

problem-solvers.
creative.

3. No creative person is careless.

Conclusions:

- I. Some engineers are creative.
- II. Some problem-solvers are not careless.

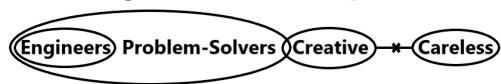
- A. Only I follows
- B. Only II follows
- C. Both I and II follow
- D. Neither I nor II follows

Answer: B

Sol: Statements:

- 1. All engineers are problem-solvers.
- 2. Some problem-solvers are creative.
- 3. No creative person is careless.

From the given statements possible Venn diagram will be.



Conclusions:

- I. Some engineers are creative. (**False**, there is no relation between engineers and creative).
- II. Some problem-solvers are not careless. (**True**, since some problem-solvers are creative and no creative person is careless, those problem-solvers must be not careless).

So, **Only II follows.**

Thus, correct option is (b).

Q.2 In a numbering system, 5-digit codes are formed where the first digit cannot be zero. What is the maximum number of such unique codes possible?

- A. 90,000
- B. 99,999
- C. 1,00,000
- D. 89,999

Answer: A

Sol: Given: In a numbering system, 5-digit codes are formed where the first digit cannot be zero.

Solution:

A 5-digit code means digits from 00000 to 99999

But the first digit cannot be zero, so it must be 1–9 → 9 choices

The remaining 4 digits can be 0–9 → 10 choices each

Total number of codes

= $9 \times 10 \times 10 \times 10 \times 10$

= **90,000**

So, **90,000** is the maximum number of such unique codes possible.

Thus, correct option is (a).

Q.3 Assuming the statements given below are true, which of the following conclusions can be logically deduced?

Statement:

The company has introduced flexible working hours for its employees.

Conclusions:

- I. Employees can choose their working time.
- II. The company aims to improve work-life balance.

- A. Only I follows
- B. Only II follows
- C. Both I and II follow
- D. Neither I nor II follows

Answer: A

Sol: Statement:

The company has introduced flexible working hours for its employees.

Conclusions:

I. Employees can choose their working time.

This logically **follows**, because flexible working hours imply some choice in when employees work.

II. The company aims to improve work-life balance.

This is a possible intention, but it is not directly stated or guaranteed by the statement.

So, **Only I follows**.

Thus, correct option is (a).

Q.4 Find the appropriate word that can replace the question mark (?) and logically complete the sequence:
Pager, Mobile, Smartphone, ?

- A. Tablet
- B. Laptop
- C. Smartwatch
- D. Desktop

Answer: C

Sol: Given: Pager, Mobile, Smartphone, ?

Logic: Devices show technological evolution toward more compact, wearable personal communication.

Pager → basic one-way communication

Mobile → two-way calling

Smartphone → advanced, multi-functional communication

Smartwatch → next step: more compact and wearable smart communication device

So, **smartwatch** is missing term.

Thus, correct option is (c).

Q.5 The ratio of present ages of X and Y is 5 : 6. After 4 years, the ratio will be 6 : 7. What is X's present age?

- A. 20 years
- B. 24 years
- C. 30 years
- D. 36 years

Answer: A

Sol: Given: The ratio of present ages of X and Y is 5 : 6. After 4 years, the ratio will be 6 : 7.

Solution:

Let the present ages of X and Y be 5k and 6k respectively.

After 4 years:

X's age = (5k + 4)

Y's age = (6k + 4)

Given ratio after 4 years:

$$\frac{5k + 4}{6k + 4} = \frac{6}{7}$$

Cross-multiply:

$$7(5k + 4) = 6(6k + 4)$$

$$35k + 28 = 36k + 24$$

$$k = 4$$

So, X's present age:

$$5k = 5 \times 4 = 20 \text{ years}$$

So, **20 years** is X's present age.

Thus, correct option is (a).

Q.6 Some mathematical operations are given below. Choose the expression which is mathematically correct.
If X = 12, Y = 18, and Z = 24, what is the value of ((X + Y) × Z) mod 10?

- A. 0
- B. 2
- C. 6

D. 8

Answer: A

Sol: Given: If $X = 12$, $Y = 18$, and $Z = 24$, what is the value of $((X + Y) \times Z) \bmod 10$?
Using **BODMAS** rule.

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

New equation: $((12 + 18) \times 24) \bmod 10 = ?$
 $(30 \times 24) \bmod 10 = ?$
 $720 \bmod 10 = \mathbf{0}$
Thus, correct option is (a).

Q.7 Instruction: Identify the assumptions that must hold for the statement to be valid and choose the correct option.
Statement:
Excessive use of social media among teenagers leads to reduced physical activity, increased stress levels, and negatively affects mental health.
Assumptions:
I. Social media usage influences the lifestyle and habits of teenagers.
II. Reduced physical activity has no impact on mental health.
III. Increased screen time can contribute to stress and mental health issues.
A. Only I and III are implicit
B. Only II and III are implicit
C. Only I is implicit
D. All assumptions are implicit

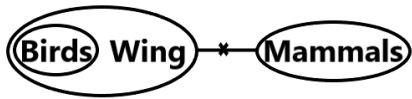
Answer: A

Sol: **Statement:**
Excessive use of social media among teenagers leads to reduced physical activity, increased stress levels, and negatively affects mental health.
Assumptions:
I. Social media usage influences the lifestyle and habits of teenagers.
This is necessary for the statement to hold true. Without this influence, the effects mentioned would not occur.
II. Reduced physical activity has no impact on mental health.
This contradicts the statement, which suggests negative effects on mental health. Hence, it is **not** implicit.
III. Increased screen time can contribute to stress and mental health issues.
This directly supports the statement and must be assumed to be true.
So, **Only I and III are implicit.**
Thus, correct option is (a).

Q.8 In this question, some conditions are given. You have to make a logical judgment.
1. All birds have wings.
2. No mammals have wings.
Which of the following must be true?
A. All winged animals are birds
B. No birds are mammals
C. Some birds are mammals
D. All mammals are flightless

Answer: B

Sol: **Given:**
1. All birds have wings.
2. No mammals have wings.
From the given statements possible Venn diagram will be.



We check options:
Option (a): All winged animals are birds. (**False**)
Option (b): No birds are mammals. (**True**, this must be true based on the s).

Option (c): Some birds are mammals. **(False)**
Option (d): All mammals are flightless. **(False,** there is no information about flightless).
So, **no birds are mammals** must be true.
Thus, correct option is (b).

- Q.9** Which number does NOT belong to the sequence? 4, 10, 15, 28, 40, 54
- A. 10
 - B. 15
 - C. 28
 - D. 40

Answer: B

Sol: Given: 4, 10, 15, 28, 40, 54
Logic: Numbers are increasing even number from 6.
 $4 + 6 = 10$
 $10 + 8 = \cancel{15}$
 $18 + 10 = 28$
 $28 + 12 = 40$
 $40 + 14 = 54$
So, the wrong term is **15**.
Thus, correct option is (b).

- Q.10** Some social situations are given below. Choose the most appropriate course of action.
You are leading a team where one member has recently become less communicative and avoids group discussions, though their work output is satisfactory. Other team members feel coordination is suffering.
- A. Issue a formal warning about communication gaps
 - B. Redistribute their tasks to other team members
 - C. Have a private, supportive conversation to understand concerns and offer help
 - D. Ignore the issue since work quality is unaffected

Answer: C

Sol: Given: You are leading a team where one member has recently become less communicative and avoids group discussions, though their work output is satisfactory. Other team members feel coordination is suffering.
Explanation:
The right thing to do is to talk to the team member privately. This helps you understand why they have become less communicative and shows support, while also finding ways to improve coordination.
Giving a warning, shifting their work to others, or ignoring the issue can create bigger problems later.
So, **Have a private, supportive conversation to understand concerns and offer help**.
Thus, correct option is (c).

- Q.11** In the following question, select the related word from the given alternatives:
Judge : Court :: Doctor : ?
- A. Hospital
 - B. Medicine
 - C. Patient
 - D. Nurse

Answer: A

Sol: Given: Judge : Court :: Doctor : ?
A **Judge** works in a **Court**.
Similarly,
Doctor : ?
A **Doctor** works in a **Hospital**.
Thus, correct option is (a).

- Q.12** In this question, four sets of name and address are given, out of which two are exactly same. Find those two combinations.
- 1. Bhopal Head Office Bhopal GPO Campus - 462001
 - 2. Bhopal Head Office Bhopal GPO Campus - 462001
 - 3. Bhopal Head Office Bhopal PPO Campus - 462001
 - 4. Bhopal Head Office Bhopal GPO Campas - 462001
- A. 1 and 2
B. 1 and 3
C. 2 and 4
D. 3 and 4

Answer: A

Sol: Given:

- 1. Bhopal Head Office Bhopal GPO Campus – 462001
- 2. Bhopal Head Office Bhopal GPO Campus – 462001
- 3. Bhopal Head Office Bhopal PPO Campus – 462001
- 4. Bhopal Head Office Bhopal GPO Campas – 462001

Now, we check each options.

Option (a): 1 and 2
Both entries are letter-by-letter identical
Same words, same spelling, same PIN code
Exactly the **same**

Option (b): 1 and 3
Entry 1: GPO Campus
Entry 3: PPO Campus
Different words → **Not** same

Option (c): 2 and 4
Entry 2: GPO Campus
Entry 4: GPO Campas
Spelling differs (Campus vs Campas) → **Not** exactly same

Option (d): 3 and 4
Entry 3: PPO Campus
Entry 4: GPO Campas
Different words and spelling → **Not** same

So, **1 and 2** are exactly same.
Thus, correct option is (a).

-
- Q.13** Some equations are defined using symbols and mathematical relations. Identify the correct value.
If $X \star Y = (X - Y)^2 + Y$, then $7 \star 3$ is?
- A. 19
B. 20
C. 21
D. 22

Answer: A

Sol: Given: If $X \star Y = (X - Y)^2 + Y$, then $7 \star 3$ is?

Substitute $X = 7$ and $Y = 3$:

$7 \star 3 = (7 - 3)^2 + 3$
 $= 4^2 + 3$
 $= 16 + 3$
 $= \mathbf{19}$

Thus, correct option is (a).

-
- Q.14** In the following question, the second term is derived from the first term by applying a specific pattern involving alphabetical positions and alphanumeric manipulation. Decode the logic and apply it to the second pair.
COLD : P27D :: WARM : ?
- A. J28M
B. H19M
C. G28M
D. J19M

Answer: D

Sol: Given: COLD : P27D :: WARM : ?

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: 1st letter + 13, 4th letter same and sum of middle two letters = Number

For, COLD : P27D

C + 13 = P

15 + 12 = 27

D = D

Similarly,

WARM : ?

W + 13 = J

1 + 18 = 19

M = M

So, WARM : **J19M**

Thus, correct option is (d).

Q.15 In a family tree: • A is the mother of B • B is the sister of C • C is the father of D. What is A's relation to D?

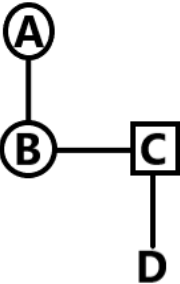
- A. Grandmother
- B. Aunt
- C. Mother
- D. Sister

Answer: A

Sol: Given: In a family tree: • A is the mother of B • B is the sister of C • C is the father of D.

Symbol in Diagram	Meaning
- / O	Female
+ / □	Male
=	Married Couple
—	Siblings
	Difference Of Generation

From the given information blood relation diagram will be.



So, A is **grandmother** of D.

Thus, correct option is (a).

Q.16 What will come at the place of question mark? 4, 20, 120, 840, ?

- A. 6720
- B. 7560
- C. 8400
- D. 7200

Answer: A

Sol: Given: 4, 20, 120, 840, ?

Logic: Numbers are multiply by natural number from 5.

4 × 5 = 20

20 × 6 = 120

120 × 7 = 840

840 × 8 = 6720

So, the missing term is **6720**.

Thus, correct option is (a).

Q.17 Find the missing number in the series: 2, 6, 12, 20, ?

- A. 28
- B. 30
- C. 32
- D. 36

Answer: B

Sol: Given: 2, 6, 12, 20, ?

Logic: Numbers are increasing even number from 4.

2 + 4 = 6

6 + 6 = 12

12 + 8 = 20

20 + 10 = 30

So, the missing term is **30**.

Thus, correct option is (b).

Q.18 Three of the following four groups are alike in a certain pattern. Find the one which does not belong to the group.

- A. ABCD
- B. MNOP
- C. WXYZ
- D. ABDC

Answer: D

Sol:

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: 1st letter + 1 = 2nd letter, 2nd letter + 1 = 3rd letter and 3rd letter + 1 = 4th letter

Now, we check each options.

