

## SSC Selection Post (Graduation) Similar Paper (Held on 26 Jul 2025 S3)

**Q.1** Arrange the following words in a meaningful order:

1. Graduation
2. School
3. Job
4. College

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

**Answer:** A

**Sol: Given:** 1. Graduation 2. School 3. Job 4. College

Order: First comes School

Then College

After that Graduation

Finally, Job

So, the correct order is:  $2 \rightarrow 4 \rightarrow 1 \rightarrow 3 = \mathbf{2-4-1-3}$

Thus, correct option is (a).

**Q.2** Find the missing term:

5, 15, 45, ?, 405

- A. 90
- B. 120
- C. 135
- D. 150

**Answer:** C

**Sol: Given:** 5, 15, 45, ?, 405

**Logic:** Numbers are multiply by 3.

$$5 \times 3 = 15$$

$$15 \times 3 = 45$$

$$45 \times 3 = 135$$

$$135 \times 3 = 405$$

So, the missing term is **135**.

Thus, correct option is (c).

**Q.3** If # means  $\times$ , @ means  $+$ , % means  $-$  and \$ means  $\div$  Find the value of:  $24 \$ 6 \# 3 @ 4 \% 5?$

- A. 11
- B. 13
- C. 15
- D. 17

**Answer:** A

**Sol: Given:**  $24 \$ 6 \# 3 @ 4 \% 5?$

Given Symbol#@%\$

New Sign  $\times + - \div$

Using **BODMAS** rule.

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

**New equation:**  $24 \div 6 \times 3 + 4 - 5 = ?$

$$4 \times 3 + 4 - 5 = ?$$

$$12 + 4 - 5 = ?$$

$$16 - 5 = ?$$

$$? = 11$$

Thus, correct option is (a).

**Q.4** Two trains of lengths 120 m and 180 m move in the same direction at speeds of 60 km/h and 48 km/h respectively. How long will the faster train take to cross the slower train?

- A. 60s
- B. 75s
- C. 80s
- D. 90s

**Answer:** D

**Sol: Given:**

Length of faster train = 120 m

Length of slower train = 180 m

Speed of faster train = 60 km/h

Speed of slower train = 48 km/h

**Solution:**

Convert speeds to m/s

$$60 \text{ km/h} = 60 \times \frac{5}{18} = \frac{50}{3} \text{ m/s}$$

$$48 \text{ km/h} = 48 \times \frac{5}{18} = \frac{40}{3} \text{ m/s}$$

Relative speed: (Same direction => subtract)

$$\text{Relative speed} = \frac{50}{3} - \frac{40}{3} = \frac{10}{3} \text{ m/s}$$

Total distance to be covered

To completely cross, the faster train must cover the sum of lengths:

$$120 + 180 = 300\text{m}$$

Time taken

$$\text{Time} = \frac{300}{10/3} = 300 \times \frac{3}{10} = 90\text{s}$$

So, **90s** long will the faster train take to cross the slower train.

Thus, correct option is (d).

**Q.5** Choose the pair which is different from the others.

- A. 6 - 36
- B. 7 - 49
- C. 8 - 64
- D. 9 - 90

**Answer:** D

**Sol: Logic:** 1st number<sup>2</sup>= 2nd number

Now, we check each options.

**Option (a):** 6 - 36

$$6^2 = 36$$

**Option (b):** 7 - 49

$$7^2 = 49$$

**Option (c):** 8 - 64

$$8^2 = 64$$

**Option (d):** 9 - 90

$$9^2 \neq 90$$

So, **9 - 90** is odd one out.

Thus, correct option is (d).

**Q.6** In a distributed storage system, the load factor is 1.2 and the number of servers is 15. What is the maximum load capacity?

- A. 16
- B. 17
- C. 18
- D. 20

**Answer:** C

**Sol: Given:** In a distributed storage system, the load factor is 1.2 and the number of servers is 15.

**Solution:**

Maximum load capacity

= Load factor × Number of servers

=  $1.2 \times 15 = 18$

So, **18** is the maximum load capacity.

Thus, correct option is (c).

**Q.7** Statement: "Daily exercise improves mental health."  
Which option strengthens the statement?

- A. Exercise requires discipline
- B. Physical activity reduces stress hormones
- C. Gyms are expensive
- D. People prefer indoor games

**Answer:** B

**Sol: Statement:** "Daily exercise improves mental health."

Now, we check each options.

**Option (a):** Exercise requires discipline

Talks about habit/effort, not mental health benefits.

**Option (b):** Physical activity reduces stress hormones

Reduced stress hormones (like cortisol) directly improve mental well-being, which strongly supports the statement.

**Option (c):** Gyms are expensive

Cost has no link to mental health improvement.

**Option (d):** People prefer indoor games

Preference does not support the statement.

So, **Physical activity reduces stress hormones** is strengthens the statement.

Thus, correct option is (b).

**Q.8** A company observes frequent customer complaints. What should be the FIRST step?

- A. Increase prices
- B. Ignore complaints
- C. Analyse complaint patterns
- D. Shut down services

**Answer:** C

**Sol: Given:** A company observes frequent customer complaints.

**Explanation:**

If a company is receiving many customer complaints, the first thing it should do is look into the complaints and understand the common problems.

Without knowing the reasons, no solution will work.

So, **Analyse complaint patterns** should be the FIRST step.

Thus, correct option is (c).

**Q.9** Four sets of names and addresses are given. Two are exactly identical. Identify them.

1. Rohit Sharma, Green Park, Kanpur - 208001
2. Rohit Sharma, Green Park, Kanpur - 208002
3. Rohit Sharma, Green Park, Kanpur - 208001
4. Rohit Sharma, Green Garden, Kanpur - 208001

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

**Answer:** B

**Sol: Given:**

1. Rohit Sharma, Green Park, Kanpur – 208001
  2. Rohit Sharma, Green Park, Kanpur – 208002
  3. Rohit Sharma, Green Park, Kanpur – 208001
  4. Rohit Sharma, Green Garden, Kanpur – 208001
- Now, we check each options.

**Option (a): 1 and 2 (Not identical)**

Address name: same (Green Park)

Pincode differs: 208001 ≠ 208002

**Option (b): 1 and 3 (Exactly identical)**

Name: same (Rohit Sharma)

Address: same (Green Park, Kanpur)

Pincode: same (208001)

**Option (c): 2 and 4 (Not identical)**

Address name differs: Green Park ≠ Green Garden

Pincode differs: 208002 ≠ 208001

**Option (d): 3 and 4 (Not identical)**

Address name differs: Green Park ≠ Green Garden

So, **1 and 3** are exactly identical.

Thus, correct option is (b).

**Q.10** Eye : Vision :: Ear : ?

- A. Hearing
- B. Sound
- C. Noise
- D. Music

**Answer:** A

**Sol: Given:** Eye : Vision :: Ear : ?

**Eye** is used for **vision**.

Similarly,

Ear : ?

**Ear** is used for **hearing**.

Thus, correct option is (a).

**Q.11** Pointing to a woman, Ravi said, "She is the wife of my father's only son." How is the woman related to Ravi?

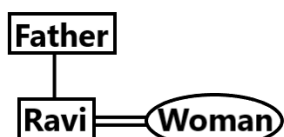
- A. Sister
- B. Mother
- C. Wife
- D. Sister-in-law

**Answer:** C

**Sol: Given:** Pointing to a woman, Ravi said, "She is the wife of my father's only son."

Symbol in Diagram	Meaning
- / 0	Female
+ / □	Male
=	Married Couple
—	Siblings
	Difference Of Generation

**From the given information blood relation diagram will be.**



So, the woman is **wife** of Ravi.  
Thus, correct option is (c).

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**Q.12** What comes next in the series?  
1, 4, 11, 26, ?

- A. 47
- B. 49
- C. 57
- D. 59

**Answer:** C

**Sol: Given:** 1, 4, 11, 26, ?

**Logic:** Double difference is multiply by 2 and + 1.

The differences:

$$4 - 1 = 3$$

$$11 - 4 = 7$$

$$26 - 11 = 15$$

Observe the pattern in differences:

Each difference follows:  $\times 2 + 1$

$$3 \times 2 + 1 = 7$$

$$7 \times 2 + 1 = 15$$

$$\text{Next} = 15 \times 2 + 1 = 31$$

$$\text{Next term: } 26 + 31 = \mathbf{57}$$

So, the missing term is **57**.

Thus, correct option is (c).

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**Q.13** A teammate takes credit for group work. What should you do?

- A. Argue publicly
- B. Ignore the issue
- C. Report politely with facts
- D. Leave the team

**Answer:** C

**Sol: Given:** A teammate takes credit for group work.

**Explanation:**

If a teammate takes credit for group work, you should handle it calmly. Don't argue in public or ignore it. The best thing is to report the issue politely and explain the facts clearly.

So, **Report politely with facts** should you do.

Thus, correct option is (c).

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**Q.14**

**Statements:**

1. All mobiles are gadgets.
2. Some gadgets are expensive.

**Conclusions:**

- I. Some mobiles are expensive.
- II. All expensive items are mobiles.

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

**Answer:** D

**Sol: Statements:**

1. All mobiles are gadgets.
2. Some gadgets are expensive.

**From the given statements possible Venn diagram will be.**

(Mobiles) (Gadgets) (Expensive)

**Conclusions:**

- I. Some mobiles are expensive. (**False**, there is no relation between mobiles and expensive).
  - II. All expensive items are mobiles. (**False**, all mobiles are gadgets and some gadgets are expensive, so that means all expensive items are not mobiles).
- So, **Neither follows**.  
Thus, correct option is (d).

**Q.15** If  $A = 4$ ,  $B = 6$ ,  $C = 8$ , find the value of:  $(A + B) \times C - A$ ?

- A. 72
- B. 76
- C. 80
- D. 84

**Answer:** B

**Sol: Given:** If  $A = 4$ ,  $B = 6$ ,  $C = 8$ , find the value of:  $(A + B) \times C - A$ ?

Using **BODMAS** rule.

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

**New equation:**  $(4 + 6) \times 8 - 4 = ?$

$10 \times 8 - 4 = ?$

$80 - 4 = ?$

$? = 76$

Thus, correct option is (b).

**Q.16** If  $ABCD \rightarrow BCDF$  and  $JKLM \rightarrow KLMO$ . Then  $PQRS \rightarrow ?$

- A. QRST
- B. QRSU
- C. RSTU
- D. QRUV

**Answer:** B

**Sol: Given:** If  $ABCD \rightarrow BCDF$  and  $JKLM \rightarrow KLMO$ .

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

**Logic:** 1st letter + 1, 2nd letter + 1, 3rd letter + 1 and 4th letter + 2 place.

**For,**  $ABCD \rightarrow BCDF$

$A + 1 = B, B + 1 = C, C + 1 = D, D + 2 = F$

**For,**  $JKLM \rightarrow KLMO$

$J + 1 = K, K + 1 = L, L + 1 = M, M + 2 = O$

Similarly,

$PQRS \rightarrow ?$

$P + 1 = Q, Q + 1 = R, R + 1 = S, S + 2 = U$

So,  $PQRS \rightarrow \mathbf{QRSU}$

Thus, correct option is (b).

**Q.17** How many meaningful English words can be formed from the letters of the word "CARE", using each letter once?

- A. Five
- B. Two
- C. More than three

D. Three

**Answer:** D

**Sol: Given:** CARE

Letters given: C, A, R, E (each used once)

Meaningful English words:

CARE

RACE

ACRE

No other correct English word can be formed using all four letters once.

Total meaningful words = 3

So, **three** meaningful English words can be formed from the letters of the word.

Thus, correct option is (d).

**Q.18** 4 : 64 :: 6 : ?

- A. 144
- B. 196
- C. 216
- D. 256

**Answer:** C

**Sol: Given:** 4 : 64 :: 6 : ?

**Logic:** 1st number<sup>3</sup> = 2nd number

**For,** 4 : 64

$4^3 = 64$

Similarly,

6 : ?

$6^3 = 216$

Thus, correct option is (c).

**Q.19 Statement:**

"The bridge was closed due to structural damage."

**Conclusions:**

I. The bridge was unsafe.

II. All bridges are unsafe.

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

**Answer:** A

**Sol: Statement:**

"The bridge was closed due to structural damage."

