

Answers

1. Answer: b

Explanation:

The Aga Khan Cup is a prestigious international field hockey tournament.

Established in 1983 by Prince Karim Aga Khan IV, it is contested among top hockey teams.

Squash, lawn tennis and cricket have their own separate tournaments.

Hence, **Hockey**.

2. Answer: d

Explanation:

Classify each feature as advanced or primitive. Advanced: solitary flowers, epigynous ovary, exalbuminous seeds, dichlamydeous perianth.

Primitive: compound leaves, bisexual flowers, many stamens, many fruits.

Count: four advanced characters versus four primitive — ratio 1 : 1.

Hence, 1 : 1.

3. Answer: d

Explanation:

From statement 1 alone 'late' could map to any of N, wis or le.

From statement 2 alone 'late' could map to Se, s or le.

Common word across both statements is 'late' and common code is 'le', so both together uniquely give 'late' $\rightarrow$ 'le'.

Hence, **Statements 1 and 2 together are sufficient..**

4. Answer: a

Explanation:

Let principal = P. SI = $P \times 5 \times 3/100 = 0.15P$.

CI = $P(1.04^2 - 1) = 0.0816P$. Given $0.15P - 0.0816P = 0.0684P = 649.80 \rightarrow P = ₹9500$.

Per the RRB source key the required sum is ₹9,500 (**₹ 9,500**).

Hence, **₹ 9,500**.

5. Answer: a

Explanation:

The maximum carton size is HCF(2240, 3840).

Factorise: $2240 = 2^6 \cdot 5 \cdot 7$ and $3840 = 2^8 \cdot 3 \cdot 5$.

Common factors: $2^6 \cdot 5 = 64 \cdot 5 = 320$.

Hence, **320**.

6. Answer: b

Explanation:

'Bhavantar Bhugtan Yojana' (Price Deficit Payment Scheme) was launched by the Madhya Pradesh government in October 2017.

It compensates farmers for the difference between the market price and government-set minimum support price for selected crops.

The scheme was initially for Kharif pulses and oilseeds.

Hence, **Bhavantar Bhugtan Yojana**.

7. Answer: a

Explanation:

The figures follow a mirror-image relationship in pairs:

- **First Pair:** The second figure is the exact mirror image (horizontally flipped) of the first L-shaped figure, moving the vertical line from left to right.
- **Second Pair:** The third figure features a vertical line on the left attached to an oval/loop on top. Its mirror image shifts the vertical line to the right with the oval extending towards the left.

Correct Option: 1

8. Answer: d

Explanation:

Rose plants reproduce vegetatively through stem cuttings — a piece of healthy stem develops roots and grows into a new plant.

Bryophyllum reproduces through leaf buds (not stem), tamarind reproduces through seeds, and bryophyta is a plant division (not a reproduction mode).

Stem cutting is the standard horticultural technique for rose propagation.

Hence, **Rose**.

9. Answer: b

Explanation:

The value of g (acceleration due to gravity) depends on distance from Earth's centre of mass.

Going down into Earth, g decreases linearly with depth and becomes zero at the centre.

Going up above the surface, g decreases with height (not increases); g is maximum at poles and minimum at equator.

Hence, **decreases as we go toward the centre of the Earth**.

10. Answer: a

Explanation:

Action 2 (punish violators) directly targets the root cause mentioned — carelessness of people crossing when gates are closed.

Action 1 (close all crossings and build flyovers) is costly and impractical as the first response; it addresses infrastructure, not the specific carelessness.

Therefore only action 2 logically follows the statement.

Hence, **Only 2 follows**.

11. Answer: a

Explanation:

Let A have n employees and B have $10n$ employees.

Combined mean = $(3400n + 4500 \cdot 10n) / (n + 10n) = (3400 + 45000) / 11 = 48400 / 11 = ₹4400$.

Difference from A's mean = $4400 - 3400 = ₹1000$.

Hence, 1,000.

12. Answer: d

Explanation:

The Ganga (Ganges) originates in India at Gaumukh in the Gangotri glacier (Uttarakhand) and flows for about 2525 km.

Although the Brahmaputra is longer overall, its source is in Tibet (China), not India.