Option (a): ABCD

A + 1 = B, B + 1 = C, C + 1 = D

Option (b): MNOP

M + 1 = N, N + 1 = O, O + 1 = P

Option (c): WXYZ

W + 1 = X, X + 1 = Y, Y + 1 = Z

Option (d): ABDC

A + 1 = B, B + 1 = $\emptyset$, D + 1 = $\mathcal{C}$

So, **ABDC** is odd one out.

Thus, correct option is (d).

Q.19 Unscramble the letters to make a meaningful word that fits one of the given categories: LPAENET

- A. City
- B. Animal
- C. Planet
- D. River

Answer: C

Sol: Given: LPAENET

Now, looking at the options:

Option (a): City - (PLANET is not a city)

Option (b): Animal - (PLANET is not an animal)

Option (c): Planet - (PLANET itself is a category)

Option (d): River - (PLANET is not a river)

By rearranging these letters, we can form the word **PLANET**.

Thus, correct option is (c).

Q.20 Statement: A team leader prefers a familiar software tool over a newer, more efficient one because the old tool has been used for years without major issues. Question: Which cognitive bias is influencing the decision, and how should it be addressed?

- A. Anchoring bias; rely only on first impressions
- B. Status quo bias; compare options using current performance data
- C. Confirmation bias; ignore feedback from others
- D. Availability bias; choose what is most memorable

Answer: B

Sol: Statement: A team leader prefers a familiar software tool over a newer, more efficient one because the old tool has been used for years without major issues. **Question:** Which cognitive bias is influencing the decision, and how should it be addressed?

Explanation:

The team leader is choosing the old software just because it has been used for many years without problems, even though a newer and more efficient option exists. This shows a preference for sticking with what is familiar instead of evaluating better alternatives.

This behavior reflects status quo bias, where people resist change and prefer existing conditions.

The best way to address this bias is to compare both software tools using current performance data and make a decision based on facts rather than habit.

So, **Status quo bias; compare options using current performance data.**

Thus, correct option is (b).

Q.21 If 48 is coded as 2, 6, 8, then what is the code for 75?

- A. 3, 5, 15
- B. 5, 15, 25
- C. 3, 15, 25
- D. 5, 25, 75

Answer: A

Sol: Given: If 48 is coded as 2, 6, 8.

Logic: The code consists of numbers that are factors of the given number (excluding 1 and the number itself).

Factors of 48 → 2, 6, 8

Similarly,

75 → ?

Factors of 75 → **3, 5, 15**

So, **3, 5, 15** is the code for 75.

Thus, correct option is (a).

Q.22 In the following question, select the number that will replace the question mark (?) to complete the analogy:
64 : 343 :: 36 : ?

- A. 125
- B. 216
- C. 256
- D. 196

Answer: A

Sol: Given: 64 : 343 :: 36 : ?

Logic: (The square root of the first number - 1)³= 2nd number

For, 64 : 343

$\sqrt{64} = 8, 8 - 1 = 7, 7^3 = 343$

Similarly,

36 : ?

$\sqrt{36} = 6, 6 - 1 = 5, 5^3 = 125$
Thus, correct option is (a).

Q.23 Few letters are given followed by a question mark (?). These letters follow a specific pattern. Choose the correct option that can replace the question mark.
CC, FF, JJ, OO, ?

- A. TT
- B. SS
- C. RR
- D. UU

Answer: D

Sol: Given: CC, FF, JJ, OO, ?

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 natural number from 3.
 $C + 3 = F, F + 4 = J, J + 5 = O, O + 6 = U$
 $C + 3 = F, F + 4 = J, J + 5 = O, O + 6 = U$
So, the missing term is **UU**.
Thus, correct option is (d).

Q.24 Read the following scenario carefully and choose the most appropriate course of action.
Scenario: You notice that a colleague has repeatedly missed deadlines, affecting team performance. They seem stressed but deny any problem.
Question: What should you do?

- A. Report the colleague immediately to senior management for disciplinary action.
- B. Ignore the situation and adjust your own work to compensate for the delays.
- C. Speak to the colleague privately to understand the issue and help find a solution.
- D. Publicly warn the colleague during a team meeting to improve accountability.

Answer: C

Sol: Scenario: You notice that a colleague has repeatedly missed deadlines, affecting team performance. They seem stressed but deny any problem.

Explanation:
The best thing to do is to talk to the colleague privately. This helps you understand what is causing the missed deadlines and gives you a chance to support them in finding a solution. It is respectful and helps improve team performance.
Reporting immediately, ignoring the issue, or warning them publicly could make the situation worse.
So, **Speak to the colleague privately to understand the issue and help find a solution** should you do.
Thus, correct option is (c).

Q.25 Each question has four options. Three of them go together based on a common rule. One is different. Identify the odd one.

- A. 6 : 21
- B. 7 : 28
- C. 8 : 36
- D. 9 : 40

Answer: D

Sol: Logic: 1st number $\times$ (1st number + 1) $\div$ 2 = 2nd number
Now, we check each options.
Option (a): 6 : 21
 $6 \times (6 + 1) \div 2 = (6 \times 7) \div 2 = 42 \div 2 = 21$
Option (b): 7 : 28
 $7 \times (7 + 1) \div 2 = (7 \times 8) \div 2 = 56 \div 2 = 28$
Option (c): 8 : 36
 $8 \times (8 + 1) \div 2 = (8 \times 9) \div 2 = 72 \div 2 = 36$
Option (d): 9 : 40
 $9 \times (9 + 1) \div 2 = (9 \times 10) \div 2 = 90 \div 2 = \cancel{40}$

So, **9 : 40** is odd one out.
Thus, correct option is (d).

Q.26 Iso-cost line is also known as _____ line.

- A. budget
- B. Output
- C. demand
- D. revenue

Answer: A

Sol: The correct answer is **(a) Budget**

Explanation:

- An **Iso-cost line** represents all combinations of **two factors of production** (like labor and capital) that a firm can purchase with a **specific total budget**.
- It is called a **Budget line** or **Budget constraint line** for a firm because it shows the financial limit within which the firm must operate.
- The equation for an iso-cost line is typically expressed as $C = (w \cdot L) + (r \cdot K)$, where C is total cost, w is wage, L is labor, r is rent, and K is capital.
- The **slope** of the iso-cost line is the ratio of the prices of the inputs (w/r), representing the **market rate of substitution**.
- Any point on the line indicates that the firm is spending its **entire allocated budget** on the inputs.

Information Booster:

- In consumer theory, a similar concept is known as the **Price Line** or consumer's **Budget Line**, which shows combinations of two goods a consumer can buy.
- The point where an **Isoquant curve** is tangent to an **Iso-cost line** represents the **least-cost combination** of factors for a given level of output.

Additional Knowledge:

(b) Output (Option b)

- Lines representing a constant level of **output** are called **Isoquants** or **Equal Product Curves**.
- While iso-cost deals with **expenditure**, isoquants deal with the **physical quantity** of production.
- The intersection of isoquants and iso-cost lines helps in determining the **equilibrium of the producer**.

(c) Demand (Option c)

- A **Demand line** (or curve) shows the relationship between the **price of a good** and the **quantity demanded** by consumers.
- It generally slopes **downward from left to right**, reflecting the Law of Demand.

(d) Revenue (Option d)

- **Revenue lines** (specifically **Iso-revenue lines**) show all combinations of two products that yield the **same total revenue** for a firm.
- Revenue refers to the total **receipts from sales**, whereas iso-cost refers to the **costs incurred** in production.

Q.27 The concept of “sustainable development” emphasizes:

- A. Unlimited industrial growth without environmental concerns
- B. Meeting present needs without compromising the ability of future generations to meet their own needs
- C. Maximizing GDP irrespective of resource depletion

D. Promoting only urban development

Answer: B

Sol: The correct answer is **(B) Meeting present needs without compromising the ability of future generations to meet their own needs**

Explanation:

- Sustainable development is a holistic approach that seeks to balance economic growth with environmental protection and social equity.
- It was famously defined in the 1987 Brundtland Commission Report (Our Common Future).

Information Booster:

- The United Nations has established 17 Sustainable Development Goals (SDGs) to be achieved by 2030.

Additional Knowledge:

- Option A & C: Describe unsustainable growth patterns that ignore environmental carrying capacity.
-

Q.28 Which Article of the Indian Constitution provides for the abolition of untouchability?

- A. Article 15
- B. Article 16
- C. Article 17
- D. Article 18

Answer: C

Sol: The correct answer is **(C) Article 17**

Explanation:

- Article 17 abolishes 'Untouchability' and forbids its practice in any form.
- It is a fundamental right available against both the state and private individuals.

Information Booster:

- The Untouchability (Offences) Act, 1955 was later renamed the Protection of Civil Rights Act, 1955.

Additional Knowledge:

- Article 15 (Option A): Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth.
 - Article 16 (Option B): Equality of opportunity in matters of public employment.
 - Article 18 (Option D): Abolition of titles.
-

Q.29 Which cell organelle is known as the “powerhouse of the cell”?

- A. Ribosome
- B. Chloroplast
- C. Mitochondria
- D. Nucleus

Answer: C

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

Explanation:

- Mitochondria are responsible for cellular respiration and generating ATP (Adenosine Triphosphate), the energy currency of the cell.
- They contain their own DNA and ribosomes.

Information Booster:

- Mitochondria were first observed by Albert von Kolliker in 1880.

Additional Knowledge:

- Ribosome (Option A): Known as the protein factory.
 - Chloroplast (Option B): Known as the kitchen of the cell (in plants).
 - Nucleus (Option D): Known as the brain or control center of the cell.
-

Q.30 Which statement is correct about India’s performance in the ICC Cricket

2011?

- A. India lost in the semi-finals to Australia.
- B. India defeated Sri Lanka in the final to win the title.
- C. India did not qualify for the knockout stage.
- D. The tournament was hosted only by India.

Answer: B

Sol: The correct answer is **(B) India defeated Sri Lanka in the final to win the title.**

Explanation:

- India won the 2011 World Cup by defeating Sri Lanka by 6 wickets in the final held at Wankhede Stadium, Mumbai.
- This was India's second ODI World Cup win (first was in 1983).

Information Booster:

- Yuvraj Singh was named the 'Player of the Tournament'.

Additional Knowledge:

- Option D: The tournament was joint-hosted by India, Sri Lanka, and Bangladesh.
-

Q.31 Which among the following pairs is NOT correctly matched about Indian classical dance forms and their states?

- A. Kathak – Uttar Pradesh
- B. Bharatanatyam – Tamil Nadu
- C. Kuchipudi – Kerala
- D. Odissi – Odisha

Answer: C

Sol: The correct answer is **(C) Kuchipudi – Kerala**

Explanation:

- Kuchipudi is a classical dance form from Andhra Pradesh, not Kerala.
- Kerala is famous for Kathakali and Mohiniyattam.

Information Booster:

- There are 8 recognized classical dance forms by Sangeet Natak Akademi.

Additional Knowledge:

- Kathak (Option A): North India (UP).
 - Bharatanatyam (Option B): Tamil Nadu.
 - Odissi (Option D): Odisha.
-

Q.32 What is the primary objective of the Gaganyaan Mission launched by ISRO?

- A. Launching communication satellites
- B. Sending Indian astronauts into space
- C. Exploring Mars surface
- D. Studying ocean currents

Answer: B

Sol: The correct answer is **(B) Sending Indian astronauts into space**

Explanation:

- Gaganyaan is India's first human spaceflight mission.
- It aims to demonstrate indigenous capability to undertake human space flight to Low Earth Orbit (LEO).

Information Booster:

- Vyommitra, a female-looking humanoid robot, was developed by ISRO to accompany the uncrewed mission.

Additional Knowledge:

- Mars Exploration (Option C): Associated with the Mangalyaan mission (MOM).
-

Q.33 Which Constitutional Amendment lowered the voting age from 21 years to 18 years in India?

- A. 42nd Amendment
- B. 44th Amendment
- C. 61st Amendment
- D. 73rd Amendment

Answer: C

Sol: The correct answer is **(C) 61st Amendment**

Explanation:

- The 61st Constitutional Amendment Act, 1988 reduced the voting age for elections to the Lok Sabha and State Legislative Assemblies.
- It amended Article 326 of the Constitution.

Information Booster:

- This amendment was enacted during the Prime Ministership of Rajiv Gandhi.

Additional Knowledge:

- 42nd Amendment (Option A): Known as the Mini-Constitution.
 - 44th Amendment (Option B): Corrected distortions introduced during the Emergency.
 - 73rd Amendment (Option D): Related to Panchayati Raj.
-

Q.34 In Hindustani classical music, which instrument is primarily used to maintain the rhythmic cycle (taal)?