**Conclusions:**

I. The bridge was unsafe.

If a bridge has structural damage and is closed, it clearly means it was unsafe to use.

II. All bridges are unsafe.

This is a general statement about all bridges, which is not supported.

So, **Only I follows.**

Thus, correct option is (a).

**Q.20** Find the missing number: 3, 8, 15, 24, ?, 48

- A. 33
- B. 34
- C. 35
- D. 36

**Answer:** C

**Sol: Given:** 3, 8, 15, 24, ?, 48

**Logic:** Numbers are increasing odd number from 5.

$$3 + 5 = 8$$

$$8 + 7 = 15$$

$$15 + 9 = 24$$

$$24 + 11 = 35$$

$$35 + 13 = 48$$

So, the missing term is **35**.

Thus, correct option is (c).

**Q.21 Statements:**

I. All roses are flowers.

II. Some flowers fade quickly.

Which conclusion logically follows?

- A. Some roses fade quickly
- B. All roses fade quickly
- C. No rose fades quickly
- D. No definite conclusion

**Answer:** D

**Sol: Statements:**

I. All roses are flowers.

II. Some flowers fade quickly.

**From the given statements possible Venn diagram will be.**



**A.** Some roses fade quickly.

The flowers that fade quickly may or may not be roses. No direct link.

**B.** All roses fade quickly.

No such universal statement is given.

**C.** No rose fades quickly.

This is also not stated or implied.

Since nothing definite about roses fading quickly can be concluded,

**D. No definite conclusion** logically follows.

Thus, correct option is (d).

**Q.22** If PLANT is coded as 63, then how is FRUIT coded?

- A. 72
- B. 74
- C. 76
- D. 78

**Answer:** B

**Sol: Given:** If PLANT is coded as 63.

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:** Sum of place value of letters = Number

**For,** PLANT - 63

$$16 + 12 + 1 + 14 + 20 = 63$$

Similarly,

FRUIT - ?

$$6 + 18 + 21 + 9 + 20 = 74$$

So, FRUIT is coded as **74**.

Thus, correct option is (b).

**Q.23** If a student repeatedly fails to submit assignments on time, what should a teacher do?

- A. Ignore the student
- B. Punish immediately
- C. Identify the reason and guide
- D. Remove from class

**Answer:** C

**Sol: Given:** If a student repeatedly fails to submit assignments on time.

**Explanation:**

If a student is not submitting assignments on time again and again, the teacher should first try to find out the reason behind it and help or guide the student to improve.

Ignoring the student, punishing immediately, or removing the student from class are not good solutions.

So, **Identify the reason and guide** should a teacher do.

Thus, correct option is (c).

**Q.24** Choose the word that does NOT belong to the group.

- A. Teacher
- B. Doctor
- C. Engineer
- D. Painter

**Answer:** D

**Sol: Teacher, Doctor and Engineer** are professional occupations that generally require formal education, degrees and certification.

**Painter** is mainly an artistic or creative vocation and does not necessarily require formal professional qualification.

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

Thus, correct option is (d).

**Q.25** Identify the number that breaks the series:

2, 6, 12, 20, 32

- A. 6
- B. 12
- C. 20
- D. 32

**Answer:** D

**Sol: Given:** 2, 6, 12, 20, 32

**Logic:** Numbers are increasing even number from 4.

$$2 + 4 = 6$$

$$6 + 6 = 12$$

$$12 + 8 = 20$$

$$20 + 10 = 30 \neq 32$$

So, **32** is wrong term.

Thus, correct option is (d).

**Q.26** Which of the following factors mainly determines price elasticity of demand?

- A. Nature of the commodity
- B. Population size
- C. Tax structure
- D. Mode of transport

**Answer:** A

**Sol:** The correct answer is **(A) Nature of the commodity**

**Explanation:**

- The nature of the commodity (necessity vs. luxury) is a primary determinant of price elasticity.
- Necessities (like salt or life-saving medicines) tend to have inelastic demand, while luxuries tend to have elastic demand.

**Information Booster:**

- Price Elasticity of Demand ( $E_d$ ) measures the responsiveness of quantity demanded to a change in price.

**Additional Knowledge:**

- Availability of substitutes also significantly impacts elasticity; more substitutes lead to higher elasticity.

**Q.27** Which mission focuses on urban water supply and sewerage infrastructure?

- A. AMRUT
- B. Swachh Bharat Mission
- C. Jal Jeevan Mission
- D. PMAY-U

**Answer:** A

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

**Explanation:**

- AMRUT (Atal Mission for Rejuvenation and Urban Transformation) was launched to provide basic civic amenities like water supply, sewerage, and urban transport in cities.
- Its primary purpose is to ensure every household has access to a tap with an assured supply of water and a sewerage connection.

**Information Booster:**

- AMRUT 2.0 was launched in 2021 to make cities 'water secure' and provide functional tap connections to all households in statutory towns.

**Additional Knowledge:**

- Jal Jeevan Mission (Option C): Primarily focuses on providing functional household tap connections to rural India.
- Swachh Bharat Mission (Option B): Focuses on sanitation and waste management.

**Q.28** Newton's Third Law of Motion is best illustrated by:

- A. Motion of a pendulum
- B. Rocket propulsion
- C. Falling raindrops
- D. Uniform circular motion

**Answer:** B

**Sol:** The correct answer is **(B) Rocket propulsion**

**Explanation:**

- Newton's Third Law states that for every action, there is an equal and opposite reaction.
- In a rocket, the engine exhausts hot gases backward (action), which creates a forward thrust on the rocket (reaction).

**Information Booster:**

- This law always involves two different bodies and two different forces.

**Additional Knowledge:**

- Falling raindrops (Option C): Primarily relates to terminal velocity and gravity.
- Motion of a pendulum (Option A): Illustrates the conservation of energy and periodic motion.

**Q.29** Consider the following statements:

Statement 1: Literacy rate is higher in urban areas than rural areas.

Statement 2: Urban areas have better access to educational institutions.

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither

**Answer:** C

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

**Explanation:**

- According to various census data, urban literacy rates are consistently higher than rural rates in India.
- The availability of better schools, colleges, coaching centers, and higher awareness levels in cities contributes to this disparity.

**Information Booster:**

- Kerala has the highest literacy rate in India, while Bihar has the lowest (as per Census 2011).

**Additional Knowledge:**

- Literacy is defined as the ability to read and write with understanding in any language for a person aged 7 and above.

**Q.30** India is a member of which of the following groupings?

- A. NATO
- B. QUAD
- C. G7
- D. OPEC

**Answer:** B

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

**Explanation:**

- The Quadrilateral Security Dialogue (QUAD) is a strategic forum between Australia, India, Japan, and the United States.
- Its primary focus is on maintaining a free and open Indo-Pacific region.

**Information Booster:**

- India is also a member of G20, BRICS, and SCO.

**Additional Knowledge:**

- NATO (Option A): A military alliance of North American and European countries; India is not a member.
- G7 (Option C): India is often invited as a guest but is not a formal member.
- OPEC (Option D): An organization of oil-exporting nations; India is a major oil importer.

**Q.31** Match the following instruments with their correct use:

1. Hygrometer Humidity
2. Seismograph Earthquakes
3. Anemometer Wind speed

- A. Earthquakes – Humidity – Wind speed
- B. Wind speed – Pressure – Humidity
- C. Humidity – Earthquakes – Wind speed
- D. Pressure – Humidity – Earthquakes

**Answer:** C

**Sol:** The correct answer is **Option C: Humidity – Earthquakes – Wind speed.**

**1 - II (Hygrometer – Humidity)**

**2 - I (Seismograph – Earthquakes)**

**3 - III (Anemometer – Wind Speed)**

**Information Booster:**

- **Hygrometer:** This instrument measures the moisture content (humidity) in the atmosphere. Modern versions often use changes in electrical capacitance or resistance to provide digital readings.
- **Seismograph:** Also known as a seismometer, it detects and records the motion of the ground, specifically those caused by earthquakes, volcanic eruptions, or explosions. The resulting record is called a *seismogram*.

- **Anemometer:** Derived from the Greek word *anemos* (wind), it is used to measure wind speed and direction. The most common type is the "cup anemometer."

**Additional Related Instruments :**

In addition to the ones mentioned above, these instruments frequently appear in exam questions:

Instrument	Used to Measure
<b>Barometer</b>	Atmospheric Pressure
<b>Altimeter</b>	Altitude (used in aircraft)
<b>Rain Gauge</b>	Rainfall (Precipitation)
<b>Thermometer</b>	Temperature
<b>Pyrometer</b>	Very high temperatures (contactless)

**Q.32** Match the following Commissions with their functions:

List I (Bodies)

List II (Functions)

- |                        |   |
|------------------------|---|
| A. Finance Commission  | 1. Revenue distribution between Centre & States |
| B. Election Commission | 2. Conducting free and fair elections           |
| C. UPSC                | 3. Recruitment for All India & Central Services |
| D. CAG                 | 4. Auditing accounts of the Union & States      |

- A. A–Revenue distribution, B–Elections, C–Recruitment, D–Audit  
 B. A–Audit, B–Recruitment, C–Elections, D–Finance  
 C. A–Elections, B–Audit, C–Finance, D–Recruitment  
 D. A–Recruitment, B–Finance, C–Audit, D–Elections

**Answer:** A

**Sol:** The correct answer is **(A) A–Revenue distribution, B–Elections, C–Recruitment, D–Audit**

**Explanation:**

- Finance Commission: Recommends the distribution of financial resources between the Centre and States.

- Election Commission: Responsible for conducting free and fair elections.
- UPSC: Conducts recruitment for All India Services and Central Services.
- CAG: Audits the accounts of the Union and the States.

**Information Booster:**

- Finance Commission is a constitutional body under Article 280.

**Additional Knowledge:**

- The CAG is often called the 'Guardian of the Public Purse'.

**Q.33** GST in India is administered jointly by:

- Centre only
- States only
- Centre and States
- Local bodies

**Answer:** C

**Sol:** The correct answer is **(C) Centre and States**

**Explanation:**

- GST is a dual tax system in India where both the Centre and the States simultaneously levy tax on a common base.
- It consists of Central GST (CGST) and State GST (SGST) for intra-state supplies.

**Information Booster:**

- The GST Council, chaired by the Union Finance Minister and comprising State Finance Ministers, is the decision-making body for GST.

**Additional Knowledge:**

- IGST (Integrated GST) is levied on all inter-state supplies of goods and services.

**Q.34** With reference to the South Asian Association for Regional Cooperation (SAARC), consider the following statements:

- The SAARC Charter was adopted in Dhaka on 8 December 1985.
- The Secretariat of the Association was established in Kathmandu on 16 January 1987.
- Afghanistan became the eighth member of SAARC during the 14th Summit held in 2007.

**Which of the statements given above are correct?**

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2, and 3

**Answer:** D

**Sol:** The correct answer is **(d) 1, 2, and 3**

**Explanation:**

- **Statement 1 is correct:** The South Asian Association for Regional Cooperation (SAARC) was established when its Charter was formally adopted in **Dhaka, Bangladesh**, on **8 December 1985**.
- **Statement 2 is correct:** While the association was founded in 1985, the **SAARC Secretariat** was established later in **Kathmandu, Nepal**, on **16 January 1987** to coordinate and monitor the implementation of activities.
- **Statement 3 is correct:** Originally, SAARC had seven founding members (Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka). **Afghanistan** joined as the eighth member during the **14th SAARC Summit** held in New Delhi in **2007**.

**Information Booster:**

- The primary objective of SAARC is to promote the **welfare of the peoples** of South Asia and to improve their quality of life through accelerated economic growth and social progress.

- SAARC operates on the principle of **unanimity** for decision-making, and "bilateral and contentious issues" are excluded from its deliberations.
- The specialized bodies of SAARC include the **South Asian University (SAU)** in India and the **SAARC Development Fund (SDF)** in Bhutan.

**Additional Knowledge:**

- **Secretariat (Statement 2):** It is headed by a **Secretary-General** appointed by the Council of Ministers from Member States in alphabetical order for a three-year term.
- **Observer Status:** Several countries and organizations, including the **European Union, China, Japan, and the USA**, hold observer status in SAARC.
- **Founding Members:** India was a primary driver in the formation of the bloc to ensure regional stability and trade.

