

RBE SSC CHSL Tier-1 Live Mock November 02, 2025

Q. 1	<p>Select the option that is related to the third term in the same way as the second term is related to the first term and the sixth term is related to the fifth term.</p> <p>$5 : 24 :: 12 : ? :: 17 : 288$</p> <p>a) 143 ✓</p> <p>b) 123 ✗</p> <p>c) 152 ✗</p> <p>d) 172 ✗</p>
Explanation:	<p>Logic: Each second term = $(\text{first number})^2 - 1$</p> <ul style="list-style-type: none">For $5 : 2$$4 \rightarrow 5^2 - 1 = 25 - 1 = 24$For $17 : 288 \rightarrow 17^2 - 1 = 289 - 1 = 288$Therefore, for $12 : ? \rightarrow 12^2 - 1 = 144 - 1 = 143$

Q. 2

Select the option in which the given figure is embedded (rotation is NOT allowed).



a)



b)



c)



d)



Explanation:



Q. 3	<p>Each of the letters in the word DEMOCRACY are arranged from left to right in alphabetical order to form a new word. How many letters are there in the English alphabetical series between the alphabet which is third from the left and the one which is fifth from the right in the newly formed word?</p> <p>a) Three X</p> <p>b) Five X</p> <p>c) One ✓</p> <p>d) Six X</p>
Explanation:	<ul style="list-style-type: none"> The word is DEMOCRACY. Arranging letters alphabetically → A C C D E M O R Y Third from the left: C Fifth from the right: E Positions in the English alphabet: C = 3, E = 5 Letters between them = $5 - 3 - 1 = 1$ letter

Q. 4	<p>BXQE is related to MIBP in a certain way based on the English alphabetical order. In the same way, FATL is related to QLEW. To which of the following is BYJP related, following the same logic?</p> <p>a) MJUA ✓</p> <p>b) MUJA X</p> <p>c) MIUA X</p> <p>d) MJUZ X</p>
Explanation:	<ul style="list-style-type: none"> The logic used: Each letter in the first term is replaced by the letter that comes +11 positions ahead in the English alphabet. (After 'Z', the sequence continues from 'A' again.) For example: $B \rightarrow M, X \rightarrow I, Q \rightarrow B, E \rightarrow P$ (BXQE → MIBP) $F \rightarrow Q, A \rightarrow L, T \rightarrow E, L \rightarrow W$ (FATL → QLEW) Apply the same logic to BYJP: $B \rightarrow M, Y \rightarrow J, J \rightarrow U, P \rightarrow A$ <p>✓ BYJP → MJUA</p>

Q. 5

If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '−', then the resultant of which of the following will be 312?

- a) 48 B 6 A 96 D 4 C 8 X
- b) 64 A 8 D 72 B 6 C 12 X
- c) 52 B 6 D 48 A 4 C 12 ✓
- d) 72 C 6 D 48 A 4 B 8 X

Explanation:

$$\begin{aligned}52 \times 6 - 48 \div 4 + 12 \\= 312 - 12 + 12 \\= 312 \quad \text{✓}\end{aligned}$$

Q. 6

In this question, three statements are given, followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusion(s) logically follows/follow from the statements.

Statements:

No cat is a dog.

All cats are animals.

All animals are living beings.

Conclusions:

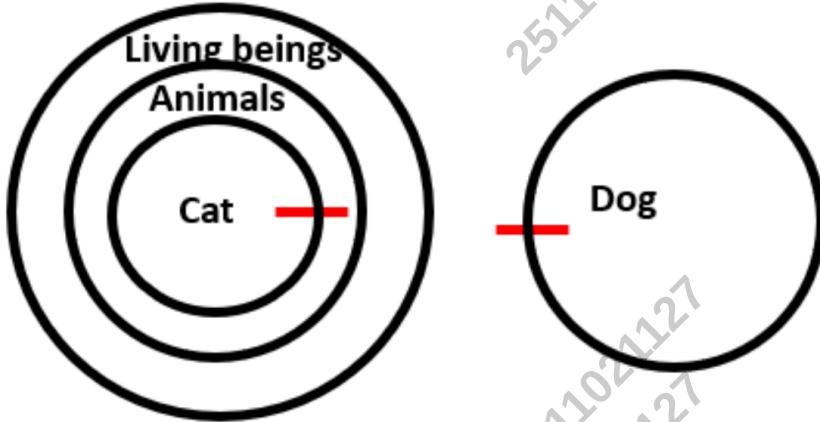
- I. Some animals are dogs.
- II. Some living beings are dog.
- III. All animals are dog.

a) Both conclusions I and II follow. X

b) Neither conclusion I, II nor III follows. ✓

c) Both conclusions II and III follow. X

d) Only conclusion II follows. X



Testing each conclusion

Explanation:

- **Conclusion I: Some animals are dogs.**
There is *no connection* between "animals" and "dogs" in the statements.
We only know that **no cat is a dog**, but we don't know about *other animals*.
Hence, **this conclusion does not follow**.
- **Conclusion II: Some living beings are dogs.**
Since all animals are living beings, and dogs are also living creatures (though not mentioned directly, syllogism logic demands only what is stated).
But because no direct statement connects "dogs" with "living beings", this cannot be assumed as true.
Hence, **this conclusion also does not follow**.
- **Conclusion III: All animals are dogs.**
This is clearly false because it contradicts the first statement "No cat is a dog."
Therefore, **this conclusion does not follow**.

Q. 7

A cube is made by folding the given sheet. In the cube so formed, which of the following pairs of numbers will be on opposite faces?



- a) 4 and 6
- b) 3 and 5
- c) 1 and 5
- d) 2 and 4

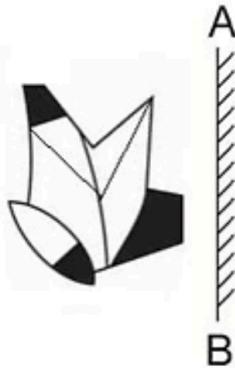
Explanation:

On folding the given figure into a cube:

- 1 and 4 will come on **opposite faces**.
- 2 and 6 will be **opposite faces**.
- 3 and 5 will also be **opposite faces**.

Q. 8

Select the correct mirror image of the given figure when the mirror is placed at 'AB' as shown.



a)



✗

b)



✗

c)

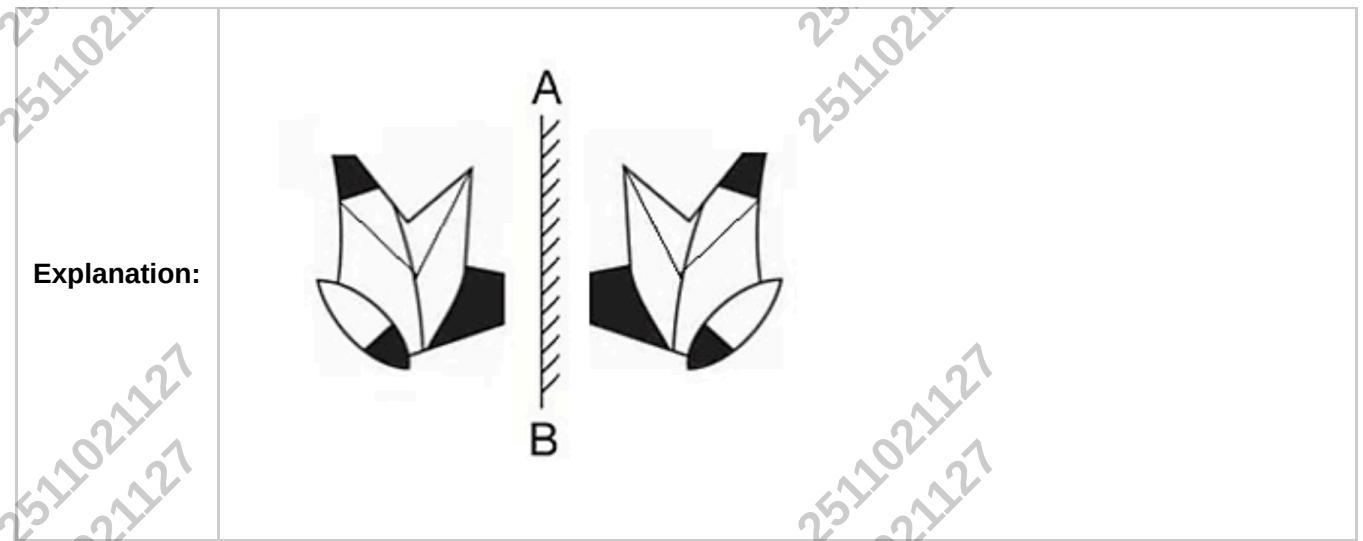
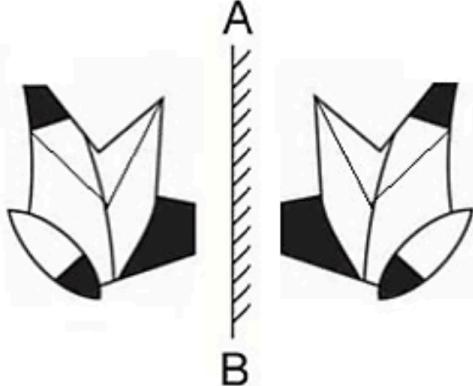


✗

d)



✓

**Explanation:****Q. 9**

What should come in place of ? in the given series based on the English alphabetical order?

PQR, LWA, HCJ, DIS, ?

- a) PCA ✗
- b) ZAA ✗
- c) ZOB ✓
- d) ZAC ✗

Explanation:

Let's observe the alphabetical pattern of each letter position:

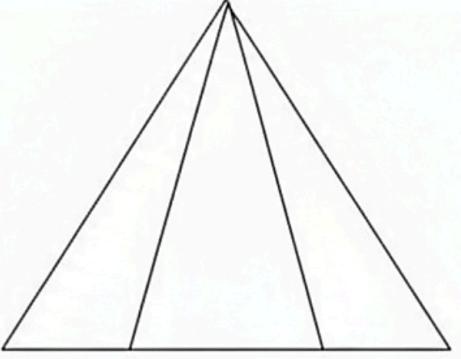
1st letters: P(16), L(12), H(8), D(4) → each decreases by 4 → next = Z(26)

2nd letters: Q(17), W(23), C(3), I(9) → each increases by 6 → next = O(15)

3rd letters: R(18), A(1), J(10), S(19) → each increases by 9 → next = B(2)

✓ Therefore, the next term = AOB

<p>Q. 10</p> <p>In a certain code language, 'sweet mango juice' is written as 'tk lp mr' and 'fresh juice bottle' is written as 'mr cz op'. How is 'juice' written in the given language?</p> <p>a) tk X</p> <p>b) mr ✓</p> <p>c) lp X</p> <p>d) cz X</p>	<ul style="list-style-type: none"> From the first sentence: 'sweet mango juice' → 'tk lp mr' From the second sentence: 'fresh juice bottle' → 'mr cz op' <p>The common word in both sentences is 'juice', and the common code in both is 'mr'.</p>
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<p>Q. 11</p> <p>Find the number of triangles in the given figure.</p> 	<p>a) 8 X</p> <p>b) 6 ✓</p> <p>c) 4 X</p> <p>d) 5 X</p>
<p>Explanation:</p> <ul style="list-style-type: none"> There are 3 small triangles formed in each segment: left, center, and right (all touching the base). There are 2 larger triangles: one formed by combining the left and center sections, and another by combining the center and right sections. There is 1 largest triangle, which is the entire outer triangle itself. <p>Total: $3+2+1=6$ triangles are present in the figure.</p>	