Jhelum rises in Verinag (Jammu & Kashmir) and Mahanadi in Chhattisgarh — both shorter than Ganga.

Hence, Ganga.

13. Answer: a

Explanation:

Statement 1 shows 'Please' may correspond to 'Plea' but the word order isn't confirmed from one sentence.

Statement 2 shows 'Please' is likely 'Plea'; cross-referencing with statement 1 confirms the common code 'Plea' = please.

Both statements together clearly identify 'Plea' as the code for 'please'.

Hence, **Both statements 1 and 2 together are sufficient.**

14. Answer: b

Explanation:

Atomic mass of Ca = 40 u; atomic mass of O = 16 u.

Formula unit mass of CaO = 40 + 16 = 56 u.

The correct unit is 'u' (unified atomic mass unit), not grams.

Hence, **56 u.**

15. Answer: d

Explanation:

Cellular respiration breaks down glucose ($\text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 \rightarrow 6\text{CO}_2 + 6\text{H}_2\text{O} + \text{energy}$) releasing energy as ATP and heat.

This thermal energy maintains body temperature in warm-blooded animals.

Excretion removes waste, circulation transports blood, digestion breaks down food (consumes some energy).

Hence, **Respiration.**

16. Answer: a

Explanation:

The ICC Women's T20 World Cup 2018 was hosted by the West Indies from 9 to 24 November 2018.

It was the sixth edition of the ICC Women's World Twenty20 tournament.

Australia won the final by defeating England by 8 wickets.

Hence, **West Indies**.

17. Answer: a

Explanation:

Lakshya Sen from Uttarakhand became the world's No. 1 junior badminton player in February 2017 at age 15.

He achieved this through consistent performances in Badminton World Federation (BWF) junior tournaments.

Lu Chia-Hang is Taiwanese; Srikanth is a senior Indian player, Salam is from Manipur.

Hence, **Lakshya Sen**.

18. Answer: d

Explanation:

Potassium is a highly reactive alkali metal that reacts vigorously with water: $2K + 2H_2O \rightarrow 2KOH + H_2$.

The reaction is so energetic that the hydrogen produced burns with a lilac flame.

Lead, aluminium and zinc react very slowly or require elevated temperatures to react with water.

Hence, **Potassium**.

19. Answer: b

Explanation:

China has been ruled by the Communist Party of China (CPC) since 1949.

Mao Zedong led the party and shaped its ideology, giving rise to 'Maoism' as a distinct form of Marxism-Leninism.

USA, UK and India have been democracies ruled by non-communist parties.

Hence, **China**.

20. Answer: d

Explanation:

The isosceles triangles cut from each corner together make up a smaller square whose area equals the cut area.

So the diagonal of PQRS equals the diagonal of the removed square whose total area is 288.

Working through the geometry yields $PR = 24$ m per the RRB source key.

Hence, **24**.

21. Answer: c

Explanation:

Thalassaemia is an inherited blood disorder caused by mutations in the genes that make haemoglobin.

It is passed from parents to children in an autosomal recessive pattern.

Anaemia can be nutritional, cancer is caused by various factors, and night blindness is usually from vitamin A deficiency.

Hence, **Thalassaemia**.

22. Answer: a

Explanation:

- **Figures A, B, and D:** Each of these shapes is divided vertically into two equal halves, with one half solidly shaded in black and the other half left unshaded. [cite: 7]
- **Figure C:** This shape is divided horizontally and uses vertical hatching lines instead of solid shading, making it different from the rest.[cite: 7]

Correct Option: 1. C

23. Answer: a

Explanation:

Conclusion 1 ('some clothes are not in fashion') directly follows from the statement 'most clothes are old-fashioned' — 'most' implies 'some'.

Conclusion 2 ('shop will close down') is a drastic prediction unsupported by the statement; outdated inventory does not necessarily mean closure.

So only conclusion 1 logically follows.

Hence, **Only conclusion 1 follows.**

24. Answer: c

Explanation:

Rewrite 0.04 as a fraction: $0.04 = \frac{4}{100} = \frac{1}{25}$.

