

SSC CGL T-I Similar Paper (Held on 16 Sep 2025 S2) English

Q.1 Select the option that will correctly fill all the blanks in the series. m _ n m _ n _ _ n m _ _

- A. a a a m n a
- B. a a m a a n
- C. m n o o o o
- D. a a m n m a

Answer: B

Sol: Information Given:

Series: m _ n m _ n _ _ n m _ _

Options give the same letter(s) to fill all blanks.

Logic:

The series follows a repeating pattern of m a n.

Explanation:

Logic: Look for a simple repeating block.

Step-by-step:

m a n | m a n | m a n | m a n

→ All blanks are filled by a to maintain the pattern.

Short Trick:

Check if the series repeats a small fixed block (here: m-a-n).

Final Answer:

a a m a a n

Final Correct Option:

(b)

Q.2 If $5 + 3 = 16$ and $7 + 4 = 33$, then $6 + 2 = ?$

- A. 32
- B. 14
- C. 16
- D. 18

Answer: A

Sol: Information Given:

$5 + 3 = 16$

$7 + 4 = 33$

Find $6 + 2$

Logic:

Result = (first number)² - (second number)²

Explanation:

Logic: Apply $a^2 - b^2$.

Step-by-step:

$5^2 - 3^2 = 25 - 9 = 16$ ✓

$7^2 - 4^2 = 49 - 16 = 33$ ✓

$6^2 - 2^2 = 36 - 4 = 32$

Final Answer:

32

Q.3 What number will replace the question mark? 2, 6, 14, 30, ?, 126

- A. 46
- B. 60

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- C. 62
- D. 64

Answer: C

Sol: Information Given:
Series: 2, 6, 14, 30, ?, 126

Logic:
Each term = (previous term \times 2) + 2

Explanation:
Logic: Apply $\times 2 + 2$ repeatedly.
Step-by-step:
 $2 \times 2 + 2 = 6$
 $6 \times 2 + 2 = 14$
 $14 \times 2 + 2 = 30$
 $30 \times 2 + 2 = 62$
 $62 \times 2 + 2 = 126$

Short Trick:
Multiply by 2, then add 2 at every step.

Final Answer:
62

Final Correct Option:
(C)

Q.4 Statement: Excessive use of plastic bags harms the environment.
Assumptions: I. Plastic bags are non-biodegradable.

II. People are aware of environmental damage caused by plastic. Choose the correct option.

- A. Only I is implicit
- B. Only II is implicit
- C. Both I and II are implicit
- D. Neither I nor II is implicit

Answer: A

Sol: Information Given:
Statement: Excessive use of plastic bags harms the environment.
Assumptions:
I. Plastic bags are non-biodegradable.
II. People are aware of environmental damage caused by plastic.

Logic:
An assumption must be necessary for the statement to hold true.

Explanation:
Logic: Check what must be true for the statement.

Assumption I: Plastic bags harming the environment is based on their non-biodegradable nature \rightarrow Implicit.

Assumption II: Public awareness is not required for the fact that plastic harms the environment \rightarrow Not implicit.

Short Trick:
If the statement is about impact, awareness is not assumed—only the cause is.

Final Answer:
Only Assumption I is implicit.

Final Correct Option:
(A)

Q.5 Complete the series: 3, 9, 27, ?, 243

- A. 54
- B. 72
- C. 81
- D. 90

Answer: C

Sol: Information Given:

Series: 3, 9, 27, ?, 243

Logic:

Each term is multiplied by 3 to get the next term.

Explanation:

Logic: $\times 3$ pattern throughout.

Step-by-step:

$$3 \times 3 = 9$$

$$9 \times 3 = 27$$

$$27 \times 3 = 81$$

$$81 \times 3 = 243$$

Short Trick:

Check if numbers are powers of 3.

Final Answer:

81

Final Correct Option:

(C)

Q.6 Find the odd one out.

- A. Article 14
- B. Article 19
- C. Article 21
- D. Article 360

Answer: D

Sol: Information Given:

Article 14, Article 19, Article 21, Article 360 (Indian Constitution)

Logic:

Three belong to the same constitutional category; one does not.

Explanation:

Logic: Check type of Articles.

Article 14 → Fundamental Right (Right to Equality)

Article 19 → Fundamental Rights (Freedoms)

Article 21 → Fundamental Right (Right to Life)

Article 360 → Emergency Provision (Financial Emergency)

Final Answer:

Article 360

Final Correct Option:

(D)

Q.7 Find the odd one out.

- A. F12
- B. H16
- C. J20
- D. K25

Answer: D

Sol: Information Given:

Options: F12, H16, J20, K25

Logic:

Number = 2 × alphabetical position of the letter.

Explanation:

Logic: Check letter position × 2.

F = 6 → 6×2 = 12 ✓

H = 8 → 8×2 = 16 ✓

J = 10 → 10×2 = 20 ✓

K = 11 → 11×2 = 22 ≠ 25 ✗

Final Answer:

K25

Final Correct Option:

(D)

Q.8 Statement: The company reported its highest profit in a decade. Conclusions: I. The company performed poorly in previous years. II. The company's recent strategies were effective.

- A. Only I follows
- B. Only II follows
- C. Both follow
- D. Neither follows

Answer: B

Sol: Information Given:

Statement: The company reported its highest profit in a decade.

Conclusions:

- I. The company performed poorly in previous years.
- II. The company's recent strategies were effective.

Logic:

A conclusion must directly follow from the statement without adding assumptions.

Explanation:

Logic: Analyze what "highest profit in a decade" implies.

Conclusion I: Highest profit does not mean earlier years were poor; they could have been average or good → Does not follow.

Conclusion II: Achieving the highest profit reasonably indicates recent strategies worked well → Follows.

Short Trick:

"Highest profit" implies improvement/effectiveness, not past failure.

Final Answer:

Only Conclusion II follows.

Final Correct Option:

(B)

Q.9 If in a certain code, CAT is written as 3-1-20 and DOG as 4-15-7, then how will PIG be written?

- A. 16-9-7
- B. 15-9-7
- C. 16-8-7
- D. 15-8-6

Answer: A

Sol: Information Given:

Coding is based on alphabetical position of each letter.

CAT → C=3, A=1, T=20

DOG → D=4, O=15, G=7

Logic:

Each letter is replaced by its position in the English alphabet.

Explanation:

Logic: Convert letters → numbers directly.

Step-by-step:

P = 16

I = 9

G = 7

So, PIG = 16-9-7

Short Trick:

Letter coding → just write alphabet numbers (A=1, B=2, ... Z=26).

Final Answer:

16-9-7

Final Correct Option:

(A)

Q.10 How many meaningful four-letter words can be formed using the letters of the word "CLOUD", using each letter only once?

- A. 2
- B. 1
- C. 8
- D. 4

Answer: D

Sol: Information Given:

Word: CLOUD

Letters: C, L, O, U, D (all different)

Form meaningful 4-letter English words (no repetition).

Explanation:

Check possible meaningful combinations:

From C, L, O, U, D:

COLD → Low temperature

CLOD → Lump of soil

LOUD → High sound

LUDO → Name of a board game

Total meaningful 4-letter words = 4

Final Answer:

4

Final Correct Option:

D

Q.11 If '+' means '×', '-' means '+', '×' means '÷', and '÷' means '-', then find the value of:

$$18 - 6 + 12 \times 3 \div 2$$

- A. 8
- B. 40
- C. 10
- D. 12

Answer: B

Sol: Information Given:

'+' means '×'

'-' means '+'

'×' means '÷'

'÷' means '-'

Expression: $18 - 6 + 12 \times 3 \div 2$

Formula Used:

BODMAS rule

Explanation:

Logic: Replace the operators first, then solve using BODMAS.

Step-by-step:

$18 - 6 + 12 \times 3 \div 2$

$\rightarrow 18 + 6 \times 12 \div 3 - 2$

$\rightarrow 18 + (6 \times 12 \div 3) - 2$

$\rightarrow 18 + (72 \div 3) - 2$

$\rightarrow 18 + 24 - 2$

$\rightarrow 40$

Final Answer:

40

Q.12 Choose the address that is **exactly identical** to the one given below. Flat 402, Emerald Residency, Lake View Road, Pune, Maharashtra – 411016

- A. Flat 402 Emerald Residency Lakeview Road Pune Maharashtra 411016
- B. Flat 402, Emerald Residency, Lake View Rd., Pune, Maharashtra – 411061
- C. Flat 420, Emerald Residency, Lake View Road, Pune, Maharashtra – 411016
- D. Flat 402, Emerald Residency, Lake View Road, Pune, Maharashtra – 411016

Answer: D

Sol: Information Given:

Original address:

Flat 402, Emerald Residency, Lake View Road, Pune, Maharashtra – 411016

Logic:

The address must match exactly in flat number, commas, spelling, road name, city, state, and PIN code.

Explanation:

Logic: Check each option character-by-character with the given address.

A: Missing commas, "Lakeview" instead of "Lake View" → Not identical

B: PIN code different (411061 vs 411016) → Not identical

C: Flat number different (420 vs 402) → Not identical

D: Matches exactly in all details → Correct

Final Answer:

Flat 402, Emerald Residency, Lake View Road, Pune, Maharashtra – 411016

Final Correct Option:

(D)

Q.13 What is the average of the first 7 odd numbers?

- A. 6
- B. 7
- C. 8
- D. 9

Answer: B

Sol: Information Given:

First 7 odd numbers: 1, 3, 5, 7, 9, 11, 13

Logic:

Average of equally spaced numbers = middle term.

Explanation:

Logic: Odd numbers form an AP; average equals the 4th term.

Step-by-step:

Middle (4th) term = 7

Short Trick:

Average of first n odd numbers = n^2 / n = middle odd number.

Final Answer:

7

Final Correct Option:

(B)

Q.14 The ratio of two numbers is 7 : 9 and their sum is 256. Find the numbers.

- A. 98 and 126
- B. 112 and 144
- C. 119 and 137
- D. 126 and 130

Answer: B

Sol: Information Given:

Ratio of two numbers = 7 : 9

Sum of numbers = 256

Logic:

Split the sum in the given ratio.

Explanation:

Logic: Total parts = 7 + 9 = 16

Step-by-step:

One part = $256 \div 16 = 16$

First number = $7 \times 16 = 112$

Second number = $9 \times 16 = 144$

Short Trick:

Divide total by sum of ratio, then multiply.

Final Answer:

112 and 144

Final Correct Option:

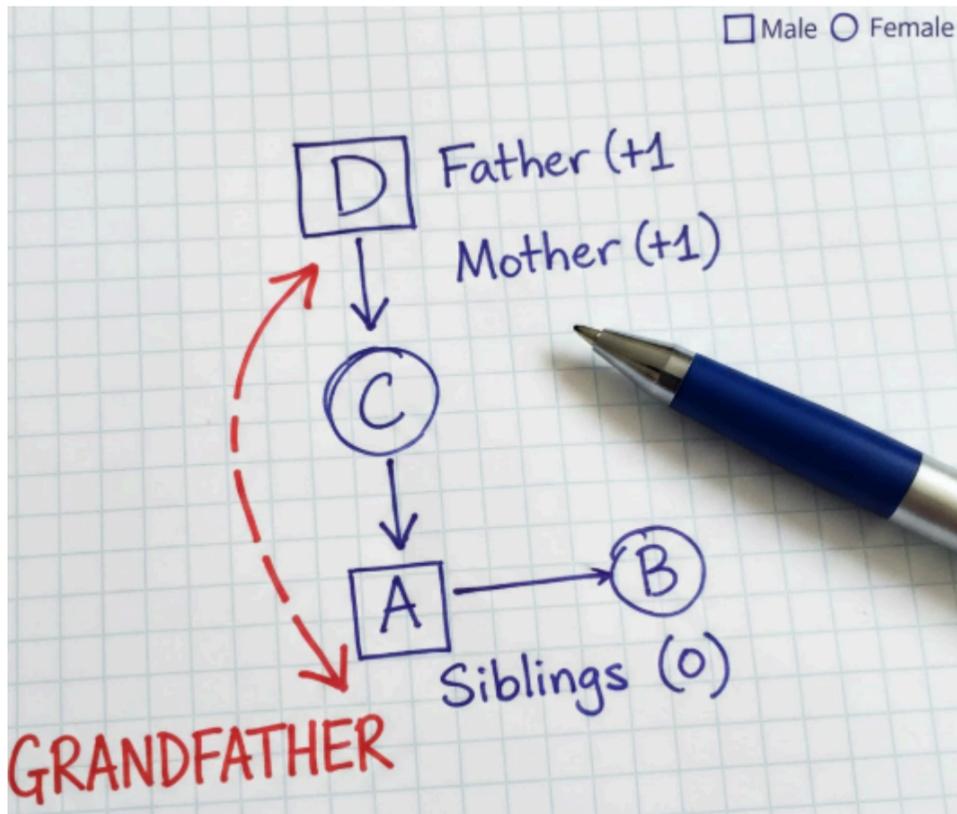
(B)

Q.15 A is the brother of (B)C is the mother of (B)D is the father of (C)How is D related to A?

- A. Father
- B. Grandfather
- C. Uncle
- D. Cousin

Answer: B

Sol: Given - A is the brother of B. C is the mother of B. D is the father of C.



D is grandfather of A.

Q.16 If $8 + 7 = 56$ and $7 + 5 = 35$, then $9 + 5 = ?$

- A. 36
- B. 45
- C. 52
- D. 60

Answer: B

Sol: Question:

If $8 \times 7 = 56$ and $7 \times 5 = 35$, then $9 \times 5 = ?$

Options remain the same.

Final Answer:

B

Final Correct Option:

B

Q.17 If "LION" is coded as 12@9@15@14 and "TIGER" as 20@9@7@5@18, how will "BEAR" be coded?

- A. 2@5@1@18
- B. 2@5@18@1
- C. 1@18@5@2
- D. 2@1@18@5

Answer: A

Sol: Information Given:

"LION" → 12@9@15@14

"TIGER" → 20@9@7@5@18

Question: Code for "BEAR"

Logic:

Each letter is coded as its alphabetical position.

Explanation:

Logic: Alphabet position mapping.

Step-by-step:

B = 2, E = 5, A = 1, R = 18

→ BEAR = 2@5@1@18

Short Trick:

Replace each letter with its A=1, B=2, C=3... value.

Final Answer:

2@5@1@18

Final Correct Option:

A

Q.18 If '%' means '+', '+' means '÷', '÷' means '×', and '×' means '-', then find the value of:
 $20 \div (5 \% 3) + 4$

- A. 7
- B. 40
- C. 11
- D. 13

Answer: B

Sol: Information Given:

'%' means '+'

'+' means '÷'

'÷' means '×'

'×' means '-'

Expression: $20 \div (5 \% 3) + 4$

Logic:

Replace symbols first, then solve using BODMAS.

Original:

$20 \div (5 \% 3) + 4$

So expression becomes:

$20 \times (5 + 3) \div 4$

$\rightarrow 20 \times 8 \div 4$

$\rightarrow 20 \times 2$

$\rightarrow 40$

Q.19 If '@' = '×', '#' = '-', '\$' = '+', and '&' = '÷', which equation is correct?