- A. Tabla
- B. Sitar
- C. Flute
- D. Violin

Answer: A

Sol: The correct answer is **(A) Tabla**

Explanation:

- The Tabla is a pair of twin hand drums and is the principal percussion instrument in Hindustani music.
- It provides the 'Taal' or rhythmic framework for the performance.

Information Booster:

- Zakir Hussain and Allah Rakha are legendary Tabla players.

Additional Knowledge:

- Sitar (Option B): A plucked string instrument.
 - Flute (Option C): A woodwind instrument.
 - Violin (Option D): A bowed string instrument (very common in Carnatic music).
-

Q.35 Which of the following agencies is responsible for managing India’s space research and satellite launches?

- A. DRDO
- B. ISRO
- C. NASA
- D. HAL

Answer: B

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

Explanation:

- ISRO (Indian Space Research Organisation) is the national space agency of India.
- It operates under the Department of Space (DoS).

Information Booster:

- ISRO was formed on August 15, 1969, replacing INCOSPAR.

Additional Knowledge:

- DRDO (Option A): Responsible for military research and development.
- NASA (Option C): Space agency of the USA.
- HAL (Option D): Primarily involved in aerospace and defense manufacturing.

Q.36 Which of the following is an example of an endothermic reaction?

- A. Combustion of coal
- B. Respiration
- C. Melting of ice
- D. Burning of LPG

Answer: C

Sol: The correct answer is **(C) Melting of ice**

Explanation:

- An endothermic reaction is a chemical or physical process that absorbs heat from its surroundings.
- Melting of ice requires heat energy to break the bonds between water molecules.

Information Booster:

- Photosynthesis is a critical biological endothermic reaction as it absorbs solar energy.

Additional Knowledge:

- Combustion and Burning (Options A & D): These are exothermic reactions because they release energy (heat/light).
- Respiration (Option B): An exothermic process where energy is released for cellular functions.

Q.37 Read the following statements marked as Assertion (A) and Reason (R). Mark the correct option:

Assertion (A): The monsoon winds in India are seasonal in nature.

Reason (R): The differential heating of land and sea causes seasonal reversal of wind direction.

- A. Both A and R are true, and R is the correct explanation of A.
- B. Both A and R are true, but R is not the correct explanation of A.
- C. A is true, but R is false.
- D. A is false, but R is true.

Answer: A

Sol: The correct answer is **(A) Both A and R are true, and R is the correct explanation of A.**

Explanation:

- The term 'monsoon' refers to the seasonal reversal in wind direction.
- The primary cause is the difference in temperature between the landmass and the surrounding oceans, which creates pressure gradients.

Information Booster:

- During summer, the interior of the continent becomes hot, creating low pressure that draws in moist air from the high-pressure sea.

Additional Knowledge:

- The Indian monsoon is divided into two phases: South-West monsoon and North-East monsoon.

Q.38 Which of the following is NOT a rabi crop?

- 1. Wheat
 - 2. Gram
 - 3. Rice
 - 4. Mustard
 - 5. Barley
 - 6. Peas
- A. 1, 2, 5
 - B. 3
 - C. 3, 4, 6
 - D. 2, 4, 6

Answer: B

Sol: The correct answer is **(B) 3**

Explanation:

- Rabi crops are sown in winter (October-December) and harvested in spring (April-June).
- Rice is a Kharif crop, sown with the onset of monsoon and harvested in September-October.

Information Booster:

- Wheat, Gram, Mustard, Barley, and Peas are all classic examples of Rabi crops.

Additional Knowledge:

- Kharif crops include Rice, Maize, Jowar, Bajra, Tur, Moong, Urad, Cotton, Jute, Groundnut, and Soyabean.
-

Q.39 Who launched the PM Gati Shakti National Master Plan in India?

- A. Narendra Modi
- B. Amit Shah
- C. Nitin Gadkari
- D. Piyush Goyal

Answer: A

Sol: The correct answer is **(A) Narendra Modi**

Explanation:

- PM Gati Shakti was launched by Prime Minister Narendra Modi in October 2021.
- It is a digital platform to bring 16 Ministries together for integrated planning and coordinated implementation of infrastructure connectivity projects.

Information Booster:

- The plan aims to improve logistics efficiency and reduce supply chain costs.

Additional Knowledge:

- It focuses on seven engines: Railways, Roads, Ports, Waterways, Airports, Mass Transport, and Logistics Infrastructure.
-

Q.40 Which of the following statements accurately describes the book ‘Wings of Fire’ by A.P.J. Abdul Kalam?

- A. A fictional novel on space exploration
- B. Autobiography of A.P.J. Abdul Kalam
- C. A detailed study of India’s foreign policy
- D. A scientific textbook on missile technology

Answer: B

Sol: The correct answer is **(B) Autobiography of A.P.J. Abdul Kalam**

Explanation:

- 'Wings of Fire' (1999) covers the early life of Dr. Kalam and his work in Indian space and missile programs.
- It was co-written by Arun Tiwari.

Information Booster:

- Dr. Kalam is also known as the 'Missile Man of India'.

Additional Knowledge:

- Other books by Dr. Kalam: 'India 2020', 'Ignited Minds', and 'Indomitable Spirit'.
-

Q.41 Which Article of the Constitution empowers the Supreme Court to transfer cases from one High Court to another?

- A. Article 131
- B. Article 139A
- C. Article 226
- D. Article 142

Answer: B

Sol: The correct answer is **(B) Article 139A**

Explanation:

- Article 139A allows the Supreme Court to transfer cases involving similar questions of law from one High Court to another or to itself.
- This ensures uniform interpretation of the law across the country.

Information Booster:

- This power was inserted by the 42nd Amendment Act, 1976.

Additional Knowledge:

- Article 131 (Option A): Original jurisdiction of the Supreme Court.
- Article 226 (Option C): Power of High Courts to issue writs.
- Article 142 (Option D): Power to pass 'complete justice' decrees.

Q.42 Read the following statements marked as Assertion (A) and Reason (R).
Assertion (A): The Non-Cooperation Movement was launched in 1920.
Reason (R): It was started in response to the Jallianwala Bagh massacre and the Khilafat issue.

A. Both A and R are true, and R is the correct explanation of A.
B. Both A and R are true, but R is not the correct explanation of A.
C. A is true, but R is false.
D. A is false, but R is true.

Answer: A

Sol: The correct answer is **(A) Both A and R are true, and R is the correct explanation of A.**

Explanation:

- The movement was formally launched by Mahatma Gandhi in August 1920.
- The grievances included the Rowlatt Act, the Jallianwala Bagh massacre, and the perceived injustice to Turkey (Khilafat).

Information Booster:

- The movement was called off in 1922 after the Chauri Chaura incident.

Additional Knowledge:

- The 'Tilak Swaraj Fund' was started during this movement to collect funds for the struggle.

Q.43 Which of the following pairs of Mughal rulers and their immediate successors is correctly matched?

A. Humayun – Jahangir
B. Akbar – Jahangir
C. Jahangir – Aurangzeb
D. Shah Jahan – Akbar

Answer: B

Sol: The correct answer is **(b) Akbar – Jahangir**
Explanation:

- **Jahangir (Salim)** was the eldest son of **Akbar** and succeeded him to the Mughal throne in **1605**.
- **Akbar**, the third Mughal emperor, reigned from **1556 to 1605**, expanding the empire across most of the Indian subcontinent.
- The transition of power from Akbar to Jahangir was relatively stable, marking the continuation of the **"Great Mughals"** era.
- **Jahangir** is known for his patronage of **Mughal painting** and the establishment of the **"Chain of Justice"** (Zanjir-i-Adl).
- Under Jahangir's reign, the empire maintained the administrative and religious policies largely initiated by Akbar.

Information Booster:

- The **Mughal Dynasty** was founded by **Babur** in **1526** after the **First Battle of Panipat**, where he defeated Ibrahim Lodi.
- The chronological order of the prominent Mughal emperors is: **Babur** → **Humayun** → **Akbar** → **Jahangir** → **Shah Jahan** → **Aurangzeb**.

Additional Knowledge:

(a) Humayun – Jahangir

- **Humayun’s** immediate successor was his son, **Akbar**, not Jahangir.
- **Humayun** reigned in two phases (**1530–1540** and **1555–1556**) after being exiled by Sher Shah Suri.
- **Akbar** was crowned at the young age of 13 at **Kalanaur** following Humayun's accidental death.

(c) Jahangir – Aurangzeb

- **Jahangir’s** immediate successor was his son, **Shah Jahan**, who ascended the throne in **1628**.
- **Aurangzeb** was the son of **Shah Jahan** and became the emperor only after a war of succession against his brothers.
- **Jahangir** died in 1627, leading to a brief power struggle before Shah Jahan consolidated power.

(d) Shah Jahan – Akbar

- This pair is chronologically reversed; **Akbar** was the **grandfather** of **Shah Jahan**.
- **Shah Jahan** (reigned 1628–1658) is most famous for commissioning the **Taj Mahal**.
- The immediate successor of **Shah Jahan** was **Aurangzeb**, who imprisoned his father in the Agra Fort.

Q.44 Consider the following statements about the Quad grouping (India, USA, Japan, Australia):

1. The Quad was revived in 2017.
2. It primarily focuses on promoting a free and open Indo-Pacific region.
3. China is a permanent member of the Quad.

Which of the above statements is/are correct?

A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Answer: A

Sol: The correct answer is **(A) 1 and 2 only**

Explanation:

- The Quadrilateral Security Dialogue (Quad) consists of India, US, Japan, and Australia.
- Statement 3 is incorrect as China is not a member; in fact, the grouping is often seen as a counter-balance to China's influence.

Information Booster:

- The concept was originally initiated by Japan’s Shinzo Abe in 2007 but was revived in 2017.

Additional Knowledge:

- Quad countries participate in the Malabar naval exercise.

Q.45 Which of the following statements about the Goods and Services Tax (GST) Council is/are correct?

1. It is chaired by the Union Finance Minister.
2. It includes the Finance Ministers of all States.
3. Its decisions are binding without any voting mechanism.

A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Answer: A

Sol: The correct answer is **(A) 1 and 2 only**

Explanation:

- The GST Council is a constitutional body (Article 279A).
- Statement 3 is incorrect because decisions are made by a three-fourths majority of the weighted votes of the members present and voting.

Information Booster:

- The Union Government has a weightage of one-third of the total votes cast.

Additional Knowledge:

- The States have a combined weightage of two-thirds of the total votes cast.

Q.46 Which of the following rivers flows into the Arabian Sea?

- A. Godavari
- B. Krishna
- C. Narmada
- D. Mahanadi

Answer: C

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

Explanation:

- While Narmada originates in Amarkantak (Maikal range, not technically the Western Ghats proper but often grouped in western flow discussion), among the options, it is the only major west-flowing river entering the Arabian Sea.
- However, technically Narmada/Tapi are rift valley rivers. If the question implies 'originates west and flows west', Narmada is the fit here despite the specific origin nuance.

Information Booster:

- Most major peninsular rivers flow East (Bay of Bengal) due to the tilt of the plateau.

Additional Knowledge:

- Godavari, Krishna, Mahanadi (Options A, B, D): All flow into the Bay of Bengal.

Q.47 Read the following two statements carefully and choose the correct option:

Statement 1: The 73rd Constitutional Amendment Act deals with Panchayati Raj Institutions.
Statement 2: It added Part IX to the Constitution of India.

- A. Only 1
- B. Only 2
- C. Both 1 and 2 are correct
- D. Neither 1 nor 2 is correct

Answer: C

Sol: The correct answer is **(C) Both 1 and 2 are correct**

Explanation:

- The 73rd Amendment Act, 1992 gave constitutional status to Panchayati Raj Institutions.
- It added Part IX (Articles 243 to 243O) and the 11th Schedule to the Constitution.

Information Booster:

- April 24th is celebrated as National Panchayati Raj Day.

Additional Knowledge:

- The 74th Amendment Act deals with Municipalities (Urban Local Bodies) and added Part IXA.

Q.48 Match the space mission with its primary objective:

- 1. Chandrayaan-1 - Moon exploration
- 2. Gaganyaan - Human spaceflight
- 3. Astrosat - Space observatory

A. 1–Human spaceflight, 2–Moon exploration, 3–Mars study

- B. 1–Moon exploration, 2–Human spaceflight, 3–Space observatory
- C. 1–Mars orbit, 2–Sun study, 3–Lunar rover
- D. 1–Space observatory, 2–Mars orbit, 3–Human spaceflight

Answer: B

Sol: The correct answer is **(B) 1–Moon exploration, 2–Human spaceflight, 3–Space observatory**

Explanation:

- Chandrayaan-1 was India's first mission to the Moon (2008).
- Gaganyaan is the upcoming human spaceflight mission.
- Astrosat is India's dedicated multi-wavelength space observatory.

