

SSC CGL T-I Similar Paper (Held on 14 Sep 2025 S3) English

Q.1 Find the group of letters that best completes the analogy. Use alphabetical positions and reverse position logic where necessary.

BEKQ : YVPJ :: CFGL : ?

- A. XUOM
- B. XUTO
- C. XUPM
- D. XVPL

Answer: B

Sol: Information Given:

BEKQ : YVPJ :: CFGL : ?

Logic:

Each letter is converted to its reverse alphabetical position (A↔Z logic).

Logic: Replace each letter by its opposite letter in the alphabet (position = 27 – original position).

Step-by-step:

BEKQ →

B(2) → 27 – 2 = 25 → Y

E(5) → 27 – 5 = 22 → V

K(11) → 27 – 11 = 16 → P

Q(17) → 27 – 17 = 10 → J

So same rule for CFGL:

C(3) → 27 – 3 = 24 → X

F(6) → 27 – 6 = 21 → U

G(7) → 27 – 7 = 20 → T

L(12) → 27 – 12 = 15 → O

Final Answer:

XUTO

Final Correct Option:

(B)

Q.2 Choose the odd one out: (17, P, #), (13, J, !), (19, R, %), (23, V, @)

- A. (17, P, #)
- B. (13, J, !)
- C. (19, R, %)
- D. (23, V, @)

Answer: B

Sol: Information Given:

Sets: (17, P, #), (13, J, !), (19, R, %), (23, V, @)

Logic:

Number – 1 = Alphabet position.

Explanation:

Logic: Convert number to letter by subtracting 1 and matching alphabet position.

Step-by-step:

17 – 1 = 16 → P ✓

19 – 1 = 18 → R ✓

23 – 1 = 22 → V ✓

13 – 1 = 12 → L ≠ J ✗

Thus, (13, J, !) breaks the pattern.

Final Answer:

(13, J, !)

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Final Correct Option:

(B)

Q.3 A's father's wife's only daughter is B. How is A related to B? (Assuming A is a male member)

- A. Sister
- B. Cousin
- C. Brother
- D. Uncle

Answer: C

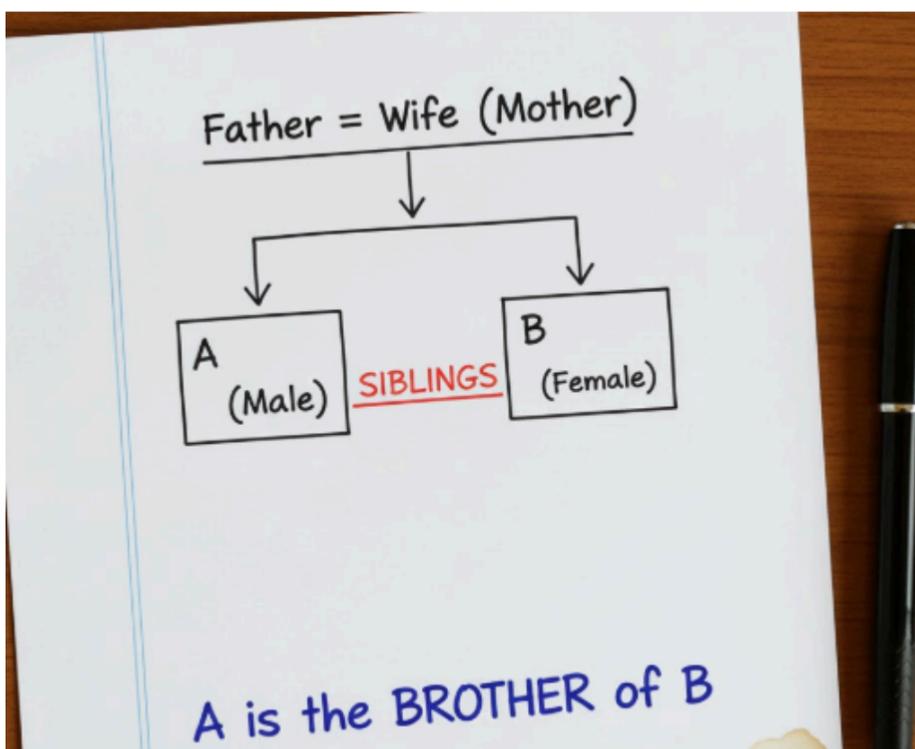
Sol: Information Given:

Statement: A's father's wife's only daughter is B.

Final Answer:

A is the brother of B.

Final Correct Option: C



Q.4 Choose the correct option to complete the series.

Growth : Stagnation :: Success : ?

- A. Achievement
- B. Failure
- C. Progress
- D. Gain

Answer: B

Sol: Information Given:

Growth : Stagnation :: Success : ?

Logic:

The relationship is **opposites (antonyms)**.

Explanation:

Logic: Growth and Stagnation are opposite in meaning. Similarly, the opposite of Success is Failure.

Option check (brief):

A **Achievement** → similar to success ❌

B **Failure** → opposite of success ✔️

C **Progress** → similar to growth/success ❌

D **Gain** → similar to success ❌

Final Answer:

Failure

Final Correct Option:

(B)

Q.5 Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.
PRT, OQS, NPR, ?

- A. GAS
- B. MJS
- C. GHA
- D. MOQ

Answer: D**Sol: Information Given:**

Series: PRT, OQS, NPR, ?
Options given.

Logic:

Each position follows a -1 alphabetical pattern.

Explanation:

Logic: Compare letters column-wise.

Step-by-step:

First letters: P(16) → O(15) → N(14) → M(13)

Second letters: R(18) → Q(17) → P(16) → O(15)

Third letters: T(20) → S(19) → R(18) → Q(17)

So the next term = MOQ.

Short Trick:

Read vertically; each column goes one step backward in the alphabet.

Final Answer:

MOQ

Final Correct Option:

(D)

Q.6 Read the following statement carefully and identify the conclusion that follows.

Statement: Smoking is prohibited in public places as per the new law.

Conclusions:

I. People can smoke in private spaces.

II. Smoking harms public health.

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

Answer: B**Sol: Information Given:**

Smoking is prohibited in public places as per the new law.

Conclusions:

I. People can smoke in private spaces.

II. Smoking harms public health.

Explanation:

Logic: Only what is **directly implied** by the statement can follow.

Step-by-step:

- **Conclusion I:** Not stated or implied → prohibition in public does not automatically allow private smoking ❌
- **Conclusion II:** The law prohibiting smoking in public implies concern for public health ✔️

Final Answer:

Only Conclusion II follows

Final Correct Option:

(B)

Q.7 If $a \ \$ b = 2$, where $a \ \$ b = a^2 - b$, what is the value of a and b ?

- A. 2, 2
- B. 8, 1
- C. 4, 5
- D. 9, 6

Answer: A

Sol: Information Given:

Operation: $a \ \$ b = a^2 - b$

Given: $a \ \$ b = 2$

Options: (a, b)

Logic:

Substitute values from options into $a^2 - b$ and check which equals 2.

Explanation:

Logic: $a^2 - b = 2$

Step-by-step:

- A) $2^2 - 2 = 4 - 2 = 2$ ✓
- B) $8^2 - 1 = 64 - 1 = 63$ ✗
- C) $4^2 - 5 = 16 - 5 = 11$ ✗
- D) $9^2 - 6 = 81 - 6 = 75$ ✗

Final Answer:

$a = 2, b = 2$

Final Correct Option:

(A)

Q.8 $P + Q$ means P is the husband of Q, $P - Q$ means P is the sister of Q, $P \times Q$ means P is the mother of Q. Then what does $A \times B + C$ mean?

- A. A is mother-in-law of C
- B. A is mother of C
- C. A is sister-in-law of C
- D. A is grandmother of C

Answer: A

Sol: Information Given:

Symbols:

$P + Q \rightarrow$ P is the husband of Q

$P - Q \rightarrow$ P is the sister of Q

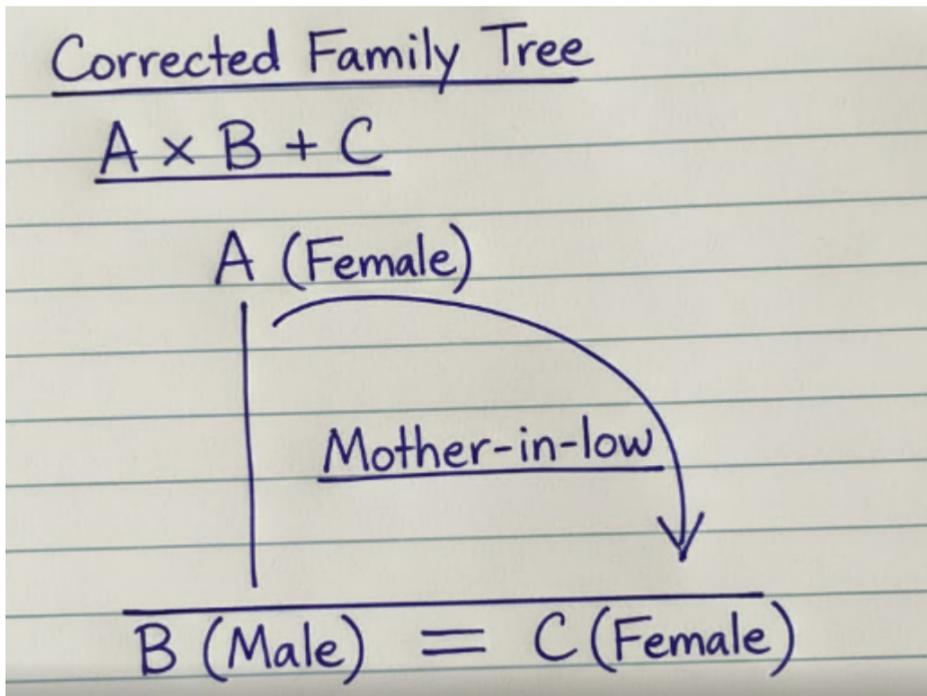
$P \times Q \rightarrow$ P is the mother of Q

Expression: $A \times B + C$

Final Answer:

A is the mother-in-law of C

Final Correct Option:



Q.9 Identify the odd number: 1, 8, 27, 64, 121, 216

- A. 64
- B. 121
- C. 216
- D. 27

Answer: B

Sol: Information Given:

Numbers: 1, 8, 27, 64, 121, 216

Logic:

All numbers except one are perfect cubes.

Explanation:

Logic: Check cube values.

$$1 = 1^3$$

$$8 = 2^3$$

$$27 = 3^3$$

$$64 = 4^3$$

$$216 = 6^3$$

$$121 = 11^2 \text{ (not a cube)}$$

Final Answer:

121

Final Correct Option:

(B)

Q.10 Each of the letters in the word HARMONIOUS is arranged in alphabetical order. How many letters are there in the English alphabetical series between the letter that is first from the left and the one that is fourth from the right in the new letter-cluster formed?

- A. 12
- B. 13
- C. 15
- D. 11

Answer: B

Sol: Information Given:

Word: HARMONIOUS

Logic:

Arrange letters alphabetically → identify required positions → count letters between them in the English alphabet.

Explanation:

Logic: Alphabetical arrangement + position counting.

Step-by-step:

- Letters in alphabetical order:

A, H, I, M, N, O, O, R, S, U

- 1st from the left = A
- 4th from the right = O

- Alphabet positions:

A = 1, O = 15

- Letters between A and O = $15 - 1 - 1 = 13$

Short Trick:

Arrange → find letters → (higher position – lower position – 1).

Final Answer:

13

Final Correct Option:

(B)

Q.11 Complete the series: 24, 120, 720, 5040, 40320, _____ ?

- A. 461291
- B. 362880
- C. 242880
- D. 162770

Answer: B

Sol: Information Given:

Series: 24, 120, 720, 5040, 40320, ?

Logic:

Each term is the factorial of consecutive integers.

Explanation:

Logic: $n!$ pattern.

Step-by-step:

$24 = 4!$

$120 = 5!$

$720 = 6!$

$5040 = 7!$

$40320 = 8!$

Next term = $9! = 362880$

Final Answer:

362880

Final Correct Option:

(B)

Q.12 Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.

XJL, YMK, ZPJ, ?

- A. ASI
- B. ZOO
- C. AAP
- D. ZMP

Answer: A

Sol: Information Given:

Series: XJL, YMK, ZPJ, ?

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

Logic:

Each letter position follows an independent alphabetical pattern.

Explanation:

Logic: Check column-wise letter movement.

Step-by-step:

- 1st letters: X → Y → Z → **A** (+1, wrap after Z)
- 2nd letters: J → M → P → **S** (+3 each time)
- 3rd letters: L → K → J → **I** (-1 each time)

So the missing cluster = **ASI**

Final Answer:

ASI

Final Correct Option:

(A)

Q.13 In each of the following questions, a word is transformed by rearranging its letters according to a specific pattern. Apply the same pattern to the third word and choose the correct answer from the given alternatives.

EXCUSE : CXEESU :: ERODES : ?

- A. OREESD
- B. ORESED
- C. REOSDE
- D. ERODSE

Answer: B

Sol: Information Given:

Word: EXCUSE → CXEESU

Same rearrangement pattern to be applied on ERODES.

Each word has 6 letters.

Formula Used:

Fixed position rearrangement pattern:

3, 2, 1, 6, 5, 4

Explanation:**Step 1: Verify the given pattern**

Result: ORESED

Final Answer:

ORESED



Q.14 X and Y are brothers. Z is the wife of Y. A is the father of X. B is the daughter of Z. How is B related to A?

- A. Daughter
- B. Granddaughter
- C. Niece
- D. Sister

Answer: B

Sol: Information Given:

X and Y are brothers.

Z is the wife of Y.

A is the father of X.