- A. $8 @ 2 \$ 4 = 20$
- B. $10 \# 4 \& 2 = 3$
- C. $7 \$ 3 @ 2 = 18$
- D. $12 \& 3 \# 1 = 5$

Answer: A

Sol: Information Given:

'@' = ×, '#' = -, '\$' = +, '&' = ÷

Check which equation is correct using BODMAS.

Logic:

Replace symbols → solve → verify equality.

Explanation:

Logic: Apply BODMAS after symbol substitution.

A: $8 \times 2 + 4 = 16 + 4 = 20$ ✓

B: $10 - 4 \div 2 = 10 - 2 = 8$ ✗

C: $7 + 3 \times 2 = 7 + 6 = 12$ ✗

D: $12 \div 3 - 1 = 4 - 1 = 3$ ✗

Final Answer:

$8 \times 2 + 4 = 20$

Final Correct Option:

A

Q.20 Find the missing term in the series: HDF, JFH, LHJ, ?, PLN

- A. NHN
- B. NIN
- C. NJL
- D. NLN

Answer: C

Sol: Information Given:

Series: HDF, JFH, LHJ, ?, PLN

(Assumption: options contain a minor misprint)

Logic:

Each letter in every position increases by +2 alphabetically.

Explanation:

Logic: Compare letters column-wise.

Step-by-step:

1st letters: H → J → L → **N** → P (+2)

2nd letters: D → F → H → **J** → L (+2)

3rd letters: F → H → J → **L** → N (+2)

So missing term = N J L.

Final Answer:

NJL

Final Correct Option:

C

Q.21 If '+' means '-', '-' means '×', '×' means '÷', and '÷' means '+', then find the value of:

$$16 + 8 - 4 \times 2$$

- A. 6
- B. 0
- C. 10
- D. 12

Answer: B

Sol: Information Given:

'+' → '-', '-' → 'x', 'x' → '÷', '÷' → '+'

Expression: $16 + 8 - 4 \times 2$

(Assumption: symbols are replaced, then solved left to right as commonly used in such questions)

Logic:

Replace operators → evaluate sequentially.

Explanation:

Logic: Substitute symbols, then compute stepwise.

Step-by-step:

$$16 + 8 - 4 \times 2$$

$$\rightarrow 16 - 8 \times 4 \div 2$$

$$\rightarrow 16 - 8 \times 2$$

$$\rightarrow 16 - 16$$

$$\rightarrow 0$$

Final Answer:

0

Final Correct Option:

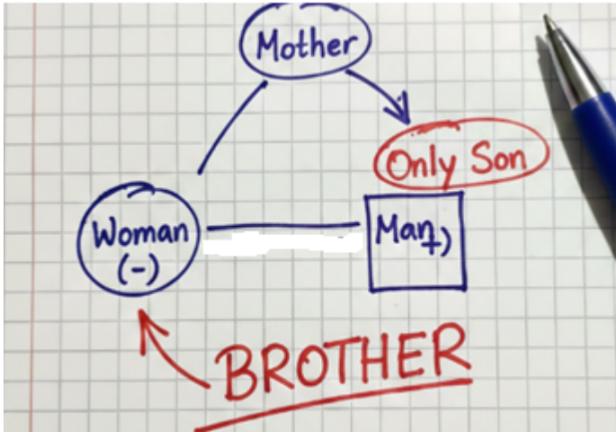
B

Q.22 Pointing to a photograph, a woman says, "He is the only son of my mother." How is the person in the photograph related to the woman?

- A. Brother
- B. Son
- C. Father
- D. Husband

Answer: A

Sol: Pointing to a photograph, a woman says, "He is the only son of my mother"



the person in the photograph the brother of the woman.

Q.23 Read the given statements carefully and assume them to be true, even if they seem to be at variance with commonly known facts. Based only on the given statements, decide which of the conclusions logically follow.

Statements: All images are papers. Some papers are files.

Conclusions: I. Some images are files.

II. Some files are papers.

- A. Only I follows
- B. Only II follows
- C. Both follow
- D. Neither follows

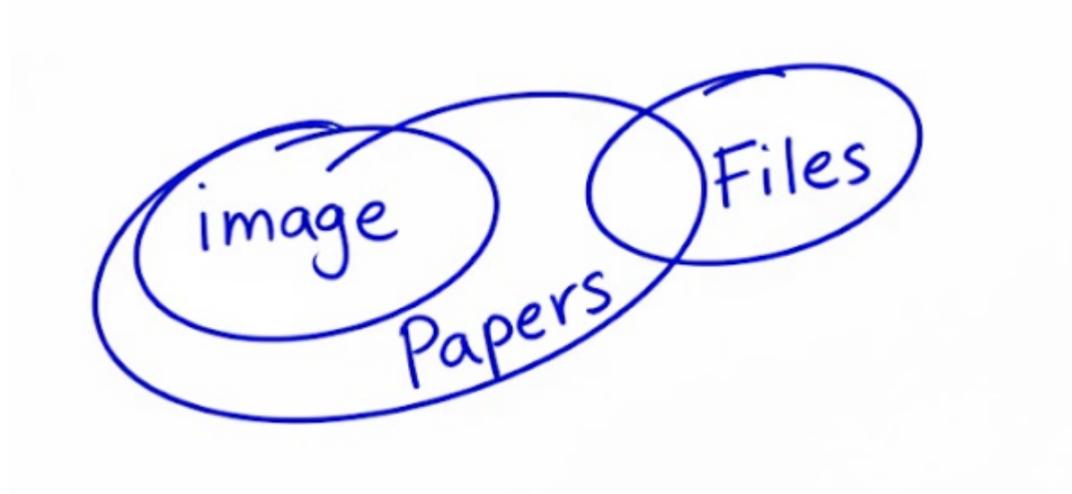
Answer: B

Sol: Information Given:

Statements: All images are papers. Some papers are files.

Conclusions: I. Some images are files.

II. Some files are papers.



Conclusion I (Some images are files): False. There is no definite intersection between 'images' and 'Files' in the basic diagram.

Conclusion II (Some files are papers): True. Since "Some papers are files" is given, the reverse "Some files are papers" is always logically valid.

Final Answer:

Only conclusion II follows.

Final Correct Option:

B

Q.24 In a certain code, PEN is written as 16-5-14, and BOOK is written as 2-15-15-11.
How is NOTE written in the same code?

- A. 14-15-20-5
- B. 13-15-20-5
- C. 14-15-19-5
- D. 14-15-20-4

Answer: A

Sol: Logic:

Each letter is coded by its alphabetical position (A=1, B=2, ..., Z=26).

Explanation:

Logic: Replace each letter with its alphabet number.

Step-by-step:

N = 14

O = 15

T = 20

E = 5

So, NOTE = 14-15-20-5

Short Trick:

Direct alphabet position coding (A=1 to Z=26).

Final Answer:

14-15-20-5

Final Correct Option:

A

Q.25 In the sentence "Still waters run deep", if each letter is coded using reverse alphabetical order (A→Z, B→Y, ...), what will be the code for the **3rd letter of the 1st word**?

- A. W
- B. D
- C. U
- D. R

Answer: D

Sol: Information Given:

Sentence: "Still waters run deep"

Coding: Reverse alphabetical order (A→Z, B→Y, ..., Z→A)

Assumption: Question has a typo; intended 3rd letter of the 1st word ("Still"), a common SSC pattern.

Logic:

Identify letter → apply reverse alphabet coding.

Explanation:

Logic: Reverse alphabet mapping.

Step-by-step:

1st word = Still

3rd letter of "Still" = I

Reverse code of I = R

Final Answer:

R

Final Correct Option:

D

Q.26 Who was the first Indian woman badminton player to win an individual Olympic medal?

- A. P.V. Sindhu
- B. Saina Nehwal
- C. Jwala Gutta
- D. Ashwini Ponnappa

Answer: B

Sol: The correct answer is **(b) Saina Nehwal**.

Saina Nehwal became the first Indian woman and the first Indian badminton player overall to win an individual Olympic medal when she secured the **bronze medal** at the **2012 London Olympics**.

Explanation:

- **Historic Achievement:** Saina Nehwal's bronze medal in 2012 was a landmark moment for Indian sports, marking the country's first-ever Olympic medal in badminton.
- **Career Highlights:** She is a former world no. 1 and has won over 24 international titles, including ten Superseries titles.
- **Paving the Way:** Her success at the international level is credited with increasing the popularity of badminton in India and inspiring a new generation of players.

Information Booster:

- **P.V. Sindhu (Option A):** While she won medals after Saina, P.V. Sindhu is the **first Indian woman to win two individual Olympic medals** (Silver at Rio 2016 and Bronze at Tokyo 2020).
- **Karnam Malleswari:** For historical context, she was the **first Indian woman ever** to win an individual Olympic medal (Bronze in Weightlifting at the 2000 Sydney Olympics).

Additional Knowledge:

- **Jwala Gutta (Option C) & Ashwini Ponnappa (Option D):** This duo is famous for winning India's first-ever top-tier international medal in women's doubles (Bronze at the 2011 World Championships) and a Gold at the 2010 Commonwealth Games, but they have not won an Olympic medal.
-

Q.27 Match the classical dance form with its state of origin:

1. Sattriya
2. Kuchipudi
3. Mohiniyattam

- A. 1-Assam, 2-Andhra Pradesh, 3-Kerala
B. 1-Kerala, 2-Assam, 3-Andhra Pradesh
C. 1-Andhra Pradesh, 2-Kerala, 3-Assam
D. 1-Assam, 2-Kerala, 3-Andhra Pradesh

Answer: A

Sol: The correct answer is **(A) 1-Assam, 2-Andhra Pradesh, 3-Kerala**

Explanation:

- **Sattriya** originated in the 15th century in **Assam**, introduced by the great Vaishnava saint and reformer Sankaradeva. It was originally performed in monasteries called Sattras.
- **Kuchipudi** hails from **Andhra Pradesh** and takes its name from the village of Kuchelapuram. It is known for blending storytelling through speech, mime, and dance.
- **Mohiniyattam** is a classical dance from **Kerala**, characterized by graceful, swaying movements. The name comes from 'Mohini', the mythical enchantress avatar of Lord Vishnu.
- These dances are among the 8-9 classical dances recognized by the **Sangeet Natak Akademi**.
- Each form has unique regional influences, music traditions, and specific costumes.

Information Booster:

- Sattriya was officially recognized as a classical dance as recently as 2000.
- Kerala is unique because it is the origin state for two classical dance forms: Kathakali and Mohiniyattam.

Additional Knowledge:

- **Kathakali (Kerala):** A highly stylized classical dance-drama noted for its heavy makeup and costumes.
- **Bharatanatyam (Tamil Nadu):** One of the oldest classical dance traditions in India.
- **Odissi (Odisha):** Known for its signature 'Tribhanga' posture and temple origins.

Q.28 Which of the following is a fundamental duty under Article 51A of the Indian Constitution?

- A. To provide free legal aid
B. To protect and improve the natural environment
C. To organize village panchayats
D. To separate the judiciary from the executive

Answer: B

Sol: The correct answer is **(B) To protect and improve the natural environment**

Explanation:

- **Fundamental Duties** were added to the Indian Constitution by the **42nd Amendment Act, 1976**, based on the recommendations of the Swaran Singh Committee.
- **Article 51A(g)** specifically states that it is the duty of every citizen "to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures."
- These duties are non-justiciable, meaning they cannot be enforced directly by the courts, but they serve as a moral obligation for citizens.
- There are currently **11 fundamental duties** listed in Part IV-A of the Constitution.
- The 11th duty (providing opportunities for education to children) was added by the 86th Amendment Act in 2002.

Information Booster:

- The concept of Fundamental Duties was inspired by the Constitution of the **USSR**.
- They serve as a reminder to citizens that while they enjoy rights, they also have certain social and civic responsibilities.

Additional Knowledge:

- **Free legal aid (Option A):** This is a **Directive Principle of State Policy (DPSP)** under Article 39A.
- **Organizing village panchayats (Option C):** This is a DPSP under Article 40.
- **Separation of judiciary (Option D):** This is a DPSP under Article 50.

Q.29 Which chemical element produces green colour in firework displays?

- A. Strontium
B. Barium
C. Sodium
D. Copper

Answer: B

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

Explanation:

- The colors in fireworks are produced by the **luminescence** of metal salts when they are heated.
- **Barium salts**, such as barium chloride, are responsible for creating the **bright green** color in firework displays.
- When these salts reach a high temperature, the electrons in the metal atoms absorb energy and jump to higher energy levels. As they fall back to their original state, they release energy in the form of light of a specific wavelength.
- For Barium, this wavelength corresponds to the green part of the visible spectrum.
- Other common barium compounds used include barium nitrate and barium chlorate, which also act as oxidizers in the firework mix.

Information Booster:

- Pure colors are difficult to achieve; for instance, the green produced by Barium is often enhanced by adding chlorine-rich compounds.
- Fireworks were first developed in ancient China using saltpeter, sulfur, and charcoal (gunpowder).

Additional Knowledge:

- **Strontium (Option A):** Used to produce **deep red** or crimson colors.
- **Sodium (Option C):** Responsible for **yellow** or gold colors, as seen in street lights.
- **Copper (Option D):** Produces **blue** colors, which are the most difficult for pyrotechnicians to create because copper compounds are unstable at high temperatures.

Q.30 Which river originates from the Amarkantak Plateau?

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

Answer: B

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

Explanation:

- The **Narmada River** originates from the **Amarkantak Plateau** in the Maikal Hills of Madhya Pradesh.
- It is the **longest west-flowing river** in India and flows through a rift valley between the Vindhya and Satpura ranges.
- The river creates famous landmarks such as the **Dhuandhar Falls** and the Marble Rocks near Jabalpur.
- It flows through the states of Madhya Pradesh, Maharashtra, and Gujarat before emptying into the Gulf of Khambhat in the Arabian Sea.
- Unlike most major peninsular rivers, it does not form a delta but forms an **estuary** at its mouth.

Information Booster:

- The **Son River** also originates near the Amarkantak Plateau but flows north to join the Ganga.
- The Sardar Sarovar Dam, one of India's largest, is built on the Narmada River in Gujarat.

Additional Knowledge:

- **Godavari (Option A):** Originates from **Trimbakeshwar** in the Nashik district of Maharashtra. It is the longest peninsular river.
- **Krishna (Option C):** Originates near **Mahabaleshwar** in Maharashtra.
- **Kaveri (Option D):** Originates at **Talakaveri** in the Brahmagiri Hills of Karnataka.

Q.31 What is the standard distance of a Marathon race?

- A. 21.09 km
- B. 42.195 km
- C. 50 km
- D. 38.5 km

Answer: B

Sol: The correct answer is **(B) 42.195 km**

Explanation:

- The standard length for a marathon is **42.195 kilometers** (or 26 miles and 385 yards).
- This specific distance was first used at the **1908 London Olympics** and was officially standardized by the International Amateur Athletic Federation (now World Athletics) in 1921.
- The marathon race honors the legend of **Pheidippides**, a Greek messenger who reportedly ran from the Battle of Marathon to Athens to announce victory.
- At the 1908 Olympics, the route was extended so that the race could start at Windsor Castle and finish in front of the Royal Box at the Olympic

Stadium.

- This extra distance (approximately 2 miles) resulted in the modern 42.195 km standard.

Information Booster:

- The first Olympic marathon in 1896 was approximately 40 km.
- Major marathons like Tokyo, Boston, London, Berlin, Chicago, and New York City are known as the **World Marathon Majors**.

