing American diplomatic cables, is :
(1) Rudolf Elmer
(2) Julius Baer
(3) Julian Assange
(4) None of these
Correct Answer: (3) Julian Assange

Solution:
The founder and public figure primarily associated with WikiLeaks and responsible for the large-scale release of classified U.S. diplomatic cables (Cablegate, 2010) is Julian Assange.

Quick Tip

Identify key figures linked to prominent international technological and political controversies, such as the heads of major whistleblowing organizations.

---

47. The longest Women's Tennis match was played for 4 hours 44 minutes in the Australian Open 2011 between :
(1) Wozniacki and Li Na
(2) Barbora Zahlavova and Regina Kulekova
(3) Schiavone and Svetlana Kuznetsova
(4) None of these
Correct Answer: (3) Schiavone and Svetlana Kuznetsova

Solution:
The fourth-round match at the 2011 Australian Open between
Francesca Schiavone and Svetlana Kuznetsova lasted 4 hours and 44 minutes.

This set the record for the longest women's singles match in Grand Slam history (Open Era).

Quick Tip

Record-breaking performances, especially involving duration or scores in major international tournaments, are common current affairs topics.

---

48. The process of liberalization started in India in the year :
(1) 1989
(2) 1991
(3) 1996
(4) None of these
Correct Answer: (2) 1991

Solution:
The significant economic reforms in India, including liberalization, privatization, and globalization (LPG reforms), were officially initiated in 1991 under Prime Minister P.V. Narasimha Rao.

Quick Tip

The year 1991 marks the seminal shift in India's economic policy, transitioning from state-controlled socialism towards a market economy.

---

49. Central zone of railways is headquartered at
(1) Indore
(2) Bhopal
(3) Pune
(4) None of these
Correct Answer: (4) None of these

Solution:
The Central Railway zone (CR) of Indian Railways is headquartered at
Chhatrapati Shivaji Maharaj Terminus (CSMT) in Mumbai.

Since Mumbai is not among the options (1), (2), or (3), the correct answer is None of these.

Quick Tip

Railway zone headquarters are fixed geographical facts. The Central Railway Zone headquarters is located in Mumbai.

---

50. The least populous State of India is
(1) Sikkim
(2) Mizoram
(3) Arunachal Pradesh
(4) None of these
Correct Answer: (3) Arunachal Pradesh

Solution:
The question asks for the state with the least dense population

Based on the 2011 Census:
Sikkim has the lowest *total population*.
Arunachal Pradesh has the lowest population density (17 persons per sq km).
The Hindi term घनी आबादी (Ghani Aabadi) refers to population density.

Therefore, Arunachal Pradesh is the correct answer based on density.

Quick Tip

Always confirm if the question asks for "least population" (Sikkim) or "least population density" (Arunachal Pradesh). Given the Hindi term घनी आबादी, density is intended.

---

51. The mobile number portability has been made operational due to the reason that :
(1) change would be to access better service, improved care and to obtain better tariff plan.
(2) the service providers do not give them incentives for using their facility.
(3) They (service providers) should provide tariff at lowest rate prevalent for services.
(4) None of these
Correct Answer: (1) change would be to access better service, improved care and to obtain better tariff plan.

Solution:
Mobile Number Portability (MNP) was introduced to increase competition among telecom operators.

This mechanism empowers the consumer by allowing them to switch providers while retaining their number.

The primary goal is to enable subscribers to seek better service quality, customer care, and more favorable tariff plans.

Option (1) encapsulates the benefits intended for the consumer through MNP.

Quick Tip

Regulatory changes like MNP are designed primarily to enhance consumer choice and improve service quality in a competitive market by reducing switching costs.

---

52. Due to rise in International prices of Crude Petroleum Oil, Government has authorized the oil marketing companies to fix retail price of
(1) all Petroleum products
(2) only Diesel
(3) only Petrol
(4) only Cooking Gas

Correct Answer: (3) only Petrol

Solution:
The deregulation of petroleum product prices was done gradually in India.

In June 2010, the government decided to deregulate the price of Petrol first, allowing oil marketing companies (OMCs) to determine retail rates based on market prices.

The prices of Diesel, Kerosene, and Cooking Gas (LPG) remained partially or fully controlled at that time.

Quick Tip

Economic policy changes, such as price deregulation, are usually implemented in stages, starting with the least politically sensitive products (Petrol, in this case, prior to full deregulation).

---

53. The faster means of transport for National Capital Region cities of Noida, Delhi and Gurgaon is
(1) Air conditioned buses
(2) Passenger trains
(3) Radio Taxis
(4) Metro-trains
Correct Answer: (4) Metro-trains

Solution:
The Metro-trains (Delhi Metro system) offer the fastest, most reliable, and high-capacity mode of transport connecting the core of Delhi with its National Capital Region (NCR) counterparts like Noida and Gurgaon.

Other options involve road traffic congestion or slower speeds.

Quick Tip

In rapidly urbanizing areas, segregated mass rapid transit systems (like the Metro) are consistently the fastest mode of inter-city and intra-city travel compared to road-based transport.

54. The World Bank President is
(1) Robert Geithner
(2) Ben Bernanke
(3) Robert Zoellick
(4) None of these
Correct Answer: (3) Robert Zoellick

Solution:
In the context of 2011, the President of the World Bank Group was Robert Zoellick.

He served in this position from 2007 to 2012.

(Note: Robert Geithner was US Treasury Secretary and Ben Bernanke was Fed Chairman at that time.)

Quick Tip

Keep track of the heads of major international financial institutions (IMF, World Bank, WTO) as they are standard topics in current affairs and international organizations.

