

RBE NTPC 2025 Live Mock May 19,2025

Q. 1	If $\frac{(219)^4 + (219)^2 + 1}{(219)^3 + 1} = p + \frac{q}{r}$, then $(q - p + r) = ?$
	a) 0 X
	b) 2 ✓
	c) 1 X
	d) $\frac{1}{2}$ X

$$\begin{aligned}
 a^4 + a^2 + 1 &= (a^2 + a + 1)(a^2 - a + 1) \\
 \Rightarrow \frac{(219)^4 + (219)^2 + 1}{(219)^3 + 1} &= \\
 \Rightarrow \frac{[(219)^2 + 219 + 1][[(219)^2 + 1 - 219]}{(219 + 1)((219)^2 - 219 + 1)} &= \\
 \Rightarrow \frac{(219)^2 + 219 + 1}{219 + 1} &
 \end{aligned}$$

Explanation:

$$\begin{aligned}
 &\Rightarrow \frac{219(219+1) + 1}{219+1} \\
 &\Rightarrow 219 + \frac{1}{219+1} = p + \frac{q}{r} \\
 \therefore p = 219, q = 1, r = 219+1 & \\
 \Rightarrow q = p + r & \\
 \Rightarrow 1 - 219 + 219 + 1 & \\
 \Rightarrow 2 &
 \end{aligned}$$

Q. 2

Which language and script were primarily used in Ashoka's edicts?

- a) Pali and Kharoshti
- b) Greek and Latin
- c) Prakrit and Brahmi
- d) Sanskrit and Devanagari

The correct answer is **Prakrit and Brahmi**.

Explanation:

Emperor Ashoka, who ruled the Maurya Dynasty in the 3rd century BCE, issued edicts to spread messages about moral values, governance, and Buddhism. These edicts were inscribed on pillars and rocks across his empire.

Explanation:

- **Language:** The majority of Ashoka's edicts were written in **Prakrit**, a common language used for communication among ordinary people. Prakrit was widely spoken and helped make his messages accessible to the masses.
- **Script:** These edicts were inscribed primarily in the **Brahmi script**, which was the earliest Indian script and became the basis for many later scripts used in South and Southeast Asia.

However, in the northwestern regions of his empire, Ashoka's edicts were also found in **Kharosthi script**, and in far-western areas, including Afghanistan, some edicts were in **Greek and Aramaic** to communicate with local populations.

Q. 3

The _____ symbol is employed to separate the username and domain name within an email address.

- a) @
- b) . (dot)
- c) \$
- d) &

The correct answer is: a

Explanation:

In an email address, the "@" symbol acts as a separator between the **username** and the **domain name**.

For example, in the email address **example@domain.com**:

Explanation:

- **example** → represents the username (the individual or entity using the email).
- **domain.com** → represents the domain name of the email service provider (such as Gmail, Outlook, Yahoo, etc.).

The "@" symbol was introduced in email addresses by **Ray Tomlinson** in 1971 when he pioneered the first electronic mail system. It helps route emails to the correct domain and recipient.

Q. 4

P \$ Q means P is mother of Q.
 P # Q means P is father of Q.
 P @ Q means Q is wife of P.
 P % Q means P is daughter of Q.
 P ^ Q means Q is brother of P.

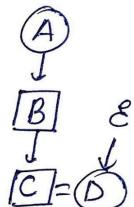
Which of the following shows that C is the Grandson of A?

- a) A \$ B \$ C \$ D \$ E X
- b) A \$ B @ C \$ D \$ E X
- c) A \$ B # C @ D % E ✓
- d) A \$ B # D # C # E X

The correct answer is: c

from option c

Explanation:



*'C' is the grandson of 'A'.
 (O → Female, □ → Male)*

Q. 5

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:

Due to the failure of the main grid, power supply to many parts of the city was affected.

Assumptions:

- I. The main grid is responsible for transmission of power to different parts of the city.
- II. Most people have backup power installations at their homes to manage during times when power supply is disrupted.

- a) Only assumption II is implicit
- b) Only assumption I is implicit
- c) Both assumptions I and II are implicit
- d) Neither assumption I nor II is implicit

The correct answer is: b

Assumptions:

1. **The main grid is responsible for transmission of power to different parts of the city.**
 - This assumption directly connects with the statement. Since the failure of the main grid caused a disruption in power supply, it implies that the main grid is indeed responsible for transmitting power across the city. Therefore, **Assumption I is implicit.**
2. **Most people have backup power installations at their homes to manage during times when power supply is disrupted.**
 - There is no mention in the statement about people's preparedness or backup power installations. The statement only discusses the failure of the main grid and its effects, but makes no assumptions about how people cope with such situations. Therefore, **Assumption II is not implicit.**

Therefore, only assumption I is implicit.

Q. 6

The value of the variable x in the equation $6(9x + 3) - 7 = 5(7 - 2x)$ is:

- a) $\frac{5}{8}$ X
- b) $\frac{3}{8}$ ✓
- c) $\frac{7}{8}$ X
- d) $\frac{9}{8}$ X

Explanation:

$$6(9x + 3) - 7 = 5(7 - 2x)$$

$$\Rightarrow 54x + 18 - 7 = 35 - 10x$$

$$\Rightarrow 54x + 11 = 35 - 10x$$

$$\Rightarrow 64x = 24 \Rightarrow x = \frac{3}{8}$$

Q. 7

Mahavira, who was known in Pali literature as **Nigantha Nataputta**, founded a religion called ____.

- a) Bahá'í X
- b) Jainism ✓
- c) Sikhism X
- d) Zoroastrianism X

The correct answer is: b

Explanation:

Mahavira, also known in Pali literature as **Nigantha Nataputta**, was the **24th and last Tirthankara** (spiritual teacher) of **Jainism**. He is regarded as the key figure in consolidating and spreading Jain teachings, though Jainism itself predates him by many centuries.

Explanation:

Mahavira lived around the **6th century BCE**, during the same period as Buddha. He emphasized principles of **non-violence (Ahimsa)**, **truth (Satya)**, **non-possessiveness (Aparigraha)**, and **non-absolutism (Anekantavada)**, which form the foundation of Jain philosophy.

In Jain tradition, Mahavira attained **Kevala Jnana** (absolute knowledge) and taught his doctrines to a community of monks and followers. His teachings were later compiled into scriptures known as the **Agamas**, preserved by Jain scholars.

Q. 8

$$3 + \frac{6}{5} \times [8 + 12 \times (6 - 5)] + \left\{ \left(\frac{1}{6} \div \frac{5}{36} \right) - \left(\frac{4}{5} + \frac{6}{15} \right) \right\}$$

- a) 24 X
- b) 27 ✓
- c) 32 X
- d) 36 X

Explanation:

$$\begin{aligned}
 & 3 + \frac{6}{5} \times [8 + 12 \times (6 - 5)] + \left\{ \left(\frac{1}{6} \div \frac{5}{36} \right) - \left(\frac{4}{5} + \frac{6}{15} \right) \right\} \\
 \Rightarrow & 3 + \frac{6}{5} \times [8 + 12] + \left\{ \left(\frac{1}{6} \times \frac{36}{5} \right) - \left(\frac{4}{5} + \frac{6}{15} \right) \right\} \\
 \Rightarrow & 3 + 24 + \left\{ \frac{6}{5} - \frac{18}{15} \right\} \Rightarrow 3 + 24 + 0 \\
 \Rightarrow & 27 \text{ (Ans)}
 \end{aligned}$$

Q. 9	<p>Which view in MS PowerPoint is useful for editing or formatting a single slide at a time?</p> <p>a) Reading view </p> <p>b) Slide Sorter view </p> <p>c) Outline view </p> <p>d) Normal view </p>
<p>The correct answer is: d</p> <p>Explanation:</p> <p>In Microsoft PowerPoint, Normal view is the default and most commonly used mode for editing slides. It allows users to:</p> <ul style="list-style-type: none">• Work on a single slide at a time, making changes to text, images, animations, and formatting.• Access the Slides pane (left side), which shows thumbnails of all slides for easy navigation.• Utilize the Notes section (bottom) to add speaker notes for presentations. <p>Other options explained:</p> <p>1. Reading View</p> <ul style="list-style-type: none">• This mode is designed for previewing slides without distractions.• It displays the presentation in full-screen mode without entering Slideshow mode.• Users can navigate between slides but cannot edit them directly. <p>2. Slide Sorter View</p> <ul style="list-style-type: none">• This view presents all slides in thumbnail format on a single screen.• It's useful for rearranging slides quickly by dragging and dropping.• However, it does not allow editing the slide content—it's mainly for organization. <p>3. Outline View</p> <ul style="list-style-type: none">• Shows only the text content of slides in an outline format.• Helps users focus on the structure of their presentation rather than visuals.• It's useful for editing large amounts of text but not formatting images or layouts.	

Q. 10	In a certain code language, 'she is beautiful' is written as 'mat mug bit', and 'beautiful and water' is written as 'bit cap lan'. How will 'beautiful' be written in that language? a) bit ✓ b) mug ✗ c) cap ✗ d) mat ✗
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The correct answer is: a

Explanation:

1. In the first phrase, 'she is beautiful' is written as 'mat mug bit'.
2. In the second phrase, 'beautiful and water' is written as 'bit cap lan'.

Explanation: The word 'beautiful' appears in both phrases, and its corresponding code appears in both the encoded versions.

- In 'mat mug bit', the word 'bit' is present.
- In 'bit cap lan', the word 'bit' is also present.

Thus, the code for 'beautiful' is 'bit'.

Q. 11	Ankesh sells two shirts. The cost price of first shirt is equal to selling price of second one. The first shirt is sold at 20% profit and second one is sold at 20% loss. Find the ratio of selling price of the first shirt to the cost price of the second. a) 27:28 ✗ b) 24:25 ✓ c) 36:25 ✗ d) 29:30 ✗
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$$\begin{array}{ccc}
 & CP & SP \\
 1^{\text{st}} & x & x \times \frac{6}{5} \\
 \\
 2^{\text{nd}} & \frac{5}{4}x & x
 \end{array}$$

Explanation:

$$\begin{aligned}
 SP_1 : CP_2 & \\
 \Rightarrow x \times \frac{6}{5} : \frac{5}{4}x & \\
 \Rightarrow [24 : 25] & \text{ (Ans)}
 \end{aligned}$$

Q. 12

Where does the river Brahmaputra originate?

- a) Garhwal hills near Gairsain X
- b) Chemayungdung glacier of the Kailash range ✓
- c) Milam glacier in the Nepal Himalayas X
- d) Glaciers of Mapchachungo X

The correct answer is **Chemayungdung glacier of the Kailash range**.

Explanation:

The **Brahmaputra River** originates from the **Chemayungdung glacier** in the **Kailash range**, located in southwestern Tibet.

