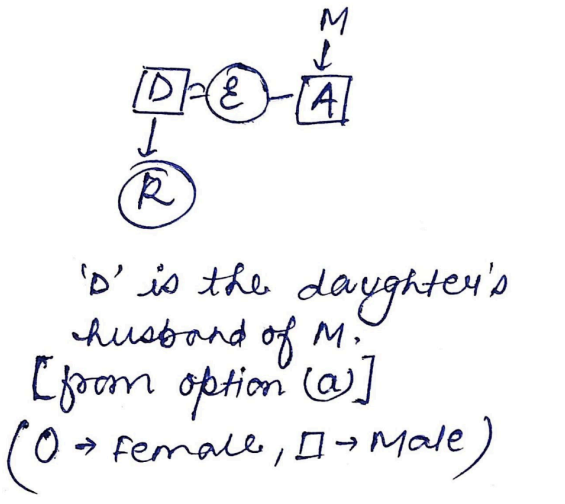
RBE NTPC 2025 Live Mock May 14,2025

Q. 1	**The Battle of Plassey was fought between the East India Company and _____.** **a) Aurangzeb** ✗ **b) Sirajuddaulah** ✓ **c) Alivardi Khan** ✗ **d) Murshid Quli Khan** ✗
Explanation:	The Battle of Plassey was fought between the East India Company and **Siraj-ud-Daulah**. **Explanation:** The **Battle of Plassey (1757)** was a decisive conflict between the British East India Company, led by **Robert Clive**, and the forces of **Siraj-ud-Daulah**, the Nawab of Bengal. The battle took place near **Plassey** in present-day **West Bengal, India**. Siraj-ud-Daulah was supported by his French allies and a large army, but internal betrayal played a key role in his defeat. The British bribed **Mir Jafar**, one of Siraj's key generals, leading to a lack of resistance from a section of the Nawab's forces. This battle marked the beginning of British dominance in India, allowing them to gain control over Bengal and eventually expand their rule across the subcontinent.
Q. 2	**A sum of ₹2,700 is lent out in two parts in such a way that, the simple interest on one part at 15% for 4 years is equal to the simple interest on the second part at 10% for 6 years. The part of the sum lent out at 15% is:** **a) ₹1,150** ✗ **b) ₹1,250** ✗ **c) ₹1,450** ✗ **d) ₹1,350** ✓
Explanation:	The correct answer is: d Principal be P1 and P2 Interests are same in both case So, P1:P2 = $\frac{1}{r1\times t1} : \frac{1}{r2\times t2} = \frac{1}{60} : \frac{1}{60} = 1:1$ Therefore, the sum lent out at 15% = $1/2 \times 2700 = 1350$

Q. 3	**A $ B means 'A is the sister of B',** **A @ B means 'A is the daughter of B',** **A * B means 'A is the father of B' and** **A - B means 'A is the son of B'.** **Based on the above information, which of the following means that D is the daughter's husband of M?** **a) D * R @ E $ A - M** ✔ **b) D $ R * E - A @ M** ✘ **c) D $ R - E * A @ M** ✘ **d) D @ R - E $ A * M** ✘
Explanation:	The correct answer is: a 

Q. 4	**What is the purpose of the 'Sleep' option in the Windows OS?** **a) To shut down the system** ✘ **b) To save all open documents and programs while reducing power consumption** ✔ **c) To restart the system** ✘ **d) To delete temporary files** ✘
Explanation:	The purpose of the 'Sleep' option in the Windows OS is **to save all open documents and programs while reducing power consumption.** **Explanation:** The **Sleep** option in Windows OS allows the computer to enter a low-power state while keeping all open documents, applications, and processes stored in memory. This enables users to quickly resume their work without losing progress while significantly reducing power consumption.

Q. 5	A and B working together can finish a task in 18 days. B and C working together can finish it in 24 days. A and C working together can finish it in 36 days. In how many days will A, B and C finish the same task, working separately? **a)** A = 28 (4/5), B = 48 and C = 144 ✗ **b)** A = 48, B = 28 (4/5) and C = 144 ✓ **c)** A = 28 (4/5), B = 144 and C = 48 ✗ **d)** A = 48, B = 144 and C = 28 (4/5) ✗

Explanation:

The correct answer is: b

$$A + B \rightarrow 18 \text{ days}$$

$$B + C \rightarrow 24 \text{ days}$$

$$C + A \rightarrow 36 \text{ days}$$

Total work = LCM (18, 24, 36) = 72

Efficiency,

A+B = 4

B+C = 3

C+A = 2

Efficiency of $A + B + C = \frac{4+3+2}{2} = \frac{9}{2}$

Efficiency of $A = \frac{9}{2} - 3 = \frac{3}{2}$, Time taken by

$$A = \frac{72}{\frac{3}{2}} = 48\ days$$

Efficiency of $B = \frac{9}{2} - 2 = \frac{5}{2}$, Time taken by

$$B = \frac{72}{\frac{5}{2}} = 28\frac{4}{5}\ days$$

Efficiency of $C = \frac{9}{2} - 4 = \frac{1}{2}$, Time taken by

$$C = \frac{72}{\frac{1}{2}} = 144\ days$$

Q. 6	**Who among the following addressed the Congress as President in 1887?** **a) Badruddin Tyabji** ✔ **b) Pherozeshah Mehta** ✘ **c) Dadabhai Naoroji** ✘ **d) Romesh Chandra Dutt** ✘
Explanation:	The correct answer is: a **Explanation:** **Badruddin Tyabji** served as the **third President of the Indian National Congress (INC) in 1887**. He was the first **Muslim** to preside over the Congress session. His leadership emphasized national unity and inclusivity, advocating for collaboration between Hindus and Muslims in India's freedom movement. His presidency played a vital role in shaping the early objectives of the INC.

Q. 7	**If today is Sunday then what day will it after 1435 days?** **a) Wednesday** ✘ **b) Friday** ✘ **c) Saturday** ✘ **d) Sunday** ✔
Explanation:	The correct answer is: d Number of odd days in 1435 days = $\frac{1435}{7} = 0$ Therefore, after 1435 days there will be Sunday.

Q. 8	**What is the value of x in following equation?** $8.5-\left\{5\frac{1}{2}-\left(7\frac{1}{2}+2.8\div x\right)\right\}\times 4.25\div (0.2)^2=306$ **a)** 3.5 ✔ **b)** 2.5 ✘ **c)** 3.08 ✘ **d)** 1.8 ✘
Explanation:	The correct answer is: a $8.5-\left\{5\frac{1}{2}-\left(7\frac{1}{2}+2.8\div x\right)\right\}\times 4.25\div (0.2)^2=306$ $8.5-\left\{\frac{11}{2}-\left(\frac{15}{2}+2.8\div x\right)\right\}\times 4.25\div 0.04=306$ $8.5-\left\{\frac{11}{2}-\frac{15}{2}-\frac{2.8}{x}\right\}\times\frac{425}{4}=306$ $8.5-\left\{-2-\frac{2.8}{x}\right\}\times 106.25=306$ $8.5+212.5+\frac{297.5}{x}=306$ $221+\frac{297.5}{x}=306$ $\frac{297.5}{x}=85$ $x=\frac{297.5}{85}=3.5$

Q. 9	**Which feature is commonly found in modern anti-virus software to help with real-time threat detection?** **a)** Cloud-based detection ✔ **b)** Offline scanning ✘ **c)** Passive scanning ✘ **d)** Manual updates ✘
Explanation:	The correct answer is: a **Explanation:** Modern **anti-virus software** often includes **cloud-based detection** to enhance real-time threat identification and response. This technology allows the software to quickly analyse files and suspicious behaviour by comparing them with a vast, continuously updated database hosted on cloud servers. It helps detect new and evolving threats more efficiently than traditional offline scanning methods.

Q. 10

The following table shows the number of teachers in four colleges (male and female) and the percentage of trained teaches among them.

Colleges	Male		Female	
	No. of Teachers	% of Trained Teachers	No. of Teachers	% of Trained Teachers
A	225	44	175	40
B	250	30	128	25
C	290	55	100	45
D	350	60	150	30

What is the total number of non-trained male teachers in college A and non-trained female teachers in college B?

a) 224

b) 222

c) 230

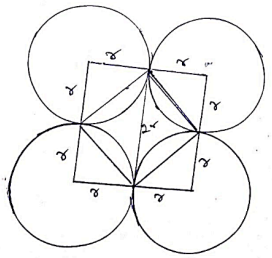
d) 228

Explanation:

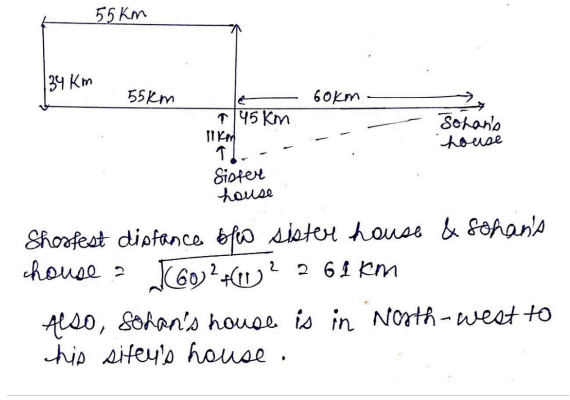
The correct answer is: b

Total number of non-trained male teachers in college A and non-trained female teachers in college B = $225 \times 56\% + 128 \times 75\%$

$=> 126 + 96 => 222$

Q. 11	**Four circles of radius r cm are place such a way that their centres form a square. Find the ratio of the area of the square (formed by the centres of the circles) to the area of the rhombus (formed by the touching points of the circles).** **a)** (4-π) : 1 ✗ **b)** 4 : 1 ✗ **c)** π : 1 ✗ **d)** 2 : 1 ✓
Explanation:	The correct answer is: d  Radius = r. Side of square = Diagonals of rhombus = 2r. Ratio of Area $(2r)^2 : \frac{1}{2} \times 2r \times 2r$ 2 : 1

Q. 12	**Pre-monsoon 'mango shower' occurs in which part of India?** **a)** West Bengal and Bihar ✗ **b)** West Bengal and Assam ✗ **c)** Kerala and Karnataka ✓ **d)** Andhra Pradesh and Odisha ✗
Explanation:	The correct answer is: c **Explanation:** Pre-monsoon **'mango showers'** are short, intense rainfall events that occur in the **southern states of Kerala and Karnataka** during the months of **April and May**. These showers help in the ripening of mangoes, hence the name. They also provide relief from the scorching heat and aid in agricultural activities by improving soil moisture before the onset of the **southwest monsoon**. This phenomenon is particularly significant in coastal and interior Karnataka and parts of Kerala, where mango and other summer crops benefit from these early rains.

Q. 13	**Sohan travels 45 km northwards from his sister's house, then turns left and travels 55 km. He again turns left and travels 34 km. Finally, he again turns left and travels 115 km to reach his house. What is the shortest distance between his sister's house and his house and in which direction is his house with respect to his starting point?** **a) 61 km, North-West** ✗ **b) 791 km, North-East** ✗ **c) 89 km, North-East** ✗ **d) 61 km, North-East** ✓
Explanation:	The correct answer is: d 

Q. 14	**The proportion of Sikh population has declined by what percentage point (PP) during the decade 2001-2011?** **a) 0.2 PP** ✓ **b) 0.6 PP** ✗ **c) 0.4 PP** ✗ **d) 0.8 PP** ✗
Explanation:	The correct answer is: a **Sikh Population in India:** • **2001 Census:** Sikhs constituted **1.9%** of India's total population. • **2011 Census:** Sikhs constituted **1.7%** of India's total population. The proportion of the Sikh population declined by **0.2 percentage points (PP)** between 2001 and 2011.

Q. 15	**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:** **Cyclone Sepa is expected to make landfall by 3 p.m. today on the Balasore coast. Rough seas, heavy rain and strong winds are expected to lash Balasore from 11 a.m. onwards. Power supply in Balasore is likely to be affected from 2 p.m. to 9 p.m.** **Conclusions:** **I. There could be power cuts in Balasore after 3 p.m. today.** **II. It would be unsafe for fishermen to venture out into the sea today, till the cyclone passes.** **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: c **Explanation:** 1. **Conclusion I: There could be power cuts in Balasore after 3 p.m. today.** ◦ The statement mentions that the power supply in Balasore is likely to be affected from 2 p.m. to 9 p.m. Since this timeframe includes the period after 3 p.m., it is logical to conclude that power cuts could occur after 3 p.m. ◦ **This conclusion follows.** 2. **Conclusion II: It would be unsafe for fishermen to venture out into the sea today, till the cyclone passes.** ◦ The statement explicitly mentions rough seas, heavy rain, and strong winds starting from 11 a.m. These conditions make it evident that it would be unsafe for fishermen to venture out into the sea. ◦ **This conclusion also follow**. Therefore, both conclusion I and II follow.