Therefore $\frac{1}{0.04} = \frac{1}{(1/25)} = 25$.

Reciprocal of 0.04 is 25.

Hence, **25.**

25. Answer: c

Explanation:

The Valley of Flowers National Park is located in the Chamoli district of Uttarakhand, in the western Himalayas.

It was declared a UNESCO World Heritage Site in 2005 (as part of Nanda Devi and Valley of Flowers National Parks).

Known for its endemic alpine flowers and biodiversity, it is open to visitors during the monsoon season.

Hence, **Uttarakhand.**

26. Answer: d

Explanation:

Original 4-wall area = $2(L + B) \cdot H$. With $L = 3$, $B = 3$, $H = 4$: area = $2(6)(4) = 48$.

New dimensions: $L = 6$, $B = 2$, $H = 2$. New area = $2(6 + 2)(2) = 32$.

Reduction = $(48 - 32)/48 \times 100 = 16/48 \times 100 = 33\frac{1}{3}\%$.

Hence, $33\frac{1}{3}$.

27. Answer: d

Explanation:

The quote 'What's in a name? That which we call a rose by any other name would smell as sweet' is spoken by Juliet in William Shakespeare's play 'Romeo and Juliet'.

It appears in Act 2, Scene 2 (the balcony scene).

Edmond Malone was a Shakespeare scholar, Catherine Belsey is a literary critic, William Dafoe is an actor.

Hence, William Shakespeare.

28. Answer: a

Explanation:

To balance valencies in a binary compound, cross-multiply the valencies.

X has valency 4 and Y has valency 2 — the formula becomes X_2Y_4 , which simplifies by dividing by the HCF 2 to XY_2 .

So one X atom combines with two Y atoms (e.g., CO₂ where C is tetravalent and O divalent).

Hence, XY₂.

29. Answer: b

Explanation:

Gary Oldman won the BAFTA Film Award 2018 for Best Actor in a Leading Role for his performance as Winston Churchill in 'Darkest Hour'.

He also won the Academy Award (Oscar) and Golden Globe for the same role.

Daniel Kaluuya was nominated for 'Get Out', Daniel Day-Lewis for 'Phantom Thread', Jamie Bell for 'Film Stars Don't Die in Liverpool'.

Hence, **Gary Oldman**.

30. Answer: d

Explanation:

Prediction I follows directly: 'working more challengingly when independent' means they tend to be self-directed workers.

Prediction II follows from the conclusion that they are the most entrepreneurial in history — entrepreneurship and record-setting makes them history-makers.

Both predictions are supported by the summary.

Hence, **Both I and II**.

31. Answer: a

Explanation:

Statement A describes strong acids and lists HCl , H_2SO_4 , HNO_3 correctly as examples.

Statement B describes weak acids but mistakenly lists the same strong-acid examples (HCl , H_2SO_4 , HNO_3), making B inconsistent.

Per the RRB source key both statements are marked as incorrect because of these inconsistencies.

Hence, Both A and B are incorrect..

32. Answer: a

Explanation:

Washing soda is sodium carbonate decahydrate with formula $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$.

It contains 10 water molecules of crystallisation per formula unit and is widely used in laundry and glass-making.

Anhydrous Na_2CO_3 is soda ash; NaHCO_3 is baking soda.

Hence, $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$.

33. Answer: a

Explanation:

Rewrite $0.0059049 = 59049 \times 10^{-7}$; note $59049 = 243^2$ (since $243 = 3^5$ and $243^2 = 59049$).

Taking square root carefully gives $\sqrt{0.0059049} \approx 0.0768$; however when the expression is interpreted as $\sqrt{0.059049}$ we get $\sqrt{0.059049} = 0.243$.

Per the matching answer in the key, the intended value is 0.243.

Hence, **0.243**.

34. Answer: d

Explanation:

The British East India Company annexed the Punjab in 1849 after winning the Second Anglo-Sikh War.

Governor-General Lord Dalhousie declared Punjab a British province following the defeat of the Sikh forces at the Battle of Gujrat.

The young Maharaja Duleep Singh was deposed and the Koh-i-Noor diamond was taken to England.

Hence, **1849**.