Explanation:

- In its upper course, it is known as the **Yarlung Tsangpo** in Tibet.
- It flows eastward through Tibet, then bends southward to enter **Arunachal Pradesh, India**, where it is called the **Siang or Dihang**.
- Upon entering Assam, it becomes the **Brahmaputra**, carrying immense water volume and forming a broad floodplain.
- As it moves further, it merges with the **Ganges River** and ultimately drains into the **Bay of Bengal**, forming the world's largest delta—the **Sundarbans delta**.

Q. 13

12 is related to 32 following a certain logic. Following the same logic, 9 is related to 20. To which of the following is 24 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 / subtracting /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) 100 X
- b) 80 ✓
- c) 120 X
- d) 60 X

The correct answer is: b

Explanation:

- $(12 - 4) \times 4 = 32$
- $(9 - 4) \times 4 = 20$
- $(24 - 4) \times 4 = 80$

Q. 14

According to the 2011 Census, which state in India recorded the highest decadal population growth rate between 2001 and 2011?

- a) Bihar X
- b) Uttar Pradesh X
- c) Meghalaya ✓
- d) Arunachal Pradesh X

The correct answer is: c

Explanation:

The decadal population growth rate represents the percentage increase in a state's population over ten years. According to the 2011 Census, Meghalaya recorded the highest decadal growth rate among Indian states, at 27.80%, meaning its population grew by nearly 28% between 2001 and 2011.

Explanation:

- Arunachal Pradesh – 25.90%
- Bihar – 25.10%
- Chhattisgarh – 22.60%
- Rajasthan – 21.30%
- Uttar Pradesh – 20.20%

Though Bihar and Uttar Pradesh had large populations, their decadal growth rates were lower than Meghalaya's.

Q. 15

The GCD of two numbers is 12 and their LCM is 240. If one number is 64, then what will be the second number?

- a) 54 X
- b) 45 ✓
- c) 36 X
- d) 63 X

$$\text{GCD} \times \text{LCM} = \text{Product of two numbers}$$

Explanation:

$$\begin{aligned} \Rightarrow 12 \times 240 &= 64 \times x \\ \Rightarrow x &= 45 \end{aligned}$$

Q. 16	<p>Find the compound interest received in 2nd year if the compound interest received in 3rd and 5th year is 400 and 1600?</p> <p>a) 150 X</p> <p>b) 250 X</p> <p>c) 175 X</p> <p>d) 200 ✓</p>
Explanation:	<p style="text-align: center;"> $\begin{matrix} \text{2nd yr} & \text{3rd yr} & \text{4th yr} & \text{5th yr} \\ \text{400} & & & \text{1600} \end{matrix}$ </p> <p>In 4th yr CI,</p> <p>$\Rightarrow \sqrt{400 \times 1600}$ (Applying CP)</p> <p>$\Rightarrow 800$</p> <p>$\therefore \frac{400}{\text{2nd yr}} = \frac{1600}{800}$</p> <p>$\Rightarrow \text{2nd yr SI} = ₹ 200$</p>

Q. 17	<p>Who among the following along with Motilal Nehru was instrumental in the creation of the Swaraj Party?</p> <p>a) Surendranath Banerjee </p> <p>b) Chittaranjan Das </p> <p>c) Bipin Chandra Pal </p> <p>d) Subhash Chandra Bose </p>
	<p>The correct answer is: b</p> <p>Explanation:</p> <p>The Swaraj Party was founded in 1923 by Chittaranjan Das and Motilal Nehru within the Indian National Congress. It was formed as a reaction to the Non-Cooperation Movement, which was abruptly called off by Mahatma Gandhi after the Chauri Chaura incident in 1922.</p> <p>Explanation: Purpose of the Swaraj Party:</p> <ul style="list-style-type: none">• The leaders believed that the Congress should contest elections and enter the Legislative Councils instead of completely boycotting British institutions.• Their aim was to block British policies from within the government and press for self-rule (Swaraj).• Chittaranjan Das was the first President of the party, and Motilal Nehru served as its Secretary.

Q. 18

Select the alphanumeric group from the given options that can replace the question mark (?) in the following series.

Z243, W81, T27, Q9, N3, ___

- a) K1 ✓
- b) L2 ✗
- c) K3 ✗
- d) L1 ✗

The correct answer is: a

Explanation:

Z 243
↓-3 ↓÷3
W 81
↓-3 ↓÷3
T 27
↓-3 ↓÷3
Q 9
↓-3 ↓÷3
N 3
↓-3 ↓÷3
K 1 (Ans)

<p>Q. 19</p> <p>Nathu La Pass connects India with which of its neighbouring countries?</p> <p>a) China ✓</p> <p>b) Bhutan ✗</p> <p>c) Bangladesh ✗</p> <p>d) Nepal ✗</p>	<p>The correct answer is: a</p> <p>Explanation:</p> <p>Nathu La Pass is a vital Himalayan mountain pass that connects India (Sikkim) with China (Tibet Autonomous Region).</p> <ul style="list-style-type: none"> • Located at an altitude of 4,310 meters (14,140 feet) above sea level, it forms part of the ancient Silk Route that once facilitated trade between India and Tibet. • It lies east of Gangtok, the capital of Sikkim, and is one of the three open border trading posts between India and China, along with Shipki La in Himachal Pradesh and Lipulekh Pass in Uttarakhand. • In 1962, during the India-China war, the pass was closed for decades due to security concerns. However, in 2006, it was reopened to promote trade and diplomatic relations. • It is strategically significant for India's defence, as the Indo-China border tensions often centre around Himalayan regions.
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<p>Q. 20</p> <p>A fruit seller has some oranges. He sells 70% of them and still has 390 oranges. Originally, he had _____ oranges.</p> <p>a) 1300 ✓</p> <p>b) 1800 ✗</p> <p>c) 1500 ✗</p> <p>d) 1050 ✗</p>	<p>⇒ 30% → 390</p> <p>⇒ 100% → $\frac{390}{30} \times 100$</p> <p>? 1300</p> <p>∴ originally he had 1300 oranges.</p>
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Q. 21

What is the primary source of ocean acidification, and how does it affect marine ecosystems?

a) Nitrogen runoff from agricultural fertilizers, reducing oxygen levels X

b) Absorption of atmospheric CO₂, lowering pH and harming calcifying organisms ✓

c) Plastic pollution, releasing toxic chemicals into the water X

d) Oil spills, creating acidic conditions in localized areas X

The correct answer is: b

Explanation:

Ocean acidification is primarily caused by the **absorption of excess carbon dioxide (CO₂)** from the atmosphere. When CO₂ dissolves in seawater, it reacts with water to form **carbonic acid (H₂CO₃)**, which releases **hydrogen ions (H⁺)** and lowers the pH of ocean water.

Effects on Marine Ecosystems:

Explanation:

- **Harm to Calcifying Organisms:** Marine organisms like corals, mollusks, and certain plankton rely on carbonate ions to build their shells and skeletons. Increased acidity reduces carbonate availability, weakening their structures.
- **Coral Reef Decline:** Acidification slows coral growth, making reefs more fragile and prone to bleaching.
- **Disruption of Marine Food Chains:** Many small organisms, such as pteropods (tiny sea snails), struggle to survive in acidic conditions, affecting species that depend on them, including fish and whales.
- **Reduced Fish Populations:** Acidification can alter fish behaviour and impair their ability to detect predators, affecting ecosystem balance.

Q. 22

If + means -, - means \times , \times means \div , and \div means +, then what will be the value of the given expression?

$$133 \div 19 + 39 \times 3 - 2 = ?$$

- a) 132
- b) 126
- c) 120
- d) 116

Explanation:

The correct answer is: b

$$133 \div 19 + 39 \times 3 - 2 = ?$$

If + means $-$, $-$ means \times , \times means \div , and \div means $+$, then

$$\Rightarrow 133 + 19 - 39 \div 3 \times 2$$

$$\Rightarrow 152 - 13 \times 2 = 152 - 26$$

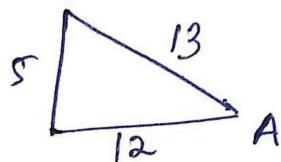
$$\Rightarrow 126 \text{ (Ans)}$$

Q. 23

If $12\tan A = 5$, then $\cos^2 A - \sin^2 A$ equals:

- a) $\frac{144}{169}$ X
- b) $\frac{119}{169}$ ✓
- c) $\frac{121}{169}$ X
- d) $\frac{117}{169}$ X

$$\tan A = \frac{5}{12}$$



$$\sin A = \frac{5}{13}$$

$$\cos A = \frac{12}{13}$$

$$\Rightarrow \cos^2 A - \sin^2 A$$

$$\Rightarrow \frac{144}{169} - \frac{25}{169}$$

$$\Rightarrow \frac{119}{169} \text{ (Ans)}$$

Explanation:

Q. 24

Who among the following is the author of the book 'Tabaqat-i-Nasiri'?

- a) Amir Khusrau X
- b) Ziauddin Barani X
- c) Al-Biruni X
- d) Minhaj-us-Siraj ✓

The correct answer is: d

Explanation:

Tabaqat-i-Nasiri is a **13th-century historical chronicle** written by **Minhaj-us-Siraj**, a Persian scholar and historian.

Explanation:

- The book provides a detailed account of the **Delhi Sultanate**, particularly covering the reigns of **Qutb-ud-din Aibak**, **Iltutmish**, and **Razia Sultan**, along with early Muslim dynasties in India.
- It is written in **Persian** and follows a structured approach, categorizing rulers and nobles into different "Tabaqat" (**classes or ranks**).
- Minhaj-us-Siraj was an important historian in **Balban's court** and served as **Chief Qazi** (judge) in Delhi.
- His work remains a **critical source** for understanding early **Islamic rule in India**, especially regarding military campaigns, administration, and society.

Q. 25

Which Southeast Asian country, an archipelago of over 7,000 islands, is the only nation in the world where the Wallace Line, a biogeographical boundary separating Asian and Australian fauna, is prominently observed?

- a) Malaysia X
- b) Indonesia ✓
- c) Philippines X
- d) Timor-Leste X

The correct answer is: b

Explanation:

Indonesia, an archipelago of **over 17,000 islands**, is the only country where the **Wallace Line** is prominently observed. This imaginary boundary, proposed by **Alfred Russel Wallace** in the 19th century, separates **Asian** fauna from **Australian** fauna.

Explanation:

- The Wallace Line runs **between Borneo and Sulawesi**, and **between Bali and Lombok**.
- **West of the Wallace Line (Borneo, Sumatra, Java)** – Wildlife is more similar to mainland Asia, featuring tigers, elephants, rhinoceroses, and primates.
- **East of the Wallace Line (Sulawesi, Lombok, the Moluccas, Papua)** – Wildlife has more **Australian characteristics**, including marsupials, cockatoos, cassowaries, and unique species like the babirusa (wild pig with curved tusks).