Q. 16	**The mean of 5 observations is 20. If another observation is added, then the mean increases by 2. What is the value of the 6^{th} observation that is added?** **a)** 22 ✗ **b)** 42 ✗ **c)** 32 ✓ **d)** 52 ✗
Explanation:	The correct answer is: c Let sixth observation be x ATQ, $5 \times 20 + x = 6 \times 22$ $100 + x = 132$ $x = 32$

Q. 17	**In 1917 Mahatma Gandhi travelled to Champaran to inspire the peasants to struggle against the oppressive plantation system. Champaran is located in which state of India?** **a)** **Bihar** ✓ **b)** **Punjab** ✗ **c)** **Gujarat** ✗ **d)** **Maharashtra** ✗
Explanation:	The correct answer is: a **Explanation:** Champaran is located in the state of **Bihar** and was the site of Mahatma Gandhi's **first major involvement in India's independence movement** in **1917**. The peasants of Champaran, primarily indigo farmers, were being exploited under the oppressive **Tinkathia system**, which forced them to grow indigo on a portion of their land for European planters. Gandhi, upon arriving in Champaran, mobilized farmers, investigated their grievances, and advocated for their rights through **nonviolent civil disobedience**. His efforts led to the abolition of forced indigo cultivation and marked the beginning of **Satyagraha** as a tool for social and political change in India.

Q. 18	**Four word-pairs have been given, out of which three are alike in some way and one is different. Choose the word-pair which is different.** **a) Pituitary** ✗ **b) Pancreas** ✗ **c) Thalamus** ✓ **d) Adrenal** ✗
Explanation:	The correct answer is: c The correct answer is **Thalamus**. **Explanation:** • **Pituitary, Pancreas, and Adrenal** are all glands in the human body that are part of the endocrine system. They produce and release hormones directly into the bloodstream to regulate various bodily functions. • The **Thalamus**, on the other hand, is not a gland. It is a structure in the brain that acts as a relay center for sensory and motor signals, making it different from the others. Hence, **Thalamus** stands out as the odd one.

Q. 19	**Find the value of 3 times of 3 tenths of 3 hundredths of 3 thousandths of 30.** **a)** 0.00243 ✓ **b)** 0.0000243 ✗ **c)** 0.0243 ✗ **d)** 0.000243 ✗
Explanation:	The correct answer is: a 1. Start with the given number: 30. 2. Calculate 3-thousandths of 30 $= 30 \times \frac{3}{1000} = 0.09$ 3. Calculate 3 hundredths of 0.09 $= 0.09 \times \frac{3}{100} = 0.0027$ 4. Calculate 3 tenths of 0.0027 $= 0.0027 \times \frac{3}{10} = 0.00081$ Finally, calculate 3 times of 0.00081 $= 0.00081 \times 3 = 0.00243$ The final value is 0.00243.

Q. 20	**The Himalayas consist of three parallel ranges in its longitudinal extent. with the northern-most range being _____.** **a)** Kalsubai ✗ **b)** Himadri ✓ **c)** Shivalik ✗ **d)** Aravalli ✗
Explanation:	The correct answer is: b **Explanation:** The **Himalayas** consist of **three parallel ranges** stretching longitudinally from west to east: 1. **Himadri (Greater Himalayas)** – This is the **northernmost and highest range**, home to the tallest peaks, including **Mount Everest (8848 m)** and **Kanchenjunga (8586 m)**. It remains permanently covered in snow and forms the core of the Himalayan system. 2. **Himachal (Middle Himalayas)** – Located south of the Himadri, it consists of famous hill stations like **Shimla, Manali, and Darjeeling**. 3. **Shivalik (Lower Himalayas)** – The southernmost range, consisting of low-altitude hills with fertile valleys. The **Aravalli** range is among the oldest mountain ranges in India but is not part of the Himalayan system. **Kalsubai** is the highest peak in Maharashtra, but it belongs to the Western Ghats, not the Himalayas.

Q. 21	**In a certain code language.** **'living inside houses' is coded as 'ca de mo'.** **'snow houses built' is coded as' ni tp ca'.** **'living with snow man' is coded as 'vr hs ni mo'** **If 'built with brick' is coded as 'vr aj tp'.** **(Note: All codes are two letter codes only)** **What is the probable code for 'brick man' in the given code language?** **a) aj ve** ✗ **b) mo to** ✗ **c) vr ni** ✗ **d) hs aj** ✓
Explanation:	The correct answer is: d **Explanation:** From the above statements, The code for 'houses' is 'ca'. The code for 'living' is 'mo'. The code for 'built' is 'tp'. The code for 'with' is 'vr'. The code for 'brick' is 'aj'. The code for 'man' is 'hs'. Therefore, the code for 'brick man' in the given code is 'hs aj'.

Q. 22	**On selling a chair at 5% loss and a table at 15% gain, a man gains ₹300. If he sells the chair at 5% gain and the table at 5% gain, then he gains ₹180. The actual cost of the table is:** **a)** ₹2,400 ✔ **b)** ₹1,800 ✗ **c)** ₹2,200 ✗ **d)** ₹1,600 ✗
Explanation:	The correct answer is: a Let the actual cost price of chair and table be 100C and 100T ATQ, $-5C + 15T = 300 - - \rightarrow (i)$ $5C + 5T = 180 - - \rightarrow (ii)$ After solving (i) and (ii), we get: $20T = 480$ $T = 24$ 100T=2400 Actual cost of table = Rs. 2400

Q. 23	**In which year was the Wildlife Act enacted in India?** **a) 1992** ✗ **b) 1970** ✗ **c) 1972** ✓ **d) 1990** ✗
Explanation:	The correct answer is: c **Explanation:** The **Wildlife Protection Act, 1972** was enacted by the **Government of India** to safeguard wildlife and their habitats. It provides a legal framework for the protection of endangered species, regulation of hunting, and management of protected areas like **national parks and wildlife sanctuaries**. The Act has undergone several amendments over the years to strengthen conservation efforts.

Q. 24	**Select the option that is related to the third word in the same way as the second word is related to the first word.** **Current : Circuit :: Earth :?** **a) Planet** ✗ **b) Solar system** ✗ **c) Orbit** ✓ **d) Path** ✗
Explanation:	The correct answer is **Orbit**. Here's the reasoning: • A **current** flows through a **circuit**, creating a direct and functional relationship between the two. • Similarly, the **Earth** follows an **orbit**, making the relationship between Earth and orbit analogous to the one between current and circuit.

Q. 25	**Which ruler established the military department Diwani-Arz to deal with internal disturbances and Mongol threats?** **a)** Masud Shah ✗ **b)** Iltutamish ✗ **c)** Nasiruddin Mahumad ✗ **d)** Balban ✓
Explanation:	The correct answer is: d **Explanation:** Sultan **Ghiyasuddin Balban**, who ruled the **Delhi Sultanate from 1266 to 1287**, established the military department known as **Diwani-Arz** to strengthen the empire's defence against **Mongol invasions** and internal rebellions. Balban was known for his **strict policies** and centralized military administration, which played a crucial role in maintaining order in the kingdom. His **Diwani-Arz** department was responsible for: • **Recruitment and training of soldiers**, ensuring a disciplined army. • **Monitoring frontier defences**, especially against Mongol threats from the northwest. • **Maintaining law and order** within the empire by dealing with revolts and disturbances. Balban's military reforms helped secure the **Delhi Sultanate** from external threats and reinforced his **autocratic rule**, marking a significant phase in medieval Indian administration.

Q. 26	**What will be the remainder when 17^200 is divided by 18?** **a)** 1 ✔ **b)** 17 ✘ **c)** 2 ✘ **d)** 16 ✘

Explanation:

The correct answer is: a

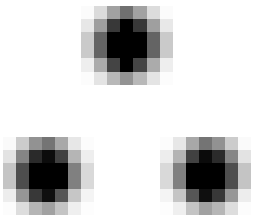
When n is even, then $(x^n - a^n)$ is completely divisible by (x + a)

We can right 18 as (17 + 1)

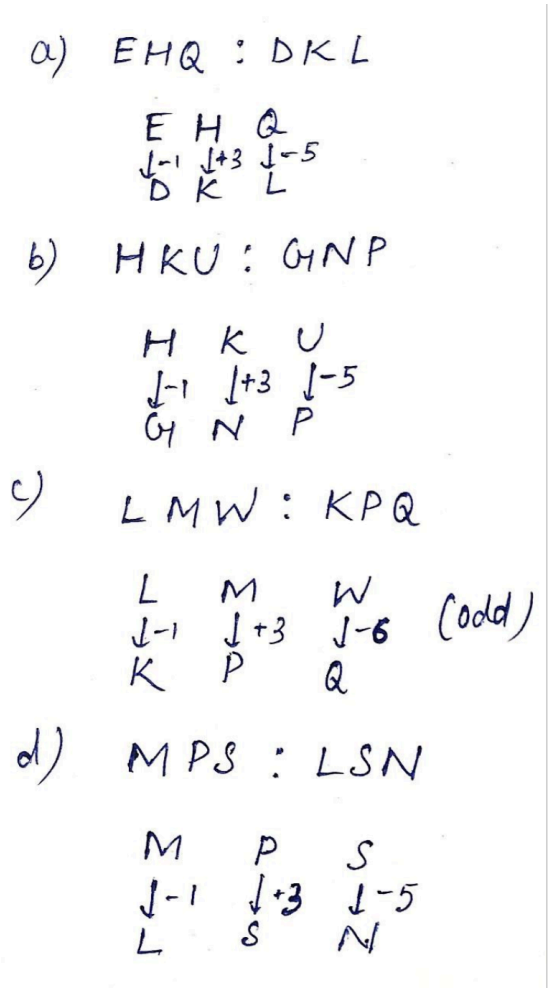
⇒ $(17^{200} - 1^{200})$ is completely divisible by (17 + 1)

⇒ $(17^{200} - 1)$ is completely divisible by 18

Then, on dividing 17^{200} by 18, we get 1 as remainder



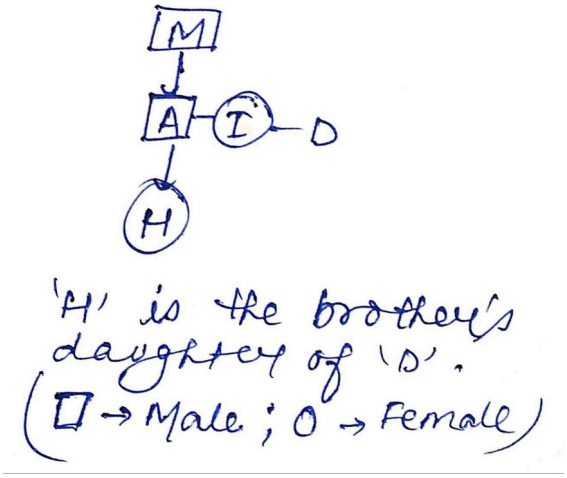
The remainder is 1

Q. 27	**Four pairs of letter groups are given below, out of which three are alike in some way and one is different from the others. Choose the odd pair.** **a) EHQ : DKL** ✗ **b) HKU : GNP** ✗ **c) LMW : KPQ** ✓ **d) MPS : LSN** ✗
Explanation:	The correct answer is: c 

Q. 28	**Who has written the recently published book 'Dalai Lama's Secret to Happiness'?** **a) Rujuta Diwekar** ✗ **b) Dinesh Shahra** ✓ **c) Robin Sharma** ✗ **d) Devdutt Pattanaik** ✗
Explanation:	The correct answer is: b **Explanation:** The book **"Dalai Lama's Secret to Happiness"** was written by **Dr. Dinesh Shahra** and was launched at the **Library of Tibetan Works and Archives in Dharamshala**. The book captures the essence of **His Holiness the Dalai Lama's teachings**, emphasizing **loving-kindness, self-awareness, and inner peace**. **Other options explained:** • **Rujuta Diwekar** – A well-known **nutritionist and author**, famous for books on **healthy eating and fitness**. • **Robin Sharma** – A **leadership expert and motivational speaker**, best known for **"The Monk Who Sold His Ferrari"**. • **Devdutt Pattanaik** – A **mythologist and writer**, known for books on **Indian mythology and culture**.