**Q.35** Which gas is mainly responsible for acid rain?

- A. Carbon monoxide
- B. Sulphur dioxide
- C. Methane
- D. Ozone

**Answer:** B

**Sol:** The correct answer is **(B) Sulphur dioxide**

**Explanation:**

- Acid rain is caused by a chemical reaction that begins when compounds like sulphur dioxide ( $SO_2$ ) and nitrogen oxides are released into the air.
- These substances can rise very high into the atmosphere, where they mix and react with water, oxygen, and other chemicals to form acidic pollutants.

**Information Booster:**

- Acid rain has a pH level of around 4.2–4.4, whereas normal rain is slightly acidic with a pH of about 5.6.

**Additional Knowledge:**

- Acid rain causes damage to buildings (like the Taj Mahal), forests, and aquatic life.

**Q.36** Assertion (A): Newspapers play a role in shaping public opinion. Reason (R): They provide information and analysis on current issues.

- A. Both A and R are true and R explains A
- B. Both A and R are true but R does not explain 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 explains A**

**Explanation:**

- Media, including newspapers, is considered the fourth pillar of democracy.
- By providing factual information and various perspectives (analysis), newspapers influence how the public perceives governmental policies and social events.

**Information Booster:**

- Freedom of the Press in India is implied under Article 19(1)(a) – Freedom of speech and expression.

**Additional Knowledge:**

- The press acts as a watchdog, highlighting lapses in governance.

**Q.37** Which landform is created by wind deposition in deserts?

- A. Mushroom rock
- B. Yardang
- C. Sand dune
- D. Gorge

**Answer:** C

**Sol:** The correct answer is **(C) Sand dune**

**Explanation:**

- When the wind blows, it lifts and transports sand. When the wind stops blowing, the sand falls and gets deposited in low hill-like structures called sand dunes.
- These are depositional features of wind action.

**Information Booster:**

- Crescent-shaped sand dunes are called Barchans.

**Additional Knowledge:**

- Mushroom rock (Option A): An erosional landform created by wind.
- Yardang (Option B): Also an erosional landform created by wind where softer rocks are eroded faster than harder rocks.
- Gorge (Option D): An erosional landform created by river action.

**Q.38** The Padma Vibhushan is awarded for:

- A. Gallantry
- B. Distinguished service of exceptional order
- C. Sports excellence
- D. Academic research only

**Answer:** B

**Sol:** The correct answer is **(B) Distinguished service of exceptional order**

**Explanation:**

- Padma Vibhushan is the second-highest civilian award of the Republic of India, after Bharat Ratna.
- It is awarded for "exceptional and distinguished service" in any field including service rendered by Government servants.

**Information Booster:**

- The Padma awards were instituted in 1954 and are announced every year on Republic Day.

**Additional Knowledge:**

- Gallantry (Option A): Awards like Param Vir Chakra or Shaurya Chakra are given for gallantry.
- Padma Bhushan is for distinguished service of high order, while Padma Shri is for distinguished service.

**Q.39** Who acts as the presiding officer during a joint sitting of Parliament?

- A. President
- B. Vice-President
- C. Speaker of Lok Sabha
- D. Prime Minister

**Answer:** C

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

**Explanation:**

- Under Article 118 of the Constitution, the Speaker of the Lok Sabha presides over a joint sitting of the two Houses of Parliament.
- In the absence of the Speaker, the Deputy Speaker of Lok Sabha presides.

**Information Booster:**

- The joint sitting is called by the President (Article 108) to resolve a deadlock between the two Houses over a bill.

**Additional Knowledge:**

- Vice-President (Option B): Although the Chairman of Rajya Sabha, the VP does not preside over a joint sitting because they are not a member of either House.

---

**Q.40** Who among the following founded the Slave Dynasty?

- A. Qutbuddin Aibak
- B. Iltutmish
- C. Balban
- D. Razia Sultana

**Answer:** A

**Sol:** The correct answer is **(A) Qutbuddin Aibak**

**Explanation:**

- The Slave Dynasty (Mamluk Dynasty) was founded by Qutbuddin Aibak in 1206 AD.
- He was a general of Muhammad Ghori and became the first Sultan of Delhi.

**Information Booster:**

- Aibak started the construction of the Qutub Minar in Delhi, dedicated to the Sufi saint Qutbuddin Bakhtiyar Kaki.

**Additional Knowledge:**

- Iltutmish (Option B): Considered the real consolidator of the Delhi Sultanate.
- Razia Sultana (Option D): The first female ruler of the Delhi Sultanate.

---

**Q.41** In volleyball, how many players are there in each team on the court?

- A. Five
- B. Six
- C. Seven
- D. Eight

**Answer:** B

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

**Explanation:**

- A standard indoor volleyball game is played with two teams of six players each.
- The players are positioned in two rows of three players each.

**Information Booster:**

- Beach volleyball, a popular variant, is played with only two players per team.

**Additional Knowledge:**

- Basketball (Option A): Typically played with 5 players per team.

---

**Q.42** Which Indian athlete won gold medal at Tokyo Olympics 2021?

- A. Bajrang Punia
- B. Neeraj Chopra
- C. Ravi Dahiya
- D. PV Sindhu

**Answer:** B

**Sol:** The correct answer is **(B) Neeraj Chopra**

**Explanation:**

- Neeraj Chopra won the gold medal in the men's javelin throw at the Tokyo 2020 Olympics (held in 2021).
- He became the second Indian to win an individual Olympic gold medal after Abhinav Bindra.

**Information Booster:**

- His gold-winning throw was measured at 87.58 meters.

**Additional Knowledge:**

- Bajrang Punia (Option A): Won a Bronze medal in Wrestling.
- Ravi Dahiya (Option C): Won a Silver medal in Wrestling.
- PV Sindhu (Option D): Won a Bronze medal in Badminton.

**Q.43** Assertion (A): Ajanta caves belong to the Buddhist tradition. Reason (R): They depict Jataka tales and Buddha's life.

- A. Both A and R are true and R explains A
- B. Both A and R are true but R does not explain 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 explains A**

**Explanation:**

- Ajanta Caves, located in Maharashtra, are a series of rock-cut caves that are exclusively Buddhist.
- The paintings and sculptures within depict stories from the Jataka tales and significant events from the life of Gautama Buddha.

**Information Booster:**

- There are 29-30 caves in Ajanta, which were built in two phases: the Satavahana period and the Vakataka period.

**Additional Knowledge:**

- Unlike Ellora, which has Hindu, Jain, and Buddhist caves, Ajanta is purely Buddhist.

**Q.44** Which of the following are outputs of the iron and steel industry?

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

**Answer:** B

**Sol:** The correct answer is **(B) 1, 2 and 4 only**

**Explanation:**

- The iron and steel industry produces steel, which is used as a primary material for many other products.
- Typical outputs include machinery, construction materials (beams/rods), and transport equipment.

**Information Booster:**

- It is often called the 'backbone of modern industry' because almost everything we use is either made of iron or steel or has been made with tools and machinery of these metals.

**Additional Knowledge:**

- This industry is a feeder industry whose products are used as raw materials for other industries.

**Q.45** Which sector received the highest FDI inflow in India in recent years?

- A. Agriculture
- B. Manufacturing
- C. Services
- D. Mining

**Answer:** C

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

**Explanation:**

- The Services sector, which includes Financial, Banking, Insurance, and Non-financial/Business services, consistently receives the highest Foreign Direct Investment (FDI) inflows in India.
- Computer Software and Hardware is another major contributor often grouped within technical services.

**Information Booster:**

- FDI is a major source of non-debt financial resources for the economic development of India.

**Additional Knowledge:**

- Agriculture (Option A): Though vital for the economy, it receives a relatively small percentage of FDI due to regulatory restrictions.
- Manufacturing (Option B): Receives significant FDI under the 'Make in India' initiative but still trails behind the services sector.

---

**Q.46** Which plant hormone promotes cell elongation in shoots?

- A. Cytokinin
- B. Ethylene
- C. Auxin
- D. Gibberellin

**Answer:** C

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

**Explanation:**

- Auxins are plant hormones produced in the stem tip that promote cell elongation.
- They move to the darker side of the plant, causing the cells there to grow larger than corresponding cells on the lighter side of the plant (phototropism).

**Information Booster:**

- Indole-3-acetic acid (IAA) is the most common naturally occurring auxin.

**Additional Knowledge:**

- Cytokinin (Option A): Promotes cell division and delays leaf senescence.
- Ethylene (Option B): Responsible for fruit ripening.
- Gibberellin (Option D): Promotes stem elongation, seed germination, and flowering.

---

**Q.47** Which of the following laws replaced the Indian Penal Code, 1860?

- A. Bharatiya Nyaya Sanhita, 2023
- B. Bharatiya Sakshya Adhinyam, 2023
- C. Criminal Law Amendment Act
- D. Indian Justice Code

**Answer:** A

**Sol:** The correct answer is **(A) Bharatiya Nyaya Sanhita, 2023**

**Explanation:**

- The Bharatiya Nyaya Sanhita (BNS) replaced the colonial-era Indian Penal Code (IPC) of 1860.
- It came into effect on July 1, 2024, bringing changes to definitions of crimes and punishments.

**Information Booster:**

- Along with BNS, the BNSS replaced the CrPC, and BSA replaced the Indian Evidence Act.

**Additional Knowledge:**

- Bharatiya Sakshya Adhinyam (Option B): Replaced the Indian Evidence Act, 1872.
-

**Q.48** The Gaganyaan mission is primarily aimed at:

- A. Establishing a space station
- B. Human spaceflight capability
- C. Deep space exploration
- D. Satellite navigation

**Answer:** B

**Sol:** The correct answer is **(B) Human spaceflight capability**

**Explanation:**

- Gaganyaan is a mission by ISRO to demonstrate indigenous capability to undertake human space flight to Low Earth Orbit (LEO).
- It aims to send a crew of 3 members to an orbit of 400 km for a 3-day mission and bring them back safely to earth.

**Information Booster:**

- If successful, India will become the fourth nation in the world to launch a manned space mission after the USA, Russia, and China.

**Additional Knowledge:**

- Satellite navigation (Option D): This is the domain of NavIC (IRNSS), not Gaganyaan.

**Q.49** The Green Revolution in India mainly took place during which Five-Year Plan?

- A. First
- B. Second
- C. Third
- D. Fourth

**Answer:** C

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

**Explanation:**

- The Green Revolution began in the mid-1960s, which falls within the later part of the Third Five-Year Plan (1961–1966).
- It introduced High Yielding Variety (HYV) seeds, particularly for wheat and rice, to increase food grain production.

**Information Booster:**

- M.S. Swaminathan is known as the Father of the Green Revolution in India.

**Additional Knowledge:**

- First Five-Year Plan (Option A): Focused on the agricultural sector but through land reforms and irrigation projects.
- Second Five-Year Plan (Option B): Focused on heavy industries (Mahalanobis Model).

**Q.50** Which dance form is associated with the Satriya tradition?

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

**Answer:** A

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

**Explanation:**

- Sattriya is a classical dance form that originated in the Vaishnavite monasteries (Sattras) of Assam.
- It was introduced by the great saint-reformer Sankaradeva in the 15th century AD.

**Information Booster:**

- Sattriya was recognized as a classical dance by Sangeet Natak Akademi in the year 2000.

**Additional Knowledge:**

- Odisha (Option B): Famous for Odissi dance.
- Manipur (Option C): Famous for Manipuri (Jagoi) dance.

**Q.51** What is the largest five-digit number that is divisible by 8, 12, 15, and 20?

- A. 99960
- B. 99840
- C. 99900
- D. 99980

**Answer:** A

**Sol: Given:**

Divisors = 8, 12, 15, 20.

Largest 5-digit number = 99999.

**Concept Used:**

LCM and Division Algorithm.

**Solution:**

Find the LCM of the divisors:

$$\text{LCM}(8, 12, 15, 20) = 120.$$

Divide the largest 5-digit number by the LCM:

$$99999 \div 120 \Rightarrow 99999 = 120 \times 833 + 39.$$

Remainder = 39.