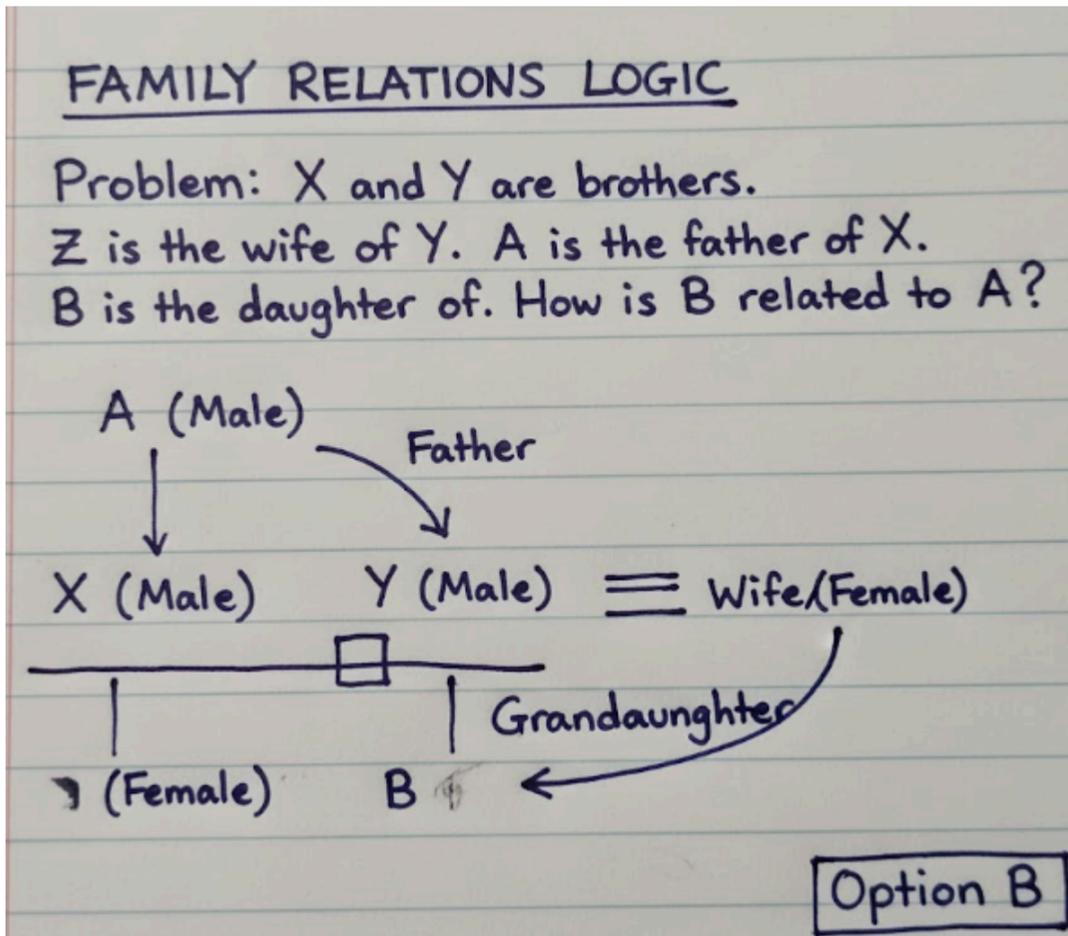
B is the daughter of Z.

Final Answer:

B is the granddaughter of A

Final Correct Option:

(B)



Q.15 Instruction: Identify the assumptions that must hold for the statement to be valid, then choose the correct option.

Statement: The Himalayas act as a natural barrier that prevents the monsoon winds from reaching the northern plains, thereby creating a dry region in the rain shadow area.

Assumptions:

- I. The Himalayas prevent monsoon winds from reaching certain areas.
- II. The rain shadow effect leads to dry conditions in specific regions.
- III. Monsoon winds are the sole cause of rainfall in the northern plains.

- A. Only I and II are implicit
- B. Only II and III are implicit
- C. Only I is implicit
- D. All assumptions are implicit

Answer: A

Sol: Information Given:

Statement:

The Himalayas act as a natural barrier that prevents the monsoon winds from reaching the northern plains, thereby creating a dry region in the rain shadow area.

Assumptions:

- I. The Himalayas prevent monsoon winds from reaching certain areas.
- II. The rain shadow effect leads to dry conditions in specific regions.
- III. Monsoon winds are the sole cause of rainfall in the northern plains.

Explanation:

Logic: An assumption must be taken for granted for the statement to hold.

Step-by-step:

- Assumption I: Directly stated and essential ✓
- **Assumption II:** Implied by "dry region in the rain shadow area" ✓
- **Assumption III:** Not required; rainfall can have other causes ✗

Final Answer:

Only I and II are implicit

Final Correct Option:

(A)

Q.16 A sum becomes 2.5 times in 10 years under simple interest. Find the rate.

- A. 10%
- B. 12.5%
- C. 15%
- D. 20%

Answer: C

Sol: Information Given:

A sum becomes 2.5 times in 10 years
Simple Interest
Options given.

Formula Used:

Amount = Principal \times (1 + RT/100)

Explanation:

Logic: Convert "times" into interest part.

Step-by-step:

$$2.5P = P(1 + RT/100)$$

$$\Rightarrow 1 + RT/100 = 2.5$$

$$\Rightarrow RT/100 = 1.5$$

Given T = 10 years

$$\Rightarrow R \times 10 / 100 = 1.5$$

$$\Rightarrow R = 15\%$$

Final Answer:

15%

Final Correct Option:

(C)

Q.17 Which letter in the word "TREATMENT" is equidistant from both ends?

- A. A
- B. T
- C. E
- D. M

Answer: B

Sol: Information Given:

Word: TREATMENT

Letters count = 9

Logic:

Middle letter is equidistant from both ends.

Explanation:

Logic: In an odd-length word, the middle position is $(n + 1)/2$.

Step-by-step:

T R E A T M E N T

Positions: 1 2 3 4 5 6 7 8 9

Middle position = 5 \rightarrow Letter = T

Final Answer:

T

Final Correct Option:

(B)

Q.18 Which one is different from the rest?

- A. Rose
- B. Guava
- C. Banana
- D. Papaya

Answer: A

Sol: Information Given:

Logic:

Three are fruits; one is a flower.

Explanation:

Logic: Identify category difference.

Step-by-step:

- Guava → Fruit
- Banana → Fruit
- Papaya → Fruit
- Rose → Flower

Final Answer:

Rose

Final Correct Option:

(A)

Q.19 Find the word that does not fit in the series:

Silent, Muted, Tranquil, Clamorous, Calm

- A. Silent
- B. Muted
- C. Tranquil
- D. clamorous

Answer: D

Sol: 1. Information Given:

A group of words related to sound or silence.

One word has a meaning opposite to the others.

2. Formula Used:

Odd one out based on meaning (antonym concept)

3. Explanation:

Meanings of the words:

Silent → no sound, quiet

Muted → low or softened sound

Tranquil → peaceful, calm, quiet

Calm → peaceful, without disturbance

Clamorous → loud, noisy

Four words indicate quietness, while Clamorous indicates loud noise.

4. Short Trick

Identify the word that is an antonym of the rest.

Quiet-related words vs loud-related word.

5. Final Answer:

Clamorous

Correct Option: (D)

Q.20 Which of the following is/are identical to the address given: Priya Yadav B-22, Rosewood Heights, Sector 15, Gurgaon, 122002

1. Priya Yadav B-22, Rosewood Heights, Sector 15, Gurgaon, 122002
2. Priya Yadav B-22, Rosewood Heights, Sector 15, Gurugram, 122002
3. Priya Yadav B-22, Rosewood Heights, Sector 15, Gurgaon, 122003
4. Priya Yadav B-22, Rosewood Heights, Sector 15, Gurgaon, 122001

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

Answer: B

Sol: Name: Priya Yadav
House No.: B-22
Locality: Rosewood Heights
Sector: 15
City: Gurgaon
PIN Code: 122002

Explanation:

Check each statement:

Statement 1:

All details exactly match the given address ✓

Statement 2:

Gurgaon ≠ Gurugram (different city name) ✗

Statement 3:

PIN code 122003 ≠ 122002 ✗

Statement 4:

PIN code 122001 ≠ 122002 ✗

Only Statement 1 is completely identical.

Q.21 Each of the letters in the word **LAPTOP** is arranged in alphabetical order. How many letters are there in the English alphabetical series between the letter that is fourth from the left and the one that is first from the right in the new letter-cluster formed?

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

Answer: C

Sol: Information Given:

Word: LAPTOP

Explanation:

Logic: Alphabetical arrangement → positional identification → alphabet gap.

Step-by-step:

• Letters of LAPTOP arranged alphabetically:

A, L, O, P, P, T

• 4th from the left = P

• 1st from the right = T

• Alphabet positions:

P = 16, T = 20

• Letters between P and T = Q, R, S = 3 letters

Short Trick:

Arrange → pick letters → subtract positions – 1.

Final Answer:

Three

Final Correct Option:

(C)

Q.22 If the sum of 42 and 42 is multiplied by 4, what is the result?

- A. 332
- B. 336
- C. 340
- D. 348

Answer: B

Sol: Information Given:

Sum of 42 and 42, then multiplied by 4.

Logic:

First add, then multiply.

Explanation:Logic: $(42 + 42) \times 4$

Step-by-step:

$$42 + 42 = 84$$

$$84 \times 4 = 336$$

Final Answer:

336

Final Correct Option:

(B)

Q.23 If $2 @ 3 = 25$ and $3 @ 4 = 49$, what is $4 @ 5$?

- A. 81
- B. 100
- C. 121
- D. 91

Answer: A**Sol: Information Given:**

$$2 @ 3 = 25$$

$$3 @ 4 = 49$$

Find: $4 @ 5$ **Logic:**

Operation follows square of sum.

Explanation:Logic: $(\text{First number} + \text{Second number})^2$

Step-by-step:

$$2 @ 3 \rightarrow (2 + 3)^2 = 5^2 = 25$$

$$3 @ 4 \rightarrow (3 + 4)^2 = 7^2 = 49$$

$$4 @ 5 \rightarrow (4 + 5)^2 = 9^2 = 81$$

Final Answer:

81

Final Correct Option:

(A)

Q.24 If 'READ' is coded as 'SFBE', how is 'BOOK' coded?

- A. CPPL
- B. DQQM
- C. APPL
- D. AQQM

Answer: A**Sol: Information Given:**READ \rightarrow SFBE

Find code for: BOOK

Logic:

Each letter is shifted +1 forward in the alphabet.

Explanation:

Logic: Next alphabet letter for each character.

Step-by-step:

R \rightarrow SE \rightarrow FA \rightarrow BD \rightarrow E

Apply same to BOOK:

B \rightarrow C

O → P
O → P
K → L

Final Answer:
CPPL

Final Correct Option:
(A)

Q.25 What will come at the place of question mark?
1, 9, 31, 73, 141, ?

- A. 241
- B. 398
- C. 49
- D. 155

Answer: A

Sol: Information Given:

Series: 1, 9, 31, 73, 141, ?

Logic:
Difference pattern with increasing second differences.

Explanation:

Logic: Differences increase by +6 successively.

Step-by-step:

$$9 - 1 = 8$$

$$31 - 9 = 22$$

$$73 - 31 = 42$$

$$141 - 73 = 68$$

Second differences:

$$22 - 8 = 14$$

$$42 - 22 = 20$$

$$68 - 42 = 26$$

→ increase by +6

Next second difference = 32 (26+6)

Next difference = 68 + 32 = 100

Next term = 141 + 100 = 241

Final Answer:

241

Final Correct Option:

(A)

Series: 1, 9, 31, 73, 141, ?

	1	9	31	73	141	?
		8	22	42	68	
		+14	+20	20	26	
			+6	+6		

141 + 100 = 241
+32 = ↓

Q.26 Mineral-rich regions generally experience population growth because:

- A. They promote tourism only
- B. They ensure better rainfall
- C. They generate employment through industries
- D. They discourage migration

Answer: C

Sol: The correct answer is **(C) They generate employment through industries**

Explanation:

- Regions with abundant mineral deposits attract mining and industrial activities. These industries require a large workforce, including skilled and unskilled labor.
- The availability of jobs acts as a significant 'Pull Factor' for migration from other areas, leading to high population density and growth.
- Examples include the Chhota Nagpur Plateau in India or the Ruhr region in Germany, where mining has led to massive urban-industrial clusters.
- Secondary and tertiary sectors (services like transport, commerce, and housing) develop around these mines, further boosting population.

Information Booster:

- **Pull Factor:** Economic opportunity is the primary pull factor in human geography for mineral regions.
- **Infrastructure Development:** Mining often leads to the development of railways and roads, which further facilitates population settlement.
- **Urbanization:** Many mineral-rich towns turn into 'Boomtowns' characterized by rapid population increase.

Additional Knowledge:

- **Tourism (Option A):** While some mining sites have geological tourism, it is not the primary driver of massive population growth compared to industrial jobs.
- **Rainfall (Option B):** There is no direct correlation between mineral deposits and rainfall; in fact, many mineral-rich areas (like parts of Australia or Rajasthan) are arid.
- **Discourage migration (Option D):** On the contrary, these regions are major 'destinations' for migrants seeking better livelihoods.

Q.27 Which factor primarily causes orographic rainfall?

- A. Intense surface heating
- B. Air rising over mountain barriers
- C. Cyclonic convergence
- D. Cold polar winds

Answer: B

Sol: The correct answer is **(B) Air rising over mountain barriers**

Explanation:

- Orographic rainfall (also known as relief rainfall) occurs when moist air is forced to rise over a physical barrier such as a mountain range.
- As the air rises on the windward side, it expands and cools adiabatically. When the cooling reaches the dew point, water vapor condenses, forming clouds and precipitation.
- The leeward side (the side sheltered from the wind) receives very little rain and is known as the 'rain shadow' area.
- A classic example in India is the heavy rainfall on the Western Ghats vs the dry conditions in the Deccan Plateau.

Information Booster:

- **Windward Side:** The side of the mountain facing the oncoming wind; it receives high rainfall.
- **Leeward Side:** The side away from the wind; characterized by descending air that warms up, resulting in dry conditions.
- **Adiabatic Cooling:** The process where air temperature decreases as it rises and pressure drops, without losing heat to the surroundings.

Additional Knowledge:

- **Intense surface heating (Option A):** This causes Convective Rainfall, common in equatorial regions where air rises due to convection currents.
- **Cyclonic convergence (Option C):** This causes Frontal or Cyclonic Rainfall, where warm and cold air masses meet or air converges in a low-pressure center.
- **Cold polar winds (Option D):** While these contribute to temperature drops, they don't primarily cause orographic rain unless they encounter a mountain barrier.

Q.28 The bending of sound waves around obstacles is known as:

- A. Reflection
- B. Refraction
- C. Diffraction
- D. Interference

Answer: C

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

Explanation:

- **Diffraction** is the property of waves (including sound and light) to bend around the corners of an obstacle or spread out through an opening.
- Sound waves have relatively long wavelengths (ranging from centimeters to meters). Because these wavelengths are comparable to the size of everyday objects like doors or trees, sound diffracts easily.
- This is why you can hear someone speaking from around a corner even if you cannot see them.
- Higher frequency (shorter wavelength) sounds diffract less than lower frequency (longer wavelength) sounds.

Information Booster:

- **Wavelength vs Obstacle:** For significant diffraction to occur, the size of the obstacle must be roughly the same as or smaller than the wavelength of the wave.
- **Light vs Sound:** Light has a very tiny wavelength (nanometers), so it doesn't bend noticeably around large objects like walls, which is why we can't see around corners.