Information Booster:

- Chandrayaan-1 discovered evidence of water molecules on the lunar surface.

Additional Knowledge:

- Mangalyaan (MOM) was India's mission to Mars (2013).
- Aditya-L1 is the first Indian mission to study the Sun.

Q.49 Which of the following is a macroeconomic objective of the 1991 Economic Reforms in India?

- A. Nationalization of private banks
- B. Increasing import restrictions
- C. Liberalization of trade and industry
- D. Abolition of private sector participation

Answer: C

Sol: The correct answer is **(C) Liberalization of trade and industry**

Explanation:

- The 1991 New Economic Policy introduced LPG (Liberalization, Privatization, and Globalization).
- It aimed to reduce government control, end the 'License Raj', and open the economy to global markets.

Information Booster:

- Dr. Manmohan Singh was the Finance Minister when these reforms were introduced under P.V. Narasimha Rao's government.

Additional Knowledge:

- Options A, B, & D: These represent pre-1991 'command economy' characteristics which the reforms sought to replace.

Q.50 Match the Constitutional Amendment with its key feature:

- 1. 42nd Amendment Act - Added Fundamental Duties
- 2. 44th Amendment Act - Restored certain Emergency provisions
- 3. 73rd Amendment Act - Panchayati Raj Institutions

- A. 1–Right to Property removed from Fundamental Rights, 2–Added Fundamental Duties, 3–Panchayati Raj
- B. 1–Added Fundamental Duties, 2–Restored certain Emergency provisions, 3–Panchayati Raj Institutions
- C. 1–Panchayati Raj, 2–Added Fundamental Duties, 3–Emergency provisions
- D. 1–Emergency provisions strengthened, 2–Panchayati Raj, 3–Added Fundamental Duties

Answer: B

Sol: The correct answer is **(B) 1–Added Fundamental Duties, 2–Restored certain Emergency provisions, 3–Panchayati Raj Institutions**

Explanation:

- 42nd Amendment (1976): Added Part IVA (Fundamental Duties).
- 44th Amendment (1978): Corrected emergency abuse by requiring 'written advice' from the Cabinet.
- 73rd Amendment (1992): Constitutionalized Panchayati Raj.

Information Booster:

- The 44th Amendment also moved the 'Right to Property' from Fundamental Rights to Legal Rights (Article 300A).

Additional Knowledge:

- The 42nd Amendment added the words 'Socialist', 'Secular', and 'Integrity' to the Preamble.

- Q.51** Find the value of: $\frac{1}{3 - \sqrt{8}} - \frac{1}{3 + \sqrt{8}} + \frac{6}{9 - 8}$
- A. $4\sqrt{2} + 6$
B. $4\sqrt{2}$
C. 6
D. $3\sqrt{2} + 6$

Answer: A

Sol: Solution:

$$\begin{aligned} & \frac{1}{3 - \sqrt{8}} - \frac{1}{3 + \sqrt{8}} + \frac{6}{9 - 8} \\ &= \frac{1}{3 - \sqrt{8}} - \frac{1}{3 + \sqrt{8}} + \frac{6}{1} \\ &= \frac{1}{3 - \sqrt{8}} - \frac{1}{3 + \sqrt{8}} + 6 \\ &= \frac{3 + \sqrt{8}}{(3 - \sqrt{8})(3 + \sqrt{8})} - \frac{3 - \sqrt{8}}{(3 + \sqrt{8})(3 - \sqrt{8})} + 6 \\ &= \frac{3 + \sqrt{8}}{9 - 8} - \frac{3 - \sqrt{8}}{9 - 8} + 6 \\ &= \frac{3 + \sqrt{8}}{1} - \frac{3 - \sqrt{8}}{1} + 6 \\ &= (3 + \sqrt{8}) - (3 - \sqrt{8}) + 6 \\ &= 3 + \sqrt{8} - 3 + \sqrt{8} + 6 \\ &= \sqrt{8} + \sqrt{8} + 6 \\ &= 2\sqrt{8} + 6 \\ &= 2 \times 2\sqrt{2} + 6 \\ &= 4\sqrt{2} + 6 \end{aligned}$$

Final Answer

So the correct answer is (a)

-
- Q.52** Two cars start from places A and B, 100 km apart, towards each other and meet in 1 hour. If they travel in the same direction, they meet in 5 hours. Find the speed of the faster car.
- A. 60 km/h
B. 40 km/h
C. 70 km/h
D. 80 km/h

Answer: A

Sol: Given:

Distance = 100 km.

Opposite direction meeting time = 1 hr.

Same direction meeting time = 5 hrs.

Formula Used:

Relative Speed (Opposite) = $u + v = D/t$

Relative Speed (Same) = $u - v = D/t$

Solution:

Let speeds be u and v ($u > v$).

$$u + v = \frac{100}{1} = 100$$

$$u - v = \frac{100}{5} = 20$$

Adding both equations:

$$2u = 120 \implies u = 60 \text{ km/h}$$

The faster speed is 60 km/h.

Final Answer

So the correct answer is (a)

Q.53 The difference between CI and SI on a certain sum for 2 years at 15% per annum is ₹225. Find the sum.

- A. ₹8,000
- B. ₹9,000
- C. ₹10,000
- D. ₹12,000

Answer: C

Sol: Given:

Difference (D) = ₹225.

Time (t) = 2 years.

Rate (R) = 15%.

Formula Used:

For 2 years, $D = P \left(\frac{R}{100} \right)^2$

Solution:

Substitute values:

$$225 = P \left(\frac{15}{100} \right)^2$$

$$225 = P \left(\frac{3}{20} \right)^2$$

$$225 = P \left(\frac{9}{400} \right)$$

$$P = \frac{225 \times 400}{9}$$

$$P = 25 \times 400$$

$$P = 10,000$$

Final Answer

So the correct answer is (c)

Q.54 A cricketer has an average of 45 runs in 14 innings. How many runs must he score in the 15th inning to increase his average to 47?

- A. 70
- B. 75
- C. 68
- D. 72

Answer: B

Sol: Given:

Average of 14 innings = 45.

Target Average after 15 innings = 47.

Formula Used:

Total = Average \times Number of Innings

Solution:

Total runs in 14 innings = $14 \times 45 = 630$.

Total runs required in 15 innings = $15 \times 47 = 705$.

Runs to score in 15th inning = $705 - 630$

= 75

Alternate Method:

Increase in average = 2.

Total increase = $15 \times 2 = 30$.

Score = 45 + 30 = 75.

Final Answer

So the correct answer is (b)

Q.55 The profit made by selling an article for ₹1200 is equal to the loss incurred by selling it for ₹900. What should be the selling price to gain 20%?

- A. ₹1260
- B. ₹1300
- C. ₹1150
- D. ₹1250

Answer: A

Sol: Given:

Profit at SP ₹1200 = Loss at SP ₹900.

Desired Gain = 20%.

Formula Used:

Profit = SP - CP; Loss = CP - SP

Solution:

Let CP be x.

$1200 - x = x - 900$

$2x = 2100$

$x = 1050$

$CP = ₹1050.$

For 20% gain, $SP = 1050 \times \frac{120}{100}$

$= 1050 \times 1.2$

$= 1260$

Final Answer

So the correct answer is (a)

Q.56 Find the value of $\left(\frac{3}{x} + 3x\right)\left(\frac{9}{x^2} - 9 + 9x^2\right)$ if x = 2

- A. $\frac{1755}{8}$
- B. $\frac{1865}{8}$
- C. $\frac{1701}{8}$
- D. $\frac{1650}{8}$

Answer: A

Sol: Given:

Expression $\left(\frac{3}{x} + 3x\right)\left(\frac{9}{x^2} - 9 + 9x^2\right)$ with x=2.

Formula Used:

$a^3 + b^3 = (a + b)(a^2 - ab + b^2)$

Solution:

$\left(\frac{3}{x} + 3x\right)\left(\frac{9}{x^2} - 9 + 9x^2\right)$

$= \left(\frac{3}{2} + 3 \times 2\right)\left(\frac{9}{2^2} - 9 + 9 \times 2^2\right)$

$= \left(\frac{3}{2} + 6\right)\left(\frac{9}{4} - 9 + 36\right)$

$= \left(\frac{3}{2} + \frac{12}{2}\right)\left(\frac{9}{4} - 9 + 36\right)$

$= \frac{15}{2}\left(\frac{9}{4} - 9 + 36\right)$

$= \frac{15}{2}\left(\frac{9}{4} - \frac{36}{4} + 36\right)$

$$\begin{aligned}
 &= \frac{15}{2} \left(-\frac{27}{4} + 36 \right) \\
 &= \frac{15}{2} \left(-\frac{27}{4} + \frac{144}{4} \right) \\
 &= \frac{15}{2} \left(\frac{117}{4} \right) \\
 &= \frac{15 \times 117}{8} \\
 &= \frac{1755}{8}
 \end{aligned}$$

Final Answer

So the correct answer is (a)

Q.57 A merchant mixes 30 kg of tea at ₹400/kg with 20 kg of tea at ₹500/kg. He sells the mixture at ₹480/kg. What is his profit percentage?

- A. 8.5%
- B. 9.09%
- C. 10%
- D. 11.11%

Answer: B

Sol: Given:

Tea A: 30 kg at ₹400/kg.

Tea B: 20 kg at ₹500/kg.

Selling Price of Mixture = ₹480/kg.

Formula Used:

$$\text{Profit \%} = \frac{SP - CP}{CP} \times 100$$

Solution:

Total Cost Price = (30 × 400) + (20 × 500)= 12000 + 10000 = ₹22000.

Total Weight = 30 + 20 = 50 kg.

Average CP per kg = $\frac{22000}{50}$ = ₹440.

Profit per kg = 480 - 440 = ₹40.

$$\text{Profit \%} = \frac{40}{440} \times 100$$

$$= \frac{1}{11} \times 100$$

= 9.09%

Final Answer

So the correct answer is (b)

Q.58 What percent of 0.1 cubic meters is 50,000 cubic centimeters?

- A. 25%
- B. 50%
- C. 10%
- D. 5%

Answer: B

Sol: Given:

Total volume = 0.1 m^3 .

Part volume = 50,000 cm^3 .

Formula Used:

$$1\ m^3 = 1,000,000\ cm^3$$

$$\text{Percentage} = \frac{\text{Part}}{\text{Total}} \times 100$$

Solution:

Convert 0.1 m^3 to cm^3 :

$$0.1 \times 1,000,000 = 100,000\ cm^3.$$

Calculate percentage:

$$\frac{50,000}{100,000} \times 100$$

$$= \frac{1}{2} \times 100$$

$$= 50\%$$

Final Answer

So the correct answer is (b)

Q.59 Two chords AB and CD of a circle intersect at a point P inside the circle. If AP = 10 cm, PB = 6 cm, and CP = 4 cm, find the length of PD.

- A. 12 cm
- B. 15 cm
- C. 18 cm
- D. 14 cm

Answer: B

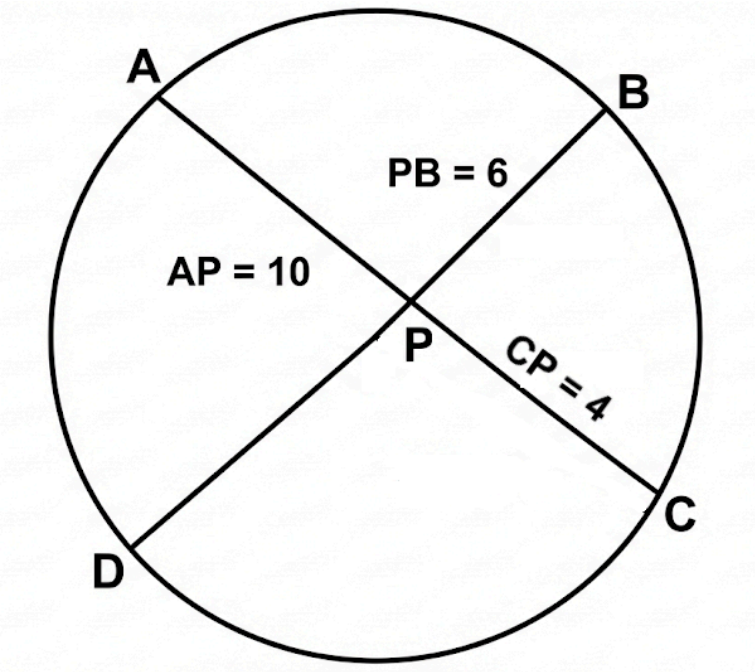
Sol: Given:

Chords AB and CD intersect at P.
AP = 10 cm, PB = 6 cm, CP = 4 cm.

