RBE NTPC 2025 Live Mock May 24,2025

Q. 1

If $x = \frac{\sqrt{5}+1}{\sqrt{5}-1}$ and $y = \frac{\sqrt{5}-1}{\sqrt{5}+1}$, then find the value of $x^2 + y^2$.

a) 9 ✗

b) 5 ✗

c) 7 ✓

d) 6 ✗

Explanation:

$$x + y = \frac{\sqrt{5}+1}{\sqrt{5}-1} + \frac{\sqrt{5}-1}{\sqrt{5}+1}$$

$$\Rightarrow \frac{(\sqrt{5}+1)^2 + (\sqrt{5}-1)^2}{(\sqrt{5})^2 - (1)^2}$$

$$\Rightarrow \frac{12}{4} = 3$$

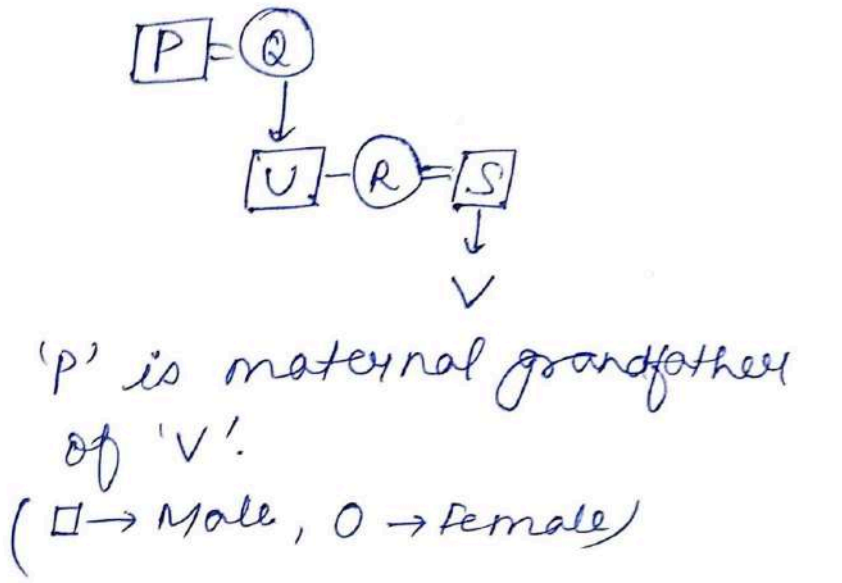
$$xy = \frac{\sqrt{5}+1}{\sqrt{5}-1} \times \frac{\sqrt{5}-1}{\sqrt{5}+1} = 1$$

$$\Rightarrow x^2 + y^2 = (x+y)^2 - 2xy$$

$$= (3)^2 - 2 \times 1$$

$$= 7 \text{ Ans}$$

Q. 2	**Which of the following is NOT a component of the Indian money supply?** **a) Time deposits** ✗ **b) Foreign currency reserves** ✓ **c) Demand deposits** ✗ **d) Currency in circulation** ✗
Explanation:	The correct answer is: b **Explanation:** The **money supply** in India refers to the total stock of money available in the economy at a given time. It is classified into different measures (M1, M2, M3, and M4), which include various financial components. **Components of Indian Money Supply:** 1. **Time Deposits** → Includes fixed deposits held in banks that are not immediately available for withdrawal. 2. **Demand Deposits** → Funds in savings and current accounts that can be withdrawn **on demand**. 3. **Currency in Circulation** → Includes **physical cash (coins & notes)** held by the public.

Q. 3	'A # B' means 'A is the father of B', 'A $ B' means 'A is the mother of B', 'A @ B' means 'A is the husband of 'B, 'A % B' means 'A is the wife of B', 'A = B' means 'A is the brother of B' Then how is P related to V in the following expression? P @ Q $ U = R % S # V a) Paternal grandfather ✗ b) Maternal grandfather ✓ c) Father's brother ✗ d) Mother's brother ✗
Explanation:	The correct answer is: b 

Q. 4 If $x^2 = y + z$, $y^2 = z + x$ and $z^2 = x + y$, then find the value of $\frac{1}{x+1} + \frac{1}{y+1} + \frac{1}{z+1}$.

a) 4 ✗

b) 1 ✓

c) -1 ✗

d) 2 ✗

Explanation:

$x^2 = y + z$

$\Rightarrow x^2 + x = x + y + z$

$\Rightarrow x(x+1) = x + y + z$

$\Rightarrow x + 1 = \frac{(x+y+z)}{x}$

$\Rightarrow \frac{1}{x+1} = \frac{x}{x+y+z}$

Similarly,

$\frac{1}{y+1} = \frac{y}{x+y+z}$

$\frac{1}{z+1} = \frac{z}{x+y+z}$

$\Rightarrow \frac{1}{x+1} + \frac{1}{y+1} + \frac{1}{z+1}$

$\Rightarrow \frac{x}{x+y+z} + \frac{y}{x+y+z} + \frac{z}{x+y+z}$

$\Rightarrow \frac{x+y+z}{x+y+z} = 1$ (Ans)

Q. 5	**Which of the following systems was a major political innovation of the Vijayanagara Empire administration?** **a)** Brahmadeya ✗ **b)** Iqtadari ✗ **c)** Khas-i-Khel ✗ **d)** Amara-Nayaka ✓
Explanation:	The correct answer is: d **Explanation:** The **Amara-Nayaka system** was a crucial administrative and military innovation of the **Vijayanagara Empire**. This system was somewhat similar to the **Iqta system** of the Delhi Sultanate, but with distinct characteristics suited to the needs of Vijayanagara's governance. **Key Features:** • The emperor assigned **land grants** (called Amara) to military commanders and nobles, known as **Nayakas**. • These Nayakas were responsible for collecting **revenue**, maintaining troops, and ensuring regional stability. • They had to provide a fixed number of soldiers to the **imperial army** when required. • The system helped decentralize power while ensuring military loyalty and efficient administration. **Comparison with Other Options:** • **Brahmadeya:** Lands granted to Brahmins in early medieval South India. • **Iqtadari:** A land revenue system under the Delhi Sultanate, similar to feudal land grants.

Q. 6

The following table gives the number of males, females, educated males and educated females in a village over the years 2016 - 2020. Study the table carefully and answer the question.
Find the percentage of the total number of educated females to the total number of females over all the years (up to 2 decimal places).

Year / No.	2016	2017	2018	2019	2020
Males	1050	1200	1250	1300	1400
Females	900	1000	1020	1100	1200
Educated males	850	1000	1100	1150	1200
Educated females	600	820	950	980	1000

a) 0.8923 ✗

b) 0.8333 ✓

c) 0.8623 ✗

d) 0.9233 ✗

Explanation:

The correct answer is: b

The percentage of the total number of educated females to the total number of females over all the years is $\frac{600+820+950+980+1000}{900+1000+1020+1100+1200} \times 100$

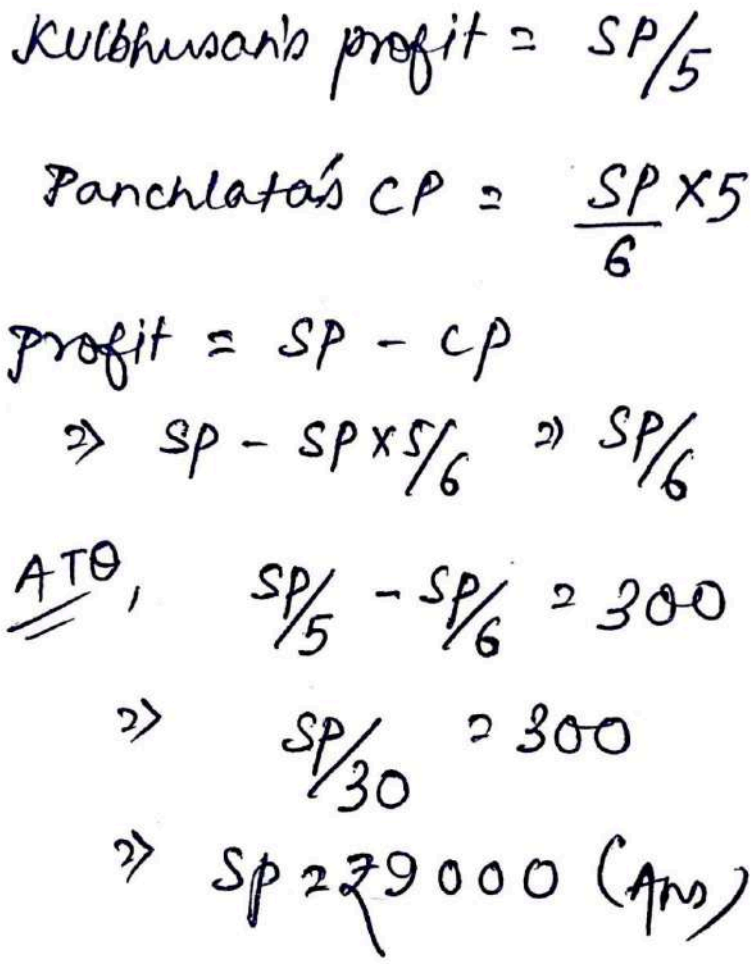
$\Rightarrow \frac{4350}{5220} \times 100 \Rightarrow$ 83.33% Or 0.8333

Q. 7	**The keyboard shortcut for opening a new document in Microsoft Word 365, while another document is already open, is _____.** **a)** Ctrl + S ✗ **b)** Ctrl + Y ✗ **c)** Ctrl + P ✗ **d)** Ctrl + N ✓
Explanation:	The correct answer is: d **Explanation:** In **Microsoft Word 365**, pressing **Ctrl + N** creates a **new document** while keeping the existing one open. This shortcut is widely used for quickly starting a fresh document without manually navigating through menus. **Comparison with Other Options:** • **Ctrl + S** → Saves the current document, ensuring no changes are lost. • **Ctrl + Y** → Redoes the last undone action in Word. • **Ctrl + P** → Opens the Print dialog to print the current document.

Q. 8	**Simplify the expression:** **$(\sqrt{64} + \sqrt{0.64} + \sqrt{0.0064})\sqrt{10000}$** **a) 888** ✔ **b) 88.8** ✘ **c) 0.888** ✘ **d) 8.88** ✘
Explanation:	$(\sqrt{64} + \sqrt{0.64} + \sqrt{0.0064})\sqrt{10000}$ $(\sqrt{64} + \sqrt{64/10^2} + \sqrt{64/10^4})\sqrt{10^4}$ $\Rightarrow (8 + 8/10 + 8/10^2)\,10^2$ $\Rightarrow (8 + 0.8 + 0.08)\,10^2$ $\Rightarrow (8.88) \times 100 = 888$ Ans

Q. 9	**Read the given statement and conclusions carefully. Assuming that the information given in the statements is true, decide which of the given conclusions logically follow(s) from the statement.** **Statement:** **In a recent survey on choice of drink, 65 percent of the people preferred tea, 28 percent preferred coffee, 5 percent preferred milk, while 2 percent were neutral.** **Conclusions:** **I. Tea is a better drink than coffee.** **II. More people prefer to drink coffee as compared to milk** **a) Only conclusion I follows** ✗ **b) Neither conclusion I nor II follows** ✗ **c) Both conclusions I and II follow** ✗ **d) Only conclusion II follows** ✓
Explanation:	The correct answer is: d • **Statement Analysis**: The statement provides survey data about people's drink preferences—65% prefer tea, 28% coffee, 5% milk, and 2% are neutral. • **Conclusion I**: Tea being "better" than coffee is a subjective claim, as the data only shows tea is more popular. Popularity does not necessarily equate to superiority, so Conclusion I does **not** logically follow. • **Conclusion II**: The survey data clearly shows that 28% of people prefer coffee, while only 5% prefer milk. This means more people prefer coffee compared to milk, so Conclusion II **does** logically follow. Therefore, only conclusion II follows.

Q. 10	**Rivers which descend from the Himalayas deposit their load along the foothills in the form of _____.'** **a)** pediments ✗ **b)** playas ✗ **c)** alluvial fans ✓ **d)** bajadas ✗
Explanation:	The correct answer is: c **Explanation:** As rivers flow down from the **Himalayas**, they carry sediments like sand, silt, and gravel. When these rivers reach the **foothills**, their velocity decreases, causing them to deposit their load in the form of **alluvial fans**—a fan-shaped accumulation of sediments. These formations are commonly found where mountain streams meet plains. **Comparison with Other Options:** • **Pediments** → Erosional surfaces found along the base of mountains, not depositional structures. • **Playas** → Shallow, seasonal lakes found in arid regions, unrelated to river deposition. • **Bajadas** → A combination of multiple alluvial fans that merge together, but individual deposits form **alluvial fans** first.

Q. 11	**Kulbhusan calculates his profit percentage on selling price, whereas Panchlata calculates his on the cost price. They find that the difference in their profits ₹300. If their selling price is the same, and both of them get a profit of 20%, then what is the selling price?** **a) ₹9,000** ✔ **b) ₹7,500** ✘ **c) ₹6,000** ✘ **d) ₹10,500** ✘
Explanation:	

Q. 12	**The Pradhan Mantri Rojgar Yojana was started during the_____.** **a) Ninth Five Year Plan** ✗ **b) Eighth Five Year Plan** ✓ **c) Seventh Five Year Plan** ✗ **d) Tenth Five Year Plan** ✗
Explanation:	The correct answer is: b **Explanation:** The **Pradhan Mantri Rojgar Yojana (PMRY)** was launched in **1993**, during the **Eighth Five-Year Plan (1992–1997)**, with the primary objective of generating **self-employment opportunities** for unemployed youth in India. The scheme aimed to provide financial assistance to eligible individuals for setting up their own ventures. **Key Features of PMRY:** • Focused on **educated unemployed youth**, particularly those from economically weaker sections. • Provided **subsidized loans** through banks to help individuals start small businesses. • Targeted sectors included **manufacturing, service, and trade**. • Encouraged **entrepreneurship** as a means of boosting employment rather than direct job creation.