Q. 29	**86 is related to 298 following a certain logic. Following the same logic, 105 is related to 317. To which of the following is 48 related, following the same logic? (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 / subtracting /multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)** **a) 260** ✓ **b) 250** ✗ **c) 270** ✗ **d) 280** ✗
Explanation:	The correct answer is: a • 86 + 212 = 298 • 105 + 212 = 317 • 48 + 212 = 260

Q. 30	**Which country has the highest number of UNESCO World Heritage Sites?** **a)** China ✗ **b)** Italy ✓ **c)** India ✗ **d)** Spain ✗
Explanation:	The correct answer is: b **Explanation:** As of **2024**, **Italy** holds the highest number of **UNESCO World Heritage Sites**, with a total of **60 sites**. These sites include a mix of **cultural, natural, and mixed heritage locations**, showcasing Italy's rich history, art, and architecture. Italy is followed closely by **China**, which has **59 UNESCO sites**. Other countries with a significant number of heritage sites include **Germany (54), France (53), and Spain (50)**. India, while having a remarkable heritage, ranks lower with **43 UNESCO World Heritage Sites**.

Q. 31	**A @ B means 'A is the daughter of B',** **A * B means 'A is the father of B',** **A - B means 'A is the son of B' and** **A $ B means 'A is the sister of B'.** **Based on the above information, which of the following means that H is the brother's daughter of D?** **a) H * A @ M $ I – D** ✗ **b) H $ A * M - I @ D** ✗ **c) H @ A - M $ I * D** ✗ **d) H @ A - M * I $ D** ✓
Explanation:	The correct answer is: d 

Q. 32	**Which of the following literary works narrates a tale of love of a poor brahmin Charudatta for a courtesan Vasantasena?** **a)** Mudrarakshasa ✗ **b)** Svapnavasavadatta ✗ **c)** Mrcchakatika ✓ **d)** Mahaviracharita ✗
Explanation:	The correct answer is: c **Explanation:** The **Mṛcchakatika (The Little Clay Cart)** is a renowned Sanskrit drama written by **Śūdraka**, believed to date back to around the **5th century CE**. The play tells the romantic tale of **Charudatta**, a noble but impoverished Brahmin, and **Vasantasena**, a courtesan. Despite their different social backgrounds, their love blossoms amidst political intrigue, deceit, and threats from the antagonist **Shakara**, a corrupt official. Unlike many classical Sanskrit dramas that focus on royalty or divine themes, **Mṛcchakatika** portrays **realistic social struggles**, personal aspirations, and deep emotions, making it one of the most celebrated works of ancient Indian literature.

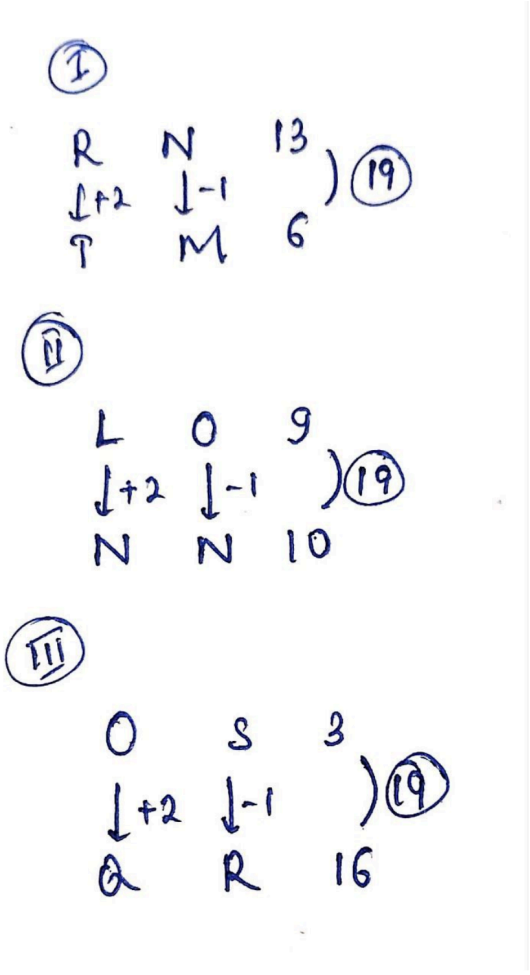
Q. 33	**The following table shows the classification of 100 students based on the marks obtained by them in Maths and Science in an examination.** **What is the difference between the number of students who passed with 60 as cut-off marks in Science and those who passed with 60 as cut-off marks in aggregate?**

Subjects	Marks out of 100				
	80 and above	60 and above	40 and above	20 and above	0 and above
Maths	12	35	80	94	100
Science	16	43	76	88	100
Average (Aggregate)	14	39	78	91	100

a) 4 ✓
b) 5 ✗
c) 6 ✗
d) 3 ✗

Explanation:	The correct answer is: a The number of students who passed with 60 as cut-off marks in Science = 43 The number of students who passed with 60 as cut-off marks in aggregate = 39 Difference = 43 – 39 => 4

Q. 34	**The Yanomami tribe primarily inhabits which rainforest?** **a) Amazon Rainforest** ✔ **b) Congo Rainforest** ✘ **c) Daintree Rainforest** ✘ **d) Sundarbans** ✘
Explanation:	The Yanomami tribe primarily inhabits the **Amazon Rainforest**, which spans across northern Brazil and southern Venezuela. The Yanomami are one of the largest isolated indigenous groups in South America, living in small villages within the dense rainforest. The Amazon Rainforest provides them with essential resources for survival, including food, medicinal plants, and materials for their traditional homes, known as **shabonos**. They practice a semi-nomadic lifestyle, relying on hunting, fishing, and small-scale agriculture. Their deep connection to the rainforest is reflected in their cultural traditions and environmental stewardship.

Q. 35	**RN 13 is related to TM - 6 in a certain way. In the same way, LO 9 is related to NN -10. To which of the following is OS 3 related, following the same logic? (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/subtracting/multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)** **a) PS -19** ✗ **b) QR -16** ✓ **c) PR -14** ✗ **d) QT -16** ✗
Explanation:	The correct answer is: b 

Q. 36	**What did the Montagu Declaration of 1917 propose?** **a) Gradual transfer of control over the Indian government to the Indian people** ✓ **b) Establishment of separate Muslim states within India** ✗ **c) Immediate granting of complete independence to Goa** ✗ **d) Expansion of British colonial rule in India** ✗
Explanation:	The correct answer is: a **Explanation:** The **Montagu Declaration of 1917**, also known as the **August Declaration**, was a statement by **Edwin Montagu**, the Secretary of State for India, in which Britain acknowledged the need for **gradual self-governance in India**. It proposed that Indians would be given an increasing role in administration, ultimately leading toward **responsible government** under British rule. This declaration led to the introduction of **diarchy** (shared governance between British officials and Indian ministers) in the **Government of India Act, 1919**, but it fell short of granting full autonomy. It marked an important shift in British policy, but Indian leaders were dissatisfied with its slow and limited approach.

Q. 37	**Find the least value of x where 7x5462 is divisible by 9.** **a)** 5 ✗ **b)** 4 ✗ **c)** 6 ✗ **d)** 3 ✓
Explanation:	The correct answer is: d Divisibility of 9: Sum of digits is divisible by 9 No. is 7x5462 Sum of digits = 7+x+5+4+6+2 = 24+x The least value of x should be 3 27 is completely divisible by 9

Q. 38	**Divide ₹1,162 among A, B and C in the ratio of 35 : 28 : 20.** **a) A = ₹512, B = ₹365 and C = ₹285** ✗ **b) A = ₹450, B = ₹425 and C = ₹327** ✗ **c) A = ₹490, B = ₹392 and C = ₹280** ✓ **d) A = ₹512, B = ₹385 and C = ₹265** ✗
Explanation:	The correct answer is: c A:B:C = 35:28:20 Total = 83 unit $A = \frac{35}{83} \times 1162 = Rs.490$ $B = \frac{28}{83} \times 1162 = Rs.392$ $C = \frac{20}{83} \times 1162 = Rs.280$

Q. 39	**Which international treaty established the World Trade Organization (WTO)?** **a) Bretton Woods Agreement** ✗ **b) Marrakesh Agreement** ✓ **c) Geneva Convention** ✗ **d) Paris Agreement** ✗
Explanation:	The correct answer is: b **Explanation:** The **Marrakesh Agreement**, signed on **April 15, 1994**, established the **World Trade Organization (WTO)**, replacing the **General Agreement on Tariffs and Trade (GATT)**. The agreement set the framework for regulating global trade, promoting free trade, reducing trade barriers, and resolving disputes between nations. **Other options explained:** 1. **Bretton Woods Agreement** (1944): ◦ Established the **International Monetary Fund (IMF)** and **World Bank** to promote global financial stability and development after **World War II**. ◦ Set the foundation for a fixed exchange rate system where currencies were pegged to the **US dollar**, which was backed by gold. ◦ It did not directly establish the **World Trade Organization (WTO)** but laid the groundwork for international economic cooperation. 2. **Geneva Convention** (1949): ◦ A series of treaties defining the **rules of war**, focusing on the **protection of civilians, prisoners of war (POWs), and wounded soldiers**. ◦ It set standards for humanitarian treatment and prohibited acts like **torture, war crimes, and attacks on medical personnel**. ◦ Primarily related to **international humanitarian law**. 3. **Paris Agreement** (2015): ◦ An international treaty aimed at **combatting climate change** by reducing global greenhouse gas emissions. ◦ Countries pledged to limit global warming to **below 2°C**, preferably **1.5°C**, above pre-industrial levels. Each of these agreements serves a distinct purpose in international affairs, focusing on economics, warfare regulations, or environmental protection rather than global trade policy.

Q. 40	**If '+' means '×', '–' means '÷', '×' means '+', '÷' means '–', then what will come in place of '?' in the given equation?** **36 – 6 × 6 ÷ 3+4 = ?** **a)** 12 ✗ **b)** 18 ✗ **c)** 0 ✓ **d)** 24 ✗
Explanation:	The correct answer is: c 36 – 6 × 6 ÷3+4 = ? If '+' means '×', '–' means '÷', '×' means '+', '÷' means '–', then => 36 ÷ 6 + 6 - 3×4 => 6 + 6 – 12 => 12 – 12 => 0 (Ans)

Q. 41	**Al-Biruni's Arabic work is known by which of the following name?** **a)** Tabaqat-i Nasiri ✗ **b)** Chach Nama ✗ **c)** Rihla ✗ **d)** Kitab-al Hind ✓
Explanation:	The correct answer is: d **Explanation:** **Al-Biruni**, a Persian scholar who visited India in the **11th century**, wrote **"Kitab-al Hind"** (or **"Tarikh al-Hind"**) in **Arabic**. This work is a **detailed study of Indian society, culture, religion, and philosophy**, based on his observations and interactions with scholars of the time. Al-Biruni's **scientific and objective approach** set his work apart, as he attempted to understand Hinduism and Indian traditions **without bias**. His book covers aspects of **astronomy, mathematics, geography, and customs** prevalent in medieval India. **Other options explained:** • **Tabaqat-i Nasiri** – A **historical chronicle** written by **Minhaj-i-Siraj** in the **13th century**, detailing the history of Muslim rule in India. • **Chach Nama** – A **historical account** of Sindh's conquest by **Muhammad bin Qasim**, written in Persian. • **Rihla** – A **travelogue** by the famous Arab traveler **Ibn Battuta**, documenting his journeys across the world, including India.

Q. 42	**Find the simple interest on ₹3,000 at 6 (1/4)% p.a. for the period from 5 Feb 2005 to 18 April 2005, both dates included.** **a)** ₹42.80 ✗ **b)** ₹40 ✗ **c)** ₹35.50 ✗ **d)** ₹37.50 ✓
Explanation:	The correct answer is: d Principal = Rs. 3000 Rate = $6\frac{1}{4}\% = \frac{25}{4}\%$ Time = 5 Feb 2005 to 18 April 2005 = 24+31+18 = 73 days $SI = \frac{P \times R \times T}{100}$ $= \frac{3000 \times 25 \times 73}{100 \times 4 \times 365} = Rs.37.5$

Q. 43	**Under the National Food Security Act (NFSA), what percentage of the rural population is covered for subsidized food grains?** **a)** 50% ✗ **b)** 60% ✗ **c)** 75% ✓ **d)** 90% ✗
Explanation:	The correct answer is: c **Explanation:** Under the **National Food Security Act (NFSA), 2013**, the government covers **75% of the rural population** and **50% of the urban population** for subsidized food grains. The Act aims to provide **affordable food security** to economically disadvantaged sections, ensuring access to essential commodities like **rice, wheat, and coarse grains** at highly subsidized rates.