Formula Used:

Intersecting Chords Theorem: $AP \cdot PB = CP \cdot PD$

Solution:



Substitute the given values into the formula:

$$10 \cdot 6 = 4 \cdot PD$$

$$60 = 4 \cdot PD$$

$$PD = \frac{60}{4}$$

$$PD = 15 \text{ cm}$$

Final Answer

So the correct answer is (b)

Q.60 In a factory, Machine A produces 70% of the items and Machine B produces 30%. 2% of A's production is defective and 5% of B's production is defective. If an item is selected at random and found to be defective, what is the probability it came from Machine B?

- A. 15/29
- B. 14/29
- C. 12/29
- D. 10/29

Answer: A

Sol: Given:

P(A) = 0.70, P(B) = 0.30.
P(D|A) = 0.02, P(D|B) = 0.05.

Formula Used:

Bayes' Theorem: $P(B|D) = \frac{P(D|B)P(B)}{P(D|A)P(A) + P(D|B)P(B)}$

Solution:

Numerator: $P(D|B)P(B) = 0.05 \times 0.30 = 0.015$.

Denominator: $(0.02 \times 0.70) + (0.05 \times 0.30) = 0.014 + 0.015 = 0.029$.

Probability = $\frac{0.015}{0.029} = \frac{15}{29}$.

Final Answer

So the correct answer is (a)

Q.61 An equilateral triangle and a square have the same perimeter. What is the ratio of the area of the triangle to the area of the square?

- A. $3\sqrt{3} : 4$
- B. $4 : 3\sqrt{3}$
- C. $4\sqrt{3} : 9$
- D. $9 : 4\sqrt{3}$

Answer: C

Sol: Given:

Perimeter of Equilateral Triangle = Perimeter of Square.

Formula Used:

Area of Triangle = $\frac{\sqrt{3}}{4}a^2$

Area of Square = s^2

Solution:

Let side of triangle be a and square be s.

$3a = 4s \implies a = \frac{4s}{3}$.

Area of Triangle = $\frac{\sqrt{3}}{4} \left(\frac{4s}{3}\right)^2$

= $\frac{\sqrt{3}}{4} \cdot \frac{16s^2}{9}$

= $\frac{4\sqrt{3}}{9}s^2$.

Area of Square = s^2 .

Ratio = $\frac{4\sqrt{3}s^2}{9} : s^2 = 4\sqrt{3} : 9$.

Final Answer

So the correct answer is (c)

Q.62 An arc of a circle of radius 21 cm subtends an angle of 60° at the center. Find the length of the arc. (Use $\pi = 22/7$)

- A. 11 cm
- B. 22 cm
- C. 33 cm
- D. 44 cm

Answer: B

Sol: Given:

Radius r = 21 cm.

Angle $\theta = 60^\circ$.

Formula Used:

Length of Arc = $\frac{\theta}{360} \times 2\pi r$

Solution:

$L = \frac{60}{360} \times 2 \times \frac{22}{7} \times 21$

$L = \frac{1}{6} \times 44 \times 3$

$L = \frac{132}{6}$

$L = 22\text{ cm.}$

Final Answer

So the correct answer is (b)

Q.63 A sphere is inscribed in a hemisphere of radius R such that it touches the curved surface and the plane base. What is the radius of this inscribed sphere?

- A. $R/2$
- B. $R/3$
- C. $R/\sqrt{2}$
- D. $2R/3$

Answer: A

Sol: Given:

Hemisphere radius R.

Sphere inscribed touching curved surface and base.

Formula Used:

Geometric property of inscribed sphere in hemisphere.

Solution:

Let r be the radius of the inscribed sphere.

The sphere sits on the base, so its center is at height r.

The top of the sphere touches the highest point of the hemisphere.

Total height from base to top of sphere = 2r.

This height corresponds to the radius of the hemisphere R (at the pole).

Therefore, $2r = R \Rightarrow r = R/2$.

Final Answer

So the correct answer is (a)

Q.64 A right prism has a regular hexagonal base of side 6 cm. If the height of the prism is 10 cm, find its lateral surface area.

- A. 360 cm^2
- B. 300 cm^2
- C. 240 cm^2
- D. 420 cm^2

Answer: A

Sol: Given:

Base: Regular hexagon, side a = 6 cm.

Height h = 10 cm.

Formula Used:

LSA of Prism = Perimeter of Base $\times$ Height

Solution:

Perimeter of hexagon = $6a = 6 \times 6 = 36\text{ cm.}$

Lateral Surface Area = $36 \times 10 = 360\text{ cm}^2$.

Final Answer

So the correct answer is (a)

Q.65 If $\sec \theta + \tan \theta = 3$, find the value of $\tan \theta$.

- A. $3/4$
- B. $4/3$
- C. $1/3$
- D. $5/3$

Answer: B

Sol: Given:

$\sec \theta + \tan \theta = 3$.

Formula Used:

$$\sec^2 \theta - \tan^2 \theta = 1$$

$$\implies (\sec \theta - \tan \theta)(\sec \theta + \tan \theta) = 1$$

Solution:
 We get $\sec \theta - \tan \theta = \frac{1}{3}$.
 Subtract this from the given equation:

$$(\sec \theta + \tan \theta) - (\sec \theta - \tan \theta) = 3 - \frac{1}{3}$$

$$2 \tan \theta = \frac{8}{3}$$

$$\tan \theta = \frac{4}{3}$$

Final Answer

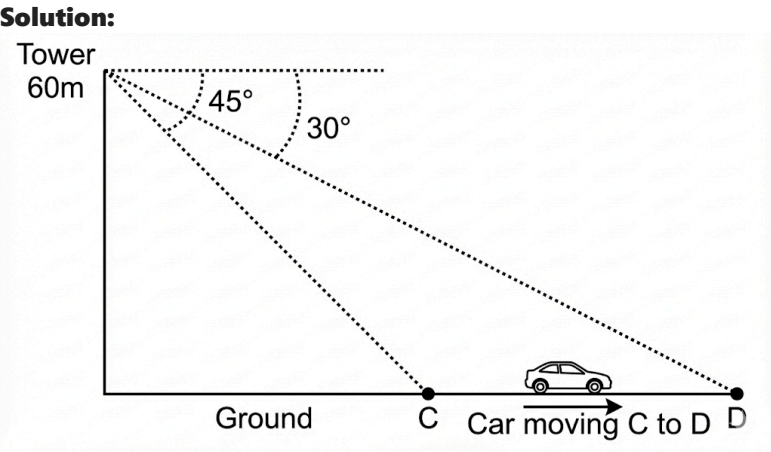
So the correct answer is (b)

Q.66 From the top of a 60 m high tower, the angle of depression of a car moving away changes from 45^\circ to 30^\circ in 5 seconds. What is the speed of the car?

- A. $12(\sqrt{3} - 1)$ m/s
- B. $12\sqrt{3}$ m/s
- C. $10(\sqrt{3} - 1)$ m/s
- D. $15(\sqrt{3} - 1)$ m/s

Answer: A

Sol: Given:
 Height h = 60 m.
 Angle changes from 45^\circ to 30^\circ in 5 seconds.
Formula Used:
 Distance = Height $\times \cot(\theta)$
 Speed = Distance / Time



Initial distance $d_1 = 60 \cot 45^\circ = 60(1) = 60$ m.
 Final distance $d_2 = 60 \cot 30^\circ = 60\sqrt{3}$ m.
 Distance traveled = $60\sqrt{3} - 60 = 60(\sqrt{3} - 1)$ m.
 Speed = $\frac{60(\sqrt{3} - 1)}{5} = 12(\sqrt{3} - 1)$ m/s.

Final Answer

So the correct answer is (a)

Q.67 What is the largest 4-digit number that is exactly divisible by 72?

- A. 9936
- B. 9960
- C. 9984
- D. 9992

Answer: A

Sol: Given:
 Divisor = 72.
 We need the largest 4-digit number divisible by 72.

Formula Used:

$\text{Dividend} = \text{Divisor} \times \text{Quotient} + \text{Remainder}$

Solution:

The largest 4-digit number is 9999.

Divide 9999 by 72:

$9999 \div 72 = 138 \text{ with a remainder of } 63$

To find the largest divisible number, subtract the remainder from 9999:

$\text{Number} = 9999 - 63$

$\text{Number} = 9936$

Final Answer

So the correct answer is (a)

Q.68 Simplify $(\sqrt{3} + \sqrt{7})^2$.

- A. $10 + 2\sqrt{21}$
- B. $10 + \sqrt{21}$
- C. $21 + 2\sqrt{10}$
- D. $5 + 2\sqrt{21}$

Answer: A

Sol: Given:

Expression: $(\sqrt{3} + \sqrt{7})^2$

Formula Used:

$(a + b)^2 = a^2 + b^2 + 2ab$

Solution:

Let $a = \sqrt{3}$ and $b = \sqrt{7}$.

Expand the expression:

$(\sqrt{3})^2 + (\sqrt{7})^2 + 2(\sqrt{3})(\sqrt{7})$

$= 3 + 7 + 2\sqrt{21}$

$= 10 + 2\sqrt{21}$

Final Answer

So the correct answer is (a)

Q.69 A can do a work in 12 days and B in 15 days. They contract to do the work for ₹9,600. With the help of C, they finish it in 5 days. How much does C get?

- A. ₹2,000
- B. ₹2,400
- C. ₹2,800
- D. ₹3,000

Answer: B

Sol: Given:

A's time = 12 days, B's time = 15 days.

A + B + C time = 5 days.

Total wages = ₹9600.

Formula Used:

Wages are distributed in proportion to efficiency (work done per day).

Solution:

Let Total Work = 60 units (LCM of 12, 15, 5).

Efficiency of A = $60/12 = 5$ units/day.

Efficiency of B = $60/15 = 4$ units/day.

Efficiency of (A+B+C) = $60/5 = 12$ units/day.

Efficiency of C = $12 - (5 + 4) = 3$ units/day.

Ratio of shares A:B:C = 5:4:3.

Total parts = 12.

C's share = $\frac{3}{12} \times 9600$

$= \frac{1}{4} \times 9600$

$= ₹2400$

Final Answer

So the correct answer is (b)

- Q.70** A and B invest ₹50,000 and ₹70,000. After one year, the total profit is ₹24,000. What is A's share of the profit?
- A. ₹10,000
 - B. ₹14,000
 - C. ₹12,000
 - D. ₹9,000

Answer: A

Sol: Given:
Investment of A = ₹50,000.
Investment of B = ₹70,000.
Total Profit = ₹24,000.
Formula Used:
Profit Share $\propto$ Investment $\times$ Time
Solution:
Since the time period is the same (1 year), the ratio of profit is the ratio of investments.
Ratio A : B = 50,000 : 70,000 = 5 : 7.
Total parts = 5 + 7 = 12.
A's share = $\frac{5}{12} \times 24,000$
= 5 $\times$ 2,000
= ₹10,000
Final Answer
So the correct answer is (a)

-
- Q.71** What is the x-intercept of the line $5x + 3y = 15$?
- A. 5
 - B. 3
 - C. 15
 - D. 2

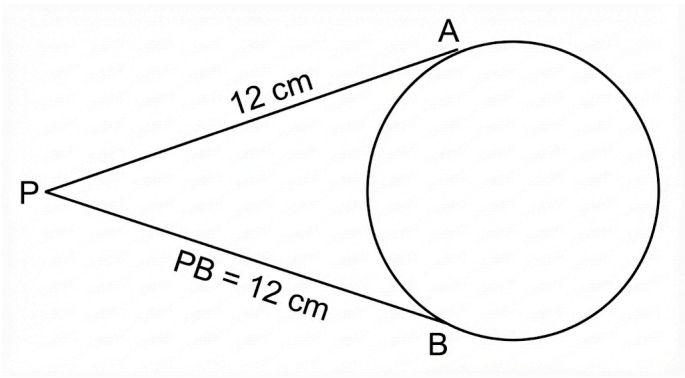
Answer: B

Sol: Given:
Line: $5x + 3y = 15$.
Formula Used:
For x-intercept, set $y = 0$.
Solution:
 $5x + 3(0) = 15$
 $5x = 15$
 $x = 3$.
Final Answer
So the correct answer is (b)

-
- Q.72** PA and PB are tangents to a circle from an external point P. If the length of PA is 12 cm, what is the length of PB?
- A. 10 cm
 - B. 12 cm
 - C. 24 cm
 - D. 6 cm

Answer: B

Sol: Given:
Tangents PA and PB from P. PA = 12 cm.
Formula Used:
Lengths of tangents from an external point to a circle are equal.
Solution:



PA = PB.
Since PA = 12 cm, PB = 12 cm.