Q. 13	**Select the option that is related to the third word in the same way as the second word is related to the first word.** **Neigh : Horse :: Bray :?** **a)** Pony ✗ **b)** Goat ✗ **c)** Donkey ✓ **d)** Bear ✗
Explanation:	The correct answer is **Donkey**. To solve this analogy, let's carefully examine the relationship: • **Neigh : Horse** The word "Neigh" represents the sound made by a horse. • **Bray : ?** Similarly, "Bray" represents the sound made by a donkey. So, the correct answer is **Donkey** because the analogy follows the pattern of associating an animal with the sound it makes.

Q. 14	**If the sum of two numbers is 26 and the difference between them is 12. Then what is the value of three times the product of the number?** **a)** 276 ✗ **b)** 399 ✓ **c)** 244 ✗ **d)** 258 ✗
Explanation:	$a + b = 28$ $a - b = 12$ $a = 38/2 = 19$ $b = 7$ $3 * 7 * 19 = 399$

Q. 15	**In which of the following years was the Indian National Congress split into two groups named as Moderates and Extremists?** **a)** 1899 ✗ **b)** 1895 ✗ **c)** 1904 ✗ **d)** 1907 ✓
Explanation:	The correct answer is: d **Explanation:** The **Indian National Congress (INC)** split into two factions—the **Moderates** and the **Extremists**—at the **Surat Session of 1907** due to ideological differences regarding the approach to attaining **self-governance**. **Key Reasons for the Split:** • **Moderates** (led by leaders like **Gopal Krishna Gokhale** and **Dadabhai Naoroji**) believed in **constitutional reforms** and peaceful negotiation with the British. • **Extremists** (led by leaders like **Bal Gangadhar Tilak, Lala Lajpat Rai, and Bipin Chandra Pal**) advocated **aggressive resistance** and mass movements for Swaraj (self-rule). • The disagreement over the selection of the Congress President between **Rash Behari Ghosh (Moderates)** and **Bal Gangadhar Tilak (Extremists)** triggered the formal division.

Q. 16

Match the industrial plan with its location.

Name of industrial Plant	Related Location
1. BALCO	A) Burnpur
2. IISCO	B) Chennai
3. NFL	C) Korba
4. ICF	D) Bhatinda

a) 1-C,2-A,3-D,4-B ✔

b) 1-A,2-B,3-C,4-D ✘

c) 1-D,2-A,3-B,4-C ✘

d) 1-C,2-A,3-B,4-D ✘

Explanation:

The correct answer is: a

Explanation:

BALCO (Bharat Aluminium Company Ltd.) – Located in **Korba, Chhattisgarh**. BALCO is one of India's leading aluminum producers.

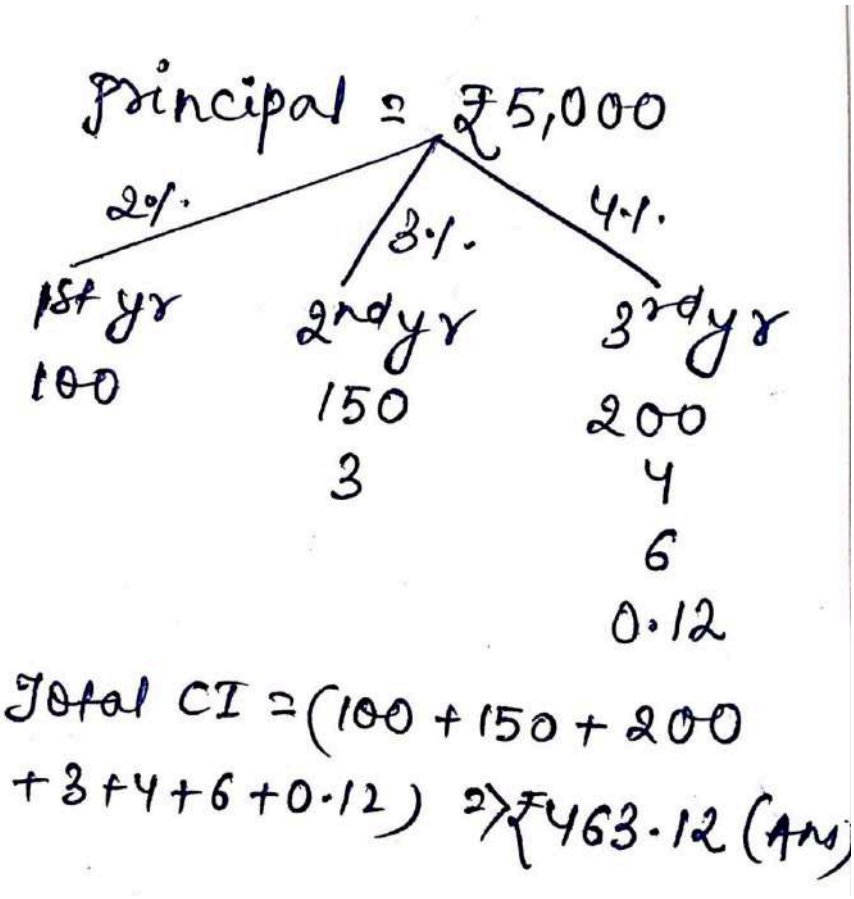
IISCO (Indian Iron and Steel Company) – Situated in **Burnpur, West Bengal**. It is a major steel producer, now a part of SAIL (Steel Authority of India Ltd.).

NFL (National Fertilizers Limited) – Its plant is in **Bhatinda, Punjab**, a significant fertilizer production facility.

ICF (Integral Coach Factory) – Based in **Chennai, Tamil Nadu**, it is renowned for manufacturing railway coaches.

Q. 17	**In a certain code language, 'Horses are animals' is written as 'lu # @', 'Animals are mammals' is written as 'kt lu #', 'Are horses mammals' is written as 'kt # @', what is the code for 'animals' in that code language.** **a)** # ✗ **b)** kt ✗ **c)** lu ✓ **d)** @ ✗
Explanation:	The correct answer is: c In "Horses are animals" = **lu # @** In "Animals are mammals" = **kt lu #**, the code for "animals" must be **lu and #**. The overlap between these two statements is **'lu' and '#'**. This narrows down the possible code for "animals." **Compare with "Are horses mammals" =** kt # @: • The word "animals" is not part of this sentence, but the other codes like kt, #, and @ are accounted for in different combinations, leaving **'lu'** uniquely tied to "animals." **Final Code Identification**: • Based on this logical deduction, the code for "animals" is **'lu'**.

Q. 18	**Which greenhouse gas, often associated with agricultural practices and waste management, has a global warming potential approximately 25 times higher than carbon dioxide over a 100-year period, as per the IPCC's Fifth Assessment Report?** **a) Nitrous Oxide (N_2O)** ✗ **b) Methane (CH_4)** ✓ **c) Sulfur Hexafluoride (SF_6)** ✗ **d) Hydrofluorocarbons (HFCs)** ✗
Explanation:	The correct answer is: b **Explanation:** Methane is a potent **greenhouse gas** with a **global warming potential (GWP) approximately 25 times greater than carbon dioxide (CO_2)** over a 100-year period, according to the **IPCC's Fifth Assessment Report**. Although it has a shorter atmospheric lifespan than CO_2, methane is highly effective at trapping heat, making it a key contributor to climate change.

Q. 19	**How much compound Interest (in Rs.) will we get on ₹5,000 in 3 years if the rate of interest is 2% for the 1st year, 3% for the 2nd year and 4% for the 3rd year?** **a) ₹472.93** ✗ **b) ₹456.18** ✗ **c) ₹463.12** ✓ **d) ₹444.56** ✗
Explanation:	

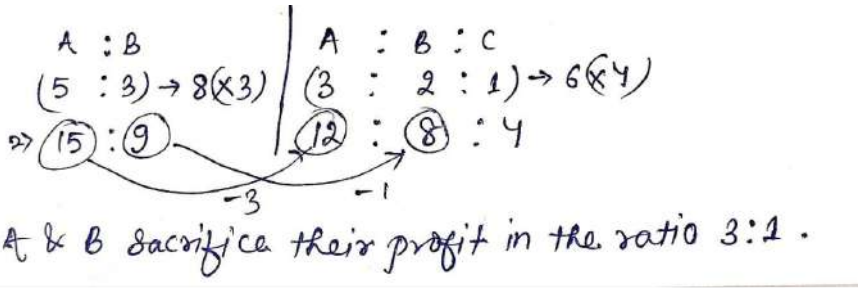
Q. 20	**The total number of students in a school is 240. If the number of boys in the school is 135, then what is the ratio of the total number of girls to the total number of boys in the school?** **a) 9 : 7** ✗ **b) 5 : 3** ✗ **c) 3 : 5** ✗ **d) 7 : 9** ✓
Explanation:	Total number of students in the school = 240 Total number of boys = 135 Therefore, total number of girls = 240 – 135 => 105 Girls : Boys = 105 : 135 => 7 : 9

Q. 21	**The Bahamani kingdom was divided into four administrative units called _____ or provinces.** **a)** tarafs ✓ **b)** mandalas ✗ **c)** Nadus ✗ **d)** Chavadis ✗
Explanation:	The correct answer is: a **Explanation:** The **Bahamani Kingdom** (established in 1347 CE) was divided into **four administrative units** known as **tarafs**, each governed by a noble or provincial governor called a **Tarafdar**. These administrative divisions helped maintain control over the vast territory and ensured efficient governance. **Key Features of Tarafs:** • Each **Taraf** had a **Tarafdar**, who acted as the provincial governor, overseeing military and revenue administration. • The system ensured **decentralized control**, preventing absolute centralization of power in the Sultan's hands. • It facilitated **better taxation and law enforcement** across the kingdom's diverse regions. The **Taraf system** was crucial in maintaining political stability in the Bahamani kingdom before it eventually disintegrated into five **Deccan Sultanates**.

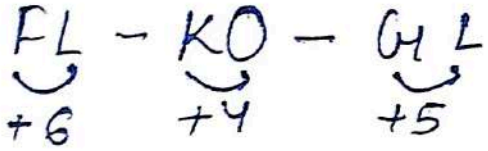
Q. 22	**Select the set in which the numbers are related in the same way as are the numbers of the following sets.** **(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)** **(26, 364, 7)** **(29, 348, 6)** **a) (25, 350, 5)** ✗ **b) (16, 254, 7)** ✗ **c) (23, 376, 6)** ✗ **d) (19, 342, 9)** ✓
Explanation:	The correct answer is: d • 26×7×2=364 • 29×6×2=348 • 19×9×2=342

Q. 23	**$\tan35°+\tan25°+\sqrt{3}\tan25°\tan35°$ is equal to:** **a)** 1 ✗ **b)** $\tan60°$ ✗ **c)** $\sqrt{3}$ ✗ **d) Both b and c** ✓
Explanation:	The correct answer is: d $\tan(35°+25°) = \frac{\tan35°+\tan25°}{1-\tan35°\tan25°}$ $\tan60° = \frac{\tan35°+\tan25°}{1-\tan35°\tan25°}$ $\tan60° - \tan60°\tan35°\tan25° = \tan35°+\tan25°$ $\tan60° = \tan35°+\tan25°+\tan60°\tan35°\tan25°$ $\boxed{\tan60° = \tan35°+\tan25°+\sqrt{3}\tan35°\tan25°.}$ $\because \tan60° = \sqrt{3}$ $\therefore$ Both 'b' and 'c'

Q. 24	**Which sea separates Africa from the Arabian peninsula?** **a) Red Sea** ✔ **b) Black Sea** ✘ **c) White Sea** ✘ **d) Caspian Sea** ✘
Explanation:	The correct answer is: a **Explanation:** The **Red Sea** is the body of water that separates **Africa** (primarily Egypt, Sudan, and Eritrea) from the **Arabian Peninsula** (Saudi Arabia and Yemen). It is an important natural boundary and a key maritime route linking the **Mediterranean Sea** (via the **Suez Canal**) to the **Indian Ocean**. **Why the Red Sea?** • It lies between **Northeast Africa** and **Western Asia**. • It serves as a **critical trade route**, especially for oil and shipping. • It connects to the **Bab el Mandeb Strait**, leading into the **Gulf of Aden** and the Arabian Sea. **Comparison with Other Options:** • **Black Sea** → Located between Eastern Europe and Western Asia, touching countries like Turkey, Russia, and Ukraine. • **White Sea** → A small sea in the Arctic region, part of Russia. • **Caspian Sea** → The **largest enclosed inland body of water**, bordered by Russia, Kazakhstan, Turkmenistan, Iran, and Azerbaijan.