Additional Knowledge:

- **21.09 km (Option A):** This is the distance of a **Half Marathon**.
- **50 km (Option C):** This is a common distance for **Ultramarathons** or competitive race-walking events.
- **38.5 km (Option D):** This was the approximate distance from the town of Marathon to Athens, but it is not the modern competition standard.

Q.32 Which of the following materials was primarily used for the construction of the 'Buland Darwaza' at Fatehpur Sikri?

- A. White Marble
- B. Red and Buff Sandstone
- C. Granite
- D. Baked Bricks

Answer: B

Sol: The correct answer is **(B) Red and Buff Sandstone**

Explanation:

- The **Buland Darwaza** (Gate of Victory) was built by the Mughal Emperor **Akbar** in 1601 AD at Fatehpur Sikri.
- It was constructed primarily using **red and buff sandstone**, which was a signature material for most of Akbar's architectural projects.
- The structure is decorated with carvings and **inlay work of white and black marble** to provide a striking visual contrast.
- It serves as the main entrance to the Jama Masjid at Fatehpur Sikri and stands as one of the highest gateways in the world, measuring about 54 meters from the ground level.
- The architecture is a blend of Persian and Indian styles, featuring large kiosks (chhatris) and stylized battlements at the top.

Information Booster:

- Akbar built this monumental gateway to commemorate his **victory over Gujarat**.
- An inscription on the gateway includes a famous message attributed to Jesus (Isa), emphasizing the transient nature of the world: "The world is a bridge, pass over it, but build no houses upon it."

Additional Knowledge:

- **White Marble (Option A):** While used for decoration in Buland Darwaza, it became the primary construction material later during Shah Jahan's reign (e.g., the Taj Mahal).
- **Granite (Option C):** This stone was extensively used in South Indian temple architecture, such as the Brihadisvara Temple, but not typically in Mughal gateways.
- **Baked Bricks (Option D):** These were the primary material for Indus Valley Civilization structures and many Buddhist stupas like those at Nalanda.

Q.33 The Hornbill Festival is a major cultural event celebrated primarily in the state of _____.

- A. Manipur
- B. Mizoram
- C. Nagaland
- D. Arunachal Pradesh

Answer: C

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

Explanation:

- The **Hornbill Festival** is held annually in the first week of December (1st to 10th December) in **Nagaland**.
- It is organized by the State Tourism and Art & Culture Departments to encourage inter-tribal interaction and promote the cultural heritage of the state.
- The festival is known as the **"Festival of Festivals"** because it brings together all the ethnic tribes of Nagaland to showcase their traditions, dances, and crafts.
- The main venue for the celebrations is the **Kisama Heritage Village**, located near the capital city, Kohima.
- It provides a platform for tourists to experience Naga food, traditional songs, indigenous sports like wrestling, and the famous Naga chili eating competition.

Information Booster:

- The festival is named after the **Indian Hornbill**, a bird that is widely revered and featured in the folklore and songs of most Naga tribes.
- The first Hornbill Festival was held in the year 2000, and it has since grown into one of India's most significant international tourism attractions.

Additional Knowledge:

- **Manipur (Option A):** Famous for the **Sangai Festival**, named after the state's rare brow-antlered deer.
- **Mizoram (Option B):** Celebrates **Chapchar Kut**, a spring festival marked by the traditional bamboo dance called Cheraw.
- **Arunachal Pradesh (Option D):** Known for festivals like **Losar** (Monpa tribe's New Year) and **Ziro Festival of Music**.

Q.34 In Hindustani Classical Music, the specific melodic framework is known as:

- A. Taal
- B. Laya
- C. Raga
- D. Gharana

Answer: C

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

Explanation:

- A **Raga** is the fundamental melodic framework in Indian classical music, consisting of a specific sequence of notes (swaras) and rules for their use.
- It is designed to evoke a particular aesthetic emotion or **Rasa** in the listener.
- Every Raga must contain at least five notes and usually follows a specific ascending (Arohana) and descending (Avarohana) pattern.
- In Hindustani music, Ragas are often associated with specific times of the day (e.g., morning or night) or specific seasons (e.g., Monsoon for Raga Megh).
- There are ten basic parent scales in Hindustani music known as **Thaats**, classified by Pandit Vishnu Narayan Bhatkhande.

Information Booster:

- The seven basic notes are Sa, Re, Ga, Ma, Pa, Dha, and Ni, which correspond to the natural sounds of animals and birds (e.g., Sa for the peacock).
- The concept of Raga is central to both the Hindustani (North Indian) and Carnatic (South Indian) systems of music.

Additional Knowledge:

- **Taal (Option A):** Refers to the **rhythmic cycle** or beat pattern in music (e.g., Teental, Dadra).
- **Laya (Option B):** Refers to the **tempo** or speed of the music, which can be Vilambit (slow), Madhya (medium), or Drut (fast).
- **Gharana (Option D):** Refers to a **lineage or school** of music that follows a specific style or tradition (e.g., Gwalior Gharana, Kirana Gharana).

Q.35 Who founded the Prarthana Samaj?

- A. Atmaram Pandurang
- B. Jyotiba Phule
- C. Swami Dayanand Saraswati
- D. Henry Vivian Derozio

Answer: A

Sol: The correct answer is **(A) Atmaram Pandurang**

Explanation:

- The **Prarthana Samaj** (Prayer Society) was founded by **Dr. Atmaram Pandurang** in 1867 in Bombay (now Mumbai).
- The movement was inspired by the Brahma Samaj and aimed at social and religious reform within Hinduism.
- Its primary objectives included the **abolition of the caste system**, women's education, widow remarriage, and the discouragement of child marriage.
- Unlike the Brahma Samaj, the Prarthana Samaj was more focused on social action rather than philosophical debate and did not break away from the Hindu fold completely.
- Prominent leaders like **Mahadev Govind Ranade** (M.G. Ranade) joined later and helped the Samaj gain national importance by connecting it with other reform movements.

Information Booster:

- The visit of **Keshab Chandra Sen** to Bombay in 1867 played a major role in the establishment of this society.
- The Samaj emphasized the worship of one God and social brotherhood.

Additional Knowledge:

- **Jyotiba Phule (Option B):** Founded the **Satyashodhak Samaj** (1873) for the upliftment of lower castes and women.
- **Swami Dayanand Saraswati (Option C):** Founded the **Arya Samaj** (1875) and gave the slogan "Go back to the Vedas."
- **Henry Vivian Derozio (Option D):** Leader of the **Young Bengal Movement** at Hindu College, Calcutta.

Q.36 In the Union Budget 2024–25, which sector received the highest percentage increase in allocation to promote "Viksit Bharat"?

- A. Infrastructure

- B. Rural Development
- C. Space Economy
- D. Tourism

Answer: C

Sol: The correct answer is **(C) Space Economy**

Explanation:

- In the **Union Budget 2024–25**, the government announced a **₹1,000 crore Venture Capital (VC) fund** specifically for the **Space Economy**.
- This initiative is part of the broader vision of "Viksit Bharat" (Developed India) by 2047, aiming to expand the space sector by 5 times in the next decade.
- The fund is intended to support space-tech startups and private sector participation in satellite launches, manufacturing, and downstream applications.
- The budget also focused on other pillars like agricultural productivity, employment and skilling, and infrastructure development.
- Promoting innovation in space technology is seen as a key driver for high-tech manufacturing and employment opportunities.

Information Booster:

- India's space economy is projected to reach \$44 billion by 2033, and this fund is a strategic step toward that target.
- The **Indian National Space Promotion and Authorization Centre (IN-SPACe)** plays a crucial role in facilitating private players in this sector.

Additional Knowledge:

- **Infrastructure (Option A):** Received a high capital expenditure (Capex) allocation of ₹11.11 lakh crore (3.4% of GDP).
- **Rural Development (Option B):** Focused on housing (PM Awas Yojana) and rural connectivity.
- **Tourism (Option D):** The budget proposed special development for spiritual tourism, including corridors for temples in Odisha and Bihar.

Q.37 Under the Pitt's India Act of 1784, the Board of Control supervised:

- A. Commercial affairs only
- B. Civil and Military government and Revenues
- C. Judicial appointments only
- D. Religious and social reforms

Answer: B

Sol: The correct answer is **(B) Civil and Military government and Revenues**

Explanation:

- The **Pitt's India Act of 1784** was enacted by the British Parliament to address the shortcomings of the Regulating Act of 1773 and established a system of **dual control**.
- It created a body called the **Board of Control**, consisting of six commissioners, to represent the British Government.
- This Board was empowered to direct and control all operations of the **civil and military government** and the **revenues** of the British possessions in India.
- The Act distinguished between the political and commercial functions of the East India Company.
- While the Board of Control handled political matters, the **Court of Directors** was allowed to manage commercial affairs.

Information Booster:

- This Act was named after **William Pitt the Younger**, the Prime Minister of Britain at the time.
- For the first time, the Company's territories in India were officially called the "British possessions in India."

Additional Knowledge:

- **Commercial affairs only (Option A):** This was the domain of the Court of Directors, not the Board of Control.
- **Judicial appointments (Option C):** These were generally made through the Governor-General in Council or separate judicial charters, though the Board had oversight over the administration.
- **Religious reforms (Option D):** The British followed a policy of non-interference in religious and social matters during this period to avoid local backlash.

Q.38 In Table Tennis service rules, the minimum height the ball must be thrown is:

- A. 10 cm
- B. 16 cm
- C. 20 cm
- D. 25 cm

Answer: B

Sol: The correct answer is **(B) 16 cm**

Explanation:

- According to the official laws of **Table Tennis** set by the International Table Tennis Federation (ITTF), the ball must be thrown **at least 16 cm** (approx. 6 inches) high from the palm of the free hand.
- The ball must be thrown nearly **vertically upwards** and should not be spinning.
- This rule ensures that the opponent has a clear view of the ball and its movement, preventing the server from hiding the contact or using deceptive low tosses.
- The service must also start with the ball resting freely on the open, flat palm of the server's stationary hand.
- From the start of service until it is struck, the ball must be above the level of the playing surface and behind the server's end line.

Information Booster:

- If a service is deemed illegal by the umpire, a point is awarded to the opponent (after a warning in some cases).
- A '**Let**' occurs if the ball touches the net during service but otherwise falls into the correct court.

Additional Knowledge:

- **Service Sequence:** In singles, the ball must first bounce on the server's court and then on the receiver's court. In doubles, the service must be diagonal, starting from the server's right half-court.
- **Scoring:** A game is won by the first player to reach 11 points, provided there is a 2-point lead. Service changes every 2 points.

Q.39 The SI unit "Ohm" measures:

- Electric Current
- Potential Difference
- Electrical Resistance
- Capacitance

Answer: C

Sol: The correct answer is **(C) Electrical Resistance**

Explanation:

- **Ohm (symbol: Ω)** is the SI unit of **electrical resistance**.
- Resistance is the property of a material that opposes the flow of electric current through it.
- According to **Ohm's Law** ($V = IR$), one ohm is defined as the resistance of a conductor such that a potential difference of 1 volt across its ends causes a current of 1 ampere to flow.
- It was named after the German physicist **Georg Simon Ohm**, who discovered the relationship between voltage, current, and resistance.
- Factors affecting resistance include the material's nature, length, cross-sectional area, and temperature.

Information Booster:

- Conductors (like copper) have low resistance, while insulators (like rubber) have very high resistance.
- **Specific resistance or resistivity** is measured in Ohm-meters ($\Omega\cdot m$).

Additional Knowledge:

- **Electric Current (Option A):** Measured in **Ampere (A)** using an ammeter.
- **Potential Difference (Option B):** Also called Voltage, it is measured in **Volt (V)** using a voltmeter.
- **Capacitance (Option D):** The ability of a system to store an electric charge, measured in **Farad (F)**.

Q.40 The Ghoomar dance is traditionally performed by women of which community in Rajasthan?

- Meena
- Bhil
- Sahariya
- Garasia

Answer: B

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

Explanation:

- **Ghoomar** is a traditional folk dance of Rajasthan that was originally developed and performed by the **Bhil tribe**.
- It was performed to worship **Goddess Saraswati** and celebrate the joy of womanhood.
- Over time, it was embraced by other Rajasthani communities, including the Rajputs, and became associated with royalty and festive occasions.
- The dance involves women moving in and out of a wide circle while pirouetting (twirling), which causes their flowing long skirts (Ghaghara) to flare out beautifully.
- The name 'Ghoomar' is derived from the word 'ghoomna' (twirling or spinning).

Information Booster:

- Ghoomar is often ranked among the most beautiful folk dances in the world and is performed during festivals like **Gangaur** and at weddings.

- It is characterized by graceful hand movements and measured steps, traditionally performed with a veil (ghoonghat) covering the face.

Additional Knowledge:

- **Meena (Option A):** This community is known for folk dances like 'Dhanacha' and 'Sapera', and they are one of the most populous tribes in Rajasthan.
- **Sahariya (Option C):** A tribe primarily residing in the Baran district of Rajasthan, known for the Swang dance.
- **Garasia (Option D):** This tribe is famous for the **Valar dance**, which is performed without the accompaniment of musical instruments.

Q.41 Match the festival with its significance:

1. Baisakhi
2. Pongal
3. Onam

- A. 1-Punjab (Harvest), 2-Tamil Nadu (Harvest), 3-Kerala (Harvest)
 B. 1-Kerala, 2-Punjab, 3-Tamil Nadu
 C. 1-Tamil Nadu, 2-Kerala, 3-Punjab
 D. 1-Punjab, 2-Kerala, 3-Tamil Nadu

Answer: A

Sol: The correct answer is **(A) 1-Punjab (Harvest), 2-Tamil Nadu (Harvest), 3-Kerala (Harvest)**

Explanation:

- **Baisakhi** is a major harvest festival celebrated in **Punjab** and Haryana. It marks the ripening of the rabi crops and also commemorates the formation of the Khalsa Panth by Guru Gobind Singh in 1699.
- **Pongal** is a four-day harvest festival celebrated in **Tamil Nadu**. It is dedicated to the Sun God (Surya) and marks the end of the winter solstice.
- **Onam** is the biggest harvest festival of **Kerala**, celebrated in honor of the homecoming of the mythical King Mahabali. It is known for Pookalam (flower rangoli) and Vallam Kali (boat races).
- All these festivals are agricultural in origin, where farmers express gratitude for a bountiful harvest.
- They are celebrated with traditional food, folk dances, and cultural gatherings.

Information Booster:

- Pongal is celebrated in mid-January, coinciding with Makar Sankranti in North India.
- Onam usually falls in the month of Chingam (August–September) according to the Malayali calendar.

Additional Knowledge:

- **Lohri (Punjab):** Another winter festival celebrated with a bonfire, marking the end of peak winter.
- **Bihu (Assam):** The harvest festival of Assam, celebrated three times a year (Rongali, Kongali, and Bhogali Bihu).
- **Vishu (Kerala):** Marks the Malayali New Year and is celebrated with the 'Vishu Kani' (auspicious sight).

Q.42 Read the below statements marked as Assertion (A) and Reason (R). Mark the correct options:

Assertion (A): President is the formal head of executive.

Reason (R): Executive actions are taken in his/her name.