Q. 12	<p>Which of the following letter-clusters can replace the question mark (?) in the given series to make it logically complete?</p> <p>KPL, PKR, UFX, ?, EVJ</p> <p>a) ZAD ✓</p> <p>b) ZAA ✗</p> <p>c) AZB ✗</p> <p>d) ZAC ✗</p>
Explanation:	<p>Let's analyse the alphabetical pattern in each position:</p> <p>1st letters: K(11), P(16), U(21), → increase by +5 → next = Z(26)</p> <p>2nd letters: P(16), K(11), F(6) → each -5 → next = A(1)</p> <p>3rd letters: L(12), R(18), X(24) → each +6 → next = D(4)</p>

Q. 13	<p>What should come in place of the question mark (?) in the given series?</p> <p>86, 88, 91, 96, 103, 114, ?</p> <p>a) 116 ✗</p> <p>b) 127 ✓</p> <p>c) 120 ✗</p> <p>d) 126 ✗</p>
Explanation:	<p>Let's find the pattern of differences between consecutive terms:</p> $\begin{aligned} 88 - 86 &= 2 \\ 91 - 88 &= 3 \\ 96 - 91 &= 5 \\ 103 - 96 &= 7 \\ 114 - 103 &= 11 \end{aligned}$ <p>The differences are: 2, 3, 5, 7, 11 — which are prime numbers.</p> <p>The next prime number after 11 is 13.</p> <p>So, next term = $114 + 13 = 127$</p>

<p>Q. 14</p> <p>99 is related to 36 following a certain logic. Following the same logic, 66 is related to 24. To which of the following is 44 related, following the same logic?</p> <p>a) 18 X</p> <p>b) 20 X</p> <p>c) 16 ✓</p> <p>d) 24 X</p>	<p>Explanation:</p> <p>Let's identify the logic:</p> <ul style="list-style-type: none"> For $99 \rightarrow (9 + 9) \times 2 = 18 \times 2 = 36$ For $66 \rightarrow (6 + 6) \times 2 = 12 \times 2 = 24$ Therefore, applying the same logic to 44: $(4 + 4) \times 2 = 8 \times 2 = 16$
<p>Q. 15</p> <p>What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and '×' and '÷' are interchanged?</p> <p>$144 - 12 + 6 \times 3 \div 2 = ?$</p> <p>a) 152 ✓</p> <p>b) 176 X</p> <p>c) 148 X</p> <p>d) 145 X</p>	<p>Explanation:</p> <p>Given: $'+' \leftrightarrow '-'$ and $'\times' \leftrightarrow '\div'$</p> <p>So, the new equation becomes: $144 + 12 - 6 \div 3 \times 2$</p> <p>Now, apply BODMAS rule: $\rightarrow 6 \div 3 = 2$ $\rightarrow 2 \times 2 = 4$ $\rightarrow 144 + 12 - 4 = 152$</p>

<p>Q. 16</p> <p>In a certain language, 'save your time' is written as 'Nk Rt Po' and 'time is precious' is written as 'Po Le Qm'. How is 'time' written in the given language?</p> <p>a) Nk X</p> <p>b) Po ✓</p> <p>c) Rt X</p> <p>d) Le X</p>	<p>Explanation:</p> <ul style="list-style-type: none"> From the first sentence: save your time → Nk Rt Po From the second sentence: time is precious → Po Le Qm The common word in both is 'time', and the common code in both is 'Po'. <p>✓ Therefore, 'time' is written as 'Po'.</p>
<p>Q. 17</p> <p>MNPR is related to KKLM in a certain way based on the English alphabetical order. In the same way, RTUV is related to PQQQ. To which of the following is GHIK related, following the same logic?</p> <p>a) EEEG X</p> <p>b) EEFF X</p> <p>c) EFFF X</p> <p>d) EEEF ✓</p>	<p>The given logic is $-2, -3, -4, -5$ applied respectively to the four letters.</p> <p>Let's apply this step-by-step to GHIK:</p> <ul style="list-style-type: none"> G (7) $\rightarrow 7 - 2 = E (5)$ H (8) $\rightarrow 8 - 3 = E (5)$ I (9) $\rightarrow 9 - 4 = E (5)$ K (11) $\rightarrow 11 - 5 = F (6)$ <p>So, the new group = EEEF</p>

Q. 18

Three of the following four are alike in a certain way and thus form a group. Which is the one that does NOT belong to that group?
 (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster.)

- a) UXA X
- b) JMP X
- c) DGJ X
- d) OQU ✓

Explanation:

In each of the first three clusters, the positions of the letters increase by +3 and +3 respectively:

- U(21) → X(24) → A(1) → differences +3, +3
- J(10) → M(13) → P(16) → differences +3, +3
- D(4) → G(7) → J(10) → differences +3, +3

But in OQU,

- O(15) → Q(17) → U(21) → differences +2, +4, which breaks the common pattern.

Q. 19

If 25 August 2006 was Friday, then what was the day of the week on 25 August 2018?

- a) Saturday ✓
- b) Sunday X
- c) Thursday X
- d) Wednesday X

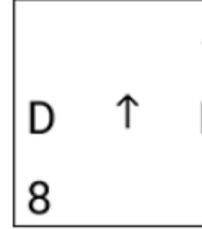
Explanation:

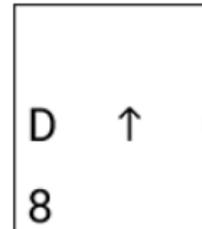
1. Total years between 2006 and 2018 = 12 years
 → Leap years = 3 (2008, 2012, 2016)
 → Normal years = 9
2. Odd days = (Normal years × 1) + (Leap years × 2)
 $= (9 \times 1) + (3 \times 2)$
 $= 9 + 6 = 15 \text{ odd days}$
3. Divide 15 by 7 → $15 \div 7 = 2$ remainder 1 → **1 odd day**
4. Therefore, the day on 25 August 2018 will be **1 day after Friday = Saturday**

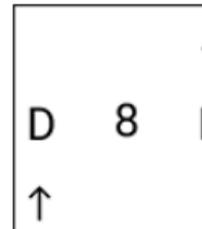
Q. 20

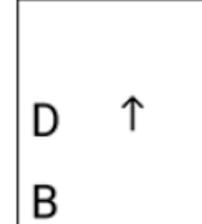
Identify the figure given in the options that when put in place of the question mark(?) will logically complete the series.

O	T	L	B	
B L T 4 B L C 4 B ↑ C 4				?
4 C ↑ D				

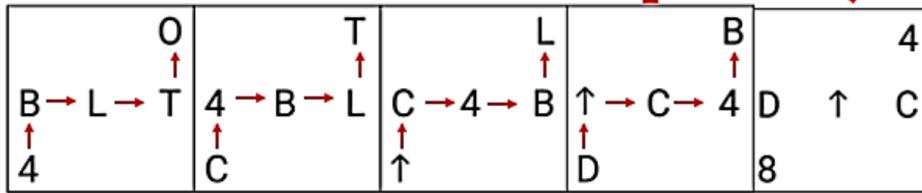
- a)  4
D \uparrow B
8

b)  4
D \uparrow C
8

c)  4
D 8 B
 \uparrow

d)  4
D \uparrow C
B

Explanation:



Q. 21

Study the given pattern carefully and select the number that can replace the question mark (?) in it.

First row – 6, 8, 34

Second row – 3, 2, 10

Third row – 11, 18, ?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing operations on 1 and 3 is NOT allowed.)

a) 47 X

b) 84 X

c) 74 ✓

d) 96 X

Explanation:

Logic:

- 2nd number = (1st number \times 2) – 4
- 3rd number = (2nd number \times 4) + 2

Now apply this logic:

Row 1:

$$(6 \times 2) - 4 = 8$$

$$(8 \times 4) + 2 = 34 \quad \checkmark$$

Row 2:

$$(3 \times 2) - 4 = 2$$

$$(2 \times 4) + 2 = 10 \quad \checkmark$$

Row 3:

$$(11 \times 2) - 4 = 18$$

$$(18 \times 4) + 2 = 74 \quad \checkmark$$

✓ Correct Answer: (c) 74

Q. 22

Select the option that is related to the third word in the same way as the second word is related to the first word.

(The words must be considered as meaningful English words and must NOT be related to each other based on the number of letters/number of consonants/vowels in the word.)

Car : Bonnet :: Boat : ?

a) Stern

b) Bow

c) Mast

d) Port

Explanation:

- The **bonnet** is the **front part** of a **car**.
- Similarly, the **bow** is the **front part** of a **boat**.

Q. 23

Seven friends L, M, N, O, P, Q and R, each has a different height. R is taller than L. L is taller than 3 people. N is the tallest among all. Only two people are taller than Q. O is not the shortest among all. Only one person is shorter than M. How many people are taller than R?

a) 4

b) 3

c) 6

d) 1

Explanation:

N > R > Q > L > O > M > P

<p>Q. 24</p> <p>Pointing at a person, Rahul said, "His son's son is the father of my mother's daughter." How is the person related to Rahul?</p> <p>a) Father's father's brother X</p> <p>b) Father's father X</p> <p>c) Father's brother X</p> <p>d) Father's father's father ✓</p>
<p>Explanation:</p> <p>Step-by-step relation decoding:</p> <ul style="list-style-type: none"> • "My mother's daughter" → means Rahul's sister. • "Father of my mother's daughter" → means Rahul's father. • "His son's son is the father of my mother's daughter" → So, his son's son = Rahul's father. → Therefore, his son = Rahul's grandfather. → Hence, the person = Rahul's great-grandfather (father's father's father).
<p>Q. 25</p> <p>Select the option that represents the letters that, when sequentially placed from left to right in the blanks below, will complete the letter series.</p> <p>t u _ _ x _ _ u u _ _ x y _ _ v x x _</p> <p>a) u v x y t v x t u u y ✓</p> <p>b) u v x y u v x t u u y X</p> <p>c) u v x y t v x t u u u X</p> <p>d) u v x x t v x t u u y X</p> <p>Explanation: t u u v x x y / t u u v x x y / t u u v x x y</p>

Q. 26	<p>Which among the following articles is related to President of India?</p> <p>1. Art. 61 2. Art. 143 3. Art. 356</p> <p>a) 1 only X</p> <p>b) 1 & 2 only X</p> <p>c) 1 & 3 only X</p> <p>d) 1, 2 & 3 All ✓</p>
Explanation:	<p>✓ Correct Answer: 1, 2 & 3 All</p> <p>Article 61 – Impeachment of the President</p> <ul style="list-style-type: none">• ✓ Directly related• Specifies the procedure for impeachment of the President of India for violation of the Constitution. <p>Article 143 – Advisory Jurisdiction</p> <ul style="list-style-type: none">• ✓ Directly related• Empowers the President to seek the opinion of the Supreme Court on any question of law or fact of public importance.• This is a discretionary power of the President. <p>Article 356 – President's Rule</p> <ul style="list-style-type: none">• ✓ Directly related• Allows the President to impose President's Rule in a state if:<ul style="list-style-type: none">◦ The state government cannot function according to constitutional provisions.◦ Based on the Governor's report or otherwise.• Though the President acts on the advice of the Council of Ministers, the article is explicitly about presidential action.