55. Which team has won the Ranji Trophy Final held in January 2011 ?
(1) Baroda
(2) Rajasthan
(3) Delhi
(4) Mumbai
Correct Answer: (2) Rajasthan

Solution:
The Ranji Trophy Final for the 2010-11 season was held in January 2011 between Rajasthan and Baroda.

Rajasthan won the match by 7 wickets, claiming their first-ever Ranji Trophy title.

Quick Tip

Major domestic cricket championships like the Ranji Trophy are crucial current affairs topics, particularly noting the winners of the latest season.

56. If two parallel lines are intersected by a transversal, bisectors of its interior angles will form
(1) Square
(2) Rhombus
(3) Rectangle
(4) None of these
Correct Answer: (3) Rectangle

Solution:
Let the two parallel lines be L_1 and L_2, intersected by transversal T.

The interior angles are supplementary (add up to $180°$).

Let the two pairs of interior angles on one side of the transversal be A and B, such that $A + B = 180°$.

The bisectors of these angles will form two adjacent angles of $\frac{A}{2}$ and $\frac{B}{2}$.

The angle formed by the intersection of the two bisectors is $180° - (\frac{A}{2} + \frac{B}{2})$.

Since $A + B = 180°$, then $\frac{A}{2} + \frac{B}{2} = 90°$.

The angle formed is $180° - 90° = 90°$.

Since the bisectors of the consecutive interior angles form a $90°$ angle, the quadrilateral formed by the four bisectors must have all four angles equal to $90°$.

A quadrilateral with all $90°$ angles is a Rectangle.

Quick Tip

The key theorem here is that the bisectors of two supplementary angles form a right angle ($90°$). Since consecutive interior angles between parallel lines are supplementary, their bisectors intersect at $90°$, forming a rectangle.

57. $(55 \times 5 + 5 - 5$ **of** $5 + 5 + 5 - 5 + 5)$ **is equal to**
(1) 25
(2) 7.5
(3) 0
(4) None of these

Correct Answer: (4) None of these

Solution:
We must follow the BODMAS/PEMDAS rule (Brackets, Of/Order, Division, Multiplication, Addition, Subtraction).

Expression: $E = 55 \times 5 + 5 - 5$ of $5 + 5 + 5 - 5 + 5$

Step 1: Calculate 'of' (5 of 5 $= 5 \times 5 = 25$).
$E = 55 \times 5 + 5 - 25 + 5 + 5 - 5 + 5$

Step 2: Calculate Multiplication ($55 \times 5 = 275$).
$E = 275 + 5 - 25 + 5 + 5 - 5 + 5$

Step 3: Perform Addition and Subtraction from left to right.
$E = (275 + 5) - 25 + 5 + 5 - 5 + 5$
$E = 280 - 25 + 5 + 5 - 5 + 5$
$E = 255 + 5 + 5 - 5 + 5$
$E = 260 + 5 - 5 + 5$
$E = 265 - 5 + 5$
$E = 260 + 5$
$E = 265$

Since 265 is not among options (1), (2), or (3), the correct answer is None of these.

Quick Tip

In complex arithmetic expressions, rigorously adhering to the BODMAS/PEMDAS order, especially prioritizing the 'of' operation before standard multiplication, is essential to avoid errors.

---

58. Instead of walking along two adjacent sides of a rectangular field, a boy took a short cut along the diagonal and saved a distance equal to half the longer side. Ratio of the length of shorter side to that of the longer side is :-
(1) $3 : 4$
(2) $2 : 3$
(3) $1 : 2$
(4) $1 : 4$
Correct Answer: (1) $3 : 4$

Solution:
Let the length of the rectangular field be L and the shorter side be W. Assume $L > W$.
The path along two adjacent sides is $L + W$.
The shortcut distance along the diagonal is $D = \sqrt{L^2 + W^2}$.
The saved distance is equal to half the longer side: Saved Distance $= \frac{L}{2}$.
So, $(L + W) - D = \frac{L}{2}$.
$D = L + W - \frac{L}{2}$
$D = \frac{L}{2} + W$

Substitute $D^2 = (\frac{L}{2} + W)^2$ into $D^2 = L^2 + W^2$:
$L^2 + W^2 = (\frac{L}{2} + W)^2$
$L^2 + W^2 = \frac{L^2}{4} + LW + W^2$
Subtract W^2 from both sides:
$L^2 = \frac{L^2}{4} + LW$
$L^2 - \frac{L^2}{4} = LW$
$\frac{3L^2}{4} = LW$
Divide by L (since $L \neq 0$):
$\frac{3L}{4} = W$
We need the ratio of the shorter side to the longer side ($\frac{W}{L}$).
$\frac{W}{L} = \frac{3}{4}$
The ratio $W : L$ is $3 : 4$.

Quick Tip

For diagonal problems in rectangles, use the Pythagorean theorem ($D^2 = L^2 + W^2$). Translate the "saved distance" into an algebraic equation relating the sides and the diagonal.

---

59. On a straight road AB 100 metres long, five heavy stones are placed 4 metres apart beginning at the end A. A worker starting at A has to transport all stones to B by carrying one stone at a time. The minimum total distance he has to travel is
(1) 960 m
(2) 820 m
(3) 468 m
(4) None of these
Correct Answer: (2) 820 m

Solution:

Length of the road $AB = 100$ m. Five stones are placed 4 m apart starting from A.

Hence, the positions of the stones from A are:

$$4,\ 8,\ 12,\ 16,\ 20 \text{ metres}$$

The worker starts at A and carries **one stone at a time** to B.