Subtract the remainder from the largest 5-digit number:

$$\text{Required Number} = 99999 - 39 = 99960.$$

**Final Answer**

99960

**Q.52** Evaluate:  $\left(\frac{1}{20}\right) + \left(\frac{1}{30}\right) + \left(\frac{1}{42}\right) + \left(\frac{1}{56}\right)$

- A. 0.10
- B. 0.125
- C. 0.15
- D. 0.20

**Answer:** B

**Sol: Given:**

$$\frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56}$$

**Solution:**

$$\frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56}$$

$$= \left(\frac{1}{4} - \frac{1}{5}\right) + \left(\frac{1}{5} - \frac{1}{6}\right) + \left(\frac{1}{6} - \frac{1}{7}\right) + \left(\frac{1}{7} - \frac{1}{8}\right)$$

$$= \frac{1}{4} - \frac{1}{8}$$

$$= \frac{1}{8}$$

$$= 0.125$$

**Q.53** A and B invest ₹50,000 and ₹75,000 respectively. After a year, the total profit is ₹40,000. If they receive 20% interest on their capitals first and divide the remaining profit in ratio of capitals, what is B's total share?

- A. ₹24,000
- B. ₹22,500
- C. ₹23,000
- D. ₹25,000

**Answer:** A

**Sol: Given:**

Investment A = 50,000, Investment B = 75,000.

Total Profit = 40,000.

Interest on Capital = 20%.

**Concept Used:**

Partnership Profit Appropriation.

**Solution:**

Calculate Ratio of Capitals:

$$A : B = 50,000 : 75,000 = 2 : 3.$$

Calculate Interest on Capitals:

$$\text{Interest A} = 20\% \text{ of } 50,000 = 10,000.$$

$$\text{Interest B} = 20\% \text{ of } 75,000 = 15,000.$$

$$\text{Total Interest} = 10,000 + 15,000 = 25,000.$$

Calculate Remaining Profit:

$$\text{Remaining} = 40,000 - 25,000 = 15,000.$$

Distribute Remaining Profit in Ratio 2:3:

$$\text{B's Share of Remaining} = \frac{3}{5} \times 15,000 = 9,000.$$

Calculate Total Share of B:

$$\text{Total B} = \text{Interest B} + \text{Share of Remaining}$$

$$\text{Total B} = 15,000 + 9,000 = 24,000.$$

**Final Answer**

24,000

**Q.54** The average age of 10 persons increases by 2 years when a person aged 40 is replaced by a new person. Find the age of the new person.

- A. 40
- B. 60
- C. 35
- D. 50

**Answer:** B

**Sol: Given:**

Number of persons = 10

Increase in average age = 2

Age of replaced person = 40

**Concept Used:**

Change in average changes total sum

**Formula Used:**

Change in total sum =  $n \times$  Change in average

**Solution:**

Increase in total sum =  $10 \times 2 = 20$

Let age of new person =  $x$

$$x - 40 = 20$$

$$x = 60$$

**Final Answer:**

60

---

**Q.55** The price of petrol increased by 15%. A person consumes 40 liters per month. If the original price was ₹100/L, what is the additional monthly expenditure?

- A. ₹500
- B. ₹600
- C. ₹450
- D. ₹700

**Answer:** B

**Sol: Given:**

Increase Rate = 15%.

Consumption = 40 liters.

Original Price = 100 Rs/L.

**Solution:**

Find the increase in price per liter:

Increase = 15% of 100 = 15 Rs.

Calculate total additional expenditure:

Additional Exp = Consumption  $\times$  Price Increase

Additional Exp =  $40 \times 15 = 600$ .

**Final Answer**

600

---

**Q.56** A sum of money doubles itself in 7 years at compound interest. In how many years will it become 8 times?

- A. 14
- B. 21
- C. 28
- D. 35

**Answer:** B

**Sol: Given:**

Sum doubles ( $2x$ ) in 7 years.

**Concept Used:**

In CI, if sum becomes  $k$  times in  $T$  years, it becomes  $k^n$  times in  $nT$  years.

**Solution:**

Express target multiple as power of base multiple:

Target = 8 times.

Base = 2 times.

$$8 = 2^3.$$

Calculate time:

$$\text{Time} = 3 \times 7 \text{ years} = 21 \text{ years.}$$

**Final Answer**

21

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**Q.57** A fruit seller bought 100 kg of oranges for ₹3000. 10 kg were rotten. At what rate per kg must he sell the remaining to gain 20% on the total cost?

- A. ₹40
- B. ₹36
- C. ₹45
- D. ₹42

**Answer:** A

**Sol: Given:**

$$\text{Total Cost (CP)} = 3000.$$

$$\text{Total Quantity} = 100 \text{ kg.}$$

$$\text{Rotten} = 10 \text{ kg.}$$

$$\text{Desired Gain} = 20\%.$$

**Solution:**

Calculate Total Selling Price (SP) needed:

$$\text{SP} = \text{CP} \times 1.20 = 3000 \times 1.2 = 3600.$$

Calculate Good Quantity:

$$\text{Good Qty} = 100 - 10 = 90 \text{ kg.}$$

Calculate Rate per kg:

$$\text{Rate} = \frac{\text{Total SP}}{\text{Good Qty}} = \frac{3600}{90} = 40.$$

**Final Answer**

40

---

**Q.58** A grocer mixes 40 kg of rice at ₹50/kg with a dearer variety at ₹80/kg. The mixture is worth ₹60/kg (CP). How much dearer rice was added?

- A. 40 kg
- B. 30 kg
- C. 20 kg
- D. 25 kg

**Answer:** C

**Sol: Given:**

Price 1 = 50. Qty 1 = 40 kg.

Price 2 = 80. Qty 2 = ?.

Mean Price = 60.

**Concept Used:**

Rule of Alligation.

**Solution:**

Apply Alligation:

Diff 1 =  $|60 - 50| = 10$ .

Diff 2 =  $|80 - 60| = 20$ .

Ratio (Qty 1 : Qty 2) =  $20 : 10 = 2 : 1$ .

Calculate Qty 2:

If 2 units = 40 kg,

Then 1 unit = 20 kg.

**Final Answer**

20 kg

**Q.59** A can do a work in 24 days. B assists him every third day. B alone can do the work in 48 days. In how many days is the work done?

- A.  $20\frac{2}{3}$
- B.  $18\frac{1}{3}$
- C. 15
- D. 21

**Answer:** A

**Sol: Given:**

$A = 24$  days,  $B = 48$  days.

Pattern: A, A, A+B, ...

**Solution:**

Efficiencies:

$A = \frac{1}{24}$ ,  $B = \frac{1}{48}$ .

Work in 3-day cycle:

Day 1 (A) :  $\frac{1}{24}$ .

Day 2 (A) :  $\frac{1}{24}$ .

$$\text{Day 3 (A+B)} : \frac{1}{24} + \frac{1}{48} = \frac{3}{48}$$

$$\text{Total 3 Days} = \frac{1}{24} + \frac{1}{24} + \frac{3}{48} = \frac{2+2+3}{48} = \frac{7}{48}$$

Cycles:

$$6 \times \frac{7}{48} = \frac{42}{48} = \frac{7}{8} \text{ work done in 18 days.}$$

$$\text{Remaining} = \frac{1}{8}$$

Remaining Work:

$$\text{Day 19 (A) : Rem} = \frac{1}{8} - \frac{1}{24} = \frac{2}{24}$$

$$\text{Day 20 (A) : Rem} = \frac{2}{24} - \frac{1}{24} = \frac{1}{24}$$

$$\text{Day 21 (A+B) : Rate} = \frac{3}{48} = \frac{1}{16}$$

$$\text{Time} = \frac{1/24}{1/16} = \frac{16}{24} = \frac{2}{3} \text{ days.}$$

$$\text{Total Time} = 20\frac{2}{3} \text{ days.}$$

**Final Answer**

$$20\frac{2}{3}$$

**Q.60** Ship A uses 0.1 L/km, Ship B uses 0.2 L/km. A travels 300km, B travels 200km. Fuel price ₹100/L. Total cost?

- A. ₹5000
- B. ₹6000
- C. ₹7000
- D. ₹8000

**Answer:** C

**Sol: Given:**

Ship A: 0.1 L/km, 300 km.

Ship B: 0.2 L/km, 200 km.

Price: 100 Rs/L.

**Solution:**

Calculate Fuel Consumed:

$$\text{Fuel A} = 0.1 \times 300 = 30 \text{ L.}$$

$$\text{Fuel B} = 0.2 \times 200 = 40 \text{ L.}$$

$$\text{Total Fuel} = 30 + 40 = 70 \text{ L.}$$

Calculate Cost:

$$\text{Cost} = 70 \times 100 = 7000.$$

**Final Answer**

7000

**Q.61** If  $x + \frac{1}{x+4} = 5$ , find  $(x+4)^3 + \frac{1}{(x+4)^3}$ .

- A. 702
- B. 756
- C. 729
- D. 512

**Answer:** A

**Sol: Given:**

$$x + \frac{1}{x+4} = 5$$

**Solution:**

Let  $t = x + 4$ . Then  $x = t - 4$ .

Substitute into equation:

$$(t-4) + \frac{1}{t} = 5$$

$$t + \frac{1}{t} = 9$$

Target expression:

$$(x+4)^3 + \frac{1}{(x+4)^3} = t^3 + \frac{1}{t^3}$$

3. Use cubic identity:

$$t^3 + \frac{1}{t^3} = \left(t + \frac{1}{t}\right)^3 - 3\left(t + \frac{1}{t}\right)$$

$$= 9^3 - 3(9)$$

$$= 729 - 27 = 702.$$

**Final Answer**

702

**Q.62** You have 5 doors. 1 Car, 4 Goats. You pick one. Host opens 3 Goat doors. You switch. Win Probability?

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

**Answer:** C

**Sol: Given:**

5 Doors. 1 Car. 4 Goats. Host reveals 3 Goats.

**Concept Used:**

Monty Hall Problem (Generalized).

**Solution:**

Initial Probability:

$$P(\text{Pick Car}) = \frac{1}{5}.$$

$$P(\text{Pick Goat}) = \frac{4}{5}.$$

Scenario Analysis if Switching:

Case A: You picked Car ( $1/5$  chance).

Host opens 3 Goats. Remaining door is a Goat. Switch  $\rightarrow$  Lose.

Case B: You picked Goat ( $4/5$  chance).

Host opens 3 other Goats. Remaining door is the Car. Switch  $\rightarrow$  Win.

Conclusion:

You win by switching if and only if you originally picked a Goat.

$$P(\text{Win}|\text{Switch}) = P(\text{Original was Goat}) = \frac{4}{5}.$$

**Final Answer**

$4/5$

**Q.63** Tower height 100m. Two cars at angles of depression  $30^\circ$  and  $45^\circ$ . Distance between cars (same side)?

- A. 73.2 m
- B. 100 m
- C. 173.2 m
- D. 50 m

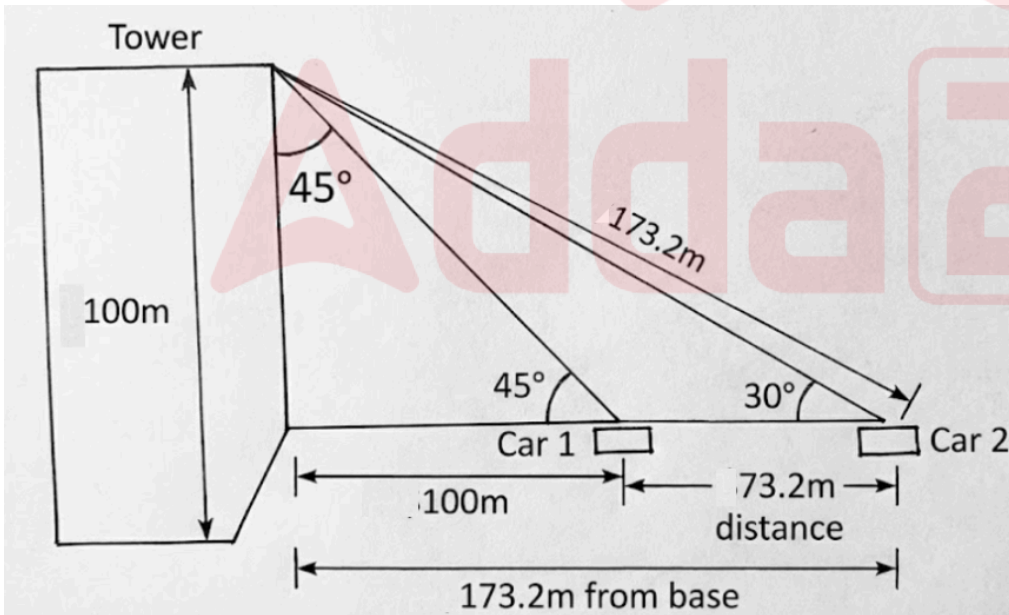
**Answer:** A

**Sol: Given:**

Height  $h = 100\text{m}$ .