Q. 27	<p>Which index is used to calculate Dearness Allowance (DA)?</p> <p>a) CPI – Rural Labourers X</p> <p>b) CPI - Combined X</p> <p>c) CPI - Industrial Workers ✓</p> <p>d) CPI - Agricultural Labourers X</p>
Explanation:	<p>✓ Correct Answer: CPI – Industrial Workers</p> <p>Dearness Allowance (DA) Calculation</p> <ul style="list-style-type: none"> • Dearness Allowance (DA) is a cost-of-living adjustment paid to government employees and pensioners. • It is revised twice a year — in January and July — to offset inflation. <p>✓ Index Used:</p> <ul style="list-style-type: none"> • The Consumer Price Index for Industrial Workers (CPI-IW) is the official index used to calculate DA. • Published monthly by the Labour Bureau, Ministry of Labour and Employment. • It reflects inflation experienced by industrial workers, making it suitable for wage adjustments.
Q. 28	<p>Who among the following is considered as the First Buddha?</p> <p>a) Maitreyi X</p> <p>b) Vajrapani X</p> <p>c) Manjushri X</p> <p>d) Kakusandha ✓</p>
Explanation:	<p>✓ Correct Answer: Kakusandha</p> <p>Kakusandha Buddha</p> <ul style="list-style-type: none"> • ✓ Correct • Kakusandha is regarded as the first of the seven Buddhas of antiquity in Theravāda Buddhism. • He is also the fourth of the 28 Buddhas mentioned in the Buddhavamsa, a Pali text that chronicles the lives of past Buddhas. • He lived in a previous kalpa (aeon) and is considered a historical Buddha who attained enlightenment before Gautama Buddha.

Q. 29	<p>The Preamble of the Indian Constitution secures "JUSTICE" for all its citizens. Which of the following correctly identifies all the forms of justice mentioned in the Preamble?</p> <p>a) Social, Economic, and Legal X</p> <p>b) Social, Economic, and Political ✓</p> <p>c) Political, Legal, and Moral X</p> <p>d) Social, Religious, and Economic X</p>
Explanation:	<p>✓ Correct Answer: Social, Economic, and Political The Preamble to the Constitution of India declares that the nation shall secure "JUSTICE — social, economic and political" for all its citizens.</p> <p>✓ Forms of Justice in the Preamble:</p> <ul style="list-style-type: none"> Social Justice: Ensures equal treatment and protection of all social groups, especially marginalized communities. Economic Justice: Promotes equitable distribution of wealth and opportunities, reducing economic disparities. Political Justice: Guarantees equal political rights, such as voting and participation in governance.
Q. 30	<p>Jivika, the personal physician of King Bimbisara was sent to which province by Bimbisara to cure King Chandra Pradyot?</p> <p>a) Kosala X</p> <p>b) Kamboja X</p> <p>c) Avanti ✓</p> <p>d) Panchala X</p>
Explanation:	<p>✓ Correct Answer: Avanti</p> <ul style="list-style-type: none"> Jivaka (or Jivika Kumara) was a renowned physician during the time of King Bimbisara of Magadha and later served Lord Buddha. He was known for his exceptional medical skills, including surgery and herbal treatments. According to Buddhist texts like the Vinaya Pitaka, King Bimbisara once sent Jivaka to the kingdom of Avanti to treat King Chanda Pradyota, who was suffering from a serious illness (often described as jaundice). Avanti was a prominent Mahajanapada located in present-day Madhya Pradesh, with Ujjain as its capital.

Q. 31

Consider the following questions and answer which of them is/are correct?

1. Simlipal Biosphere Reserve is located in Odisha.
 2. Gir National Park in Gujarat is the only natural habitat for the Asiatic Lion in the world.
 3. Nokrek National Park in Assam is famous for its population of the one-horned rhinoceros.
- a) 1 & 2 only ✓
- b) 2 & 3 only ✗
- c) 1 & 3 only ✗
- d) 1, 2 & 3 All ✗

Correct Answer: 1 & 2 only

✓ Statement 1: Simlipal Biosphere Reserve is located in Odisha

- Located in **Mayurbhanj** district, Odisha.
- Recognized as a **UNESCO Biosphere Reserve**.
- Known for **tigers, elephants**, and rich biodiversity.

✓ Statement 2: Gir National Park in Gujarat is the only natural habitat for the Asiatic Lion in the world

- **Gir National Park**, also called **Sasan Gir**, is the **sole wild habitat** of the **Asiatic Lion** globally.
- Located in **Gujarat**, it plays a critical role in lion conservation.

✗ Statement 3: Nokrek National Park in Assam is famous for its population of the one-horned rhinoceros

- **Nokrek National Park** is located in **Meghalaya**, not Assam.
- It is known for the **Red Panda, Hoolock Gibbons**, and **Asian Elephants**, not one-horned rhinos.
- The **one-horned rhinoceros** is found in parks like **Kaziranga, Orang**, and **Manas** in Assam.

Explanation:

Q. 32

Consider the following statements regarding the Gini coefficient and answer which of them is correct?

1. It is a measure of statistical dispersion representing the income or wealth inequality within a nation.
 2. A Gini coefficient of 0 (or 0%) represents perfect inequality, where one individual holds all the income.
 3. A Gini coefficient of 1 (or 100%) represents perfect equality, where all individuals have the same income
- a) 1 only ✓
- b) 2 & 3 only ✗
- c) 1 & 3 only ✗
- d) 1, 2 & 3 All ✗

✓ Correct Answer: 1 only

Statement 1: Gini Coefficient as a Measure of Inequality

- ✓ Correct
- The **Gini coefficient** is a statistical measure used to represent **income or wealth inequality** within a nation or group.
- It ranges from **0 to 1** (or 0% to 100%).

Statement 2: Gini Coefficient of 0 = Perfect Inequality

- ✗ Incorrect
- A Gini coefficient of 0 means **perfect equality**, where **everyone has the same income**.
- This is the **ideal egalitarian scenario**.

Statement 3: Gini Coefficient of 1 = Perfect Equality

- ✗ Incorrect
- A Gini coefficient of 1 (or 100%) indicates **perfect inequality**, where **one person has all the income**, and others have none.

Explanation:

Q. 33	<p>At which place King Harshvardhan used to organise Buddhist Council in every 5 years?</p> <p>a) Kashi <input checked="" type="checkbox"/> X</p> <p>b) Ujjain <input checked="" type="checkbox"/> X</p> <p>c) Prayag <input checked="" type="checkbox"/> ✓</p> <p>d) Gaya <input checked="" type="checkbox"/> X</p>
Explanation:	<p><input checked="" type="checkbox"/> Correct Answer: Prayag</p> <ul style="list-style-type: none">King Harshavardhana, the ruler of Thanesar and later Kannauj, was a great patron of Buddhism and religious pluralism.He organized a Buddhist Assembly (Mahasabha) every five years at Prayag (modern-day Allahabad).These assemblies were massive religious gatherings, where:<ul style="list-style-type: none">Donations were made to scholars, monks, and the poor.Debates and discourses were held among Buddhist, Jain, and Brahmin scholars.The Chinese traveler Xuanzang (Hiuen Tsang) documented these events during his visit to India in the 7th century CE.

Q. 34

Consider the following statements regarding the Gandhian principles enshrined in the Directive Principles of State Policy (DPSP):

1. Promotion of cottage industries in rural areas and the organization of village panchayats are examples of Gandhian ideals reflected in the Constitution.
2. The provision for securing uniform civil code throughout the territory of India is a Gandhian directive aimed at promoting social harmony and rural self-sufficiency.

Which of the above statements is/are correct?

- a) 1 only ✓
- b) 2 only ✗
- c) Both 1 & 2 ✗
- d) Neither 1 & 2 ✗

Correct Answer: 1 only

Statement 1: Cottage Industries & Village Panchayats

- ✓ Correct
- These are classic Gandhian principles embedded in the Directive Principles of State Policy (DPSP):
 - Article 40: Organization of village panchayats as units of self-governance.
 - Article 43: Promotion of cottage industries in rural areas.
- These reflect Gandhi's vision of Gram Swaraj and rural self-reliance.

Explanation:

Statement 2: Uniform Civil Code (UCC)

- ✗ Incorrect
- Article 44: Provision for Uniform Civil Code across India.
- This is part of the Liberal-Intellectual principles, not Gandhian.
- UCC aims at legal uniformity in personal laws, not rural development or Gandhian ethics.

<p>Q. 35</p> <p>Sqay, a martial art, is primarily associated with which of the following State/UT?</p> <p>a) Manipur X</p> <p>b) Andaman and Nicobar X</p> <p>c) Nagaland X</p> <p>d) Jammu & Kashmir ✓</p>
<p>Explanation:</p> <p>✓ Correct Answer: Jammu & Kashmir</p> <ul style="list-style-type: none"> • Sqay is a traditional martial art form from Kashmir, primarily associated with the Union Territory of Jammu & Kashmir. • It involves sword and shield combat techniques, along with kicks, punches, and defensive moves. • The word "Sqay" is derived from a Kashmiri term meaning "knowledge of war". • It has been revived and promoted in recent decades, especially by Grandmaster Nazir Ahmad Mir, and is now recognized in national-level sports events like the National Games of India.

<p>Q. 36</p> <p>Which among the following is not an element of Carnatic Music?</p> <p>a) Pallavi X</p> <p>b) Varnam X</p> <p>c) Dhrupad ✓</p> <p>d) Ragamalika X</p>
<p>✓ Correct Answer: Dhrupad</p> <p>✗ Dhrupad</p> <ul style="list-style-type: none"> • Not an element of Carnatic music. • It is a genre of Hindustani classical music, known for its spiritual depth, strict structure, and slow, meditative alap. • Originated in North India, often performed in temples and royal courts. <p>Explanation:</p> <p>Term – Role in Carnatic Music</p> <p>Pallavi – The thematic line of a composition; central to improvisation.</p> <p>Varnam – A foundational piece used for training and performance; combines melody and rhythm.</p> <p>Ragamalika – A composition that uses multiple ragas; literally means “garland of ragas”.</p>

Q. 37	<p>Gombeyatta puppetry is associated with which Indian State?</p> <p>a) Karnataka ✓</p> <p>b) Telangana ✗</p> <p>c) Tamil Nadu ✗</p> <p>d) Kerela ✗</p>
Explanation:	<p>✓ Correct Answer: Karnataka</p> <ul style="list-style-type: none"> • Gombeyatta is a traditional puppetry art form of Karnataka, particularly known for its string and leather puppets. • It includes styles like Togalu Gombeyatta (shadow puppetry using leather dolls) and Sutradha Gombeyatta (string puppetry). • The term "Gombeyatta" literally means "puppet play" in Kannada. • These performances often depict stories from Ramayana, Mahabharata, and local folklore, accompanied by music and narration. • The art has received royal patronage historically and is preserved by institutions like Karnataka Chitrakala Parishat.
Q. 38	<p>Which committee was constituted to check Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII) in India?</p> <p>a) Dinesh Goswami Committee ✗</p> <p>b) Usha Thorat Committee ✗</p> <p>c) C. Rangarajan Committee ✗</p> <p>d) Arvind Mayaram Committee ✓</p>
Explanation:	<p>✓ Correct Answer: Arvind Mayaram Committee</p> <p>Arvind Mayaram Committee</p> <ul style="list-style-type: none"> • ✓ Correct • Constituted by the Government of India in 2014 to: <ul style="list-style-type: none"> ◦ Redefine and harmonize the concepts of FDI (Foreign Direct Investment) and FII (Foreign Institutional Investment). ◦ Recommended that both be classified under a single composite cap for foreign investment. ◦ Suggested that investment of 10% or more in a company be treated as FDI, and less than 10% as FPI (Foreign Portfolio Investment).