Additional Knowledge:

- **Reflection (Option A):** The bouncing back of sound waves from a surface, which causes echoes or reverberation.
- **Refraction (Option B):** The bending of sound waves when they pass from one medium to another or through layers of air with different temperatures (e.g., sound traveling further at night).
- **Interference (Option D):** The phenomenon where two sound waves meet and overlap, resulting in a new wave of greater (constructive) or lesser (destructive) amplitude.

Q.29 The NISAR mission is particularly useful for studying:

- A. Ocean salinity variations
- B. Land surface deformation and earthquakes
- C. Solar radiation patterns
- D. Deep-space objects

Answer: B

Sol: The correct answer is **(B) Land surface deformation and earthquakes**

Explanation:

- **NISAR** stands for NASA-ISRO Synthetic Aperture Radar. It is a joint Earth-observing mission between NASA (USA) and ISRO (India).
- It uses dual-band radar (L-band and S-band) to map the entire globe every 12 days.
- Its primary purpose is to observe and measure Earth's complex processes, including ecosystem disturbances, ice-sheet collapse, and natural hazards such as earthquakes, tsunamis, volcanoes, and landslides.
- It can detect very small movements of the land surface (down to fractions of an inch), which is critical for disaster management.

Information Booster:

- **Payload:** ISRO is providing the S-band radar, the GSLV launch vehicle, and spacecraft bus. NASA is providing the L-band radar and communication subsystem.
- **First of its kind:** It is the first satellite mission to use two different radar frequencies (L-band and S-band) together.
- **Application:** Besides disasters, it will monitor agricultural biomass, forest cover, and groundwater levels.

Additional Knowledge:

- **Ocean salinity (Option A):** Missions like SMAP (Soil Moisture Active Passive) or Aquarius were designed for this, though NISAR may assist in coastal monitoring.
- **Solar radiation (Option C):** This is the domain of missions like Aditya-L1 or the Parker Solar Probe.
- **Deep-space (Option D):** Space telescopes like James Webb (JWST) or Hubble are used for observing distant galaxies and nebulae, not Earth-observation radars.

Q.30 Who inaugurated the PM GatiShakti National Master Plan?

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

Answer: B

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

Explanation:

- Prime Minister Narendra Modi inaugurated the PM GatiShakti - National Master Plan for Multi-modal Connectivity in October 2021.
- It is a digital platform that brings together 16 Ministries, including Railways and Roadways, for integrated planning and coordinated implementation of infrastructure connectivity projects.
- The goal is to break silos between departments and ensure that projects are planned in a holistic manner to reduce logistics costs.

- It covers various projects under the Bharatmala, Sagarmala, inland waterways, and dry/land ports initiatives.

Information Booster:

- **Six Pillars:** Comprehensiveness, Prioritization, Optimization, Synchronization, Analytical, and Dynamic.
- **GIS-based:** The plan utilizes ISRO imagery and GIS mapping for real-time monitoring and spatial planning.
- **Economic Goal:** To make Indian products more competitive by reducing logistics costs from the current 13-14% of GDP to around 8%.

Additional Knowledge:

- **Nitin Gadkari (Option A):** He is the Minister for Road Transport and Highways and a key executor of the plan, but he did not 'inaugurate' the national-level master plan.
- **Piyush Goyal (Option C):** He heads the Ministry of Commerce and Industry which is involved in GatiShakti, but the launch was a PM-led initiative.
- **Amit Shah (Option D):** As Home Minister, he is part of the Cabinet that approved it, but he was not the primary figure at the inauguration.

Q.31 Ishwar Chandra Vidyasagar is best remembered for his role in:

- Leading peasant uprisings
- Reforming widow remarriage laws
- Establishing armed resistance groups
- Introducing English education alone

Answer: B

Sol: The correct answer is **(B) Reforming widow remarriage laws**

Explanation:

- Ishwar Chandra Vidyasagar (1820–1891) was a legendary polymath and social reformer. His most significant contribution was his tireless campaign for the remarriage of widows.
- He used ancient Hindu scriptures to prove that widow remarriage was not forbidden, challenging the orthodox views of the time.
- His efforts led to the enactment of the **Hindu Widows' Remarriage Act, 1856** (also known as Act XV, 1856) during the tenure of Lord Dalhousie.
- He also worked extensively for women's education and founded the Bethune School.

Information Booster:

- **Title:** The title 'Vidyasagar' (Ocean of Knowledge) was conferred on him by the Sanskrit College, Calcutta, for his brilliance in Sanskrit and philosophy.
- **Vernacular Education:** He is known as the 'Father of Bengali Prose' because he simplified the Bengali alphabet and writing style.
- **Barna Parichay:** This primer written by him is still used to teach Bengali to beginners.

Additional Knowledge:

- **Peasant uprisings (Option A):** These were led by leaders like Sidhu-Kanhu (Santhal rebellion) or Sahajanand Saraswati, not Vidyasagar.
- **Armed resistance (Option C):** Vidyasagar was an intellectual and social reformer, not a militant revolutionary like Surya Sen or Bhagat Singh.
- **English Education (Option D):** While he supported modern education, Raja Ram Mohan Roy and Lord Macaulay are more closely associated with the 'introduction' of English education in India.

Q.32 The Ranji Trophy is named after:

- Ranjit Singh of Kapurthala
- Ranjitsinhji of Nawanagar
- Ranjit Desai
- Ranjit Rathore

Answer: B

Sol: The correct answer is **(B) Ranjitsinhji of Nawanagar**

Explanation:

- The Ranji Trophy is the premier domestic first-class cricket championship played in India.
- It is named after **Sir Ranjitsinhji Vibhaji II** (popularly known as 'Ranji'), the Maharaja Jam Sahib of Nawanagar.
- He was the first Indian to play international cricket, representing England between 1896 and 1902.
- The competition was launched in 1934 by the Board of Control for Cricket in India (BCCI) and the first match was played between Madras and Mysore.

Information Booster:

- **First Winner:** Bombay (now Mumbai) won the first-ever Ranji Trophy in 1934-35.
- **Most Successful Team:** Mumbai has won the trophy a record 42 times.
- **Duleep Trophy:** Another major domestic trophy named after Ranji's nephew, K.S. Duleepsinhji.

Additional Knowledge:

- **Ranjit Singh of Kapurthala (Option A):** He was a prominent Maharaja but not associated with the naming of the cricket trophy.
- **Ranjit Desai (Option C):** A famous Marathi writer known for the novel 'Shriman Yogi'; he has no link to the cricket tournament.
- **Ranjit Rathore (Option D):** This name does not correspond to a historical sports figure of this stature.

Q.33 The Aravalli Green Wall Project mainly focuses on:

- A. Coastal afforestation
- B. Desert irrigation
- C. Reviving degraded landscapes
- D. Urban forestry only

Answer: C

Sol: The correct answer is **(C) Reviving degraded landscapes**

Explanation:

- The Aravalli Green Wall Project is an ambitious plan to create a 1,400 km long and 5 km wide green belt buffer around the Aravalli Mountain Range.
- It covers states like Haryana, Rajasthan, Gujarat, and Delhi. Its primary goal is to combat desertification and land degradation.
- By restoring ecological health to the Aravallis, it acts as a barrier against the eastward expansion of the Thar Desert.
- It involves planting native species of trees and shrubs on scrublands, wastelands, and degraded forest land.

Information Booster:

- **Inspiration:** The project is inspired by the 'Great Green Wall' of Africa which stretches from Senegal to Djibouti.
- **UNCCD Goals:** It helps India achieve its target of restoring 26 million hectares of degraded land by 2030, as part of the Bonn Challenge.
- **Ecological Benefits:** It enhances biodiversity, improves groundwater recharge, and mitigates climate change impacts in the National Capital Region (NCR).

Additional Knowledge:

- **Coastal afforestation (Option A):** This usually involves Mangrove restoration (e.g., MISHTI scheme), not the Aravallis which are inland.
- **Desert irrigation (Option B):** While irrigation is used in deserts (e.g., Indira Gandhi Canal), the Green Wall project is about nature-based restoration, not just water engineering.
- **Urban forestry (Option D):** While it may include urban parts of Delhi/Gurgaon, the scope is much larger, covering rural and mountainous terrain.

Q.34 Read the below statements marked as Assertion (A) and Reason (R):

Assertion (A): Midnight's Children explores India's post-independence history through magical realism.

Reason (R): The novel received the Booker Prize for its innovative narrative style.

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

Answer: B

Sol: The correct answer is **(B) Both A and R are true, but R is not the correct explanation of A**

Explanation:

- **Assertion (A) is true:** 'Midnight's Children' (1981) by Salman Rushdie is a seminal work that uses magical realism to tell the story of Saleem Sinai, who is born at the exact moment of India's independence. His life is telepathically linked to 1,000 other children born at that hour.
- **Reason (R) is true:** The novel did win the Booker Prize in 1981 and later the 'Booker of Bookers' (1993) and the 'Best of the Booker' (2008). Its innovative narrative style was a key reason for the acclaim.
- **Relationship:** While both statements are factual, the winning of a prize (R) is not the *reason* why the book explores history through magical realism (A). The exploration was the author's creative choice, which subsequently led to the prize.

Information Booster:

- **Magical Realism:** A literary genre where realistic narrative is combined with surreal elements of dream or fantasy.
- **Saleem Sinai:** The protagonist whose life parallels the major political events of post-1947 India and Pakistan.
- **Influence:** The book is credited with popularizing the 'Indian English' voice in global literature.

Additional Knowledge:

- If Statement A said 'Midnight's Children is considered a masterpiece' and R said 'Because it won the Booker of Bookers', then R might be seen as an explanation for its status. But as phrased, the two are independent facts.

Q.35 Which of the following statements about backstroke swimming technique is correct?

- A. The swimmer breathes only on alternate laps
- B. Arms move alternately in a continuous circular motion
- C. Kicking is performed only during turns
- D. The swimmer faces downward in water

Answer: B

Sol: The correct answer is **(B) Arms move alternately in a continuous circular motion**

Explanation:

- In backstroke, the swimmer lies on their back. The arms perform an alternating, windmill-like motion (one arm recovers while the other pulls underwater).
- It is the only competitive stroke that starts in the water (swimmers hold the starting blocks while facing the wall).
- The legs perform a 'flutter kick' (the same kick used in Freestyle) which is continuous throughout the swim.
- Because the face is above water, breathing is easier than other strokes, though a regular rhythm is still maintained.

Information Booster:

- **Turn:** Swimmers typically perform a flip-turn, rotating onto their stomachs for one stroke before reaching the wall.
- **History:** It was the second stroke to be added to Olympic competitions after the front crawl (Freestyle).
- **Flags:** Since swimmers cannot see where they are going, 'backstroke flags' are hung across the pool (5 meters from the end) to warn them the wall is approaching.

Additional Knowledge:

- **Breathe only on alternate laps (Option A):** This is incorrect; swimmers breathe continuously as their nose/mouth are generally above water.
- **Kicking only during turns (Option C):** Flutter kicking is vital for propulsion and buoyancy throughout the race, not just at turns.
- **Faces downward (Option D):** This describes the Freestyle (Front Crawl), Breaststroke, or Butterfly, but not Backstroke.

Q.36 The authority to certify a Bill as a Money Bill rests with the:

- A. President of India
- B. Finance Secretary
- C. Speaker of the Lok Sabha
- D. Chairman of Rajya Sabha

Answer: C

Sol: The correct answer is **(C) Speaker of the Lok Sabha**

Explanation:

- According to Article 110 of the Indian Constitution, if any question arises whether a Bill is a Money Bill or not, the decision of the **Speaker of the Lok Sabha** shall be final.
- When a Money Bill is transmitted to the Rajya Sabha and when it is presented to the President for assent, the Speaker must endorse on the Bill a certificate that it is a Money Bill.
- A Money Bill can only be introduced in the Lok Sabha on the recommendation of the President.
- The Rajya Sabha has limited powers regarding Money Bills; it can only recommend changes within 14 days, which the Lok Sabha may or may not accept.

Information Booster:

- **Article 110:** Defines a Money Bill as one containing only provisions dealing with taxation, borrowing of money by the government, the Consolidated Fund of India, etc.
- **Finality:** The Speaker's decision cannot be questioned in any court of law or in either House of Parliament or even by the President.
- **Joint Sitting:** There is no provision for a joint sitting of both Houses in the case of a Money Bill.

Additional Knowledge:

- **President (Option A):** While his prior recommendation is needed to *introduce* the bill, he does not 'certify' it as a Money Bill.
- **Finance Secretary (Option B):** He is a civil servant in the Ministry of Finance and has no constitutional role in the legislative classification of bills.
- **Chairman of Rajya Sabha (Option D):** Since Money Bills are primarily the domain of the Lok Sabha, the Chairman (Vice-President) has no power to certify or reject the classification of a Money Bill.

Q.37 Under the Bharatiya Nyaya Sanhita (BNS), which offence would qualify as organized crime?

- A. Single act of shoplifting
- B. Coordinated cyber fraud by a group
- C. Minor traffic violation
- D. Personal dispute assault

Answer: B

Sol: The correct answer is **(B) Coordinated cyber fraud by a group**

Explanation:

- Section 111 of the Bharatiya Nyaya Sanhita (BNS) defines organized crime as any continuing unlawful activity including kidnapping, robbery, vehicle theft, extortion, land grabbing, contract killing, economic offences, cyber-crimes, or trafficking in persons.
- For an activity to be classified as organized crime, it must be committed by a person or a group of persons acting in concert, singly or jointly, as a member of an organized crime syndicate or on behalf of such syndicate.
- The act must involve the use of violence, threat of violence, intimidation, coercion, or other unlawful means to obtain direct or indirect material benefit, including financial benefit.
- Cyber fraud coordinated by a group fits the criteria of 'economic offences' and 'cyber-crimes' carried out by a syndicate for financial gain.

Information Booster:

- **Syndicate Requirement:** An 'organized crime syndicate' refers to a group of two or more persons who, acting singly or collectively, indulge in activities of organized crime.
- **Punishment:** If organized crime results in the death of any person, it is punishable with death or imprisonment for life, and a fine of not less than ten lakh rupees.
- **BNS vs IPC:** Unlike the Indian Penal Code (IPC), the BNS explicitly defines and penalizes 'Organized Crime' and 'Terrorist Acts' at the central level.