- A. Both true, R explains A
 B. Both true, R not explanation
 C. A true, R false
 D. A false, R true

Answer: A

Sol: The correct answer is **(A) Both true, R explains A**

Explanation:

- According to **Article 53** of the Indian Constitution, the executive power of the Union is vested in the **President**.
- The President is the **formal or titular head** of the executive, meaning they hold the highest office but exercise powers primarily on the advice of the Council of Ministers headed by the Prime Minister (who is the 'real' head).
- **Article 77** specifically mandates that all executive actions of the Government of India shall be expressed to be **taken in the name of the President**.
- Therefore, the reason (R) directly explains why the President is called the formal head (A); the authority is legally centered in the President's name even if the decisions are made by the Cabinet.
- The President is also the First Citizen of India and the Supreme Commander of the Armed Forces.

Information Booster:

- This system is modeled after the British parliamentary system, where the Monarch is the formal head and the PM is the real head.
- The 42nd and 44th Amendments have clarified that the President must act according to the advice of the Council of Ministers.

Additional Knowledge:

- **Article 52:** States that there shall be a President of India.
- **Executive Actions:** These include signing treaties, appointing high officials like Governors and Judges, and issuing ordinances.

Q.43 Who was the Governor-General of India during the Revolt of 1857?

- A. Lord Dalhousie
- B. Lord Canning
- C. Lord Curzon
- D. Lord Bentinck

Answer: B

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

Explanation:

- **Lord Canning** served as the Governor-General of India from 1856 to 1862.
- He was in office when the **Revolt of 1857** (often called the First War of Independence) broke out.
- Following the suppression of the revolt, the British Parliament passed the **Government of India Act 1858**, which transferred the administration of India from the East India Company to the British Crown.
- As a result of this Act, the title of Governor-General was replaced by 'Viceroy' when acting as the representative of the Crown.
- Thus, Lord Canning became the **first Viceroy of India** in 1858.

Information Booster:

- During his tenure, he withdrew the controversial **Doctrine of Lapse** introduced by his predecessor.
- He also passed the **Indian Councils Act of 1861**, which introduced the portfolio system in the executive council.

Additional Knowledge:

- **Lord Dalhousie (Option A):** Famous for the Doctrine of Lapse and for introducing railways, telegraphs, and the postal system in India (1848–1856).
- **Lord Curzon (Option C):** Best known for the **Partition of Bengal in 1905**.
- **Lord Bentinck (Option D):** Known for social reforms like the **abolition of Sati (1829)** and the introduction of English as the medium of education.

Q.44 Which Indian city is known as the Silicon Valley of India?

- A. Hyderabad
- B. Pune
- C. Bengaluru
- D. Noida

Answer: C

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

Explanation:

- **Bengaluru** (formerly Bangalore) is known as the **Silicon Valley of India** because it is the nation's leading Information Technology (IT) exporter.
- The city is home to major Indian tech giants like Infosys and Wipro, as well as the Indian headquarters of global companies like Google, Microsoft, and Amazon.
- It earned this nickname due to its concentration of high-tech companies and startups, similar to the original Silicon Valley in California, USA.
- Factors contributing to its growth include a pleasant climate, a high density of engineering colleges, and proactive government policies starting from the 1980s.
- It is also the hub for India's aerospace and defense organizations like ISRO and HAL.

Information Booster:

- Bengaluru is also called the **"Science City of India"** and the **"Garden City of India"**.
- The Electronic City township in Bengaluru was the first dedicated IT hub in India.

Additional Knowledge:

- **Hyderabad (Option A):** Known as 'Cyberabad' or the 'City of Pearls', it is a major competitor in the IT and pharmaceutical sectors.
- **Pune (Option B):** Known as the 'Oxford of the East', it is a significant center for the automobile and IT industries.
- **Noida (Option D):** Part of the National Capital Region (NCR), it has emerged as a major hub for electronics manufacturing and software services.

Q.45 In which year was the National Food Security Act passed?

- A. 2011

- B. 2013
- C. 2015
- D. 2010

Answer: B

Sol: The correct answer is **(B) 2013**

Explanation:

- The **National Food Security Act (NFSA)** was passed by the Parliament of India in **2013** (officially published on 10th September 2013).
- The Act aimed to provide subsidized food grains to approximately **two-thirds** of India's population.
- Under this Act, beneficiaries are entitled to 5 kg of food grains per person per month at highly subsidized prices: Rice at ₹3/kg, Wheat at ₹2/kg, and Coarse grains at ₹1/kg.
- It converts existing food security programs of the Government of India into legal entitlements, including the Mid-day Meal Scheme and the Public Distribution System (PDS).
- It also has a special focus on **nutritional support for women and children**, including maternity benefits for pregnant and lactating mothers.

Information Booster:

- The Act covers up to 75% of the rural population and up to 50% of the urban population.
- The **Antyodaya Anna Yojana (AAY)** households, which represent the poorest of the poor, continue to receive 35 kg of food grains per household per month.

Additional Knowledge:

- The Act also includes provisions for grievance redressal mechanisms at the district and state levels.
- In 2023, the government integrated all NFSA beneficiaries under the **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)** to provide free food grains.

Q.46 Which global agreement was specifically designed to protect the ozone layer by phasing out the production of numerous substances responsible for ozone depletion?

- A. Kyoto Protocol
- B. Montreal Protocol
- C. Paris Agreement
- D. Nagoya Protocol

Answer: B

Sol: The correct answer is **(b) Montreal Protocol**

Explanation:

- The **Montreal Protocol** on Substances that Deplete the Ozone Layer is a landmark international treaty adopted on **September 16, 1987**.
- It was designed to reduce the production and consumption of **ozone-depleting substances (ODS)** to reduce their abundance in the atmosphere.
- The substances targeted include **Chlorofluorocarbons (CFCs)**, Halons, and Hydrochlorofluorocarbons (HCFCs).
- It is considered one of the most successful environmental treaties, as it has led to the healing of the ozone layer and the significant reduction of potent greenhouse gases.
- **World Ozone Day** is celebrated every year on **September 16** to commemorate the signing of this protocol.

Information Booster:

- The **Kigali Amendment** (2016) to the Montreal Protocol aims to phase out **Hydrofluorocarbons (HFCs)**, which are powerful greenhouse gases even though they do not deplete the ozone layer.
- The **Vienna Convention** for the Protection of the Ozone Layer (1985) acted as a framework for the Montreal Protocol.
- **India** became a party to the Montreal Protocol in 1992 and has successfully met all its phase-out targets so far.

Additional Knowledge: Kyoto Protocol (Option a)

- Adopted in 1997, it is an international treaty that commits state parties to reduce **greenhouse gas emissions** (like CO₂ and Methane) to combat global warming.
- It is based on the principle of "common but differentiated responsibilities."

Paris Agreement (Option c)

- A legally binding international treaty on **climate change** adopted in 2015.
- Its goal is to limit global warming to well below **2 degrees Celsius**, preferably to **1.5 degrees Celsius**, compared to pre-industrial levels.

Nagoya Protocol (Option d)

- This is a 2010 supplementary agreement to the Convention on Biological Diversity (CBD).
- It focuses on **Access to Genetic Resources** and the Fair and Equitable Sharing of Benefits Arising from their Utilization.

Q.47 Which Constitutional Amendment is known as the "Mini-Constitution"?

- A. 44th Amendment
- B. 42nd Amendment
- C. 73rd Amendment
- D. 86th Amendment

Answer: B

Sol: The correct answer is **(B) 42nd Amendment**

Explanation:

- The **42nd Amendment Act of 1976** is called the "**Mini-Constitution**" because it introduced massive changes to the Indian Constitution during the Emergency period.
- It added three new words to the **Preamble: Socialist, Secular, and Integrity**.
- It introduced **Part IV-A (Fundamental Duties)** to the Constitution (Article 51A).
- It attempted to give precedence to the Directive Principles of State Policy over Fundamental Rights.
- It also transferred five subjects from the State List to the Concurrent List: Education, Forests, Weights and Measures, Protection of Wild Animals and Birds, and Administration of Justice.

Information Booster:

- The amendment was enacted during the Prime Ministership of Indira Gandhi based on the recommendations of the Swaran Singh Committee.
- Many of its controversial provisions were later reversed or modified by the **44th Amendment Act, 1978** to restore democratic safeguards.

Additional Knowledge:

- **44th Amendment (Option A):** Known for removing the 'Right to Property' from Fundamental Rights and changing 'Internal Disturbance' to 'Armed Rebellion' for National Emergency.
- **73rd Amendment (Option C):** Provided constitutional status and protection to **Panchayati Raj Institutions**.
- **86th Amendment (Option D):** Made **Education a Fundamental Right** for children aged 6–14 years (Article 21A).

Q.48 The Rauf folk dance is associated with which State/UT?

- A. Ladakh
- B. Jammu & Kashmir
- C. Himachal Pradesh
- D. Uttarakhand

Answer: B

Sol: The correct answer is **(B) Jammu & Kashmir**

Explanation:

- **Rauf** (also spelled Rouf) is one of the most famous traditional folk dances of the **Jammu & Kashmir** region.
- It is primarily performed by women to celebrate the arrival of **spring** and during festivals like Eid-ul-Fitr and Ramzan.
- The dance involves women forming two parallel rows facing each other, putting their arms around each other's waists, and moving in a rhythmic back-and-forth motion.
- It is performed to the accompaniment of poetic songs, which often describe the beauty of the Kashmir valley or themes of love and nature.
- The dancers wear traditional Kashmiri attire, including the embroidered **Pheran** and colorful headscarves.

Information Booster:

- The footwork in Rauf, known as **Chakri**, is the highlight of the performance, requiring perfect synchronization between the rows.
- This dance form has been passed down through generations and is an integral part of the Kashmiri cultural identity.

Additional Knowledge:

- **Ladakh (Option A):** Famous for the **Jabro dance** and the Shondol dance (known as the 'Royal Dance of Ladakh').
 - **Himachal Pradesh (Option C):** Known for the **Nati** dance, which holds a Guinness World Record for the largest folk dance.
 - **Uttarakhand (Option D):** Celebrated for **Choliya** (a sword dance) and Jhora-Chanchri.
-

Q.49 Ascorbic Acid is a water-soluble vitamin deficiency of which leads to scurvy. Identify the correct option.

- A. Vitamin A
- B. Vitamin B12
- C. Vitamin C
- D. Vitamin D

Answer: C

Sol: The correct answer is **(c) Vitamin C**

Explanation:

- **Ascorbic acid** is the chemical name for **Vitamin C**, a vital water-soluble nutrient required for various biological functions.
- It is essential for the synthesis of **collagen**, a protein that helps in the healing of wounds and provides structural support to blood vessels, skin, and bones.
- A prolonged deficiency of Vitamin C leads to **scurvy**, a disease characterized by bleeding gums, skin spots, joint pain, and delayed wound healing.
- Human bodies cannot synthesize Vitamin C; therefore, it must be obtained through dietary sources like **citrus fruits** (lemons, oranges), tomatoes, and green leafy vegetables.
- Being **water-soluble**, it is not stored in the body in large amounts and is excreted in urine, necessitating regular intake.

Information Booster:

- Vitamin C acts as a powerful **antioxidant**, protecting cells from damage caused by free radicals and supporting the immune system.
- It significantly enhances the **absorption of iron** from plant-based foods (non-heme iron) in the digestive tract.
- Unlike fat-soluble vitamins (A, D, E, K), water-soluble vitamins (B-complex and C) are generally not toxic in high doses because the excess is flushed out of the body.

Additional Knowledge: Vitamin A (Option a)

- Chemical name: **Retinol**.
- It is a **fat-soluble** vitamin essential for maintaining healthy vision, skin, and immune function.
- Deficiency leads to **Night Blindness** (Nyctalopia) and Xerophthalmia.

Vitamin B12 (Option b)

- Chemical name: **Cobalamin**.
- It is a water-soluble vitamin involved in **red blood cell formation**, neurological function, and DNA synthesis.
- Deficiency primarily leads to **Pernicious Anemia** and nerve damage.

Vitamin D (Option d)

- Chemical name: **Calciferol**.
- It is a fat-soluble vitamin that helps the body absorb calcium and phosphorus for bone health.
- Deficiency in children causes **Rickets** (soft bones) and in adults causes **Osteomalacia**.

Q.50 Which of the following crops is correctly matched with its cropping season and sowing condition in India?

- Wheat – Kharif crop – Sown with onset of monsoon
- Mustard – Zaid crop – Sown in summer
- Maize – Kharif crop – Requires high temperature and rainfall
- Barley – Rabi crop – Requires heavy rainfall

Answer: C

Sol: The correct answer is **(c) Maize – Kharif crop – Requires high temperature and rainfall**

Explanation:

- **Maize** is a versatile **Kharif crop** in most parts of India, although in states like Bihar, it is also grown in the Rabi season.

- It requires a temperature range between **21°C to 27°C** for optimal growth and grows well in old alluvial soil.
- As a Kharif crop, it is sown with the **onset of the monsoon** (June–July) and harvested in September–October.
- It requires moderate to **high rainfall** (50 cm to 100 cm), making it well-suited for the humid conditions of the Indian monsoon.
- Modern inputs like **HYV seeds**, fertilizers, and irrigation have contributed to increasing the production of maize significantly.

Information Booster:

- India has three distinct cropping seasons: **Rabi** (Winter), **Kharif** (Monsoon), and **Zaid** (Summer).
- **Kharif crops** are harvested at the end of the monsoon season; other major Kharif crops include **paddy (rice)**, jowar, bajra, tur (arhar), moong, urad, cotton, and jute.
- The **Zaid season** is a short season between the Rabi and Kharif seasons (March to June), primarily involving water-intensive crops like watermelon, muskmelon, and cucumber.

Additional Knowledge:Wheat (Option a)

- **Wheat** is a **Rabi crop**, not a Kharif crop.
- It is sown in **winter** (October–December) and requires a cool growing season and bright sunshine at the time of ripening.
- It requires **50 to 75 cm** of annual rainfall, evenly distributed over the growing season.

Mustard (Option b)

- **Mustard** is a **Rabi crop**, belonging to the oilseeds category.
- It is sown in late autumn (October–November) and harvested in spring.
- It is **not a Zaid crop**; Zaid crops are typically those that grow in the peak summer heat before the monsoon starts.

Barley (Option d)

- **Barley** is indeed a **Rabi crop**, but it does **not require heavy rainfall**.
- It is a drought-tolerant crop that can grow in areas with low rainfall and is often grown as an alternative to wheat in drier regions.
- Heavy rainfall or waterlogging can be detrimental to the barley crop, especially during the ripening stage.