Q. 39	<p>Paitkar folk paintings belongs to which Indian State?</p> <p>a) Jharkhand ✓</p> <p>b) Chhattisgarh ✗</p> <p>c) Bihar ✗</p> <p>d) Odisha ✗</p>
Explanation:	<p>✓ Correct Answer: Jharkhand</p> <ul style="list-style-type: none"> Paitkar paintings are a traditional form of scroll painting practiced by the Paitkar community in eastern India. They are primarily found in the East Singhbhum and Dumka districts of Jharkhand. Often referred to as the “scroll paintings of Jharkhand”, they are among the oldest tribal art forms in India. Themes include mythological stories, epics, and local folklore, painted on scrolls made of paper or cloth using natural colors. Chhattisgarh – Known for Gond and tribal wall art, not Paitkar Bihar – Famous for <i>Madhubani paintings</i>, not Paitkar Odisha – Known for <i>Pattachitra</i>, not Paitkar
Q. 40	<p>The Tarangmel folk dance, known for its vibrant costumes and energetic movements during the festivals of Dussehra and Holi, belongs to which Indian state?</p> <p>a) Kerela ✗</p> <p>b) Madhya Pradesh ✗</p> <p>c) Uttar Pradesh ✗</p> <p>d) Goa ✓</p>
Explanation:	<p>✓ Correct Answer: Goa</p> <ul style="list-style-type: none"> Tarangmel is a vibrant folk dance of Goa, celebrated especially during festivals like Dussehra and Holi. It is performed by youths, showcasing energetic movements, colorful costumes, and traditional Goan music. The dance symbolizes joy, unity, and cultural pride, often involving flags, streamers, and rhythmic steps. It reflects the fusion of Indo-Portuguese cultural elements, typical of Goan heritage.

Q. 41

Which of the following landmark Supreme Court judgments is not primarily related to the interpretation and scope of Article 21 (Right to Life and Personal Liberty)?

- a) Maneka Gandhi v. Union of India X
- b) K.S. Puttaswamy v. Union of India X
- c) Indra Sawhney v. Union of India ✓
- d) Kharak Singh v. State of U.P X

✓ Correct Answer: Indra Sawhney v. Union of India

1. Maneka Gandhi v. Union of India (1978)

- ✓ Related to Article 21
- Expanded the scope of “personal liberty”.
- Introduced the concept of “due process of law”.
- Made Article 21 a foundation for multiple rights including travel, dignity, and fair procedure.

2. K.S. Puttaswamy v. Union of India (2017)

- ✓ Related to Article 21
- Declared Right to Privacy as a fundamental right under Article 21.
- Landmark in digital rights and Aadhaar-related debates.

3. Kharak Singh v. State of U.P (1962)

- ✓ Related to Article 21
- Early interpretation of personal liberty.
- Struck down unauthorized surveillance as violative of Article 21.

4. Indra Sawhney v. Union of India (1992)

- X Not primarily related to Article 21
- Concerned with reservations in public employment under Article 16(4).
- Landmark case on OBC reservations, creamy layer, and 50% ceiling.
- Focused on equality and affirmative action, not life or liberty.

Explanation:

Q. 42	<p>In which year PM-MITRA scheme was announced?</p> <p>a) 2020 <input checked="" type="checkbox"/> X</p> <p>b) 2021 <input checked="" type="checkbox"/> ✓</p> <p>c) 2022 <input checked="" type="checkbox"/> X</p> <p>d) 2023 <input checked="" type="checkbox"/> X</p>
Explanation:	<p><input checked="" type="checkbox"/> Correct Answer: 2021</p> <ul style="list-style-type: none"> The PM-MITRA Scheme (Prime Minister Mega Integrated Textile Region and Apparel) was announced in 2021 by the Ministry of Textiles, Government of India. It aims to develop world-class industrial infrastructure for the textile sector, integrating the entire value chain from farm to fibre to factory to fashion to foreign. The scheme is inspired by the 5F vision of the Prime Minister and seeks to make India a global hub for textile manufacturing.
Q. 43	<p>Which of the following committees was constituted to examine and define the relationship between the Princely States and the British Government in colonial India?</p> <p>a) Raleigh Commission <input checked="" type="checkbox"/> X</p> <p>b) Simon Commission <input checked="" type="checkbox"/> X</p> <p>c) Hunter Committee <input checked="" type="checkbox"/> X</p> <p>d) Butler Committee <input checked="" type="checkbox"/> ✓</p>
Explanation:	<p><input checked="" type="checkbox"/> Correct Answer: Butler Committee</p> <p>Butler Committee (1927)</p> <ul style="list-style-type: none"> Constituted in 1927 under the chairmanship of Harcourt Butler. Its main purpose was to examine and define the relationship between the Indian Princely States and the British Crown. Recommended that: <ul style="list-style-type: none"> The paramountcy of the British Crown should remain supreme. No future constitutional changes should affect the rights and autonomy of princely states without their consent. The committee's findings laid the groundwork for how princely states were treated in later constitutional developments.

Q. 44	<p>Which among the following is not an element of Current Account in India's Balance of Payments?</p> <p>a) Trade in Goods & Services X</p> <p>b) Foreign Investments ✓</p> <p>c) Grants X</p> <p>d) Remittances X</p>
Explanation:	<p>✓ Correct Answer: Foreign Investments</p> <p>The Balance of Payments (BoP) is divided into two main accounts:</p> <ol style="list-style-type: none">1. Current Account – Records day-to-day transactions involving:<ul style="list-style-type: none">• ✓ Trade in Goods & Services (Exports and Imports)• ✓ Transfers (like Grants, Remittances, Gifts, Donations)• ✓ Income (Interest, Dividends, Wages)2. Capital Account – Records capital transfers and financial assets/liabilities, including:<ul style="list-style-type: none">• X Foreign Investments (FDI, FPI)• Loans, banking capital, external assistance, etc.

Q. 45

Consider the following questions and answer which of them is/are correct?

1. The 'Mango Shower' is a pre-monsoon rainfall event that helps in the ripening of mangoes, particularly in Kerala and Karnataka.
2. The 'Western Disturbances' are tropical cyclones originating from the Mediterranean region that cause winter rain in North India.

- a) 1 only ✓
- b) 2 only ✗
- c) Both 1 & 2 ✗
- d) Neither 1 & 2 ✗

Correct Answer: 1 only

Statement 1: Mango Showers

- ✓ Correct
- Mango Showers are **pre-monsoon convectional rains** occurring in **March to May**, especially in **Kerala and Karnataka**.
- They help in the **ripening of mangoes**, hence the name.
- Also known as **Blossom Showers** in Karnataka.

Explanation:

Statement 2: Western Disturbances

- ✗ Incorrect
- Western Disturbances are **extratropical cyclones, not tropical**.
- They originate in the **Mediterranean region** and travel eastward.
- Cause **winter rainfall in Northwest India**, especially Punjab, Haryana, Delhi, and western UP.
- Crucial for **Rabi crops**, especially wheat.

Q. 46	<p>Which of the following best describes the purpose of the Delhi Manifesto (1929) issued by Indian leaders?</p> <p>a) It was a declaration demanding complete independence from British rule and the adoption of a new constitution. ✗</p> <p>b) It was a response to Lord Irwin's proposal for a Round Table Conference, laying down conditions for Indian participation. ✓</p> <p>c) It was a resolution passed by the Indian National Congress to boycott British goods and promote Swadeshi. ✗</p> <p>d) It was a manifesto issued by the British Government to grant dominion status to India immediately. ✗</p>
Explanation:	<p>✓ Correct Answer: B) It was a response to Lord Irwin's proposal for a Round Table Conference, laying down conditions for Indian participation.</p> <ul style="list-style-type: none">• The Delhi Manifesto was issued on 2 November 1929 by senior Congress leaders like Motilal Nehru and Mahatma Gandhi.• It was a political response to Viceroy Lord Irwin's invitation for Indian leaders to participate in the Round Table Conference.• The manifesto demanded clarity that the conference would aim to formulate a scheme for granting Dominion Status, not merely discuss it.• It also sought amnesty for political prisoners and Congress majority representation at the conference.

Q. 47	<p>Which of the following veto powers is NOT available to the President of India?</p> <p>a) Absolute Veto X</p> <p>b) Qualified Veto ✓</p> <p>c) Suspensive Veto X</p> <p>d) Pocket Veto X</p>
Explanation:	<p>✓ Correct Answer: Qualified Veto</p> <p>1. Absolute Veto</p> <ul style="list-style-type: none">◦ ✓ Available◦ Used to completely reject a bill (usually private member's bills or when the Cabinet itself withdraws support). <p>2. Suspensive Veto</p> <ul style="list-style-type: none">◦ ✓ Available◦ Used when the President returns a non-money bill to Parliament for reconsideration.◦ If Parliament passes it again, the President must give assent. <p>3. Pocket Veto</p> <ul style="list-style-type: none">◦ ✓ Available◦ The President takes no action on the bill indefinitely.◦ No time limit is prescribed for giving assent. <p>X Qualified Veto</p> <ul style="list-style-type: none">• X Not available to the Indian President• This is a US-style veto, where the legislature can override the President's veto with a two-thirds majority.• The Indian Constitution does not provide for this mechanism.

Q. 48

Consider the following statements regarding the SVAMITVA (Survey of Villages Abadi and Mapping with Improvised Technology in Village Areas) scheme and answer which of them is correct?

1. The primary objective is to provide a 'Record of Rights' (Property Card) to household owners in rural inhabited (abadi) areas.
 2. It is a Central Sponsored Scheme where funding is shared between the Centre and the States.
- a) 1 only ✓
- b) 2 only ✗
- c) Both 1 & 2 ✗
- d) Neither 1 & 2 ✗

Correct Answer: 1 only

Statement 1: Objective of SVAMITVA Scheme

- Correct
- The **SVAMITVA Scheme** (Survey of Villages and Mapping with Improvised Technology in Village Areas) was launched in **2020**.
- Its **primary objective** is to provide a '**Record of Rights**' (Property Card) to owners of residential properties in **rural inhabited (abadi)** areas.
- It uses **drone-based surveys** and **modern GIS technology** to map land parcels, enabling villagers to use their property as a financial asset for loans and other economic benefits.