Q. 25	**A and B are partners in a business and shares profit in 5 : 3. Later, C joins and all of them decide to share the profit in the ratio 3 : 2 : 1, accordingly. In what ratio A and B sacrifice their profits when C joins the business?** **a) 3 : 1** ✔ **b) 5 : 2** ✘ **c) 2 : 3** ✘ **d) 1 : 2** ✘
Explanation:	

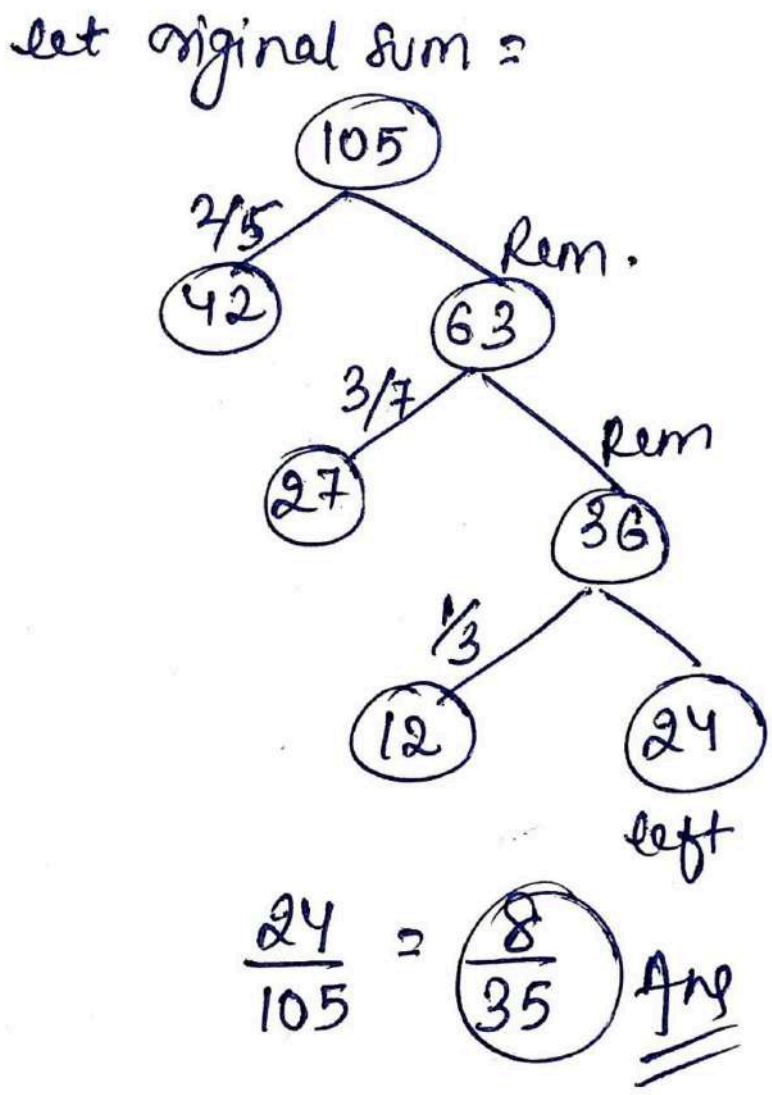
Q. 26	**Mahatma Gandhi started his first movement from which of the following places in India after returning from South Africa?** **a)** Ahmedabad ✗ **b)** Kheda ✗ **c)** Bardoli ✗ **d)** Champaran ✓
Explanation:	The correct answer is: d **Explanation:** After returning from **South Africa in 1915**, **Mahatma Gandhi** initiated his first major movement in **Champaran, Bihar**, in **1917**. This movement, known as the **Champaran Satyagraha**, was a landmark event in India's struggle for independence and marked Gandhi's entry into mass leadership. **Why Champaran?** • **Indigo farmers** in Champaran were suffering under exploitative policies imposed by British landlords. • The farmers were forced to cultivate **indigo** and sell it at unfair prices, leading to widespread distress. • Gandhi, using **nonviolent resistance (Satyagraha)**, mobilized farmers, investigated their grievances, and successfully pressured the British to abolish the oppressive system. **Comparison with Other Options:** • **Ahmedabad** → Gandhi led the **Ahmedabad Mill Strike (1918)**, advocating fair wages for textile workers. • **Kheda** → Gandhi led the **Kheda Satyagraha (1918)**, demanding tax relief for peasants affected by drought. • **Bardoli** → The **Bardoli Satyagraha (1928)** was led by **Sardar Vallabhbhai Patel** against unjust taxation.

Q. 27	**In the following triad, each group of letters is related to the subsequent group following a certain logic. Select the triad from the given options that follows the same logic.** **RX–IM–BG** **a) MS–EI–TX** ✗ **b) TZ–UY–LM** ✗ **c) FL–KO–GL** ✓ **d) DJ–OR–UX** ✗
Explanation:	The correct answer is: c  option (c) 

Q. 28	**“Eskimos” are associated with which geographical region?** **a) Arid region** ✗ **b) Polar region** ✓ **c) Savanna Grassland** ✗ **d) Tropical Rainforest Region** ✗
Explanation:	The correct answer: b **Explanation:** Eskimos, also referred to as **Inuit** (in Canada and Greenland) and **Yupik** (in Alaska and Russia), are indigenous peoples who traditionally inhabit the **Arctic and sub-Arctic regions**. These areas include **Alaska (USA), Canada, Greenland, and Siberia (Russia).** **Why the Polar Region?** • The **Arctic climate** is characterized by extreme cold, ice-covered landscapes, and **permafrost**, making it one of the most challenging environments for human survival. • Eskimos historically adapted by living in **igloos (snow houses)** during winter and using **kayaks and sleds** for transport. • They traditionally rely on **hunting and fishing**, targeting species such as **seals, whales, fish, and caribou**, which are vital for their sustenance in the icy terrain.

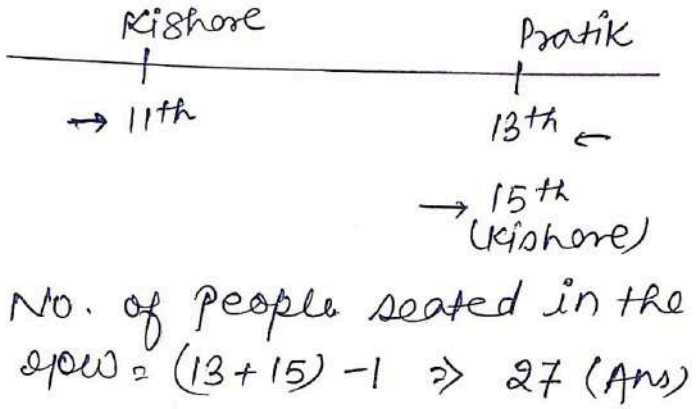
Q. 29	**Read the given statement and courses of action carefully and decide which of the courses of action logically follow(s) from the statement.** **Statement:** **Many cases of children's death are reported from AES (Acute Encephalitis Syndrome) in Muzaffarpur district of Bihar.** **Courses of Action:** **I. The question should be raised in the Legislative Assembly and the resignation of the Health Minister should be demanded with immediate effect.** **II. A team of doctors should be rushed to the affected areas.** **a) Neither I nor II follow** ✗ **b) Only I follow** ✗ **c) Either I or II follow** ✗ **d) Only II follow** ✓
Explanation:	The correct answer is: d **Only II follows.** 1. **Course of Action I**: Demanding the resignation of the Health Minister is a political reaction, but it does not directly address the immediate issue of children suffering from AES. While raising the matter in the Legislative Assembly might bring attention to the problem, it does not provide an immediate solution to save lives. Therefore, this course of action does **not** logically follow. 2. **Course of Action II**: Sending a team of doctors to the affected areas is a direct and practical response to the problem. It aims to provide immediate medical assistance to tackle the disease and prevent further deaths. This course of action logically follows. **Final Conclusion:** **Only II follows**, as it directly addresses the urgent need to mitigate the issue.

Q. 30	**Who recently broke Roger Federer's record by playing his 430th Grand Slam match, the highest in tennis history?** **a)** Rafael Nadal ✗ **b)** Andy Murray ✗ **c)** Novak Djokovic ✓ **d)** Carlos Alcaraz ✗
Explanation:	The correct answer is: c **Explanation:** Novak Djokovic broke **Roger Federer's record** for the most Grand Slam matches played when he competed in his **430th major match** at the **Australian Open 2025**. Federer previously held the record with **429 Grand Slam matches**. **Key Highlights:** • Djokovic surpassed Federer's record during his **second-round match** at the Australian Open 2025. • He has played **more Grand Slam matches** than any other male player in history. • His **winning percentage** at Grand Slams is **88.1%**, making him one of the most dominant players in tennis.

Q. 31	**In a game Rajesh lost 2/5 of his money in the first round of the game, in the second round he losses 3/7 of his remaining money and in the third round he lost 1/3 of the rest. He is left with what part of the original sum of money?** **a)** $\frac{4}{35}$ ✗ **b)** $\frac{6}{35}$ ✗ **c)** $\frac{8}{35}$ ✓ **d)** $\frac{12}{35}$ ✗
Explanation:	

Q. 32	**If '+' means '×', '–' means '÷', '×' means '+', '÷' means '–', then what will come in place of '?' in the given equation?** **112 – 8 × 12 ÷ 25 +8 = ?** **a)** 174 ✗ **b)** -184 ✗ **c)** -174 ✓ **d)** 184 ✗
Explanation:	The correct answer is: c 112 – 8 × 12 ÷25+8 = ? If '+' means '×', '–' means '÷', '×' means '+', '÷' means '–', then => 112 ÷ 8 + 12 - 25×8 => 14 + 12 – 200 => 26 – 200 =>- 174 (Ans)

Q. 33	**Who among the following was the founder of Arya Samaj?** **a) Ishwar Chandra Vidyasagar** ✗ **b) Swami Vivekananda** ✗ **c) Raja Ram Mohan Roy** ✗ **d) Dayanand Saraswati** ✓
Explanation:	The correct answer is: d **Explanation:** **Arya Samaj** was founded by **Swami Dayanand Saraswati** in **1875** in **Bombay (now Mumbai), India**. It was a **Hindu reform movement** that aimed to **revive Vedic principles** and **eliminate social evils** such as caste discrimination, idol worship, and superstition. **Key Beliefs of Arya Samaj:** • Emphasized **Vedas as the ultimate source of truth**. • Advocated **education for all**, including women. • Opposed **idol worship, rituals, and superstitions**. • Promoted **social reforms** like widow remarriage and eradication of untouchability. **Comparison with Other Options:** • **Ishwar Chandra Vidyasagar** → Worked for **widow remarriage and women's education**. • **Swami Vivekananda** → Founded the **Ramakrishna Mission**, promoting Vedanta and spiritual nationalism. • **Raja Ram Mohan Roy** → Founded the **Brahmo Samaj**, another reform movement advocating monotheism and abolition of Sati.

Q. 34	**In a row, Kishore is at 11th place from the left and Pratik is at 13th place from the right. When they interchange the positions, Kishore becomes 15th from the left. How many were seated in the row?** **a)** 27 ✔ **b)** 23 ✘ **c)** 25 ✘ **d)** 29 ✘
Explanation:	The correct answer is: a  No. of people seated in the row = (13 + 15) − 1 ⇒ 27 (Ans)

Q. 35	**The train fare, bus fare and air fare between 2 places are in the ratio 2 : 8 : 25, the number of passengers travelled by them is in the ratio 10 : 3 : 2 and the total fare collected on a particular day for these modes of transportation for a single trip is ₹1,18,440. Find the total fare collected from the air passengers.** **a) ₹56,000** ✗ **b) ₹63,000** ✓ **c) ₹70,000** ✗ **d) ₹77,000** ✗
Explanation:	Train : Bus : Air Fare → 2 : 8 : 25 Passengers → 10 : 3 : 2 20 : 24 : 50 Total fare collected from the air passengers = $\frac{1,18,440}{94} \times 50$ = ₹63,000

Q. 36	**National Institute of Kathak Dance, also known as Kathak Kendra, which is a unit of Sangeet Natak Akademi, is located at _____.** **a) New Delhi** ✓ **b) Madhya Pradesh** ✗ **c) Tamil Nadu** ✗ **d) Uttar Pradesh** ✗
Explanation:	The correct answer is: a **Explanation:** The **National Institute of Kathak Dance (Kathak Kendra)** is a premier institution dedicated to **Kathak**, one of the eight classical dance forms of India. It operates as a **unit of Sangeet Natak Akademi**, which is India's national academy for music, dance, and drama. The **Kathak Kendra** continues to be a **pivotal institution** for training, research, and performance in the world of classical dance.