Q.51 Simplify: $\left(\frac{7}{9} + \frac{5}{6}\right) \div \left(\frac{11}{12} - \frac{2}{5}\right)$

- A. 262/97
- B. 272/53
- C. 282/87
- D. 290/93

Answer: D

Sol: Given:

$$\left(\frac{7}{9} + \frac{5}{6}\right) \div \left(\frac{11}{12} - \frac{2}{5}\right)$$

Solution:

$$\left(\frac{7}{9} + \frac{5}{6}\right) \div \left(\frac{11}{12} - \frac{2}{5}\right)$$

$$\begin{aligned}
 &= \frac{14}{18} + \frac{15}{18} \div \left(\frac{55}{60} - \frac{24}{60} \right) \\
 &= \frac{29}{18} \div \frac{31}{60} \\
 &= \frac{29}{18} \times \frac{60}{31} \\
 &= \frac{29 \times 10}{31 \times 3} \\
 &= \frac{290}{93}
 \end{aligned}$$

Q.52 What is the value of: $(\sqrt{27} + \sqrt{3})^2 - (\sqrt{12} + \sqrt{3})^2$

- A. 21
- B. 20
- C. 22
- D. 24

Answer: A

Sol: Given:

$$(\sqrt{27} + \sqrt{3})^2 - (\sqrt{12} + \sqrt{3})^2$$

Formula Used:

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

Solution:

$$\begin{aligned}
 &(\sqrt{27} + \sqrt{3})^2 - (\sqrt{12} + \sqrt{3})^2 \\
 &= (27 + 3 + 2\sqrt{81}) - (12 + 3 + 2\sqrt{36}) \\
 &= (30 + 18) - (15 + 12) \\
 &= 48 - 27 \\
 &= 21
 \end{aligned}$$

Q.53 Two distinct qualities of wheat, one priced at ₹90 per kilogram and the other at ₹135 per kilogram, are mixed in an undisclosed proportion. The resultant blend is sold at ₹150 per kilogram, securing a profit margin of 25% on the overall cost price. Determine the ratio in which the two wheat varieties were mixed.

- A. 1:2
- B. 2:3
- C. 3:4
- D. 1:5

Answer: A

Sol: Given:

$$P_1 = 90, P_2 = 135$$

$$SP_{mix} = 150, Profit = 25\%$$

Concept Used:

Mixture and Alligation.

Solution:

Step 1: Find Mean Cost Price (CP).

$$CP = \frac{SP}{1 + \frac{P\%}{100}} = \frac{150}{1.25} = 120$$

Step 2: Apply Alligation.

Left (90) Right (135)

Mean (120)

$$|135 - 120| = 15$$

$$|120 - 90| = 30$$

$$\text{Ratio} = 15 : 30 = 1 : 2$$

Final Answer

1 : 2

Q.54 P, Q, and R invested ₹30,000, ₹45,000, and ₹50,000 respectively. P's investment was for 14 months, Q's for 10 months, and R's for 8 months. The total profit is ₹70,000. What is Q's share of the profit?

- A. ₹28,125
- B. ₹30,000
- C. ₹24,803
- D. ₹35,250

Answer: C

Sol: Given:

$$P : 30,000(14\text{months})$$

$$Q : 45,000(10\text{months})$$

$$R : 50,000(8\text{months})$$

$$\text{TotalProfit} = 70,000$$

Formula Used:

$$\text{Profit Ratio} = \text{Investment} \times \text{Time}$$

Solution:

Calculate the ratio of profit shares:

$$P : Q : R$$

$$= (30 \times 14) : (45 \times 10) : (50 \times 8)$$

$$= 420 : 450 : 400$$

$$= 42 : 45 : 40$$

$$\text{Total parts} = 42 + 45 + 40 = 127$$

$$\text{Q's Share} = \frac{45}{127} \times 70,000$$

$$= 45 \times 551.18 \approx 24,803$$

Q.55 There are 7 consecutive integers and 6 consecutive integers. The average of the 7 integers is 3 less than the average of the 6 integers. The sum of the 6 integers is 6 more than the sum of the 7 integers. Find the average of the 7 integers.

- A. 7
- B. 8
- C. 12
- D. 10

Answer: C

Sol: Given:

Average of 7 integers is 3 less than average of 6 integers

Sum of 6 integers is 6 more than sum of 7 integers

Concept Used:

Sum = Number of terms \times Average

Formula Used:

Sum = $n \times$ Average

Solution:

Let average of 7 integers = A

Average of 6 integers = $A + 3$

Sum of 7 integers = $7A$

Sum of 6 integers = $6(A + 3)$

$$6(A + 3) = 7A + 6$$

$$6A + 18 = 7A + 6$$

$$A = 12$$

Final Answer:

12

Q.56 A camera is sold at an 18% discount on its marked price. This sale leads to a profit of 25% on its cost price. If the profit earned is ₹600, what would have been the selling price if the camera was sold at a 30% discount on its marked price?

- A. ₹2,628.85
- B. ₹2,560.90
- C. ₹2,844.80
- D. ₹2,920.50

Answer: B

Sol: Given:

Profit = 600, Profit % = 25%

Solution:

Find Cost Price (CP).

$$0.25 \times CP = 600 \implies CP = 2400$$

Find Original Selling Price (SP₁).

$$SP_1 = 2400 + 600 = 3000$$

Find Marked Price (MP).

$$SP_1 = MP \times (1 - 0.18) \implies 3000 = 0.82MP$$

$$MP = \frac{3000}{0.82}$$

Find New Selling Price (SP2) at 30% discount.

$$SP_2 = MP \times (1 - 0.30) = \frac{3000}{0.82} \times 0.70$$

$$SP_2 = \frac{210000}{82} \approx 2560.9$$

Q.57 The average weight of a team of 10 players increases by 2.5 kg when two players weighing 58 kg and 62 kg are replaced by two new players. What is the average weight of these two new players?

- A. 70 kg
- B. 72.5 kg
- C. 75 kg
- D. 77.5 kg

Answer: B

Sol: Given:

Number of players = 10

Increase in average = 2.5 kg

Weights of replaced players = 58 kg and 62 kg

Concept Used:

Total Weight Increase = Number of Players \times Increase in Average

Solution:

Total increase in team weight = $10 \times 2.5 = 25$ kg.

Sum of weights of old players = $58 + 62 = 120$ kg.

Sum of weights of new players = Sum of old + Total Increase

= $120 + 25 = 145$ kg.

Average weight of new players = $\frac{145}{2} = 72.5$ kg.

Final Answer

72.5 kg

Q.58 A laptop is available for ₹25,800 in cash or for ₹4,200 as a down payment and three equal annual instalments. If the seller charges interest at 12% per annum compounded annually, calculate the amount of each instalment.

- A. ₹8,993
- B. ₹9,150
- C. ₹9,452
- D. ₹9,720

Answer: A

Sol: Given:

Cash Price = 25,800

Down Payment = 4,200

$$\text{Loan Principal}(P) = 25,800 - 4,200 = 21,600$$

$$\text{Rate}(r) = 12\% = 0.12$$

$$n = 3 \text{ years}$$

Formula Used:

$$P = \frac{x}{(1+r)} + \frac{x}{(1+r)^2} + \frac{x}{(1+r)^3}$$

Solution:

$$21600 = x \left[\frac{1}{1.12} + \frac{1}{1.12^2} + \frac{1}{1.12^3} \right]$$

$$\text{Sum of factors: } 0.8928 + 0.7972 + 0.7118 = 2.4018$$

$$21600 = x \times 2.4018$$

$$x = \frac{21600}{2.4018} \approx 8,993$$

Final Answer

$$\approx 8,993$$

Q.59 A clothing retailer sells a shirt for ₹Q and earns a profit of 25%. For a clearance sale, he marks the same shirt at ₹1.6Q. At the sale, he provides a discount of 15%. What will be the percentage profit during the clearance sale?

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

Answer: B

Sol: Given:

$$\text{Original SP} = Q$$

$$\text{Original Profit} = 25\%$$

$$\text{New Marked Price (MP)} = 1.6Q$$

$$\text{Discount} = 15\%$$

Solution:

Find Cost Price (CP).

$$Q = CP \times 1.25 \implies CP = \frac{Q}{1.25} = 0.8Q$$

Find New Selling Price (SP₂).

$$SP_2 = MP \times (1 - 0.15) = 1.6Q \times 0.85$$

$$SP_2 = 1.36Q$$

Calculate New Profit.

$$\text{Profit} = SP_2 - CP = 1.36Q - 0.8Q = 0.56Q$$

$$\text{Profit \%} = \frac{0.56Q}{0.8Q} \times 100 = 0.7 \times 100 = 70\%$$

Final Answer

$$70\%$$

Q.60 A cylinder is melted and recast into 10 identical cones, each with radius 4 cm and height 6 cm. What was the radius of the original cylinder if its height was 8 cm?

- A. 7.75 cm
- B. 8.25 cm
- C. 6.32 cm
- D. 9.45 cm

Answer: C

Sol: Given:

Cones: $n = 10, r = 4, h = 6$. Cylinder: $H = 8$.

Formula Used:

Volume Cylinder = $n \times$ Volume Cone

$$\pi R^2 H = 10 \times \frac{1}{3} \pi r^2 h$$

Solution:

$$R^2(8) = 10 \times \frac{1}{3} \times (16) \times (6)$$

$$8R^2 = 320$$

$$R^2 = 40 \implies R = \sqrt{40} \approx 6.32 \text{ cm.}$$

Final Answer

6.32 cm

Q.61 Eighty percent of a number is 20 more than three-fifths of that number. Find the number.

- A. 80
- B. 100
- C. 120
- D. 140

Answer: B

Sol: Given:

$$80\% \text{ of } x = 20 + \frac{3}{5}x$$

Solution:

Convert percentages and fractions to decimals:

$$0.8x = 20 + 0.6x$$

Subtract $0.6x$ from both sides:

$$0.2x = 20$$

$$x = \frac{20}{0.2} = 100$$

Final Answer

100

Q.62 A person invested certain amounts in three different schemes A, B, and C at simple interest rates of 8% p.a., 10% p.a., and 13% p.a. respectively. If the total interest in one year was ₹3,360 and the amount invested in Scheme C was 300% of the amount in Scheme A and 400% of the amount in Scheme B, what was the amount invested in Scheme A?

- A. ₹7,127
- B. ₹7,500
- C. ₹6,165
- D. ₹8,500

Answer: C

Sol: Given:

$$C = 3A \text{ and } C = 4B. \text{ Total Interest} = 3360.$$

Solution:

$$\text{Let } C = 12x.$$

$$A = \frac{12x}{3} = 4x.$$

$$B = \frac{12x}{4} = 3x.$$

$$\text{Interest} = (4x \times 0.08) + (3x \times 0.10) + (12x \times 0.13)$$

$$= 0.32x + 0.30x + 1.56x = 2.18x$$

$$2.18x = 3360 \implies x \approx 1541.28$$

$$\text{Amount A} = 4x \approx 6165.$$

Final Answer

$$\approx 6165$$

Q.63 Which line has slope -2 and passes through (3,5)?

- A. $y = -2x + 11$
- B. $y = 2x + 11$
- C. $y = -2x - 11$
- D. $y = 2x - 11$

Answer: A

Sol: Given:

$$m = -2, (x_1, y_1) = (3, 5).$$

Formula Used:

$$y - y_1 = m(x - x_1)$$

Solution:

$$y - 5 = -2(x - 3)$$

$$y - 5 = -2x + 6$$

$$y = -2x + 11$$

Final Answer

$$y = -2x + 11$$

Q.64 A monument stands 60 meters tall. From its peak, the angles of depression to the top and bottom of a nearby statue are measured at 30° and 60° , respectively. Determine the approximate height of the statue and the horizontal distance separating the monument from the statue.

- A. height = 25.4 m, distance = 60 m
- B. height = 28.5 m, distance = 34.64 m
- C. height = 30 m, distance = 40 m
- D. height = 32 m, distance = 45 m

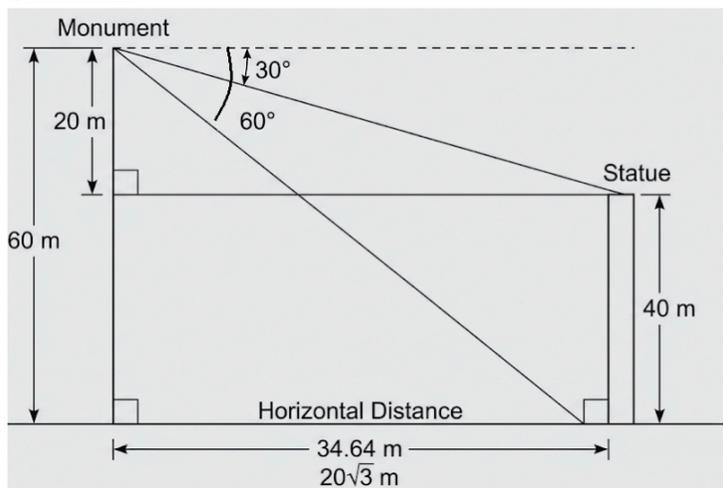
Answer: B

Sol: Given:

Height of Monument (H) = 60.

Angle to bottom = 60° . Angle to top = 30° .

Solution:



Let distance = d and statue height = h .

$$\tan(60^\circ) = \frac{60}{d}$$

$$\implies \sqrt{3} = \frac{60}{d}$$

$$\implies d = \frac{60}{\sqrt{3}} = 20\sqrt{3} \approx 34.64 \text{ m.}$$

$$\tan(30^\circ) = \frac{60 - h}{d}$$

$$\implies \frac{1}{\sqrt{3}} = \frac{60 - h}{20\sqrt{3}}$$

$$\frac{20\sqrt{3}}{\sqrt{3}} = 60 - h$$

$$\implies 20 = 60 - h \implies h = 40.$$

Final Answer

$$h = 40, d = 34.64$$

Q.65 The area of a regular octagon is made of how many congruent triangles?

- A. 6
- B. 7
- C. 8
- D. 9

Answer: C

Sol: Given:

Regular Octagon.

Solution:

A regular n -sided polygon can be divided into n congruent isosceles triangles with their common vertex at the center.

For an octagon, $n = 8$.

Final Answer

8

Q.66 A tent designed as a rectangular prism features a rectangular base with an area of 28 m^2 and a height of 5 m. What is the volume of this tent?

- A. 120 m^3
- B. 130 m^3
- C. 140 m^3
- D. 150 m^3

Answer: C

Sol: Given:

Base Area = 28. Height = 5.

Formula Used:

$V = \text{Base Area} \times \text{Height}$

Solution:

$$V = 28 \times 5 = 140 \text{ m}^3.$$

Final Answer

140

Q.67 Simplify: $\sqrt{80} + \sqrt{45} - \sqrt{5}$.

- A. $6\sqrt{5}$
- B. $7\sqrt{5}$
- C. $8\sqrt{5}$
- D. $9\sqrt{5}$

Answer: A

Sol: Given:

$$\sqrt{80} + \sqrt{45} - \sqrt{5}$$

Solution:

$$\sqrt{80} = \sqrt{16 \times 5} = 4\sqrt{5}$$

$$\sqrt{45} = \sqrt{9 \times 5} = 3\sqrt{5}$$

$$\text{Expression} = 4\sqrt{5} + 3\sqrt{5} - 1\sqrt{5}$$

$$= 6\sqrt{5}$$

Final Answer

$6\sqrt{5}$

Q.68 A circular pond with a radius of 9 m is surrounded by a walking path that is 4.5 m wide. Determine the ratio of the area of the walking path to the area of the pond.

- A. 4:3
- B. 5:4
- C. 7:4
- D. 9:5

Answer: B

Sol: Given:

$$r = 9. \text{Width} = 4.5. \text{Outer Radius}(R) = 9 + 4.5 = 13.5.$$

Solution:

$$\text{Area Pond} = \pi(9)^2 = 81\pi.$$

$$\text{Total Area} = \pi(13.5)^2 = 182.25\pi.$$

$$\text{Path Area} = 182.25\pi - 81\pi = 101.25\pi.$$

$$\text{Ratio Path : Pond} = 101.25 : 81.$$

$$\text{Multiply by 4: } 405 : 324.$$

$$\text{Divide by 81: } 5 : 4.$$

Final Answer

$$5 : 4$$

Q.69 P, Q, and R can complete a certain work in 24, 36, and 72 days, respectively. How many days will it take for P to finish the work if he receives help from Q and R every fourth day?