Q. 26

A and B entered into a partnership investing ₹25,000/- and ₹15,000/-, respectively. After 2 months, C joined them with an investment of ₹10,000/-. What is A's share (in ₹) if the half yearly profit is ₹4,480/-?

- a) ₹2,000 X
- b) ₹2,350 X
- c) ₹2,400 ✓
- d) ₹2,760 X

A	B	C
25,000	15,000	10,000
X	X	X
6	6	4

$$\begin{aligned}A &: B : C \\ \Rightarrow 15 &: 9 : 4\end{aligned}$$

$$\begin{aligned}28 &\rightarrow 4,480 \\ 1 &\rightarrow 160\end{aligned}$$

$$\begin{aligned}\text{Share of } A &= 15 \times 160 \\ &= ₹2400\end{aligned}$$

Explanation:

Q. 27

Each vowel in the word FORMAT is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order. How many vowels are there in the group of letters thus formed?

- a) 0
- b) 3
- c) 1
- d) 2

The correct answer is: c

F O R M A T

vowels → letter immediately following

consonants → letter immediately preceding

(E) P Q L B S

Only 1 vowel is present.

Q. 28

A sum of Rs 16298 is divided among Sunil, Anit and Jameel such that if Rs 24, Rs 38 and Rs 52 be diminished from their shares respectively, their remaining sums shall be in the ratio 9:11:14. What would have been the ratio of their sums if Rs 92, Rs 26 and Rs 84 respectively were added to their original shares.

- a) 47:58:69 X
- b) 39:56:62 X
- c) 44:53:68 ✓
- d) 41:55:67 X

$$\begin{aligned} \Rightarrow (9+11+14) &\rightarrow 16298 - (24+38+52) \\ \Rightarrow 34 &\rightarrow 16184 \\ \Rightarrow 1 &\rightarrow 476 \\ \therefore \text{Share of Sunil} &= 9 \times 476 + 24 \\ &\approx 4308 \end{aligned}$$

$$\begin{aligned} \text{Share of Anit} &= 11 \times 476 + 38 \\ &\approx 5274 \end{aligned}$$

Explanation:

$$\begin{aligned} \text{Share of Jameel} &= 14 \times 476 + 52 \\ &= 6716 \end{aligned}$$

$$\begin{aligned} \Rightarrow 4308 : 5274 : 6716 \\ \Rightarrow (92) : (26) : (84) \\ \Rightarrow 4400 : 5300 : 6800 \\ \Rightarrow 44 : 53 : 68 \quad (\text{Ans}) \end{aligned}$$

Q. 29	<p>Who among the following is one of the founder members of Bhartiya Jana Sangh?</p> <p>a) Minoo Masani </p> <p>b) Shyama Prasad Mukherjee </p> <p>c) Baldev Singh </p> <p>d) KM Munshi </p>
<p>Explanation:</p> <p>The correct answer is: b</p> <p>Explanation:</p> <p>Bhartiya Jana Sangh (BJS) was founded in 1951 by Shyama Prasad Mukherjee, along with other nationalist leaders. It was a right-wing political party that later evolved into the Bharatiya Janata Party (BJP) in 1980.</p> <ul style="list-style-type: none">Mukherjee was a former Cabinet Minister and left Jawaharlal Nehru's government due to ideological differences, particularly on Jammu and Kashmir's special status.He established Bhartiya Jana Sangh as a platform for Hindu nationalist ideology and advocated for a united India.The party opposed the Nehruvian policies, including the handling of Kashmir and relations with China.Mukherjee's demand for "One Nation, One Constitution, One Flag" became a key issue in Indian politics.	

Q. 30

If the income of A is 20% more than that of B and the income of B is 25% less than that of C, then the incomes of A, C and B respectively are in the ratio:

- a) 18:15:20 X
- b) 18:20:15 ✓
- c) 20:18:15 X
- d) 15:18:20 X

Explanation:

$$\frac{A}{B} = \frac{6(x3)}{5(x3)}$$

$$\frac{B}{C} = \frac{3(x5)}{4(x5)}$$

$$\Rightarrow A : C : B$$

$$18 : 20 : 15 \text{ (Ans)}$$

Q. 31	<p>Which African country, located in the Horn of Africa, is the only nation in the world with a coastline along both the Red Sea and the Gulf of Aden, and is home to the Danakil Depression, one of the lowest and hottest places on Earth?</p> <p>a) Djibouti </p> <p>b) Eritrea </p> <p>c) Somalia </p> <p>d) Ethiopia </p>
<p>Explanation:</p> <p>Eritrea is the only country that has a coastline along both the Red Sea and the Gulf of Aden, making it strategically important for maritime trade routes.</p> <p>Key Features:</p> <p>Explanation:</p> <ul style="list-style-type: none">• Coastline: Eritrea's eastern border is entirely along the Red Sea, with access to the Gulf of Aden through the Bab el Mandeb Strait.• Danakil Depression: Located in Eritrea and parts of Ethiopia, the Danakil Depression is one of the lowest and hottest places on Earth, with temperatures often exceeding 50°C (122°F).• Volcanic Activity: The region is known for its geothermal landscapes, lava lakes, and high salinity lakes, making it one of the most extreme environments in the world.	<p>The correct answer is: b</p> <p>Explanation:</p> <p>Eritrea is the only country that has a coastline along both the Red Sea and the Gulf of Aden, making it strategically important for maritime trade routes.</p> <p>Key Features:</p> <p>Explanation:</p> <ul style="list-style-type: none">• Coastline: Eritrea's eastern border is entirely along the Red Sea, with access to the Gulf of Aden through the Bab el Mandeb Strait.• Danakil Depression: Located in Eritrea and parts of Ethiopia, the Danakil Depression is one of the lowest and hottest places on Earth, with temperatures often exceeding 50°C (122°F).• Volcanic Activity: The region is known for its geothermal landscapes, lava lakes, and high salinity lakes, making it one of the most extreme environments in the world.

Q. 32

Read the given statement and the arguments carefully and select the appropriate answer from the given options.

Statement:

Schools should encourage self-discipline among children of all ages.

Arguments:

I. Children till the age of 7 years are not mature enough to understand the concept of discipline

II. Discipline lasts longer and more effective when instilled by oneself than by others from outside.

a) II weakens while I strengthens the statement.

b) Both I and II strengthen the statement.

c) I weakens while II strengthens the statement.

d) Both I and II weaken the statement.

The correct answer is: c

Arguments:

1. I. Children till the age of 7 years are not mature enough to understand the concept of discipline.

- This argument weakens the statement because it challenges the idea that self-discipline can be effectively encouraged for children of all ages, suggesting that very young children lack the maturity to grasp discipline.

2. II. Discipline lasts longer and is more effective when instilled by oneself than by others from outside.

- This argument strengthens the statement because it supports the idea that self-discipline (encouraged by the school) is preferable and has a lasting impact compared to external enforcement.

Therefore, I weakens while II strengthens the statement.

Q. 33

If the price of petrol is increased by 92%, by what percentage should the consumption of petrol be decreased by the consumer if the expenditure on petrol remains unchanged? (Correct to two decimal places)

- a) 45.45%
- b) 43.25%
- c) 49.12%
- d) 47.91%

Explanation:

$$\text{Price} \times \text{consumption} = \text{Expen.}$$

$$\frac{192}{100} \times \left(\frac{100}{192} \right) = \text{same Exp.}$$

$$\Rightarrow \frac{92}{192} \times 100 = 47.91\%$$

Q. 34

What is the mascot of Khelo India Para Games 2025?

- a) Ujjwala
- b) Chetak
- c) Pragati
- d) Jwala

The correct answer is: a

Explanation:

The mascot for the **Khelo India Para Games 2025**, named **Ujjwala**, was unveiled in New Delhi. It symbolizes **perseverance and resilience**, drawing inspiration from the **house sparrow**, a bird that was once on the verge of extinction but has shown remarkable survival instincts.

Explanation:

Significance of Ujjwala:

- Represents **determination and strength**, aligning with the spirit of para-athletes.
- Highlights **inclusivity and progress**, reinforcing the message of empowerment in sports.
- Part of the broader **Khelo India initiative**, which aims to provide a platform for talented athletes, including para-athletes, to showcase their skills.

Q. 35

ABC is a right-angled triangle at B. The perimeter of the triangle is 168 cm and difference between the sum of the perpendicular sides and the hypotenuse is 20 cm. Find the area of the triangle?

- a) 720 cm^2 X
- b) 840 cm^2 ✓
- c) 960 cm^2 X
- d) 1080 cm^2 X

$$r = \frac{P+B-H}{2} \quad (r = \text{incentre})$$

$$r = \frac{20}{2} \Rightarrow 10$$

Explanation:

$$\begin{aligned} \text{Area of triangle} &= r \times S \\ (S &= \text{semi-perimeter}) \\ \Rightarrow 10 \times 168/2 &= 840 \text{ cm}^2 \end{aligned}$$

Q. 36

Established in 1867 at Bombay, the _____ sought to remove caste restrictions, abolish child marriage, and encourage the education of women, etc.

- a) Veda Samaj X
- b) Arya Samaj X
- c) Satyashodhak Samaj X
- d) Prarthana Samaj ✓

The correct answer is: d

Explanation:

The **Prarthana Samaj** was founded in **1867** in **Bombay** (now **Mumbai**) and was influenced by the **Brahmo Samaj** movement started by **Raja Ram Mohan Roy**. It aimed to bring **social and religious reforms**, particularly addressing issues like:

Explanation:

- Abolition of caste-based discrimination
- Ending child marriage
- Promoting widow remarriage
- Encouraging women's education

Prominent leaders of the **Prarthana Samaj** included **Dr. Atmaram Pandurang**, **Mahadev Govind Ranade**, and **R.G. Bhandarkar**, who played key roles in advancing social reforms in Maharashtra.

Q. 37

Evaluate the positive value of:

$$\sqrt{469 + \sqrt{220 + \sqrt{19 + \sqrt{36}}}}$$

- a) 21 X
- b) 24 X
- c) 22 ✓
- d) 26 X

$$\Rightarrow \sqrt{469 + \sqrt{220 + \sqrt{19 + \sqrt{36}}}}$$

$$\Rightarrow \sqrt{469 + \sqrt{220 + \sqrt{19 + 6}}}$$

$$\Rightarrow \sqrt{469 + \sqrt{220 + 5}}$$

$$\Rightarrow \sqrt{469 + 15} \Rightarrow \sqrt{484}$$

=> 22 (Ans)

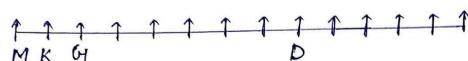
Explanation:

Q. 38

A certain number of people are sitting in a row, facing the north. M is sitting at the extreme left end. K is to the immediate right of M. G is to the immediate right of K. Only five persons are sitting between G and D. D is at the 6th position from the extreme right end. G is at some place towards the left of D. If no other person is sitting in the row, what is the total number of persons seated?