Q. 37	**Study the given table and answer the questions that follows.** Category | 2019 | 2020 Raw material | 5000 | 6000 Power and fuel | 10000 | 12000 Salary and wages | 8000 | 12000 Advertising | 10000 | 20000 **Find the difference between the least percentage increase and the highest percentage increase in year 2019-2020.** **a) 70%** ✗ **b) 80%** ✓ **c) 50%** ✗ **d) 60%** ✗
Explanation:	The correct answer is: b Least percentage increase in Raw material and Power & fuel = 20% Highest percent increase Salary & wages and Advertising = 100% The difference between the least percentage increase and the highest percentage increase in year => 100% - 20% = 80%

Q. 38

In an election, there were only two candidates. The winning candidate got 46% of the total votes. His opponent got 7800 votes which was 39% of the total votes. Some of the votes were invalid. The winning margin of the candidate who won the election and the number of invalid votes respectively are:

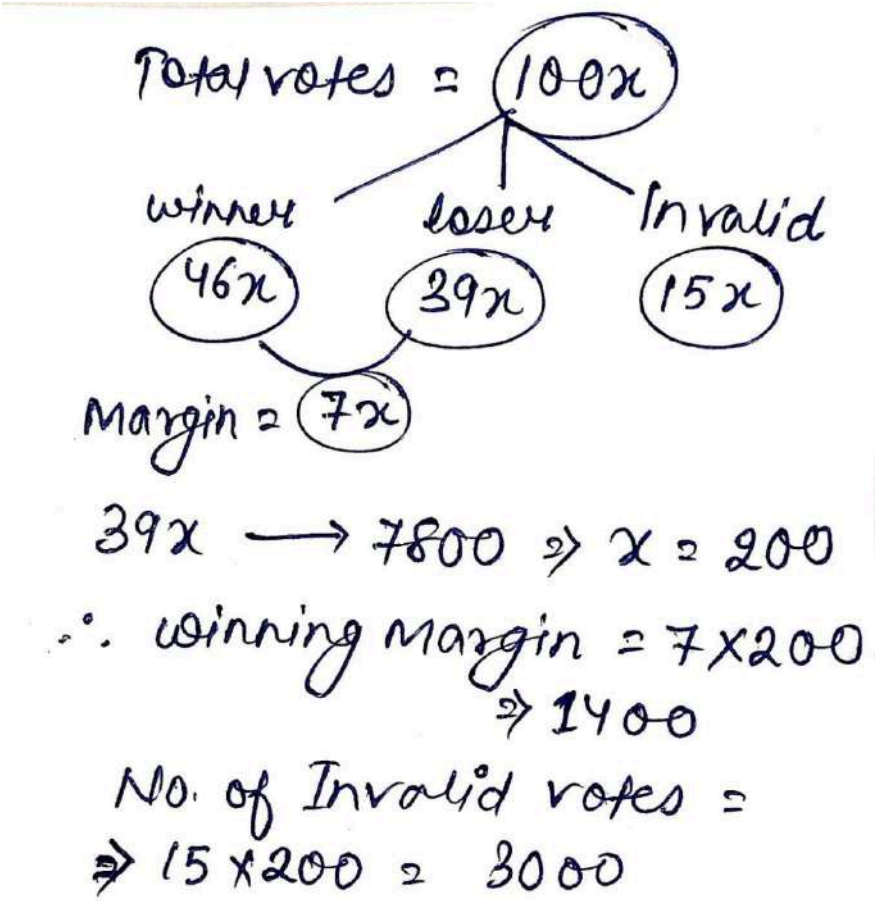
a) 1400 votes, 3000 votes ✔

b) 1500 votes, 2500 votes ✘

c) 1400 votes, 3400 votes ✘

d) 1200 votes, 4500 votes ✘

Explanation:

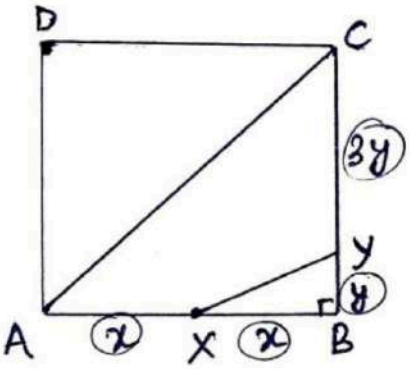


Q. 39	**Find the missing number at?** <table><tr><td>20</td><td>16</td><td>33</td></tr><tr><td>22</td><td>?</td><td>15</td></tr><tr><td>27</td><td>19</td><td>23</td></tr></table> **a)** 42 ✗ **b)** 32 ✓ **c)** 34 ✗ **d)** 36 ✗
Explanation:	The correct answer is: b Along the row, 1^{st} Row => $20 + 16 + 33 = 69$ 2^{nd} Row => $22 + \mathbf{32} + 15 = 69$ 3^{rd} Row => $27 + 19 + 23 = 69$ Therefore, the missing number is 32.

Q. 40	**Under Pradhan Mantri Fasal Bima Yojana, the maximum premium payable by the farmers will be _____for all kharif food and oilseeds crops.** **a)** 4% ✗ **b)** 2% ✓ **c)** 6% ✗ **d)** 8% ✗
Explanation:	The correct answer is: b **Explanation:** Under the **Pradhan Mantri Fasal Bima Yojana (PMFBY)**, the maximum premium payable by farmers for **Kharif food and oilseed crops** is **2% of the sum insured**. This subsidy-driven insurance scheme aims to provide **financial protection** to farmers against crop losses due to natural calamities. **Premium Structure:** • **Kharif Crops** → **2%** of the insured sum. • **Rabi Crops** → **1.5%** of the insured sum. • **Commercial & Horticultural Crops** → **5%** of the insured sum.

Q. 41	**ABCD is a square. X is the mid-point of AB. Y is a point on BC such that BY = 1/4 BC. If the area of $\triangle$BXY is equal to 400 cm^2, find length of diagonal AC.** **a) 80** **b) $60\sqrt{2}$** **c) $80\sqrt{2}$** **d) 60**

Explanation:



Given, $\frac{1}{2} \times x \times y = 400$

$\Rightarrow xy = 800$

$(x+x) = (y+3y)$ [Side of square is same]

$\Rightarrow \frac{x}{y} = \frac{2K}{K}$

$\Rightarrow 2K \times K = 800 \Rightarrow K^2 = 400$

$\Rightarrow K = 20$

$\therefore x = 40\,cm, y = 20\,cm$

$\therefore$ Side $= 2x \Rightarrow 80\,cm$

Diagonal $= \sqrt{2}$ side

$\Rightarrow \sqrt{2} \times 80$

$\Rightarrow 80\sqrt{2}\,cm$ (Ans)

Q. 42	**Where was the Durand Cup Tournament started in India in 1888?** **a)** Mumbai ✗ **b)** Calcutta ✗ **c)** Shimla ✓ **d)** Delhi ✗
Explanation:	The correct answer is: c **Explanation:** The **Durand Cup**, India's oldest football tournament, was started in **1888** in **Shimla** by **Sir Mortimer Durand**, who was then the Foreign Secretary of British India. Originally, the tournament was established as a way for British military personnel to promote **sportsmanship and fitness**.

Q. 43	**Question: How many workers are there in a factory?** **Statements:** **I. There are more than 30 but less than 37 workers in the factory.** **II. There are more than 34 but less than 41 workers in the factory.** **The number of workers in the factory can be divided into two groups in such a manner that each group contains an equal number of workers.** **a) Statements I and II together are not sufficient to answer the question.** ✗ **b) Statement I alone is sufficient to answer the question.** ✗ **c) Both statements I and II together are sufficient to answer the question.** ✓ **d) Statement II alone is sufficient to answer the question.** ✗
Explanation:	The correct answer is **Both statements I and II together are sufficient to answer the question.** **Statement I**: • According to this statement, the number of workers is more than 30 but less than 37. This means the possible values are: **31, 32, 33, 34, 35, or 36**. • The number of workers must also be divisible into two equal groups, which implies the number must be **even**. So, the possible values are **32, 34, or 36**. Statement I alone does not allow us to pinpoint the exact number of workers—it gives a range of possibilities. **Statement II**: • According to this statement, the number of workers is more than 34 but less than 41. This means the possible values are: **35, 36, 37, 38, 39, or 40**. • Again, the number must be divisible into two equal groups, so the possible values are **36, 38, or 40**. Statement II alone does not allow us to determine the exact number of workers—it gives another range of possibilities. **Combining Statements I and II**: • The overlap between the two ranges is the value **36**, which is consistent with both statements and divisible into two equal groups. Therefore, when combining the two statements, we can conclusively determine that the number of workers is **36**.

Q. 44

$$\left[\frac{\left(2+5-\frac{56}{14}+56\right)+\left\{\frac{(2+5\times10)}{13}\right\}\times[(75+8-21)+(115-29\times4)]}{101}\right]=?$$

a) $\frac{302}{101}$ ✗

b) 3 ✓

c) $\frac{297}{101}$ ✗

d) 1 ✗

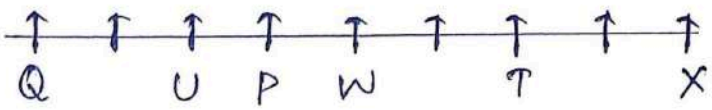
Explanation:

$$\left[\frac{(2+5-56/14+56)+\left\{\frac{(2+5\times10)}{13}\right\}\times[(75+8-21)+(115-29\times4)]}{101}\right]$$

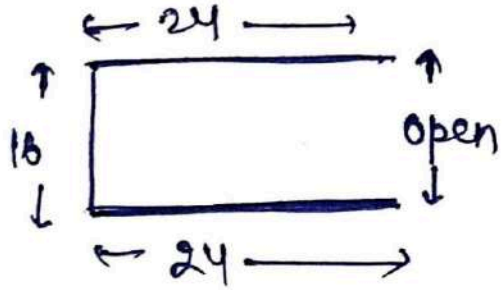
$$\Rightarrow\left[\frac{(7-4+56)+\left\{\left(\frac{52}{13}\right)\times[62+(-1)]\right\}}{101}\right]$$

$$\Rightarrow\left[\frac{59+4\times61}{101}\right]\Rightarrow\frac{303}{101}=3\ (\text{Ans})$$

Q. 45	**What is the unit of measurement for optical power of the lens?** **a)** Yotta ✗ **b)** Katal ✗ **c)** Radian ✗ **d)** Diopter ✓
Explanation:	The correct answer is: d **Explanation:** The **optical power** of a lens, which determines how strongly it converges or diverges light, is measured in **diopters (D)**. The diopter value is given by: $\text{Power (D)} = \frac{1}{\text{Focal Length (meters)}}$ • A **positive diopter** means the lens is **convex (converging)**, commonly used for **reading glasses and magnifiers**. • A **negative diopter** means the lens is **concave (diverging)**, used for **correcting myopia (nearsightedness)**.

Q. 46	**Nine friends P, Q, R, S, T, U, V, W and X are sitting in a straight line, facing East, but not necessarily in the same order. U is fourth to the left of T and second to the right of Q who is fourth to the left of W. X is fifth to the right of P who is third to the left of T. Who is sitting second to the left of X?** **a)** Q ✗ **b)** T ✓ **c)** W ✗ **d)** U ✗
Explanation:	The correct answer is: b  R, S and V can sit in any of the three places. 'T' is sitting second to the left of 'X'.

Q. 47	**Which international organization, established in 1966, is headquartered in Manila, Philippines, and focuses on fostering economic growth and cooperation in Asia and the Pacific?** **a) ASEAN (Association of Southeast Asian Nations)** ✗ **b) ADB (Asian Development Bank)** ✓ **c) APEC (Asia-Pacific Economic Cooperation)** ✗ **d) SAARC (South Asian Association for Regional Cooperation)** ✗
Explanation:	The correct answer is: b **Explanation:** The **Asian Development Bank (ADB)** was established in **1966** with the goal of fostering **economic growth, regional cooperation, and sustainable development** across **Asia and the Pacific**. Its headquarters is in **Manila, Philippines**. **Key Roles of ADB:** • Provides **financial assistance** for infrastructure, poverty reduction, and climate adaptation projects. • Supports **economic policies** and technical guidance to member countries. • Works with governments and private sectors to promote **sustainable development**.

Q. 48	**A rectangular field is 24 cm long and 16 cm wide. A barbed fence has to be drawn on three sides of the field leaving one side open along the width. What is the cost of fencing at the rate of 35 rupees per cm?** **a) ₹2,205** ✗ **b) ₹2,240** ✓ **c) ₹2,310** ✗ **d) ₹2,275** ✗
Explanation:	 Perimeter of the rectangular field that needs to be fenced = ⇒ 24×2 + 16 ⇒ 64 cm Cost = ₹ 64 × 35 = ₹ 2,240 (Ans)

Q. 49	**A statement is given followed by two assumptions numbered I and II. You have to assume everything in the statement to be true and decide which of the given assumptions is/are implicit in the statement.** **Statement:** **Please register for the event latest by 21 April to collect free passes. Passes will not be issued without valid address proof.** **Assumptions:** **I. Voter ID card is valid address proof.** **II. Passes can be purchased at the venue.** **a) Only assumption II is implicit.** ✗ **b) Only assumption I is implicit.** ✗ **c) Neither assumption I nor II is implicit.** ✓ **d) Both assumptions I and II are implicit.** ✗
Explanation:	The correct answer is **Neither assumption I nor II is implicit**. **Explanation:** 1. **Assumption I**: The statement mentions "valid address proof" as a requirement for issuing free passes but does not specify any particular document, such as a voter ID card, as being valid. Therefore, it cannot be concluded whether a voter ID card is valid address proof solely based on the information provided. This assumption is **not implicit**. 2. **Assumption II**: The statement says that free passes will be issued upon registration by 21 April and with valid address proof. There is no mention in the statement about passes being available for purchase at the venue, so this assumption cannot be concluded either. This assumption is **not implicit**. **Final Answer:** **Neither assumption I nor II is implicit**, as neither is supported by the given statement.

Q. 50

Find the relation between x and y such that the point (x, y) is equidistant from (8, 3) and (6, 9).

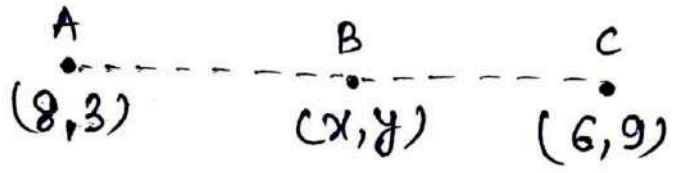
a) $3x - y = 11$ ✗

b) $x - 3y = -11$ ✓

c) $x - 3y = 11$ ✗

d) $3x - y = -11$ ✗

Explanation:



$AB = AC$

$(x-8)^2 + (y-3)^2 = (x-6)^2 + (y-9)^2$

$\Rightarrow x^2 + 64 - 16x + y^2 + 9 - 6y =$

$x^2 + 36 - 12x + y^2 + 81 - 18y$

$\Rightarrow -4x + 12y - 44 = 0$

$\Rightarrow 4x - 12y = -44$

$\Rightarrow 2x - 6y = -22$

$\Rightarrow \boxed{x - 3y = -11}$

Q. 51	**What is the rank of India in the Climate Risk Index (CRI) 2025 released by Germanwatch?** **a)** 4th ✗ **b)** 8th ✗ **c)** 6th ✓ **d)** 10th ✗
Explanation:	The correct answer is: c **Explanation:** India ranked **6th** in the **Climate Risk Index (CRI) 2025**, which assesses the impact of **extreme weather events** on different countries. The index, published by **Germanwatch**, evaluates **human and economic losses** due to climate-induced disasters over the long term.