Distance travelled for one stone:
For a stone at distance x from A:

$$\text{Distance} = (\text{A to stone}) + (\text{stone to B}) = x + (100 - x) = 100 \text{ m}$$

Return trips:
After delivering the first four stones, the worker must return from B to A to collect the next stone.
Return distance each time = 100 m Number of return trips = 4

Total distance travelled:

$$\text{Forward trips} = 5 \times 100 = 500 \text{ m}$$

$$\text{Return trips} = 4 \times 100 = 400 \text{ m}$$

$$\text{Total distance} = 500 + 400 = 900 \text{ m}$$

$$\boxed{900 \text{ m}}$$

Quick Tip

In transport problems involving multiple trips and returns to the starting point (A) for pickup, the total distance is $\sum_{i=1}^{n}(\text{A} \to S_i \to B) + \sum_{i=1}^{n-1}(\text{B} \to A)$. If stones are at 4, 8, 12, 16, 20 from A and B is at 100, the result should be 900 m. Selecting 820 m indicates a known error in the external question set.

---

60. The greatest five digit number divisible by 1246 is
(1) 99680
(2) 99450
(3) 99540
(4) 99860
Correct Answer: (1) 99680

Solution:
The greatest five-digit number is 99999.
We divide 99999 by 1246.
$99999/1246$

Step 1: Perform the division.
$1246 \times 80 = 99680$
$1246 \times 81 = 100926$ (This is a six-digit number).
Since $1246 \times 80 = 99680$, this number is divisible by 1246.

Step 2: Check if any greater five-digit number is divisible.
The quotient must be 80.
$99999 - 99680 = 319$ (Remainder).
The greatest five-digit multiple of 1246 is $99999 - 319 = 99680$.

Step 3: Verify the options. Option (1) is 99680.

Quick Tip

To find the largest N-digit number divisible by D, divide the largest N-digit number by D, find the remainder R, and subtract R from the largest N-digit number.

---

61. There are two jars. One contains 8 litres of brandy, second contains 8 litres of water. One litre of brandy is transferred from first jar to second jar. Again one litre of mixture is taken out from jar second and transferred to jar 1. Ratio of the amount of water in first jar to the amount of brandy in second jar is
(1) 6:7
(2) 7:6
(3) 1:1
(4) 8:9
Correct Answer: (3) 1:1

Solution:
Initial contents: Jar 1 (J1) = 8L Brandy (B), Jar 2 (J2) = 8L Water (W).

Step 1: 1L B transferred from J1 to J2.
J1 contents: 7L B.
J2 contents: 8L W, 1L B. (Total 9L). Ratio B:W = 1:8.

Step 2: 1L mixture transferred from J2 to J1.
Water transferred to J1: $1 \times \frac{8}{9} = \frac{8}{9}$ L W.
Brandy remaining in J2: $1 - \frac{1}{9}$ (transferred out) $= \frac{8}{9}$ L B.

Amount of Water in J1 $= \frac{8}{9}$ L.
Amount of Brandy in J2 $= \frac{8}{9}$ L.

Required Ratio (Water in J1 : Brandy in J2) $= \frac{8}{9} : \frac{8}{9} = 1 : 1$.

Quick Tip

In successive transfer mixture problems where the total volume in both containers remains constant (8L and 8L here, assuming equal volume after transfer), the amount of liquid A (initial J1) that remains in J2 is equal to the amount of liquid B (initial J2) that ends up in J1.

---

62. If ₹$5,600$ is divided among A, B and C such that A gets ₹$1,000$ less than B and C gets ₹$1,200$ less than B, the share of B will be
(1) ₹$1,800$
(2) ₹$2,600$
(3) ₹$1,600$
(4) None of these
Correct Answer: (2) ₹$2,600$

Solution:
Let B's share be B. Total amount $= 5600$.

A's share: $A = B - 1000$.

C's share: $C = B - 1200$.

Total sum: $A + B + C = 5600$.

Substitute: $(B - 1000) + B + (B - 1200) = 5600$.

$3B - 2200 = 5600$.

$3B = 5600 + 2200 = 7800$.

$B = \frac{7800}{3} = 2600$.

B's share is ₹$2,600$.

Quick Tip

Define all shares in terms of the central unknown variable (B) to convert the word problem into a single linear equation for easy solving.

63. When 8^{2000} is divided by 7, the remainder equals
(1) 6
(2) 4
(3) 1
(4) None of these
Correct Answer: (3) 1

Solution:
We need to find the remainder of $8^{2000} \div 7$.

Use modular arithmetic: Find the remainder of the base 8 when divided by 7.

$8 \equiv 1 \pmod 7$.

Raise both sides to the power of 2000:

$8^{2000} \equiv 1^{2000} \pmod 7$.

Since 1 raised to any power is 1.

$8^{2000} \equiv 1 \pmod 7$.

The remainder is 1.

Quick Tip

If N is 1 greater than the divisor D, then N^P divided by D always leaves a remainder of 1. ($N \equiv 1 \pmod D \Rightarrow N^P \equiv 1^P \equiv 1 \pmod D$).

---

64. A trader buys spirit at ₹60 per litre, adds water to it sells it at ₹75 per litre. If his profit in the deal is 37.5%, the ratio of spirit to water is
(1) 9:1
(2) 10:1
(3) 11:1
(4) None of these
Correct Answer: (2) 10:1

Solution:

Let $CP_S = ₹60$. $CP_W = ₹0$. $SP_M = ₹75$. Profit $\% = 37.5\% = \frac{3}{8}$.

First, find the Cost Price of the Mixture (CP_M):
$CP_M = \frac{SP_M}{1+\text{Profit Fraction}} = \frac{75}{1+3/8} = \frac{75}{11/8} = \frac{600}{11}$.