Explanation:

Statement 2: Nature of the Scheme

- ✗ Incorrect
- The **SVAMITVA Scheme** is a **Central Sector Scheme**, not a **Centrally Sponsored Scheme**.
 - **Central Sector Scheme**: Fully funded and implemented by the **Central Government**.
 - **Centrally Sponsored Scheme**: Jointly funded by **Centre and States**.
- SVAMITVA is implemented by the **Ministry of Panchayati Raj** in collaboration with the **Survey of India**.

Q. 49	<p>Doha Round Talks are primarily associated with which of the following organisation?</p> <p>a) World Trade Organisation ✓</p> <p>b) International Monetary Fund ✗</p> <p>c) United Nations Security Council ✗</p> <p>d) North Atlantic Treaty Organisation ✗</p>
Explanation:	<p>✓ Correct Answer: World Trade Organisation.</p> <p>Doha Round Talks:</p> <ul style="list-style-type: none">• The Doha Development Round (or Doha Development Agenda) refers to a series of negotiations under the World Trade Organisation (WTO).• Launched in 2001 in Doha, Qatar, its primary aim was to:<ul style="list-style-type: none">◦ Lower trade barriers globally◦ Improve trading prospects for developing countries◦ Reform agricultural subsidies, tariffs, and non-tariff barriers

Q. 50	<p>In which article of Indian Constitution, the functions of Chief Minister are defined?</p> <p>a) Art. 161 X</p> <p>b) Art. 167 ✓</p> <p>c) Art. 221 X</p> <p>d) Art. 227 X</p>
Explanation:	<p>✓ Correct Answer: Art. 167</p> <p>Article 167 – Duties of Chief Minister</p> <ul style="list-style-type: none">• ✓ Correct• Defines the duties of the Chief Minister with respect to:<ul style="list-style-type: none">◦ Communication with the Governor regarding decisions of the Council of Ministers.◦ Furnishing information as the Governor may call for.◦ Submitting proposals for legislative or administrative action.• It outlines the constitutional responsibilities of the Chief Minister as the link between the Governor and the Council of Ministers. <p>Art. 161 Power of Governor to grant pardons — Related to Governor, not CM.</p> <p>Art. 221 Salaries of High Court Judges — Judicial provisions.</p> <p>Art. 227 Supervisory jurisdiction of High Courts — Not related to executive functions.</p>

Q. 51	<p>Choose the word closest in meaning to “exacerbate” as used in:</p> <p>“Repeated postponements will only exacerbate the rift within the coalition.”</p> <p>a) assuage X</p> <p>b) aggravate ✓</p> <p>c) temporize X</p> <p>d) mollify X</p>
Explanation:	<p>Explanation:</p> <p>Exacerbate means to make a problem worse; aggravate matches this precisely.</p> <p>Assuage means to lessen the severity, the opposite sense.</p> <p>Temporize means to delay making a decision to gain time, not to worsen something.</p> <p>Mollify means to soothe or pacify, which also opposes the sense of worsening.</p>
Q. 52	<p>Identify the sentence that contains a misspelt word.</p> <p>a) The regulator decided to supersede the older guideline after the review. X</p> <p>b) Routine maintenance will be scheduled during off-peak hours. X</p> <p>c) Basic data hygiene is indispensable for secure operations. ✓</p> <p>d) Access to the archives is a privilege granted by the committee. X</p> <p>Explanation:</p> <p>“Indispensable” is incorrect; the correct spelling is “indispensable” (from “dispensable” + prefix “in-”).</p> <p>Explanation:</p> <ul style="list-style-type: none"> • A) “Supersede” is correct (often misspelled as “supercede”). • B) “Maintenance” is correct (often misspelled as “maintainance”). • D) “Privilege” is correct (often misspelled as “priviledge”).

Q. 53

Fill in the blank with the most appropriate idiom:

"With the metro suspended after the cloudburst, we had no option but to go by ___ for the last two kilometres."

- a) Hobson's choice
- b) the high horse
- c) Shanks's mare
- d) the grapevine

Explanation:

Explanation:

"Shanks's mare" (also "Shanks's pony") means travelling on foot, which fits the context of covering distance without transport.

"Hobson's choice" means no real choice; "the high horse" refers to arrogance; "the grapevine" means the rumour network—none fit the idea of walking.

Q. 54

Choose the best one-word substitute for "A short stay at a place during a journey."

- a) Excursion
- b) Odyssey
- c) Sojourn
- d) Transit

Explanation:

"Sojourn" means a temporary stay. "Odyssey" is a long adventurous journey, "excursion" is a short trip for pleasure (not a stay), and "transit" is the act of passing through a place, not stopping to stay.

<p>Q. 55</p> <p>Choose the correct verb to complete the sentence: “The European Union, along with several partner countries, ___ preparing a plan to leverage frozen assets for Ukraine.”</p> <p>a) is ✓</p> <p>b) are ✗</p> <p>c) have been ✗</p> <p>d) were ✗</p>	<p>Explanation: The head subject is the singular noun “European Union.” The phrase “along with several partner countries” is parenthetical and does not change the number of the subject, so a singular verb (“is”) is required.</p>
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<p>Q. 56</p> <p>Convert the sentence into passive voice (choose the correct option).</p> <p>Why didn't the regulators impose stricter capital requirements on those banks?</p> <p>a) Why weren't stricter capital requirements imposed on those banks by the regulators? ✓</p> <p>b) Why hasn't stricter capital requirements been imposed on those banks by the regulators? ✗</p> <p>c) Why wasn't stricter capital requirements imposed on those banks by the regulators? ✗</p> <p>d) Why weren't stricter capital requirement imposed on those banks by the regulators? ✗</p>	<p>Explanation: The subject in passive becomes “stricter capital requirements” (plural), so use weren't + past participle (imposed) in the simple past to match “didn't impose.” Options B (wrong tense and number), C (number mismatch: wasn't with plural subject), and D (singular “requirement”) are incorrect.</p>
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Q. 57	<p>Identify the segment that contains a noun error.</p> <p>a) While the committee was examining the data from multiple agencies, X</p> <p>b) evidence suggested that this criteria needs revision in several districts, ✓</p> <p>c) and the company's headquarters in Mumbai issued an advisory to withdraw equipment, X</p> <p>d) noting that several dozen employees had already submitted their resignations. X</p>
Explanation:	<p>"Criteria" is the plural of "criterion." The determiner "this" is singular, so the noun must also be singular: "this criterion needs revision" or, if plural is intended, "these criteria need revision."</p>
Q. 58	<p>In the sentence "Before the consecration, the artisan agreed to mitre the wooden frame while the archbishop adjusted his mitre," what do the two instances of "mitre" mean, respectively?</p> <p>a) To decorate with gold thread; a sacred altar cloth X</p> <p>b) To measure lumber precisely; a unit of metric length X</p> <p>c) To bevel-join two pieces of wood at an angle; a bishop's ceremonial headdress ✓</p> <p>d) To carve an inscription; a church pulpit X</p>
Explanation:	<p>"Mitre" as a verb means to make a miter joint by cutting pieces (often at 45°) to join at a corner, while "mitre" as a noun is the tall, pointed ceremonial hat worn by bishops. The other options confuse "mitre" with measurement ("meter/metre"), textiles, or church furnishings.</p>

Q. 59	<p>In the sentence “The regulator deemed the proposal inimical to financial stability,” choose the best antonym of “inimical.”</p> <p>a) Antagonistic X</p> <p>b) Malign X</p> <p>c) Conducive ✓</p> <p>d) Adverse X</p>
Explanation:	<p>“Inimical” means harmful, hostile, or unfriendly; its precise opposite in this context is “conducive,” meaning tending to promote or help. “Adverse,” “malign,” and “antagonistic” all align with hostility or harm, so they are near-synonyms, not antonyms.</p>
Q. 60	<p>Identify the type of the underlined adverb in the sentence:</p> <p>The Commission supports the plan; <u>however</u>, it insists on stricter oversight.</p> <p>a) Adverb of manner X</p> <p>b) Adverb of time X</p> <p>c) Conjunctive adverb ✓</p> <p>d) Adverb of degree X</p>
Explanation:	<p>“However” links two independent clauses and signals contrast, functioning as a conjunctive adverb. It does not describe how (manner), when (time), or to what extent (degree) the action occurs.</p>

Q. 61

Question: Identify the segment that contains the conditional error.

- a) If the regulator wouldn't have issued
- b) a prompt corrective action notice last quarter,
- c) several smaller lenders could have failed,
- d) No error

Explanation:

In counterfactual past (third conditional), the if-clause must use past perfect, not "would have." Replace "wouldn't have issued" with "hadn't issued." Correct: "If the regulator hadn't issued a prompt corrective action notice last quarter, several smaller lenders could have failed." The result clause "could have failed" is appropriately in the perfect modal form for a past hypothetical.

Q. 62

Identify which sentence uses the past form of "hang" correctly.

- A) The portrait was hanged above the fireplace during restoration.
- B) The convict was hanged at dawn after the final appeal was rejected.
- a) Only A
- b) Only B
- c) Both A and B
- d) Neither A nor B

Explanation:

Use "hanged" exclusively for death by hanging; use "hung" for all other senses. Sentence B is correct because it refers to execution. Sentence A is incorrect because an object (portrait) should be "hung," not "hanged."

Correction for A: "The portrait was hung above the fireplace during restoration."

Q. 63

Fill in the blank with the option that is the best synonym for “subside” in context.
“After the emergency liquidity support, market panic began to ____.”

- a) Intensify X
- b) Exacerbate X
- c) Proliferate X
- d) Abate ✓

Explanation:

“Subside” means to diminish or lessen in intensity; “abate” matches this meaning. “Proliferate,” “exacerbate,” and “intensify” all indicate increase or worsening, which contradicts the sentence context of panic easing.

Q. 64

Select the incorrectly spelt word.

- a) Accommodate X
- b) Pronunciation X
- c) Occassion ✓
- d) Supersede X

Explanation:

“Occassion” is incorrect; the correct spelling is “occasion,” while “accommodate,” “pronunciation,” and “supersede” are correctly spelt in standard English.