Final Answer

So the correct answer is (b)

Q.73 In triangle ABC, the area is 60 cm² and the product of the lengths of its three sides is 2400. Find the circumradius of the triangle.

- A. 8 cm
- B. 10 cm
- C. 12 cm
- D. 15 cm

Answer: B

Sol: Given:

Area A = 60 cm².
Product of sides abc = 2400.

Formula Used:

Circumradius R = $\frac{abc}{4A}$

Solution:

$R = \frac{2400}{4 \times 60}$

$R = \frac{2400}{240}$

$R = 10 \text{ cm.}$

Final Answer

So the correct answer is (b)

Q.74 The mean of a set of 5 numbers is 20. If a number 'p' is added, the mean becomes 22. If another number 'q' replaces 'p', the mean of the original 5 plus 'q' becomes 24. Find p + q.

- A. 60
- B. 64
- C. 76
- D. 78

Answer: C

Sol: Given:

Mean of 5 = 20. p added, Mean = 22. q replaces p, Mean = 24.

Formula Used:

Sum = Mean × N

Solution:

Sum(5) = 100.

Sum(5+p) = 22 × 6 = 132 → p = 32.

Sum(5+q) = 24 × 6 = 144 ⇒ q = 44.

p + q = 32 + 44 = 76.

Final Answer

So the correct answer is (c)

- Q.75** For a given frequency distribution, if the Mean is 50, the Mode is 44, and the Standard Deviation is 4, find the Karl Pearson's coefficient of skewness.
- A. 0.5
 - B. 1.5
 - C. 2.0
 - D. 1.2

Answer: B

Sol: Given:
Mean = 50, Mode = 44, SD = 4.

Formula Used:
Coefficient of Skewness = $\frac{\text{Mean} - \text{Mode}}{\text{Standard Deviation}}$

Solution:
Skewness = $\frac{50 - 44}{4}$
= $\frac{6}{4}$
= 1.5

Final Answer
So the correct answer is (b)

-
- Q.76** Find the part of the sentence that contains an error:
The talented orator (1)/ managed to put out (2)/ his complex ideas (3)/ to the audience with great clarity. (4)
- A. (1)
 - B. (2)
 - C. (3)
 - D. (4)

Answer: B

Sol:
The correct option is (b).

Reason: In part (2), the phrase “put out” is incorrect in the given context. “Put out” generally means “extinguish” (as in a fire), “publish/issue” (put out a notice), or “annoy/inconvenience” (to put someone out). However, the sentence intends to express that the orator **explained/expressed/communicated** his ideas to the audience clearly. Therefore, the correct phrasal verb should be “put across” or “put forth” or simply “put” (present) his ideas.

Correct form of the sentence: “The talented orator managed to **put across** his complex ideas to the audience with great clarity.”

Grammatical rule used: Selection of the correct phrasal verb must match the intended meaning and context. “Put across” means “to communicate an idea successfully” whereas “put out” does not convey “communicate ideas” in standard exam usage.

Example: “The teacher put across the concept of photosynthesis very effectively.”

Information booster: In competitive exams, errors often occur due to confusion among similar phrasal verbs (put out, put off, put across, put up). Always verify the exact meaning before choosing.

So the correct answer is (b)

-
- Q.77** What is the one-word substitute for: “The technique of using light and shadow to create depth in visual art”?
- A. Chiaroscuro
 - B. Fresco
 - C. Mosaic
 - D. Pointillism

Answer: A

Sol:
The correct option is (a).

Explanation: The technique of using strong contrasts between light and shadow to give the illusion of volume and depth in painting or drawing is called **chiaroscuro**. It is especially associated with Renaissance and Baroque art, where light is used dramatically to model forms and create a three-dimensional effect.

Meaning: Chiaroscuro means “light-dark” effect; the deliberate arrangement of light and shade to create depth. (Hindi meaning: प्रकाश-छाया का प्रभाव)

Example: “The artist used chiaroscuro to make the portrait appear lifelike and three-dimensional.”

Meanings of the other options:

- B: Fresco – A painting done on freshly applied wet plaster so that the pigment becomes part of the wall surface. (Hindi meaning: गीले पलस्तर पर चित्रकारी)
- C: Mosaic – An art form created by assembling small pieces of colored glass, stone, or tiles to form an image or pattern. (Hindi meaning: रंगीन टुकड़ों से बनी चित्र-रचना)
- D: Pointillism – A painting technique in which small distinct dots of color are applied in patterns to form an image. (Hindi meaning: बिंदुओं द्वारा चित्रांकन शैली)

So the correct answer is (a)

Q.78 Choose the most suitable option to replace the highlighted part of the sentence:
Rarely, you meet a person so committed to duty.

- A. do you meet
- B. have you meet
- C. you met
- D. did you met

Answer: A

Sol:

The correct option is (a).

Explanation: The sentence begins with the negative/limiting adverb “Rarely”. When such an adverb is placed at the beginning of a clause, it triggers **inversion** (auxiliary verb comes before the subject), similar to question structure. Therefore, “you meet” must change to “**do you meet**” in the simple present tense.

Correct sentence: “Rarely, **do you meet** a person so committed to duty.”

Grammatical rule used: Inversion after negative or restrictive adverbs/phrases at the beginning (Rarely, Seldom, Never, Hardly, Scarcely, No sooner, Not only, Little, etc.). Structure: **Adverb + Auxiliary + Subject + Main verb**.

Example: “Never **have I seen** such honesty.” / “Seldom **do we find** such dedication.”

Why other options are incorrect:

- B: “have you meet” is grammatically wrong because after “have” the past participle is needed (“met”), and the tense is not required here.
- C: “you met” changes the tense to past, which does not match the intended general statement.
- D: “did you met” is incorrect because after “did” the base form is used (“meet”), not “met”.

Information booster: In SSC/Banking exams, inversion is frequently tested with “Hardly/Scarcely/No sooner” as well, where specific tense patterns are required. Here, “Rarely” requires only auxiliary inversion in the same tense.

So the correct answer is (a)

Q.79 Which term refers to “a state in which individuals feel anonymous and therefore act with reduced personal accountability”?

- A. Deindividuation
- B. Cognitive Dissonance
- C. Self-Justification
- D. Moral Disengagement

Answer: A

Sol:

The correct option is (a).

Explanation: **Deindividuation** refers to a psychological state in which a person’s individual identity and self-awareness are reduced, often due to anonymity in a group. Because the individual feels less personally identifiable, personal responsibility and accountability decrease, and the person may engage in impulsive or norm-violating behaviour.

Meaning: Deindividuation means loss of personal identity and reduced self-control due to anonymity or group immersion. (Hindi meaning: व्यक्तित्व का लोप/गुमनामी में व्यक्तिगत जिम्मेदारी का कम होना)

Example: “In a large crowd, deindividuation may cause some people to behave aggressively because they feel anonymous.”

Why other options are incorrect:

- B: Cognitive Dissonance – Mental discomfort caused by holding conflicting beliefs or attitudes. (Hindi meaning: संज्ञानात्मक असंगति)
- C: Self-Justification – The tendency to defend one’s actions or beliefs to avoid guilt or criticism. (Hindi meaning: आत्म-औचित्यकरण)
- D: Moral Disengagement – Psychological process of detaching moral standards to justify unethical behaviour. (Hindi meaning: नैतिक विमुखता)

So the correct answer is (a)

Q.80 Convert the sentence provided below from its passive voice structure to an active voice structure:
The minister’s address was being interpreted into several languages by official translators.

- A. Official translators had interpreted the minister’s address into several languages.
- B. Official translators are interpreting the minister’s address into several languages.
- C. Official translators were interpreting the minister’s address into several languages.
- D. Official translators interpreted the minister’s address into several languages.

Answer: C

Sol:

The correct option is (c).

Explanation: The passive sentence is in the **past continuous passive** form: “was being interpreted”. To convert to active voice, we bring the agent (“official translators”) as the subject and keep the same tense in active form, i.e., **past continuous active**: “were interpreting”. The object “the minister’s address” remains the object in active voice, and the rest of the sentence is retained for meaning and clarity.

Structure:

Passive: Subject (receiver) + was/were being + V3 + by + Agent

Active: Agent + was/were + V1-ing + Object

Correct active sentence: “Official translators **were interpreting** the minister’s address into several languages.”

Why other options are incorrect:

- A: “had interpreted” is past perfect, which changes the tense and meaning (completed before another past action).
- B: “are interpreting” is present continuous, which changes the time reference.
- D: “interpreted” is simple past, which removes the ongoing nature of the action indicated by “was being interpreted”.

Information booster: Always identify the tense of the passive verb phrase first (was being + V3 indicates past continuous passive). Then apply the equivalent active tense (were + V1-ing).

So the correct answer is (c)

Q.81 Select the most appropriate antonym of the given word. Magnanimous

- A. Benevolent
- B. Self-centred
- C. Noble
- D. Generous

Answer: B

Sol:

The correct option is (b).

Explanation: The word **magnanimous** means very generous, kind, and forgiving, especially towards a rival or someone less powerful. It indicates a large-hearted and unselfish attitude. The antonym should therefore express the opposite quality: being concerned mainly with oneself rather than others. Hence, **self-centred** is the most appropriate antonym.

Magnanimous: Showing great generosity of spirit; noble and forgiving, particularly when one is in a position of advantage. (Hindi meaning: उदार/ बड़ेदिल/क्षमा-भाव वाला)

Example: “Despite the insult, he was magnanimous and forgave his opponent.”

Self-centred: Focused mainly on one’s own needs and interests; lacking concern for others. (Hindi meaning: स्वार्थी/आत्मकेंद्रित)

Example: “A self-centred person rarely considers how their actions affect ot

Synonyms (of magnanimous): generous, noble, big-hearted, forgiving.
Antonyms (of magnanimous): selfish, petty, mean, self-centred.

Meanings of the other options:

- A: Benevolent – Kind and well-meaning; charitable. (Hindi meaning: परोपकारी/दयालु)
- C: Noble – Having high moral qualities; honourable. (Hindi meaning: कुलीन/उच्च चरित्र वाला)
- D: Generous – Willing to give more of something than is necessary; open-handed. (Hindi meaning: उदार/दानशील)

So the correct answer is (b)

Q.82 A sentence is provided in direct speech. From the four given options, choose the one that most accurately conveys the sentence in its corresponding indirect speech.

“May I propose a modification to clause three?” the advocate asked courteously.

- A. The advocate proposed to modify clause three.
- B. The advocate courteously asked may he propose a modification.
- C. The advocate courteously inquired whether he might propose a modification to clause three.
- D. The advocate advised modifying clause three.

Answer: C

Sol:

The correct option is (c).

Explanation: The direct speech is an **interrogative sentence** beginning with “May I...?”, which expresses polite permission/request. In indirect speech, such questions are reported using verbs like **asked/inquired** and the sentence is changed into an affirmative structure with **whether/if**. Also, “may” generally changes to “might” when the reporting verb is in the past (“asked”). The pronoun “I” changes to “he” because the speaker is “the advocate”. The adverb “courteously” is retained appropriately.

Correct indirect speech (Option C): “The advocate courteously inquired whether he might propose a modification to clause three.”

Rules of conversion used:

- Interrogative (Yes/No type) changes to statement form using “whether/if”.
- Modal “may” changes to “might” when reporting verb is in past, unless the sense is universal/present permission; here it is a polite request, so “might” is standard.
- Pronoun change: I → he (as per the subject “the advocate”).
- Word order becomes Subject + Verb (no question form in indirect speech).

Why other options are incorrect:

- A: Loses the interrogative politeness and does not report the question accurately.
- B: Incorrect structure; indirect speech cannot retain direct-question word order “may he propose”.
- D: Changes meaning to advice, whereas the original is a polite request/question.

So the correct answer is (c)

Q.83 Rearrange the following sentences in correct order to make a meaningful passage.

1. Sensor units transmitted readings to the monitoring server.
2. A corrective update was deployed to address anomalies.
3. System logs were examined for irregular spikes.
4. Engineers traced the origin of the interference.

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

Answer: D

Sol:

The correct option is (d).

Explanation: A meaningful and logical sequence should show the flow: data is received, then problem evidence is checked, then the cause is traced, and finally a corrective step is taken. Sentence (1) naturally introduces the process: sensors send readings to the server. After readings are received, engineers check evidence in the system, so (3) follows: logs are examined for irregular spikes. Once anomalies are confirmed through logs, the next step is investigation, so (4) follows: engineers traced the origin of the interference. After identifying the cause, a solution is implemented, so (2) comes last: a corrective update was deployed.