Q. 44	**Read the given statement of courses of action carefully. Assuming that the information given in the statement is true, decide which of the given courses of action logically follow(s) from the statement.** **Statement:** **There is a huge increase in the migration of Citizens of Country X to foreign countries as the unemployment rate has been increasing in Country X.** **Courses of action:** **I. The citizens of country X should be provided with alternate sources of income.** **II. Substantial fees should be imposed on all foreign travels by the citizens of country X.** **a) If only I follows** ✓ **b) If only II follows** ✗ **c) If both I and II follow** ✗ **d) If neither I nor II follows** ✗
Explanation:	The correct answer is **If only I follows**. **Explanation:** 1. **Course of Action I:** ◦ Providing alternate sources of income to citizens directly addresses the root cause of the problem: unemployment. By creating job opportunities or income alternatives, it could reduce migration to foreign countries. ◦ **This course of action logically follows.** 2. **Course of Action II:** ◦ Imposing substantial fees on foreign travel does not address the underlying issue of unemployment. It might discourage migration temporarily, but it does not provide a sustainable solution to the problem. ◦ **This course of action does not logically follow.** Thus, **only Course of Action I follows** as it effectively tackles the core issue.

Q. 45

The ratio of the income of A to B is: 5 : 4, and the ratio of their respective expenditure is 3 : 2. If, at the end of the year, each saves ₹1,600, then the income of A is:

a) ₹3,600 ✗

b) ₹4,400 ✗

c) ₹3,400 ✗

d) ₹4,000 ✓

Explanation:

The correct answer is: d

Income of A and B be 5x and 4x

Expenditure of A:B = 3:2

ATQ,

$$\frac{5x - 1600}{4x - 1600} = \frac{3}{2}$$

$$10x - 3200 = 12x - 4800$$

$$2x = 1600$$

$$x = 800$$

Income of A = 5×800 = Rs. 4000

Q. 46	**In AIBA Boxing Junior Boys and Girls Competitions, the bouts must consist of each round of ___ minutes.** **a)** 5 min ✗ **b)** 1 min ✗ **c)** 2 min ✓ **d)** 3 min ✗
Explanation:	The correct answer is: c In **AIBA Boxing Junior Boys and Girls Competitions**, each **bout consists of three rounds**, with each round lasting **2 minutes**. The **rest period** between rounds is **1 minute**, allowing fighters to recover and receive coaching advice. The **2-minute round duration** in junior competitions is designed to maintain fairness and safety. Young boxers are still developing their endurance and technique, so shorter rounds help them focus on strategy without excessive fatigue. The **1-minute break** is crucial as it provides recovery time, ensuring that fighters maintain their performance while reducing the risk of injury.

Q. 47	**Two men start walking together to a certain destination, one at the speed of 6 km/h, and the other at 7.5km/h. The latter arrives 1 h 4 min before the former. The distance covered is:** **a)** 44 km ✗ **b)** 24 km ✗ **c)** 32 km ✓ **d)** 38 km ✗
Explanation:	The correct answer is: c When distance is same: $\text{speed} \propto \frac{1}{\text{time}}$ $\text{Speed } 6 : 7.5$ Time $5 : 4$ Time difference = $1\ unit \rightarrow 1\ h\ 4\ min$ $5unit \rightarrow 5\ h\ 20\ min$ Distance = $6 \times 5\frac{1}{3} = 32\ km$

Q. 48	**The value of $\frac{\sqrt{625}}{11} \times \frac{14}{\sqrt{25}} \times \frac{11}{\sqrt{196}}$ is:** **a)** 7 ✗ **b)** 5 ✓ **c)** 9 ✗ **d)** 10 ✗
Explanation:	The correct answer is: b $$\frac{\sqrt{625}}{11} \times \frac{14}{\sqrt{25}} \times \frac{11}{\sqrt{196}}$$ $$\frac{25}{11} \times \frac{14}{5} \times \frac{11}{14} = 5$$

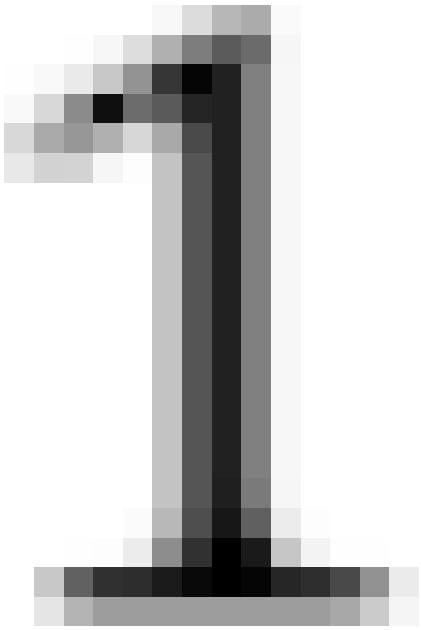
Q. 49	**The kinetic energy of a body of mass 2 kg, which is moving with the constant velocity 5m/sec, is_____.** **a)** 100 joules ✗ **b)** 25 joules ✓ **c)** 50 joules ✗ **d)** 10 joules ✗

Explanation:

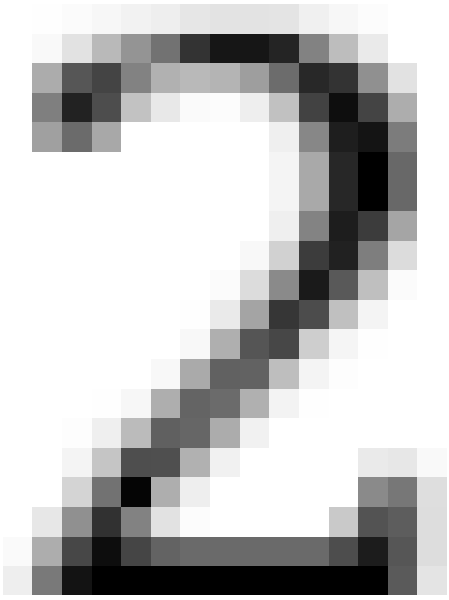
The correct answer is: b

Explanation:

Kinetic energy (**KE**) is calculated using the formula:



$$KE = \frac{1}{2}mv^2$$



where:

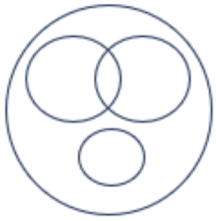
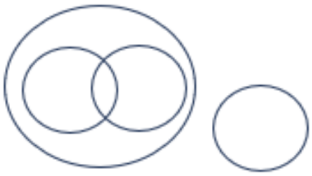
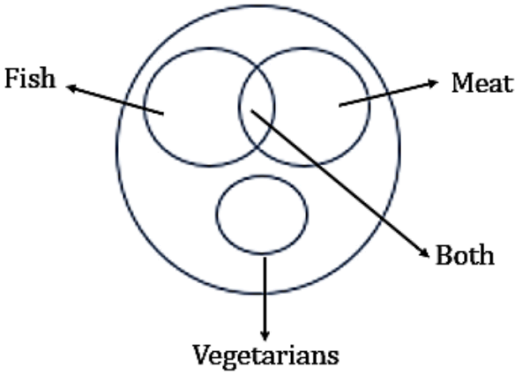
- **m** = mass of the body (**2 kg**)
- **v** = velocity of the body (**5 m/s**)

Substituting the values:

$$KE = \frac{1}{2} \times 2 \times (5)^2$$

$KE = 1 \times 25 = 25$ Joules

Thus, the kinetic energy of the body is **25 Joules**.

Q. 50	**In a dinner party both fish and meat were served. Some took only fish and some only meat. There were some vegetarians who did not accept either. The rest accepted both fish and meat. Which of the following logic diagrams correctly reflects this situation?** **a)**  **b)**  **c)**  **d)** 
Explanation:	The correct answer is: a 

Q. 51	**What is the significance of Chapter VII of the United Nations Charter?** **a) It defines the roles of the General Assembly.** ✗ **b) It allows the Security Council to take enforcement measures, including military action.** ✓ **c) It establishes the International Court of Justice.** ✗ **d) It outlines the principles of international trade.** ✗
Explanation:	The correct answer is: b **Explanation:** **Chapter VII of the United Nations Charter** grants the **UN Security Council** the authority to take enforcement actions when there is a threat to international peace and security. These measures can include: • **Sanctions** (economic, diplomatic, or military restrictions). • **Military intervention**, including UN-authorized peacekeeping operations. • **Authorizing force** against aggressor states when peaceful measures fail. Chapter VII is crucial because it provides a legal framework for collective action in response to conflicts, ensuring that threats to peace are addressed at an international level.

Q. 52	$If\ x = \frac{\sqrt{3}+1}{\sqrt{3}-1}\ and\ y = \frac{\sqrt{3}-1}{\sqrt{3}+1},\ then\ the\ value\ of\ x^2 + y^2\ is:$ **a)** 13 ✗ **b)** 15 ✗ **c)** 10 ✗ **d)** 14 ✓
Explanation:	The correct answer is: d $x = \frac{\sqrt{3}+1}{\sqrt{3}-1} \times \frac{\sqrt{3}+1}{\sqrt{3}+1} = \frac{4+2\sqrt{3}}{2} = 2 + \sqrt{3}$ $y = \frac{\sqrt{3}-1}{\sqrt{3}+1} \times \frac{\sqrt{3}-1}{\sqrt{3}-1} = \frac{4-2\sqrt{3}}{2} = 2 - \sqrt{3}$ $x^2 = (2+\sqrt{3})^2 = 7 + 4\sqrt{3}$ $y^2 = (2-\sqrt{3})^2 = 7 - 4\sqrt{3}$ Now, $x^2 + y^2 = 7 + 4\sqrt{3} + 7 - 4\sqrt{3} = 14$

Q. 53	**In January 2025, who has been appointed President by the Lebanese Parliament?** **a) Farid Zahran** ✗ **b) Joseph Aoun** ✓ **c) Saad Hariri** ✗ **d) Nabih Berri** ✗
Explanation:	The correct answer is: b **Explanation:** **Joseph Aoun**, the former **Lebanese Army commander**, was elected as **Lebanon's 14th President** on **January 9, 2025**. His appointment ended a **two-year presidential vacancy**, as Lebanon's parliament had struggled to elect a leader in previous sessions.

Q. 54	**Refer the below data and answer the following question:** Partners / Present % share Singh 10 Pandey 5 Anil 15 Sunil 25 Varma 30 Rajesh 15 **If the company has issued 8 lakh shares between its 6 partners and if Varma offers to sell 10000 of his shares to Pandey, then how many shares will Pandey have?** **a) 20000** ✗ **b) 30000** ✗ **c) 40000** ✗ **d) 50000** ✓
Explanation:	The correct answer is: d Number of share Pandey will have = 5% of 8 lakhs shares + 10000 shares => 40000 + 10000 => 50000

Q. 55	A train 'R' leaves Chennai at 5 a.m. and reaches Vijayawada at 12 p.m. Another train 'S' leaves Vijayawada at 7 a.m. and reaches Chennai at 5:30 p.m. At what time do the two trains cross each other? **a)** 10 a.m. ✔ **b)** 9:36 a.m. ✘ **c)** 12:25 p.m. ✘ **d)** 12 p.m. ✘

Explanation:

The correct answer is: a

Train R leaves Chennai station at 5 a.m. and reaches Vijayawada at 12 p.m.

Train S leaves Vijayawada station at 7 a.m. and reaches Chennai at 5.30 p.m.

Train R travel time = 7 hours

Train S travel time is $10.5 = \frac{21}{2}$ hours

We know, speed = Distance/time

Let the distance b/w Chennai & Vijayawada is 21 Km (LCM of 7 &

$$\frac{21}{\frac{}{2}})$$

$$21$$

Speed of 1st train = $\frac{\qquad}{\qquad}$ = 3 km/h

$$7$$

$$21$$

Speed of 2nd train = $\frac{\qquad}{\qquad}$ = 2 km/h

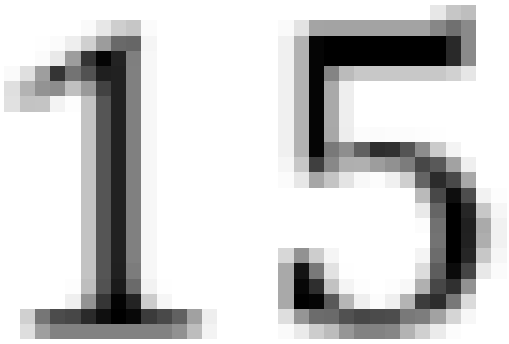
$$10.5$$

Relative speed = 3 + 2 = 5 km/h

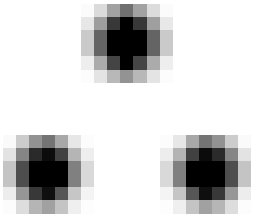
Train R travels for 2 hours before train S starts.