<p>Q. 65</p> <p>Choose the best one-word substitute for:</p> <p>"A message or statement written in memory of a person who has died, especially as an inscription on a tombstone."</p> <p>a) Eulogy X</p> <p>b) Elegy X</p> <p>c) Obituary X</p> <p>d) Epitaph ✓</p>	<p>Explanation:</p> <p>"Epitaph" is the inscription on a tomb in memory of the deceased. "Obituary" is a death notice published in a newspaper, "eulogy" is a speech or tribute (often delivered at a funeral), and "elegy" is a mournful poem, not necessarily inscribed on a tomb.</p>
<p>Q. 66</p> <p>Convert the following into direct speech:</p> <p>The Chief Electoral Officer said that polling would begin at 7 a.m. the next day across Bihar.</p> <p>a) The Chief Electoral Officer said, "Polling will begin at 7 a.m. tomorrow across Bihar." ✓</p> <p>b) The Chief Electoral Officer said, "Polling would begin at 7 a.m. the next day across Bihar." X</p> <p>c) The Chief Electoral Officer said, "Polling begins at 7 a.m. the next day across Bihar." X</p> <p>d) The Chief Electoral Officer said, "Polling has begun at 7 a.m. tomorrow across Bihar." X</p>	
<p>Explanation:</p> <p>When converting indirect to direct speech, restore backshifted elements: "would begin" → "will begin," and "the next day" → "tomorrow." The reporting verb "said" remains, and time/place references revert to the speaker's original deictic form. Options B, C, and D keep backshifted tense or mismatched time expressions.</p>	

<p>Q. 67</p> <p>Convert the following sentence into passive voice (choose the correct option). The Mongol horse-archers devastated enemy supply lines during their campaigns.</p> <p>Enemy supply lines have been devastated by the Mongol horse-archers a) during their campaigns. X</p> <p>b) Enemy supply lines were devastated by the Mongol horse-archers during their campaigns. ✓</p> <p>c) Enemy supply lines are being devastated by the Mongol horse-archers during their campaigns. X</p> <p>d) Enemy supply lines will be devastated by the Mongol horse-archers during their campaigns. X</p>
<p>Explanation: The active sentence is in simple past (devastated). The correct passive keeps the tense by using were + past participle: were devastated. The agent phrase by the Mongol horse-archers and the adverbial during their campaigns remain unchanged in position and meaning.</p>

<p>Q. 68</p> <p>To fund its seasonal inventory build-up, the firm plans to __ a short-term working capital loan from its bank.</p> <p>a) take out ✓</p> <p>b) take over X</p> <p>c) take up X</p> <p>d) take off X</p>
<p>Explanation: In banking, the natural collocation is "take out a loan," meaning to obtain or secure it. "Take over" means assume control of something, "take up" means begin or occupy, and "take off" means depart or rapidly succeed—none fit the context of obtaining a loan.</p>

Q. 69	<p>Choose the word that is closest in meaning to “intransigent”</p> <p>a) Tractable <input checked="" type="checkbox"/> X</p> <p>b) Unyielding <input checked="" type="checkbox"/> ✓</p> <p>c) Amenable <input checked="" type="checkbox"/> X</p> <p>d) Acquiescent <input checked="" type="checkbox"/> X</p>
Explanation:	<p>“Intransigent” means unwilling or refusing to change one’s views or to agree about something; “unyielding” matches this sense of refusing to compromise, while “tractable,” “amenable,” and “acquiescent” all imply readiness to be guided, persuaded, or to comply, which is the opposite meaning.</p>

Q. 70	<p>In the sentence “Keep your pants on; the tour bus will depart in five minutes,” what does the idiom mean?</p> <p>a) Be patient and calm; wait without rushing. <input checked="" type="checkbox"/> ✓</p> <p>b) Get angry quickly about delays. <input checked="" type="checkbox"/> X</p> <p>c) Put on more appropriate clothing before leaving. <input checked="" type="checkbox"/> X</p> <p>d) Leave immediately without waiting for others. <input checked="" type="checkbox"/> X</p>
Explanation:	<p>“Keep your pants on” is an informal imperative meaning “be patient” or “calm down,” commonly used when someone is impatient or in a hurry, so option A captures the idiomatic sense. Options B, C, and D reflect anger, literal clothing, or urgency to leave, none of which match the idiomatic usage documented in dictionaries and idiom references.</p>

Q. 71

Read the passage carefully and answer the following questions:

The European Union is navigating a difficult balance between long-term strategic ambition and short-term economic pressures. On one hand, the bloc is pushing policies to strengthen competitiveness across the single market, deepen capital access for innovative firms, and accelerate the green and digital transitions. On the other, it faces industrial cost headwinds, supply chain fragility, and uneven productivity across member states, which test unity and demand targeted reforms. Security has moved to the center of EU policymaking, with renewed emphasis on defence cooperation, resilience of critical infrastructure, and coordination with international partners. At the same time, the EU is refining migration and border management frameworks while attempting to uphold humanitarian standards and improve burden-sharing among members.

Digital policy remains a flagship: the Union is advancing rules to promote fair competition, rein in systemic risks, and encourage responsible adoption of emerging technologies, including artificial intelligence. Climate policy also remains foundational, with discussions focusing on how to align ambitious emissions reductions with the need to keep European industry competitive and jobs secure. Enlargement adds another layer of complexity, as the EU evaluates governance, financing, and institutional capacity to integrate new members without diluting decision-making effectiveness.

Throughout, the EU's institutions are working to maintain trust—through transparency in rulemaking, stronger engagement with civil society, and clearer communication about the trade-offs inherent in major transitions. In this environment, pragmatic sequencing, regulatory coherence, and stable investment signals are likely to determine whether the Union can convert its policy agenda into durable, widely shared prosperity.

According to the passage, what is identified as the EU's central challenge going forward?

a) Replacing the single market with new treaties X

b) Execution: converting a broad policy agenda into tangible gains in productivity, security, and living standards ✓

c) Achieving complete energy independence within a year X

d) Abolishing enlargement to preserve decision-making effectiveness X

Explanation:

The passage concludes that the EU's core challenge is execution—turning an extensive, multi-faceted agenda into measurable improvements in productivity, security, and living standards; the other options either contradict the passage or exaggerate aims not stated (such as replacing the single market, immediate energy independence, or abolishing enlargement).

Q. 72

Read the passage carefully and answer the following questions:

The European Union is navigating a difficult balance between long-term strategic ambition and short-term economic pressures. On one hand, the bloc is pushing policies to strengthen competitiveness across the single market, deepen capital access for innovative firms, and accelerate the green and digital transitions. On the other, it faces industrial cost headwinds, supply chain fragility, and uneven productivity across member states, which test unity and demand targeted reforms. Security has moved to the center of EU policymaking, with renewed emphasis on defence cooperation, resilience of critical infrastructure, and coordination with international partners. At the same time, the EU is refining migration and border management frameworks while attempting to uphold humanitarian standards and improve burden-sharing among members.

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Which line does NOT belong to the passage?

Digital rules aim to curb systemic risks and encourage responsible
a) adoption of artificial intelligence. ✗

The Union seeks to align emissions reductions with industrial
b) competitiveness and job security. ✗

Enlargement is paused indefinitely to prevent institutional complexity in
c) decision-making. ✓

Security considerations now shape policy, including defence
d) cooperation and infrastructure resilience. ✗

Explanation:

The passage discusses evaluating how to integrate new members without diluting decision-making, not pausing enlargement indefinitely; A, B, and D are all explicitly aligned with the passage's themes.

Q. 73

Read the passage carefully and answer the following questions:

The European Union is navigating a difficult balance between long-term strategic ambition and short-term economic pressures. On one hand, the bloc is pushing policies to strengthen competitiveness across the single market, deepen capital access for innovative firms, and accelerate the green and digital transitions. On the other, it faces industrial cost headwinds, supply chain fragility, and uneven productivity across member states, which test unity and demand targeted reforms. Security has moved to the center of EU policymaking, with renewed emphasis on defence cooperation, resilience of critical infrastructure, and coordination with international partners. At the same time, the EU is refining migration and border management frameworks while attempting to uphold humanitarian standards and improve burden-sharing among members.

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Throughout, the EU's institutions are working to maintain trust—through transparency in rulemaking, stronger engagement with civil society, and clearer communication about the trade-offs inherent in major transitions. In this environment, pragmatic sequencing, regulatory coherence, and stable investment signals are likely to determine whether the Union can convert its policy agenda into durable, widely shared prosperity.

In the phrase “pragmatic sequencing, regulatory coherence, and stable investment signals,” choose the best synonym for “coherence.”

- a) Consistency ✓
- b) Disparity ✗
- c) Opacity ✗
- d) Volatility ✗

Explanation:

“Coherence” in regulatory context means logical connection and harmony across rules; “consistency” captures this sense, whereas “disparity,” “opacity,” and “volatility” suggest mismatch, lack of clarity, or instability.

Q. 74

Read the passage carefully and answer the following questions:

The European Union is navigating a difficult balance between long-term strategic ambition and short-term economic pressures. On one hand, the bloc is pushing policies to strengthen competitiveness across the single market, deepen capital access for innovative firms, and accelerate the green and digital transitions. On the other, it faces industrial cost headwinds, supply chain fragility, and uneven productivity across member states, which test unity and demand targeted reforms. Security has moved to the center of EU policymaking, with renewed emphasis on defence cooperation, resilience of critical infrastructure, and coordination with international partners. At the same time, the EU is refining migration and border management frameworks while attempting to uphold humanitarian standards and improve burden-sharing among members.

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Throughout, the EU's institutions are working to maintain trust—through transparency in rulemaking, stronger engagement with civil society, and clearer communication about the trade-offs inherent in major transitions. In this environment, pragmatic sequencing, regulatory coherence, and stable investment signals are likely to determine whether the Union can convert its policy agenda into durable, widely shared prosperity.

Which of the following is the most appropriate title for the passage?

- a) Balancing Ambition and Execution in the European Union ✓
- b) The End of Enlargement: Why Expansion Must Stop ✗
- c) A Digital Union Only: Setting Aside Climate and Security ✗
- d) Industrial Policy Without Trade-offs ✗

Explanation:

Option A captures the passage's core idea: the EU balancing long-term ambitions with near-term pressures, and the centrality of execution across security, climate, digital policy, migration, competitiveness, and enlargement. Options B, C, and D misstate or narrow the passage's scope by claiming suspension of enlargement, ignoring security/climate, or denying trade-offs.

Q. 75

Read the passage carefully and answer the following questions:

The European Union is navigating a difficult balance between long-term strategic ambition and short-term economic pressures. On one hand, the bloc is pushing policies to strengthen competitiveness across the single market, deepen capital access for innovative firms, and accelerate the green and digital transitions. On the other, it faces industrial cost headwinds, supply chain fragility, and uneven productivity across member states, which test unity and demand targeted reforms. Security has moved to the center of EU policymaking, with renewed emphasis on defence cooperation, resilience of critical infrastructure, and coordination with international partners. At the same time, the EU is refining migration and border management frameworks while attempting to uphold humanitarian standards and improve burden-sharing among members.

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Throughout, the EU's institutions are working to maintain trust—through transparency in rulemaking, stronger engagement with civil society, and clearer communication about the trade-offs inherent in major transitions. In this environment, pragmatic sequencing, regulatory coherence, and stable investment signals are likely to determine whether the Union can convert its policy agenda into durable, widely shared prosperity.

What is the overall tone of the passage?

- a) Celebratory and triumphal X
- b) Alarmist and pessimistic X
- c) Analytical and balanced ✓
- d) Sarcastic and dismissive X

Explanation:

The passage evaluates trade-offs across security, climate, migration, digital policy, competitiveness, and enlargement in a measured, policy-focused manner, emphasizing pragmatic sequencing and execution rather than alarm or celebration.

Q. 76

The sum of eight consecutive even numbers of set-A is 360.
What is the sum of a different set of five consecutive numbers whose lowest number is 15 more than the mean of set-A?