- a) 12
- b) 13
- c) 14
- d) 15

The correct answer is: c

Explanation:

There are 14 people sitting in the row.

Q. 39

'Jadopatiya' is a form of _____ popular in the state of Jharkhand.

- a) Painting
- b) Dance
- c) Music
- d) Sculpture

The correct answer is: a

Explanation:

Jadopatiya is a traditional scroll painting style from **Jharkhand**, particularly practiced by the **Santhal tribe**. It is used as a visual storytelling medium, often depicting themes of **folklore, mythology, tribal customs, and social issues**.

Explanation:

Key Features of Jadopatiya Art:

- Painted on scrolls made of fabric or paper, which are unrolled as stories are narrated.
- Uses natural colours derived from local minerals and plants.
- Focuses on themes like death rituals, spirits, village life, and tribal beliefs.
- Traditionally, Jadopatiya painters (known as **Jadopatiya artists**) also served as folk storytellers and healers, showcasing their paintings while narrating tales.

Q. 40	Name the committee constituted for village and small scale industries in 1955? a) Narasimhan Committee  b) Karve Committee  c) Rangarajan Committee  d) Basel Committee 
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The correct answer is: b

Explanation:

The **Karve Committee** was constituted in **1955** under the leadership of **D.G. Karve** to study and recommend measures for the development of **village and small-scale industries** in India.

Key Recommendations of the Karve Committee:

- Explanation:**
- Emphasized the importance of **small-scale industries (SSI)** in generating employment and reducing rural poverty.
 - Suggested **government support for financial assistance, training, and infrastructure** to promote SSI.
 - Advocated for **cooperation between large and small industries** to improve efficiency.
 - Recommended **technical training programs** to modernize rural industries while preserving traditional craftsmanship.

This committee played a crucial role in shaping India's approach to **industrial decentralization**, leading to policies that encouraged **self-reliance and entrepreneurship in rural areas**.

Q. 41

The monthly wages (in ₹) of three mess workers, Rahul, Sunil and Vipin, of a boy's hostel for three months are given in the following table. Study the table carefully and answer the question given below.
In November, the wages of Sunil is what percentage of the wages of Rahul? (Correct up to two decimal places.)

Mess workers/Month	October	November	December
Rahul	10800	11500	12000
Sunil	10000	10500	11500
Vipin	10400	11600	12200

- a) 91.30% ✓
- b) 89.30% ✗
- c) 90.23% ✗
- d) 88.23% ✗

Explanation:

The correct answer is: a

In November, the wages of Sunil is what percentage of the wages of Rahul is

$$\frac{10500}{11500} \times 100 = 91.30\%$$

Q. 42

In which year was Ujala Yojana launched?

- a) 2014 X
- b) 2016 X
- c) 2015 ✓
- d) 2017 X

The correct answer is: c

Explanation:

The **Ujala Yojana** (Unnat Jyoti by Affordable LEDs for All) was launched on **January 5, 2015** by the **Government of India** to promote energy efficiency and reduce electricity consumption.

Key Features of Ujala Yojana:

- Aimed at replacing incandescent bulbs and CFLs with energy-efficient LED bulbs.
- Implemented by **Energy Efficiency Services Limited (EESL)** under the **Ministry of Power**.
- Led to a **significant reduction in electricity bills** for households.
- Helped in **reducing carbon emissions** and promoting sustainable energy use.

Achievements:

- Over **36 crore LED bulbs** distributed across India.
- Saved **47,778 million kWh** of electricity annually.
- Reduced **3.86 crore tonnes of CO₂ emissions**.

Q. 43

The volume of a cylinder is 1950 m^3 , Whereas the surface area of its base is $92\frac{6}{7} \text{ m}^2$. Find the height of the cylinder?

- a) 21 m ✓
- b) 7.5 m X
- c) 2.1 m X
- d) 14 m X

Explanation:

$$\frac{\pi r^2 h}{\pi r^2} = \frac{1950}{650/7}$$

$$\therefore h = 3 \times 7 = 21 \text{ (Ans)}$$

Q. 44	<p>In a lottery, there are 12 prizes and 30 blanks. A lottery is drawn at random. What is the probability of getting a prize?</p> <p>a) $5/7$ X</p> <p>b) $1/10$ X</p> <p>c) $2/5$ X</p> <p>d) $2/7$ ✓</p>
-------	--

Probability of
getting a prize =

Explanation:

$$\Rightarrow \frac{12C_1}{42C_1} = \frac{12}{42}$$

$$\Rightarrow \frac{2}{7}$$

Q. 45	<p>Where is the headquarters of International Hockey Federation (FIH) located?</p> <p>a) Australia X</p> <p>b) Bhutan X</p> <p>c) Switzerland ✓</p> <p>d) Nepal X</p>
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The correct answer is: c

Explanation:

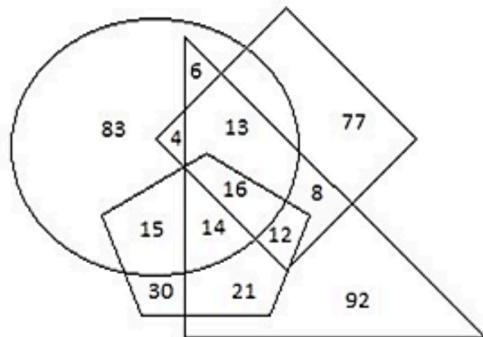
The **International Hockey Federation (FIH)**, the global governing body for **field hockey**, has its headquarters in **Lausanne, Switzerland**.

Why Lausanne?

- Explanation:
- Lausanne is known as the **Olympic Capital**, housing several international sports federations, including the **International Olympic Committee (IOC)**.
 - The FIH moved its headquarters to Lausanne in **2005**, previously being based in **Brussels, Belgium**.
 - Switzerland provides a **neutral and globally accessible location**, making it ideal for international sports governance.

Q. 46

The given diagram has four different shapes, depicting different farmers of a small village, with different assets. The circle represents the farmers who own land of more than 100 yards, the pentagon represents farmers who own cows, the rhombus represents farmers who own goats and the triangle represents farmers who own tractors.

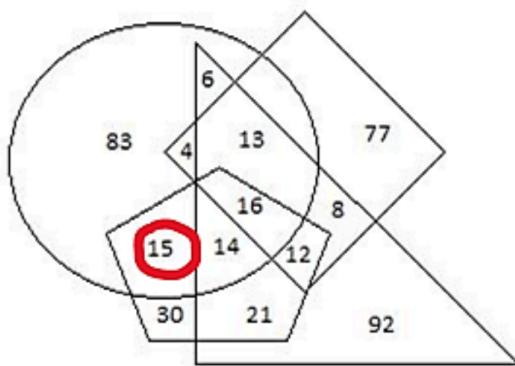


How many farmers are there who have both land and cows as assets but NOT tractors and goats?

- a) 30
- b) 52
- c) 45
- d) 15

The correct answer is: d

No. of farmers who have both land and cows as assets but NOT tractors and goats are 15.

Explanation:

Q. 47

A, B, C, D, E and F live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it, number 2 and so on till the topmost floor is numbered 6. B lives on a floor that is a prime number. The product of the floors on which B and E live is 3. Only 2 people live above D. F lives immediately below C. How many people live between A and F?

- a) 4
- b) 3
- c) 1
- d) 2

The correct answer is: d

6	C
5	F
4	D
3	B
2	A
1	E

Explanation:

There are 2 persons
living b/w A and F.

Q. 48

What do you call the effect of splitting of a spectral line into several components in the presence of a static magnetic field?

a) Askaryan effect



b) Domino effect



c) Zeeman effect



d) Bezold effect



The correct answer is **Zeeman effect**.

Explanation:

The **Zeeman effect** refers to the **splitting of a spectral line into multiple components** when exposed to a **static magnetic field**. This occurs because the presence of a magnetic field interacts with the **energy levels of electrons**, leading to different allowed transitions that result in multiple spectral lines.

Explanation:

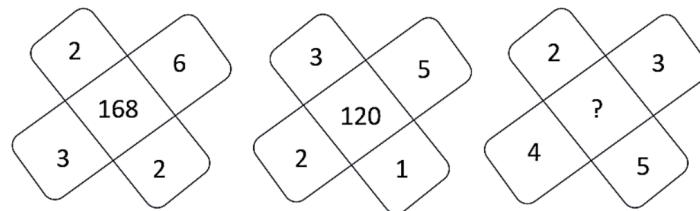
Key Characteristics:

- First observed by Pieter Zeeman in 1896, earning him the **Nobel Prize in Physics in 1902**.
- Used in **spectroscopy, astrophysics, and quantum mechanics** to study magnetic fields in celestial bodies.
- Helps in detecting **stellar magnetic fields** by analysing spectral line shifts in light coming from stars.

Q. 49	<p>Which organization, headquartered in The Hague, is the principal judicial organ of the United Nations and settles legal disputes between states in accordance with international law?</p> <p>a) International Criminal Court (ICC) </p> <p>b) International Court of Justice (ICJ) </p> <p>c) Permanent Court of Arbitration (PCA) </p> <p>d) European Court of Human Rights (ECHR) </p>
Explanation:	<p>The correct answer is: b</p> <p>Explanation:</p> <p>The International Court of Justice (ICJ) is the principal judicial organ of the United Nations, headquartered in The Hague, Netherlands. Established in 1945, it functions as the highest legal authority for resolving disputes between sovereign states based on international law.</p> <p>Key Functions of ICJ:</p> <ul style="list-style-type: none"> • Settles legal disputes between member states. • Provides advisory opinions on legal matters for the UN and its agencies. • Upholds international treaties and conventions. • Ensures peaceful resolution of conflicts through legal arbitration.
Q. 50	<p>Read the given statements carefully and decide which option is correct with respect to the statements.</p> <p>Statements:</p> <ol style="list-style-type: none"> 1. In any triangle, the concurrent point of medians is a centroid. 2. In any triangle, the concurrent point of altitudes is an orthocentre. 3. In any triangle, the concurrent point of internal angular bisectors is an in-centre. <p>a) Only statement 1 is correct. </p> <p>b) Only statement 3 is correct. </p> <p>c) Only statement 2 is correct. </p> <p>d) All statements 1, 2 and 3 are correct. </p>
Explanation:	<p>The correct answer is: All statements 1, 2, and 3 are correct.</p> <p>Explanation:</p> <ol style="list-style-type: none"> 1. Centroid: In any triangle, the medians are lines drawn from a vertex to the midpoint of the opposite side. These medians always intersect at a single point called the centroid. 2. Orthocentre: The altitudes of a triangle (lines drawn perpendicular from a vertex to the opposite side or its extension) are concurrent at a point called the orthocentre. 3. In-centre: The internal angle bisectors of a triangle (lines that divide each angle into two equal parts) always meet at a point called the in-centre.