Remaining distance = 21 - 6 = 15 km

Time taken to cross each other



Time = $\frac{15}{5}$ = 3 hours



They cross each other at 7 a.m. + 3hrs = 10 a.m.

Q. 56	**Which regional organization was established with the Bangkok Declaration in 1997?** **a) BIMSTEC** ✔ **b) SAARC** ✘ **c) ASEAN** ✘ **d) SCO** ✘
Explanation:	**Explanation:** **BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation)** was established in **1997** with the signing of the **Bangkok Declaration**. The organization was formed to promote regional cooperation between countries bordering the Bay of Bengal, focusing on **trade, investment, security, and sustainable development**. **Member Countries:** • Bangladesh • India • Myanmar • Sri Lanka • Thailand • Nepal • Bhutan **Others options explained:** **SAARC (South Asian Association for Regional Cooperation)** • **Established: 1985** • **Purpose:** Promotes **economic, cultural, and regional cooperation** among South Asian nations. • **Member Countries:** India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, Afghanistan, and Maldives. • **Key Focus Areas:** Trade, poverty reduction, health, and education. • **Challenges:** Political tensions between member states, particularly **India and Pakistan**, have hindered deeper integration. **ASEAN (Association of Southeast Asian Nations)** • **Established: 1967** • **Purpose:** Strengthens **political and economic cooperation** in Southeast Asia. • **Member Countries: 10 nations** including **Indonesia, Malaysia, Thailand, Vietnam, and Philippines**. • **Key Focus Areas:** Free trade, economic integration, and security cooperation. • **Notable Agreements: ASEAN Free Trade Area (AFTA)**, which promotes economic growth through lower tariffs. **SCO (Shanghai Cooperation Organization)** • **Established: 2001** • **Purpose:** Focuses on **regional security, economic collaboration, and counterterrorism** efforts. • **Member Countries:** Includes **China, Russia, India, Pakistan, and Central Asian nations**. • **Key Focus Areas:** Combatting terrorism, cyber security, economic partnerships, and energy cooperation. • **Significance:** Serves as a strategic alliance **in Eurasia**, counterbalancing Western influence.

Q. 57	**A sphere of radius 10 cm is melted and 'n' number of small spheres of radius 2.5 cm are formed. What is the value of n?** **a)** 64 ✔ **b)** 16 ✘ **c)** 32 ✘ **d)** 8 ✘
Explanation:	The correct answer is: a $$\frac{4}{3}\pi R^3 = \frac{4}{3}\pi r^3 \times n$$ $$n = \frac{R^3}{r^3} = \frac{10 \times 10 \times 10}{2.5 \times 2.5 \times 2.5} = 64$$

Q. 58	**In which country is the Kabaddi World Cup 2025 being organized?** **a)** India ✘ **b)** England ✔ **c)** UAE ✘ **d)** Iran ✘
Explanation:	The correct answer is: b **Explanation:** The **2025 Kabaddi World Cup** is being hosted in **England**, specifically in the **West Midlands region**, from **March 17–23, 2025**. This marks the **first time** the tournament is being held **outside Asia**, reflecting the growing global popularity of Kabaddi. The decision to host the event in England was influenced by its **strong South Asian community** and its experience in organizing **Kabaddi leagues and the 2022 Commonwealth Games.**

Q. 59 Find the missing number at?

5	4	3
6	5	4
7	6	5
384	245	?

a) 269 ✗

b) 244 ✗

c) 144 ✓

d) 249 ✗

Explanation:

The correct answer is: c

Along the column,

- $(5+1)\times(6+2)\times(7+1) = 6\times8\times8=384$
- $(4+1)\times(5+2)\times(6+1) = 5\times7\times7=245$
- $(3+1)\times(4+2)\times(5+1) = 4\times6\times6=144$ (ans)

Q. 60 What is the name of ISRO's first dedicated navigation satellite?

a) IRNSS-1A ✓

b) GSAT-1 ✗

c) INSAT-3C ✗

d) RISAT-1 ✗

Explanation:

The correct answer is: a

Explanation:

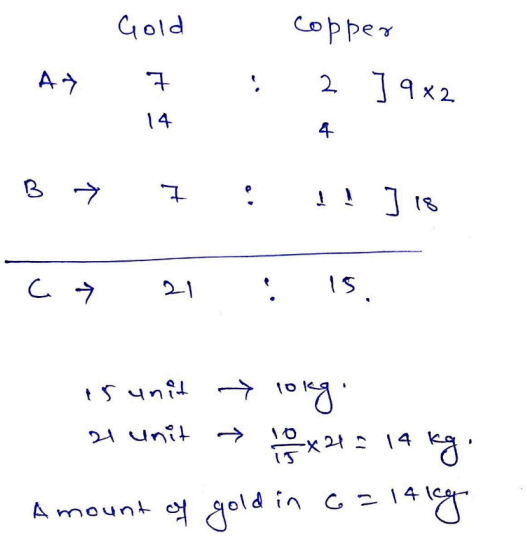
IRNSS-1A, launched on **July 1, 2013**, was the **first satellite** in the **Indian Regional Navigation Satellite System (IRNSS)** developed by **ISRO**. It marked India's entry into independent satellite-based navigation, providing accurate positioning services over the Indian subcontinent.

The **IRNSS constellation**, now known as **NavIC (Navigation with Indian Constellation)**, is India's **regional satellite navigation system**, offering highly precise location data for civilian and military applications.

Other options explained:

- **GSAT-1** – India's **first experimental communications satellite**, launched in **2001**.
- **INSAT-3C** – Part of the **INSAT series**, focused on telecommunications and broadcasting, launched in **2002**.
- **RISAT-1** – A **radar imaging satellite** used for surveillance and disaster monitoring, launched in **2012**.

Q. 61	**The LCM of two prime numbers x and y (x>y) is 319. The value of 2x – 5y is:** **a)** 4 ✗ **b)** 2 ✗ **c)** 3 ✓ **d)** 1 ✗
Explanation:	The correct answer is: c LCM of two prime nos. x and y is 319 $x \times y$ = 319 = 29×11 $x > y,\ \therefore x = 29\ and\ y = 11$ Now. $2x - 5y = 2 \times 29 - 5 \times 11 = 3$

Q. 62	**A and B are two alloys of gold and copper prepared by mixing the metals in the ratio of 7 : 2 and 7 : 11, respectively. Equal quantities of the alloys are melted to form a third alloy, C. If the amount of copper in C is 10 kg, then what is the amount of gold in C?** **a)** 12 kg ✗ **b)** 8 kg ✗ **c)** 14 kg ✓ **d)** 10 kg ✗
Explanation:	The correct answer is: c 

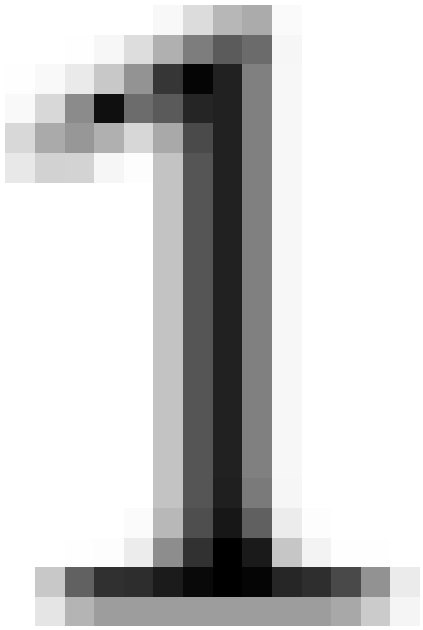
Q. 63	**What is the primary function of tranquilizers?** **a)** Relieving pain ✗ **b)** Stimulating muscle contractions ✗ **c)** Reducing anxiety and stress ✓ **d)** Induce sleep ✗
Explanation:	The correct answer is: c **Explanation:** **Tranquilizers** are a class of drugs primarily used to **calm the nervous system**, helping to **reduce anxiety, stress, and agitation**. They work by enhancing the effect of neurotransmitters like **gamma-aminobutyric acid (GABA)**, which slows brain activity, creating a feeling of relaxation and mental ease. Tranquilizers are often prescribed for **anxiety disorders, insomnia, and muscle relaxation**, but misuse can lead to dependency and side effects.

Q. 64	**Question: Who is the shortest among A, B, C, D and E?** **Statements:** **I. A is taller than E but shorter than D.** **II. B is shorter than C but taller than E.** **III. D is taller than C and A is taller than B.** **a) Statements II and III together are sufficient** ✗ **b) Statements I and III together are sufficient** ✗ **c) Statements I, II and III are insufficient.** ✗ **d) Statements I, II and III are sufficient.** ✓

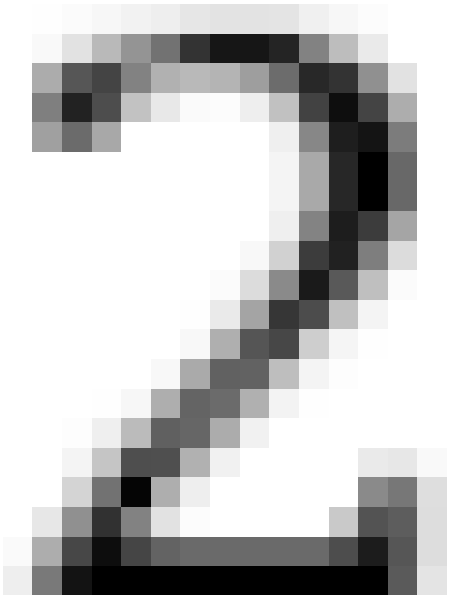
Explanation:	The correct answer is **Statements I, II, and III are sufficient.**
	
	Explanation:
	
	Breaking Down the Statements:
	
	1. **Statement I:** A is taller than E but shorter than D.
	   - So, the height order from this is: **D > A > E**.
	   - This only establishes a partial order; we don't know where B or C fit.
	2. **Statement II:** B is shorter than C but taller than E.
	   - So, the height order from this is: **C > B > E**.
	   - This also gives a partial order, but it doesn't involve A or D.
	3. **Statement III:** D is taller than C, and A is taller than B.
	   - So, the height order from this is: **D > C** and **A > B**.
	   - This further refines the relationships among the individuals.
	
	Combining All Three Statements:
	
	From **Statements I, II, and III**, we can establish the complete order of heights:
	
	1. **D > C** (from III).
	2. **C > B > E** (from II).
	3. **A > B** (from III).
	4. Combining this with **D > A > E** (from I), we get: **D > C > A > B > E**.
	
	Conclusion:
	
	From the complete order, it is clear that **E** is the shortest.