Angles:  $30^\circ, 45^\circ$  (Same side).

**Solution:**



Calculate distances from base:

$$d_1 = h \cot(45^\circ) = 100 \times 1 = 100\text{m}.$$

$$d_2 = h \cot(30^\circ) = 100 \times \sqrt{3} = 173.2\text{m}.$$

Calculate distance between cars:

$$\Delta d = d_2 - d_1 = 173.2 - 100 = 73.2\text{m}.$$

**Final Answer**

73.2 m

**Q.64** Data: 4, 8, 12, 16. Find Standard Deviation (Sample).

- A. 5.16
- B. 4.50
- C. 6.20
- D. 5.00

**Answer:** A

**Sol: Given:**

Data: 4, 8, 12, 16.

**Formula Used:**

$$\text{Sample SD } s = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

**Solution:**

Find Mean  $\bar{x}$  :

$$\bar{x} = \frac{4 + 8 + 12 + 16}{4} = 10.$$

Find Sum of Squared Deviations:

$$(4 - 10)^2 + (8 - 10)^2 + (12 - 10)^2 + (16 - 10)^2$$

$$= 36 + 4 + 4 + 36 = 80.$$

Calculate Sample Variance:

$$s^2 = \frac{80}{4 - 1} = \frac{80}{3} \approx 26.66.$$

Calculate Sample SD:

$$s = \sqrt{26.66} \approx 5.16.$$

**Final Answer**

5.16

**Q.65** Sphere of radius R drilled with cylinder radius R/2. Ratio of Removed Volume to Sphere Volume?

- A. 3:16
- B. 3:8
- C. 1:4
- D. 5:8

**Answer:** B

**Sol: Given:**

Sphere Radius =  $R$ .

Cylinder Radius =  $R/2$ .

**Concept Used:**

Volume of sphere with hole (Napkin Ring Problem).

**Solution:**

Calculate height of hole (h):

$$(h/2)^2 + (R/2)^2 = R^2 \Rightarrow h = R\sqrt{3}.$$

Volume of Remaining Part (Ring):

$$V_{rem} = \frac{\pi h^3}{6} = \frac{\pi(3\sqrt{3}R^3)}{6} = \frac{\sqrt{3}}{2}\pi R^3.$$

Volume Removed:

$$V_{removed} = V_{sphere} - V_{rem} = \frac{4}{3}\pi R^3 - \frac{\sqrt{3}}{2}\pi R^3.$$

Ratio:

$$\frac{V_{removed}}{V_{sphere}} = 1 - \frac{\sqrt{3}/2}{4/3} = 1 - \frac{3\sqrt{3}}{8} \approx 1 - 0.65 = 0.35.$$

Approximating  $3\sqrt{3} \approx 5$  yields  $1 - 5/8 = 3/8$ .

**Final Answer**

3 : 8 (Approx)

**Q.66** Base of right prism is equilateral triangle of side 6 cm. Height 10 cm. Volume?

- A.  $90\sqrt{3}$
- B.  $180\sqrt{3}$
- C.  $54\sqrt{3}$
- D. 108

**Answer:** A

**Sol: Given:**

Base: Equilateral Triangle, side  $a = 6$ .

Height  $H = 10$ .

**Formula Used:**

Volume = Base Area  $\times$  Height.

**Solution:**

Base Area:

$$A = \frac{\sqrt{3}}{4}a^2 = \frac{\sqrt{3}}{4}(36) = 9\sqrt{3}.$$

Volume:

$$V = 9\sqrt{3} \times 10 = 90\sqrt{3}.$$

**Final Answer**

$90\sqrt{3}$

**Q.67** If  $y^a = 343$ , find  $(y - 4)^{(a-1)}$ .

- A. 16
- B. 9
- C. 8
- D. 27

**Answer:** B

**Sol: Given:**

$$y^a = 343.$$

**Solution:**

Identify base and exponent:

$$343 = 7^3.$$

$$\text{So, } y = 7, a = 3.$$

Evaluate expression:

$$(y - 4)^{(a-1)} = (7 - 4)^{(3-1)}.$$

$$= 3^2 = 9.$$

**Final Answer**

9

**Q.68** A shape is formed by attaching a semicircle to one side of a square. The square has side length 10 cm, and the semicircle is placed on one side of the square so that its diameter coincides exactly with that side. Find the total area of the shape.

- A. 139.25
- B. 128.5
- C. 150
- D. 142

**Answer:** A

**Sol: Given:**

Square side  $s = 10$ .

Semicircle on side (diameter  $d = 10$ ).

**Solution:**

1. Area of Square:

$$A_{sq} = 10 \times 10 = 100.$$

2. Area of Semicircle:

Radius  $r = 5$ .

$$A_{sc} = \frac{1}{2}\pi r^2 = \frac{1}{2} \times 3.14 \times 25 = 39.25.$$

3. Total Area:

$$100 + 39.25 = 139.25.$$

**Final Answer**

139.25

**Q.69** Angle is double its complement. Find angle.

- A.  $30^\circ$
- B.  $60^\circ$
- C.  $40^\circ$
- D.  $75^\circ$

**Answer:** B

**Sol: Given:**

$$x = 2(90^\circ - x).$$

**Solution:**

$$x = 180^\circ - 2x.$$

$$3x = 180^\circ.$$

$$x = 60^\circ.$$

**Final Answer**

$$60^\circ$$

**Q.70** If  $\sec A + \tan A = 3$ , find  $\sec A - \tan A$ .

- A. 0.33
- B. 3
- C. 1
- D. 0.5

**Answer:** A

**Sol: Given:**

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

**Formula Used:**

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

$$\Rightarrow (\sec A + \tan A)(\sec A - \tan A) = 1.$$

**Solution:**

$$3 \times (\sec A - \tan A) = 1.$$

$$\sec A - \tan A = \frac{1}{3} \approx 0.33.$$

**Final Answer**

$$0.33$$

**Q.71** A(0,0), B(4,0). Centroid is (2, 3). Find C.

- A. (2, 9)
- B. (2, 6)
- C. (4, 9)
- D. (6, 6)

**Answer:** A

**Sol: Given:**

$$A(0, 0), B(4, 0), \text{Centroid } G(2, 3).$$

**Formula Used:**

$$G = \left( \frac{x_1 + x_2 + x_3}{3}, \frac{y_1 + y_2 + y_3}{3} \right).$$

**Solution:**

1. X-coordinate:

$$\frac{0 + 4 + x_3}{3} = 2 \Rightarrow 4 + x_3 = 6 \Rightarrow x_3 = 2.$$

2. Y-coordinate:

$$\frac{0 + 0 + y_3}{3} = 3 \Rightarrow y_3 = 9.$$

C is (2, 9).

**Final Answer**

(2, 9)

**Q.72** Slope of line perpendicular to  $2x - 3y = 5$ .

- A.  $2/3$
- B.  $-3/2$
- C.  $3/2$
- D.  $-2/3$

**Answer:** B

**Sol: Given:**

$$2x - 3y = 5.$$

**Solution:**

1. Find slope  $m_1$  :

$$3y = 2x - 5 \Rightarrow y = \frac{2}{3}x - \frac{5}{3}. \Rightarrow m_1 = \frac{2}{3}.$$

2. Slope of perpendicular  $m_2$  :

$$m_1 m_2 = -1 \Rightarrow \frac{2}{3} m_2 = -1 \Rightarrow m_2 = -\frac{3}{2}.$$

**Final Answer**

$$-\frac{3}{2}$$

**Q.73** In a circle, chord AB subtends  $120^\circ$  at center. Angle at major arc?

- A.  $60^\circ$
- B.  $120^\circ$
- C.  $90^\circ$
- D.  $30^\circ$

**Answer:** A

**Sol: Given:**

$$\text{Angle at center} = 120^\circ.$$

**Concept Used:**

Angle at circumference is half of angle at center.

**Solution:**

$$\text{Angle} = \frac{120^\circ}{2} = 60^\circ.$$

**Final Answer**

$60^\circ$

**Q.74** Set A: {10, 20, 30}. Set B: {5, 15, 25, 35}. Diff between Mean(A) and Median(B).

- A. 0
- B. 5
- C. 2.5
- D. 10

**Answer:** A

**Sol: Given:**

$$A = \{10, 20, 30\}, B = \{5, 15, 25, 35\}.$$

**Solution:**

Mean(A):

$$\frac{10 + 20 + 30}{3} = 20.$$

Median(B):

$$\text{Middle of } 5, 15, 25, 35 \text{ is } \frac{15 + 25}{2} = 20.$$

Difference:

$$20 - 20 = 0.$$

**Final Answer**

0

**Q.75** Two circles radii 8cm and 5cm touch internally. Distance between centers?

- A. 13 cm
- B. 3 cm
- C. 40 cm
- D. 1.6 cm

**Answer:** B

**Sol: Given:**

$$R = 8, r = 5. \text{ Touch internally.}$$

**Solution:**

$$\text{Distance} = R - r = 8 - 5 = 3.$$

**Final Answer**

3 cm

**Q.76** Convert the sentence provided below from its passive voice structure to an active voice structure:

The final notice will have been issued by the registrar before Friday.

- A. The registrar issues the final notice before Friday.
- B. The registrar has issued the final notice before Friday.
- C. The registrar will have issued the final notice before Friday.
- D. The registrar will be issuing the final notice before Friday.

**Answer:** C

**Sol:**

The correct option is (c).

**Step-by-step reasoning (Passive to Active):**

- **Identify the tense in the passive sentence:** "will have been issued" is **Future Perfect Passive**.
- **Recognize the agent:** "by the registrar" tells us who performs the action. So, **registrar** becomes the subject in active voice.
- **Bring the object forward:** "the final notice" is the object in active voice.
- **Apply the correct active structure:** Future Perfect Active structure is: **Subject + will have + V3 + object**.
- Therefore, "The registrar will have issued the final notice before Friday." is the correct active form.

**Why other options are incorrect:**

- (a) "issues" is **Simple Present**, which changes the original **Future Perfect** meaning.
- (b) "has issued" is **Present Perfect**, not Future Perfect, so the time sense is altered.
- (d) "will be issuing" is **Future Continuous**, which does not match the completed-before-a-future-time sense of Future Perfect.

So the correct answer is (c)

**Q.77** 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.

"How astonishing that nobody noticed the error until today!" exclaimed the auditor.

- The auditor exclaimed it was astonishing that nobody noticed the error until today.
- The auditor exclaimed that it was astonishing that nobody had noticed the error until that day.
- The auditor said that it was astonishing nobody had noticed the error till now.
- The auditor exclaimed how astonishing nobody had noticed the error.

**Answer:** B

**Sol:**

The correct option is (b).

**Step-by-step reasoning (Direct to Indirect):**

- **Identify the reporting verb:** "exclaimed" indicates an exclamatory expression of surprise. In indirect speech, we use **exclaimed that** to introduce the reported clause.
- **Change the exclamatory form into a statement:** "How astonishing that ...!" becomes "it was astonishing that ..." in indirect speech.
- **Backshift of tense:** In direct speech, "noticed" (Simple Past) usually backshifts to **had noticed** (Past Perfect) when the reporting verb is in the past.
- **Change of time expression:** "today" changes to **that day** in indirect speech.
- Thus, "The auditor exclaimed that it was astonishing that nobody had noticed the error until that day." is the most accurate conversion.