Additional Knowledge:

- **Single act of shoplifting (Option A):** This is generally treated as 'petty organized crime' under Section 112 only if it is part of a series of such acts by a group; otherwise, it is simple theft.
- **Minor traffic violation (Option C):** These are regulatory offences governed by the Motor Vehicles Act and do not fall under the definition of organized crime.
- **Personal dispute assault (Option D):** This is categorized as an offence against the human body (hurt/grievous hurt) and lacks the syndicate/material benefit element required for organized crime.

Q.38 Who was the first Indian woman to win a medal at the Asian Games in athletics?

- A. P.T. Usha
- B. M.L. Valsamma
- C. Kamaljeet Sandhu
- D. Anju Bobby George

Answer: C

Sol: The correct answer is **(C) Kamaljeet Sandhu**

Explanation:

- **Kamaljeet Sandhu** became the first Indian woman athlete to win a gold medal at the Asian Games.
- She won the gold in the 400-meter race at the 1970 Bangkok Asian Games.
- She ran the distance in 57.3 seconds.
- This was a historic moment that paved the way for future female athletes in India.

Information Booster:

- **Background:** She hailed from Punjab and represented India at the 1972 Munich Olympics as well.
- **Award:** She was honored with the Padma Shri in 1971 for her contribution to sports.
- **First Individual Woman Medalist (Olympics):** This was Karnam Malleswari (Bronze in Weightlifting, 2000), distinct from the Asian Games record.

Additional Knowledge:

- **P.T. Usha (Option A):** Known as the 'Payyoli Express', she dominated the 1986 Asian Games but came much later than Kamaljeet Sandhu.
- **M.L. Valsamma (Option B):** She was the second Indian woman to win an Asian Games gold medal (400m hurdles at the 1982 Delhi Asian Games).
- **Anju Bobby George (Option D):** She is famous for winning India's first-ever medal (Bronze) in the World Athletics Championships (2003) in Long Jump.

Q.39 Read the below statements marked as Assertion (A) and Reason (R):

Assertion (A): The National Single Window System simplifies business approvals.

Reason (R): It integrates clearances from multiple ministries on one platform.

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

Answer: A

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

Explanation:

- **Assertion (A) is true:** The National Single Window System (NSWS) is a digital platform launched by the Government of India to improve the 'Ease of Doing Business'. It acts as a one-stop-shop for investors and businesses.
- **Reason (R) is true:** The fundamental reason it simplifies the process is that it eliminates the need for investors to visit multiple ministry websites or offices. It integrates various central and state-level clearances.
- Since the integration of clearances (R) is exactly what makes the system simple (A), R is the correct explanation of A.

Information Booster:

- **Launch:** It was launched in September 2021 by the Department for Promotion of Industry and Internal Trade (DPIIT).
- **Know Your Approval (KYA) module:** This feature allows users to identify the list of required approvals based on their specific business information.
- **Scope:** It aims to reduce the compliance burden and bring transparency and accountability to the approval process.

Additional Knowledge:

- If R were true but described something else (like 'It was launched by DPIIT'), it would still be a true fact but wouldn't explain *why* it simplifies approvals, leading to option B.
- This system is part of India's broader push towards G2B (Government to Business) digital services.

Q.40 The joint military exercise "Maitree" is conducted between India and which country?

- A. Thailand
- B. Nepal
- C. Sri Lanka
- D. Myanmar

Answer: A

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

Explanation:

- **Exercise Maitree** is an annual joint military training exercise conducted between the Indian Army and the Royal Thai Army.
- It was started in 2006. The exercise aims to strengthen bilateral ties and improve coordination/interoperability between the two armies.
- The training focuses on counter-terrorism operations in various terrains, including jungle and urban environments.
- It helps in sharing best practices and tactical level techniques.

Information Booster:

- **Air Force:** India and Thailand also conduct a joint air exercise called 'Siam Bharat'.
- **Navy:** The two navies engage in 'Indo-Thai CORPAT' (Coordinated Patrol).
- **Location:** The exercise alternates between India and Thailand each year.

Additional Knowledge:

- **Surya Kiran (Option B):** This is the joint military exercise between India and Nepal.
- **Mitra Shakti (Option C):** This is the joint military exercise between India and Sri Lanka. (Note the similarity in names: Maitree vs Mitra Shakti).
- **IMBAX (Option D):** The India-Myanmar Bilateral Army Exercise is the name for drills between India and Myanmar.

Q.41 Light pollution most severely affects observation of:

- A. Solar eclipses
- B. Meteors during daytime
- C. Faint galaxies and nebulae
- D. Moon phases

Answer: C

Sol: The correct answer is **(C) Faint galaxies and nebulae**

Explanation:

- Light pollution is the excessive or misdirected artificial light caused by urban centers. It increases the 'sky glow', which reduces the contrast between the stars and the background sky.
- Faint deep-sky objects like distant galaxies and nebulae have very low surface brightness. When the sky is bright due to light pollution, these objects become invisible to the naked eye and even to many telescopes.
- This is why major observatories (like the Indian Astronomical Observatory at Hanle) are built in remote, high-altitude locations far from cities.

Information Booster:

- **Bortle Scale:** A nine-level numeric scale that measures the night sky's brightness of a particular location (Class 1 is pristine dark; Class 9 is inner-

city).

- **Impact on Wildlife:** Beyond astronomy, light pollution disrupts the migratory patterns of birds and the reproductive cycles of insects and sea turtles.
- **Dark Sky Reserves:** Hanle in Ladakh was recently designated as India's first 'Dark Sky Reserve' to protect the night sky from light pollution.

Additional Knowledge:

- **Solar eclipses (Option A):** These occur during the day when the sun is very bright; urban streetlights have no impact on viewing them.
- **Meteors during daytime (Option B):** Meteors are generally not visible during the day because the Sun's light is overwhelmingly brighter than any artificial light or meteor trail.
- **Moon phases (Option D):** The Moon is the second brightest object in our sky. Its phases are easily visible even from the most light-polluted cities.

Q.42 According to recent tourism indices, strong infrastructure contributes to:

- A. Lower tourist inflow
- B. Higher tourism competitiveness
- C. Decline in service quality
- D. Reduced employment

Answer: B

Sol: The correct answer is **(B) Higher tourism competitiveness**

Explanation:

- The Travel & Tourism Development Index (TTDI) by the World Economic Forum emphasizes that infrastructure (transport, air, port, and tourist services) is a core pillar of tourism competitiveness.
- Strong infrastructure reduces travel time, improves safety, and makes destinations more accessible and attractive to international and domestic travelers.
- It directly impacts the 'readiness' of a country to host tourists, thereby improving its global ranking and economic potential.
- India has been focusing on this through schemes like Swadesh Darshan and PRASHAD.

Information Booster:

- **Pillars of TTDI:** These include Enabling Environment, T&T Policy, Infrastructure, and T&T Demand Drivers (Natural/Cultural resources).
- **Last Mile Connectivity:** It is crucial for taking tourists beyond major cities to rural or remote heritage sites.
- **Digital Infrastructure:** Today, seamless internet and digital payment systems are also considered vital tourism infrastructure.

Additional Knowledge:

- **Lower tourist inflow (Option A):** Better infrastructure always correlates with *higher* inflow as accessibility increases.
- **Decline in service quality (Option C):** On the contrary, infrastructure development usually supports and enhances service quality (e.g., better hotels, cleaner airports).
- **Reduced employment (Option D):** Tourism is a labor-intensive sector; better infrastructure leads to more tourists, which *increases* job opportunities.

Q.43 In Indian classical music, Sushira Vadya refers to:

- A. Instruments producing sound by stretched membranes
- B. String instruments played with fingers or bow
- C. Wind instruments where sound is produced by air vibration
- D. Solid instruments struck together for rhythm

Answer: C

Sol: The correct answer is **(C) Wind instruments where sound is produced by air vibration**

Explanation:

- **Sushira Vadya** is the category of wind instruments in the Natya Shastra's classification of musical instruments.
- In these instruments, sound is produced by the vibration of a column of air. The pitch is usually controlled by opening or closing holes on the body of the instrument.
- Common examples include the Bansuri (flute), Shehnai, Nadaswaram, and Shankh (conch).
- These instruments are integral to both Carnatic and Hindustani classical traditions.

Information Booster:

- **Ancient Classification:** Bharata Muni in Natya Shastra classified instruments into four groups: Avanaddha (Percussion), Tata (Stringed), Sushira (Wind), and Ghana (Solid/Idiophones).
- **Mechanism:** Some use reeds (Shehnai), while others are flute-type (Bansuri) or lip-blown (Shankh).

Additional Knowledge:

- **Avanaddha Vadya (Option A):** These are percussion instruments like the Tabla, Mridangam, or Dholak where a membrane is struck.
- **Tata Vadya (Option B):** These are chordophones or string instruments like the Veena, Sitar, or Sarangi.
- **Ghana Vadya (Option D):** These are idiophones or solid instruments that do not require tuning, like Cymbals (Manjira), Ghatam, or bells.

Q.44 Replacement-level fertility refers to:

- Zero population growth
- Birth rate equal to death rate
- Fertility rate required to replace parents
- Fertility decline in old age

Answer: C

Sol: The correct answer is **(C) Fertility rate required to replace parents**

Explanation:

- Replacement-level fertility is the Total Fertility Rate (TFR)—the average number of children born per woman—at which a population exactly replaces itself from one generation to the next.
- For most developed countries, this rate is roughly **2.1** children per woman.
- The '0.1' extra is to account for the possibility of children dying before they reach reproductive age or the slight imbalance in male-to-female birth ratios.
- If TFR falls below 2.1, the population will eventually start to decline (in the absence of migration).

Information Booster:

- **India's Status:** According to NFHS-5, India's TFR has reached 2.0, which is below the replacement level of 2.1.
- **Demographic Momentum:** Even if a country reaches 2.1, the population may continue to grow for a few decades because of a large young population entering reproductive years.
- **Global Variation:** In developing countries with high infant mortality, the replacement level may be as high as 2.3 or 3.0.

Additional Knowledge:

- **Zero population growth (Option A):** This is a condition where the population size remains constant; it is the long-term result of maintaining replacement-level fertility.
- **Birth rate equal to death rate (Option B):** This is the definition of the 'Rate of Natural Increase' being zero, which is a mathematical component of stable population size.
- **Fertility decline (Option D):** This refers to the physiological process of menopause or aging, not a demographic indicator.

Q.45 Joint sector enterprises involve:

- Only private ownership
- Government and private ownership together
- Complete foreign ownership
- Cooperative societies only

Answer: B

Sol: The correct answer is **(B) Government and private ownership together**

Explanation:

- Joint sector enterprises are industries that are owned and managed jointly by the government (state or central) and private individuals or business houses.
- The objective is to combine the financial resources and social responsibility of the state with the managerial expertise and efficiency of the private sector.
- Oil India Limited (OIL) is a classic example of a joint sector enterprise in India.
- Usually, the government holds a significant portion of the equity (often 26% or more), while the private partner and the public hold the rest.

Information Booster:

- **Management:** While the government provides the policy framework, the day-to-day management is often left to the private partner to ensure efficiency.
- **Origin:** The concept gained prominence in India following the Industrial Policy Resolution of 1956 and later through the Dutt Committee report.
- **Goal:** To prevent the concentration of economic power in a few hands while speeding up industrialization.

Additional Knowledge:

- **Private Ownership (Option A):** This refers to 'Private Sector' enterprises, where ownership rests solely with individuals or groups (e.g., TATA, Reliance).
- **Foreign Ownership (Option C):** These are usually Foreign Direct Investment (FDI) projects or Multi-National Corporations (MNCs).
- **Cooperative Societies (Option D):** These are owned and operated by a group of people who are also the producers or consumers of the goods (e.g., AMUL).

Q.46 Article 263 of the Indian Constitution relates to:

- A. Emergency provisions
- B. Inter-State Council
- C. Finance Commission
- D. Election Commission

Answer: B

Sol: The correct answer is **(B) Inter-State Council**

Explanation:

- Article 263 provides for the establishment of an Inter-State Council to effect coordination between the states and between the Centre and the states.
- The President can establish such a council if at any time it appears to him that the public interests would be served by its establishment.
- The Council's function is to inquire into and advise upon disputes between states, and to discuss subjects in which the states or the Union have a common interest.
- It was established for the first time in 1990 based on the recommendations of the Sarkaria Commission.

Information Booster:

- **Composition:** The Prime Minister is the Chairman. It includes Chief Ministers of all states and UTs having legislative assemblies, and Administrators of UTs not having assemblies.
- **Nature:** It is a recommendatory body and not a permanent constitutional body (it is 'extra-constitutional' in the sense that it is created by a Presidential Order).
- **Secretariat:** The Inter-State Council Secretariat was set up in 1991.

Additional Knowledge:

- **Emergency provisions (Option A):** These are covered under Articles 352 (National), 356 (President's Rule), and 360 (Financial).
- **Finance Commission (Option C):** Established under Article 280 to recommend the distribution of taxes between the Union and States.
- **Election Commission (Option D):** Established under Article 324 to conduct and supervise elections in India.

Q.47 Which macromolecule primarily stores genetic information?

- A. Proteins
- B. Lipids
- C. Carbohydrates
- D. Nucleic acids

Answer: D

Sol: The correct answer is **(D) Nucleic acids**

Explanation:

- Nucleic acids, specifically Deoxyribonucleic Acid (DNA) and Ribonucleic Acid (RNA), are the molecules responsible for the storage and expression of genetic information.
- DNA holds the 'blueprint' for the development and function of all living organisms. It is composed of nucleotides (sugar, phosphate, and a nitrogenous base).
- RNA plays a crucial role in translating that genetic code into proteins.
- These molecules ensure that hereditary traits are passed from parents to offspring.

Information Booster:

- **Double Helix:** The structure of DNA was discovered by Watson and Crick in 1953.
- **Components:** DNA uses bases Adenine (A), Guanine (G), Cytosine (C), and Thymine (T). In RNA, Thymine is replaced by Uracil (U).
- **Genes:** A gene is a specific segment of DNA that codes for a specific protein.

Additional Knowledge:

- **Proteins (Option A):** These are the 'workhorses' of the cell, providing structure, acting as enzymes, and facilitating transport, but they do not store hereditary info.
- **Lipids (Option B):** These are primarily used for long-term energy storage, insulation, and making up the cell membrane (phospholipids).
- **Carbohydrates (Option C):** These are the primary source of immediate energy (glucose) and provide structural support in plants (cellulose).

Q.48 Given below are two statements:

Statement I: The torana of a stupa serves as an ornamental gateway marking the sacred precinct.

Statement II: The torana functioned as the chamber where Buddhist relics were preserved.

Which of the following statements is/are correct?