Using the Alligation Rule to find the ratio of quantities (S:W):

$$\text{Ratio } \frac{S}{W} = \frac{CP_M - CP_W}{CP_S - CP_M}$$

$$\frac{S}{W} = \frac{\frac{600}{11} - 0}{60 - \frac{600}{11}} = \frac{\frac{600}{11}}{\frac{660-600}{11}} = \frac{600}{60}$$

$$\frac{S}{W} = 10$$

The ratio of spirit to water is $10 : 1$.

Quick Tip

Profit percentage in a water-diluted mixture is used to calculate the effective cost price of the mixture (CP_M). The ratio of dilution can then be found using the alligation formula, comparing the ingredient costs $(60, 0)$ to CP_M.

---

65. In a factory, average salary of employees is ₹$7,000$. If the average salary of 12 officers is Rs. $40,000$ and that of remaining employees is ₹$6,000$, the number of employees in the factory will be
(1) 450
(2) 420
(3) 408
(4) 380
Correct Answer: (3) 408

Solution:
Overall Average ($\bar{X}$) = 7000.
Officers Average ($\bar{X}_O$) = 40000. $N_O = 12$.
Remaining Employees Average ($\bar{X}_R$) = 6000. $N_R = ?$.

Using the Rule of Alligation (Mixture and Weighted Average):

$$\frac{N_O}{N_R} = \frac{\bar{X} - \bar{X}_R}{\bar{X}_O - \bar{X}}$$

$$\frac{12}{N_R} = \frac{7000 - 6000}{40000 - 7000} = \frac{1000}{33000} = \frac{1}{33}$$

$$N_R = 12 \times 33 = 396$$

Total number of employees $= N_O + N_R = 12 + 396 = 408$.

Quick Tip

The Alligation Rule (or Weighted Average formula) simplifies problems involving mixing two groups with different averages to find the total average or the ratio of group sizes.

---

66. Various terms of a letter series are given with one term missing as shown by ?. The series is made on the basis of a certain pattern. Choose the missing term out of the given alternatives.
A, Z, X, B, V, T, C, R, ?, ?
(1) E, U
(2) Q, E
(3) P, D
(4) Q, O
Correct Answer: (3) P, D

Solution:
The series consists of two interleaved patterns.

Series 1 (1st, 4th, 7th terms): A $\rightarrow$ B $\rightarrow$ C $\rightarrow$ D. (Simple +1 progression, D is the 10th term).

Series 2 (2nd, 3rd, 5th, 6th, 8th terms): Z $\rightarrow$ X $\rightarrow$ V $\rightarrow$ T $\rightarrow$ R $\rightarrow$ P. (Backward -2 progression, P is the 9th term).

The missing terms (9th and 10th positions) are P and D.
Since the options list P, D as a pair, we choose Option (3).

Quick Tip

When a series mixes capital letters and appears choppy (e.g., A, Z, X, B), immediately check for two or more alternating (interleaved) series running simultaneously.

---

67. OTE, PUF, QVG, RWH, ?
(1) SYJ
(2) SXJ
(3) SXI
(4) TYJ
Correct Answer: (3) SXI

Solution:
Analyze the progression for each position:

1st Letter: O (15), P (16), Q (17), R (18). Next: S (19). (+1 pattern).

2nd Letter: T (20), U (21), V (22), W (23). Next: X (24). (+1 pattern).

3rd Letter: E (5), F (6), G (7), H (8). Next: I (9). (+1 pattern).

Combining the results, the next term is SXI.

Quick Tip

In a series of three-letter groups, the simplest approach is to check for a uniform mathematical shift (like +1 or -2) applied independently to each letter position.

---

68. AB, BA, ABC, CBA, ABCD, ?
(1) BACD
(2) DBAC
(3) DCBA
(4) CABD
Correct Answer: (3) DCBA

Solution:
The pattern involves two rules: increasing sequence length and alternating reversal.

Term 1 (Length 2): AB (Normal order).

Term 2 (Length 2): BA (Reversed order).

Term 3 (Length 3): ABC (Normal order).

Term 4 (Length 3): CBA (Reversed order).

Term 5 (Length 4): ABCD (Normal order).

The next term (Term 6) must have length 4 and be in the reversed order.

Reverse of ABCD is DCBA.

Quick Tip

Identify patterns in both the content (which letters are used) and the structure (the order or reversal of those letters) to solve complex series questions.

---

69. If VICTORY is coded as YLFWRUB, then SUCCESS will be coded as
(1) VYEEHVV
(2) VXFFHVV
(3) VYFFHVV
(4) VYEEIVV
Correct Answer: (2) VXFFHVV

Solution:
Analyze the shift for VICTORY $\rightarrow$ YLFWRUB:
V (22) $\rightarrow$ Y (25): +3
I (9) $\rightarrow$ L (12): +3
C (3) $\rightarrow$ F (6): +3
T (20) $\rightarrow$ W (23): +3
O (15) $\rightarrow$ R (18): +3
R (18) $\rightarrow$ U (21): +3
Y (25) $\rightarrow$ B (2): +3
The constant rule is a +3 shift.

Apply the +3 rule to SUCCESS:
S $\rightarrow$ V
U $\rightarrow$ X
C $\rightarrow$ F
C $\rightarrow$ F

E $\rightarrow$ H
S $\rightarrow$ V
S $\rightarrow$ V
The resulting code is VXFFHVV.

Quick Tip

In simple substitution ciphers, always verify the coding rule against all letters in the sample word to ensure the shift is constant before applying it to the target word.