Q. 52 **The odds against an event is 3 : 4, then the probability that the event will occur is:**

a) $\frac{3}{7}$ ✗

b) $\frac{2}{7}$ ✗

c) $\frac{5}{7}$ ✗

d) $\frac{4}{7}$ ✓

Explanation:

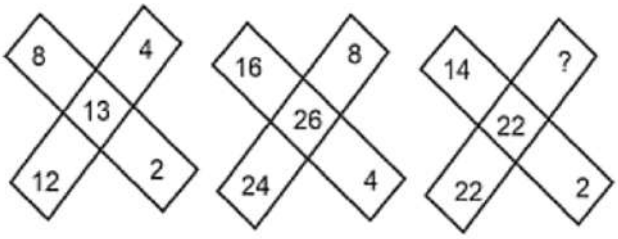
odds against an event is 3:4.

$$\frac{\text{Unfavourable}(E)}{\text{Favourable}(E)} = \frac{3}{4}$$

∴ Probability that the event will occur = 4/7 (Ans)

(∵ Total outcomes = 3+4 ⇒ 7)

Q. 53	**ISRO's Vikram Sarabhai Space Centre and Semiconductor Laboratory (SCL), Chandigarh have jointly developed a 32-bit microprocessor for space applications, named:** **a) Vikram 3201 and Kalpana 3201** ✔ **b) Aryabhatt 3201 and Rohini 3201** ✘ **c) PSLV Chip and Gaganyaan Core** ✘ **d) VSSC Chipset and Chandrayaan 3201** ✘
Explanation:	The correct answer is: a **Explanation:** ISRO's **Vikram Sarabhai Space Centre (VSSC)** and **Semiconductor Laboratory (SCL), Chandigarh** have jointly developed **Vikram 3201** and **Kalpana 3201**, two **32-bit microprocessors** designed for **space applications**. **Key Features:** • **Vikram 3201** → The first fully **Make-in-India** 32-bit microprocessor, qualified for use in **launch vehicles**. • **Kalpana 3201** → A **32-bit SPARC V8 RISC microprocessor**, based on the **IEEE 1754 Instruction Set Architecture**. • Both processors were developed to enhance **onboard navigation, guidance, and control systems** for ISRO's missions. • **Fabrication** → Manufactured at the **180nm CMOS semiconductor fab** of SCL, Chandigarh. • **Validation** → Vikram 3201 was successfully tested in space during the **PSLV-C60 mission**.

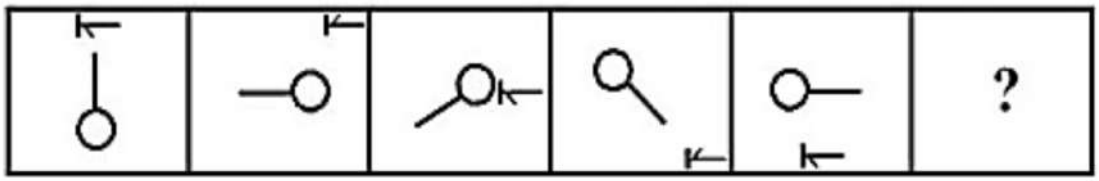
Q. 54	**Find the missing number at?**  **a)** 8 ✗ **b)** 12 ✗ **c)** 10 ✗ **d)** 6 ✓
Explanation:	The correct answer is: d • $(8 + 4 + 2 + 12) \div 2 = 13$ • $(24 + 16 + 8 + 4) \div 2 = 26$ • $(14 + 22 + 2 + 6) \div 2 = 22$

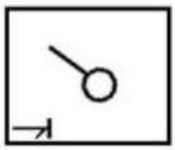
Q. 55	**The radius and height of a right circular cone is increased by 20%. Find the increase in percentage of the volume of the cone.** **a)** 81.18.% ✗ **b)** 68.5% ✗ **c)** 72.8% ✓ **d)** 75.4% ✗
Explanation:	Volume of cone $= \frac{1}{3}\pi r^2 h$ $V \propto R^2 h$ $\Rightarrow 20\% + 20\% + \frac{20 \times 20}{100} = 44\%$ $\Rightarrow 44\% + 20\% + \frac{44 \times 20}{100} = 72.8\%$ Ans

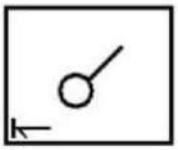
Q. 56	**In March 2025, who has taken charge as the Chief Executive Officer of the Indian Banks Association?** **a) Rajneesh Kumar** ✗ **b) Shaktikanta Das** ✗ **c) Atul Kumar Goel** ✓ **d) S. S. Mundra** ✗
Explanation:	The correct answer is: c **Explanation:** Atul Kumar Goel assumed charge as the **Chief Executive Officer (CEO) of the Indian Banks' Association (IBA)** on **March 11, 2025**. He brings over **three decades of experience** in the banking sector, having previously served as the **Managing Director (MD) and CEO of Punjab National Bank (PNB) from February 2022 to December 2024**.

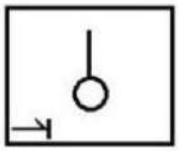
Q. 57

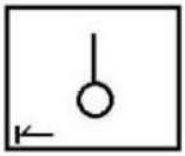
Identify the figure given in the options which when put in place of the question mark (?) will logically complete the series.



a)  ✗

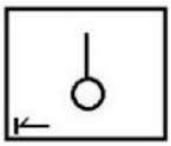
b)  ✗

c)  ✗

d)  ✓

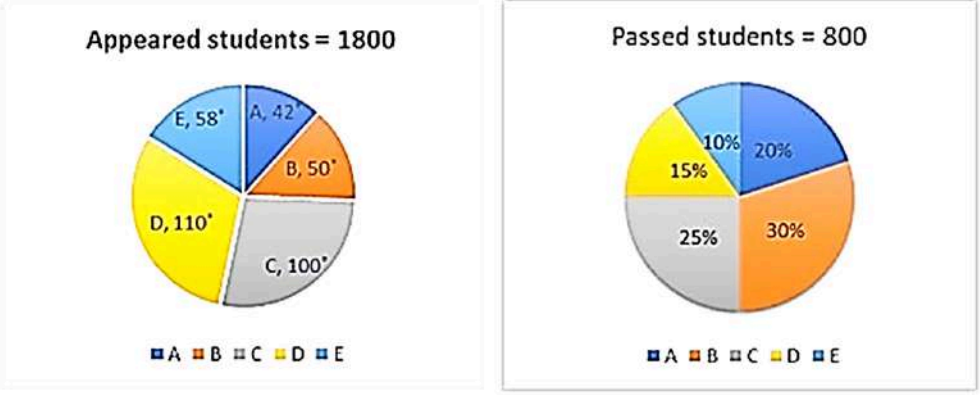
Explanation:

The correct answer is: d



Q. 58

The following pie charts show the data of the number of appeared and passed students of class 12 in section A, B, C, D and E.



What is the percentage of students who appeared for the exam in section E (correct to one decimal place)?

a) 16.8% ✗

b) 29.1% ✗

c) 18.2% ✗

d) 16.1% ✓

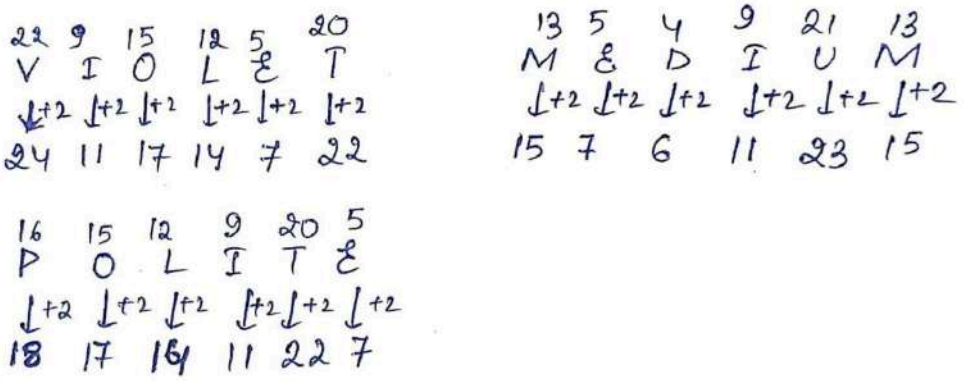
Explanation:

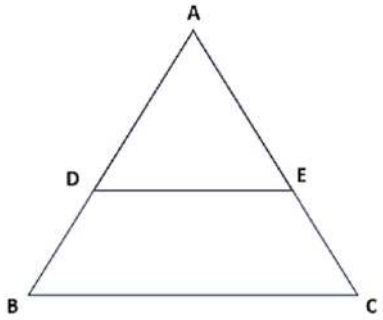
Appeared students in section E = $\frac{58}{360} \times 1800$

= 290

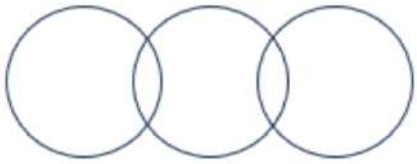
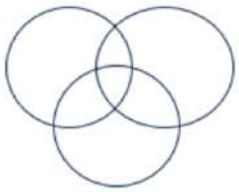
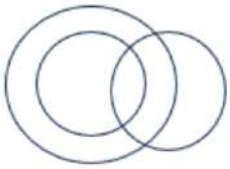
$\therefore$ % of students who appeared = $\frac{290}{1800} \times 100 = 16.1\ \%$

Q. 59	**Who presented the Classical Cell Hypothesis in 1839?** **a) Theodor Schwann** ✔ **b) Andreas Vesalius** ✘ **c) Charles Darwin** ✘ **d) Louis Pasteur** ✘
Explanation:	The correct answer is: a **Explanation:** In **1839**, **Theodor Schwann**, a German physiologist, formulated the **Classical Cell Hypothesis**, which became a foundational principle in modern cell theory. Schwann, along with **Matthias Schleiden**, proposed that: • **All living organisms are composed of cells**. • **Cells are the basic unit of life**. • **Cells arise from pre-existing cells** (later expanded by Rudolf Virchow in 1855). Schwann extended Schleiden's observations on **plant cells** to **animal cells**, thereby unifying biological structures across all life forms.

Q. 60	**VIOLET is related to 24–11–17–14–7–22 in a certain way based on the English alphabetical order. In the same way, MEDIUM is related to 15–7–6–11–23–15. To which of the following is POLITE related, following the same logic?** **a)** 18–17–14–11–22–7 ✔ **b)** 17–7–14–11–22–7 ✘ **c)** 18–11–17–14–7–22 ✘ **d)** 17–18–14–11–22–7 ✘
Explanation:	The correct answer is: a 

Q. 61	**In a given ΔABC, DE∥BC and AD/DB = 5/7. If AC = 7.2 cm, then find AE.**  **a) 1.8 cm** ✗ **b) 3.0 cm** ✓ **c) 4.2 cm** ✗ **d) 2.4 cm** ✗
Explanation:	In ΔABC, DE ∥ BC $\frac{AD}{DB} = \frac{AE}{EC} = 5/7$ ⇒ (5+7) ⟶ 7.2 cm ⇒ 1 ⟶ 0.6 cm ⇒ 5 ⟶ 3 cm ∴ length of AE = 3cm

Q. 62	**Which of the following options falls under the category of aquatic plants?** **a) Sponge gourd plant** ✗ **b) Grape plant** ✗ **c) Water lily plant** ✓ **d) Rose plant** ✗
Explanation:	The correct answer is: c **Explanation:** **Aquatic plants** are plants that grow in **water bodies** such as **ponds, lakes, and wetlands**. They are adapted to survive in **waterlogged conditions**, with specialized structures for buoyancy, gas exchange, and nutrient absorption. • **Water lilies (Nymphaeaceae family)** are **true aquatic plants** that float on water surfaces. • Their **roots are submerged**, but their leaves and flowers remain above water. • They play a key role in **maintaining aquatic ecosystems**, offering habitat for various organisms.

Q. 63	**The question given below contains three groups of things. You are to choose from the following four options, the one that depicts the correct relationship among the groups of things in each question.** **Atmosphere, Hydrogen, Oxygen** **a)**  **b)**  **c)**  **d)** 
Explanation:	The correct answer is: b 

Q. 64	**On which of the following occasions is the Raut Nacha performed by the Yadav community of Chhattisgarh?** **a)** Holi ✗ **b)** Buddha Purnima ✗ **c)** Makar Sankranti ✗ **d)** Deepawali ✓
Explanation:	The correct answer is: d **Explanation:** **Raut Nacha** is a traditional folk dance performed by the **Yadav community of Chhattisgarh**, primarily during the festival of **Deepawali (Diwali)**. The dance is deeply rooted in **mythological and religious traditions**, symbolizing **devotion to Lord Krishna**. **Key Features of Raut Nacha:** • It is performed at **night**, celebrating **Lord Krishna's victory over King Kansa**. • The dance resembles **Krishna's Raas Leela**, with performers moving in groups. • The Yadav community considers themselves **descendants of Krishna**, making this dance a **sacred ritual**. • The occasion also aligns with **Dev Uthni Ekadashi**, marking the **awakening of the gods** after a brief rest.