- A. 16 days
- B. 17 days
- C. 18 days
- D. 19 days

Answer: D

Sol: Given:

$$P = 24, Q = 36, R = 72 \text{ days.}$$

Concept Used:

LCM Method for work.

Solution:

$$\text{Total Work} = LCM(24, 36, 72) = 72 \text{ units.}$$

$$\text{Efficiency: } P = 3, Q = 2, R = 1 \text{ units/day.}$$

Cycle (4 days):

$$\text{Day 1, 2, 3: P works alone} = 3 \times 3 = 9 \text{ units.}$$

$$\text{Day 4: P+Q+R work} = 3 + 2 + 1 = 6 \text{ units.}$$

$$\text{Total work in 4 days} = 9 + 6 = 15 \text{ units.}$$

$$72/15 = 4 \text{ cycles remainder } 12.$$

$$\text{Days} = 4 \times 4 = 16 \text{ days. Work left} = 12.$$

$$\text{Day 17: P does } 3 \text{ (Rem } 9).$$

Day 18: P does 3 (Rem 6).

Day 19: P does 3 (Rem 3).

Day 20: P+Q+R does 6. Finishes fraction of day.

Total approx 19 days.

Final Answer

19 days

Q.70 The ratio of the speeds of a train and a truck is 5 : 6. If the truck covers a distance of 450 km in 5 hours, what is the speed of the train in km/h?

- A. 75 km/h
- B. 80 km/h
- C. 85 km/h
- D. 90 km/h

Answer: A

Sol: Given:

Speed Ratio (Train:Truck) = 5 : 6

Truck: 450 km in 5 hours.

Solution:

$$\text{Truck Speed} = \frac{450}{5} = 90 \text{ km/h.}$$

$$\text{Train Speed} = 90 \times \frac{5}{6}$$

$$= 15 \times 5 = 75 \text{ km/h.}$$

Final Answer

75 km/h

Q.71 Four non-overlapping, non-touching circles are drawn in a plane. What is the maximum number of distinct common tangents that can be drawn to them in total?

- A. 16
- B. 18
- C. 20
- D. 24

Answer: D

Sol: Given:

4 non-overlapping circles.

Solution:

Number of pairs of circles $= {}^4 C_2 = 6$.

For each pair of non-intersecting circles, 4 common tangents exist (2 direct, 2 transverse).

Total $= 6 \times 4 = 24$.

Final Answer

24

Q.72 Evaluate: $(0.06^3 + 0.02^3) + (0.3^3 + 0.1^3)$

- A. 0.016
- B. 0.028
- C. 0.036
- D. 0.048

Answer: B

Sol: Given:

$$(0.06^3 + 0.02^3) + (0.3^3 + 0.1^3)$$

Formula Used:

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

Solution:

$$\begin{aligned} & (0.06^3 + 0.02^3) + (0.3^3 + 0.1^3) \\ &= (0.06 + 0.02)(0.06^2 - 0.06 \times 0.02 + 0.02^2) + (0.3 + 0.1)(0.3^2 - 0.3 \times 0.1 + 0.1^2) \\ &= (0.08)(0.0036 - 0.0012 + 0.0004) + (0.4)(0.09 - 0.03 + 0.01) \\ &= (0.08)(0.0028) + (0.4)(0.07) \\ &= 0.000224 + 0.028 \\ &= 0.028224 \end{aligned}$$

Q.73 If $m : n = 8 : 3$, find $(7m + 4n) : (7m - 4n)$.

- A. 19 : 11
- B. 17 : 13
- C. 17 : 11
- D. 34 : 22

Answer: C

Sol: Given:

Ratio $m : n = 8 : 3$

Solution:

Let $m = 8k$ and $n = 3k$.

Substitute these values into the expression $(7m + 4n) : (7m - 4n) :$

$$\frac{7(8k) + 4(3k)}{7(8k) - 4(3k)}$$

$$= \frac{56k + 12k}{56k - 12k}$$

$$= \frac{68k}{44k}$$

$$= \frac{17}{11}$$

Final Answer

17 : 11

Q.74 A chord in a circle with radius 12 cm subtends an angle of 120° at the center. What is the area of the minor segment?

- A. $(48\pi - 36\sqrt{3})$ sq. cm
- B. $(36\pi - 48\sqrt{3})$ sq. cm
- C. $(60\pi - 36\sqrt{3})$ sq. cm
- D. $(72\pi - 36\sqrt{3})$ sq. cm

Answer: A

Sol: Given:

$$r = 12, \theta = 120^\circ.$$

Solution:

$$\text{Area Sector} = \frac{120}{360}\pi(144) = 48\pi.$$

$$\text{Area Triangle} = \frac{1}{2}r^2 \sin(120^\circ) = 72 \times \frac{\sqrt{3}}{2} = 36\sqrt{3}.$$

$$\text{Segment} = 48\pi - 36\sqrt{3}.$$

Final Answer

$$48\pi - 36\sqrt{3}$$

Q.75 In a circle, chord PQ and chord RS intersect at T such that $PT : TQ = 3 : 4$ and $RT : TS = 6 : 5$. If $PQ = p$ and $RS = q$, which of the following is true?

- A. $\frac{p^2}{q^2} = \frac{147}{242}$
- B. $\frac{p}{q} = \frac{7}{11}$
- C. $\frac{p^2}{q^2} = \frac{245}{242}$
- D. $\frac{p}{q} = \frac{12}{11}$

Answer: C

Sol: Given:

$$PT : TQ = 3 : 4, RT : TS = 6 : 5. PQ = p, RS = q.$$

Concept Used:

Intersecting Chords Theorem: $PT \times TQ = RT \times TS$.

Solution:

$$12x^2 = 30y^2 \implies x^2/y^2 = 2.5.$$

$$p = 7x, q = 11y.$$

$$p^2/q^2 = 49x^2/121y^2 = (49/121) \times 2.5 = 245/242.$$

Final Answer

245/242

Q.76 Choose the correct phrasal verb:

The investigator was unable to _____ the truth from the conflicting reports.

- A. put off
- B. bring about
- C. sort out
- D. take over

Answer: C

Sol: The correct option is (c).

In the given sentence, the investigator is trying to separate, clarify, and resolve the truth from multiple conflicting reports. The phrasal verb that means "to arrange, resolve, or make clear by separating and examining details" is **sort out** (meaning: resolve/clear up; Hindi meaning: सुलझाना/छाँटकर स्पष्ट करना).

Step-by-step reasoning:

- The blank needs a verb that fits with "the truth from the conflicting reports," implying separation and clarification.
- **Sort out** is used when we resolve confusion, identify correct facts, and arrange things properly.
- Therefore, "The investigator was unable to **sort out** the truth..." is grammatically and contextually correct.

Why other options are incorrect:

- **put off** = postpone/delay (Hindi: टालना), which does not mean separating truth from reports.
- **bring about** = cause to happen (Hindi: घटित कराना/लाना), which does not fit the idea of clarifying truth.
- **take over** = assume control (Hindi: कब्जा करना/नियंत्रण लेना), unrelated to extracting truth.

So the correct answer is (c)

Q.77 Change the following from active to passive:

Someone must have altered the access codes.

- A. The access codes must have been altered.
- B. The access codes must have altered by someone.
- C. The access codes must be altered by someone.
- D. The access codes must had been altered.

Answer: A

Sol: The correct option is (a).

The given sentence is in active voice: "Someone must have altered the access codes." Here, the subject is indefinite ("Someone"), the verb phrase shows modal + perfect ("must have altered"), and the object is "the access codes." To convert into passive voice, the object becomes the subject, and the verb changes to **must have been + past participle**.

Structure:

Active voice: Subject + Modal + have + V3 + Object

Passive voice: Object + Modal + have been + V3 (+ by + Subject)

Step-by-step conversion:

- Object in active = "the access codes" → becomes subject in passive.
- "must have altered" (Modal + perfect) → becomes "must have been altered" (Modal + perfect passive).
- Agent "by someone" is optional and usually omitted when the agent is unknown or unimportant.

Hence, "The access codes must have been altered." is correct.

Why other options are incorrect:

- (B) "must have altered by someone" is incorrect because passive needs "been" after "have."
- (C) "must be altered" changes the tense/aspect (simple passive), not the required perfect modal sense.
- (D) "must had been" is grammatically wrong; after a modal, we use base form "have," not "had."

So the correct answer is (a)

Q.78 Convert the sentence provided below from its passive voice structure to an active voice structure:

A detailed plan has been prepared by the committee to address the issue.

- A. The committee had prepared a detailed plan to address the issue.
- B. The committee was preparing a detailed plan to address the issue.
- C. The committee prepared a detailed plan to address the issue.
- D. The committee has prepared a detailed plan to address the issue.

Answer: D

Sol: The correct option is (d).

The given sentence is in passive voice: "A detailed plan **has been prepared** by the committee..." The verb form "has been prepared" indicates **present perfect passive**. While converting passive to active, we must keep the same tense (present perfect) and make the agent ("the committee") the subject.

Structure:

Passive (Present Perfect): Object + has/have been + V3 + by + Subject

Active (Present Perfect): Subject + has/have + V3 + Object

Step-by-step conversion:

- Agent in passive = "the committee" → becomes subject in active.
- Passive verb = "has been prepared" → active becomes "has prepared."
- Object in passive subject position = "a detailed plan" → becomes object in active.
- Remaining purpose phrase "to address the issue" stays unchanged.

Therefore, the correct active voice sentence is: "The committee **has prepared** a detailed plan to address the issue."

Why other options are incorrect:

- (A) "had prepared" changes tense to past perfect, which is not equivalent.
- (B) "was preparing" changes aspect to past continuous, not equivalent.
- (C) "prepared" changes tense to simple past, not equivalent.

So the correct answer is (d)

Q.79 Choose the correct one-word substitute for: "Something that cannot be read or understood because the writing is unclear."

- A. Illegible
- B. Decipherable
- C. Inaudible
- D. Imperceptible

Answer: A

Sol: The correct option is (a).

The one-word substitute for "something that cannot be read or understood because the writing is unclear" is **Illegible**. It refers specifically to writing or print that is not clear enough to be read. (Hindi meaning: अपठनीय/जो पढ़ा न जा सके).

Explanation:

- If handwriting is messy or unclear, the text becomes **illegible**.
- The word directly matches the idea of "cannot be read or understood due to unclear writing."

Example: The doctor's prescription was so **illegible** that the pharmacist asked for clarification.

Meanings of the other options:

- **B: Decipherable** – capable of being understood or read (Hindi: समझने योग्य/पढ़ने योग्य).
- **C: Inaudible** – cannot be heard (Hindi: अश्रव्य/जो सुनाई न दे).
- **D: Imperceptible** – too slight to be noticed or seen (Hindi: अप्रत्यक्ष/जो महसूस न हो).

So the correct answer is (a)

Q.80 Select the most appropriate synonym of the given word: LOQUACIOUS

- A. Talkative
- B. Reticent
- C. Mute
- D. Hear

Answer: A

Sol: The correct option is (a).

The word **LOQUACIOUS** means very talkative; someone who speaks a lot, often more than necessary. It is commonly used for people who are fluent and continuously speaking. (Hindi meaning: बातूनी/अधिक बोलने वाला).

Example (given word): The loquacious guest dominated the entire conversation at the dinner table.

The synonym that matches this meaning is **Talkative**, which means inclined to talk a lot; fond of conversation. (Hindi meaning: बातूनी).

Example (correct synonym): She is talkative and easily makes friends in a new place.

Synonyms: garrulous, chatty, verbose, communicative.

Antonyms: reticent, taciturn, silent, reserved.

Meanings of the other options:

- **B: Reticent** – not revealing one's thoughts; quiet and reserved (Hindi: संकोची/कम बोलने वाला).
- **C: Mute** – unable to speak; silent (Hindi: गूंगा/मौन).
- **D: Hear** – perceive sound; listen (Hindi: सुनना).

So the correct answer is (a)

Q.81 Find the part of the sentence that contains an error:

The discrepancy between predicted and observed results (1)/ raised questions not only about the methodology (2)/ but also about the premises that (3)/ underlied the entire proposal. (4)/

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

Answer: D

Sol: The correct option is (d).

Option (4) contains an error because the verb form **underlied** is incorrect. The correct past form (and past participle) of **underlie** is **underlay** (past) and **underlain** (past participle). In this sentence, we need the simple past because the clause is describing what supported the proposal in the past: "premises that **underlay** the entire proposal."

Correct sentence: The discrepancy between predicted and observed results raised questions not only about the methodology but also about the premises that **underlay** the entire proposal.

Grammatical rule used:

- Irregular verb forms must be used correctly.
- **underlie** is irregular: underlie (V1) → underlay (V2) → underlain (V3).
- "Underlied" is a non-standard, incorrect form in formal English.

Example: The assumptions that **underlay** the research were later challenged.

Information booster: Many verbs ending with "-lie" are irregular and often confused (e.g., lie–lay–lain; underlie–underlay–underlain). Always verify the correct V2 and V3 forms in exam questions.

So the correct answer is (d)

Q.82 Select the most appropriate antonym of the given word: Pungent

- A. Insipid
- B. Spicy
- C. Sharp
- D. Tangy

Answer: A

Sol: The correct option is (a).

The word **Pungent** means having a strong, sharp smell or taste; it can also mean biting or caustic in expression. (Hindi meaning: तीखा/झनझनाता/तेज़ गंध वाला).

Example (given word): The pungent smell of garlic filled the kitchen.

The antonym must express the opposite idea: bland, lacking strong taste or interest. **Insipid** means dull in taste; lacking flavor, excitement, or interest. (Hindi meaning: फीका/बेस्वाद).

Example (correct antonym): The soup was insipid and needed more seasoning.

Synonyms (for pungent): sharp, strong, acrid, biting.

Antonyms (for pungent): bland, insipid, mild, tasteless.

Meanings of the other options:

- **B: Spicy** – containing strong spices; hot in taste (Hindi: मसालेदार/तीखा).
- **C: Sharp** – having an edge or a strong piercing quality (Hindi: तीक्ष्ण/धारदार).
- **D: Tangy** – having a sharp, slightly sour taste (Hindi: खट्टा-तीखा).

So the correct answer is (a)

Q.83 Select the correct option:

He explained the concept so ___ that even complex arguments appeared easy to grasp.

- A. clear
- B. clearly
- C. clarity
- D. clearness

Answer: B

Sol: The correct option is (b).

The blank requires a word that modifies the verb "explained." Words that modify verbs are typically **adverbs**. Here, we need an adverb form to describe how he explained the concept. Therefore, **clearly** (adverb) is correct. (Hindi meaning: स्पष्ट रूप से).

Step-by-step reasoning:

- Verb in the sentence: "explained."
- To describe the manner of an action (how he explained), we use an adverb.
- "clearly" is the adverb form of "clear" and fits the structure "so clearly that..." which expresses cause-result.

Example: The teacher explained the rules clearly, so the students made fewer mistakes.