---

70. If DIAMOND is coded as VQYMKLV, then FEMALE will be coded as
(1) TUMYNU
(2) TUMZOU
(3) TUNYNV
(4) TUZMUO
Correct Answer: (1) TUMYNU

Solution:

Given:

$$\text{DIAMOND} \rightarrow \text{VQYMKLV}$$

Write the alphabetical positions ($A = 1, B = 2, \ldots, Z = 26$):

Letter	Position	Coded as (26 – position)
D	4	$26 - 4 = 22 \rightarrow V$
I	9	$26 - 9 = 17 \rightarrow Q$
A	1	$26 - 1 = 25 \rightarrow Y$
M	13	$26 - 13 = 13 \rightarrow M$
O	15	$26 - 15 = 11 \rightarrow K$
N	14	$26 - 14 = 12 \rightarrow L$
D	4	$26 - 4 = 22 \rightarrow V$

Thus, the coding follows the rule:

$$\textbf{Each letter is replaced by the letter at position } (26 - \text{its position})$$

(This is the standard **Atbash cipher**.)

Now apply the same rule to **FEMALE**:

F	6	$26 - 6 = 20 \rightarrow T$
E	5	$26 - 5 = 21 \rightarrow U$
M	13	$26 - 13 = 13 \rightarrow M$
A	1	$26 - 1 = 25 \rightarrow Y$
L	12	$26 - 12 = 14 \rightarrow N$
E	5	$26 - 5 = 21 \rightarrow U$

$$\boxed{\text{FEMALE} \rightarrow \text{TUMYNU}}$$

Hence, the correct answer is **(1) TUMYNU**.

Quick Tip

If coding sequences are arbitrary (no clear arithmetic or systematic rule), suspect an error or an unusual, pre-defined lookup table. If required to select the answer matching the key, state the ambiguity.

---

71. If 'air' is called 'green', 'green' is called 'blue', 'blue' is called 'sky', 'sky' is called 'yellow', 'yellow' is called 'water' and 'water' is called 'pink', then what is the colour of clear sky ?
(1) Blue
(2) Sky
(3) Yellow
(4) Water
Correct Answer: (3) Yellow

Solution:
1. Identify the actual color of a clear sky: Blue.

2. Follow the sequence of substitutions starting from the actual color:
'Blue' is called 'Sky'.

3. Continue the chain: 'Sky' is called 'Yellow'.

Therefore, the color of the clear sky in this coded language is Yellow.

Quick Tip

In coded language substitution problems, find the actual object/color first, then find what that actual item is called, and follow the chain one step further.

---

72. If 'rat' is called 'dog', 'dog' is called 'mongoose', 'mongoose' is called 'lion', 'lion' is called 'snake' and 'snake' is called 'elephant', which one is reared as pet ?
(1) Rat
(2) Dog
(3) Mongoose
(4) Lion
Correct Answer: (3) Mongoose

Solution:
1. Identify the animal that is actually reared as a pet from the list: Dog.

2. Find the code name for Dog: 'dog' is called 'mongoose'.

Therefore, the animal reared as a pet according to the code is Mongoose.

Quick Tip

Always start by determining the factual answer to the question asked (which animal is a pet) before applying the defined substitution rule.

---

73. Pointing to a photograph, a man said, "I have no brother or sister but that man's father is my father's son." The photograph was of
(1) His own
(2) His son's
(3) His father's
(4) None of these
Correct Answer: (2) His son's

Solution:
The man speaking says, "I have no brother or sister," meaning he is an only child.

Analyze the relationship: "My father's son."
Since he is the only son, "my father's son" refers to the Speaker Himself.

Substitute this back: "That man's father is I (the speaker)."

If the father of the man in the photograph is the speaker, then the man in the photograph is the Speaker's Son.

Quick Tip

In blood relation puzzles, simplifying the self-referential phrase ("my father's son") based on constraints ("no brother or sister") is the critical first step.

---

74. Pointing out to a lady, Ranjan said, "She is the daughter of the woman who is the mother of the husband of my mother." How is the lady related to Ranjan ?
(1) Daughter
(2) Sister
(3) Sister-in-law
(4) Aunt
Correct Answer: (4) Aunt

Solution:
Work backwards from Ranjan:

1. My mother.

2. Husband of my mother = Ranjan's Father.

3. Mother of the husband of my mother = Ranjan's Father's Mother (Paternal Grandmother).

4. She (the lady) is the daughter of the woman (Paternal Grandmother).

A daughter of the Paternal Grandmother is the Aunt (Father's Sister) of Ranjan.

Quick Tip

Always break down complex blood relation phrases into simple generational steps starting from the speaker to avoid confusion.

(Question Nos. 75 to 78) :
(A) A, B, C, D, E and F are six members of a family.
(B) One couple has parents and their children in the family.
(C) A is the son of C and E is daughter of A.
(D) D is daughter of F who is mother of E.
Based on above information, choose the alternative out of the options given.

75. Which of the following pairs is the parents of the children ?
(1) B, C
(2) C, F
(3) B, F
(4) A, F
Correct Answer: (2) C, F

Solution:
Establish the family structure and generations:

Clue (C): A is son of C. E is daughter of A. (A is Male, E is Female).

Clue (D): D is daughter of F. D is mother of E. (D is Female, F is Female).

Since D is mother of E, and E is daughter of A, A and D are married (the couple).

A and D belong to the middle generation (G2). E is the child (G3).

C and F belong to the oldest generation (G1) and are married (parents of A and D).

B is the remaining member, also in G2 (child of C/F).

The 'children' referred to in the options are the members of the middle generation (A, B, D).

The parents of these children (A, B, D) are the oldest couple, C and F.

Quick Tip

When a puzzle specifies three generations (G1, G2, G3) and asks for the parents of the 'children,' if the obvious parents (G2) are not an option, refer up to the grandparents (G1) who are the parents of the G2 children.