Correct order: 1 → 3 → 4 → 2

Why this order is correct (exam-style points):

- (1) sets the context by describing the initial system activity (sensor readings transmission).
- (3) logically follows because logs are examined after data is received to detect irregularities.
- (4) comes next as the investigative action taken after detecting spikes/anomalies.
- (2) is the concluding remedial action, which is typically deployed after diagnosis.

Information booster: In para-jumble questions, identify a clear starting sentence (context/trigger) and a clear ending sentence (solution/result). Here, (1) is the trigger and (2) is the final corrective result.

So the correct answer is (d)

Q.84 Select the most appropriate synonym of the given word. QUIESCENT

- A. Dormant
- B. Noisy
- C. Boisterous
- D. Turbulent

Answer: A

Sol:

The correct option is (a).

Explanation: The word **quiescent** means inactive, quiet, or at rest; it often refers to something that is temporarily not active but can become active again. The closest synonym among the options is **dormant**, which also means inactive or in a state of rest, especially for a period.

Quiescent: In a state of inactivity or repose; quiet and not active at the moment. (Hindi meaning: निष्क्रिय/शांत/सुषुप्त)
Example: “The volcano has been quiescent for decades, but scientists still monitor it.”

Dormant: Temporarily inactive, asleep, or not developing, but capable of becoming active. (Hindi meaning: सुप्त/निष्क्रिय)
Example: “Some seeds remain dormant until conditions become favourable.”

Synonyms (of quiescent): inactive, dormant, latent, still.
Antonyms (of quiescent): active, turbulent, restless, vigorous.

Meanings of the other options:
· B: Noisy – Making a lot of sound; loud. (Hindi meaning: शोरयुक्त)
· C: Boisterous – Noisy, energetic, and cheerful; often rough. (Hindi meaning: उग्र/शोरगुल वाला)
· D: Turbulent – Characterized by conflict, disorder, or violent movement. (Hindi meaning: अशांत/उथल-पुथल भरा)

So the correct answer is (a)

Q.85 Find the part of the sentence that contains an error:
The CEO emphasized that (1)/ the new recruits (2)/ must demonstrate (3)/ punctuality, dedication, and be creative. (4)/

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

Answer: D

Sol:

The correct option is (d).

Explanation: The error lies in part (4): “punctuality, dedication, and **be** creative.” The list is not parallel. “Punctuality” and “dedication” are nouns, but “be creative” is a verb phrase. In a series, items should follow **parallel structure** (same grammatical form). Therefore, it should be “punctuality, dedication, and **creativity**” (all nouns) or “must be punctual, (be) dedicated, and (be) creative” (all adjective complements/verb phrases).

Correct sentence (one acceptable correction): “The CEO emphasized that the new recruits must demonstrate punctuality, dedication, and **creativity**.”

Grammatical rule used: Parallelism in coordination. When elements are joined by “and/or”, they should be in the same grammatical form (noun + noun + noun, or verb + verb + verb, etc.).

Example: “She likes **reading, writing, and painting**.” (All gerunds) / “He is **honest, hardworking, and creative**.” (All adjectives)

Information booster: Parallelism errors are very common in SSC error-detection questions, especially in lists of qualities, duties, or actions.

So the correct answer is (d)

- Q.86** Rearrange the following sentences in correct order to make a meaningful passage.
1. The final report is submitted to the international review body for ratification.
 2. Stakeholders then examine drafts and recommend corrections.
 3. After incorporating inputs, a final version is compiled.
 4. In the beginning, national consultations produce region-specific findings.
- A. 1-3-2-4
B. 4-2-3-1
C. 2-4-3-1
D. 3-1-2-4

Answer: B

Sol:

The correct option is (b).

Explanation: The passage describes a formal report-making process from initial consultations to final submission. Sentence (4) clearly signals the beginning: “In the beginning, national consultations produce region-specific findings.” After initial findings, draft documents are prepared and reviewed, so (2) logically follows: stakeholders examine drafts and suggest corrections. Once inputs/corrections are incorporated, the final version is prepared, so (3) follows. Finally, the completed report is submitted for ratification, so (1) comes at the end.

Correct order: 4 → 2 → 3 → 1

Why this order is correct (exam-style points):

- (4) begins with a clear time marker “In the beginning”, making it the natural opening.
- (2) uses “then”, indicating the next stage after drafts/finding-based drafts exist.
- (3) refers to “incorporating inputs”, which must come after stakeholder recommendations in (2).
- (1) is the concluding step where the final report is submitted for ratification.

Information booster: Words like “in the beginning”, “then”, “after”, “finally” are strong sequencing clues. Always align cause-and-effect: corrections (2) must precede compilation (3).

So the correct answer is (b)

Q.87 Choose the correct meaning of idiom given below: “Know which way the wind blows”

- A. Remain undecided in every matter
B. Understand the prevailing trend or public mood
C. Seek constant approval from others
D. Avoid all risks

Answer: B

Sol:

The correct option is (b).

Explanation: The idiom “know which way the wind blows” means to understand the current situation, the likely outcome, or the prevailing trend—especially public opinion or power dynamics—so that one can act accordingly. It refers to being aware of “which side is gaining strength” or “what people generally think” before taking a decision.

Meaning of the idiom: To be aware of the prevailing circumstances or public mood; to understand the direction of events. (Hindi idiom meaning: हवा का रुख समझना)

Example: “Before supporting any policy, the leader tried to know which way the wind blows in the public.”

Other related idioms and meanings:

- “Test the waters” – To try something cautiously before making a full commitment.
- “Read the room” – To understand the mood or reactions of people present.
- “Go with the flow” – To adapt to circumstances without resistance.
- “Jump on the bandwagon” – To join a popular trend because others are doing so.

Why other options are incorrect:

- A: “Remain undecided” does not convey understanding trends; it indicates inability to decide.
- C: “Seek constant approval” relates to insecurity, not awareness of prevailing circumstances.
- D: “Avoid all risks” is about risk-aversion, not about understanding public reaction.

So the correct answer is (b)

if _____ f “whereby” in the clause: “...secret conference, whereby reckless slanders were sown...”
t _____ he questions:

It is with the utmost seriousness that we convey tidings from the Continent, where the designs of foreign Powers signal a disturbance most grievous to the peace of Europe. Communications received in our office—though some arrive through channels of uncertain credibility—suggest that several Ministers of State, long discontented, have entered into secret conference, whereby reckless slanders were sown and the fragile Peace lately concluded at Amiens is placed in jeopardy. The people, eager for repose after years of convulsion, remain restless; their fears are inflamed by pamphleteers whose incendiary harangues find ready acceptance among the credulous. Meanwhile, at Westminster, the Commons are immersed in heated deliberation on whether naval preparations ought to be increased, lest hostile stratagems leave our coasts exposed. An official appeal has been issued urging the citizenry to remain vigilant yet orderly, for vigilance—tempered by prudence—is held by many learned gentlemen to be the surest barrier against perfidious ambition. Further dispatches are awaited with no little apprehension.

- A. Preposition
- B. Conjunction
- C. Relative Adverb
- D. Pronoun

Answer: C

Sol:

The correct option is (c).

Explanation: The word **whereby** means “by which” or “through which,” and it introduces a clause explaining the method or means by which something happens. In the phrase “secret conference, whereby reckless slanders were sown,” it connects the noun “conference” to the result/action that followed, indicating the means or process. Hence, it functions as a **relative adverb** (a connector introducing a relative clause with the sense of “by which”).

How it works grammatically: Relative adverbs (where, when, why, whereby) introduce clauses and relate them to an earlier noun/idea, providing additional information.

Why other options are incorrect:

- A: Preposition is a word used before a noun/pronoun (in, on, by). “Whereby” is not functioning as a simple preposition here.
- B: Conjunction joins two independent clauses or coordinate elements; “whereby” introduces a relative clause linked to “conference”.
- D: Pronoun replaces a noun; “whereby” does not replace a noun, it connects and explains means.

So the correct answer is (c)

Q.89 What is the closest meaning of “grievous” as used in the passage?

Read the passage and answer the questions:

It is with the utmost seriousness that we convey tidings from the Continent, where the designs of foreign Powers signal a disturbance most grievous to the peace of Europe. Communications received in our office—though some arrive through channels of uncertain credibility—suggest that several Ministers of State, long discontented, have entered into secret conference, whereby reckless slanders were sown and the fragile Peace lately concluded at Amiens is placed in jeopardy. The people, eager for repose after years of convulsion, remain restless; their fears are inflamed by pamphleteers whose incendiary harangues find ready acceptance among the credulous. Meanwhile, at Westminster, the Commons are immersed in heated deliberation on whether naval preparations ought to be increased, lest hostile stratagems leave our coasts exposed. An official appeal has been issued urging the citizenry to remain vigilant yet orderly, for vigilance—tempered by prudence—is held by many learned gentlemen to be the surest barrier against perfidious ambition. Further dispatches are awaited with no little apprehension.

- A. Routine
- B. Severe and painful
- C. Hidden
- D. Insignificant

Answer: B

Sol:

The correct option is (b).

Explanation: The word **grievous** in the passage appears in the phrase “a disturbance most grievous to the peace of Europe.” Here, it describes something that causes serious harm, pain, or suffering to peace. Thus, the closest meaning is “severe and painful,” i.e., extremely serious and damaging.

Context clue: The passage uses strong words like “disturbance,” “jeopardy,” “apprehension,” which support the sense of seriousness and harm.

Why other options are incorrect:

- A: Routine means ordinary and common; it contradicts the serious tone of the passage.
- C: Hidden means concealed; it does not match the sense of severity or painful impact.
- D: Insignificant means unimportant; the passage clearly treats the disturbance as highly serious.

So the correct answer is (b)

Q.90 The word “slanders” most nearly means:

Read the passage and answer the questions:

It is with the utmost seriousness that we convey tidings from the Continent, where the designs of foreign Powers signal a disturbance most grievous to the peace of Europe. Communications received in our office—though some arrive through channels of uncertain credibility—suggest that several Ministers of State, long discontented, have entered into secret conference, whereby reckless slanders were sown and the fragile Peace lately concluded at Amiens is placed in jeopardy. The people, eager for repose after years of convulsion, remain restless; their fears are inflamed by pamphleteers whose incendiary harangues find ready acceptance among the credulous.

Meanwhile, at Westminster, the Commons are immersed in heated deliberation on whether naval preparations ought to be increased, lest hostile stratagems leave our coasts exposed. An official appeal has been issued urging the citizenry to remain vigilant yet orderly, for vigilance—tempered by prudence—is held by many learned gentlemen to be the surest barrier against perfidious ambition. Further dispatches are awaited with no little apprehension.

- A. Truthful remarks
- B. Festive announcements
- C. Malicious false statements
- D. Formal directives

Answer: C

Sol:

The correct option is (c).

Explanation: In the passage, “reckless slanders were sown” suggests that false and damaging statements were spread secretly to create unrest and place peace “in jeopardy”. The word **slanders** refers to statements that harm someone’s reputation, usually by being false and malicious. Hence, the closest meaning is “malicious false statements”.

Context clue: The phrase “reckless slanders” is linked to secret conferences and threats to peace, showing that the statements were intended to mislead and provoke.

Why other options are incorrect:

- A: “Truthful remarks” is the opposite of slander, because slander is based on falsehood.
- B: “Festive announcements” is unrelated to the serious and alarming tone of the passage.
- D: “Formal directives” refers to official orders, not harmful rumours or false statements.

So the correct answer is (c)

Q.91 According to the passage, what is the chief aim of the official “appeal” to the citizenry?

Read the passage and answer the questions:

It is with the utmost seriousness that we convey tidings from the Continent, where the designs of foreign Powers signal a disturbance most grievous to the peace of Europe. Communications received in our office—though some arrive through channels of uncertain credibility—suggest that several Ministers of State, long discontented, have entered into secret conference, whereby reckless slanders were sown and the fragile Peace lately concluded at Amiens is placed in jeopardy. The people, eager for repose after years of convulsion, remain restless; their fears are inflamed by pamphleteers whose incendiary harangues find ready acceptance among the credulous.

Meanwhile, at Westminster, the Commons are immersed in heated deliberation on whether naval preparations ought to be increased, lest hostile stratagems leave our coasts exposed. An official appeal has been issued urging the citizenry to remain vigilant yet orderly, for vigilance—tempered by prudence—is held by many learned gentlemen to be the surest barrier against perfidious ambition. Further dispatches are awaited with no little apprehension.

- A. To promote public festivities
- B. To boost commerce
- C. To caution against hostile influence while preserving order
- D. To declare a new administration

Answer: C

Sol:

The correct option is (c).

Explanation: The passage states: “An official appeal has been issued urging the citizenry to remain vigilant yet orderly.” This indicates a dual purpose: (1) to warn people about possible hostile designs and threats, and (2) to ensure that the government’s conduct remains disciplined and calm rather than disorderly. The government wants citizens to be alert (vigilant) but also maintain peace. Therefore, the chief aim is to caution against hostile influence.

while preserving order.