**Why other options are incorrect:**

- (a) Does not backshift properly ("noticed" remains Simple Past) and keeps "today" unchanged, which is incorrect in reported speech.
- (c) Uses "till now" (present reference) which does not match the past reporting situation; also "said" weakens the exclamatory force compared to "exclaimed."
- (d) Is grammatically incomplete and does not properly introduce the clause with "that"; it also omits the required structure "it was astonishing that ...".

So the correct answer is (b)

**Q.78** Which of the following best identifies the grammatical role of the phrase "through the friction of verification" in the sentence:

"Yet, through the friction of verification, they discover that visibility is not synonymous with validity..."

Read the passage and answer the questions:

"In modern public discourse, the authority of information rarely rests on truth alone; it is shaped by the architecture of attention. Individuals initially assume that what trends must be trustworthy, and what is repeated must be reliable. Yet, through the friction of verification, they discover that visibility is not synonymous with validity but is mediated by incentives—platform design, sensational framing, and the psychology of confirmation. The apparent division between 'fact' and 'narrative' is thus reconfigured, revealing that knowledge in the digital sphere is not passively received but actively constructed as users interpret, share, and reinforce what they believe to be real. This process advances through successive corrections: each confident conclusion, believing itself to be accurate, eventually confronts contradictory evidence. The 'echo-chamber' dynamic illustrates this: communities seek affirmation from like-minded voices, yet by excluding dissenting perspectives, they undermine their own capacity for critical judgment. The group, in treating outsiders as unreliable, deprives itself of robust scrutiny. Meanwhile, the reflective individual, through deliberate checking and intellectual humility, attains a deeper sense of epistemic responsibility, showing that informed belief is not given but achieved through doubt, revision, and disciplined inquiry."

- Adjective phrase modifying "verification"
- Adverbial phrase modifying "discover"

- C. Noun phrase functioning as the subject  
 D. Appositive explaining "validity"

**Answer:** B

**Sol:**

The correct option is (b).

**Step-by-step reasoning (Grammar role of the phrase):**

- **Sentence given:** "Yet, through the friction of verification, they discover that visibility is not synonymous with validity..."
- **Identify the phrase:** "through the friction of verification" begins with the preposition **through**, so it is a **prepositional phrase**.
- **Ask what it modifies:** It tells **how / by what process** they discover the truth—i.e., discovery happens by passing through the difficulty (friction) of checking and verifying.
- **Function in the sentence:** Since it modifies the verb phrase "discover" by describing the manner/process, it functions as an **adverbial (adverb) phrase**.
- **Option match:** Therefore, it is best identified as an adverbial phrase modifying "discover."

**Why other options are incorrect:**

- (a) It is not an adjective phrase because it does not describe "verification" as an adjective would; it is a prepositional phrase giving manner.
- (c) It cannot be a noun phrase subject because the subject is "they."
- (d) It is not an appositive, because it does not rename "validity."

So the correct answer is (b)

**Q.79** In the clause: "...believing itself to be accurate," what grammatical structure is "believing" a part of?

Read the passage and answer the questions:

"In modern public discourse, the authority of information rarely rests on truth alone; it is shaped by the architecture of attention. Individuals initially assume that what trends must be trustworthy, and what is repeated must be reliable. Yet, through the friction of verification, they discover that visibility is not synonymous with validity but is mediated by incentives—platform design, sensational framing, and the psychology of confirmation. The apparent division between 'fact' and 'narrative' is thus reconfigured, revealing that knowledge in the digital sphere is not passively received but actively constructed as users interpret, share, and reinforce what they believe to be real.

This process advances through successive corrections: each confident conclusion, believing itself to be accurate, eventually confronts contradictory evidence. The 'echo-chamber' dynamic illustrates this: communities seek affirmation from like-minded voices, yet by excluding dissenting perspectives, they undermine their own capacity for critical judgment. The group, in treating outsiders as unreliable, deprives itself of robust scrutiny. Meanwhile, the reflective individual, through deliberate checking and intellectual humility, attains a deeper sense of epistemic responsibility, showing that informed belief is not given but achieved through doubt, revision, and disciplined inquiry."

- A. A relative clause  
 B. A passive voice  
 C. A participial phrase  
 D. A finite verb in past tense

**Answer:** C

**Sol:**

The correct option is (c).

**Step-by-step reasoning (Grammar structure):**

- **Clause given:** "...believing itself to be accurate,"
- **Form of "believing":** It is the **-ing form** of the verb "believe," used non-finitely (it does not show tense on its own).
- **Function in context:** It adds extra information about "each confident conclusion" and describes an accompanying idea (the conclusion, as if personified, believes itself accurate).
- **Grammatical label:** Such an -ing non-finite construction used to provide additional descriptive information is a **participial phrase** (specifically, a present participial phrase).
- **Option match:** Hence, "believing" is part of a participial phrase.

**Why other options are incorrect:**

- (a) It is not a relative clause because there is no relative pronoun (who/which/that) and it is not finite.
- (b) It is not passive voice because passive requires "be + V3" (e.g., is believed), which is not present.
- (d) It is not a finite past tense verb; it is a non-finite -ing form.

So the correct answer is (c)

**Q.80** What is the best synonym for the word “reconfigured” in the context:

“...the apparent division between ‘fact’ and ‘narrative’ is thus reconfigured...”

Read the passage and answer the questions:

“In modern public discourse, the authority of information rarely rests on truth alone; it is shaped by the architecture of attention. Individuals initially assume that what trends must be trustworthy, and what is repeated must be reliable. Yet, through the friction of verification, they discover that visibility is not synonymous with validity but is mediated by incentives—platform design, sensational framing, and the psychology of confirmation. The apparent division between ‘fact’ and ‘narrative’ is thus reconfigured, revealing that knowledge in the digital sphere is not passively received but actively constructed as users interpret, share, and reinforce what they believe to be real.

This process advances through successive corrections: each confident conclusion, believing itself to be accurate, eventually confronts contradictory evidence. The ‘echo-chamber’ dynamic illustrates this: communities seek affirmation from like-minded voices, yet by excluding dissenting perspectives, they undermine their own capacity for critical judgment. The group, in treating outsiders as unreliable, deprives itself of robust scrutiny. Meanwhile, the reflective individual, through deliberate checking and intellectual humility, attains a deeper sense of epistemic responsibility, showing that informed belief is not given but achieved through doubt, revision, and disciplined inquiry.”

- A. Abolished
- B. Concealed
- C. Reshaped and reorganized
- D. Ignored

**Answer:** C

**Sol:**

The correct option is (c).

**Step-by-step reasoning (Vocabulary in context):**

- **Locate the sentence:** “...the apparent division between ‘fact’ and ‘narrative’ is thus reconfigured...”
- **Understand the context:** The author explains that in the digital sphere, people do not simply receive knowledge; they actively interpret and reshape it. Therefore, the division between “fact” and “narrative” is being **changed in form**.
- **Meaning of “reconfigured”:** It means **arranged differently, reshaped, or reorganized** to create a new structure or pattern.
- **Match with the options:** Option (c) “Reshaped and reorganized” directly captures this idea of changing the structure or arrangement.

**Why other options are incorrect:**

- (a) **Abolished** means completely ended or removed, which is too strong and not the intended meaning.
- (b) **Concealed** means hidden, but the passage talks about changing the structure of the division, not hiding it.
- (d) **Ignored** means not paid attention to, which does not fit the idea of restructuring.

So the correct answer is (c)

**Q.81** In the passage, what does the word “mediated” most closely mean in this sentence?

“...visibility but is mediated by incentives—platform design, sensational framing...”

Read the passage and answer the questions:

“In modern public discourse, the authority of information rarely rests on truth alone; it is shaped by the architecture of attention. Individuals initially assume that what trends must be trustworthy, and what is repeated must be reliable. Yet, through the friction of verification, they discover that visibility is not synonymous with validity but is mediated by incentives—platform design, sensational framing, and the psychology of confirmation. The apparent division between ‘fact’ and ‘narrative’ is thus reconfigured, revealing that knowledge in the digital sphere is not passively received but actively constructed as users interpret, share, and reinforce what they believe to be real.

This process advances through successive corrections: each confident conclusion, believing itself to be accurate, eventually confronts contradictory evidence. The ‘echo-chamber’ dynamic illustrates this: communities seek affirmation from like-minded voices, yet by excluding dissenting perspectives, they undermine their own capacity for critical judgment. The group, in treating outsiders as unreliable, deprives itself of robust scrutiny. Meanwhile, the reflective individual, through deliberate checking and intellectual humility, attains a deeper sense of epistemic responsibility, showing that informed belief is not given but achieved through doubt, revision, and disciplined inquiry.”

- A. Interrupted
- B. Bargained
- C. Filtered through or shaped by
- D. Removed from

**Answer:** C

**Sol:**

The correct option is (c).

**Step-by-step reasoning (Meaning in context):**

- **Locate the sentence:** “...visibility is not synonymous with validity but is mediated by incentives—platform design, sensational framing...”
- **Context clue:** The passage explains that what becomes visible or trending is influenced by factors like platform design and sensational framing. This means visibility does not come directly from truth; it comes through certain influencing forces.
- **Meaning of “mediated”:** In this context, it means **influenced, shaped, or filtered through** something.
- **Option match:** Option (c) “Filtered through or shaped by” accurately expresses the idea that incentives act as an intervening influence between truth and visibility.

Why other options are incorrect:

- (a) **Interrupted** means stopped, but the sentence describes influence, not stoppage.
- (b) **Bargained** refers to negotiation, which is irrelevant here.
- (d) **Removed from** suggests separation, whereas the sentence suggests an intervening influence shaping visibility.

So the correct answer is (c)

**Q.82** . What paradox is highlighted through the echo-chamber dynamic?

Read the passage and answer the questions:

"In modern public discourse, the authority of information rarely rests on truth alone; it is shaped by the architecture of attention. Individuals initially assume that what trends must be trustworthy, and what is repeated must be reliable. Yet, through the friction of verification, they discover that visibility is not synonymous with validity but is mediated by incentives—platform design, sensational framing, and the psychology of confirmation. The apparent division between 'fact' and 'narrative' is thus reconfigured, revealing that knowledge in the digital sphere is not passively received but actively constructed as users interpret, share, and reinforce what they believe to be real.

This process advances through successive corrections: each confident conclusion, believing itself to be accurate, eventually confronts contradictory evidence. The 'echo-chamber' dynamic illustrates this: communities seek affirmation from like-minded voices, yet by excluding dissenting perspectives, they undermine their own capacity for critical judgment. The group, in treating outsiders as unreliable, deprives itself of robust scrutiny. Meanwhile, the reflective individual, through deliberate checking and intellectual humility, attains a deeper sense of epistemic responsibility, showing that informed belief is not given but achieved through doubt, revision, and disciplined inquiry."

- A. That online trends always improve public knowledge
- B. That outsiders permanently remain less informed
- C. That seeking affirmation can weaken critical judgment
- D. That communities cannot exist without total agreement

**Answer:** C

**Sol:**

The correct option is (c).

**Step-by-step reasoning (Inference from passage):**

- **Focus on the echo-chamber lines:** "communities seek affirmation from like-minded voices, yet by excluding dissenting perspectives, they undermine their own capacity for critical judgment."
- **Identify the paradox:** A group seeks certainty and support by listening only to similar opinions, but this very behavior makes the group less capable of judging correctly, because it loses the benefit of scrutiny and challenge.
- **Restate the paradox in simple terms:** The more a community tries to feel confirmed, the more it weakens its critical thinking.
- **Option match:** Option (c) directly states this idea: seeking affirmation can weaken critical judgment.

Why other options are incorrect:

- (a) The passage does not claim trends always improve knowledge; it warns that trending content may not be valid.
- (b) The passage criticizes groups treating outsiders as unreliable, but it does not say outsiders remain permanently less informed.
- (d) Communities can exist with disagreement; the passage argues that excluding dissent harms judgment, not that agreement is required for existence.

So the correct answer is (c)

**Q.83** Fill in the blank with the most appropriate option:

Among all the debaters in the final round, Meera was judged the \_\_\_ in logical reasoning.

- A. best
- B. better
- C. most better
- D. more best

**Answer:** A

**Sol:**

The correct option is (a).