- A. Both statements are true and Statement II is the correct explanation of Statement I
- B. Both statements are true but Statement II is not the correct explanation of Statement I
- C. Statement I is true but Statement II is false
- D. Statement II is true but Statement I is false

Answer: C

Sol: The correct answer is **(C) Statement I is true but Statement II is false**

Explanation:

- **Statement I is correct:** Toranas are the ceremonial gateways positioned at the four cardinal points of a Buddhist Stupa (like the Sanchi Stupa). They mark the entrance to the sacred path (Pradakshina Patha).
- **Statement II is incorrect:** The chamber where Buddhist relics (like bone fragments or ash) are preserved is called the **Harmika** (a square railing on top of the dome) or is placed within the **Anda** (the hemispherical dome) itself.
- Toranas are often richly carved with Jataka stories and scenes from the life of the Buddha.

Information Booster:

- **Parts of a Stupa:** Anda (Dome), Harmika (Square railing), Yashti (Spire), Chhatri (Umbrella), and Medhi (Circular terrace).
- **Sanchi Toranas:** Built during the Satavahana period, these are famous for their elaborate relief sculptures.
- **Symbolism:** The Torana represents the passage from the mundane world to the spiritual realm of the Buddha.

Additional Knowledge:

- **Relic Casket:** The physical remains of Buddha or monks were usually kept in a small casket inside the core of the Anda.
- **Vedika:** The railing that surrounds the entire stupa structure, separating the sacred space from the outside world.
- **Pradakshina Patha:** The circumambulatory path used by devotees to walk around the stupa in a clockwise direction.

Q.49 Which Veda is mainly concerned with chants and melodies used during sacrificial rituals?

- A. Rigveda
- B. Yajurveda
- C. Samaveda
- D. Atharvaveda

Answer: C

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

Explanation:

- The Samaveda is the 'Veda of Melodies and Chants'. It is the third of the four Vedas and is a collection of verses largely taken from the Rigveda but set to music.
- These melodies (Saman) were intended to be sung by the Udgatri priests during the performance of various sacrifices.
- It is often regarded as the root of Indian classical music and dance.
- It contains about 1,549 verses, all but 75 of which have been taken from the Rigveda.

Information Booster:

- **Structure:** It is divided into two parts: Archika (verse collection) and Gana (song books).
- **Historical Significance:** It reflects a transition from simple prayer to complex liturgical singing.
- **Upaveda:** The Upaveda of Samaveda is Gandharva Veda, which deals with music and dance.

Additional Knowledge:

- **Rigveda (Option A):** The oldest Veda, consisting of 1,028 hymns (Suktas) dedicated to various deities.
- **Yajurveda (Option B):** The 'Veda of Rituals'. It contains prose mantras and instructions for performing sacrifices.
- **Atharvaveda (Option D):** The 'Veda of Magical Formulas'. It contains charms and spells to ward off evils and diseases.

Q.50 Which scheme focuses on improving soil fertility through balanced nutrient use?

- PMFBY
- PKVY
- Soil Health Card Scheme
- PMKSY

Answer: C

Sol: The correct answer is **(C) Soil Health Card Scheme**

Explanation:

- Launched in February 2015, the Soil Health Card (SHC) Scheme is a Ministry of Agriculture and Farmers Welfare initiative.
- It provides farmers with customized information regarding the nutrient status of their soil and recommendations on the appropriate dosage of nutrients to be applied.
- The card contains the status of soil with respect to 12 parameters: pH, Electrical Conductivity (EC), Organic Carbon (OC), Nitrogen (N), Phosphorus (P), Potassium (K), Sulphur (S), Zinc (Zn), Iron (Fe), Copper (Cu), Manganese (Mn), and Boron (B).
- This helps in reducing the overuse of fertilizers like Urea and promotes balanced fertilization.

Information Booster:

- **Cycle:** Soil health cards are issued to farmers once every 2 years so that they can monitor changes in soil fertility.
- **Objective:** To improve soil health and fertility, thereby increasing crop productivity and reducing the cost of cultivation.
- **Implementation:** The state governments lead the implementation with technical support from ICAR and agricultural universities.

Additional Knowledge:

- **PMFBY (Option A):** Pradhan Mantri Fasal Bima Yojana is an insurance scheme for crops against natural calamities and pests.
- **PKVY (Option B):** Paramparagat Krishi Vikas Yojana focuses on promoting organic farming and chemical-free agriculture.
- **PMKSY (Option D):** Pradhan Mantri Krishi Sinchayee Yojana focuses on expanding irrigation coverage ('Har Khet Ko Pani') and improving water use efficiency ('Per Drop More Crop').

Q.51 If $x = \sqrt{6} - \sqrt{2}$, and $y = \sqrt{5} - \sqrt{3}$, then which of the following is true?

- $x = y$
- $x < y$
- $x > y$
- Cannot be determined

Answer: C

Sol: Given:

$$x = \sqrt{6} - \sqrt{2}$$

$$y = \sqrt{5} - \sqrt{3}$$

Formula Used:

$$(\sqrt{a} - \sqrt{b})^2 = a + b - 2\sqrt{ab}$$

Solution:

$$x^2 = (\sqrt{6} - \sqrt{2})^2$$

$$x^2 = 6 + 2 - 2\sqrt{12}$$

$$x^2 = 8 - 4\sqrt{3}$$

$$y^2 = (\sqrt{5} - \sqrt{3})^2$$

$$y^2 = 5 + 3 - 2\sqrt{15}$$

$$y^2 = 8 - 2\sqrt{15}$$

$$4\sqrt{3} < 2\sqrt{15}$$

$$8 - 4\sqrt{3} > 8 - 2\sqrt{15}$$

$$x^2 > y^2 \Rightarrow x > y$$

Final Answer:

C

Q.52 Evaluate: $\left(\frac{1}{5} \div \frac{1}{3}\right) \div \left(\frac{1}{10} + 1 - \frac{8}{10}\right)$

- A. 4
- B. 2
- C. 6
- D. 3

Answer: B

Sol: Given:

$$\left(\frac{1}{5} \div \frac{1}{3}\right) \div \left(\frac{1}{10} + 1 - \frac{8}{10}\right)$$

Solution:

$$\begin{aligned} & \left(\frac{1}{5} \div \frac{1}{3}\right) \div \left(\frac{1}{10} + 1 - \frac{8}{10}\right) \\ &= \left(\frac{1}{5} \times \frac{3}{1}\right) \div \left(\frac{1}{10} + 1 - \frac{8}{10}\right) \\ &= \frac{3}{5} \div \left(\frac{1}{10} + 1 - \frac{8}{10}\right) \\ &= \frac{3}{5} \div \left(\frac{1}{10} + \frac{10}{10} - \frac{8}{10}\right) \\ &= \frac{3}{5} \div \frac{3}{10} \\ &= \frac{3}{5} \times \frac{10}{3} \\ &= \frac{30}{15} \\ &= 2 \end{aligned}$$

Q.53 Red, blue, green balls are in ratio 2:3:5. If 15 red, 10 blue, unknown green are added, ratio becomes 3:4:6. Green balls added?

- A. 3

- B. 5
- C. 7
- D. 0

Answer: D

Sol: Given:

$$\text{Red:Blue:Green} = 2 : 3 : 5$$

$$\text{After addition, ratio} = 3 : 4 : 6$$

$$\text{Red added} = 15, \text{Blue added} = 10, \text{Green added} = x$$

Formula Used:

$$\text{Actual quantity} = \text{Ratio} \times \text{Common multiplier}$$

Solution:

$$\text{Let initial numbers be } 2k, 3k, 5k$$

$$\text{After addition: } 2k + 15, 3k + 10, 5k + x$$

$$\frac{2k + 15}{3} = \frac{3k + 10}{4}$$

$$4(2k + 15) = 3(3k + 10)$$

$$8k + 60 = 9k + 30$$

$$k = 30$$

$$\frac{2k + 15}{3} = \frac{5k + x}{6}$$

$$\frac{75}{3} = \frac{150 + x}{6}$$

$$25 = \frac{150 + x}{6}$$

$$150 + x = 150$$

$$x = 0$$

Final Answer:

$$0$$

Q.54 P invests ₹30,000 for 12 months, Q invests ₹40,000 for 9 months. What is P's share of ₹28,000 profit?

- A. ₹12,000
- B. ₹14,000
- C. ₹16,000
- D. ₹18,000

Answer: B

Sol: Given:

$$P = 30000 \text{ for } 12 \text{ months}$$

$$Q = 40000 \text{ for } 9 \text{ months}$$

$$\text{Total profit} = 28000$$

Concept Used:

Profit is divided in the ratio of capital \times time

Formula Used:

Share ratio = Capital \times Time

Solution:

$$P\text{'s ratio} = 30000 \times 12 = 360000$$

$$Q\text{'s ratio} = 40000 \times 9 = 360000$$

$$P : Q = 360000 : 360000 = 1 : 1$$

$$P\text{'s share} = \frac{1}{2} \times 28000$$

$$P\text{'s share} = 14000$$

Final Answer:

₹14000

Q.55 M and N start business with capital ratio 4:3. After 5 months, M withdraws ₹8,000, N doubles his. If M invested ₹40,000 and total profit of one year is ₹60,000, what is M's share?

- A. ₹28,800
- B. ₹33,600
- C. ₹25,600
- D. ₹35,000

Answer: C

Sol: Given:

$$M : N = 4 : 3$$

M invested 40000

Total profit = 60000

After 5 months, M withdraws 8000

After 5 months, N doubles his capital

Concept Used:

Partnership — capital \times time

Formula Used:

Profit ratio = Capital \times Time

Solution:

$$M \text{ initial capital} = 40000$$

$$N \text{ initial capital} = 30000$$

$$M = 40000 \times 5 + 32000 \times 7$$

$$M = 200000 + 224000 = 424000$$

$$N = 30000 \times 5 + 60000 \times 7$$

$$N = 150000 + 420000 = 570000$$

$$M : N = 424000 : 570000 = 212 : 285$$

$$M\text{'s share} = \frac{212}{212 + 285} \times 60000$$

$$= \frac{212}{497} \times 60000 = 25600$$

Final Answer:

₹25600

Q.56 What is the average of all three-digit numbers divisible by 19?

- A. 475
- B. 525
- C. 551
- D. 575

Answer: C

Sol: Given:

All three-digit numbers divisible by 19

Formula Used:

$$\text{Average} = \frac{\text{First term} + \text{Last term}}{2}$$

Solution:

$$19 \times 6 = 114$$

$$19 \times 52 = 988$$

$$\text{Average} = \frac{114 + 988}{2}$$

$$= \frac{1102}{2} = 551$$

Final Answer:

551

Q.57 Two containers of same volume are 35% and 60% full of water respectively. Then completely filled with milk. After mixing in larger vessel, what % is milk?

- A. 47.5%
- B. 50%
- C. 52.5%
- D. 55%

Answer: C

Sol: Given:

Two containers of equal volume

First container has 35% water

Second container has 60% water

Formula Used:

$$\text{Percentage} = \frac{\text{Quantity of milk}}{\text{Total mixture}} \times 100$$

Solution:

Assume each container = 100 units

Milk in first container = 65

Milk in second container = 40

$$\text{Total milk} = 65 + 40 = 105$$

$$\text{Total mixture} = 200$$

$$\text{Milk \%} = \frac{105}{200} \times 100$$

$$= 52.5\%$$

Final Answer:

$$52.5\%$$

Q.58 A shop ordered 8 dozen type-A pens and some dozen type-B pens. Type-A costs 2.5 times type-B per dozen. When delivered, quantities swapped, bill increased 50%. Ratio type-A:type-B original?

- A. 1:1
- B. 4:11
- C. 2:13
- D. 13:12

Answer: B

Sol: Given:

$$\text{Type-A pens} = 8\text{dozen}$$

$$\text{Type-B pens} = x\text{dozen}$$

$$\text{Cost of A} = 2.5 \times \text{cost of B}$$

Bill increases by 50%

Formula Used:

$$\text{Cost} = \text{Quantity} \times \text{Rate}$$

Solution:

$$\text{Let cost of B} = 2$$

$$\text{Cost of A} = 5$$

$$\text{Original bill} = 8 \times 5 + x \times 2 = 40 + 2x$$

$$\text{New bill} = 8 \times 2 + x \times 5 = 16 + 5x$$

$$16 + 5x = \frac{3}{2}(40 + 2x)$$

$$16 + 5x = 60 + 3x$$

$$2x = 44$$

$$x = 22$$

$$\text{Original ratio} = 8 : 22 = 4 : 11$$

Final Answer:

$$4 : 11$$

Q.59 A merchant bought 150 flowers for ₹600. 18 flowers withered. To earn 25% profit on total cost, selling price per flower?

- A. ₹5.26
- B. ₹5.56
- C. ₹5.68
- D. ₹6.25

Answer: C

Sol: Given:

Total flowers = 150

Total cost = 600

Flowers withered = 18

Required profit = 25%

Formula Used:

$$\text{Selling Price} = \text{Cost Price} \times \left(1 + \frac{\text{Profit}}{100}\right)$$

Solution:

Flowers sold = $150 - 18 = 132$

$$\text{Cost price per flower} = \frac{600}{150} = 4$$

$$\text{Total SP required} = 600 \times \frac{125}{100} = 750$$

$$\text{SP per flower} = \frac{750}{132}$$

$$= \frac{125}{22}$$

Final Answer:

$$\frac{125}{22} \approx ₹5.68$$

Q.60 A store sells item for ₹W at 20% profit. During sale, marked price becomes ₹1.5W, discount 15%. Profit % during sale?

- A. 27.5%
- B. 32.5%
- C. 42.5%
- D. 53%

Answer: D

Sol: Given:

Selling price = W at 20% profit

Marked price = 1.5W

Discount = 15%

Formula Used:

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

Solution:

$$\text{CP} = \frac{W}{1.2} = \frac{5W}{6}$$

$$\text{Sale SP} = 1.5W \times \frac{85}{100}$$

$$= \frac{255W}{200} = \frac{51W}{40}$$

$$\text{Profit \%} = \frac{\frac{51W}{40} - \frac{5W}{6}}{\frac{5W}{6}} \times 100$$

$$= \frac{\frac{306-200}{240}}{\frac{5}{6}} \times 100$$

$$= \frac{53}{100} \times 100$$

$$= 53\%$$

Final Answer:

53%

Q.61 Solution has acid:water = 6:4. If 5L water added, new ratio is 6:5. Original acid quantity?