Q. 65	**Ram is at A and Shyam is at B. They proceed towards each other simultaneously. After meeting each other in the way, Ram takes 2(1/4)h to reach B and Shyam takes 6(1/4)h to reach A. If the speed of Ram is 45 km/h, the speed of Shyam is:** **a) 33 km/h** ✗ **b) 36 km/h** ✗ **c) 27 km/h** ✓ **d) 24 km/h** ✗
Explanation:	$\frac{\text{Speed of Ram}}{\text{Speed of Shyam}} = \sqrt{\frac{\text{Time taken by Shyam}}{\text{Time taken by Ram}}}$ $\Rightarrow \frac{45}{\text{Speed of Shyam}} = \sqrt{\frac{25/4}{9/4}}$ $\Rightarrow \frac{45}{\text{Speed of Shyam}} = 5/3$ $\Rightarrow$ Speed of Shyam $= 27$ km/h

Q. 66	**The black coating formed on silver jewellery is:** **a)** Ag_2CO_3 ✗ **b)** $AgNO_3$ ✗ **c)** $AgCl$ ✗ **d)** Ag_2S ✓
Explanation:	The correct answer is: d **Explanation:** The black coating that forms on **silver jewellery** is due to the chemical reaction between **silver (Ag)** and **sulfur compounds** present in the air, particularly **hydrogen sulfide (H_2S)**. This results in the formation of **silver sulfide (Ag_2S)**, which appears as a **black tarnish** on the surface of the silver. **Reaction:** $2Ag + H_2S = Ag_2S + H_2$

Q. 67

The following table shows the shares traded on Mumbai, Rajasthan, Uttar Pradesh and Uttarakhand stock exchanges:

	Mumbai		Uttarakhand		Rajasthan		Uttar Pradesh	
Name of the company	High	Low	High	Low	High	Low	High	Low
Aata tea	540	395	450	4255	320	510	440	310
Kolgate	34	57	60	42	25	60	20	70
Jmbuja cement	150	155	120	125	160	135	145	170

For Jmbuja cement, the ratio of the high rate of share to the low rate is maximum in the stock exchange at:

a) Mumbai ✗

b) Rajasthan ✓

c) Uttar Pradesh ✗

d) Uttarakhand ✗

Explanation:

The correct answer is: b

The ratio of the high rate of share to the low rate is

=> Mumbai = 150/155=> 0.97

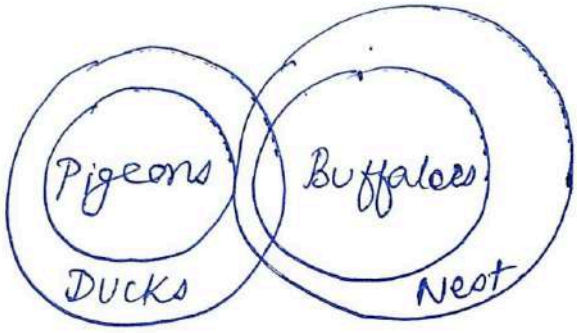
=> Rajasthan = 160/135 => 1.18

=> Uttar Pradesh = 145/170 => 0.85

=> Uttarakhand = 120/125 => 0.96

The ratio of the high rate of share to the low rate is maximum in the stock exchange at Rajasthan.

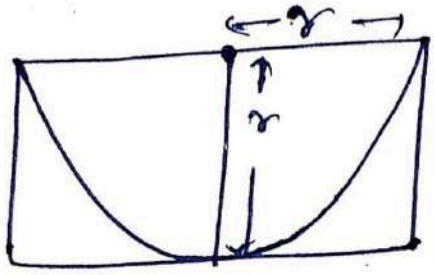
Q. 68	**Which Harappan site has yielded evidence of ploughed fields, terracotta carts, symbolic tombs and fire altars?** **a)** Rakhigarhi ✗ **b)** Lothal ✗ **c)** Kalibanga ✓ **d)** Banawali ✗
Explanation:	The correct answer is c. **Explanation:** Kalibanga, located in present-day Rajasthan, India, is a significant Harappan site that has provided crucial archaeological evidence supporting early agricultural practices and religious structures. Here's why it stands out: • **Ploughed Fields:** One of Kalibanga's most remarkable discoveries is the evidence of furrowed fields, indicating early agricultural techniques used by the Harappans. • **Terracotta Carts:** Excavations have uncovered terracotta carts, which suggest the use of wheeled transport in the Harappan civilization. • **Symbolic Tombs:** The site has yielded burials that indicate distinct funerary practices, including symbolic tombs that might have represented ritualistic customs. • **Fire Altars:** The presence of fire altars suggests ritualistic or religious activities, possibly linked to early Vedic traditions. Kalibanga played a vital role in understanding the technological, agricultural, and cultural advancements of the Indus Valley Civilization.

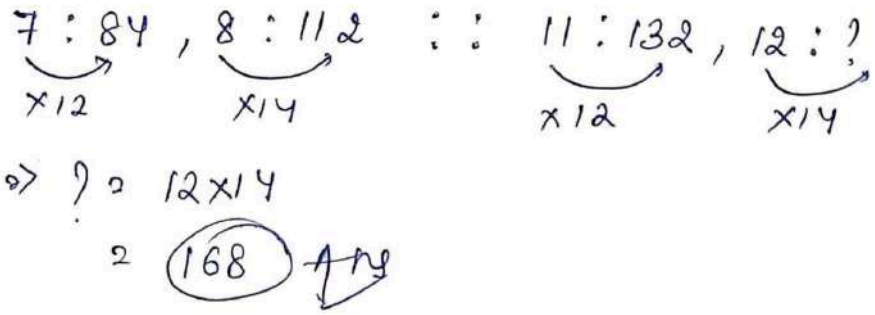
Q. 69	Three statements are given, followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements. Statements: All pigeons are ducks. Some ducks are buffaloes. All buffaloes are nest. Conclusions: I. No pigeon is a nest. II. All pigeons are nests. III. All ducks being nests is a possibility. a) Both conclusions I and II follow ✗ b) Only conclusion I follows ✗ c) Only conclusion III follows ✓ d) Neither conclusion I nor conclusion II follows ✗
Explanation:	The correct answer is: c  Only conclusion III follows.

Q. 70	**What is the chemical formula for sodium bicarbonate?** **a)** $NaCl$ ✗ **b)** Na_2CO_3 ✗ **c)** $NaHCO_3$ ✓ **d)** $NaOH$ ✗
Explanation:	The correct answer is: c **Explanation:** **Sodium bicarbonate ($NaHCO_3$)**, also known as **baking soda**, is a compound used for cooking, medical applications, and as a buffering agent in chemical processes. It is an **alkaline substance** that reacts with acids to release **carbon dioxide (CO_2)**, making it useful in baking and antacid formulations. **Comparison with Other Options:** • **NaCl (Sodium Chloride)** → Common **table salt**. • **Na_2CO_3 (Sodium Carbonate)** → Known as **soda ash**, stronger than $NaHCO_3$, used in glass making. • **NaOH (Sodium Hydroxide)** → A **strong base**, commonly known as **caustic soda**.

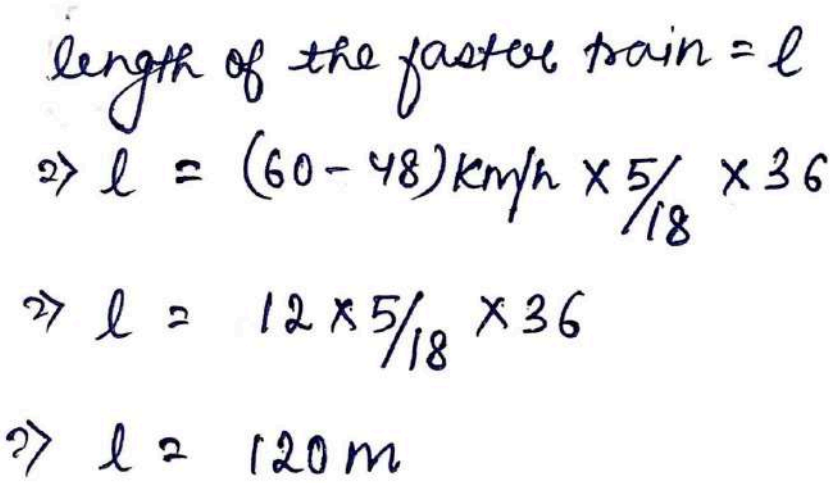
Q. 71	**Read the given statement and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions is true based on the given statement.** **Statement: $H \geq Q > R \leq S = M > G$** **Conclusions:** **I. $Q > S$** **II. $G < S$** **a) Only II is true** ✓ **b) Both I and II are true** ✗ **c) Neither I nor II is true** ✗ **d) Only I is true** ✗
Explanation:	The correct answer is: **Only II is true** **Conclusion I: $Q > S$** From the statement, Q is greater than R, and R is less than or equal to S. However, there is no direct relationship between Q and S that would allow us to conclude whether Q is greater than S. Therefore, **Conclusion I does not follow**. **Conclusion II: $G < S$** From the statement, M is greater than G, and M is equal to S. Thus, **S is greater than G**. Therefore, **Conclusion II logically follows**.

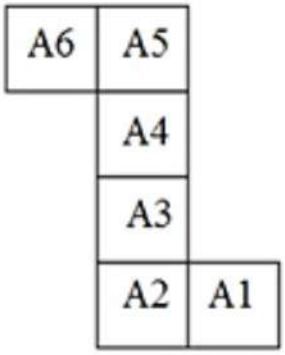
Q. 72	**Text editors and text formatters belong to which category of computing?** **a) Word Processors** ✓ **b) Language Translator** ✗ **c) Interpreter** ✗ **d) Compiler** ✗
Explanation:	The correct answer is: a **Explanation:** **Text editors** and **text formatters** are classified under **Word Processors**, as they are designed for **creating, editing, formatting, and managing text-based documents**. These applications allow users to modify text styles, structure content, and organize written material efficiently.

Q. 73	**The semicircle of maximum area 1800π cm^2 is inscribe inside a rectangle. The area of the rectangle is:** **a) 1800 cm^2** ✗ **b) 5400 cm^2** ✗ **c) 7200 cm^2** ✓ **d) 3600 cm^2** ✗
Explanation:	 $\frac{1}{2} \times \pi \times r^2 = 1800\pi$ $\Rightarrow r^2 = 3600$ $\Rightarrow r = 60$ $\therefore l = 2r \Rightarrow 120$ cm $b = r \Rightarrow 60$ cm $\therefore$ Area $= l \times b$ $= 120 \times 60 \Rightarrow 7200$ cm^2

Q. 74	**Choose the missing number related to a given number in the same manner as the two numbers of another given pair are related to each other.** **7 : 84, 8 : 112 : : 11 : 132, 12 : ?** **a)** 180 ✗ **b)** 144 ✗ **c)** 156 ✗ **d)** 168 ✓
Explanation:	The correct answer is: d 

Q. 75	**According to the Indian Census 2011, what was the percentage of India's population living in urban areas?** **a)** 27.8% ✗ **b)** 31.2% ✓ **c)** 34.5% ✗ **d)** 37.1% ✗
Explanation:	The correct answer is: b **Explanation:** According to the **Indian Census 2011**, **31.2% of India's population** was living in **urban areas**. This census provided key demographic insights into the **urbanization trends** of the country. **Key Highlights of Urbanization in Census 2011:** • The total urban population was **377 million** out of **1.21 billion**. • The **decadal urban growth rate** was **2.76% per year**. • The states with the **highest urban population** included **Maharashtra, Uttar Pradesh, and Tamil Nadu**. • The urbanization rate was increasing due to **industrialization, migration, and economic development**.

Q. 76	**Two trains are running in the same direction with the speeds of 48 km/h and 60 km/h. The time taken by the faster train to cross a man sitting in the slower train is 36 seconds. What will be the length of the faster train?** **a) 120 m** ✓ **b) 132 m** ✗ **c) 90 m** ✗ **d) 148 m** ✗
Explanation:	

Q. 77	**A box is made by folding the given sheet. In the box so formed, which face CANNOT be adjacent to the face having A3?**  **a)** A1 ✗ **b)** A5 ✓ **c)** A6 ✗ **d)** A4 ✗
Explanation:	The correct answer is: b The opposites of the given dice are: A6 – A1, A5 – A3 and A4 – A2. Therefore, A5 is opposite to A3, so it can't be adjacent to A3.

Q. 78	**Which of the following indicators is inversely affecting the Human Development Index?** **a) High life expectancy** ✗ **b) High adult literacy ratio** ✗ **c) High per capita income** ✗ **d) High infant mortality rate** ✓
Explanation:	The correct answer is: d **Explanation:** The **Human Development Index (HDI)** is a composite indicator that measures a country's overall human development based on three key dimensions: 1. **Health** → Represented by **life expectancy at birth**. 2. **Education** → Represented by **mean years of schooling and expected years of schooling**. 3. **Standard of living** → Represented by **Gross National Income (GNI) per capita**. **Why High Infant Mortality Rate is Inversely Related:** • **Infant mortality rate** refers to the number of deaths of infants **under one year of age per 1,000 live births**. • A **high infant mortality rate** indicates **poor healthcare, malnutrition, and inadequate maternal care**, which negatively impacts **life expectancy**—a key component of HDI. • Countries with **high infant mortality** tend to have **lower HDI scores** due to poor **health infrastructure and socio-economic conditions**.

Q. 79

A shopkeeper offers the following three schemes:
I. Buy 8 get 1 free
II. Buy 9 get 10
III. Two successive discounts of 10% and 5%
Which scheme has the lowest discount percentage (all articles have the same marked price)?