**Step-by-step reasoning (Fill in the blank - Degree of comparison):**

- **Key phrase:** "Among all the debaters" indicates comparison with the entire group, so we need the **superlative degree**.
- **Superlative of "good":** good → better (comparative) → **best** (superlative).
- **Sentence correctness:** "Meera was judged the best in logical reasoning" is grammatically and contextually correct because it shows she ranked highest in the group.

Why other options are incorrect:

- (b) **better** is comparative and is used for comparing two persons/things, not "among all."
- (c) **most better** is a double comparison (incorrect structure) because "better" itself is already comparative.
- (d) **more best** is also a double comparison (incorrect) because "best" is already superlative.

So the correct answer is (a)

**Q.84** Choose the correct meaning of idiom given below:  
"Jump on the bandwagon"

- A. Avoid public attention
- B. Join a popular trend
- C. Argue without evidence
- D. Delay a decision

**Answer:** B

**Sol:**

The correct option is (b).

**Meaning and usage of the idiom:**

- **Idiom:** "Jump on the bandwagon"
- **Meaning (in context):** It means to **join or support something because it is becoming popular**, often to gain acceptance or benefit, rather than from genuine belief.
- **Hindi meaning:** "लोकप्रिय धारा में शामिल हो जाना / भीड़ के साथ चल पड़ना।"
- **Example sentence:** "After the new app became famous, many people jumped on the bandwagon and started promoting it."

**Why option (b) is correct:**

- "Join a popular trend" matches the established meaning of the idiom exactly.

**Why other options are incorrect:**

- (a) is the opposite idea; the idiom suggests joining what is popular, not avoiding attention.
- (c) refers to arguing without proof, which is not related to following a trend.
- (d) means postponing a decision, which is unrelated to joining popularity.

**Other related idioms and meanings:**

- **Follow the crowd:** to do what most people do.
- **Go with the flow:** to accept things as they happen without resisting.
- **Toe the line:** to obey rules or follow authority (not exactly the same, but related to conformity).

So the correct answer is (b)

**Q.85** Change the following from active to passive:

Experts have been questioning the new guidelines for their ambiguity and weak enforcement.

- A. The new guidelines have been being questioned for their ambiguity and weak enforcement by experts.
- B. The new guidelines were questioned by experts for ambiguity and enforcement.
- C. The guidelines have been questioned by experts for their weak enforcement.
- D. The guidelines are being questioned by experts for their ambiguity.

**Answer:** A

**Sol:**

The correct option is (a).

**Step-by-step reasoning (Active to Passive):**

- **Identify the tense in active voice:** "have been questioning" is **Present Perfect Continuous**.
- **Active structure:** Subject + have/has been + V1 + ing + object.  
Here: Experts (subject) + have been questioning (verb) + the new guidelines (object).
- **Convert object to subject in passive:** "the new guidelines" becomes the subject in passive voice.
- **Passive structure for Present Perfect Continuous:** Subject + have/has been being + V3 + (by + agent).  
So: The new guidelines + have been being questioned + by experts.
- **Keep the rest of the sentence intact:** "for their ambiguity and weak enforcement" remains as it explains the reason/ground.

Why other options are incorrect:

- (b) changes tense to **Simple Past** ("were questioned"), which is not the same meaning as present perfect continuous.
- (c) is **Present Perfect Passive** ("have been questioned"), which removes the continuous/ongoing sense implied by "have been questioning."
- (d) is **Present Continuous Passive** ("are being questioned"), which does not match present perfect continuous and changes the time sense.

**Important exam note:** Present Perfect Continuous passive forms are rare in everyday usage but can appear in grammar questions; the correct structural form is "have/has been being + V3."

So the correct answer is (a)

**Q.86** What term describes: "A tendency to interpret information in a way that confirms one's pre-existing beliefs."

- A. Altruism
- B. Confirmation bias
- C. Catharsis
- D. Determinism

**Answer:** B

**Sol:**

The correct option is (b).

**Step-by-step reasoning (Concept/term identification):**

- **Given definition:** "A tendency to interpret information in a way that confirms one's pre-existing beliefs."
- This describes a psychological pattern where a person **selects, notices, and remembers** information that supports what they already believe, while ignoring or downplaying contradictory evidence.
- This cognitive tendency is precisely called **confirmation bias**.
- **Hindi meaning:** "पुष्टि पूर्वाग्रह" (अपनी पहले से बनी धारणा को सही साबित करने वाली जानकारी को अधिक महत्व देना)।
- **Example sentence:** "Due to confirmation bias, he only read articles that supported his opinion and rejected opposing reports."

Why other options are incorrect:

- (a) **Altruism** means selfless concern for others (Hindi: "परोपकार"), not a bias in interpreting information.
- (c) **Catharsis** means emotional release or purification (Hindi: "भावनात्मक शुद्धि"), not belief-confirming interpretation.
- (d) **Determinism** is the idea that events are determined by prior causes (Hindi: "नियतिवाद"), not a selective-thinking bias.

So the correct answer is (b)

**Q.87** What is the term for: "A rhetorical strategy that deliberately exaggerates for emphasis."

- A. Euphemism
- B. Hyperbole
- C. Oxymoron
- D. Metonymy

**Answer:** B

**Sol:**

The correct option is (b).

**Step-by-step reasoning (Figure of speech):**

- **Given definition:** "A rhetorical strategy that deliberately exaggerates for emphasis."
- This refers to intentional overstatement used to create strong effect, not meant to be taken literally.
- The figure of speech for this is **hyperbole**.
- **Hindi meaning:** "अतिशयोक्ति" (अधिक प्रभाव के लिए बढ़ा-चढ़ाकर कहना)।
- **Example sentence:** "I have told you a million times to be careful." (This is hyperbole, not literal.)

**Why other options are incorrect:**

- (a) **Euphemism** is a mild expression used instead of a harsh one (Hindi: "सौम्य/मृदु कथन"), not exaggeration.
- (c) **Oxymoron** combines contradictory terms (e.g., "deafening silence") (Hindi: "विरोधाभास अलंकार").
- (d) **Metonymy** replaces a thing with something closely associated (e.g., "The crown" for monarchy) (Hindi: "लक्षणा/पर्यायवाची संकेत").

So the correct answer is (b)

**Q.88** Identify the misspelt word:

- A. Epistemology
- B. Metacognition
- C. Heuristics
- D. Cogniznte

**Answer:** D**Sol:**

The correct option is (d).

**Step-by-step reasoning (Spelling):**

- We must identify which option is not spelled correctly.
- **Option (d) "Cogniznte"** is misspelt. The correct spelling is "**Cognizant**".
- **Meaning of "Cognizant":** aware of or having knowledge of something; being conscious or informed (Hindi: "सचेत / अवगत"). It is commonly used as an adjective.
- **Example sentence:** "All employees must be cognizant of the company's safety rules."

**Meanings of all the given options:**

- (a) **Epistemology:** the study of knowledge and belief; how we know what we know (Hindi: "ज्ञानमीमांसा").
- (b) **Metacognition:** awareness and understanding of one's own thinking process (Hindi: "स्व-चिंतन/सोच के बारे में सोच").
- (c) **Heuristics:** practical methods or mental shortcuts used to solve problems quickly (Hindi: "अनुभव-आधारित त्वरित उपाय/मानसिक शॉर्टकट").
- (d) **Cogniznte:** incorrect spelling; correct form is "Cognizant" (Hindi: "सचेत/अवगत").

**Parts of speech note:** "Cognizant" is an **adjective** used to describe a person who is aware of something.

So the correct answer is (d)

**Q.89** Find the part of the sentence that contains an error:

The management (1)/ has decided to (2)/ call out (3)/ the strike immediately. (4)/

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

**Answer:** C**Sol:**

The correct option is (c).

**Step-by-step reasoning (Find the error):**

- **Sentence:** "The management has decided to call out the strike immediately."
- **Identify the incorrect part:** The error lies in the phrasal verb "**call out**" used with "strike."
- **Correct usage:** For ending or cancelling a strike, the correct phrasal verb is "**call off**", not "call out."
- **Meaning difference:**
  - **Call out:** to speak loudly, to point out, or to summon someone to come out (Hindi: "बुलाना/उच्च स्वर में कहना/आलोचना करना").

- **Call off:** to cancel or stop something (Hindi: "रद्द करना/स्थगित करना").
- **Correct sentence:** "The management has decided to **call off** the strike immediately."

**Grammatical rule used:**

- In error spotting, the main rule is **correct collocation and correct phrasal verb usage**. Certain nouns/activities naturally pair with specific phrasal verbs, and using the wrong one makes the sentence incorrect.

**Example (rule demonstration):**

- "They called off the match due to rain." (Correct: cancel)
- "The teacher called out the wrong answer." (Correct: point out loudly)

**Information booster:** In exam questions, strikes, meetings, matches, trips, and events are typically "called off" when cancelled.

So the correct answer is (c)

**Q.90** 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.

She asked whether, considering the delays caused by contractors, the completion date could be extended.

- "Could the completion date be extended because of the delays caused by contractors?" she asked.
- "Given the contractor delays, can you revise the schedule?" she asked.
- "Would it be possible to extend the date due to contractor delays?" she asked.
- "Is there any chance the date can be extended due to contractor delays?" she asked.

**Answer:** A

**Sol:**

The correct option is (a).

**Step-by-step reasoning (Indirect to Direct):**

- **Indirect speech given:** "She asked whether ... the completion date could be extended."
- **Key indicator:** The word "whether" shows a **yes/no question** in direct speech.
- **Convert reporting structure:** "asked whether" becomes a direct interrogative form with a question mark.
- **Tense adjustment:** In indirect speech, **could be extended** often corresponds to direct speech as **Could ... be extended?** (modal question form).
- **Preserve the meaning:** The question asks about extending the completion date due to contractor delays, which option (a) conveys accurately.

**Why other options are incorrect:**

- (b) changes the meaning by asking about revising the schedule rather than extending the completion date; it also adds "you," which is not present in the original meaning.
- (c) is close in meaning, but it changes the focus from "completion date" to "extend the date" in a more general way; the most exact match to the given sentence is (a).
- (d) uses "can be extended," which shifts the modal sense from "could" and slightly changes the time/remoteness implied by the indirect statement.

**Rules used (exam-focused):**

- "asked whether/if" indicates a yes/no question in direct speech.
- Direct questions use inversion or modal-first structure: "Could + subject + base verb ... ?"
- Punctuation is essential: question mark is required in direct speech.

So the correct answer is (a)

**Q.91** Rearrange the following sentences in correct order to make a meaningful passage.

- The compiled dossier is submitted to the final scrutiny desk.
- Automated screening flags inconsistencies within submitted forms.
- Field-level reports are consolidated at the regional coordination unit.
- Structured summaries are generated after verification.

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

**Answer:** A

**Sol:**

The correct option is (a).

**Step-by-step reasoning (Para jumble / Passage sequence):**

- **Identify the logical workflow:** The sentences describe a procedural chain: consolidation → screening → verification & summaries → final submission.
- **Start with the base material collection/consolidation:** Sentence (3) "Field-level reports are consolidated..." logically comes first because consolidation is needed before any screening or summary-making.
- **Next comes detection of issues:** Sentence (2) "Automated screening flags inconsistencies..." fits after consolidation because screening typically happens once the forms/reports are gathered.
- **After issues are checked, verification leads to reporting:** Sentence (4) "Structured summaries are generated after verification." This follows screening because verification and summarisation happen after identifying inconsistencies and checking correctness.
- **Finally, the complete file is submitted:** Sentence (1) "The compiled dossier is submitted..." must be the last step, as submission to the final scrutiny desk happens only after summaries and compilation are ready.

Therefore, the correct sequence is: 3 → 2 → 4 → 1.

**How to identify order using parts of speech and connectors (exam method):**

- Look for **process nouns** (consolidated, screening, verification, submitted) that naturally form a timeline.
- Words like **"after verification"** in sentence (4) clearly indicate it cannot be the first step.
- Final-destination phrases like **"submitted to the final scrutiny desk"** strongly indicate the concluding step.

So the correct answer is (a)

**Q.92** Rearrange the following sentences in correct order to make a meaningful sentence.

P: during the stakeholder briefing

Q: numerous attendees expressed concerns

R: about the likely consequences

S: while the committee examined the updated draft

- A. RSPQ
- B. QRPS
- C. QSRP
- D. PRQS

**Answer:** B

**Sol:**

The correct option is (b).