Q. 51

Find the missing number at ?



- a) 80 X
- b) 195 ✓
- c) 140 X
- d) 167 X

The correct answer is: b

Explanation:

- $(2 + 6 + 3 + 2)^2 - 1 = 168$
- $(3 + 5 + 2 + 1)^2 - 1 = 120$
- $(2 + 3 + 4 + 5)^2 - 1 = 195$

Q. 52	<p>Which SAARC member state has the smallest population?</p> <p>a) Bhutan </p> <p>b) Maldives </p> <p>c) Nepal </p> <p>d) Afghanistan </p>
Explanation:	<p>The correct answer is: b</p> <p>Explanation:</p> <p>Among the SAARC (South Asian Association for Regional Cooperation) member states, Maldives has the smallest population.</p> <p>Key Facts About Maldives:</p> <ul style="list-style-type: none">As of recent estimates, Maldives has a population of approximately 530,000 people.It is the smallest country in South Asia in terms of both population and land area (about 300 km²).The country consists of over 1,000 coral islands, making it an archipelagic nation.Despite its small size, Maldives has a thriving tourism industry, contributing significantly to its economy.

Q. 53

A train overtakes two boys who are walking in the same direction as the train, at the rate of 8 km/h and 10 km/h and passes them completely in 9 seconds and 12 seconds respectively. Find the length of the train.

- a) 20 m ✓
- b) 15 m ✗
- c) 10 m ✗
- d) 30 m ✗

Explanation:

$$\text{length of the train} = l$$

$$\text{speed of the train} = x \text{ m/s}$$

$$l = (x - 8) \times \frac{5}{18} \times 9 \quad \text{(i)}$$

$$l = (x - 10) \times \frac{5}{18} \times 12 \quad \text{(ii)}$$

$$\Rightarrow (x - 8) \times \frac{5}{18} \times 9 = (x - 10) \times \frac{5}{18} \times 12$$

$$\Rightarrow x = 16 \text{ km/h}$$

$$\therefore l = (16 - 8) \times \frac{5}{18} \times 9 \quad \text{(from eqn(i))}$$

$$\Rightarrow \frac{360}{18} = 20 \text{ m (Ans)}$$

Q. 54

Study the given table and answer the question that follows.
The given table shows the production of T-shirts by four companies i.e., C1, C2, C3 and C4 over the four years.

Which company had the maximum average production of T-shirts during these four years?

Year	Production (in thousands)			
	C1	C2	C3	C4
2019	243	244	244	240
2020	248	239	236	230
2021	232	240	235	248
2022	242	244	230	242

- a) C3 X
- b) C2 ✓
- c) C1 X
- d) C4 X

The correct answer is: b

$$\text{Average production by C1} = \frac{243+248+232+242}{4} = \frac{965}{4} = 241.25$$

$$\text{Average production by C2} = \frac{244+239+240+244}{4} = \frac{967}{4} = 241.75$$

Explanation:

$$\text{Average production by C3} = \frac{244+236+235+230}{4} = \frac{945}{4} = 236.25$$

$$\text{Average production by C4} = \frac{240+230+248+242}{4} = \frac{960}{4} = 240$$

Therefore, C2 has the highest average production.

Q. 55	<p>Researchers of which institute have developed the world's first nuclear powered diamond battery in collaboration with carbon-14?</p> <p>a) MIT, USA </p> <p>b) Tokyo Institute of Technology </p> <p>c) Stanford University </p> <p>d) University of Bristol, UK </p>
	<p>The correct answer is: d</p> <p>Explanation:</p> <p>Researchers from the University of Bristol, in collaboration with the UK Atomic Energy Authority (UKAEA), developed the world's first nuclear-powered diamond battery using carbon-14 isotopes.</p> <p>Explanation:</p> <p>Key Features of the Carbon-14 Diamond Battery:</p> <ul style="list-style-type: none"> • Uses radioactive decay of carbon-14 to generate electricity. • Encased in diamond, making it safe and highly durable. • Has a potential lifespan of thousands of years, providing continuous low-power energy. • Can be used in medical implants, space technology, and extreme environments where battery replacement is impractical.
Q. 56	<p>Kristrun Frostadottir has become the youngest Prime Minister of which country?</p> <p>a) Denmark </p> <p>b) Norway </p> <p>c) Finland </p> <p>d) Iceland </p>
	<p>The correct answer is: d</p> <p>Explanation:</p> <p>Kristrún Frostadóttir became the youngest Prime Minister of Iceland when she assumed office on December 21, 2024.</p> <p>Key Facts About Kristrún Frostadóttir:</p> <p>Explanation:</p> <ul style="list-style-type: none"> • She is the leader of the Social Democratic Alliance, a major political party in Iceland. • She led her party to victory in the 2024 snap elections, forming a coalition government. • At 36 years old, she is the youngest serving state leader in the world. • Her leadership focuses on economic reforms, reducing inflation, and holding a referendum on European Union membership by 2027.

Q. 57

In a certain code language, 'CASTLE' is written as 'ACTSEL' and 'BOUGHT' is written as 'OBGUTH'. How will 'BUDGET' be written in that language?

- a) UBDGTE X
- b) UDGBET X
- c) UBGDTE ✓
- d) UBDGTE X

The correct answer is: c

C A S T L E
A C T S E L

B O U G H T
O B G U T H

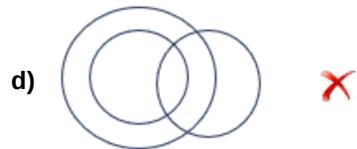
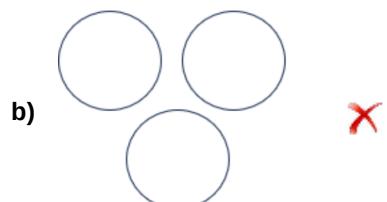
B U D G E T
U B D G E T

Explanation:

Q. 58

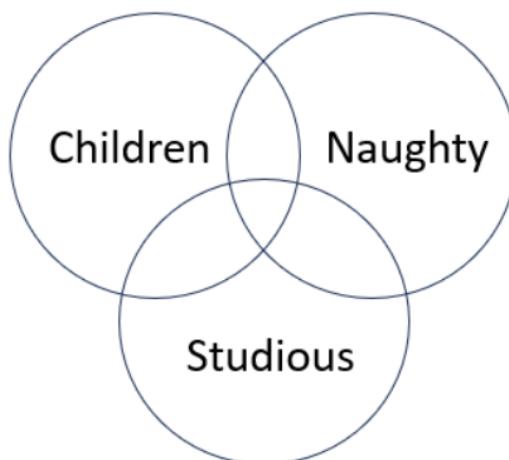
The question given below contains three groups of things. You are to choose from the following four options, the one that depicts the correct relationship among the groups of things in each question.

Children, Naughty, Studious



The correct answer is: c

Explanation:



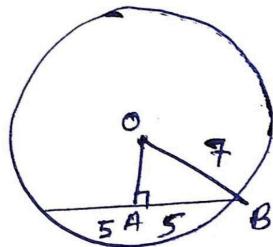
Q. 59

If the area of a circle is 154 cm^2 and a chord $XY = 10 \text{ cm}$, then find the perpendicular distance from the center of the circle to the chord XY .

- a) $3\sqrt{5} \text{ cm}$ X
- b) $2\sqrt{6} \text{ cm}$ ✓
- c) $5\sqrt{3} \text{ cm}$ X
- d) $3\sqrt{6} \text{ cm}$ X

$$\frac{22}{7} \times r^2 = 154$$

$$\Rightarrow r = 7$$



Explanation:

$$(OA)^2 = (7)^2 - (5)^2$$

$$\Rightarrow OA = \sqrt{24}$$

$$\Rightarrow OA = 2\sqrt{6} \text{ (Ans)}$$

Q. 60	<p>What do you call the property of an organism of self-regulation and the tendency to maintain a steady state within an external environment which is liable to change?</p> <p>a) Metabolism </p> <p>b) Consciousness </p> <p>c) Homeostasis </p> <p>d) Irritability </p>
	<p>The correct answer is: c</p> <p>Explanation:</p> <p>Homeostasis refers to an organism's ability to self-regulate and maintain a stable internal environment despite changes in external conditions.</p> <p>Key Features of Homeostasis:</p> <p>Explanation:</p> <ul style="list-style-type: none">Ensures temperature regulation, such as the human body maintaining an average of 37°C.Balances pH levels, glucose concentration, and electrolyte levels in the body.Involves mechanisms like sweating when hot and shivering when cold to stabilize body temperature.Controlled by various systems, including the nervous system and endocrine system.

Q. 61

When you put a plant cell, fungal cell or a bacterial cell in a very dilute external medium, the plant cell or fungal cell will absorb water but will not burst, whereas an animal cell will burst. Which part of the plant cell helps it to withstand the pressure of incoming water?

a) Cell wall ✓

b) Plasma membrane ✗

c) Cytoplasm ✗

d) Nucleus ✗

The correct answer is: a

Explanation:

When a **plant cell, fungal cell, or bacterial cell** is placed in a **hypotonic (very dilute)** solution, water enters the cell through **osmosis**. However, unlike **animal cells**, these cells **do not burst** because they have a **rigid cell wall** that provides structural support and prevents excessive expansion.

Explanation:

How the Cell Wall Prevents Bursting:

- The **cell wall** is made of **cellulose** (in plants), **chitin** (in fungi), or **peptidoglycan** (in bacteria), forming a **strong outer layer**.
- As water enters, the cell swells and becomes **turgid**, but the cell wall exerts an opposing force, preventing rupture.
- This **turgor pressure** is essential for maintaining the shape and rigidity of plant and fungal cells.

Q. 62

The following table shows the sale (in thousands) of different types of helmets by a shop over the given years.

Type of Helmet/Year	1998	1999	2000	2001	2002
A	78	45	56	63	88
B	58	64	78	60	68
C	46	54	58	64	68
D	76	65	72	78	82
E	87	66	74	80	84

What was the percentage increase in the sale of Helmets C in 2002 as compared to that in 1999?