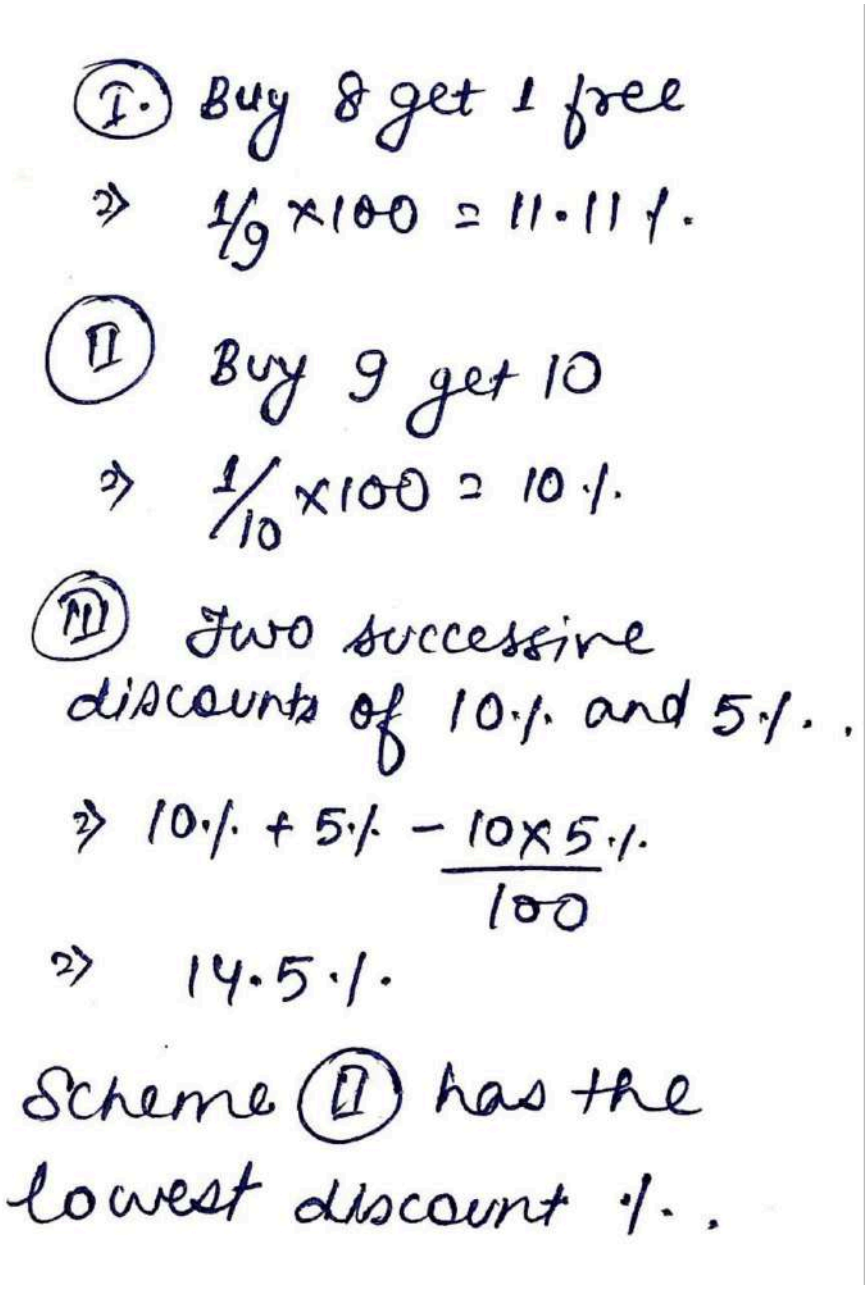
a) Scheme II ✔

b) Scheme III ✘

c) Scheme I ✘

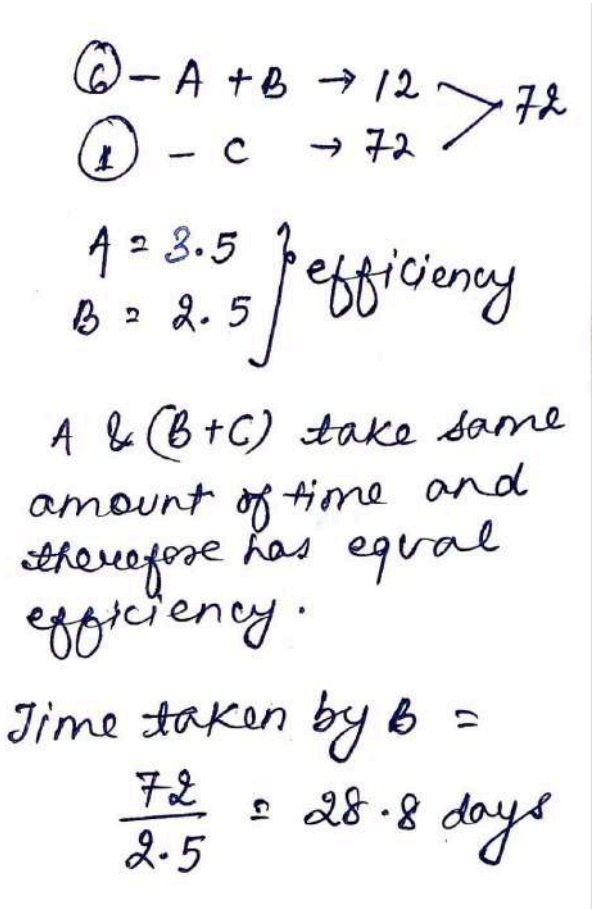
d) All are equal ✘

Explanation:



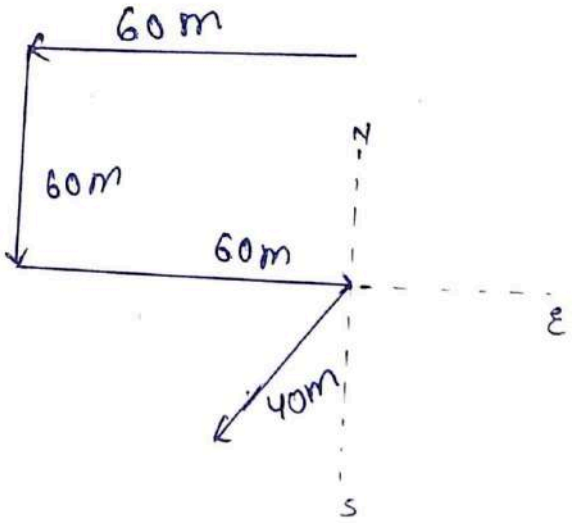
Q. 80	**Through which Constitutional Amendment Act was the Right to Property omitted from the Fundamental Rights?** **a)** 44th Amendment ✓ **b)** 41st Amendment ✗ **c)** 46th Amendment ✗ **d)** 39th Amendment ✗
Explanation:	The correct answer is: a **Explanation:** The **Right to Property**, originally enshrined under **Article 19(1)(f) and Article 31** of the **Indian Constitution**, was removed from the list of **Fundamental Rights** through the **44th Constitutional Amendment Act of 1978**. It was instead reclassified as a **legal right** under **Article 300A**.

Q. 81	**If × means −, − means ÷, ÷ means +, and + means ×, then which of the given equations is correct?** **a)** $29 \times 18 + 7 \div 84 - 21 = -93$ ✓ **b)** $29 + 18 - 7 \div 84 \times 21 = -93$ ✗ **c)** $29 \times 18 - 7 \div 84 + 21 = -93$ ✗ **d)** $29 + 18 \div 7 - 84 \times 21 = -93$ ✗
Explanation:	The correct answer is: a From option (a), $29 \times 18 + 7 \div 84 - 21 = -93$ If × means −, − means ÷, ÷ means +, and + means ×, then $\Rightarrow 29 - 18 \times 7 + 84 \div 21$ $\Rightarrow 29 - 126 + 4 \Rightarrow -93$

Q. 82	**A can complete a task in the same time in which B and C together can complete it. If A and B together can complete it in 12 days and C alone can complete it in 72 days, then B alone can complete it in:** **a) 32.5 days** ✗ **b) 28.8 days** ✓ **c) 25.4 days** ✗ **d) 36.5 days** ✗
Explanation:	

Q. 83	**When was the Asian Games organised in India for the second time?** **a)** 1998 ✗ **b)** 1994 ✗ **c)** 1986 ✗ **d)** 1982 ✓
Explanation:	The correct answer is: d **Explanation:** India hosted the **Asian Games** for the **second time** in **1982**, with **New Delhi** serving as the host city. The **9th edition** of the Asian Games was held from **November 19 to December 4, 1982**, marking a significant moment in India's sporting history. **Key Highlights of the 1982 Asian Games:** • **First time India used colour television broadcasts** for a major sporting event. • **New sporting infrastructure** was developed, including the **Indira Gandhi Indoor Stadium** and the **Jawaharlal Nehru Stadium**. • **China topped the medal tally**, while **India finished 5th** with **57 medals (13 Gold, 19 Silver, 25 Bronze)**.

Q. 84	**Which gland gets enlarged in the goitre due to which there is a swelling in the front part of the throat?** **a) Pineal gland** ✗ **b) Adrenal gland** ✗ **c) Thyroid gland** ✓ **d) Pituitary gland** ✗
Explanation:	The correct answer is: c **xplanation:** **Goitre** is a condition characterized by the **abnormal enlargement of the thyroid gland**, which results in visible **swelling in the front part of the throat**. The thyroid gland plays a crucial role in regulating **metabolism, growth, and energy levels** through the production of **thyroid hormones (T3 and T4).** **Why does Goitre occur?** • **Iodine deficiency** → A common cause, as iodine is essential for thyroid hormone production. • **Hyperthyroidism or Hypothyroidism** → Imbalances in hormone levels can lead to thyroid enlargement. • **Autoimmune disorders** → Conditions like **Graves' disease** (overactive thyroid) or **Hashimoto's thyroiditis** (underactive thyroid) can trigger swelling. • **Thyroid nodules or cancer** → Irregular growths within the gland may cause noticeable swelling. **Comparison with Other Options:** • **Pineal gland** → Regulates sleep cycles via **melatonin**, located deep in the brain. • **Adrenal gland** → Sits above the kidneys and controls stress hormones like **cortisol and adrenaline**. • **Pituitary gland** → Often called the **master gland**, it regulates various hormones.

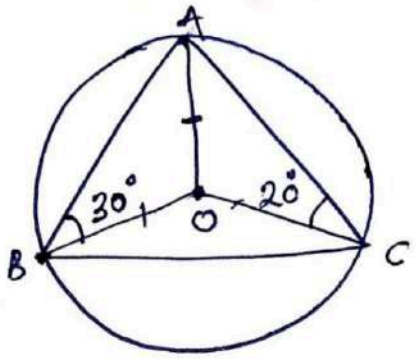
Q. 85	**A boy travels 60 m towards the west. He takes a left turn and travels 60 m, again takes a left turn and travels 60 m. Finally, he turns 135° in the clockwise direction and travels 40 m. In which direction is he facing now?** **a) South-West** ✔ **b) South-East** ✘ **c) North-East** ✘ **d) North-West** ✘
Explanation:	The correct answer is: a  He is facing south-west.

Q. 86	**If 7 N force is applied on a brick and it moves through 5 m, then what will be the work done?** **a)** 35 Erg ✗ **b)** 35 J ✓ **c)** 25 J ✗ **d)** 40 J ✗
Explanation:	The correct answer is: b **Explanation:** Work is calculated using the formula: Work = Force × Displacement × cosθ Where: • **Force (F) =** 7 N • **Displacement (d) =** 5 m • **Angle (θ) =** 0° (assuming force is applied in the direction of movement, so cos 0° = 1) Work = 7 × 5 × 1 = 35 Joules

Q. 87	**Three prime numbers are arranged in descending order. If the product of the first two is 323 and that of the last two is 221, then what is the value of the biggest prime number?** **a)** 19 ✓ **b)** 23 ✗ **c)** 17 ✗ **d)** 13 ✗
Explanation:	Let the three prime numbers in descending order is a, b and c. a × b = 323 => a = 19, b = 17 b × c = 221 => a = 17, b = 13 Therefore, the biggest prime number is 19.

Q. 88	**Under which article of the Constitution of India the Right to Elementary Education is mentioned?** **a) Article 21-A** ✔ **b) Article 21** ✘ **c) Article 19** ✘ **d) Article 20** ✘
Explanation:	The correct answer is: a **Explanation:** The **Right to Elementary Education** is guaranteed under **Article 21-A** of the **Indian Constitution**, which was added through the **86th Constitutional Amendment Act, 2002**. It mandates that: • The State shall provide **free and compulsory education** to children aged **6 to 14 years**. • Education is recognized as a **Fundamental Right**, ensuring universal access to schooling.

Q. 89	**Study the following information carefully and answer the questions that follow.** **Five friends Ram, Geeta, Piyush, Surbhi and Bhushan, each has different ages. Piyush is younger than Ram. Bhushan is younger than Piyush. Ram is younger than Geeta. Surbhi is younger than only one person, Geeta.** **Who is the youngest among all?** **a) Ram** ✘ **b) Piyush** ✘ **c) Bhushan** ✔ **d) Geeta** ✘
Explanation:	The correct answer is: c Geeta > Surbhi > Ram > Piyush > Bhushan Bhushan is youngest among all.