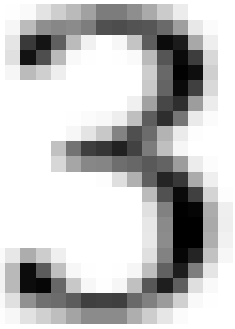
Q. 65	Ravi earned 50% more money than Ajay. Ajay earned 30% less money than Madhan. By what percentage did Ravi earn more money than Madhan? **a)** 3% ✗ **b)** 11% ✗ **c)** 5% ✓ **d)** 9% ✗

Explanation:	The correct answer is: c

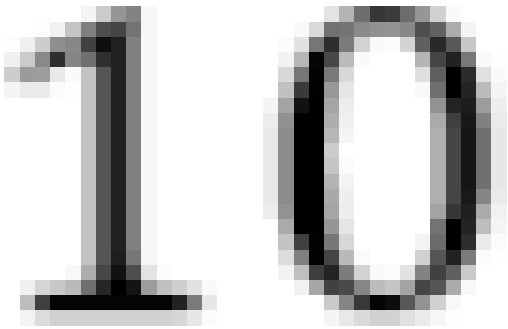


50% = 





30% = 



Ravi : Ajay : Madhan

3 : 2

7 : 10

Ravi: Ajay: Madhan = 21:14:20

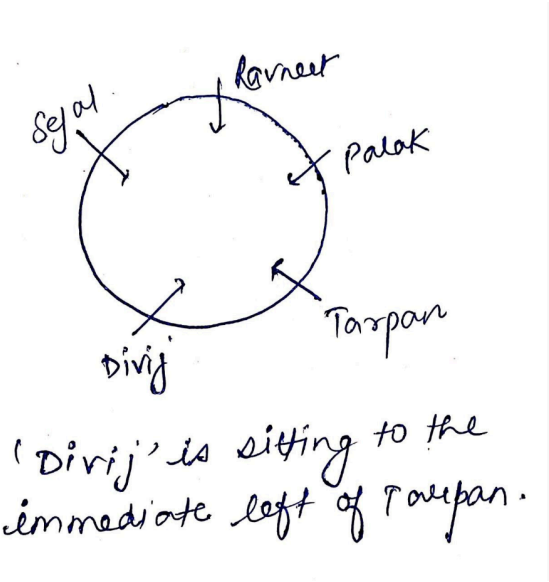
Ravi earns 1 unit more than Madhan

Percentage = $\frac{1}{20} \times 100 = 5\%$

Q. 66	**Which among the following is a mesodermally derived rod-like structure formed on the dorsal side during embryonic development in some animals?** **a)** Notochord ✓ **b)** Metameric ✗ **c)** Pseudocoelomates ✗ **d)** Coelomates ✗
Explanation:	The correct answer is: a **Explanation:** The **notochord** is a **rod-like, mesodermally derived structure** that forms along the **dorsal side** during embryonic development in some animals, specifically in **chordates**. It provides structural support and acts as a primitive backbone in early development. **Importance of the Notochord:** • Serves as the **primary skeletal framework** before the vertebral column develops in vertebrates. • Plays a crucial role in the **induction of neural tube formation**, which later develops into the **central nervous system (brain and spinal cord)**. • Present in **all chordate embryos**, but in vertebrates, it gets replaced by the **vertebral column** during further development. **Other options explained:** • **Metameric** – Refers to **segmentation** in organisms like annelids, where the body is divided into repeated segments. • **Pseudocoelomates** – Organisms with a **false coelom**, meaning their body cavity is not fully lined by mesoderm (e.g., roundworms). • **Coelomates** – Organisms with a **true coelom**, a fully mesoderm-lined body cavity (e.g., annelids, mollusks, vertebrates).

Q. 67	*Find the LCM of* $2^2 \times 3^3 \times 5 \times 7^2, 2^3 \times 3^2 \times 5^2 \times 7^4$ *and* $2 \times 3 \times 5^3 \times 7 \times 11$. **a)** $2^3 \times 3^3 \times 5^3 \times 7^4$ ✗ **b)** $2 \times 3 \times 5 \times 7 \times 11$ ✗ **c)** $2 \times 3 \times 5 \times 7$ ✗ **d)** $2^3 \times 3^3 \times 5^3 \times 7^4 \times 11$ ✓
Explanation:	The correct answer is: d • To find the LCM of numbers expressed in prime factorization, take the highest power of each prime factor present in any of the numbers. LCM = $2^3 \times 3^3 \times 5^3 \times 7^4 \times 11$

Q. 68	**Which Indian architectural style is characterized by its pyramid-shaped towers and is predominantly found in southern India?** **a)** Nagara ✗ **b)** Dravidian ✓ **c)** Vesara ✗ **d)** Kalinga ✗
Explanation:	**Explanation:** The **Dravidian architectural style** is characterized by **pyramid-shaped towers (vimanas)** and is predominantly found in **southern India**, especially in Tamil Nadu, Karnataka, and Andhra Pradesh. It developed under the patronage of **Pallavas, Cholas, and Vijayanagar rulers**. **Key Features:** • **Pyramid-shaped vimanas** (temple towers) that rise in stepped layers. • **Gopurams** – Large, ornate entrance towers that mark temple gateways. • Use of **intricate sculptures** depicting gods, mythical creatures, and legends. • **Monolithic temple construction**, like the famous **Brihadeeswarar Temple (Tanjore)** and **Shore Temple (Mahabalipuram)**. **Other styles explained:** • **Nagara** – Northern Indian style characterized by **curvilinear towers (shikharas)**. • **Vesara** – A blend of **Nagara and Dravidian styles**, seen in **Chalukya temples**. • **Kalinga** – Prominent in **Odisha**, marked by **Rekha Deul towers** (e.g., Jagannath Temple, Puri).

Q. 69	**Divij, Palak, Ravneet, Sejal and Tarpan are sitting around a circular table facing the center of the table. Only Palak sits between Ravneet and Tarpan. Tarpan is second to the right of Sejal. There is only Sejal between Ravneet and Divij. Who is/are sitting immediate to the left of Tarpan?** **a)** Sejal ✗ **b)** Palak ✗ **c)** Divij ✓ **d)** Ravneet ✗
Explanation:	The correct answer is: c 

Q. 70	**If the radius of a circle is reduced by 15%, then its area is reduced by:** **a)** 27.75% ✓ **b)** 12.75% ✗ **c)** 17% ✗ **d)** 17.75% ✗
Explanation:	The correct answer is: a New radius : Old radius 17 : 20 Ratio of area = $(17)^2:(20)^2 = 289:400$ Percentage change = $\frac{111}{400} \times 100 = 27.75\%$

Q. 71	**What is generally used in the kitchen for making crispy pakoras?** **a)** Baking Soda ✔ **b)** Milk of Magnesia ✘ **c)** Washing Soda ✘ **d)** Bleaching powder ✘

Explanation:

The correct answer is: a

Explanation:

Baking soda (sodium bicarbonate) is commonly used in the kitchen to make **crispy pakoras**. It helps aerate the batter by releasing carbon dioxide when mixed with moisture and acidic ingredients like **yogurt or lemon juice**, resulting in a **light, fluffy, and crispy texture**.

Some **important household chemical substances** and their common uses:

1. Baking Soda (Sodium Bicarbonate - $NaHCO_3$)

- Used for **baking**, as it helps dough rise by releasing **carbon dioxide (CO_2)**.
- Works as a **cleaning agent** for stains and odors.
- Acts as a **mild antacid** to relieve **indigestion**.

2. Vinegar (Acetic Acid - CH_3COOH)

- Used in **cooking** for flavor enhancement and food preservation.
- Functions as a **natural disinfectant** and stain remover.
- Helps unclog **drains** when combined with **baking soda**.

3. Common Salt (Sodium Chloride - NaCl)

- Essential for **flavoring food** and maintaining **body electrolyte balance**.
- Used for **preserving food**, like pickles and dried meats.
- Helps in **de-icing roads** during winter.

4. Detergents & Soaps (Various Compounds)

- Help remove **oil, dirt, and grease** from clothing, utensils, and surfaces.
- Contain **surfactants** that break down oils and fats.
- Soaps are **biodegradable**, whereas some detergents are synthetic.

5. Bleaching Powder (Calcium Hypochlorite - $Ca(OCl)_2$)

- Used for **disinfection and water purification**.
- Helps remove **stubborn stains** from clothes.
- Can act as a **mild oxidizing agent**.

6. Washing Soda (Sodium Carbonate - Na_2CO_3)

- Used as a **laundry detergent booster**.
- Helps in **softening hard water**.
- Used in **glass making** and **cleaning household surfaces**.

7. Ammonia (NH_3)

- Found in **window and floor cleaners**, cutting through grease and dirt.
- Used in **fertilizers** for plants.
- Can remove tough stains from **fabrics**.

8. Hydrogen Peroxide (H_2O_2)

- Used as an **antiseptic** to clean wounds.
- Acts as a **bleaching agent** in whitening clothes and teeth.
- Used in **disinfecting surfaces** and removing mold.

9. Alum (Potassium Aluminum Sulfate - $KAl(SO_4)_2 \cdot 12H_2O$)

- Used in **water purification** for removing impurities.
- Helps in **tightening skin** and treating minor cuts (often used after shaving).
- Used in some **pickling recipes** to maintain crispness.

10. Borax (Sodium Borate - $Na_2B_4O_7 \cdot 10H_2O$)

- Works as a **natural pesticide** for ants and cockroaches.
- Used in **laundry detergents** to boost cleaning power.

- Helps in **making slime and DIY cleaning solutions**.

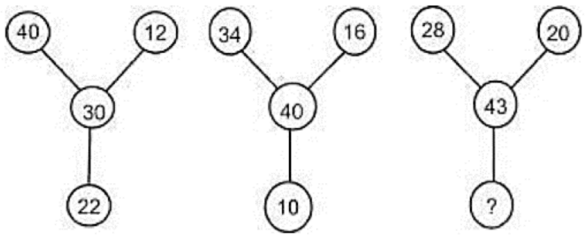
Q. 72	**A statement is given followed by two assumptions numbered I and II. You have to assume everything in the statement to be true and decide which of the given assumptions is are implicit in the statement.** **Statement:** **The demand for smartphones and laptops has increased substantially since the introduction of online classes in schools.** **Assumptions:** **I. People are buying smartphones and laptops to enable their children to attend online classes.** **II. Desktop computers cannot be used to attend online classes.** **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 **Only assumption I is implicit**. **Explanation:** 1. **Assumption I:** ◦ The statement mentions that demand for smartphones and laptops has increased substantially due to online classes in schools. ◦ It is reasonable to assume that people are buying these devices specifically to enable their children to attend online classes, as the timing aligns with this purpose. ◦ **Therefore, assumption I is implicit.** 2. **Assumption II:** ◦ The statement does not mention anything about desktop computers or their inability to be used for online classes. ◦ Just because the demand for smartphones and laptops has increased does not mean desktop computers cannot serve the same purpose. ◦ **Thus, assumption II is not implicit.** Hence, **only assumption I is implicit**.

Q. 73	If cos(x+y) = ½ and sin(x-y) = 0, where x and y are positive acute angles and x ≥ y, then x and y are: a) 60° and 45° ✗ b) 60° and 60° ✗ c) 30° and 30° ✓ d) 90° and 30° ✗
Explanation:	The correct answer is: c $\cos(x+y) = \frac{1}{2}, x+y = 60^o \rightarrow i$ $\sin(x-y) = 0, x-y = 0^o \rightarrow ii$ From i and ii we get, $x = 30^o, y = 30^o$

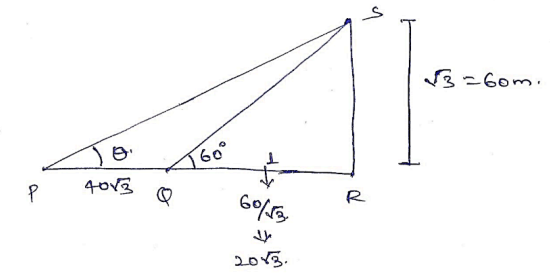
Q. 74	From certain number of apples, a man sells 1/3 of the apples to the first customer. He sells 1/2 of the remaining apples to the second customer, and 1/3 of the remaining apples plus 5 to the third customer. He then finds himself left with 3 apples. How many apples did the man have initially? a) 30 ✗ b) 18 ✗ c) 24 ✗ d) 36 ✓
Explanation:	The correct answer is: d Let the no. of apples initially be x ATQ, $x \times \frac{2}{3} \times \frac{1}{2} \times \frac{2}{3} = 3 + 5$ $x = 36$

Q. 75	**Which of the following statements in INCORRECT about Rutherford's model of an atom?** **a) Electrons revolve around the nucleus in elliptical paths.** ✔ **b) Electrons revolve around the nucleus in circular paths.** ✘ **c) There is a positively charged centre in an atom, which is called the nucleus.** ✘ **d) The size of the nucleus is very small as compared to that of the atom.** ✘
Explanation:	The correct answer is: a **Explanation:** Rutherford's atomic model proposed that electrons **revolve around the nucleus in well-defined circular paths**, similar to planets orbiting the sun. However, it did not suggest **elliptical** orbits, which were later introduced in **Bohr's atomic model**. **Key Features of Rutherford's Model:** • The atom consists of a **positively charged nucleus** containing **protons**. • **Electrons move in circular orbits** around the nucleus. • The nucleus is **small compared to the atom's overall size**. • The model did not explain **electron stability or discrete energy levels**, leading to refinements by Bohr.