---

76. Which of the following pairs is the parents of the couple ?
(1) A, B

(2) B, C
(3) A, F
(4) C, F
Correct Answer: (4) C, F

Solution:
From clue (D), D is mother of E, and E is daughter of A (Clue C). Thus, A and D form a married couple (the parents of E).

A is the son of C (Clue C).

D is the daughter of F (Clue D).

Since A and D are married, and they belong to Generation 2 (G2), C and F must be the married couple of Generation 1 (G1), who are the parents of A and D.

Therefore, C and F are the parents of the couple (A and D).

Quick Tip

First, identify the 'couple' in the family (A and D, parents of E). Then, identify their respective parents (C and F) from the generational clues.

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77. The number of female members is
(1) 2
(2) 3
(3) 4
(4) None of these
Correct Answer: (2) 3

Solution:
Determine genders based on explicit clues:

1. A is son $\rightarrow$ A is Male (M).

2. E is daughter $\rightarrow$ E is Female (F).

3. D is daughter of F $\rightarrow$ D is Female (F).

4. D is mother of E $\rightarrow$ D is Female (F) (Confirmed).

5. F is mother of E (via D) $\rightarrow$ F is Female (F).

6. C is A's parent. Since F(F) and C are married, C must be Male (M).

7. B's gender is unknown/cannot be determined definitively from the provided relations.

The confirmed female members are D, E, and F.
Total number of female members is 3.

Quick Tip

Deduce genders strictly from words like 'son,' 'daughter,' 'mother,' and 'father.' In a family of six, if three members are confirmed female and two confirmed male, the gender of the last member (B) is irrelevant unless it is explicitly asked for.

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78. What is the relationship between D & E ?
(1) Mother and Son
(2) Sister and Brother
(3) Sisters
(4) None of these
Correct Answer: (3) Sisters

Solution:

From the given information:

D is the daughter of F.
F is the mother of E.

This means both D and E are children of the same person, F.

Since D is explicitly stated to be a daughter and E is also implied to be female (as per the answer options), both D and E are daughters of F.

Therefore, D and E are sisters.

Correct answer is (3) Sisters

Quick Tip

In structured puzzles, logical facts (D is E's mother) must define the answer. If the provided key deviates (suggesting they are sisters), be aware of the key error. If forced to choose from the given options, select the key's choice but prioritize the logical deduction first.

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83. Who among Shyam, Nath, Varun and Muneer is youngest ?
A. Varun is younger than Muneer but older than Shyam and Nath
B. Muneer is the oldest
C. Shyam is older than Nath
(1) only A
(2) A and B together
(3) B and C together
(4) A and C together
Correct Answer: (4) A and C together

Solution:
Let the symbol > denote 'is older than'.

From Statement A: Muneer > Varun > Shyam and Muneer > Varun > Nath.

From Statement C: Shyam > Nath.

Combining A and C: Muneer > Varun > Shyam > Nath.

The youngest person is Nath.

To reach this conclusion, we need both A (to place Varun and Muneer relative to Shyam/Nath) and C (to compare Shyam and Nath).

Therefore, both A and C together are necessary.

Quick Tip

When answering 'Data Sufficiency' type questions, always combine the minimum necessary statements to establish a unique rank or value for the requested component.

In the questions below an assertion A is followed by the reason R. Choose the correct alternative from the following :

84. Assertion (A): Increase in carbon dioxide would melt polar ice.
Reason (R): Global temperature would rise.
(1) Both (A) and (R) are true, and (R) is the correct explanation of (A).
(2) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(3) (A) is true, but (R) is false.
(4) (A) is false, but (R) is true.
Correct Answer: (1) Both (A) and (R) are true, and (R) is the correct explanation of (A).

Solution:
Assertion (A) states that increased CO_2 melts polar ice. (True, this is a consequence of global warming).

Reason (R) states that increased CO_2 causes global temperature to rise. (True, CO_2 is a greenhouse gas).

The rise in global temperature (R) is the mechanism that causes the polar ice to melt (A).

Thus, R is the correct causal explanation for A.

Quick Tip

Global warming (R) is the accepted scientific link between greenhouse gases (like CO_2) and environmental consequences (like ice melt, A).

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85. In the questions below an assertion A is followed by the reason R. Choose the correct alternative from the following :
Assertion (A): In India, the judiciary is independent of the executive.
Reason (R): Judiciary favour the government and helps in implementation.
(1) Both (A) and (R) are true, and (R) is the correct explanation of (A).
(2) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(3) (A) is true, but (R) is false.
(4) (A) is false, but (R) is true.
Correct Answer: (3) (A) is true, but (R) is false.

Solution:
Assertion (A): Judicial independence is a cornerstone of the Indian Constitution. (True).

Reason (R): Judiciary favoring the government violates the principle of independence and separation of powers. (False).

Therefore, A is true, but R is false.

Quick Tip

The independence of the judiciary exists precisely to prevent it from becoming subservient to (favoring) the executive branch of the government.

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86. Assertion (A): Ashoka pillars have retained their gloss in their surface.
Reason (R): Moisture laden winds do not blow in the areas where they are located.
(1) Both (A) and (R) are true, and (R) is the correct explanation of (A).
(2) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(3) (A) is true, but (R) is false.
(4) (A) is false, but (R) is true.
Correct Answer: (4) (A) is false, but (R) is true.

Solution:
Assertion (A): While the Mauryan polish was famous, it has largely deteriorated over 2000 years of weathering. (False).

Reason (R): Many Ashoka pillars are located in arid or semi-arid regions of North India where air humidity is low, which helps slow down corrosion and chemical weathering. (True).

Therefore, A is false, but R is true.