- a) 26.39%
- b) 28.26%
- c) 27.62%
- d) 25.93%

Explanation:

The correct answer is: d

Percentage increase in the sale of Helmets C in 2002 as compared to that in 1999 =

$$\frac{68-54}{54} \times 100 = 25.93\%$$

Q. 63	<p>Which of the following songs do the peasants of Rajasthan sing while working in fields?</p> <p>a) Pankhida </p> <p>b) Pandavani </p> <p>c) Chhakri </p> <p>d) Barahmasa </p>
	<p>The correct answer is: a</p> <p>Explanation:</p> <p>Pankhida is a traditional folk song of Rajasthan, sung by peasants while working in the fields.</p> <p>Key Features of Pankhida Songs:</p> <p>Explanation:</p> <ul style="list-style-type: none">• Sung in a lively and rhythmic tone, keeping farmers motivated during hard labour.• Often involves themes of nature, love, and community spirit, reflecting rural life.• Commonly associated with seasonal celebrations, making it a part of everyday agricultural routines.• Played during harvest festivals, reinforcing its connection to farming and hard work.

Q. 64

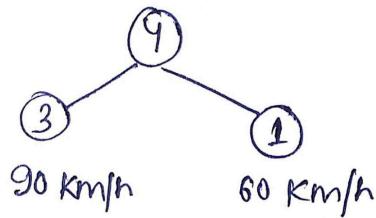
Raghav had to travel from A to B. He covers 75% of the distance at a speed of 90 km/h and the remaining distance at a speed of 60 km/h. What was his average speed for the entire journey?

a) $78\frac{2}{3} \text{ km/h}$ X

b) $83\frac{1}{3} \text{ km/h}$ X

c) 75 km/h X

d) 80 km/h ✓

**Explanation:**

$$\frac{4}{\frac{3}{90} + \frac{1}{60}} = \frac{4}{\frac{1}{30} + \frac{1}{60}}$$

$$\Rightarrow \frac{4}{\frac{1}{20}} = 80 \text{ Km/hr}$$

Q. 65

The British physicist named Paul Dirac was known to have introduced the concept of _____ in 1930.

- a) antiparticle ✓
- b) cosmic radiation ✗
- c) nuclear model of atom ✗
- d) thermal ionisation ✗

The correct answer is: a

Explanation:

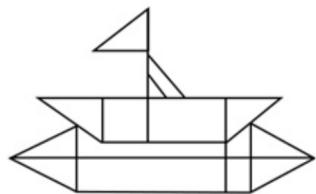
In 1930, British physicist Paul Dirac introduced the concept of **antiparticles** while developing the **Dirac equation**, which describes the behaviour of electrons in **quantum mechanics**.

Explanation:

Key Discoveries:

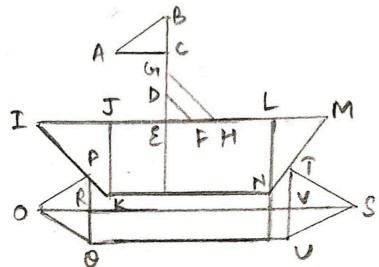
- Dirac's equations predicted the existence of **positrons (antielectrons)**— particles with the **same mass as electrons but opposite charge**.
- This was experimentally confirmed in **1932** by **Carl Anderson**, who detected positrons in cosmic rays.
- The discovery of antiparticles led to advancements in **particle physics**, forming the basis for **antimatter** research.

Q. 66

How many triangles are there in the given figure?

- a) 11 ✓
- b) 9 ✗
- c) 8 ✗
- d) 10 ✗

The correct answer is: a



Explanation:

There are 11 triangles
in the given figure,
 $\triangle ABC$, $\triangle DEF$, $\triangle GHI$, $\triangle IJK$,
 $\triangle LMN$, $\triangle OPR$, $\triangle ORQ$, $\triangle OPQ$,
 $\triangle SVT$, $\triangle SUV$, $\triangle SUT$

Q. 67

16 persons can do a work in 21 days. After 6 days of work, 8 workers left the work, and joined back on the last day of the work. In how many days the work got completed?

- a) 28
- b) 32
- c) 25
- d) 35

Explanation:

$$\begin{aligned} \text{Total work} &= 16 \times p \times 21 \\ \Rightarrow 16 \times p \times 21 &= 16 \times p \times 6 + 8 \times p \times \text{time} \times 16 \times p \times 1 \\ \Rightarrow 16 \times p \times 14 &= 8 \times p \times \text{time} \\ \Rightarrow t &= 28 \text{ days} \\ \therefore \text{total time} &= 28 + 7 = 35 \text{ days (Ans)} \end{aligned}$$

Q. 68

Select the correct increasing order of atomic radii.

- a) B < Be < Rb < Li
- b) Li < B < Be < Rb
- c) B < Be < Li < Rb
- d) Li < Be < B < Rb

The correct answer is: c

Explanation:

The atomic radius of an element is influenced by its **position in the periodic table**—it **decreases across a period** and **increases down a group** due to added electron shells.

Comparing the Given Elements:**Explanation:**

- **Boron (B)** – Located in Group 13 (Period 2), has the **smallest atomic radius** due to strong nuclear attraction.
- **Beryllium (Be)** – Located in Group 2 (Period 2), slightly larger than boron.
- **Lithium (Li)** – Located in Group 1 (Period 2), larger than Be and B because Group 1 elements have weaker nuclear attraction.
- **Rubidium (Rb)** – Located in Group 1 (Period 5), has the **largest atomic radius** due to the presence of multiple electron shells.

Thus, the correct increasing order of atomic radii is **B < Be < Li < Rb**.

Q. 69	<p>If 1170 is divided by positive integer x then we get 14 as a remainder, find the number of possible value of x?</p> <p>a) 4 X</p> <p>b) 5 X</p> <p>c) 6 ✓</p> <p>d) 8 X</p>
Explanation:	$1170 - 14 = 1156$ <p>$x \geq 1156$ or factors of 1156 greater than 14.</p> $1156 = 2^2 \times 17^2$ $T(F) = 3 \times 3 = 9$ <p>(Factors to be excluded,) (1, 2, 4)</p> <p>\therefore No. of Possible value of $x = 9 - 3 = 6$</p>
Q. 70	<p>In MS Excel 365 which of the following keyboard shortcuts is used to save a workbook in MS-Excel?</p> <p>a) Ctrl + Shift + S X</p> <p>b) Shift + S X</p> <p>c) Ctrl + S ✓</p> <p>d) Ctrl + Alt + S X</p>
Explanation:	<p>The correct answer is: c</p> <p>Explanation:</p> <p>In MS Excel 365, pressing Ctrl + S quickly saves the current workbook.</p> <p>Explanation:</p> <ul style="list-style-type: none"> It is the standard keyboard shortcut for saving files across most Microsoft Office applications, including Word, Excel, and PowerPoint. It prevents data loss by quickly storing progress in the currently opened file. If the file has never been saved before, this shortcut opens the "Save As" dialog to choose a location and file name.

Q. 71

Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it seems to be at variance with commonly known facts, decide which of the given conclusions logically follows from the given statements.

Statements:

All cups are glasses.

Some glasses are bowls.

No bowl is a plate.

Conclusions:

(I) No cup is a plate.

(II) No glass is a plate.

(III) Some plates are bowls.

(IV) Some cups are not glasses.

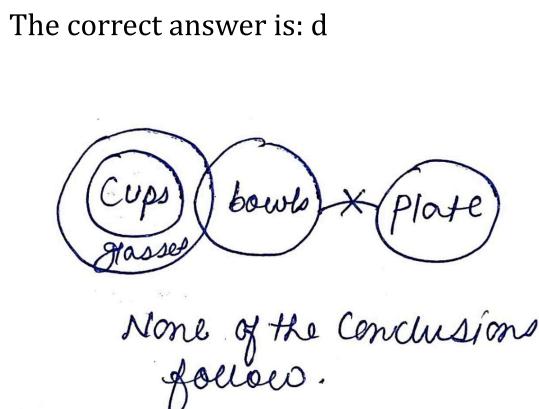
a) Both conclusions III and IV follow X

b) Only conclusion I and II follows X

c) Only conclusion II and III follows X

d) None follows ✓

Explanation:

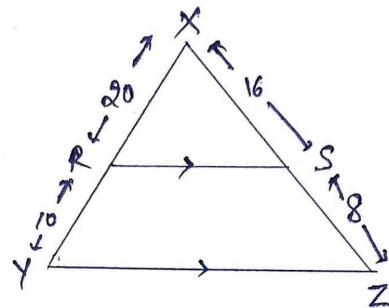


Q. 72	<p>What is the percentage of rural child population to the total child population of the country in India as per Provisional Population Totals of Census 2011?</p> <p>a) 74.05% </p> <p>b) 55.23% </p> <p>c) 79.03% </p> <p>d) 62.45% </p>
Explanation:	<p>The correct answer is: a</p> <p>Explanation:</p> <p>As per the Provisional Population Totals of Census 2011, 74.05% of India's total child population (ages 0-6 years) lived in rural areas.</p> <p>Key Findings from Census 2011:</p> <ul style="list-style-type: none">• The total child population in India (ages 0-6 years) was 158.78 million.• The decline in child population was observed mainly in rural areas, while urban areas saw a slight increase.• Rural India accounted for 833.1 million of the total population, reinforcing the country's predominantly rural demographic structure.

Q. 73

R and S are the points of the sides XY and XZ, respectively, of $\triangle XYZ$, such that $RS \parallel YZ$.
 Also, $XR = 20$ cm, $XY = 30$ cm, $XS = 16$ cm and $XZ = 24$ cm. RS is equal to:

- a) $3/4 YZ$ X
- b) $4/3 YZ$ X
- c) $3/2 YZ$ X
- d) $2/3 YZ$ ✓



Explanation:

$$\frac{XR}{XY} = \frac{XS}{XZ} = \frac{RS}{YZ}$$

$$\Rightarrow \frac{20}{30} = \frac{16}{24} = \frac{RS}{YZ}$$

$$\Rightarrow \boxed{RS = \frac{2}{3} YZ}$$

Q. 74	<p>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.</p> <p>Statement: $L \geq Q < R \leq S = M < N$</p> <p>Conclusions:</p> <ul style="list-style-type: none"> I. $N > S$ II. $L < R$ <p>a) Only II is true </p> <p>b) Both I and II are true </p> <p>c) Only I is true </p> <p>d) Neither I nor II is true </p>
Explanation:	<p>The correct answer is Only I is true.</p> <p>Conclusion I: $N > S$ From the statement, we see that $S = M$ and $M < N$. Hence, $N > S$ is true. Conclusion I is valid.</p> <p>Conclusion II: $L < R$ From the statement, $L \geq Q$ and $Q < R$. This means L could be equal to or greater than Q, and since $Q < R$, L is not necessarily less than R. Therefore, this conclusion is not valid. Conclusion II is invalid.</p>

Q. 75	<p>Which of the following committees was constituted to study the issues and concerns in the Micro Finance Institution in 2010?</p> <p>a) Ghosh Committee </p> <p>b) Sivaraman Committee </p> <p>c) Malegam Committee </p> <p>d) Khan Committee </p>
Explanation:	<p>The correct answer is: c</p> <p>Explanation:</p> <p>The Malegam Committee was constituted in 2010 by the Reserve Bank of India (RBI) to study issues related to Microfinance Institutions (MFIs), particularly concerning their functioning, regulation, and impact on borrowers.</p> <p>Key Recommendations of the Malegam Committee:</p> <ul style="list-style-type: none"> • Capped interest rates charged by MFIs to prevent exploitation of borrowers. • Suggested a loan size limit to ensure microloans were truly aimed at low-income groups. • Recommended the creation of a Credit Information Bureau to monitor borrower indebtedness. • Advocated for stronger regulation of MFIs, proposing that only Non-Banking Financial Companies (NBFC-MFIs) should operate under RBI guidelines.