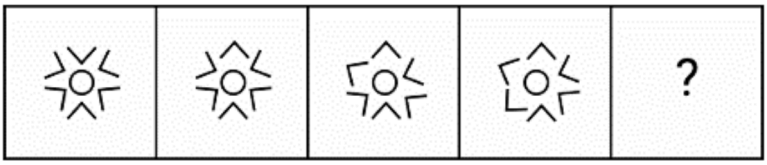
Q. 76	**Which element is typically found at the bottom left of the desktop in the Windows OS?** **a) Recycle Bin** ✘ **b) Start Menu** ✔ **c) Notification Center** ✘ **d) Quick Access Toolbar** ✘
Explanation:	The correct answer is: b **Explanation:** In **Windows OS**, the **Start Menu** is typically found at the **bottom left** of the desktop. It serves as the **central hub** for accessing applications, settings, and power options. Clicking the **Start button** opens a menu displaying frequently used programs, search functionality, and system shortcuts.

Q. 77	**Find the missing number at?**  **a)** 9 ✗ **b)** 11 ✗ **c)** 7 ✗ **d)** 5 ✓
Explanation:	The correct answer is: d • (40 + 12) – 30 = 22 • (34 + 16) – 40 = 10 • (28 + 20) – 43 = 5

Q. 78	**Recently the Indian Space Research Organisation (ISRO) has succeeded in germinating the seeds of which plant in space for the first time?** **a)** Wheat ✗ **b)** Rice ✗ **c)** Cowpea ✓ **d)** Barley ✗
Explanation:	The correct answer is: c **Explanation:** ISRO successfully germinated **cowpea (Lobia) seeds** in space as part of its **CROPS (Compact Research Module for Orbital Plant Studies) mission**. This experiment was conducted to study **plant growth under microgravity conditions**, marking a significant milestone in India's space research. **Why Cowpea?** • **Nutrient-rich** and ideal for space farming experiments. • Can contribute to **oxygen generation and CO_2 recycling** aboard spacecraft. • Helps astronauts grow food, reducing dependency on pre-packaged supplies.

Q. 79	A man standing at a point 'P' is watching the top of a tower, marked by the point 'S'. He walks a distance of $40\sqrt{3}$ m towards the foot of the tower to point 'Q'. From 'Q' the angle of elevation of 'S' is 60°. Find the angle of elevation of 'S' from 'P', if the height of the tower is 60m. **a)** 45° ✗ **b)** 75° ✗ **c)** 60° ✗ **d)** 30° ✓
Explanation:	The correct answer is: d  $\tan\theta = \frac{60}{60\sqrt{3}} = \frac{1}{\sqrt{3}}$ $\theta = 30°$

Q. 80 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) 

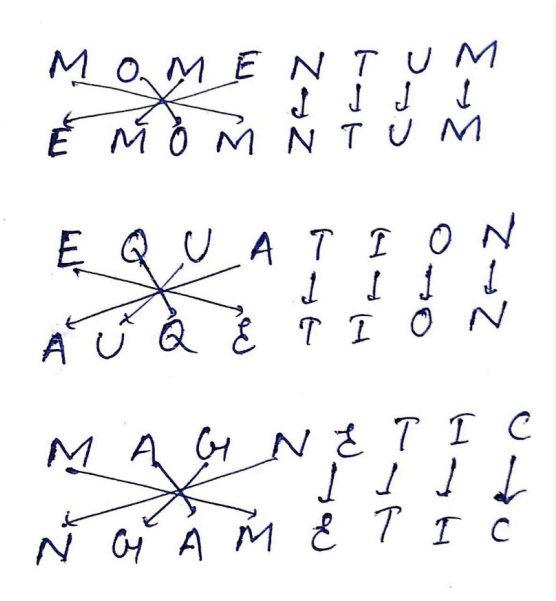
Explanation:

The correct answer is: c

Q. 81	**Choose the correct pair from the following options.** **a) Second Five-year Plan – Focus on agriculture** ✗ **b) Third Five-year Plan – Rapid industrialisation and basic industries** ✗ **c) Fourth Five-year Plan - Family planning programme** ✓ **d) First Five-year Plan – Mahalnobis model** ✗
Explanation:	The correct answer is: c **Explanation:** The **Fourth Five-Year Plan (1969–1974)** marked the beginning of India's **Family Planning Programme**, aiming to control population growth through awareness, healthcare initiatives, and contraceptive measures. It was the first time **population control** was formally integrated into national economic planning. **Other options explained:** • **Second Five-Year Plan (1956–1961)** – Focused on **industrialization**, following the **Mahalanobis Model** (not agriculture). • **Third Five-Year Plan (1961–1966)** – Emphasized **agriculture and self-sufficiency**, shifting away from industrial expansion due to food shortages. • **First Five-Year Plan (1951–1956)** – Concentrated on **agriculture**, irrigation, and rural development (Mahalanobis Model was actually adopted in the Second Plan).

Q. 82	**The sum of two angles ∠A and ∠B of a triangle △ABC is equal to its third angle. Find the measure of the third angle.** **a)** 100° ✗ **b)** 50° ✗ **c)** 60° ✗ **d)** 90° ✓
Explanation:	The correct answer is: d $\angle A + \angle B = \angle C$ $\angle A + \angle B + \angle C = 180°$ $\angle C + \angle C = 180°$ $\angle C = 90°$

Q. 83	**Gross primary deficit is the difference between _____.** **a) revenue deficit and interest payments** ✗ **b) revenue deficit and interest receipts** ✗ **c) gross fiscal deficit and interest receipts** ✗ **d) gross fiscal deficit and net interest liabilities** ✓
Explanation:	The correct answer is: d The **gross primary deficit** is a key fiscal indicator that helps assess a government's financial health by focusing on its borrowing needs excluding interest payments. To understand it fully, let's break down the concept and the correct answer: **gross fiscal deficit and net interest liabilities**. **Definitions:** 1. **Gross Fiscal Deficit**: This is the total difference between a government's total expenditure and its total revenue (excluding borrowings). It represents the amount the government needs to borrow to meet its expenditure when its revenue falls short. It includes all expenditures, including interest payments on past borrowings. **Formula**: Gross Fiscal Deficit = Total Expenditure − Total Revenue (excluding borrowings) 2. **Net Interest Liabilities**: This refers to the net interest payments made by the government, which is the difference between interest payments on its borrowings (outflows) and any interest receipts (inflows, e.g., from loans given by the government). In most cases, it primarily reflects interest payments on public debt. **Formula**: Net Interest Liabilities = Interest Payments − Interest Receipts 3. **Gross Primary Deficit**: This is the fiscal deficit minus the net interest liabilities. It shows how much the government needs to borrow to finance its non-interest expenditures (e.g., salaries, subsidies, infrastructure, etc.). In other words, it isolates the deficit caused by current spending and revenue policies, excluding the burden of past debt. **Formula**: Gross Primary Deficit = Gross Fiscal Deficit − Net Interest Liabilities **Why is this important?** • The gross primary deficit focuses on the **current fiscal policy** by excluding interest payments, which are obligations from past borrowings. • A **high gross primary deficit** indicates that the government is borrowing heavily to fund its current expenditures, which could lead to an unsustainable debt situation. • A **low or zero gross primary deficit** suggests that the government is managing its current expenditures within its revenue, and any borrowing is primarily to service existing debt (interest payments).

Q. 84	**In a certain code language, 'MOMENTUM' is written as 'EMOMNTUM' and 'EQUATION' is written as 'AUQETION'. How will 'MAGNETIC' be written in that language?** **a) NGMAEITC** ✗ **b) NGAMECTI** ✗ **c) NGMAETIC** ✗ **d) NGAMETIC** ✓
Explanation:	The correct answer is: d 

Q. 85

1/10 of a pole is coloured red, 1/20 is white, 1/30 is blue, 1/40 is black and the rest is green. If the length of the green portion of the pole is 4.75m, then the length of the pole is:

a) 6 m ✔

b) 12 m ✘

c) 8 m ✘

d) 10 m ✘

Explanation:

The correct answer is: a

Let the total length of pole be 120 unit (LCM of 10, 20, 30, 40)

Red part = $\frac{1}{10} \times 120 = 12\ unit$

White part = $\frac{1}{20} \times 120 = 6\ unit$

Blue part = $\frac{1}{30} \times 120 = 4\ unit$

Black part = $\frac{1}{40} \times 120 = 3\ unit$

Green part = 120 – (12+6+4+3) = 95 unit

$95 \rightarrow 4.75$

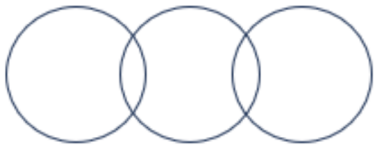
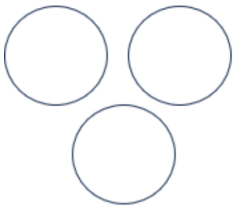
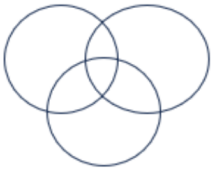
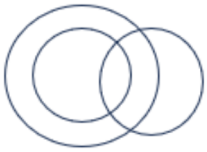
$1 \rightarrow 0.5$

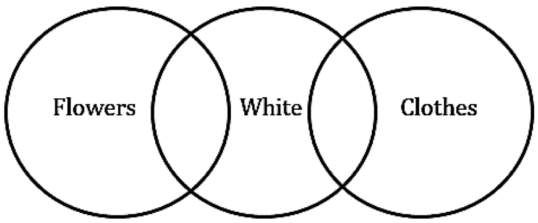
$120 \rightarrow 6$

Therefore,

Length of pole = 6 m

Q. 86	**Fundamental Duties were added in the Constitution of India under the leadership of which Prime Minister of India?** **a) Narsimha Rao** ✗ **b) Indira Gandhi** ✓ **c) Charan Singh** ✗ **d) Lal Bahadur Shastri** ✗
Explanation:	The correct answer is: b **Explanation:** The **Fundamental Duties** were added to the **Indian Constitution** through the **42nd Amendment Act of 1976** under the leadership of **Prime Minister Indira Gandhi**. This amendment was introduced during the **Emergency (1975-77)**, aiming to emphasize citizens' responsibility toward the nation. **Key Points:** • The **Concept of Fundamental Duties** was inspired by the **USSR (Soviet Union)**. • Originally, **10 Fundamental Duties** were included in **Article 51A** of the Constitution. • Later, **the 86th Amendment Act of 2002** added the **11th Fundamental Duty**, which mandates parents to provide **education to children aged 6-14 years**. **Other options explained:** • **Narasimha Rao** – Served as Prime Minister from **1991–1996**; known for **economic liberalization**. • **Charan Singh** – Briefly served as Prime Minister (1979–1980); focused on **agrarian policies**. • **Lal Bahadur Shastri** – Prime Minister (1964–1966); known for **"Jai Jawan Jai Kisan"** and leadership during the **1965 Indo-Pak war**.

Q. 87	**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.** **Flowers, Clothes, White** **a)**  **b)**  **c)**  **d)** 

Explanation:	The correct answer is: a
	
	Explanation:
	
	• **Flowers** and **Clothes** are two completely different categories.
	• **White** is a **color** that can be a **common attribute** of both **flowers** and **clothes**.
	• Therefore:
	  ◦ Some **flowers** can be **white**.
	  ◦ Some **clothes** can be **white**.
	  ◦ But **flowers** and **clothes** are not related to each other directly.
	
	 

Q. 88	**Which of the following are commonly called green algae?** **a) Phaeophyceae** ✗ **b) Rhodophyceae** ✗ **c) Chlorophyceae** ✓ **d) Bryophytes** ✗
Explanation:	The correct answer is: c **Explanation:** **Chlorophyceae**, commonly known as **green algae**, belong to the **division Chlorophyta** and are characterized by their **high chlorophyll content**, which gives them their green colour. They are primarily found in **freshwater, marine, and moist terrestrial environments**. **Other options explained:** • **Phaeophyceae** – Brown algae, contain **fucoxanthin**, giving them a brown colour. • **Rhodophyceae** – Red algae, contain **phycoerythrin**, which gives them a red colour. • **Bryophytes** – Land plants (mosses and liverworts) that lack vascular tissues, **not algae**.

Q. 89	‘n’ number of persons stand on the circumference of a circle at distinct points. Each possible pair of persons, not standing next to each other, sings a two-minute song, one pair after the other. If the total time takin for singing is 40 minutes, then what is the value of ‘n’? **a)** Eight ✔ **b)** Six ✘ **c)** Five ✘ **d)** Seven ✘

Explanation:

The correct answer is: a

Total number of ways to choose a pair = $^{n}C_{2}$

Number of pairs in which both the persons are standing next to each other = n

Ways in which the persons are not next to each other =

$$nc_2 - n$$

$$40$$

However, it will also be equal to $\frac{}{2}$, as each possible pair sings for 2 minutes.