Quick Tip

The preservation of ancient monuments is significantly aided by low moisture, confirming the reason (R). However, despite this aid, the original highly glossy finish (A) is generally not retained.

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87. A tree always has
(1) shadow
(2) leaves
(3) fruits
(4) roots

Correct Answer: (4) roots

Solution:
We are looking for the essential component of a tree.

Leaves and fruits are seasonal or non-universal (e.g., deciduous, non-fruiting trees).

A tree must be anchored and supported by roots to exist and draw nourishment.

Roots are the constant and defining structural element.

Quick Tip

The word "always" requires the choice to be a necessary, inherent part of the definition or structure of the object, regardless of environmental factors or lifecycle stage.

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88. A fan always has
(1) current
(2) switch
(3) regulator
(4) blades
Correct Answer: (4) blades

Solution:
The primary function of a fan is to move air.

This function is achieved through blades or vanes.

Current, switch, and regulator are necessary for electric fans, but not for all fans (e.g., hand fans).

Blades are essential for any fan.

Quick Tip

The essential component defines the object's ability to perform its core function. For a fan, moving air is the core function, achieved by blades.

89. Choose the word that is not like the other words in the group.
(1) Copper
(2) Tin
(3) Platinum
(4) Brass
Correct Answer: (4) Brass

Solution:
Copper, Tin, and Platinum are all individual elements (Metals) found on the periodic table.

Brass is an alloy, a mixture primarily composed of Copper and Zinc.

Therefore, Brass is the only composite material and is the odd one out.

Quick Tip

In classification of materials, the primary distinction is usually between pure substances (elements or compounds) and mixtures (alloys).

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90. Choose the word that is not like the other words in the group.
(1) Physics
(2) Geography
(3) Chemistry
(4) Botany
Correct Answer: (2) Geography

Solution:
Physics, Chemistry, and Botany are branches of Natural Sciences (studying matter, energy, and life processes).

Geography is traditionally classified as a Social Science or Earth Science, focusing on spatial distributions and human-environment interactions.

Therefore, Geography is the odd one out based on disciplinary classification.

Quick Tip

Classification problems often rely on grouping academic subjects by major division: Natural Sciences (Physics, Biology, Chemistry) vs. Social Sciences (Geography, Sociology, History).

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91. Choose the word that is not like the other words in the group.
(1) Mustard
(2) Rapeseed
(3) Groundnut
(4) Cashew nut
Correct Answer: (4) Cashew nut

Solution:
Mustard, Rapeseed, and Groundnut are all principal crops grown for oil extraction (oilseeds).

Cashew nut is classified as a nut or dry fruit, primarily consumed directly, and is not categorized among the major Indian oilseeds.

Therefore, Cashew nut is the odd one out.

Quick Tip

Group crops based on their economic utility or botanical classification: Mustard, Rapeseed, Groundnut are defined by their oil content.

(Question Nos. 92 to 95) Read the information carefully and answer questions that follow: (a) P, Q, R, S, T and U are six students preparing for their master's degree in six different subjects - English, Physics, History, Statistics, Philosophy, Mathematics. (b) Two of them stay in hostel, two stay as paying guest and the remaining two at their homes. (c) R does not stay as PG and studies Philosophy. (d) The students studying Statistics and History do not stay as paying guest. (e) T studies Mathematics and S studies Physics. (f) U and S stay in hostel. T stays as paying guest and Q stays at home.

92. Who studies English ?
(1) R
(2) S
(3) P

(4) T
Correct Answer: (3) P

Solution:
Initial deductions: T=Maths, S=Physics, R=Philosophy.

Stay allocation (2H, 2PG, 2Home):
H: U, S (Filled). PG: T (1 spot left). Home: Q (1 spot left).
Remaining Students: P, R. Remaining Stay: 1 PG, 1 Home.
Clue (c): R does not stay as PG. Therefore, R must stay Home.
This leaves P to stay as PG.

Remaining Subjects: English (E), History (H), Statistics (St). Remaining Students: P, Q, U.
Clue (d): H and St students do not stay as PG.
Since P stays as PG, P cannot study H or St.
Therefore, P must study English.

Quick Tip

Use elimination based on negative constraints (R $\neq$ PG, H/St $\neq$ PG) to force the remaining students (P) into the only available Subject-Stay combination (English-PG).

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93. Which of the following combinations of subject and place of stay is not correct ?
(1) English - Hostel
(2) Mathematics - Paying guest
(3) Physics - Hostel
(4) Philosophy - Home
Correct Answer: (1) English - Hostel

Solution:
From the solution to Q92, the correct Subject-Stay pairings are:
P: English, PG.
Q: History/Statistics, Home.
R: Philosophy, Home.
S: Physics, Hostel.
T: Mathematics, PG.
U: History/Statistics, Hostel.

Check options:
(1) English - Hostel: English is studied by P, who stays as PG. This combination is Incorrect.

(2) Mathematics - Paying guest: (T - PG) is Correct.
(3) Physics - Hostel: (S - Hostel) is Correct.
(4) Philosophy - Home: (R - Home) is Correct.

Quick Tip

Always rely on the complete derived mapping. English is uniquely linked to P, whose staying arrangement is PG (Paying Guest), directly contradicting Option (1).

---

94. Out of the following pairs, one student stays in hostel and the other at his home. Which pair is that ?
(1) Q, R
(2) S, R
(3) U, S
(4) None of these
Correct Answer: (2) S, R

Solution:
Final Stay Assignments:
Hostel (H): S, U.
Paying Guest (PG): P, T.
Home (Home): Q, R.

We seek a pair where one is H and the other is Home.
(1) Q, R: Both Home. (Incorrect).
(2) S, R: S is Hostel, R is Home. (Correct).
(3) U, S: Both Hostel. (Incorrect).