Q. 76

Select the triad in which the numbers are related in the same way as are the numbers of the following triads.

(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.)

(3, 5, 28)

(4, 3, 25)

a) (2, 5, 23) 

b) (1, 6, 17) 

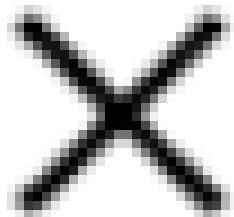
c) (4, 7, 72) 

d) (3, 6, 34) 

The correct answer is: a

(3, 5, 28)

=> 3

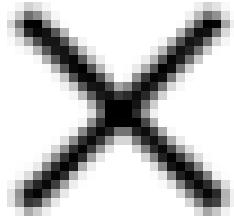


$$5 + 13 = 28$$

(4, 3, 25)

Explanation:

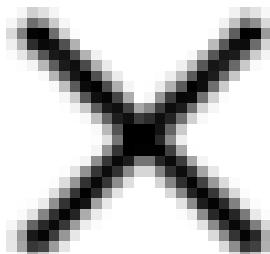
=> 4



$$3 + 13 = 25$$

(2, 5, 23)

=> 2



$$5 + 13 = 23$$

Q. 77	<p>Which of the following Articles of the Constitution of India states that there will be a Vice-President of India?</p> <p>a) Article 63 ✓</p> <p>b) Article 75 ✗</p> <p>c) Article 56 ✗</p> <p>d) Article 45 ✗</p>
Explanation:	<p>The correct answer is: a</p> <p>Explanation:</p> <p>Article 63 of the Constitution of India explicitly states that "There shall be a Vice-President of India." The Vice-President serves as:</p> <ul style="list-style-type: none">• The ex-officio Chairman of the Rajya Sabha (Council of States).• The second-highest constitutional authority after the President.• The official who acts as President in case of the President's absence, resignation, removal, or death.

Q. 78

Simplify the following expression:

$$\frac{\sin^2(45^\circ + \theta) + \sin^2(45^\circ - \theta)}{\sec^2 30^\circ \cos^2 45^\circ - \sec^2 60^\circ}$$

a) $\frac{-6}{13}$ X

b) $\frac{-4}{9}$ X

c) $\frac{-3}{10}$ ✓

d) $\frac{-5}{7}$ X

Explanation:

$$\frac{\sin^2(45^\circ + \theta) + \sin^2(45^\circ - \theta)}{\sec^2 30^\circ \cos^2 45^\circ - \sec^2 60^\circ}$$

Putting $\theta = 0^\circ$

$$\frac{\sin^2 45^\circ + \sin^2 45^\circ}{\sec^2 30^\circ \cos^2 45^\circ - \sec^2 60^\circ}$$

$$\Rightarrow \frac{\frac{1}{2} + \frac{1}{2}}{\frac{4}{3} \times \frac{1}{2} - 4} \Rightarrow \frac{1}{4 - \frac{24}{6}}$$

$$\Rightarrow -\frac{6}{20} \Rightarrow -\frac{3}{10} \text{ (Ans)}$$

Q. 79

Where will the first International Olympic Research Conference be held?

- a) New Delhi
- b) Mumbai
- c) Gujarat
- d) Bengaluru

The correct answer is: c

Explanation:

The **first International Olympic Research Conference** will be held at **Rashtriya Raksha University, Gandhinagar, Gujarat**, from **January 27-30, 2025**.

Key Highlights of the Conference:

Explanation:

- Organized by the **Bharat Centre of Olympic Research and Education (BCORE)**, a leading institution for Olympic studies in India.
- Supported by the **Indian Olympic Association (IOA)** and recognized by the **International Olympic Committee (IOC)**.
- Aims to foster **global collaboration** in Olympic research, addressing challenges in **sports governance, financial sustainability, and infrastructure development**.
- Includes **lectures, workshops, and discussions** featuring renowned experts in **Olympic studies and sports science**.
- Attendees will also experience a **guided tour of Ahmedabad**, a **UNESCO heritage city**, and the **Statue of Unity**, showcasing India's rich cultural heritage.

Q. 80

Which of the following numbers will replace the question mark (?) in the given series?

19, 42, 92, ?, 408, 836

- a) 172
- b) 196
- c) 214
- d) 154

The correct answer is: b

Explanation:

$$\begin{array}{ccccccc}
 19 & , & 42 & , & 92 & , & ? & , & 408 & , & 836 \\
 \times 2+4 & & \times 2+8 & & \times 2+12 & & \times 2+16 & & \times 2+20 \\
 \therefore ? = 196 \text{ (Ans)}
 \end{array}$$

Q. 81

If the average of p numbers is m^4 and the average of m numbers is p^4 , then find the average of all $p+m$ numbers?

a) $pm(p^2 + m^2 - mp)$ ✓

b) pm ✗

c) $p^2 + m^2$ ✗

d) None ✗

Explanation:

Average of all $p+m$ numbers are :

$$\Rightarrow \frac{pm^4 + mp^4}{p+m}$$

$$\Rightarrow \frac{pm(m^3 + p^3)}{(p+m)}$$

$$\Rightarrow \frac{pm(m+p)(m^2 + p^2 - mp)}{(p+m)}$$

$$\Rightarrow pm(p^2 + m^2 - mp)$$

Q. 82	<p>Glucagon, a peptide hormone, is produced by the ____.</p> <p>a) pancreas ✓</p> <p>b) adrenals ✗</p> <p>c) hypothalamus ✗</p> <p>d) pituitary glands ✗</p>
Explanation:	<p>The correct answer is: a</p> <p>Explanation:</p> <p>Glucagon is a peptide hormone produced by the alpha cells of the pancreas, specifically within the islets of Langerhans. Its primary function is to regulate blood glucose levels, ensuring the body has enough energy during fasting or low-sugar conditions.</p> <p>Key Functions of Glucagon:</p> <ul style="list-style-type: none">• Raises blood glucose levels by stimulating glycogen breakdown (glycogenolysis) in the liver.• Promotes gluconeogenesis, converting non-carbohydrate sources into glucose.• Helps maintain energy balance, particularly during fasting or intense physical activity.• Works in opposition to insulin, which lowers blood sugar levels.

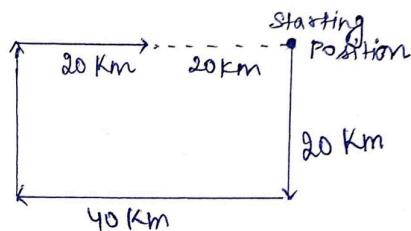
Q. 83

Sohit runs 20 km towards the south. He turns right and runs 40 km. He again turns right and runs 20 km. Finally, he runs 20 km after turning to the right. How far is he from the starting position?

- a) 40 km
- b) 10 km
- c) 25 km
- d) 20 km

The correct answer is: d

Explanation:



*Sohit is 20 Km away
from the starting point.*

Q. 84

If the 8-digit number $1a429b36$ is to be divisible by 72, the least value of $(2a + 3b)$ is:

- a) 21 X
- b) 19 X
- c) 17 ✓
- d) 15 X

$1a429b36$

Check divisibility of 8

$$b36/8$$

$$\Rightarrow b = 1, 3, 5, 7, 9$$

Check divisibility of 9

$$\Rightarrow 1+a+4+2+9+b+1+2$$

$$\Rightarrow 19+a+b$$

$$(i) b=1; \therefore a=7$$

$$(ii) b=3; a=5$$

$$(iii) b=5; a=3$$

$$(iv) b=9; a=8$$

$$(i) b=1, a=7$$

$$\Rightarrow 2a+3b = 17$$

$$(ii) b=3, a=5$$

$$2a+3b = 19$$

$$(iii) b=5, a=3$$

$$\Rightarrow 2a+3b = 21$$

$$(iv) b=9, a=8$$

$$\Rightarrow 2a+3b = 43$$

Explanation:

Q. 85	<p>How long will a sound wave take to travel 1.5km, which has a frequency of 5 kHz and wavelength of 6 cm?</p> <p>a) 2.5 seconds </p> <p>b) 50 seconds </p> <p>c) 5 seconds </p> <p>d) 25 seconds </p>
	<p>The correct answer is: c</p> <p>Explanation:</p> <p>Explanation:</p> <ul style="list-style-type: none">• The sound wave travels at a speed of 300 m/s.• To cover 1500 m, it takes 5 seconds.• Thus, the correct answer is 5 seconds.

Q. 86	<p>In the given question, there is a certain relationship between two given words on one side of :: and one word is given on another side of :: while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair bear. Choose the correct alternative.</p> <p>Commodore : Navy :: Brigadier : ?</p> <p>a) Captain </p> <p>b) Commander </p> <p>c) Air Force </p> <p>d) Army </p>
	<p>The correct answer is: d</p> <p>"Brigadier" is a rank within the Army, making this the correct choice. It completes the analogy similarly to how "Commodore" relates to the Navy.</p>

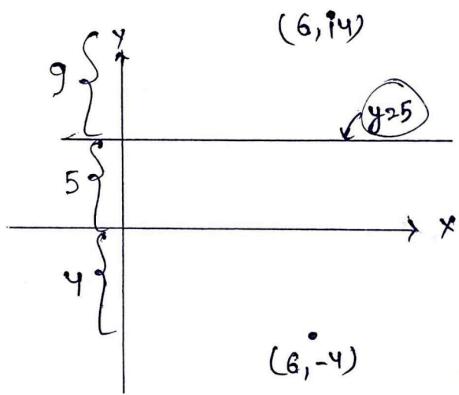
Q. 87	<p>In which of the following Articles, “Culture and Educational rights” are mentioned?</p> <p>a) Article 25 – 28 </p> <p>b) Article 23 – 24 </p> <p>c) Article 19 – 22 </p> <p>d) Article 29 – 30 </p>
Explanation:	<p>The correct answer is: d</p> <p>Explanation:</p> <p>Articles 29 and 30 of the Indian Constitution specifically provide for Cultural and Educational Rights to protect the interests of different cultural, linguistic, and religious minorities.</p> <p>Key Provisions:</p> <p>Explanation:</p> <ul style="list-style-type: none">• Article 29:<ul style="list-style-type: none">◦ Protects the right of any section of citizens to preserve their distinct language, script, or culture.◦ Prevents discrimination in admission to educational institutions on grounds of religion or language.• Article 30:<ul style="list-style-type: none">◦ Grants minorities the right to establish and administer their own educational institutions.◦ Ensures government aid is provided without discrimination to minority institutions.