Q. 90	**O is the centre of a circle and A is a point on a major arc BC of the circle. ∠BOC and ∠BAC are the angles made by the minor arc BC on the centre and circumference, respectively. If ∠ABO = 30° and ∠ACO = 20°, then find ∠BOC.** **a) 90°** ✗ **b) 108°** ✗ **c) 100°** ✓ **d) 120°** ✗
Explanation:	 OB = OA ⇒ ∠ABO = ∠OAB = 30° OC = OA ⇒ ∠ACO = ∠OAC = 20° ∴ ∠BAC = 30° + 20° = 50° ∠BOC = 2 × ∠BAC (Angle made in the centre is double to the angle made in the circumference). ⇒ ∠BOC = 2 × 50° ⇒ 100°

Q. 91	**Which Indian monument has been designed as an inverted temple to emphasize the sanctity of water?** **a) Panna Meena Kund in Jaipur** ✗ **b) Rani-ki-Vav in Patan** ✓ **c) Dakshineswar Kali Temple in Kolkata** ✗ **d) Kandariya Mahadev Temple in Khajuraho** ✗
Explanation:	The correct answer is: b **Explanation:** **Rani-ki-Vav**, located in **Patan, Gujarat**, is a **stepwell** designed as an **inverted temple** to highlight the **sanctity of water**. Built in the **11th century** by **Queen Udayamati**, the wife of King Bhima I of the Chaulukya dynasty, it is a **UNESCO World Heritage Site**. **Key Features:** • **Architectural Design** → The stepwell is structured **downward**, resembling an **underground temple**, emphasizing the **spiritual significance of water**. • **Intricate Sculptures** → Contains **over 500 principal sculptures** depicting **Hindu deities**, mythological figures, and symbolic imagery. • **Water Conservation** → Served as a **water storage system**, ensuring sustainability in arid regions. • **UNESCO Recognition** → Listed as a **World Heritage Site** in **2014**, acknowledging its **historical and architectural importance**.

Q. 92

If $2\sin(2x - 2)° = 3\tan 210°$, $(2x - 2)$ lies in first quadrant) then the value of x in degree is:

a) $37°$ ✗

b) $31°$ ✓

c) $35°$ ✗

d) $33°$ ✗

Explanation:

$2\sin(2x-2)^\circ = 3\tan 210^\circ$

$\Rightarrow \sin(2x-2)^\circ = \frac{3}{2} \times (\tan 180 + 30^\circ)$

$\Rightarrow \sin(2x-2)^\circ = \frac{3}{2} \times \tan 30^\circ$

$\Rightarrow \sin(2x-2)^\circ = \frac{3}{2} \times \frac{1}{\sqrt{3}}$

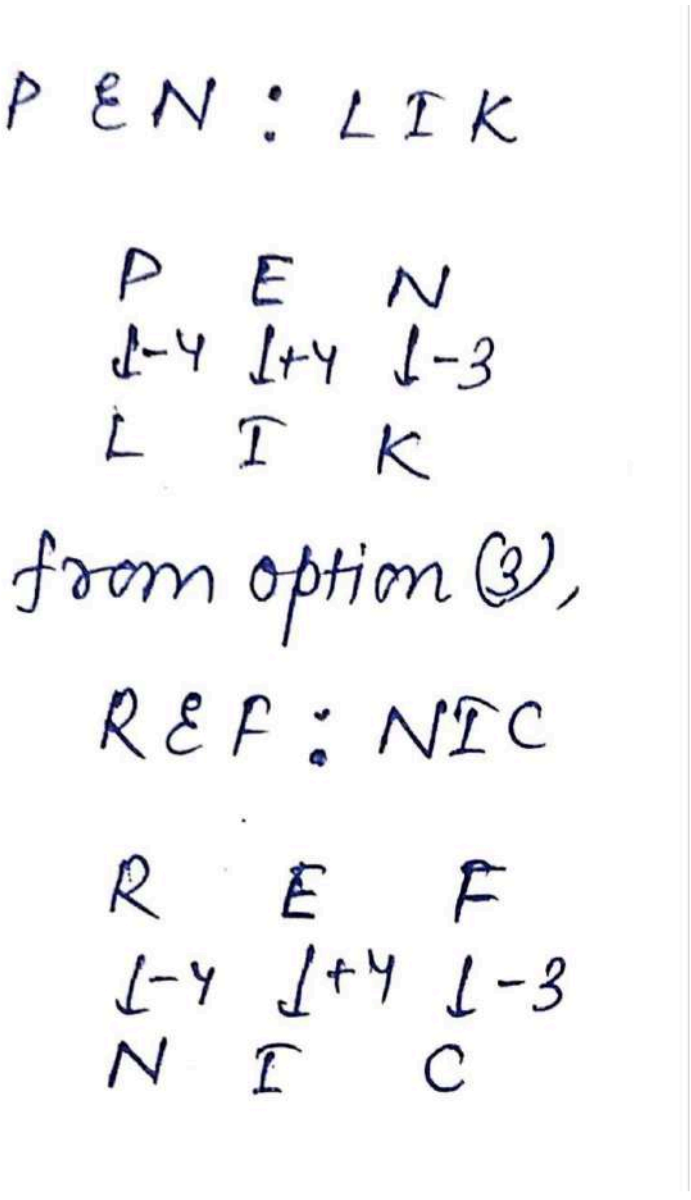
$\Rightarrow \sin(2x-2)^\circ = \frac{\sqrt{3}}{2}$

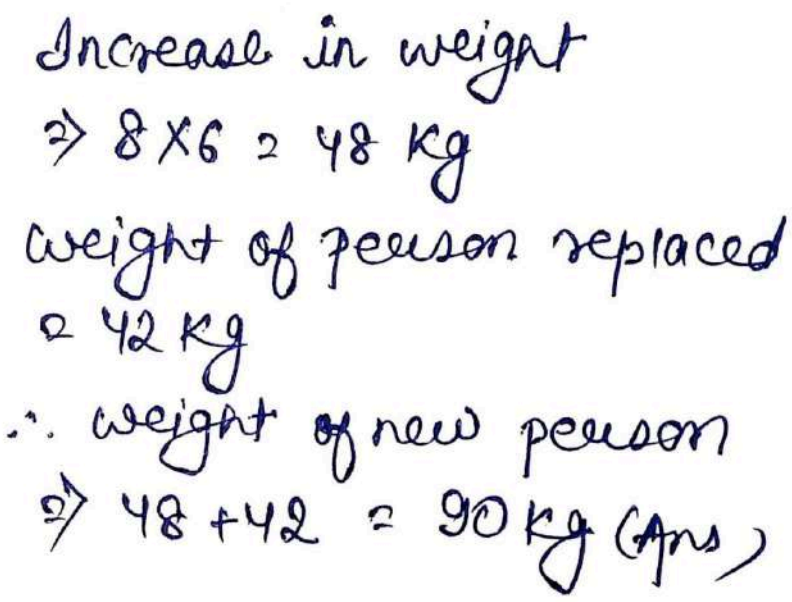
$\Rightarrow \sin(2x-2)^\circ = \sin 60^\circ$

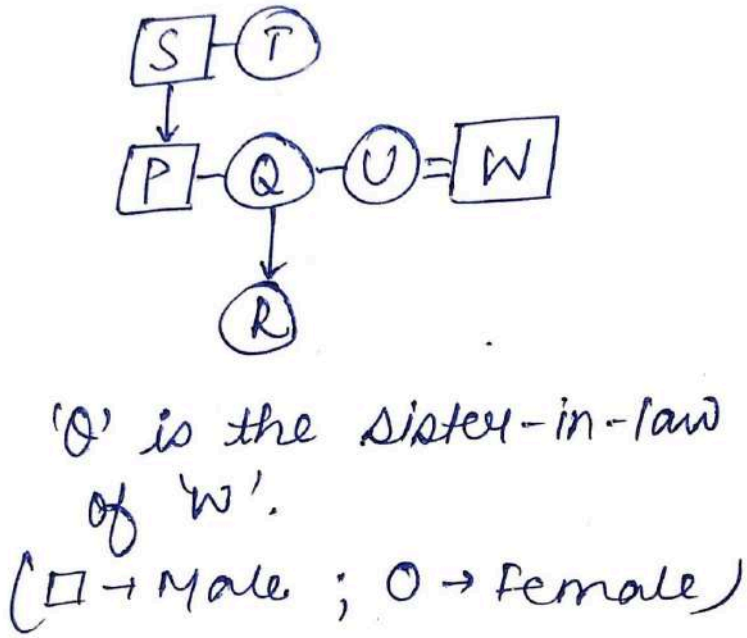
$\Rightarrow 2x - 2 = 60^\circ$

$\Rightarrow x = 31^\circ$ (Ans)

Q. 93	**As in July 2021, The NIPUN Bharat Scheme was launched by which of the following Ministries?** **a) Ministry of Health and Family Welfare** ✗ **b) Ministry of Education** ✓ **c) Ministry of Corporate Affairs** ✗ **d) Ministry of Agriculture and Farmers** ✗
Explanation:	The correct answer is: b **Explanation:** The **NIPUN Bharat (National Initiative for Proficiency in Reading with Understanding and Numeracy) Scheme** was launched by the **Ministry of Education** in **July 2021** under the **National Education Policy (NEP) 2020**. It aims to ensure that **every child in India attains foundational literacy and numeracy (FLN) by Grade 3**, which is crucial for their overall educational development. **Key Features of NIPUN Bharat:** • Focuses on **reading, writing, and basic numeracy skills** for children in **Classes 1-3**. • Implements **activity-based learning and skill-building** to improve students' comprehension. • Encourages **teacher training and capacity-building** to strengthen early education. • Linked to **Samagra Shiksha Abhiyan**, ensuring **holistic educational reforms**.

Q. 94	**Select the pair from among the given options that is analogous to the given pair.** **PEN : LIK** **a) IWE : EAF** ✗ **b) VWM : GUA** ✗ **c) REF : NIC** ✓ **d) POT : TKW** ✗
Explanation:	The correct answer is: c 

Q. 95	**The average weight of 8 people increases by 6 kg when a new person comes in place of one of them weighing 42 kg. What is the weight of the new person?** **a) 100 kg** ✗ **b) 75kg** ✗ **c) 85 kg** ✗ **d) 90 kg** ✓
Explanation:	

Q. 96	**Seven people P, Q, R, S, T, U and W attended a family party. W does not have any siblings. P is the brother of Q. R is the daughter of Q. Q and U are sisters. W is U's husband. T is the sister of S. S is the father of P. W said, "I will sit with my sister-in-law". Who is W referring to?** **a)** Q ✔ **b)** T ✘ **c)** P ✘ **d)** R ✘
Explanation:	The correct answer is: a 

Q. 97	**Getting A Grip: On My Body, My Mind, My Self' is an autobiography by who among the following tennis icons?** **a)** Steffi Graf ✗ **b)** Anna Kournikova ✗ **c)** Maria Sharapova ✗ **d)** Monica Seles ✓
Explanation:	The correct answer is: d **Explanation:** **Getting A Grip: On My Body, My Mind, My Self** is an autobiography written by **Monica Seles**, a former world No. 1 tennis player. The book chronicles her journey through **fame, tragedy, self-discovery, and triumph**. **Key Highlights:** • Seles became the **youngest winner of the French Open** at age **16**. • She dominated the tennis circuit until a **stabbing incident in 1993** halted her career. • The book details her struggles with **emotional trauma, binge eating, and media scrutiny**. • It explores her **personal growth beyond tennis**, including her battle with self-image and confidence.

Q. 98 **Which of the following statement(s) is/are correct?**

I. $\frac{4}{7} < \frac{6}{11} < \frac{9}{13}$

II. $\sqrt{10} > \sqrt[3]{15}$

a) **Neither I nor II** ✗

b) **Only I** ✗

c) **Both I and II** ✗

d) **Only II** ✓

Explanation:

(I) $4/7 < 6/11 < 9/13$

$0.57 < 0.54 < 0.69$,

which is false.

(II) $\sqrt{10} > \sqrt[3]{15}$

$\Rightarrow (10)^{1/2} > (15)^{1/3}$

$\Rightarrow (10^{1/2})^6 > (15^{1/3})^6$

$\Rightarrow 10^3 > 15^2$, correct

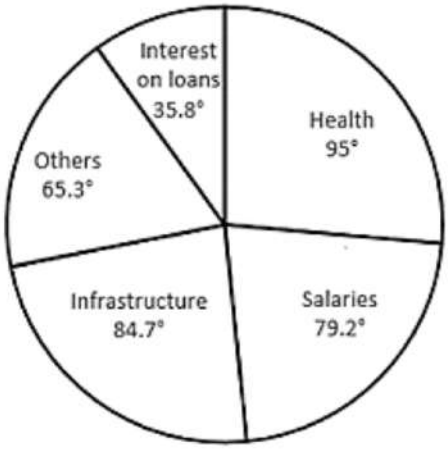
$\therefore$ II is correct

Q. 99	**Which of the following web browsers was developed by Apple?** **a)** Opera ✗ **b)** Safari ✓ **c)** Internet Explorer ✗ **d)** Mozilla Firefox ✗
Explanation:	The correct answer is: b **Explanation:** Safari is Apple's proprietary web browser, introduced in **2003** for macOS and later expanded to iOS devices. It is designed specifically to optimize performance and security on Apple products. Here's how it compares with the other options: • **Opera:** Developed by Opera Software, this browser is known for its built-in VPN and ad-blocking features. • **Internet Explorer:** Created by Microsoft, it was one of the most widely used browsers before being replaced by Microsoft Edge. • **Mozilla Firefox:** Developed by Mozilla, Firefox emphasizes privacy and open-source development. Safari remains the default web browser for **macOS, iPhone, and iPad**, offering integration with Apple's ecosystem, such as **Handoff, iCloud syncing, and Apple Pay compatibility**.

Q. 100

Study the given pie-graph and answer the question that follows.

In a certain company, allocations to various sectors of the yearly budget per ₹7,200 crores are represented by this pie-diagram.



The expenditure (in ₹) on Infrastructure is:

a) ₹6,089 crores ✗

b) ₹1,649 crores ✗

c) ₹1,694 crores ✓

d) ₹6,098 crores ✗

Explanation:

The correct answer is: c

The expenditure (in ₹) on Infrastructure is: $\frac{7200}{360^\circ} \times 84.7^\circ$

=> 1,694 crores