Now,

$$nc_2 - n = \frac{40}{2}$$

$$\frac{n(n-1)}{2} - n = 20$$

$$n^2 - n - 2n = 40$$

$$n^2 - 3n - 40 = 0$$

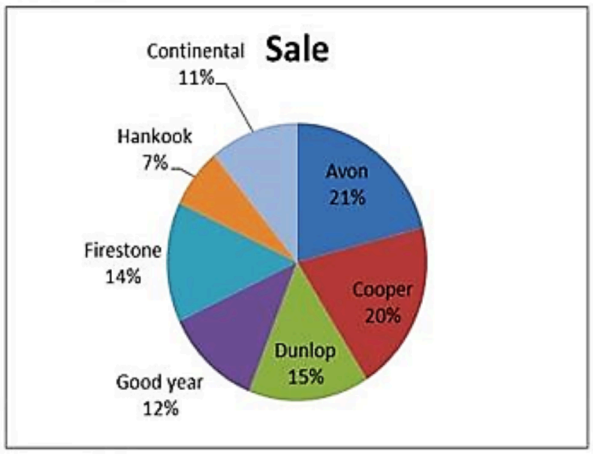
$$(n - 8)(n + 5) = 0$$

$$n = 8 \; and \; -5$$

n cannot be negative so n= 8

Q. 90

The percentage distribution of the number of tires of different brands produced in a year by a certain factory is shown in the given pie chart. The total number of tires sold is 1350.



What is the difference between the average number of Avon and Firestone tires sold together and the average number of Good year and Dunlop tires sold together?

a) 55

b) 54

c) 46

d) 45

Explanation:

The correct answer is: b

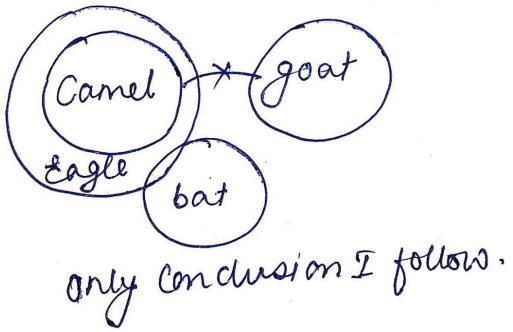
The average number of Avon and Firestone tires sold together =

$$\frac{1350\times(14\%+21\%)}{2} \Rightarrow 236.25$$

The average number of Good year and Dunlop tires sold together =

$$\frac{1350\times(15\%+12\%)}{2} \Rightarrow 182.25$$

Therefore, difference between the average number of Avon and Firestone tires sold together and the average number of Good year and Dunlop tires sold together = 236.25 – 182.25 = 54

Q. 91	**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:** **No camel is a goat.** **All camel are eagle.** **Some eagles are bats.** **Conclusions:** **I. All eagles can never be goat.** **II. No camel is a bat.** **III. At least some bats are goat.** **a) Both conclusions I and II follow** ✗ **b) Only conclusion I follows** ✓ **c) Only conclusion II follows** ✗ **d) Neither conclusion I nor conclusion II follows** ✗
Explanation:	The correct answer is: b 

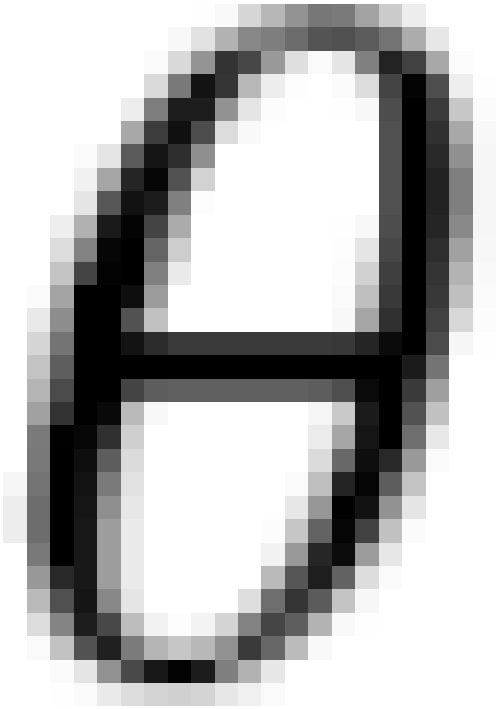
Q. 92	Which of the following statements is/are correct? I) A current carrying conductor acts like a magnet. II) Moving electrons perpendicular to the magnetic field do not experience any force. a) Neither Statement I not II ✗ b) Statement I only ✓ c) Both Statements I and II ✗ d) Statement II only ✗

Explanation:

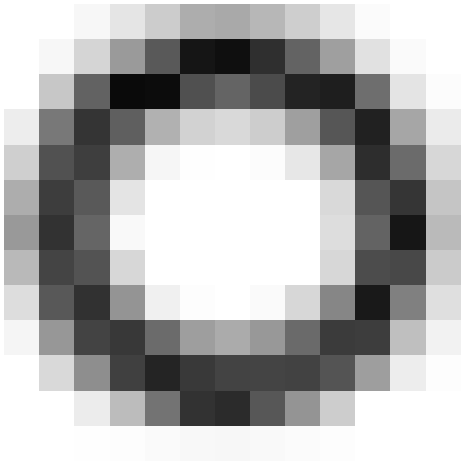
The correct answer is: b

Explanation:

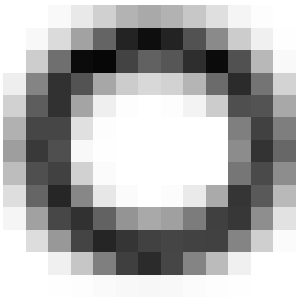
- **Statement I: A current-carrying conductor acts like a magnet.** ✅ **Correct** – When an electric current flows through a conductor, it creates a **magnetic field** around it, following **Ampere's Circuital Law**. This principle is the basis for electromagnets and electric motors.
- **Statement II: Moving electrons perpendicular to the magnetic field do not experience any force.** ❌ **Incorrect** – According to **Lorentz Force Law**, a charged particle (like an electron) moving **perpendicularly** to a magnetic field **experiences a force**, which causes it to move in a circular or spiral path. The force is given by:

$F = qvB\sin$ 

where q is the charge, v is velocity, B is the magnetic field, and θ is the angle. For



perpendicular motion, θ=90 and sin90



$= 1$, meaning the force is **maximum**.

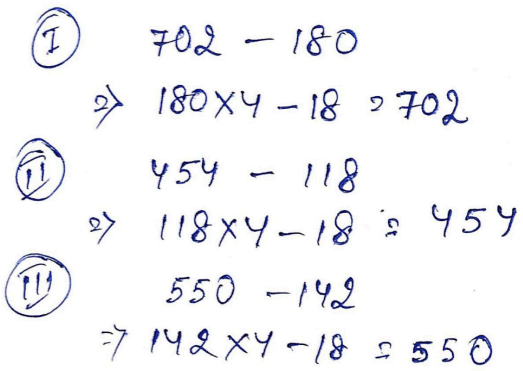
Thus, **only Statement I is correct**.

Q. 93	**Find the surface area of a cuboid that is 16 m long, 14 m broad and 7 m high.** **a)** $868\ m^2$ ✔ **b)** $866\ m^2$ ✘ **c)** $1568\ m^2$ ✘ **d)** $434\ m^2$ ✘
Explanation:	The correct answer is: a Length = 16 m Breadth = 14 m Height = 7 m Total surface area of cuboid = 2(lb+bh+lh) $=2(16 \times 14 + 14 \times 7 + 7 \times 16)$ $= (224 + 98 + 112)$ $=2 \times 434 = 868\ m^2$

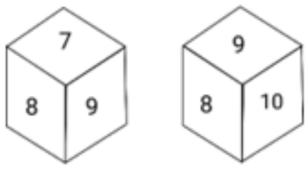
Q. 94	**Which Article of the Constitution separates the judiciary from the executive?** **a) Article 144** ✗ **b) Article 143** ✗ **c) Article 74** ✗ **d) Article 50** ✓
Explanation:	The correct answer is: d **Explanation:** **Article 50 of the Indian Constitution** directs the **separation of the judiciary from the executive** in the **public services of the state**. This ensures an **independent judicial system**, free from executive influence, allowing fair and impartial administration of justice. **Other options explained:** • **Article 144** – Concerns **cooperation of civil and judicial authorities** in enforcing Supreme Court decisions. • **Article 143** – Gives the **President power to seek advisory opinions** from the Supreme Court. • **Article 74** – Establishes the **Council of Ministers** headed by the **Prime Minister**, aiding and advising the President.

Q. 95	**The given statements are followed by two conclusions I and II. On the basis of the given statements decide which of the given conclusions is/are true.** **Statement:** $O > Q = R \geq S < T = P$ **Conclusions:** I. $R > P$ II. $R < P$ III. $O > S$ **a) All follows** ✗ **b) Only 1 and 2 follows** ✗ **c) None follows** ✗ **d) Only 3 follows** ✓
Explanation:	The correct answer is: d **Explanation:** 1. **Statement Analysis**: O > Q = R ≥ S < T = P This means: ◦ O is greater than Q. ◦ Q is equal to R. ◦ R is greater than or equal to S. ◦ S is less than T, and T is equal to P. 2. **Conclusion I: R > P** From the statement, R is not necessarily greater than P since R is only indirectly related through S. **This conclusion does not follow.** 3. **Conclusion II: R < P** There is no conclusive evidence from the statement that R is less than P either. **This conclusion does not follow.** 4. **Conclusion III: O > S** From the statement, O > Q = R ≥ S. Therefore, O is greater than S. **This conclusion follows.** Thus, **only Conclusion III follows**.

Q. 96	**Sagareshwar Wildlife Sanctuary is located in which state?** **a) Karnataka** ✗ **b) Maharashtra** ✓ **c) Gujarat** ✗ **d) Madhya Pradesh** ✗
Explanation:	The correct answer is: b **Explanation:** **Sagareshwar Wildlife Sanctuary** is located in **Sangli district, Maharashtra**. It is a **man-made sanctuary**, meaning the animals were introduced rather than naturally inhabiting the area. The sanctuary spans approximately **10.87 sq. km** and is known for its **dry deciduous forest and rich biodiversity**.

Q. 97	**702 is related to 180 following a certain logic. Following the same logic, 454 is related to 118. To which of the following is 550 related, following the same logic? (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.)** **a) 135** ✗ **b) 142** ✓ **c) 156** ✗ **d) 164** ✗
Explanation:	The correct answer is: b 

Q. 98	**On 18 January 2025, Prime Minister Modi distributed 65 lakh property cards under the SVAMITVA scheme, this scheme is related to which ministry?** **a) Ministry of Home Affairs** ✗ **b) Ministry of Panchayati Raj** ✓ **c) Ministry of Finance** ✗ **d) Ministry of Urban Development** ✗
Explanation:	The correct answer is: b **Explanation:** The **SVAMITVA scheme** (Survey of Villages and Mapping with Improvised Technology in Village Areas) is implemented by the **Ministry of Panchayati Raj**. It aims to provide **property ownership records** to rural citizens by mapping land using **drone technology** and digital surveys. The initiative helps villagers obtain **legal property rights**, enabling them to use their land assets for loans and business purposes.

Q. 99	**Six numbers 5, 6, 7, 8, 9 and 10 are written on different faces of a dice. Two positions of this dice are shown in the figure below. Find the number on the face opposite to '7'.**  **a)** 8 ✗ **b)** 9 ✗ **c)** 10 ✓ **d)** 6 ✗
Explanation:	The correct answer is: c The opposite of 7 is 10.

Q. 100	**If sin A + sin B = x and cos A + cos B = y, then cos (A – B) = ?** **a)** $\frac{x^2+y^2-2}{2}$ ✓ **b)** $\frac{x^2+y^2+2}{2}$ ✗ **c)** $\frac{x^2-y^2-2}{2}$ ✗ **d)** $\frac{x^2-y^2+2}{2}$ ✗
Explanation:	The correct answer is: a cos(A-B) = cosAcosB+sinAsinB $sinA + sinB = x$ Squaring both sides, we get, $(sinA + sinB)^2 = x^2$ $\sin^2 A + \sin^2 B + 2sinAsinB = x^2 \rightarrow (i)$ Similarly, $\cos^2 A + \cos^2 B + 2cosAcosB = y^2 \rightarrow (ii)$ Adding (i) and (ii), we get 1+1+2(sinA sinB + cosA cosB) = $x^2 + y^2$ 2+2cos(A-B) = $x^2 + y^2$ $\cos(A - B) = \frac{x^2+y^2-2}{2}$