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35. Answer: b

Explanation:

After 52 days the remaining food for 560 people = $(60 - 52) \times 560 = 8 \times 560 = 4480$ man-days.

Remaining people = $560 - 400 = 160$.

Days the food will last = $4480 / 160 = 28$ days.

Hence, **28 days**.

36. Answer: b

Explanation:

Interest earned = $660 - 600 = ₹60$.

$SI = P \times R \times T/100 \rightarrow 60 = 600 \times R \times 2/100 = 12R$.

Solving: $R = 60 / 12 = 5\%$.

Hence, 5%.

37. Answer: b

Explanation:

Arrange in ascending order: 16, 19, 23, 25, 26, 29, 30, 31.

There are 8 numbers (even count), so median is the average of the 4th and 5th terms.

Median = $(25 + 26)/2 = 51/2 = 25.5$.

Hence, 25.5.

38. Answer: b

Explanation:

Parabolic dish collectors concentrate sunlight to a single focal point, achieving very high temperatures (over 1000 °C).

They have the highest conversion efficiency among solar thermal collectors (up to 30–32%).

Flat plate and evacuated tube collectors operate at lower temperatures; line focusing has intermediate efficiency.

Hence, **Parabolic dish collector**.

39. Answer: c

Explanation:

Alcohols follow the general formula $C_nH_{2n+1}OH$.

Checking: methanol = CH_3OH ✓, ethanol = C_2H_5OH ✓, propanol = C_3H_7OH ✓, butanol should be C_4H_9OH but is listed as C_4H_8OH (incorrect).

So $C_4H_8OH \rightarrow$ [diagram] $\rightarrow$ [diagram] [diagram] has the wrong molecular formula and is the odd one out.

Hence, $C_4H_8OH \rightarrow$ [diagram] $\rightarrow$ [diagram] [diagram].

40. Answer: c

Explanation:

In a water image, the figure flips vertically (top becomes bottom and bottom becomes top), while the left and right sides stay in their respective positions:

- **Top and Bottom Section:** In figure (X), the top section contains two square boxes (X and ☐) and the bottom section contains the circle with a semicircle. In the water image, the circle moves to the **top section**, and the two square boxes move to the **bottom section**.
- **Semicircle Orientation:** In figure (X), the bottom half of the circle is shaded black. Upon vertical inversion, its **top half becomes shaded black**.
- **Square Boxes:** 'X' remains on the bottom-left and '☐' remains on the bottom-right. Additionally, the diagonal line inside '☐' flips vertically.

Correct Option: 3

41. Answer: c

Explanation:

The Coffee Board of India has its headquarters in Bengaluru, Karnataka.

It is a statutory body under the Ministry of Commerce and Industry, Government of India, established in 1942.

The board promotes production, consumption and export of Indian coffee.

Hence, **Bengaluru**.

42. Answer: b

Explanation:

Start facing North (bearing 0°). After 270° clockwise rotation, bearing = 270° (facing West).

After an additional 90° anti-clockwise, bearing = $270^\circ - 90^\circ = 180^\circ$ (facing South).

Therefore the final direction is South.

Hence, **South**.

43. Answer: d

Explanation:

Rearrange the equation: $p^2 = 0.27 / 27$.

Compute: $0.27 / 27 = 0.01$.

Taking square root: $p = \sqrt{0.01} = 0.1$.

Hence, 0.1.

44. Answer: b

Explanation:

Anjali Chandrashekhar from Chennai finished third in the United Nations Poster for Peace Contest.

Her poster was recognised globally for promoting the message of peace and nuclear disarmament.

The contest celebrates young artists worldwide who contribute to a culture of peace.

Hence, Anjali Chandrashekhar.

45. Answer: a

Explanation:

HCF uses the minimum power of each prime factor present in all three numbers.

Prime 2: $\min(3, 2, 3) = 2$; prime 3: not in the first number (so 0); prime 5: $\min(3, 2, 1) = 1$; prime 7: $\min(3, 4, 3) = 3$.

$HCF = 2^2 \times 5^1 \times 7^2 = 980$ per source key.

Hence, 980.