- A. 15L
- B. 18L
- C. 24L
- D. 30L

Answer: D

Sol:

Given:

Acid:Water = 6 : 4

Water added = 5

New ratio = 6 : 5

Formula Used:

Actual quantity = Ratio × Common multiplier

Solution:

Let acid = $6x$, water = $4x$

After addition, water = $4x + 5$

$$\frac{6x}{4x + 5} = \frac{6}{5}$$

$$30x = 24x + 30$$

$$6x = 30$$

$$x = 5$$

Original acid = $6x = 30$

Final Answer:

30L

Q.62 P completes job in 15 days, Q in 20 days. P and Q agree for ₹6,000. With R they finish in 4 days. R's payment?

- A. ₹1,800
- B. ₹3,200
- C. ₹2,400
- D. ₹2,800

Answer: B

Sol: Given:

$$P = 15\text{days}$$

$$Q = 20\text{days}$$

$$P + Q + R = 4\text{days}$$

$$\text{Total wages} = 6000$$

Formula Used:

$$\text{Work} = \text{Efficiency} \times \text{Time}$$

Solution:

$$\text{LCM of } 15, 20, 4 = 60$$

$$\text{Total work} = 60\text{units}$$

$$P = \frac{60}{15} = 4$$

$$Q = \frac{60}{20} = 3$$

$$P + Q = 7$$

$$P + Q + R = \frac{60}{4} = 15$$

$$R = 15 - 7 = 8$$

$$\text{Work by P} = 4 \times 4 = 16$$

$$\text{Work by Q} = 4 \times 3 = 12$$

$$\text{Work by R} = 4 \times 8 = 32$$

$$P : Q : R = 16 : 12 : 32 = 4 : 3 : 8$$

$$\text{R's share} = \frac{8}{15} \times 6000$$

$$= 3200$$

Final Answer:

$$₹3200$$

Q.63 A tank contains liquids A, B, and C in the ratio 8:6:4. 30 liters of the mixture are drained out, after which 12 liters of A and 8 liters of C are added. In the final mixture, the quantity of A is 20 liters less than the quantity of B. Find the initial total volume of the mixture in the tank.

- A. 106L
- B. 172L
- C. 102L
- D. 190L

Answer: C

Sol: Given:

$$A : B : C = 8 : 6 : 4$$

30 L drained

12 L of A and 8 L of C added

$$\text{Final } B = A - 20$$

Formula Used:

$$\text{Quantity} = \text{Ratio part} \times \text{Common factor}$$

Solution:

Let initial total = x

Sum of ratio = 18

$$A = \frac{4x}{9}, B = \frac{x}{3}, C = \frac{2x}{9}$$

$$\text{Drained: } A = \frac{40}{3}, B = 10, C = \frac{20}{3}$$

$$A = \frac{4x}{9} - \frac{40}{3} + 12 = \frac{4x}{9} - \frac{4}{3}$$

$$B = \frac{x}{3} - 10$$

$$\frac{x}{3} - 10 = \frac{4x}{9} - \frac{64}{3}$$

$$\frac{3x}{9} - \frac{30}{3} = \frac{4x}{9} - \frac{64}{3}$$

$$\frac{34}{3} = \frac{x}{9}$$

$$x = 102$$

Final Answer:

102L

Q.64 Time ratio for X:Y to complete task is 5:3. Y alone takes 15 hours. X and Y together?

- A. 8.5 hrs
- B. 9.375 hrs
- C. 10 hrs
- D. 11 hrs

Answer: B

Sol: Given:

Time ratio of $X : Y = 5 : 3$

Time taken by $Y = 15$ hours

Concept Used:

Work and time — inverse relation

Formula Used:

$$\text{Work rate} = \frac{1}{\text{Time}}$$

Solution:

Let time of $X = 5k$, time of $Y = 3k$

$$3k = 15$$

$$k = 5$$

Time of $X = 25$

$$X = \frac{1}{25}, Y = \frac{1}{15}$$

$$X + Y = \frac{1}{25} + \frac{1}{15}$$

$$= \frac{8}{75}$$

$$\text{Time together} = \frac{1}{\frac{8}{75}} = \frac{75}{8}$$

Final Answer:

$$\frac{75}{8} = 9.375 \text{ days}$$

Q.65 Three runners on 2.5km circular track start at same point, speeds 8, 10, 12 km/h. From 9am to 3pm, how many times meet at start?

- A. 1 time
- B. 2 times
- C. 5 times
- D. 4 times

Answer: C

Sol: Given:

Track length = 2.5

Speeds = 8, 10, 12

Time = 6 hours

Concept Used:

Meeting at starting point using LCM

Formula Used:

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

Solution:

$$\frac{2.5}{8} = \frac{5}{16}$$

$$\frac{2.5}{10} = \frac{1}{4}$$

$$\frac{2.5}{12} = \frac{5}{24}$$

$$\frac{5}{16} = \frac{15}{48}, \frac{1}{4} = \frac{12}{48}, \frac{5}{24} = \frac{10}{48}$$

LCM of 15, 12, 10 = 60

$$\text{LCM time} = \frac{60}{12} = \frac{5}{1}$$

$$\text{Meetings in 6 hours} = \frac{6}{5/4} = \frac{24}{5} = 4.8$$

Total meetings = 4 + 1 = 5

Final Answer:

5

Q.66 Circular path 2m wide around park (radius 10m). Area of path?

- A. 131.1 m²
- B. 138.2 m²
- C. 144.5 m²
- D. 150.7 m²

Answer: B

Sol: Given:

Radius of park = 10

Width of path = 2

Formula Used:

Area of circular ring = $\pi(R^2 - r^2)$

Solution:

$$r = 10$$

$$R = 12$$

$$\text{Area} = \pi(12^2 - 10^2)$$

$$= \pi(144 - 100)$$

$$= 44\pi$$

$$= 44 \times \frac{22}{7}$$

$$= \frac{968}{7}$$

Final Answer:

$$\frac{968}{7} \approx 138.2m^2$$

Q.67 Find slope of line perpendicular to $y = \frac{1}{3}x + 5$

- A. -3
- B. 3
- C. -1/3
- D. 1/3

Answer: A

Sol: Given:

$$y = \frac{1}{3}x + 5$$

Concept Used:

Slopes of perpendicular lines

Formula Used:

$$m_{\perp} = -\frac{1}{m}$$

Solution:

$$m = \frac{1}{3}$$

$$m_{\perp} = -\frac{1}{1/3}$$

$$m_{\perp} = -3$$

Final Answer:

-3

Q.68 Convert 3.2 radians to degrees.

- A. 151.25°
- B. 160°
- C. 183.27°
- D. 200°

Answer: C

Sol: Given:

Angle = 3.2 radians

Concept Used:

Conversion of radians to degrees

Formula Used:

$$\text{Degrees} = \text{Radians} \times \frac{180}{\pi}$$

Solution:

$$\begin{aligned} & 3.2 \times \frac{180}{\pi} \\ &= 3.2 \times \frac{180 \times 7}{22} \\ &= 3.2 \times \frac{1260}{22} \\ &= \frac{4032}{22} \\ &= 183.27^\circ \end{aligned}$$

Final Answer:

183.27°

Q.69 Find the area of a sector of a circle with radius 12 cm and central angle $\pi/5$ radians.

- A. 30.16 cm²
- B. 45.24 cm²
- C. 60.48 cm²
- D. 75.6 cm²

Answer: B

Sol: Given:

$$r = 12$$

$$\theta = \frac{\pi}{5}$$

Formula Used:

$$\text{Area of a sector in radians} = \frac{1}{2}r^2\theta$$

Solution:

$$\begin{aligned} \text{Area} &= \frac{1}{2} \times 12^2 \times \frac{\pi}{5} \\ &= \frac{1}{2} \times 144 \times \frac{\pi}{5} \end{aligned}$$

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$$= \frac{72\pi}{5}$$

Final Answer:

$$\frac{72\pi}{5} = 45.24\text{cm}^2$$

Q.70 If $\tan B = \cot(4B - 45^\circ)$, what is B?

- A. 20°
- B. 25°
- C. 30°
- D. 27°

Answer: D

Sol: Given:

$$\tan B = \cot(4B - 45^\circ)$$

Concept Used:

$$\cot \theta = \tan(90^\circ - \theta)$$

Formula Used:

$$\tan A = \tan B \Rightarrow A = B$$

Solution:

$$\cot(4B - 45^\circ) = \tan(90^\circ - (4B - 45^\circ))$$

$$= \tan(135^\circ - 4B)$$

$$\tan B = \tan(135^\circ - 4B)$$

$$B = 135^\circ - 4B$$

$$5B = 135^\circ$$

$$B = 27^\circ$$

Final Answer:

$$27^\circ$$

Q.71 If two triangles are similar and the ratio of their corresponding altitudes is 3:7, find the ratio of their areas.

- A. 3:7
- B. 9:49
- C. 6:14
- D. 9:14

Answer: B

Sol: Given:

$$\text{Ratio of altitudes} = 3 : 7$$

Concept Used:

In similar triangles, area ratio is square of linear ratio

Formula Used:

$$\text{Area ratio} = (\text{Linear ratio})^2$$

Solution:

Linear ratio = 3 : 7

Area ratio = $3^2 : 7^2$

= 9 : 49

Final Answer:

9 : 49

Q.72 Given $b = \sqrt{7}$, what is $(b+2)^2 + (b-2)^2$?

- A. 18
- B. 20
- C. 22
- D. 24

Answer: C

Sol: Given:

$$b = \sqrt{7}$$

Formula Used:

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

Solution:

$$(b + 2)^2 + (b - 2)^2$$

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

$$= 2(7 + 4)$$

$$= 2 \times 11$$

$$= 22$$

Final Answer:

22

Q.73 Simplify: $\sqrt{72} + \sqrt{20} - \sqrt{18}$

- A. $5\sqrt{2}$
- B. $3\sqrt{2} + 2\sqrt{5}$
- C. $6\sqrt{2}$
- D. $7\sqrt{2}$

Answer: B

Sol: Given:

$$\sqrt{72} + \sqrt{20} - \sqrt{18}$$

Solution:

$$\sqrt{72} + \sqrt{20} - \sqrt{18}$$

$$= \sqrt{36 \times 2} + \sqrt{4 \times 5} - \sqrt{9 \times 2}$$

$$= 6\sqrt{2} + 2\sqrt{5} - 3\sqrt{2}$$

$$= (6\sqrt{2} - 3\sqrt{2}) + 2\sqrt{5}$$

$$= 3\sqrt{2} + 2\sqrt{5}$$

Q.74 What is the maximum possible length of a chord in a circle with a diameter of 28 cm?

- A. 14cm
- B. 21cm
- C. 28cm
- D. 56cm

Answer: C

Sol: Given:

Diameter of circle = 28

Concept Used:

Maximum chord of a circle is its diameter

Formula Used:

Maximum chord length = Diameter

Solution:

Maximum chord length = 28

Final Answer:

28

Q.75 If $\cos A - \sin A = \sqrt{3}\cos A$, what is $\tan A$?

- A. $\sqrt{3}$
- B. 1
- C. $\sqrt{3} - 1$
- D. $1 - \sqrt{3}$

Answer: D

Sol: Given:

$$\cos A - \sin A = \sqrt{3}\cos A$$

Formula Used:

$$\tan A = \frac{\sin A}{\cos A}$$

Solution:

$$\cos A - \sin A = \sqrt{3}\cos A$$

$$\cos A - \sqrt{3}\cos A = \sin A$$

$$\cos A(1 - \sqrt{3}) = \sin A$$

$$\tan A = 1 - \sqrt{3}$$

Final Answer:

$$1 - \sqrt{3}$$

Q.76 Choose the correct one-word substitute for:

'A formal speech or writing that offers elaborate praise for someone'

- A. Dirge
- B. Panegyric
- C. Homily
- D. Monologue

Answer: B

Sol: The correct option is (b).

Step-by-step explanation:

- **Panegyric** means a formal public speech or written text that gives **elaborate praise** to a person (प्रशंसात्मक भाषण/लेख, अत्यधिक प्रशंसा).
- It is especially used for praising a leader, hero, or notable personality in a ceremonial or formal manner.

Example: The writer delivered a panegyric honoring the scientist's lifetime achievements.

Meanings of the other options:

- **Option (a) Dirge:** A mournful song or poem for the dead (शोकगीत).
- **Option (c) Homily:** A religious sermon or moral lecture (धार्मिक उपदेश).
- **Option (d) Monologue:** A long speech by one person, especially in a play (एकल भाषण).

So the correct answer is (b)

Q.77 Select the correct option:

The circular stated that all staff must comply _____ the updated safety guidelines.

- A. to
- B. with
- C. for
- D. at

Answer: B

Sol: The correct option is (b).

Step-by-step explanation:

- The verb **comply** is followed by the preposition **with** when it means to obey a rule, order, or guideline.
- **Correct structure:** comply **with** + noun (नियमों का पालन करना).
- So the correct sentence is: "All staff must comply **with** the updated safety guidelines."

Example: All employees must comply **with** the company's code of conduct.

Why other options are incorrect:

- **Option (a) to:** "comply to" is not standard English usage.
- **Option (c) for:** "comply for" is incorrect in this context.
- **Option (d) at:** "comply at" does not fit grammatically.

So the correct answer is (b)

Q.78 Choose the most suitable option to replace the highlighted part of the sentence:

He is confident to clear the interview.

- A. at clearing the interview
- B. for clearing the interview
- C. of clearing the interview
- D. to clearing the interview

Answer: C

Sol: The correct option is (c).

Step-by-step explanation:

- The sentence uses the adjective **confident**. After “confident”, the correct preposition is generally **of** when we talk about being sure of doing something.
- **Correct pattern:** confident + **of** + noun/gerund (V1 + ing) / confident that-clause.
- Therefore, “confident **of clearing** the interview” is grammatically correct and idiomatic.

Grammatical rule used:

- **Adjective + preposition collocation:** confident of, afraid of, proud of, capable of, fond of, etc.
- **Verb form after preposition:** Prepositions are followed by a noun or a gerund (V1 + ing), not by an infinitive in such structures.

Example: She is confident **of winning** the competition.

Why other options are incorrect:

- **Option (a):** “confident at” is not the standard collocation for ability in this context.
- **Option (b):** “confident for” is incorrect with this meaning.
- **Option (d):** “to clearing” is ungrammatical because “to” here is a preposition-like marker, but the correct collocation is not used; also “confident to” is not standard in this structure.

So the correct answer is (c)

Q.79 Find the part of the sentence that contains an error:

The committee’s recommendations, striking in both breadth and detail, (1)/ triggered reactions not only from the departments involved (2)/ but also from the reviewers who state they (3)/ had not been permitted to examine key files. (4)

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

Answer: C

Sol: The correct option is (c).