Q. 88

What is the reflection of the point $(6, -4)$ in the line $y = 5$?

- a) $(6, -14)$ X
- b) $(-6, 14)$ X
- c) $(6, 14)$ ✓
- d) $(-6, -14)$ X

Explanation:



\therefore Reflection of the point
 $(6, -4)$ in the line $y = 5$
is $(6, 14)$.

Q. 89

Select the alphanumeric-cluster from among the given options that can replace the question mark (?) in the following series.
QR 129, MN 67, ?, EF 9, AB 1

- a) IJ 27 X
- b) JK 27 X
- c) IJ 29 ✓
- d) JK 25 X

The correct answer is: c

Explanation:

$$\begin{array}{lll} Q & R & 129 (5^3 + 4) \\ \downarrow -4 & \downarrow -4 & \\ M & N & 67 (4^3 + 3) \\ \downarrow -4 & \downarrow -4 & \\ I & J & 29 (3^3 + 2) \\ \downarrow -4 & \downarrow -4 & \\ E & F & 9 (2^3 + 1) \\ \downarrow -4 & \downarrow -4 & \\ A & B & 1 (1^3 + 0) \end{array}$$

Q. 90	<p>Ramappa temple is dedicated to which God?</p> <p>a) Lord Rama </p> <p>b) Lord Shiva </p> <p>c) Lord Indra </p> <p>d) Lord Vishnu </p>
Explanation:	<p>The correct answer is: b</p> <p>Explanation:</p> <p>The Ramappa Temple, also known as the Rudreshwara Temple, is a Kakatiya-style Hindu temple dedicated to Lord Shiva. It is located in Palampet village, Mulugu district, Telangana, India.</p> <p>Key Features of Ramappa Temple:</p> <ul style="list-style-type: none">• Built in 1213 CE by Recharla Rudra, a general of the Kakatiya ruler Ganapati Deva.• Named after its chief architect, Ramappa, making it the only temple in India named after its sculptor.• The temple stands on a star-shaped platform and features intricately carved pillars.• Recognized as a UNESCO World Heritage Site in July 2021.

Q. 91

Given below is a statement followed by two conclusions numbered I and II. You have to consider the statements taking them to be true even if they seem to be at variance from commonly known facts. Then consider both the conclusions together and decide which of them logically follows from the information given in the statements.

Statement: A research found that if high school students get eight hours of sleep instead of 6 hours before an exam, their scores increase by 20%.

conclusion

I: If the student wants to score better marks, then eight hours of sleep is better than six hours of sleep.

II: The students are stressed because all the exams are difficult.

a) Both conclusions I and II follow.

b) Only conclusion II follows.

c) Only conclusion I follows.

d) Neither conclusion I nor II follows.

Explanation:

The correct answer is: c

1. **Conclusion I:** If the student wants to score better marks, then eight hours of sleep is better than six hours of sleep.

- The statement provides clear evidence that more sleep (8 hours) leads to better scores (an increase of 20%). Therefore, if a student wishes to perform better, eight hours of sleep is indeed preferable to six hours.

Conclusion I follows.

2. **Conclusion II:** The students are stressed because all the exams are difficult.

- The statement does not mention anything about students being stressed or whether exams are universally difficult. It focuses only on the relationship between sleep duration and performance improvement. There is no evidence in the statement to support this conclusion.

Conclusion II does not follow.

Therefore, only conclusion I follows.

Q. 92

A solid rubber sphere weighs 98 kg when its diameter is 14 cm. Using the same material, a hollow sphere is made with an outer diameter of 24 cm and inner diameter of 20 cm. What is its weight?

- a) 216 kg
- b) 192 kg
- c) 208 kg
- d) 198 kg

Explanation:

$$\frac{98}{\frac{4}{3}\pi(7)^3} = \frac{\text{Weight}}{\frac{4}{3}\pi((12)^3 - (10)^3)}$$

$$\Rightarrow \frac{98}{7 \times 7 \times 7} = \frac{\text{weight}}{728}$$

$$\Rightarrow \text{weight} = 208 \text{ Kg (Ans)}$$

Q. 93	<p>Which of the following schemes enables students mobility across Higher Education Institutions?</p> <p>a) National Educational Technology Forum </p> <p>b) PM Umeed scheme </p> <p>c) Structured Assessment for Analysing Learning Levels (SAFAL) </p> <p>d) Academic Bank of Credits </p>
Explanation:	<p>The correct answer is: d</p> <p>Explanation:</p> <p>The Academic Bank of Credits (ABC) Scheme enables student mobility across Higher Education Institutions (HEIs) by allowing students to accumulate and transfer academic credits between institutions.</p> <p>Key Features of the ABC Scheme:</p> <ul style="list-style-type: none">Provides flexibility for students to tailor their educational pathways across different universities and colleges in India.Allows students to store and redeem academic credits earned from different institutions.Supports credit-based learning, making education more accessible and modular.Helps in the seamless integration of skills and experiences into a structured credit-based system.

Q. 94

Who among the following scored the maximum overall percentage?

Name	Marks (out of 100)				
	English	Hindi	Maths	Science	IT
Simran	78	65	89	78	66
Sanjana	87	70	95	84	84
Payal	93	73	65	77	85
Bhumika	74	84	88	87	79
Neha	82	87	84	85	89
Jyoti	69	90	93	88	92

- a) Jyoti ✓
- b) Simran ✗
- c) Sanjana ✗
- d) Bhumika ✗

① Jyoti →

$$\frac{69 + 90 + 93 + 88 + 92}{500} \times 100$$

$$\frac{432}{5} = 86.4 \%$$

② Simran →

$$\frac{78 + 65 + 89 + 78 + 66}{500} \times 100$$

$$\frac{376}{5} = 75.2 \%$$

③ Sanjana →

$$\frac{87 + 70 + 95 + 84 + 84}{500} \times 100$$

$$= \frac{420}{5} = 84 \%$$

④ Bhumika →

$$\frac{74 + 84 + 88 + 87 + 79}{500} \times 100$$

$$\frac{412}{5} = 82.4 \%$$

Jyoti has the maximum overall % of 86.4 %.

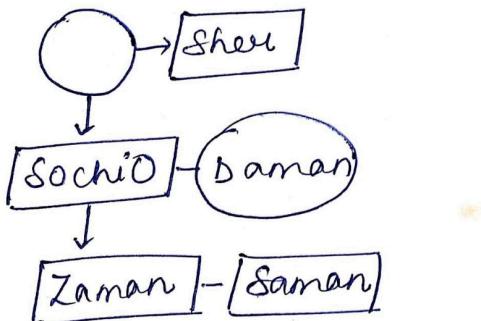
Explanation:

Q. 95

Zaman and Saman are brothers who have a single parent, Sochio. Sochio is brother of Daman, whose mother has an only brother named Sher. Daman is the paternal aunt of Zaman. Sher has only one nephew and one niece. What is the name of Sher's nephew?

- a) Sochio ✓
- b) Zaman ✗
- c) Daman ✗
- d) Saman ✗

The correct answer is: a



Explanation:

Sher's nephew is
Socio.

(O → female, □ → Male)

Q. 96	<p>Who has written the recently published book 'The New Icon: Savarkar and the Facts'?</p> <p>a) Arun Shourie ✓</p> <p>b) Vikram Sampath ✗</p> <p>c) Ramesh Chandra Majumdar ✗</p> <p>d) Shashi Tharoor ✗</p>
	<p>The correct answer is: a</p> <p>Explanation:</p> <p>The book "The New Icon: Savarkar and the Facts" was written by Arun Shourie and published in January 2025.</p> <p>Key Highlights of the Book:</p> <p>Explanation:</p> <ul style="list-style-type: none"> Examines the life and ideology of Vinayak Damodar Savarkar, a key figure in India's political history. Analyses Savarkar's writings, speeches, and historical records to provide a fact-based perspective. Investigates controversial claims about Savarkar's role in India's independence movement and his interactions with British authorities. Offers a critical assessment of Savarkar's influence on modern Indian politics.
Q. 97	<p>The questions given below consists of two words that have a certain relationship to each other, followed by four lettered pairs of words. Select that lettered pair which has the same relationship as the original pair of words.</p> <p>Stain : Honour</p> <p>a) Slander : Integrity ✓</p> <p>b) Doubt : Reputation ✗</p> <p>c) Defame : Notorious ✗</p> <p>d) Lose : Fame ✗</p>
	<p>The correct option is Slander : Integrity.</p> <p>The relationship between Stain and Honour is that a stain tarnishes or damages honour. We need to find a pair where the first word similarly harms or negatively affects the second word.</p> <p>Slander : Integrity → Slander damages integrity, similar to how a stain damages honour.</p>

Q. 98

The present age of a husband and wife is in the ratio 4 : 3. After 8 years their ages will be in the ratio 5 : 4. At the time of their marriage the ratio of their ages was 3 : 2. In how many years ago they were married?

- a) 4 years
- b) 8 years
- c) 10 years
- d) 6 years

Explanation:

$$\begin{aligned}
 & \text{husband : wife} \\
 & \quad \curvearrowright 3 : 2 \\
 & \quad (-8 \text{ yrs}) \\
 & \underbrace{\text{Present}}_{\curvearrowright} \rightarrow 4 : 3 \\
 & \quad (+8 \text{ yrs}) \downarrow +1 \quad \downarrow +1 \\
 & \quad \curvearrowright 5 : 4 \\
 & 1 \rightarrow 8 \text{ yrs} \\
 & \therefore 8 \text{ years ago} \\
 & \text{they were married.}
 \end{aligned}$$

Q. 99

During the Republic day parade, the NCC Cadets are standing in a line. Manikanta is 25th in order from both ends. How many NCC Cadets are there in the parade?

- a) 48
- b) 51
- c) 49
- d) 46

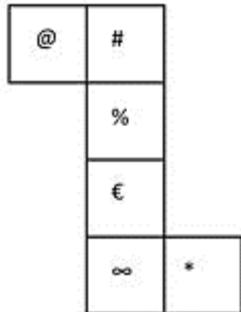
Explanation:

The correct answer is: c

Number of NCC Cadets in the parade is $25 + 25 - 1 = 49$

Q. 100

A cube is constructed by folding the given sheet along the lines shown. In the cube so formed, what would be the symbol on the opposite side of '#'?



- a) @ X
- b) € ✓
- c) ∞ X
- d) % X

Explanation:

The correct answer is: b

The opposites of the given dice are: @ - *, # - € and % - ∞.