Why other options are incorrect:

- (A) **clear** is an adjective (Hindi: स्पष्ट); adjectives generally describe nouns, not verbs, so it is grammatically unsuitable here.
- (C) **clarity** is a noun (Hindi: स्पष्टता), not used to modify "explained."
- (D) **clearness** is a noun (Hindi: स्पष्टता), again not suitable for modifying a verb.

Information booster: In "so + adverb + that," the adverb describes the verb and "that" introduces the result clause (e.g., so quickly that, so calmly that, so clearly that).

So the correct answer is (b)

Q.84 Choose the correct meaning of idiom:

Sell ice to an Eskimo

- Offer something to someone who already has plenty of it
- Ask guidance from specialists
- Criticise without any reason
- Wander without a plan

Answer: A

Sol: The correct option is (a).

The idiom "**Sell ice to an Eskimo**" refers to trying to sell something to a person who already has an abundance of it or does not need it, which highlights an unnecessary or absurd sales attempt. (Hindi idiom meaning: जिसके पास पहले से बहुत है, उसे वही चीज़ बेचना).

Explanation:

- Eskimos (Inuit people) are associated with extremely cold regions where ice is naturally abundant.
- Selling ice there would be pointless because the buyer already has plenty of ice.
- Hence, the meaning matches option (A): offering something to someone who already has plenty of it.

Example: Trying to sell umbrellas during a drought is like selling ice to an Eskimo.

Other related idioms and meanings:

- **Carry coals to Newcastle** – to take something to a place where it is already plentiful.
- **Preach to the choir** – to give advice or information to people who already agree or know it.
- **Teach fish to swim** – to try to teach someone something they already know well.

So the correct answer is (a)

Q.85 Select the sentence containing the homonym of the highlighted word:

The restorer traced a cartouche framing the monarch's inscription.

- The museum displayed an ancient cartouche enclosing a ruler's name in hieroglyphs.
- The historian explained how a cartouche protected royal names on temple walls.
- The excavation revealed a broken cartouche beside the burial chamber.
- The designer added a cartouche of scrollwork to surround the portrait on the arch.

Answer: D

Sol: The correct option is (d).

In the question sentence, **cartouche** refers to an ornamental frame surrounding an inscription or design, commonly used in art/architecture and, in another sense, in Egyptian hieroglyphs as an oval enclosure for royal names. The question asks for the sentence containing the **homonym** of the highlighted word, i.e., the same-sounding/same-spelled word used with a different meaning/context.

Step-by-step reasoning:

- Options (A), (B), and (C) use **cartouche** in the Egyptian-hieroglyph sense (enclosing a ruler's name).
- Option (D) uses **cartouche** in the decorative design sense: an ornamental scrollwork frame around a portrait.
- This represents the alternative meaning of the same word, satisfying the idea of "homonym" usage in exam context (same word, different sense).

Why option (D) is best:

- It clearly shifts the meaning from "hieroglyphic royal-name enclosure" to "ornamental decorative frame."
- Thus it demonstrates the same term used in a distinct meaning.

Information booster: In many objective exams, "homonym" questions sometimes test the same spelling/word used in different senses (polysemy) in a practical way. Here, the word **cartouche** is being tested across its historical (Egyptian) and decorative (art/architecture) meanings.

So the correct answer is (d)

Q.86 Select the correct option for the Direct Speech conversion of the sentence below.

He remarked that, if market liquidity had disappeared completely, the exchange would have halted trading.

- He said, "If market liquidity disappears completely, the exchange halts trading."
- He said, "If market liquidity had disappeared completely, the exchange would have halted trading."
- He said, "The exchange will halt trading if market liquidity had disappeared completely."
- He said, "If the exchange halted trading, it was because market liquidity disappeared completely."

Answer: B

Sol: The correct option is (b).

The given sentence is in indirect speech and contains a conditional structure with past perfect in the "if-clause" and "would have + V3" in the result clause: "if market liquidity **had disappeared...**, the exchange **would have halted...**". To convert to direct speech, we place the speaker's exact words in quotation marks and keep the same tense structure as reported, because the original statement was about an unreal past condition (third conditional).

Rules applied (Indirect to Direct):

- Remove the reporting conjunction "that" and place the reported clause inside quotation marks.
- Keep the conditional form consistent: **If + past perfect, would have + V3**.
- Change the reporting verb form to a suitable direct reporting verb like "said," and use proper punctuation (comma before quotes).

Why option (B) is correct:

- It exactly preserves the tense and meaning: "If market liquidity had disappeared completely, the exchange would have halted trading."
- This reflects a hypothetical past situation and its hypothetical past result.

Why other options are incorrect:

- (A) changes the conditional to present simple ("disappears/halts"), altering meaning and time reference.
- (C) mixes "will" with "had disappeared," creating tense inconsistency and wrong meaning.
- (D) changes the structure and meaning; it no longer matches the third conditional form.

So the correct answer is (b)

Q.87 Choose the correct one-word substitute for: "A vast, profound depth that appears endless."

- Crevasse
- Chasm
- Abyss
- Ravine

Answer: C

Sol: The correct option is (c).

The one-word substitute for "a vast, profound depth that appears endless" is **Abyss**. It means an extremely deep or seemingly bottomless space, often used literally for deep ocean trenches and figuratively for something immeasurable or unfathomable. (Hindi meaning: अथाह गहराई/खाई).

Explanation:

- The phrase “vast” and “appears endless” points to a depth that seems bottomless.
- **Abyss** directly conveys the sense of an immeasurably deep gulf.

Example: The diver looked into the abyss below and felt a sudden fear of the unknown depths.

Meanings of the other options:

- **A: Crevasse** – a deep crack in ice or a glacier (Hindi: हिम दरार).
- **B: Chasm** – a deep cleft or gap, often between rocks or in the ground (Hindi: दरार/गहरी खाई), but not as strongly “bottomless/endless” as abyss.
- **D: Ravine** – a narrow valley with steep sides (Hindi: घाटी/खड्ड).

So the correct answer is (c)

Q.88 Which is the correct spelling of a word meaning “independence in decision-making”?

- Sovereignty
- Soverignty
- Soveriegnty
- Soverignity

Answer: A

Sol: The correct option is (a).

Option (A) is the correctly spelt word: **Sovereignty**. It means supreme authority or independence in decision-making, especially the power of a state to govern itself without external control. (Hindi meaning: संप्रभुता/स्वतंत्र निर्णय-क्षमता).

Example: The nation defended its sovereignty by maintaining independent foreign policies.

Meanings of all the given options:

- **A: Sovereignty** – supreme power/independent authority (Hindi: संप्रभुता).
- **B: Soverignty** – incorrect spelling; intended word is “sovereignty.”
- **C: Soveriegnty** – incorrect spelling; letters are misplaced.
- **D: Soverignity** – incorrect spelling; missing “e” after “v” in the correct form.

Parts of speech note: “Sovereignty” is a **noun**, used to denote the state or condition of being sovereign.

So the correct answer is (a)

Q.89 Choose the correct meaning of idiom:

Follow the rules to the letter

- Walk behind someone physically
- Enlist in the armed forces
- Obey instructions exactly and strictly
- Disagree with the majority view

Answer: C

Sol: The correct option is (c).

The idiom “**Follow the rules to the letter**” means to obey instructions exactly, strictly, and without making any personal changes or interpretations. It emphasizes literal and precise compliance. (Hindi idiom meaning: नियमों का अक्षरशः पालन करना).

Explanation:

- “To the letter” means “exactly as written,” similar to following each word of a written instruction.
- Hence, it refers to strict obedience and accurate adherence to rules.

Example: The accountant followed the rules to the letter while preparing the audit report.

Other related idioms and meanings:

- **By the book** – according to the rules; strictly following procedures.
- **Dot the i's and cross the t's** – pay attention to small details; be precise.
- **Stick to the rules** – follow rules without deviation.

So the correct answer is (c)

Q.90 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.

She said, "I am watching a movie."

- A. She said she is watching a movie.
- B. She said that she was watching a movie.
- C. She said that she had watched a movie.
- D. She said she watched a movie.

Answer: B

Sol: The correct option is (b).

The given sentence is in direct speech: "She said, 'I am watching a movie.'" The reporting verb is in the past ("said"), so while converting to indirect speech, the present continuous tense "am watching" generally shifts back to past continuous "was watching." Also, the pronoun "I" changes to "she" because the speaker is "She."

Rules applied (Direct to Indirect):

- Remove quotation marks and use a conjunction like "that" (often optional but preferred in formal writing).
- Change pronouns according to the subject: "I" → "she."
- Apply backshift of tense when the reporting verb is past: Present Continuous → Past Continuous.
- Maintain the meaning and time reference correctly.

Step-by-step conversion:

- Direct: She said, "I am watching a movie."
- Pronoun change: "I" → "she."
- Tense change: "am watching" → "was watching."
- Indirect: She said that she was watching a movie.

Why other options are incorrect:

- (A) keeps present continuous "is watching" despite past reporting verb; not standard in tense backshift.
- (C) changes meaning to past perfect ("had watched"), implying the action was completed earlier, which is different.
- (D) changes to simple past "watched," losing the continuous/ongoing sense.

So the correct answer is (b)

Q.91 Rearrange the following sentences to form a meaningful passage:

1. Wind energy is considered a highly useful renewable resource.
2. It produces electricity without releasing large amounts of pollution.
3. Turbines convert wind force into electrical power.
4. However, inconsistent wind patterns remain a major limitation.

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

Answer: B

Sol: The correct option is (b).

To form a meaningful passage, we must arrange the sentences in a logical flow: introduction of the topic, benefit, limitation, and then supporting detail can follow depending on coherence. Sentence (1) introduces the subject “Wind energy” as a useful renewable resource. Sentence (2) naturally follows by explaining a key advantage of wind energy (low pollution). Sentence (4) begins with “However,” which signals contrast and must come after the positive points, so it fits after (1) and (2). Sentence (3) provides a technical explanation of how wind energy is converted into electricity and can logically follow as an elaboration after mentioning benefits and limitations, completing the idea.

Correct sequence: 1-2-4-3

Explanation of the sequence:

- 1 starts the passage by introducing the main topic (wind energy).
- 2 supports (1) by giving a major benefit (electricity without heavy pollution).
- 4 uses the connector “However,” so it must follow the positive description and introduces the limitation (inconsistent wind).
- 3 adds an explanatory detail about the mechanism (turbines converting wind force into power), which completes the informational flow.

How to identify the order (parts of speech/connectors):

- Look for contrast markers like “However,” which cannot begin the passage logically without a prior statement.
- Start with a general statement (topic sentence), then add supporting points and explanations.
- Ensure pronoun reference: “It” in sentence (2) must refer back to “Wind energy” in sentence (1).

So the correct answer is (b)

Q.92 Choose the correctly spelled term for the body’s 24-hour biological rhythm.

- A. Circedian
- B. Circadian
- C. Circadiann
- D. Circadain

Answer: B

Sol: The correct option is (b).

Option (B) is the correctly spelt term: **Circadian**. It relates to the body’s natural 24-hour biological rhythm, such as the sleep-wake cycle regulated by internal biological clocks. (Hindi meaning: दैनिक जैविक चक्र/24 घंटे की शरीर-घड़ी).

Example: Exposure to morning sunlight helps regulate the circadian rhythm and improves sleep quality.

Meanings of all the given options:

- **A: Circedian** – incorrect spelling; intended word is “circadian.”
- **B: Circadian** – relating to a 24-hour biological cycle (Hindi: दैनिक जैविक).
- **C: Circadiann** – incorrect spelling due to unnecessary double “n.”
- **D: Circadain** – incorrect spelling; letters are misplaced.

Parts of speech note: “Circadian” is generally used as an **adjective** (e.g., circadian rhythm, circadian cycle).

So the correct answer is (b)

Q.93 As per the passage, what is the likely outcome when liberty is practiced without responsibility?

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

Democracy is often praised as the system most capable of protecting personal liberty. Safeguarded by constitutional guarantees and upheld through the rule of law, freedoms of speech, faith, association, and conscience are commonly viewed as defining features of democratic rule. Yet an equally essential element—though less openly emphasized—is responsibility, without which liberty can slide into disorder, division, or even an authoritarian reaction. In a democracy, freedom is not boundless; it functions within shared limits and civic self-restraint. The right to disagree is fundamental, but when expression is used to spread hate, falsehoods, or inflammatory propaganda, it no longer strengthens democracy. Responsibility therefore means thinking deliberately about the impact of one’s actions—not only whether they are legal, but whether they are ethically and civically sound.

The real difficulty lies in balancing liberty with accountability in diverse societies. Because democracies contain varied cultural, political, and economic groups, they naturally become spaces of disagreement. In such settings, responsibility requires more than obedience to law; it calls for empathy, reasoned judgment, and dedication to the common good. A citizen’s freedom to protest, for instance, must be exercised with respect for public order and the rights of others. Likewise, the right to vote must be matched by a duty to choose wisely, not driven by prejudice, populist manipulation, or misinformation. This strain between liberty and responsibility becomes most visible during crises—whether a pandemic, communal violence, or constitutional conflict. In such moments, prioritizing individual freedom over collective safety can be disastrous. Refusing

basic precautions in a health emergency or circulating unverified claims during unrest shows how unchecked freedom can weaken democratic strength.

Moreover, democracy does not sustain itself automatically; it depends on alert citizens who understand that rights endure only through participation and ethical use. When responsibility disappears, democratic institutions become vulnerable from within. Demagogues often gain ground not only because governments fail, but because citizens become indifferent or misuse democratic freedoms. Thus, freedom and responsibility are not rivals in a working democracy; they reinforce each other. Protecting liberty requires citizens capable of ethical thinking, informed debate, and constructive dissent. Without responsibility, freedom can shift from a force for justice into a source of fragmentation. Democracy survives not merely through laws, but through the civic character of its people.

- A. It improves legal enforcement
- B. It increases social harmony
- C. It results in misuse and social damage
- D. It ensures superior administration

Answer: C

Sol: The correct option is (c).

According to the passage, liberty without responsibility can lead to misuse and social damage. The author warns that when freedom is exercised without civic self-restraint, it can slide into disorder, division, and may even trigger an authoritarian reaction.

Explanation based on the passage:

- The passage states that responsibility is essential; without it, liberty can become disorder and division.
- It explains that freedom used to spread hate, falsehoods, and inflammatory propaganda no longer strengthens democracy.
- Therefore, the likely outcome is misuse of liberty and harm to society and democratic stability.

Why other options are incorrect:

- (A) "improves legal enforcement" is not the stated outcome; the passage focuses on disorder and harm.
- (B) "increases social harmony" is opposite to the warning of division and fragmentation.
- (D) "ensures superior administration" is not discussed as the result of irresponsible liberty.

So the correct answer is (c)

Q.94 Why does the author refer to voting and protests in the passage?

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

Democracy is often praised as the system most capable of protecting personal liberty. Safeguarded by constitutional guarantees and upheld through the rule of law, freedoms of speech, faith, association, and conscience are commonly viewed as defining features of democratic rule. Yet an equally essential element—though less openly emphasized—is responsibility, without which liberty can slide into disorder, division, or even an authoritarian reaction. In a democracy, freedom is not boundless; it functions within shared limits and civic self-restraint. The right to disagree is fundamental, but when expression is used to spread hate, falsehoods, or inflammatory propaganda, it no longer strengthens democracy. Responsibility therefore means thinking deliberately about the impact of one's actions—not only whether they are legal, but whether they are ethically and civically sound.