- a) 320 X
- b) 310 ✓
- c) 308 X
- d) 312 X

Explanation:

Sum of 8 consecutive even numbers = 360
No. of terms = 8
So, Average = $360 \div 8 = 45$
Now, the lowest number of new set = 15 more than 45 = 60
Five consecutive numbers = 60, 61, 62, 63, 64
Sum = $60 + 61 + 62 + 63 + 64 = 310$

Q. 77

The value of $[15 \div 3 \times 7 - 8 \text{ of } 2 + 6]$ is:

- a) 39.5 X
- b) 13 X
- c) 25 ✓
- d) -29 X

Explanation:

The correct answer is: c
 $= [15 \div 3 \times 7 - 8 \text{ of } 2 + 6]$
 $= [5 \times 7 - 16 + 6]$
 $= [35 - 10]$
 $= 25$

Q. 78	<p>Prakash bought two articles at the same price. He sold one at a profit of 20% and the other at a profit of 25%. What is the overall percentage profit he made?</p> <p>a) 25% X</p> <p>b) 22.5% ✓</p> <p>c) 23% X</p> <p>d) 24% X</p>
Explanation:	<p>Let the Cost Price (C.P.) of each article = ₹100 Then,</p> <ul style="list-style-type: none"> • Selling Price of first article = $100 + 20\% \text{ of } 100 = ₹120$ • Selling Price of second article = $100 + 25\% \text{ of } 100 = ₹125$ <p>Total C.P. = $100 + 100 = ₹200$</p> <p>Total S.P. = $120 + 125 = ₹245$</p> <p>Overall Profit = S.P. – C.P. = $245 - 200 = ₹45$</p> <p>Overall Profit Percentage = $\frac{45}{200} \times 100 = 22.5\%$</p>

Q. 79	<p>The single discount, which is equal to three successive discounts of 10%, 20% and 35%.</p> <p>a) 42.3% X</p> <p>b) 65.4% X</p> <p>c) 53.2% ✓</p> <p>d) 48.7% X</p>
Explanation:	<p>Let the marked price = 100 After 10% discount $\rightarrow 100 \times (90/100) = 90$ After 20% discount $\rightarrow 90 \times (80/100) = 72$ After 35% discount $\rightarrow 72 \times (65/100) = 46.8$ So, final price = 46.8 Single discount = $100 - 46.8 = 53.2\%$</p>

Q. 80

Aryan, Rishabh and Shivam invest ₹57,000 towards a business. Aryan invests ₹4,000 more than Rishabh, and Rishabh invests ₹4,000 more than Shivam. Out of a total profit of ₹1,14,000, how much does Rishabh receive?

- a) 38000 ✓
- b) 19000 ✗
- c) 28000 ✗
- d) 18750 ✗

Let Shivam's investment = x

Then,

Rishabh's investment = x + 4,000

Aryan's investment = x + 8,000

Total investment

$$x + (x + 4,000) + (x + 8,000) = 57,000$$

$$3x + 12,000 = 57,000 \quad \text{So,}$$

$$3x = 45,000 \Rightarrow x = 15,000$$

Explanation:

Shivam = 15,000

Rishabh = 19,000

Aryan = 23,000

Ratio of investments

$$15,000 : 19,000 : 23,000 = 15 : 19 : 23$$

Sum of ratio = 57

Rishabh's share of profit

$$\text{Rishabh's share} = \frac{19}{57} \times 1,14,000 = 38,000$$

Q. 81	<p>Find the simple interest on ₹38,750 at 12% per annum for 73 days of a non-leap year.</p> <p>a) 931.56 X</p> <p>b) 879 X</p> <p>c) 993.75 X</p> <p>d) 930 ✓</p>
<p>Explanation:</p> <p>Given: Principal (P) = ₹38,750 Rate (R) = 12% per annum Time (T) = 73 days = 73/365 years Formula: Simple Interest (SI) = $(P \times R \times T) / 100$ Substitute values: $SI = (38750 \times 12 \times 73) / (100 \times 365)$ $= (38750 \times 12 \times 1) / 100 \times 5$ $= 775 \times 12 / 10$ $= ₹930$</p>	

Q. 82

Vipin covers one-third distance of a journey at a speed of 20 km/hr and the remaining distance at a speed of 30 km/hr. If he takes a total of 14 hours to complete the journey, what was the total distance (in km) travelled by him?

- a) 392 X
- b) 360 ✓
- c) 322 X
- d) 389 X

Given:

$$\text{Speed}_1 = 20 \text{ km/h}$$

$$\text{Speed}_2 = 30 \text{ km/h}$$

$$\text{Total time} = 14 \text{ hr}$$

One-third distance at 20 km/h and remaining two-thirds at 30 km/h.

Let total distance = D km

Then,

$$\text{Distance}_1 = D/3$$

$$\text{Distance}_2 = 2D/3$$

$$\text{Time}_1 = (D/3) \div 20 = D / 60$$

$$\text{Time}_2 = (2D/3) \div 30 = 2D / 90 = D / 45$$

$$\text{Total time} = 14 \text{ hr}$$

So,

$$D/60 + D/45 = 14$$

Take LCM of 60 and 45 = 180

$$(3D + 4D) / 180 = 14$$

$$7D = 14 \times 180$$

$$D = 180 \times 2$$

$$D = \mathbf{360 \text{ km}}$$

Explanation:

Q. 83

A certain number of persons can complete a work in 51 days working 12 hours a day. If the number of persons is decreased by 40%, then how many hours a day should the remaining persons work to complete the work in 68 days?

- a) 12 hours
- b) 18 hours
- c) 15 hours
- d) 13 hours

Given:

Total work = constant

Original persons = P

Original days = 51

Original hours per day = 12

Persons decreased by 40% → Remaining persons = 60% of P = 0.6P

New days = 68

New hours/day = ? (let it be x)

Work relation:

$$P \times 51 \times 12 = 0.6P \times 68 \times x$$

Cancel P from both sides:

$$51 \times 12 = 0.6 \times 68 \times x$$

Simplify:

$$3 \times 12 = 4 \times x$$

$$x = 3 \times 5$$

$$x = \mathbf{15 \text{ hours}}$$

Explanation:

Q. 84

Milk and water are in 7 : 21 in one vessel and in another it is 21 : 35. In what ratio should both vessels be mixed so that the final mixture of milk and water becomes 23 : 61?

- a) 1 : 2 X
- b) 7 : 19 X
- c) 17 : 4 ✓
- d) 2 : 1 X

Let x = quantity taken from Vessel 1

Let y = quantity taken from Vessel 2

Vessel 1: Milk : Water = 7 : 21

Milk fraction = $7 / (7 + 21) = 1 / 4$

Vessel 2: Milk : Water = 21 : 35

Milk fraction = $21 / (21 + 35) = 3 / 8$

Final mixture required: Milk : Water = 23 : 61

Milk fraction = $23 / (23 + 61) = 23 / 84$

According to the question:

$$((1/4)x + (3/8)y) / (x + y) = 23 / 84$$

Cross-multiplying:

$$84 * ((1/4)x + (3/8)y) = 23(x + y)$$

$$21x + 63y/2 = 23x + 23y$$

Multiply both sides by 2:

$$42x + 63y = 46x + 46y$$

$$63y - 46y = 46x - 42x$$

$$17y = 4x$$

$$x / y = 17 / 4$$

Therefore, the vessels should be mixed in the ratio 17 : 4.

Final Answer: 17 : 4

Explanation:

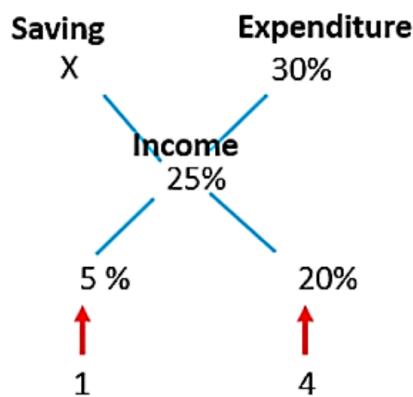
<p>Q. 85</p> <p>When x is subtracted from each of 54, 49, 22 and 21, then the numbers obtained in this order are in proportion. Find the ratio of $(8x - 12)$ and $(7x - 18)$.</p> <p>a) 9 : 4 X</p> <p>b) 5 : 4 ✓</p> <p>c) 3 : 5 X</p> <p>d) 4 : 9 X</p>	<p>Numbers after subtraction: $(54 - x), (49 - x), (22 - x), (21 - x)$</p> <p>Given they are in proportion:</p> $(54 - x) : (49 - x) = (22 - x) : (21 - x)$ $\rightarrow (54 - x)/(49 - x) = (22 - x)/(21 - x)$ <p>Cross-multiply:</p> $(54 - x)(21 - x) = (49 - x)(22 - x)$ <p>Simplify both sides:</p> $1134 - 54x - 21x + x^2 = 1078 - 49x - 22x + x^2$ $\rightarrow 1134 - 75x = 1078 - 71x$ $\rightarrow 1134 - 1078 = 75x - 71x$ $\rightarrow 56 = 4x$ $\rightarrow \mathbf{x = 14}$ <p>Now find ratio of $(8x - 12)$ and $(7x - 18)$:</p> $(8x - 12) = (8 \times 14 - 12) = 112 - 12 = 100$ $(7x - 18) = (7 \times 14 - 18) = 98 - 18 = 80$ <p>Ratio = 100 : 80 = 5 : 4</p>
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Q. 86

The income of A is ₹42,300 per month. He saves 20% of his income. If his monthly income increases by 25% and expenditure increases by 30%, then his monthly savings increase by how much?

- a) 423 ✓
- b) 324 ✗
- c) 487 ✗
- d) 443 ✗

Explanation:



$$25\% - X = 20\% \\ X = 5\%$$

Monthly saving Increase = 5% of 20% of 42300

$$= \frac{1}{20} \times \frac{1}{5} \times 42300 = 423$$

Q. 87	<p>The ratio of the present ages of A and B is 5 : 4. The age of B, 23 years hence, will be 25% more than the age of A, 4 years hence. Find their present ages.</p> <p>a) 40 years, 31 years X</p> <p>b) 38 years, 32 years X</p> <p>c) 32 years, 40 years X</p> <p>d) 40 years, 32 years ✓</p>
Explanation:	<p>Let the present ages of $A = 5x$ $B = 4x$</p> <p>According to the question, B's age 23 years hence will be equal to 25% more (i.e., 5/4 times) of A's age 4 years hence.</p> $\frac{5x + 4}{4x + 23} = \frac{4}{5}$ <p>Now cross multiply:</p> $5(5x + 4) = 4(4x + 23)$ $25x + 20 = 16x + 92$ $\rightarrow 25x - 16x = 92 - 20$ $\rightarrow 9x = 72$ $\rightarrow x = 8$ <p>So,</p> $A = 5x = 40 \text{ years}$ $B = 4x = 32 \text{ years}$

Q. 88

Find the value:

$$\frac{\sec 35^\circ}{\operatorname{cosec} 55^\circ} - \frac{\cos 25^\circ}{\sin 65^\circ}$$

a) 1 Xb) 0 ✓c) 2 Xd) 1/2 X

$$\frac{\sec(90-55)}{\operatorname{cosec} 55} - \frac{\cos(90-65)}{\sin 65}$$

Explanation:

$$\frac{\operatorname{cosec} 55}{\operatorname{cosec} 55} - \frac{\sin 65}{\sin 65}$$

$$1 - 1 = 0$$

Q. 89

A truck is moving away from a tower, and the angle of elevation of the top of the tower is 60° . When the truck moves 80 m farther, the angle of elevation becomes 30° . Find the height of the tower.