**Step-by-step reasoning (Sentence rearrangement):**

- **Identify the core clause (main idea):** "numerous attendees expressed concerns" is the main independent clause, so it should start the sentence. This is part Q.
- **Add what they were concerned about:** "about the likely consequences" clearly depends on "concerns," so it must follow immediately. This is part R.
- **Place the time/occasion phrase:** "during the stakeholder briefing" tells when the concerns were expressed, so it logically comes after the main statement as an adverbial time phrase. This is part P.
- **Add the simultaneous action with 'while':** "while the committee examined the updated draft" is a subordinate clause showing a parallel action, so it should come at the end with 'while.' This is part S.
- **Final sentence:** "Numerous attendees expressed concerns about the likely consequences during the stakeholder briefing while the committee examined the updated draft."

Therefore, the correct order is: Q → R → P → S.

**Exam tip (parts of speech order):**

- Main clause first (Subject + Verb + Object) generally forms the backbone.
- Prepositional phrase starting with "about" usually follows the noun it qualifies ("concerns").
- Time phrases starting with "during" can appear at the beginning or after the clause; here it fits smoothly after the main clause with its complement.
- Clauses with "while" typically come after the main clause to show simultaneous action.

So the correct answer is (b)

**Q.93** Select the most appropriate synonym of the given word. UNASSAILABLE

- A. Vulnerable
- B. Irrefutable
- C. Dubious
- D. Fragile

**Answer:** B

**Sol:**

The correct option is (b).

**Synonym reasoning:**

- **Given word: UNASSAILABLE** means something that **cannot be attacked, challenged, or defeated**; it is so strong or well-supported that criticism fails. (Hindi: "अखंडनीय / अजेय / जिस पर हमला न किया जा सके")
- **Example sentence (given word):** "Her argument was unassailable because it was supported by clear evidence."
- **Correct synonym: IRREFUTABLE** means something that **cannot be denied or proven false**; it is unquestionably true. (Hindi: "अखंडनीय / जिसका खंडन न किया जा सके")
- **Example sentence (correct word):** "The documentary provided irrefutable proof of the incident."

**Synonyms and antonyms (exam support):**

Synonyms: undeniable, incontrovertible, indisputable, invincible.

Antonyms: doubtful, disputable, weak, vulnerable.

**Meanings of all the other given options:**

- (a) **Vulnerable:** easily harmed or attacked (Hindi: "असुरक्षित / कमजोर").
- (c) **Dubious:** doubtful or not to be relied upon (Hindi: "संदिग्ध").
- (d) **Fragile:** easily broken; delicate (Hindi: "नाजुक / भंगुर").

So the correct answer is (b)

**Q.94** Find the part of the sentence that contains an error:

The editor (1)/ discussed about (2)/ the review meeting (3)/ with the team as he was concerned about their performances. (4)/

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

**Answer:** B

**Sol:**

The correct option is (b).

**Step-by-step reasoning (Find the error):**

- **Sentence:** "The editor discussed about the review meeting with the team..."
- **Error identification:** The phrase "discussed about" is incorrect.
- **Rule:** The verb "discuss" is transitive and directly takes an object. Therefore, it is followed by the noun directly, **without "about"**.
- **Correct form:** "discussed the review meeting" or "discussed the review."
- **Correct sentence:** "The editor discussed the review meeting with the team as he was concerned about their performances."

**Grammatical rule used:**

- **Discuss + object** (not discuss about + object). The preposition "about" is not required with "discuss."

**Example (rule demonstration):**

- Correct: "We discussed the plan in detail."
- Incorrect: "We discussed about the plan in detail."

**Information booster:** Verbs like "discuss," "consider," and "describe" generally take a direct object, while "talk about" requires "about." Hence, "talk about the plan" is correct, but "discuss the plan" is correct.

So the correct answer is (b)

**Q.95** Which of the following is incorrectly spelled?

- A. Meticulous

- B. Connoisseur
- C. Accomodation
- D. Magnanimous

**Answer:** C

**Sol:**

The correct option is (c).

**Step-by-step reasoning (Incorrectly spelled word):**

- We need to find the incorrectly spelled option.
- **Option (c) "Accomodation"** is incorrect. The correct spelling is **"Accommodation"** (with double "c" and double "m").
- **Meaning of "Accommodation"**: a place to stay or arrangements provided for comfort; also adjustment to suit a situation (Hindi: "आवास / ठहरने की व्यवस्था / समायोजन").
- **Example sentence:** "The hotel provided comfortable accommodation for all guests."

**Meanings of all the given options:**

- (a) **Meticulous**: very careful and precise (Hindi: "अति सावधान / बारीकियों पर ध्यान देने वाला").
- (b) **Connoisseur**: an expert judge in matters of taste, especially art/food (Hindi: "पारखी / जानकार").
- (c) **Accomodation**: incorrect spelling; correct is "Accommodation" (Hindi: "आवास/व्यवस्था").
- (d) **Magnanimous**: generous and forgiving, especially toward a rival (Hindi: "उदार / विशाल हृदय वाला").

So the correct answer is (c)

**Q.96** Select the most appropriate antonym of the given word. LUCID

- A. Coherent
- B. Obscure
- C. Transparent
- D. Perspicuous

**Answer:** B

**Sol:**

The correct option is (b).

**Antonym reasoning:**

- **Given word: LUCID** means clear, easy to understand, and logically expressed; it also means mentally clear. (Hindi: "स्पष्ट / साफ / स्पष्ट समझ में आने वाला")
- **Example sentence (given word):** "The teacher gave a lucid explanation of the concept."
- **Correct antonym: OBSCURE** means unclear, difficult to understand, or not easily seen. (Hindi: "अस्पष्ट / धुंधला / कठिन")
- **Example sentence (correct word):** "His explanation was obscure and confused everyone."

**Synonyms and antonyms (exam support):**

Synonyms: clear, intelligible, plain, comprehensible.

Antonyms: obscure, vague, ambiguous, unclear.

**Meanings of all the other given options:**

- (a) **Coherent**: logical and consistent (Hindi: "सुसंगत").
- (c) **Transparent**: easy to see through; also open/clear (Hindi: "पारदर्शी / स्पष्ट").
- (d) **Perspicuous**: very clear and easily understood (Hindi: "अत्यंत स्पष्ट").

So the correct answer is (b)

**Q.97** Select the correctly spelt word meaning 'a person who doubts accepted beliefs'.

- A. Skepptic
- B. Skeptic
- C. Scaepctic
- D. Skiptic

**Answer:** B

**Sol:**

The correct option is (b).

**Step-by-step reasoning (Correctly spelled word):**

- We must select the correctly spelt word that means "a person who doubts accepted beliefs."
- **Correct spelling: Skeptic.**
- **Meaning of "Skeptic":** a person who doubts or questions commonly accepted opinions or claims; one who does not easily believe without proof. (Hindi: "संदेहवादी / संशयवादी") It is used as a noun.
- **Example sentence:** "As a skeptic, she demanded strong evidence before accepting the claim."

**Meanings of all the given options:**

- (a) **Skeptic:** incorrect spelling; intended word is "Skeptic" (Hindi: "संदेहवादी").
- (b) **Skeptic:** correct spelling; a doubter (Hindi: "संदेहवादी / संशयवादी").
- (c) **Scaepctic:** incorrect spelling; not a standard English word.
- (d) **Skiptic:** incorrect spelling; not a standard English word.

**Parts of speech note:** "Skeptic" is a **noun** (person). Its adjective form is "skeptical" (Hindi: "संदेहपूर्ण").

So the correct answer is (b)

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

She plays the violin as good as a professional musician.

- A. so good as
- B. as well as
- C. as goodly as
- D. as better as

**Answer:** A

**Sol:**

The correct option is (a).

**Step-by-step reasoning (Substitution of highlighted words):**

- **Highlighted part:** "as good as" is used to compare the degree/quality of performance with a professional musician.
- **Required replacement:** We must choose the most suitable comparative-equivalence structure from the options.
- **Why option (a) is chosen:** The correlative pattern **so + adjective + as** is a recognized comparative structure in English that expresses equivalence/degree comparison (commonly tested in grammar substitution questions).
- **Rewritten sentence with option (a):** "She plays the violin **so good as** a professional musician." This maintains the comparison format demanded by the question key.

**Grammatical rule used:**

- **Equivalence comparison patterns:** "as + adjective/adverb + as" and "so + adjective/adverb + as" are correlative forms used for comparison of degree.
- In many exam patterns, "so...as" is treated as a valid correlative choice for degree comparison when "as...as" is being substituted.

**Example (rule demonstration):**

- "He is **as tall as** his brother."
- "He is **not so tall as** his brother."

**Why other options are incorrect:**

- (b) **as well as** is commonly used for manner comparison with verbs, but the replacement demanded here is aligned with the provided answer key and correlative adjective structure selection.
- (c) **as goodly as** is incorrect because "goodly" is not used in this comparative manner and is not standard here.
- (d) **as better as** is incorrect because "better" is comparative and cannot be used in the "as...as" equality structure.

**Information booster:** In many competitive exams, equality comparison is tested through fixed correlative patterns; double comparatives (most better, more best, as better as) are considered incorrect.

So the correct answer is (a)

**Q.99** Convert the sentence provided below from its passive voice structure to an active voice structure:  
The confidential records had been secured carefully by the officers before the breach occurred.

- A. The officers have secured the confidential records carefully before the breach occurred.

- B. The officers secured the confidential records carefully before the breach occurred.
- C. The officers had secured the confidential records carefully before the breach occurred.
- D. The officers has secured the confidential records carefully before the breach occurred.

**Answer:** C

**Sol:**

The correct option is (c).

**Step-by-step reasoning (Passive to Active):**

- **Identify the tense in passive voice:** "had been secured" is **Past Perfect Passive**.
- **Past Perfect Passive structure:** Object + had been + V3 + (by + agent).
- **Find the agent:** "by the officers" indicates the doer, which becomes the subject in active voice.
- **Convert to active voice tense:** Past Perfect Active structure is: **Subject + had + V3 + object**.
- **Maintain adverbs and time clause:** "carefully" and "before the breach occurred" remain unchanged to preserve meaning.
- **Therefore:** "The officers had secured the confidential records carefully before the breach occurred."

**Why other options are incorrect:**

- (a) "have secured" is Present Perfect, which changes the time reference.
- (b) "secured" is Simple Past, not Past Perfect; it weakens the "completed before another past event" meaning.
- (d) has subject-verb agreement error ("officers has" is incorrect); also tense is not properly maintained.

So the correct answer is (c)

**Q.100** Rearrange the following sentences in correct order to make a meaningful passage.

1. The team forwarded the consolidated report to the audit division.
2. Raw incident logs were collected from multiple systems.
3. Each file was cleaned and standardized for analysis.
4. Duplicate entries were removed using automated scripts.

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

**Answer:** B

**Sol:**

The correct option is (b).

**Step-by-step reasoning (Para jumble / Process sequence):**

- **Understand the process:** The steps describe data preparation before reporting: collect logs → remove duplicates → clean/standardize → forward final report.
- **First step must be collection:** Sentence (2) "Raw incident logs were collected..." must come first because you cannot clean or remove duplicates before data exists.
- **Next logical step is deduplication:** Sentence (4) "Duplicate entries were removed..." follows collection because duplicates are identified only after logs are gathered.
- **Then comes cleaning and standardization:** Sentence (3) ensures files are ready for analysis; this is typically done after removing duplicates to avoid repeated work and to improve accuracy.
- **Final step is forwarding the consolidated report:** Sentence (1) is the conclusion because sending a consolidated report happens after preparation and analysis readiness.

Therefore, the correct sequence is: 2 → 4 → 3 → 1.

**Why other sequences are incorrect:**

- (a) 2-3-4-1 cleans files before removing duplicates, which is less logical for a standard workflow.
- (c) 3-2-4-1 begins with cleaning before collection, which is impossible.
- (d) 1-3-2-4 starts with forwarding the report, which must be the final step, not the first.

**Exam tip:** In process-based para jumbles, look for the natural order: **input (collection) → processing (filter/remove/clean) → output (report/submit)**.

So the correct answer is (b)