The real difficulty lies in balancing liberty with accountability in diverse societies. Because democracies contain varied cultural, political, and economic groups, they naturally become spaces of disagreement. In such settings, responsibility requires more than obedience to law; it calls for empathy, reasoned judgment, and dedication to the common good. A citizen's freedom to protest, for instance, must be exercised with respect for public order and the rights of others. Likewise, the right to vote must be matched by a duty to choose wisely, not driven by prejudice, populist manipulation, or misinformation. This strain between liberty and responsibility becomes most visible during crises—whether a pandemic, communal violence, or constitutional conflict. In such moments, prioritizing individual freedom over collective safety can be disastrous. Refusing basic precautions in a health emergency or circulating unverified claims during unrest shows how unchecked freedom can weaken democratic strength.

Moreover, democracy does not sustain itself automatically; it depends on alert citizens who understand that rights endure only through participation and ethical use. When responsibility disappears, democratic institutions become vulnerable from within. Demagogues often gain ground not only because governments fail, but because citizens become indifferent or misuse democratic freedoms. Thus, freedom and responsibility are not rivals in a working democracy; they reinforce each other. Protecting liberty requires citizens capable of ethical thinking, informed debate, and constructive dissent. Without responsibility, freedom can shift from a force for justice into a source of fragmentation. Democracy survives not merely through laws, but through the civic character of its people.

- A. To condemn citizen involvement
- B. To illustrate areas where rights must be balanced with civic duty
- C. To argue for major constitutional amendments
- D. To justify authoritarian governance

Answer: B

Sol: The correct option is (b).

The author refers to voting and protests as concrete examples to show that democratic rights must be exercised with responsibility and civic duty. These examples illustrate how liberty is meaningful only when balanced with respect for public order, the rights of others, and wise, informed decision-making.

Explanation based on the passage:

- The passage states that a citizen's freedom to protest must respect public order and others' rights.
- It also says voting must be matched with a duty to choose wisely, not under prejudice or misinformation.
- Thus, voting and protests are used to demonstrate the practical balance between freedom and accountability.

Why other options are incorrect:

- (A) is wrong because the author supports citizen participation as essential.
- (C) is not the author's purpose; constitutional amendments are not argued for.
- (D) is incorrect because the author warns against authoritarian reaction and supports responsible democracy.

So the correct answer is (b)

Q.95 What does the passage imply about citizens in relation to democratic institutions?

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

Democracy is often praised as the system most capable of protecting personal liberty. Safeguarded by constitutional guarantees and upheld through the rule of law, freedoms of speech, faith, association, and conscience are commonly viewed as defining features of democratic rule. Yet an equally essential element—though less openly emphasized—is responsibility, without which liberty can slide into disorder, division, or even an authoritarian reaction. In a democracy, freedom is not boundless; it functions within shared limits and civic self-restraint. The right to disagree is fundamental, but when expression is used to spread hate, falsehoods, or inflammatory propaganda, it no longer strengthens democracy. Responsibility therefore means thinking deliberately about the impact of one's actions—not only whether they are legal, but whether they are ethically and civically sound.

The real difficulty lies in balancing liberty with accountability in diverse societies. Because democracies contain varied cultural, political, and economic groups, they naturally become spaces of disagreement. In such settings, responsibility requires more than obedience to law; it calls for empathy, reasoned judgment, and dedication to the common good. A citizen's freedom to protest, for instance, must be exercised with respect for public order and the rights of others. Likewise, the right to vote must be matched by a duty to choose wisely, not driven by prejudice, populist manipulation, or misinformation. This strain between liberty and responsibility becomes most visible during crises—whether a pandemic, communal violence, or constitutional conflict. In such moments, prioritizing individual freedom over collective safety can be disastrous. Refusing basic precautions in a health emergency or circulating unverified claims during unrest shows how unchecked freedom can weaken democratic strength.

Moreover, democracy does not sustain itself automatically; it depends on alert citizens who understand that rights endure only through participation and ethical use. When responsibility disappears, democratic institutions become vulnerable from within. Demagogues often gain ground not only because governments fail, but because citizens become indifferent or misuse democratic freedoms. Thus, freedom and responsibility are not rivals in a working democracy; they reinforce each other. Protecting liberty requires citizens capable of ethical thinking, informed debate, and constructive dissent. Without responsibility, freedom can shift from a force for justice into a source of fragmentation. Democracy survives not merely through laws, but through the civic character of its people.

- A. Citizens have no real impact on institutions
- B. Institutions survive on their own without public effort
- C. Citizens are essential in maintaining and protecting democracy
- D. Institutions should curtail public rights for stability

Answer: C

Sol: The correct option is (c).

The passage clearly implies that democratic institutions do not survive automatically; they depend on "alert citizens" who participate ethically and use freedoms responsibly. This means citizens play an essential role in maintaining and protecting democracy, because rights endure through participation and responsible conduct.

Explanation based on the passage:

- The author states that democracy "depends on alert citizens," indicating that institutions need public vigilance.
- The passage warns that when responsibility disappears, institutions become "vulnerable from within," showing that citizen behavior directly affects institutional stability.
- It also highlights that demagogues rise not only due to government failure but due to citizen indifference and misuse of freedoms.

Why other options are incorrect:

- (A) contradicts the passage, which emphasizes citizen responsibility and participation.
- (B) is directly rejected by the line that democracy does not sustain itself automatically.
- (D) is not implied; the passage argues for responsible use of rights, not curtailment by institutions.

So the correct answer is (c)

Q.96 How does the passage portray crises in terms of freedom within democracies?

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

Democracy is often praised as the system most capable of protecting personal liberty. Safeguarded by constitutional guarantees and upheld through the rule of law, freedoms of speech, faith, association, and conscience are commonly viewed as defining features of democratic rule. Yet an equally essential element—though less openly emphasized—is responsibility, without which liberty can slide into disorder, division, or even an authoritarian reaction. In a democracy, freedom is not boundless; it functions within shared limits and civic self-restraint. The right to disagree is fundamental, but when expression is used to spread hate, falsehoods, or inflammatory propaganda, it no longer strengthens democracy.

Responsibility therefore means thinking deliberately about the impact of one's actions—not only whether they are legal, but whether they are ethically and civically sound.

The real difficulty lies in balancing liberty with accountability in diverse societies. Because democracies contain varied cultural, political, and economic groups, they naturally become spaces of disagreement. In such settings, responsibility requires more than obedience to law; it calls for empathy, reasoned judgment, and dedication to the common good. A citizen's freedom to protest, for instance, must be exercised with respect for public order and the rights of others. Likewise, the right to vote must be matched by a duty to choose wisely, not driven by prejudice, populist manipulation, or misinformation. This strain between liberty and responsibility becomes most visible during crises—whether a pandemic, communal violence, or constitutional conflict. In such moments, prioritizing individual freedom over collective safety can be disastrous. Refusing basic precautions in a health emergency or circulating unverified claims during unrest shows how unchecked freedom can weaken democratic strength.

Moreover, democracy does not sustain itself automatically; it depends on alert citizens who understand that rights endure only through participation and ethical use. When responsibility disappears, democratic institutions become vulnerable from within. Demagogues often gain ground not only because governments fail, but because citizens become indifferent or misuse democratic freedoms. Thus, freedom and responsibility are not rivals in a working democracy; they reinforce each other. Protecting liberty requires citizens capable of ethical thinking, informed debate, and constructive dissent. Without responsibility, freedom can shift from a force for justice into a source of fragmentation. Democracy survives not merely through laws, but through the civic character of its people.

- A. Crises prove that unlimited liberty is best
- B. Crises demand complete state domination
- C. Crises expose how uncontrolled freedom can be harmful
- D. Crises reduce the importance of civil rights

Answer: C

Sol: The correct option is (c).

The passage portrays crises as moments when the tension between liberty and responsibility becomes most visible, exposing how uncontrolled or unchecked freedom can be harmful. During emergencies, prioritizing individual liberty over collective safety can cause serious damage to society and weaken democracy.

Explanation based on the passage:

- The passage mentions crises like pandemics, communal violence, and constitutional conflict as situations that test democratic responsibility.
- It states that prioritizing individual freedom over collective safety can be disastrous.
- Examples given include refusing precautions in a health emergency and circulating unverified claims during unrest, showing how reckless freedom weakens democratic strength.

Why other options are incorrect:

- (A) is opposite to the author's view; the passage does not support unlimited liberty in crises.
- (B) is not suggested; the author does not advocate complete state domination.
- (D) is incorrect; the passage does not reduce civil rights, it argues for responsible exercise of rights.

So the correct answer is (c)

Q.97 . Which tone best captures the writer's attitude toward freedom in a democracy?

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

Democracy is often praised as the system most capable of protecting personal liberty. Safeguarded by constitutional guarantees and upheld through the rule of law, freedoms of speech, faith, association, and conscience are commonly viewed as defining features of democratic rule. Yet an equally essential element—though less openly emphasized—is responsibility, without which liberty can slide into disorder, division, or even an authoritarian reaction. In a democracy, freedom is not boundless; it functions within shared limits and civic self-restraint. The right to disagree is fundamental, but when expression is used to spread hate, falsehoods, or inflammatory propaganda, it no longer strengthens democracy.

Responsibility therefore means thinking deliberately about the impact of one's actions—not only whether they are legal, but whether they are ethically and civically sound.

The real difficulty lies in balancing liberty with accountability in diverse societies. Because democracies contain varied cultural, political, and economic groups, they naturally become spaces of disagreement. In such settings, responsibility requires more than obedience to law; it calls for empathy, reasoned judgment, and dedication to the common good. A citizen's freedom to protest, for instance, must be exercised with respect for public order and the rights of others. Likewise, the right to vote must be matched by a duty to choose wisely, not driven by prejudice, populist manipulation, or misinformation. This strain between liberty and responsibility becomes most visible during crises—whether a pandemic, communal violence, or constitutional conflict. In such moments, prioritizing individual freedom over collective safety can be disastrous. Refusing basic precautions in a health emergency or circulating unverified claims during unrest shows how unchecked freedom can weaken democratic strength.

Moreover, democracy does not sustain itself automatically; it depends on alert citizens who understand that rights endure only through

participation and ethical use. When responsibility disappears, democratic institutions become vulnerable from within. Demagogues often gain ground not only because governments fail, but because citizens become indifferent or misuse democratic freedoms. Thus, freedom and responsibility are not rivals in a working democracy; they reinforce each other. Protecting liberty requires citizens capable of ethical thinking, informed debate, and constructive dissent. Without responsibility, freedom can shift from a force for justice into a source of fragmentation. Democracy survives not merely through laws, but through the civic character of its people.

- A. Bitter and rejecting
- B. Reasoned and warning
- C. Detached and unconcerned
- D. Excessively hopeful

Answer: B

Sol: The correct option is (b).

The writer's tone is reasoned and warning. Throughout the passage, the author logically explains the importance of liberty in democracy while warning that freedom without responsibility can lead to disorder, social damage, and even an authoritarian reaction.

Evidence of tone from the passage:

- The author praises liberty but immediately adds a caution that responsibility is equally essential.
- The discussion is analytical, using balanced arguments about rights, ethics, and civic self-restraint.
- The passage warns about crises (pandemics, violence, unrest) to show how unchecked freedom can be harmful.

Why other options are incorrect:

- (A) "Bitter and rejecting" is incorrect because the author does not reject freedom; he supports it with responsibility.
- (C) "Detached and unconcerned" is incorrect because the author expresses clear concern about democratic stability.
- (D) "Excessively hopeful" is incorrect because the passage repeatedly warns of dangers and vulnerabilities.

So the correct answer is (b)

Q.98 Choose the most suitable option to replace the highlighted part of the sentence:

He explained for me the procedure.

- A. explained me
- B. explained to me
- C. said me
- D. has explained to me

Answer: B

Sol: The correct option is (b).

The highlighted part "explained for me" is grammatically incorrect because the verb **explain** typically takes an indirect object with the preposition **to** when we mention the person who receives the explanation. Therefore, the correct expression is **explained to me**.

Explanation (grammatical):

- With verbs like **explain**, we use the structure: **explain something to someone**.
- "For me" generally indicates doing something on someone's behalf, not giving information to someone.
- Hence, "He explained **to me** the procedure" is correct and formal.

Grammatical rule used:

Verb pattern: **explain + object + to + person**

Example: The trainer explained the safety rules to the new employees.

Information booster: Some verbs do not take a double-object structure directly without "to/for" (e.g., explain, describe, suggest). We say "explain **to me**," not "explain me," and "describe **to me**," not "describe me."

Why other options are incorrect:

- (A) "explained me" is incorrect; "explain" does not usually take a person as a direct object in this meaning.
- (C) "said me" is incorrect; the correct structure is "said to me" or "told me."
- (D) changes tense to present perfect without necessity; the original context is simple past.

So the correct answer is (b)

Q.99 Select the most appropriate antonym of the given word: Unremitting

- A. Constant
- B. Unceasing
- C. Sporadic
- D. Perpetual

Answer: C

Sol: The correct option is (c).

The word **Unremitting** means continuing without stopping; persistent and never relaxing in intensity. (Hindi meaning: अविराम/निरंतर).

Example (given word): The region faced unremitting rainfall for several days, causing floods.

The antonym should convey the opposite meaning: occurring at intervals, not continuous. **Sporadic** means happening occasionally or irregularly; not consistent. (Hindi meaning: छिटपुट/कभी-कभी होने वाला).

Example (correct antonym): Sporadic showers were expected, so the event was not cancelled.

Synonyms (for unremitting): relentless, constant, incessant, persistent.

Antonyms (for unremitting): sporadic, intermittent, occasional, irregular.

Meanings of the other options:

- **A: Constant** – continuous; unchanging (Hindi: निरंतर).
- **B: Unceasing** – not stopping; continuous (Hindi: अविराम).
- **D: Perpetual** – never ending; continuous (Hindi: अनंत/सदैव).

So the correct answer is (c)

Q.100 Choose the most suitable option to replace the highlighted part of the sentence:

Each of the employees have submitted the form.

- A. has submitted the form
- B. have submit the form
- C. were submitting the form
- D. has submit the form

Answer: A

Sol: The correct option is (a).

The highlighted part "have submitted the form" is incorrect because the subject "Each of the employees" is treated as **singular** in standard English. The word "each" refers to every individual one separately, so it takes a singular verb. Therefore, the correct verb phrase is **has submitted** (present perfect singular).

Explanation (grammatical):

- Subject: "Each" is singular, even if it is followed by a plural noun ("employees").
- In present perfect tense, singular subjects take **has** and plural subjects take **have**.
- Hence, "Each of the employees **has submitted** the form" is correct.

Grammatical rule used:

When **each/every/either/neither** is used as the subject, the verb is **singular**.

Example: Each of the students has completed the assignment.

Information booster: Words like "each," "every," "either," and "neither" are singular determiners/pronouns and generally require singular verbs, even when the phrase after "of" is plural.

Why other options are incorrect:

- (B) is incorrect because "have submit" is wrong; the past participle "submitted" is required, and subject agreement is also wrong.
- (C) changes tense to past continuous, which does not match the intended completed action.
- (D) is incorrect because "has submit" is grammatically wrong; it must be "has submitted."

So the correct answer is (a)