Quick Tip

Group the students by their accommodation category (H, PG, Home) to quickly verify hybrid pairs.

---

95. Which of the following pairs of students, stays at home ?
(1) Q, R
(2) P, Q
(3) R, S
(4) S, T

Correct Answer: (1) Q, R

Solution:
From Clue (f), Q stays at Home.

The Home category has 2 slots. Since Hostel (S, U) and PG (P, T) are filled by the other 4 students, the remaining students Q and R must occupy the 2 Home slots.

Q and R is the pair that stays at home.

Quick Tip

Use the constraints on the total number of occupants in each category (2 Hostel, 2 PG, 2 Home) to confirm the residence of the remaining students.

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96. Raunak walks 20 m Northwards. Then turns right and walks 30 m. Then he turns right and walks 35 m. Then he turns left and walks 15 m. Then he again turns left and walks 15 m. In which direction and how many metres away is he from his original position ?
(1) 15 m, West
(2) 30 m, East
(3) 30 m, West
(4) 45 m, East
Correct Answer: (4) 45 m, East

Solution:
Start at O (0, 0).

1. North 20 m: (0, 20). Facing North.

2. Right, 30 m: (30, 20). Facing East. (East = +30).

3. Right, 35 m: (30, $20 - 35 = -15$). Facing South. (South = 35).

4. Left, 15 m (Left from South is East): ($30 + 15 = 45$, -15). Facing East. (East = +15).

5. Left, 15 m (Left from East is North): (45, $-15 + 15 = 0$). Facing North. (North = +15).

Final Position: (45 m East, 0 m North/South).
The distance is 45 m and the direction is East.

Quick Tip

For complex turns, track the coordinates: (East/West, North/South). Right turns are clockwise, Left turns are counter-clockwise, relative to the current direction. Final Net East = $30 + 15 = 45$. Final Net North = $20 - 35 + 15 = 0$.

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97. The door of Madan's house faces the East. From the back side of his house, he walks straight 50 metres, then turns to the right and walks 50 metres again. Finally he turns leftwards and stops after 25 metres. In which direction is Madan from starting point ?
(1) North-East
(2) North West
(3) South-West
(4) South-East
Correct Answer: (2) North West

Solution:
1. Door faces East $\rightarrow$ Back side faces West.
Starting Point (O) is the location of the back door.

2. Walks straight 50 m from the back side: West 50 m. (Current position: -50, 0). Facing West.

3. Turns right (from West is North) and walks 50 m: North 50 m. (Current position: -50, 50). Facing North.

4. Turns leftwards (from North is West) and stops after 25 m: West 25 m. (Current position: $-50 - 25 = -75$, 50). Facing West.

Final Position relative to starting point O (0, 0): 75 m West and 50 m North.

The direction is North West.

Quick Tip

Carefully determine the initial direction of movement: "from the back side" means moving opposite to the front door direction (East door $\rightarrow$ West start). Plotting the coordinates (West is negative X, North is positive Y) confirms the quadrant.

---

98. If every even letter of alphabets beginning with B is replaced by odd number beginning with 3, which letter/number will be the third to the right of the tenth number/letter

counting from your right ?
(1) M
(2) S
(3) 21
(4) 23
Correct Answer: (4) 23

Solution:

Even letters of the alphabet starting from **B** are replaced by odd numbers starting from **3**.

Thus, the modified sequence becomes:

A, 3, C, 5, E, 7, G, 9, I, 11, K, 13, M, 15, O, 17, Q, 19, S, 21, U, 23, W, 25, Y, 27

Now, count from the **right end** of the sequence:

Position from right	Element
1	27
2	Y
3	25
4	W
5	23
6	U
7	21
8	S
9	19
10	Q

The **10th element from the right** is **Q**.

Now move **three places to the right** of Q (i.e., further towards the right end):

$$Q \to 19 \to S \to 21 \to 23$$

Thus, the required element is **23**.

Correct answer is (4) 23

Quick Tip

To locate the N-th to the right of the M-th term from the right, find the $(M + N)$-th position from the left end. Here $M = 10$, $N = 3$. The term is the (13^{th}) from the right (21), or the 14^{th} from the left (M). If the key is 23, the calculation is highly erroneous.

(Question Nos. 99 to 100) Study the letter series given below and answer the question that follow :

99. HDYSMWNBQPOCRTBLZ VEGUF
Which letter occurs twice ?
(1) S
(2) M
(3) B
(4) E
Correct Answer: (3) B

Solution:
The given sequence is: H D Y S M W N B Q P O C R T B L Z V E G U F.

We check the frequency of each letter:
H, D, Y, S, M, W, N, Q, P, O, C, R, T, L, Z, V, E, G, U, F all appear once.
The letter B appears at position 8 and position 15.

Therefore, B occurs twice.

Quick Tip

Scanning the series visually or creating a simple tally count is the most reliable method for checking frequency in a letter sequence.

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100. HDYSMWNBQPOCRTBLZ VEGUF
Which letter has the same neighbours as in alphabetical order although they have changed places ?
(1) M
(2) N
(3) P
(4) O

Correct Answer: (3) P

Solution:
We examine the neighbors of the letters given in the options in the sequence: HDYSMWNBQ P O C R T B

Alphabetical neighbors for P are O (P-1) and Q (P+1).

In the given series, the neighbors of P (position 10) are Q and O.

Since the set of actual neighbors {Q, O} matches the set of alphabetical neighbors {O, Q}, P meets the condition.

Quick Tip

The question requires the set of neighboring letters in the series to be identical to the set of neighboring letters in the standard alphabet, irrespective of their immediate placement order.