Step-by-step explanation:

- The error is in part (3): “reviewers who state they”.
- The main verb of the sentence is in the past: “**triggered**”. Therefore, the reporting about reviewers should also maintain a consistent past-time narrative.
- Using “**state**” (present tense) creates tense inconsistency in a past narration. It should be “**stated**” (past) or an equivalent past reporting verb.

Correct form (one accepted correction):

The committee’s recommendations, striking in both breadth and detail, triggered reactions not only from the departments involved but also from the reviewers who **stated** they had not been permitted to examine key files.

Grammatical rule used:

- **Tense consistency:** In a sentence narrating past events, reporting verbs generally follow past tense unless a universal truth or timeless fact is being stated.

Example: “The officer **reported** that the files **had been** missing for days.”

So the correct answer is (c)

Q.80 Find the part of the sentence that contains an error:

That several civic bodies have revived obsolete regulations (1)/ to curb public criticism does not only indicate administrative expediency (2)/ but also weakens the democratic spirit (3)/ that those provisions were intended to safeguard. (4)

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

Answer: B

Sol: The correct option is (b).

Step-by-step explanation:

- The error is in part (2): “*does not only indicate*”.
- **Rule:** The correlative structure should be “**not only ... but also ...**” (or “**not merely ... but also ...**”). When we use “not only”, the position of “not” should directly pair with “only”.
- In standard formal English, the correct expression is: “**does not only**” is awkward and non-idiomatic; it should be “**not only ... but also ...**” placed correctly.
- **Correct form:** “... does not **only** indicate ... but also weakens ...” is still less preferred; the best correction is: “... **not only** indicates ... but also weakens ...” or “... indicates **not only** ... but also ...” depending on emphasis.

Improved corrected sentence (one accepted correction):

That several civic bodies have revived obsolete regulations to curb public criticism **not only indicates** administrative expediency but also weakens the democratic spirit that those provisions were intended to safeguard.

Example of the rule: “The decision **not only** affected employees **but also** harmed the company’s reputation.”

So the correct answer is (b)

Q.81 Choose the most suitable option to replace the highlighted part of the sentence:

You must adapt with these changing circumstances.

- to these changing circumstances
- adapt these changing circumstances
- adapt to these changing circumstances
- by these changing circumstances

Answer: C

Sol: The correct option is (c).

Step-by-step explanation:

- The highlighted part is: “*adapt with these changing circumstances*”, which is incorrect because the verb **adapt** takes the preposition **to**.
- **Correct collocation:** adapt **to** (adjust to) a situation (अनुकूल होना / ढल जाना).
- Therefore, the correct replacement is: **adapt to these changing circumstances**.

Grammatical rule used:

- **Verb + preposition pairing:** Some verbs require fixed prepositions. “Adapt” is followed by “to”.

Example: Employees must adapt **to** new technology to stay productive.

Why other options are incorrect:

- **Option (a):** It removes the verb “adapt” and does not give a complete grammatical replacement for the highlighted part.
- **Option (b):** “adapt these circumstances” is incorrect because “adapt” is generally intransitive in this meaning; we adapt **to** something.
- **Option (d):** “adapt by” is not correct for expressing adjustment to circumstances.

So the correct answer is (c)

Q.82 Rearrange the following sentences to form a coherent paragraph:

- This helps a developer define both the structure and actions of an object-focused program.
- Object-Oriented Programming (OOP) is an approach that organizes code around “objects” that bundle data and methods.
- A core idea in OOP is the “class,” which serves as a template to create objects.
- The major benefit is that it mirrors real-world entities, making large systems easier to maintain and debug.

- 2, 3, 1, 4
- 3, 2, 1, 4
- 2, 1, 3, 4
- 4, 2, 3, 1

Answer: A

Sol: The correct option is (a).
Step-by-step explanation:

- A coherent paragraph usually starts with a clear definition or introduction of the topic. Sentence (2) introduces OOP and defines it, so it is the best opening.
- After introducing OOP, the paragraph should explain a core concept of OOP. Sentence (3) naturally follows because it introduces "class" as a key idea.
- Sentence (1) starts with "This", which must refer to the immediately previous idea (the class as a template). It explains the usefulness of that concept, so it logically comes after (3).
- Finally, sentence (4) gives the major overall benefit of OOP, acting as a concluding statement about why the approach is helpful.

Logical flow: Definition of OOP (2) → Core concept "class" (3) → Reference-based explanation using "This" (1) → Concluding benefit (4).

So the correct answer is (a)

Q.83 Select the most appropriate antonym of the given word.

DECEITFUL

- A. Duplicitous
- B. Underhanded
- C. Candid
- D. Crafty

Answer: C

Sol: The correct option is (c).
Step-by-step explanation:

- **Deceitful** means dishonest and misleading; someone who tricks others intentionally (धोखेबाज़ / कपटी).
- Its antonym should express honesty, openness, and truthfulness.
- **Candid** means frank, open, and truthful; speaking honestly without hiding facts (स्पष्टवादी / ईमानदार).

Example (given word): His deceitful promises convinced many people to trust him wrongly.

Example (antonym): She gave a candid answer about her mistakes without making excuses.

Synonyms and antonyms set:

- **Synonyms of deceitful:** dishonest, fraudulent, tricky, duplicitous.
- **Antonyms of deceitful:** candid, honest, sincere, truthful.

Meanings of other options:

- **Option (a) Duplicitous:** deceitful; two-faced (दोगला / कपटी).
- **Option (b) Underhanded:** dishonest and secretive (छलपूर्ण / गुप्त तरीके से बेईमान).
- **Option (d) Crafty:** clever in a sly way; cunning (चालाक / धूर्त).

So the correct answer is (c)

Q.84 Spot the correct spelling of a microchip patterning technique.

- A. Nanoimprint lithography
- B. Nanoimprient lithography
- C. Nanoimprint lithographie
- D. Nanoimprnt lithography

Answer: A

Sol: The correct option is (a).
Step-by-step explanation:

- We must identify the correctly spelt technical term used for a microchip patterning method.
- **Nanoimprint lithography** is a standard term where:
 - **nanoimprint** refers to imprinting patterns at nanoscale, and
 - **lithography** refers to the patterning process used in microfabrication.
- Option (a) matches the accepted spelling: **Nanoimprint lithography** (नैनोइम्प्रिन्ट लिथोग्राफी).

Why other options are incorrect:

- **Option (b):** "Nanoimprint" is misspelt; the correct form is "Nanoimprint".
- **Option (c):** "lithographie" is a wrong variant spelling in this context; the correct English spelling is "lithography".
- **Option (d):** "Nanoimprnt" is missing the letter "i", so it is incorrect.

So the correct answer is (a)

Q.85 Rearrange the following sentences to form a coherent paragraph:

1. This mechanism, central to evolution, ensures that individuals best suited to their surroundings survive to reproduce.
2. Over vast periods, the variety of life emerges through slow and continuous change.
3. As a result, beneficial traits gradually become more common within the population.
4. The process begins with inherited differences, where certain individuals possess advantages over others.

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

Answer: B

Sol: The correct option is (b).

Step-by-step explanation:

- Sentence (2) sets the broad context of evolution over vast time, so it works best as the opening statement.
- Sentence (4) logically follows because it explains how the evolutionary process begins: inherited differences and advantages.
- Sentence (1) starts with "This mechanism", which must refer to the mechanism described in (4) (natural selection based on advantages). Therefore, (1) comes after (4).
- Sentence (3) begins with "As a result", so it must come after the explanation of mechanism (1). It gives the final outcome: beneficial traits becoming common.

Linking words used for coherence: (1) "This mechanism" connects to (4); (3) "As a result" connects to (1).

So the correct answer is (b)

Q.86 Select the sentence containing the homonym of the highlighted word:

She bought a ream of printer paper for the office.

- A. The author had to go through reams of notes to write her book.
B. He produced reams of paperwork, but none of it was useful.
C. The plumber had to ream out the pipes to remove the blockage.
D. The admin ordered one ream of A4 sheets for the office.

Answer: C

Sol: The correct option is (c).

Step-by-step explanation:

- The highlighted word **ream** in the question means a bundle of paper sheets, usually 500 sheets (कागज़ का बंडल).
- A **homonym** is a word that has the **same pronunciation** but a different meaning (and sometimes different spelling).
- Option (c) uses **ream** as a verb: "to ream out the pipes", meaning to enlarge or clean out by boring or scraping (छेद को चौड़ा करना / अंदर से साफ़ करना).
- This verb "ream" is pronounced the same as the noun "ream" (paper bundle), so it functions as the homonym.

Why other options are incorrect:

- **Option (a) and (b):** "reams" still refers to large quantities of paper/documents, which is the same meaning category, not a different homonymous meaning.
- **Option (d):** Uses "ream" in the same meaning as the highlighted word (paper bundle), so it is not the homonym usage.

So the correct answer is (c)

Q.87 Change the following from active to passive:

The committee has endorsed the revised guidelines.

- A. The revised guidelines have been endorsed by the committee.
- B. The revised guidelines were being endorsed by the committee.
- C. The revised guidelines had been endorsed by the committee.
- D. The revised guidelines are endorsed by the committee.

Answer: A

Sol: The correct option is (a).

Step-by-step explanation:

- The active sentence is: *The committee has endorsed the revised guidelines.*
- The tense is **Present Perfect: has/have + V3.**
- **Rule for passive (Present Perfect): Object + has/have been + V3 + by + subject.**
- **Object** in the active sentence is "the revised guidelines", so it becomes the subject in passive.
- Thus, the correct passive form is: *The revised guidelines have been endorsed by the committee.*

Why other options are incorrect:

- **Option (b):** "were being endorsed" is past continuous passive, not present perfect passive.
- **Option (c):** "had been endorsed" is past perfect passive, which changes the time reference.
- **Option (d):** "are endorsed" is simple present passive, not present perfect passive.

So the correct answer is (a)

Q.88 Convert the sentence provided below from its passive voice structure to an active voice structure:

The bridge is reported to have been shut down due to safety concerns.

- A. It is reported that the engineers shut down the bridge due to safety concerns.
- B. Officials reportedly shut down the bridge because of safety concerns.
- C. Authorities report that they have shut down the bridge due to safety concerns.
- D. Safety concerns reportedly shut down the bridge.

Answer: C

Sol: The correct option is (c).

Step-by-step explanation:

- The given sentence is in a passive reporting structure: "*is reported to have been shut down*". Here, the real doer (agent) is not stated directly.
- To convert such passive reporting structures into an active form, we generally bring a logical subject such as *authorities/officials* and use a reporting verb in the active voice.
- The phrase "*to have been shut down*" indicates a completed action in the past (passive perfect infinitive). In active conversion, we express it as a completed action, typically using "*have shut down*" when the reporting is in present relevance.
- Option (c) correctly changes the structure to an active one: "*Authorities report that they have shut down the bridge...*" where:
 - **Subject (doer):** Authorities
 - **Reporting verb (active):** report
 - **Action (active):** have shut down
 - **Reason remains same:** due to safety concerns

Why other options are incorrect:

- **Option (a):** Though grammatically possible, it adds a specific agent "engineers" which is not implied clearly by the original sentence; the original is generic ("is reported"), so "authorities" is more suitable.
- **Option (b):** This is close in meaning, but it removes the reporting structure clarity and does not mirror the "report" construction as precisely as option (c) does.
- **Option (d):** It makes "safety concerns" the doer, which is illogical because concerns cannot literally "shut down" a bridge; they can only be the reason.

So the correct answer is (c)

Q.89 Choose the correct meaning of idiom:

Rain on someone's parade

- A. To make something famous
- B. To spoil or discourage someone's excitement

- C. To remove worries completely
- D. To motivate with great enthusiasm

Answer: B

Sol: The correct option is (b).

Meaning and explanation:

- The idiom “rain on someone’s parade” means to spoil someone’s happiness, excitement, or plans by saying or doing something discouraging (किसी की खुशी पर पानी फेरना).
- Just as rain can ruin a parade celebration, negative comments or actions can ruin someone’s enthusiasm.

Example: I was excited about my promotion, but he rained on my parade by pointing out the extra workload.

Other related idioms and meanings:

- **Spill the beans:** to reveal a secret (राज खोल देना).
- **Throw cold water on:** to discourage an idea or plan (हतोत्साहित करना).
- **Down in the dumps:** to feel very sad (बहुत उदास होना).

So the correct answer is (b)

Q.90 Which flagship government programme is described as the main driver behind India’s expanding digital ecosystem?

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

Over the past ten years, India’s shift toward a digital-first society has been remarkably transformative. What started as an effort to widen internet reach has steadily grown into one of the world’s largest digital networks. Driven by flagship government programmes like Digital India, the nation has seen rapid expansion in internet usage, digital transactions, and e-governance. A defining milestone was the introduction of Aadhaar, a biometric identity platform that made access to multiple public services safer and more efficient. Alongside this, the growth of the Unified Payments Interface (UPI) helped India bypass older banking limitations by enabling instant, affordable transfers across both cities and villages. Notably, the COVID-19 outbreak became an unforeseen accelerator. With restrictions and distancing norms in place, people increasingly depended on digital alternatives—telehealth, virtual learning, and work-from-home became necessities. This sudden reliance pushed institutions to strengthen infrastructure and adopt scalable tech. Yet, challenges remain. The digital gap between urban and rural India continues, with many villages still lacking stable connectivity while metros benefit from faster broadband. Additionally, issues like data privacy, cyber threats, and the spread of misinformation have become serious concerns. Even so, India’s digital rise highlights its flexibility and drive. With more than 850 million internet users and growing, the country now stands at a turning point where strong policy, inclusive connectivity, and responsible innovation will shape what comes next.

- A. National Fibre Grid
- B. Tech Bharat Mission
- C. Digital India Programme
- D. India Online Network

Answer: C

Sol: The correct option is (c).

Explanation based on the passage:

- The passage explicitly says: “Driven by flagship government programmes like Digital India...”
- This line identifies **Digital India** as the major programme behind the expansion of internet usage, digital transactions, and e-governance.
- Therefore, the flagship government programme described as the main driver is the **Digital India Programme**.

Why other options are incorrect:

- **Option (a):** “National Fibre Grid” is not mentioned in the passage.
- **Option (b):** “Tech Bharat Mission” is not referenced in the passage.
- **Option (d):** “India Online Network” is not stated anywhere.

So the correct answer is (c)

Q.91 According to the passage, Aadhaar mainly contributed to digital progress by:

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

Over the past ten years, India’s shift toward a digital-first society has been remarkably transformative. What started as an effort to widen internet reach has steadily grown into one of the world’s largest digital networks. Driven by flagship government programmes like Digital India, the nation has seen rapid expansion in internet usage, digital transactions, and e-governance. A defining milestone was the introduction of Aadhaar, a biometric identity platform that made access to multiple public services safer and more efficient. Alongside this, the growth of the Unified Payments Interface (UPI) helped India bypass older banking limitations by enabling instant, affordable transfers across both cities and villages.