Context from the passage: The writer highlights danger from foreign powers and internal unrest caused by pamphleteers. Hence, the appeal emphasizes vigilance “tempered by prudence” so that the nation remains protected without falling into panic or chaos.

Why other options are incorrect:

- A: Public festivities are not discussed; the tone is serious and concerned about security.
- B: Commerce is not the focus; the focus is on peace, security, and preparedness.
- D: There is no mention of forming or declaring a new administration; it is about public behaviour and national defence.

So the correct answer is (c)

Q.92 . In the sentence “...lest hostile stratagems leave our coasts exposed,” the word “stratagems” is a:

Read the passage and answer the questions:

It is with the utmost seriousness that we convey tidings from the Continent, where the designs of foreign Powers signal a disturbance most grievous to the peace of Europe. Communications received in our office—though some arrive through channels of uncertain credibility—suggest that several Ministers of State, long discontented, have entered into secret conference, whereby reckless slanders were sown and the fragile Peace lately concluded at Amiens is placed in jeopardy. The people, eager for repose after years of convulsion, remain restless; their fears are inflamed by pamphleteers whose incendiary harangues find ready acceptance among the credulous. Meanwhile, at Westminster, the Commons are immersed in heated deliberation on whether naval preparations ought to be increased, lest hostile stratagems leave our coasts exposed. An official appeal has been issued urging the citizenry to remain vigilant yet orderly, for vigilance—tempered by prudence—is held by many learned gentlemen to be the surest barrier against perfidious ambition. Further dispatches are awaited with no little apprehension.

- A. Adjective
- B. Noun
- C. Adverb
- D. Verb

Answer: B

Sol:

The correct option is (b).

Explanation: In the clause “lest hostile stratagems leave our coasts exposed,” the word **stratagems** refers to “plans” or “schemes” used by hostile forces. Such a word names a thing/idea, so it functions as a **noun**. It is also the subject of the verb “leave” in that clause (“stratagems leave our coasts exposed”).

How to identify: A noun names a person, place, thing, or idea. “Stratagems” names tactical schemes (an idea/plan), therefore it is a noun.

Why other options are incorrect:

- A: Adjective describes a noun; “stratagems” is itself the naming word, not a describing word.
- C: Adverb modifies a verb/adjective/adverb; “stratagems” does not modify anything.
- D: Verb denotes an action; “stratagems” is not an action, it is the plan itself.

So the correct answer is (b)

Q.93 Fill in the blank with the most appropriate option:

By the time the medical team arrived, the residents __ to safer ground.

- A. have moved
- B. had moved
- C. moved
- D. would move

Answer: B

Sol:

The correct option is (b).

Explanation: The sentence uses the time expression “By the time the medical team arrived,” which indicates that one action (residents moving) was completed **before** another action in the past (medical team arrived). For an action completed before a point in the past, we use the **past perfect** tense. Therefore, “had moved” is correct.

Correct sentence: “By the time the medical team arrived, the residents **had moved** to safer ground.”

Hindi meaning of the key idea: “had moved” indicates an earlier completed n. (Hindi meaning: पहले ही स्थानांतरित हो चुके थे)

Example: “By the time the train reached the station, we had already left.”

Why other options are incorrect:

- A: “have moved” is present perfect and does not fit with the past-time clause “arrived”.
- C: “moved” (simple past) can sometimes be used, but it does not clearly show the earlier completion before another past action; SSC-style accuracy prefers past perfect with “by the time”.
- D: “would move” suggests a future-in-the-past intention, not a completed action.

Information booster: Time markers like “by the time,” “before,” “after,” “already” often signal past perfect when two past actions are compared.

So the correct answer is (b)

Q.94 Rearrange the following sentences in correct order to make a meaningful sentence:

- P. among industry stakeholders for review
- Q. to obtain structured feedback before approval
- R. the draft compliance guidelines
- S. prepared by the inter-ministerial committee

- A. RQSP
- B. PQRS
- C. QRSP
- D. RSQP

Answer: D

Sol:

The correct option is (d).

Explanation: The core noun phrase is “the draft compliance guidelines” (R). This must be modified by “prepared by the inter-ministerial committee” (S), which clearly describes the guidelines. After forming this complete subject phrase (R + S), we need the purpose clause “to obtain structured feedback before approval” (Q), which explains why the guidelines are circulated. Finally, “among industry stakeholders for review” (P) logically completes the idea by stating where/among whom the guidelines are circulated for review.

Correct arrangement: R → S → Q → P

Meaningful sentence formed: “The draft compliance guidelines prepared by the inter-ministerial committee to obtain structured feedback before approval among industry stakeholders for review.”

Exam-style note: In such rearrangements, first identify the main noun (R), then attach the descriptive participle phrase (S), then place the purpose clause (Q), and finally place the concluding prepositional phrase showing audience/location (P).

So the correct answer is (d)

Q.95 Convert the sentence provided below from its passive voice structure to an active voice structure:

This editorial is going to be published by the journal.

- A. The journal will publish this editorial.
- B. The journal is going to publish this editorial.
- C. The journal publishes this editorial.
- D. The journal had published this editorial.

Answer: B

Sol:

The correct option is (b).

Explanation: The passive sentence uses the structure “is going to be published,” which indicates a planned future action (near future intention). In active voice, we bring the agent “the journal” as the subject and keep the same “going to” future intention: “is going to publish.” The object “this editorial” becomes the object in active voice.

Structure:

Passive: Object + is/are going to be + V3 + by + Agent

Active: Agent + is/are going to + V1 + Object

Correct active sentence: “The journal is going to publish this editorial.”

Why other options are incorrect:

- A: “will publish” changes the exact intended sense from “going to” (planned future) to “will” (simple future), which is not the closest structural match.

- C: “publishes” is simple present, changing the time reference.
- D: “had published” is past perfect, completely incorrect for the given future intention.

Information booster: In voice conversion, the best answer preserves both meaning and tense/aspect. “Going to” is treated as a fixed future-intention structure and should be retained.

So the correct answer is (b)

Q.96 Change the following from active to passive:
The reviewers would have amended the draft if fresh evidence had been presented.

- A. The draft would have been amended by the reviewers if fresh evidence had been presented.
- B. The draft would amend by the reviewers if fresh evidence had been presented.
- C. The draft could be amended by the reviewers if fresh evidence had been presented.
- D. The draft was amended by the reviewers if fresh evidence had been presented.

Answer: A

Sol:

The correct option is (a).

Explanation: The active sentence uses a conditional with “would have amended,” which is the **perfect conditional** (would have + V3). To convert to passive, the object “the draft” becomes the subject, and the verb changes to “would have been amended” (would have been + V3). The agent “the reviewers” is added with “by”. The if-clause “if fresh evidence had been presented” remains unchanged because it already describes a past perfect condition.

Structure:

Active: Subject + would have + V3 + Object

Passive: Object + would have been + V3 + by + Subject

Correct passive sentence: “The draft **would have been amended** by the reviewers if fresh evidence had been presented.”

Why other options are incorrect:

- B: “would amend” is incorrect in form and missing “been”; also “amend” should be past participle in passive construction.
- C: “could be amended” changes the modal meaning from “would have” (hypothetical past result) to “could” (possibility).
- D: “was amended” changes the tense and meaning; it states an actual past action, not a hypothetical past result.

Information booster: When you see “would have + V3” in active, the passive almost always becomes “would have been + V3”. Preserve the conditional nature of the sentence.

So the correct answer is (a)

Q.97 Which word has a spelling mistake?

- A. Convalescence
- B. Obsequious
- C. Conflageration
- D. Reticent

Answer: C

Sol:

The correct option is (c).

Explanation: Option (C) “Conflageration” is incorrectly spelt. The correct spelling is **conflagration**, which means a large destructive fire; it can also refer to a major conflict. (Hindi meaning: भीषण अग्निकांड/भयंकर आग)

Example: “The conflagration spread rapidly due to strong winds.”

Part of speech: “Conflagration” is a **noun** (it names an event/state of a great fire).

Meanings of all the given options:

- A: Convalescence – The period of recovery after illness or medical treatment. (Hindi meaning: स्वास्थ्य-लाभ/आरोग्य-प्राप्ति काल)
- B: Obsequious – Excessively obedient or flattering for personal advantage. (Hindi meaning: चापलूस/अत्यधिक आज्ञाकारी)
- C: Conflagration (correct form) – A large destructive fire; an intense conflict. (Hindi meaning: भीषण अग्निकांड)
- D: Reticent – Not revealing one’s thoughts or feelings readily; reserved. (Hindi meaning: संकोची/कम बोलने वाला)

So the correct answer is (c)

Q.98 A sentence is provided in indirect speech. From the four given options, choose the one that most accurately conveys the sentence in its corresponding direct speech.

The analyst remarked that the report, although comprehensive, was inconsistent in its interpretation of data.

- A. “The report is comprehensive, but your interpretation is inconsistent,” the analyst remarked.
- B. “Though the report is comprehensive, the interpretation of the data is not consistent,” said the analyst.
- C. “It’s comprehensive, but the data interpretation is inconsistent,” the analyst said.
- D. “Your interpretation is inconsistent even though the report is comprehensive,” said the analyst.

Answer: B

Sol: The correct option is (b).

Explanation: The indirect speech states a past remark: “the report ... was inconsistent.” When converting to direct speech, we should present the exact content of the remark with appropriate connectors and a reporting clause. Option (B) accurately reflects the concessive idea “although comprehensive” using “though” and keeps the focus on “the interpretation of the data” being “not consistent,” which matches “was inconsistent in its interpretation of data.” It also uses a correct reporting structure: quotation + reporting verb.

Rules of conversion used:

- Indirect statement becomes a direct quotation with quotation marks.
- Concessive connector “although” can be expressed as “though/even though” in direct speech while retaining meaning.
- The reporting verb “remarked” can be conveyed by “said/remarked,” and the speaker remains “the analyst.”

Why other options are incorrect:

- A: Introduces “your interpretation,” which is not stated in the original; the original refers to the report’s interpretation of data, not necessarily addressing “you.”
- C: Uses informal contraction “It’s” and compresses the statement; it is less precise and less formal for exam-standard direct speech.
- D: Again introduces “your interpretation,” shifting the meaning and the target of criticism away from the report.

Information booster: In speech conversion questions, avoid options that add new pronouns (you/your) unless clearly implied by the original sentence. Meaning must remain faithful.

So the correct answer is (b)

Q.99 Select the correctly spelled word meaning ‘stubbornly defiant of authority’.

- A. Recalcitrant
- B. Recalserant
- C. Recalcittrent
- D. Ricalcetrant

Answer: A

Sol:

The correct option is (a).

Explanation: The correctly spelled word is **recalcitrant**. It means stubbornly resistant to authority or control; unwilling to obey rules or discipline. (Hindi meaning: हठी/अवज्ञाकारी/कठोर रूप से विरोधी)

Example: “The recalcitrant employee refused to follow the company’s safety instructions.”

Meanings of the other options:

- B: Recalserant – Not a correct English word; incorrect spelling. (Hindi meaning: अशुद्ध वर्तनी)
- C: Recalcittrent – Not a correct English word; incorrect spelling. (Hindi meaning: अशुद्ध वर्तनी)
- D: Ricalcetrant – Not a correct English word; incorrect spelling. (Hindi meaning: अशुद्ध वर्तनी)

Information booster: “Recalcitrant” is often confused in spelling due to multiple consonants. Remember the pattern: **re + calcitrant** (contains “calcitr”).

So the correct answer is (a)

Q.100 Choose the correctly spelt word that means ‘excessively talkative, especially about trivial matters’.

- A. Garrulous
- B. Garrolous
- C. Garruless
- D. Garralouse

Answer: A

Sol:

The correct option is (a).

Explanation: The correctly spelt word is **garrulous**. It means excessively talkative, often about unimportant or trivial matters, and difficult to stop once started. (Hindi meaning: वाचाल/बहुत बोलने वाला)

Example: “The garrulous neighbour kept talking for an hour about minor incidents.”

Meanings of the other options:

- B: Garrolous – Incorrect spelling; not a standard English word. (Hindi meaning: अशुद्ध वर्तनी)
- C: Garruless – Incorrect spelling; not the correct form. (Hindi meaning: अशुद्ध वर्तनी)
- D: Garralouse – Incorrect spelling; not a standard English word. (Hindi meaning: अशुद्ध वर्तनी)

Information booster: “Garrulous” is often tested with similar-looking spellings. Remember it has double “r” and ends with “-ous”.

So the correct answer is (a)