- a) $40\sqrt{3}$ m ✓
- b) $20\sqrt{3}$ m ✗
- c) $35\sqrt{3}$ m ✗
- d) $\sqrt{3}$ m ✗

Let the height of the tower = h m

Let the initial distance of the truck from the tower = x m

From the first condition:

$$\tan 60^\circ = h / x$$

$$\sqrt{3} = h / x$$

$$\rightarrow h = \sqrt{3}x \dots(1)$$

From the second condition:

$$\tan 30^\circ = h / (x + 80)$$

$$1/\sqrt{3} = h / (x + 80)$$

$$\rightarrow h = (x + 80)/\sqrt{3} \dots(2)$$

Equating (1) and (2):

$$\sqrt{3}x = (x + 80)/\sqrt{3}$$

Multiply both sides by $\sqrt{3}$:

$$3x = x + 80$$

$$\rightarrow 2x = 80$$

$$\rightarrow x = 40 \text{ m}$$

Now substitute in (1):

$$h = \sqrt{3} \times 40 = 40\sqrt{3} \text{ m}$$

Explanation:

Q. 90	<p>Which of the following statement(s) is/are TRUE?</p> <p>I. $\sqrt{5} + \sqrt{5} > \sqrt{7} + \sqrt{3}$ II. $\sqrt{6} + \sqrt{7} > \sqrt{8} + \sqrt{5}$ III. $\sqrt{3} + \sqrt{9} > \sqrt{6} + \sqrt{6}$</p> <p>a) Only I X</p> <p>b) Only I and II ✓</p> <p>c) Only II and III X</p> <p>d) Only I and III X</p>
Explanation:	<p>Statement I: $\sqrt{5} + \sqrt{5} > \sqrt{7} + \sqrt{3}$ $\rightarrow 2\sqrt{5} > \sqrt{7} + \sqrt{3}$ Now square both sides: $(2\sqrt{5})^2 > (\sqrt{7} + \sqrt{3})^2$ $\rightarrow 4 \times 5 > 7 + 3 + 2\sqrt{21}$ $\rightarrow 20 > 10 + 2\sqrt{21}$ $\rightarrow 10 > 2\sqrt{21}$ $\rightarrow 5 > \sqrt{21}$ $\rightarrow \sqrt{21} \approx 4.58 \Rightarrow \text{True}$</p> <p>Statement II: $\sqrt{6} + \sqrt{7} > \sqrt{8} + \sqrt{5}$ Square both sides: $(\sqrt{6} + \sqrt{7})^2 > (\sqrt{8} + \sqrt{5})^2$ $\rightarrow 6 + 7 + 2\sqrt{42} > 8 + 5 + 2\sqrt{40}$ $\rightarrow 13 + 2\sqrt{42} > 13 + 2\sqrt{40}$ $\rightarrow 2\sqrt{42} > 2\sqrt{40}$ $\rightarrow \sqrt{42} > \sqrt{40}$ $\rightarrow \text{True}$</p> <p>Statement III: $\sqrt{3} + \sqrt{9} > \sqrt{6} + \sqrt{6}$ $\rightarrow \sqrt{3} + 3 > 2\sqrt{6}$ Square both sides: $(\sqrt{3} + 3)^2 > (2\sqrt{6})^2$ $\rightarrow 3 + 9 + 6\sqrt{3} > 24$ $\rightarrow 12 + 6\sqrt{3} > 24$ $\rightarrow 6\sqrt{3} > 12$ $\rightarrow \sqrt{3} > 2$ $\rightarrow 1.732 > 2 (\text{X} \text{ False})$</p> <p style="color: red;">X Statement III is FALSE</p>

Q. 91

If $x + \frac{1}{x} = 2$, find the value of $(x^4 + \frac{4}{x^4})(x^3 - \frac{5}{x^3})$.

- a) -10 X
- b) -30 X
- c) -20 ✓
- d) -15 X

Explanation:

Since $x + \frac{1}{x} = 2$, that's possible only if $x = 1$.

Now substitute $x = 1$:

$$(x^4 + \frac{4}{x^4})(x^3 - \frac{5}{x^3}) = (1 + 4)(1 - 5) = 5 \times (-4) = -20$$

Q. 92

If the perimeter of an equilateral triangle is 36 units, then its area is (in square units):

- a) $144\sqrt{3}$ X
- b) $36\sqrt{3}$ ✓
- c) $144\sqrt{2}$ X
- d) $36\sqrt{2}$ X

Explanation:

Let the side = a

Perimeter = 36

$$3a = 36$$

$$a = 12$$

$$\text{Area} = \frac{\sqrt{3}}{4} a^2 = \frac{\sqrt{3}}{4} \times 12 \times 12 \\ = 36\sqrt{3} \text{ sq. units}$$

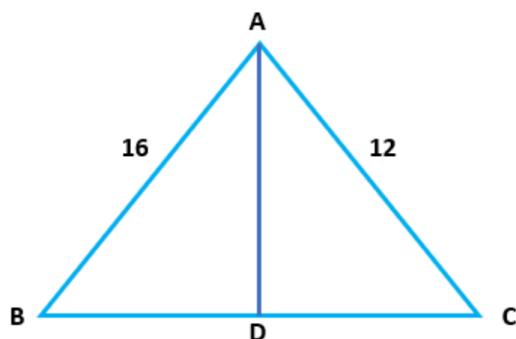
<p>Q. 93</p> <p>All odd prime numbers up to 100 are multiplied together. What is the unit digit in this product?</p> <p>a) 0 X</p> <p>b) 2 X</p> <p>c) 5 ✓</p> <p>d) 4 X</p>	<p>Explanation:</p> <p>List of odd prime numbers up to 100: 3, 5, 7, 11, 13</p> <p>When 5 is multiplied by any odd number, the unit digit becomes 5.</p> <p>Example: $5 \times 3 = 15$ (unit digit 5) $5 \times 7 = 35$ (unit digit 5)</p> <p>When 5 is multiplied by any Even number, the unit digit becomes 0.</p>
<p>Q. 94</p> <p>Find the inradius of a triangle with sides 27 cm, 36 cm, and 45 cm.</p> <p>a) 22.5 X</p> <p>b) 9 ✓</p> <p>c) 18 X</p> <p>d) 27 X</p>	<p>Explanation:</p> <p>Recognize the type of triangle 27, 36, and 45 are in the ratio $3 : 4 : 5$, so it's a right-angled triangle.</p> <p>Formula for inradius (r) of a right-angled triangle</p> $r = \frac{a + b - c}{2} \text{ Substitute the values}$ $r = \frac{27 + 36 - 45}{2}$ $r = \frac{63 - 45}{2} = \frac{18}{2} = 9$

Q. 95	<p>In an election, 95% of the total voters cast their votes. There were only two candidates, A and B. The winner, A, by obtaining 75% of the total votes, defeated his contestant B by 11000 votes. Find the total number of voters in the election.</p> <p>a) 23584 X</p> <p>b) 29857 X</p> <p>c) 20000 ✓</p> <p>d) 23689 X</p>
Explanation:	$100\% = 5\% \text{ (did not vote)} + 75\% \text{ (A's votes)} + 75\% - 11000 \text{ (B's votes)}$ $55\% \rightarrow 11000 \text{ votes}$ <p>So,</p> $55\% \rightarrow 11000$ $100\% \rightarrow (11000 \times 100) / 55 = 20,000$

Q. 96

If ABC is a triangle and AD is the angle bisector of angle A, given that AB = 16 cm, AC = 12 cm, and BC = 35 cm. Find the length of BD.

- a) 15 X
- b) 20 ✓
- c) 25 X
- d) 35 X

**Explanation:**

By angle bisector theorem,

$$\frac{BD}{DC} = \frac{AB}{AC} = \frac{16}{12} = \frac{4}{3}$$

Let BD = 4x and DC = 3x

Then,

$$4x + 3x = 35 \Rightarrow 7x = 35 \Rightarrow x = 5$$

\therefore BD = 20 cm and DC = 15 cm

Q. 97	<p>If $a - b = 5$ and $ab = 25$, find the value of $a^3 - b^3$.</p> <p>a) 400 X</p> <p>b) 500 ✓</p> <p>c) 250 X</p> <p>d) 300 X</p>
Explanation:	<p>We know:</p> $a^3 - b^3 = (a - b)^3 + 3ab(a - b)$ <p>Substitute values:</p> $\begin{aligned} &= 5^3 + 3(25)(5) \\ &= 125 + 375 \\ &= 500 \end{aligned}$

Q. 98

A 20 m deep well with radius 1.4 m is dug, and the earth taken out is spread evenly to form a platform of breadth 8 m and height 2 m. Find the length of the platform.

- a) 7.7 m ✓
- b) 6.7 m ✗
- c) 7 m ✗
- d) 9.7 m ✗

$$\text{Volume of earth taken out (well)} = \text{Volume of cylinder}$$

$$\text{Volume of well} = \pi r^2 h$$

$$= \frac{22}{7} \times (1.4)^2 \times 20$$

$$= \frac{22}{7} \times 1.96 \times 20$$

$$= 22 \times 0.28 \times 20 = 123.2 \text{ m}^3$$

Explanation:

$$\text{Volume of platform} = \text{Length} \times \text{Breadth} \times \text{Height}$$

$$\text{Let the length} = L \text{ m}$$

$$\text{Volume of platform} = L \times 8 \times 2 = 16L$$

Equate both volumes

$$16L = 123.2$$

$$L = \frac{123.2}{16} = 7.7$$

Length of the platform = 7.7 m

Q. 99

If Ram purchases a fan, he gets 8% discount, however, if he purchases three fans he gets 6% on the first, 10% on the second and 12% on the third. If the price paid by the Ram for three fans is ₹6,800, then what will be the marked price of each fan?

- a) ₹2,550 ✗
- b) ₹2,400 ✗
- c) ₹2,450 ✗
- d) ₹2,500 ✓

Explanation:

Let MP : 100 100 100
↓-6%. ↓-10%. ↓-12%.
94 + 90 + 88 → 272

$$\begin{aligned}272 \text{ units} &= ₹6800 \\100 \text{ units} &= \frac{6800}{272} \times 100 = ₹2,500\end{aligned}$$

Q. 100

A boat can go 54 km upstream in 6 hours. If the speed of the stream is 4.8 km/h, then how much time (in hours) will the boat take to cover a distance of 279 km downstream?

- a) 16
- b) 18
- c) 20
- d) 15

Explanation:

Let the speed of boat in still water = x km/h

Speed of stream = 4.8 km/h

Speed in upstream = $(x - 4.8)$ km/h

$$\frac{54}{6} = x - 4.8$$

$$x = 13.8 \text{ km/h}$$

Time taken by boat to cover 279 km downstream

$$= \frac{279}{13.8 + 4.8} = \frac{279}{18.6} = 15 \text{ hours}$$