Notably, the COVID-19 outbreak became an unforeseen accelerator. With restrictions and distancing norms in place, people increasingly depended on digital alternatives—telehealth, virtual learning, and work-from-home became necessities. This sudden reliance pushed institutions to strengthen infrastructure and adopt scalable tech. Yet, challenges remain. The digital gap between urban and rural India continues, with many villages still lacking stable connectivity while metros benefit from faster broadband. Additionally, issues like data privacy, cyber threats, and the spread of misinformation have become serious concerns. Even so, India's digital rise highlights its flexibility and drive. With more than 850 million internet users and growing, the country now stands at a turning point where strong policy, inclusive connectivity, and responsible innovation will shape what comes next.

- A. expanding mobile tower coverage
- B. introducing biometric elections
- C. launching a single payment gateway
- D. making public-service access secure and streamlined

Answer: D

Sol: The correct option is (d).

Explanation based on the passage:

- The passage calls Aadhaar a **biometric identity platform** and states that it made access to multiple public services **safer and more efficient**.
- This means Aadhaar mainly helped in **secure identification** and **streamlined delivery of public services** (such as government schemes and e-governance facilities).
- Option (d) matches this idea exactly: making public-service access secure and streamlined.

Why other options are incorrect:

- **Option (a):** Expansion of mobile towers is not described as Aadhaar's main contribution in the passage.
- **Option (b):** Biometric elections are not mentioned anywhere.
- **Option (c):** A single payment gateway is linked more to UPI, not Aadhaar, and even that is not described as "single gateway" here.

So the correct answer is (d)

Q.92 What unexpected event is shown as a major push behind faster digital adoption in India?

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

Over the past ten years, India's shift toward a digital-first society has been remarkably transformative. What started as an effort to widen internet reach has steadily grown into one of the world's largest digital networks. Driven by flagship government programmes like Digital India, the nation has seen rapid expansion in internet usage, digital transactions, and e-governance. A defining milestone was the introduction of Aadhaar, a biometric identity platform that made access to multiple public services safer and more efficient. Alongside this, the growth of the Unified Payments Interface (UPI) helped India bypass older banking limitations by enabling instant, affordable transfers across both cities and villages. Notably, the COVID-19 outbreak became an unforeseen accelerator. With restrictions and distancing norms in place, people increasingly depended on digital alternatives—telehealth, virtual learning, and work-from-home became necessities. This sudden reliance pushed institutions to strengthen infrastructure and adopt scalable tech. Yet, challenges remain. The digital gap between urban and rural India continues, with many villages still lacking stable connectivity while metros benefit from faster broadband. Additionally, issues like data privacy, cyber threats, and the spread of misinformation have become serious concerns. Even so, India's digital rise highlights its flexibility and drive. With more than 850 million internet users and growing, the country now stands at a turning point where strong policy, inclusive connectivity, and responsible innovation will shape what comes next.

- A. Currency ban move
- B. New tax rollout
- C. COVID-19 outbreak
- D. Worldwide economic slowdown

Answer: C

Sol: The correct option is (c).

Explanation based on the passage:

- The passage clearly describes the COVID-19 outbreak as an **unforeseen accelerator** of digital adoption.
- It explains that lockdowns and distancing norms made people rely on digital alternatives like **telehealth, virtual learning, and work-from-home**.
- This sudden dependence pushed institutions to strengthen infrastructure and adopt scalable technology faster.
- Hence, the unexpected event responsible for faster digital adoption is the **COVID-19 outbreak**.

Why other options are incorrect:

- **Option (a):** Currency ban is not discussed in the passage.
- **Option (b):** New tax rollout is not mentioned.
- **Option (d):** Worldwide economic slowdown is not shown as the major push in the passage.

So the correct answer is (c)

Q.93 Which ongoing issue does the passage highlight as a hurdle in India's digital journey?

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

Over the past ten years, India's shift toward a digital-first society has been remarkably transformative. What started as an effort to widen internet reach has steadily grown into one of the world's largest digital networks. Driven by flagship government programmes like Digital India, the nation has seen rapid expansion in internet usage, digital transactions, and e-governance. A defining milestone was the introduction of Aadhaar, a biometric identity platform that made access to multiple public services safer and more efficient. Alongside this, the growth of the Unified Payments Interface (UPI) helped India bypass older banking limitations by enabling instant, affordable transfers across both cities and villages. Notably, the COVID-19 outbreak became an unforeseen accelerator. With restrictions and distancing norms in place, people increasingly depended on digital alternatives—telehealth, virtual learning, and work-from-home became necessities. This sudden reliance pushed institutions to strengthen infrastructure and adopt scalable tech. Yet, challenges remain. The digital gap between urban and rural India continues, with many villages still lacking stable connectivity while metros benefit from faster broadband. Additionally, issues like data privacy, cyber threats, and the spread of misinformation have become serious concerns. Even so, India's digital rise highlights its flexibility and drive. With more than 850 million internet users and growing, the country now stands at a turning point where strong policy, inclusive connectivity, and responsible innovation will shape what comes next.

- A. control of internet by a single provider
- B. shortage of smartphone factories
- C. rural-urban digital gap and privacy risks
- D. too much foreign funding pressure

Answer: C

Sol: The correct option is (c).

Explanation based on the passage:

- The passage clearly states that despite major growth, **challenges remain** in India's digital journey.
- It highlights a continuing **digital gap between urban and rural India**, where many villages still lack stable connectivity while metropolitan areas enjoy faster broadband.
- It also mentions modern digital risks such as **data privacy issues, cyber threats, and misinformation** as serious concerns.
- Option (c) correctly combines these two major hurdles: **rural-urban digital gap** and **privacy risks**.

Why other options are incorrect:

- **Option (a):** The passage does not mention a single-provider control of the internet.
- **Option (b):** There is no reference to a shortage of smartphone factories.
- **Option (d):** The passage does not discuss foreign funding pressure.

So the correct answer is (c)

Q.94 . What does the passage indicate as essential for shaping India's digital future?

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

Over the past ten years, India's shift toward a digital-first society has been remarkably transformative. What started as an effort to widen internet reach has steadily grown into one of the world's largest digital networks. Driven by flagship government programmes like Digital India, the nation has seen rapid expansion in internet usage, digital transactions, and e-governance. A defining milestone was the introduction of Aadhaar, a biometric identity platform that made access to multiple public services safer and more efficient. Alongside this, the growth of the Unified Payments Interface (UPI) helped India bypass older banking limitations by enabling instant, affordable transfers across both cities and villages. Notably, the COVID-19 outbreak became an unforeseen accelerator. With restrictions and distancing norms in place, people increasingly depended on digital alternatives—telehealth, virtual learning, and work-from-home became necessities. This sudden reliance pushed institutions to strengthen infrastructure and adopt scalable tech. Yet, challenges remain. The digital gap between urban and rural India continues, with many villages still lacking stable connectivity while metros benefit from faster broadband. Additionally, issues like data privacy, cyber threats, and the spread of misinformation have become serious concerns. Even so, India's digital rise highlights its flexibility and drive. With more than 850 million internet users and growing, the country now stands at a turning point where strong policy, inclusive connectivity, and responsible innovation will shape what comes next.

- A. launching more new apps
- B. increasing duties on digital products
- C. enforcing stronger content bans
- D. ensuring inclusive reach and responsible innovation

Answer: D

Sol: The correct option is (d).

Explanation based on the passage:

- In the concluding part, the passage says India is at a turning point where **strong policy, inclusive connectivity, and responsible innovation** will shape the future.
- This means the future direction depends not only on technology growth but also on reaching everyone (especially rural areas) and using innovation responsibly (privacy and security).
- Option (d) precisely captures this requirement: **ensuring inclusive reach and responsible innovation**.

Why other options are incorrect:

- **Option (a):** Launching more apps is not stated as the essential factor in the conclusion.
- **Option (b):** Increasing duties is not discussed.
- **Option (c):** Stronger content bans are not presented as the key solution; the focus is on responsibility, inclusion, and policy.

So the correct answer is (d)

Q.95 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.

Rita said, "I had submitted the assignment."

- A. Rita said that she submitted the assignment.
- B. Rita said that she has submitted the assignment.
- C. Rita said that she had submitted the assignment.
- D. Rita said that she had been submitting the assignment.

Answer: C

Sol: The correct option is (c).

Step-by-step explanation:

- The reporting verb is in the past: "Rita said". Therefore, indirect speech usually requires backshifting of tenses where applicable.
- The direct speech clause is: "I had submitted the assignment." This is in **Past Perfect** tense (had + V3).
- **Rule:** If the direct speech is already in **Past Perfect**, it generally **remains Past Perfect** in indirect speech (no further backshift is possible in standard rules).
- **Pronoun change:** "I" changes to "she" because Rita is the speaker in reported speech.
- Hence the correct indirect form becomes: *Rita said that she had submitted the assignment.*

Why other options are incorrect:

- **Option (a):** Uses simple past "submitted", which changes the meaning and removes the earlier-completed sense expressed by Past Perfect.
- **Option (b):** Uses present perfect "has submitted", which is not consistent with the past reporting verb "said" and also changes the time reference.
- **Option (d):** Uses past perfect continuous "had been submitting", which indicates an ongoing action over time, not a completed action as in "had submitted".

So the correct answer is (c)

Q.96 Select the most appropriate synonym of the given word:

ZENITH

- A. Outset
- B. Summit
- C. Abyss
- D. Groundwork

Answer: B

Sol: The correct option is (b).

Step-by-step explanation:

- **Zenith** means the highest point, peak, or the time when something is at its greatest success or power (चरम बिंदु / सर्वोच्च अवस्था).
- So the synonym should also mean the topmost or highest point.
- **Summit** means the highest point of a hill/mountain; the peak (शिखर / चोटी), which matches the meaning of zenith.

Example (given word): The athlete reached the zenith of her career after winning the world championship.

Example (correct synonym): From the summit, we could see the entire valley clearly.

Synonyms and antonyms set:

- **Synonyms:** peak, apex, acme, summit.
- **Antonyms:** nadir, bottom, low point, base.

Meanings of all the other given options:

- Option (a) **Outset**: the beginning or start (शुरुआत).
- Option (c) **Abyss**: a deep or seemingly bottomless chasm; extreme depth (अथाह गहराई / खाई).
- Option (d) **Groundwork**: basic foundation or preparatory work (आधार / तैयारी).

So the correct answer is (b)

Q.97 Identify the misspelt word

- A. Ubiquitous
- B. Inconspicuous
- C. Fastidious
- D. Supercilous

Answer: D

Sol: The correct option is (d).

Step-by-step explanation:

- We must identify the incorrectly spelt word among the options.
- Option (d) "Supercilous" is misspelt. The correct spelling is "Supercilious".
- Supercilious means behaving as if one is superior to others; proudly arrogant or haughty (अहंकारी / घमंडी).

Example: His supercilious attitude made it difficult for others to work with him.

Parts of speech information:

- Supercilious is an **adjective** (it describes a noun: attitude, look, tone, behaviour, etc.).

Meanings of all the given options:

- Option (a) **Ubiquitous**: present everywhere; widespread (सर्वव्यापी / हर जगह मौजूद).
- Option (b) **Inconspicuous**: not easily seen or noticed; not attracting attention (अदृश्य-सा / ध्यान न खींचने वाला).
- Option (c) **Fastidious**: very careful and particular about cleanliness and details; hard to please (बहुत चुर्जी / बारीकी पसंद).
- Option (d) **Supercilous**: incorrect spelling; correct is **supercilious** (अहंकारी / घमंडी).

So the correct answer is (d)

Q.98 Select the correct option:

Her conclusion was bold and diametrically ____ the earlier findings of the committee.

- A. at odds with
- B. along with
- C. in tune with
- D. aside from

Answer: A

Sol: The correct option is (a).

Step-by-step explanation:

- The phrase "diametrically" means completely or totally, usually used with "opposed" or an expression showing strong disagreement.
- So the blank must take a phrase that conveys **complete disagreement** with the earlier findings.
- "At odds with" means **in conflict with / in disagreement with** (मतभेद में / विरोध में), which matches the idea of being diametrically opposed.

Why other options are incorrect:

- Option (b) "along with" means together with, which gives the opposite meaning.
- Option (c) "in tune with" means in agreement with, which contradicts "diametrically".
- Option (d) "aside from" means except for, which does not express opposition.

So the correct answer is (a)

Q.99 A sentence is provided in indirect speech. From the four given options, choose the one that most accurately conveys the sentence in its corresponding direct speech.

The professor remarked that the sun rises in the east.

- A. "The sun will rise in the east," remarked the professor.
- B. "The sun rises in the east," the professor remarked.
- C. "The sun had risen in the east," remarked the professor.
- D. "The sun is rising in the east," remarked the professor.

Answer: B

Sol: The correct option is (b).

Step-by-step explanation:

- The indirect sentence is: *The professor remarked that the sun rises in the east.*
- This statement is a **universal truth** (a scientific fact). For universal truths, the tense generally **does not change** even in reported speech.
- While converting to direct speech, we express the universal truth in **simple present**: "*The sun rises in the east.*"
- Option (b) correctly uses the present tense and proper punctuation for direct speech.

Rule used (universal truth): Universal truths remain in simple present in both direct and indirect speech.

Example: Indirect: He said that water boils at 100°C. Direct: He said, "Water boils at 100°C."

Why other options are incorrect:

- **Option (a):** "will rise" changes the statement into a future prediction, not a universal truth.
- **Option (c):** "had risen" incorrectly shifts to past perfect and changes the sense.
- **Option (d):** "is rising" is present continuous, which is not used for universal truths in this context.

So the correct answer is (b)

Q.100 Select the correct option:

The reporter declined to _____ her informants even after intense questioning.

- A. hand out
- B. turn over
- C. give away
- D. back down

Answer: C

Sol: The correct option is (c).

Step-by-step explanation:

- The sentence means the reporter refused to reveal the identity of her informants.
- "Give away" means to **reveal, disclose, or betray information** (राज खोल देना / उजागर करना).
- So "declined to give away her informants" correctly conveys that she did not disclose who they were.

Why other options are incorrect:

- **Option (a) hand out:** to distribute (वितरित करना), not to reveal identities.
- **Option (b) turn over:** to hand something to authorities / to flip (सौंप देना/पलटना); not the best fit for "reveal identities" in this context.
- **Option (d) back down:** to withdraw from a position (पीछे हटना), which does not fit the object "her informants".

So the correct answer is (c)