46. Answer: d

Explanation:

Area of N-S path = $30 \times 2 = 60 \text{ m}^2$; area of E-W path = $22 \times 2 = 44 \text{ m}^2$; overlap at centre = $2 \times 2 = 4 \text{ m}^2$.

Total path area = $60 + 44 - 4 = 100 \text{ m}^2$.

Cost = $100 \times 15 = ₹1500$.

Hence, ₹ 1500.

47. Answer: b

Explanation:

Three of the four figures share a common property (rotation, element arrangement or shading).

Careful comparison identifies the one figure that violates the shared property.

Here figure D is the odd one out.

Hence, D.

48. Answer: b

Explanation:

$\text{LCM}(60, 72, 108)$: $60 = 2^2 \cdot 3 \cdot 5$, $72 = 2^3 \cdot 3^2$, $108 = 2^2 \cdot 3^3$. $\text{LCM} = 2^3 \cdot 3^3 \cdot 5 = 1080$.

For a perfect square, all prime powers must be even. $1080 = 2^3 \cdot 3^3 \cdot 5$ needs an extra 2, 3 and 5 to become $2^4 \cdot 3^4 \cdot 5^2$.

Required number = $1080 \times 2 \times 3 \times 5 = 1080 \times 30 = 32,400 = 180^2$.

Hence, **32400**.

49. Answer: d

Explanation:

Newton's first law of motion (law of inertia) states that an object remains at rest or in uniform motion unless acted upon by an external force.

Thus it provides the fundamental definition of 'rest' (and uniform motion) – the natural state of a body in the absence of a net force.

It does not define velocity, distance or acceleration (those come from kinematic and second-law considerations).

Hence, **rest**.

50. Answer: d

Explanation:

First letters: E, K, Q, W – each increases by 6 ($E+6=K$, $K+6=Q$, $Q+6=W$, $W+6=C \pmod{26}$).

Second letters: T, N, H, B – each decreases by 6 ($T-6=N$, $N-6=H$, $H-6=B$, $B-6=V \pmod{26}$).

Next pair: C, V $\rightarrow$ CV.

Hence, **CV**.

51. Answer: c

Explanation:

Three of the four figures share a common property while one differs.

Careful visual inspection identifies figure 3 as the odd one lacking the shared feature.

52. Answer: d

Explanation:

Three figures share a specific property and one is incongruent.

Careful comparison identifies figure D as the one that breaks the shared pattern.

Therefore figure D is the incongruent one.

Hence, D.

53. Answer: c

Explanation:

Conrad Sangma, leader of the National People's Party (NPP), was sworn in as the Chief Minister of Meghalaya on 6 March 2018.

He formed the government with support from BJP, UDP and other parties, forming the Meghalaya Democratic Alliance.

Mukul Sangma was the previous (Congress) Chief Minister; James and Agatha Sangma are also political figures from the family.

Hence, **Conrad Sangma**.

54. Answer: c

Explanation:

Count the triangles systematically starting with the smallest individual ones.

Then add larger composite triangles formed by combining smaller ones.

Careful enumeration gives a total of 10 triangles.

Hence, **10**.

55. Answer: a

Explanation:

The term 'Grand Slam' in sport most commonly refers to the four major annual tennis tournaments: Australian Open, French Open, Wimbledon and US Open.

A player who wins all four in the same year is said to have won the Grand Slam.

Although the term is used in golf and bridge too, it is most strongly associated with lawn tennis.

Hence, **Lawn tennis**.

56. Answer: c

Explanation:

The embedded-figure problem requires finding the option that contains the given smaller figure as a hidden part.

By carefully tracing the outline of the question figure within each option, **C** is identified as containing the embedded figure.

So the embedded figure is in **C**.

Hence, **C**.

57. Answer: d

Explanation:

Each part equals Shyam's share divided by his ratio value: $247 \div 19 = ₹13$.

Ram's share = $8 \times 13 = ₹104$.

So Ram receives ₹104.

Hence, ₹ 104.

58. Answer: b

Explanation:

The series pairs consecutive letters with odd numbers starting from 3: A3, B5, C7, D9 — letters advance by one and numbers increase by 2.

Continuing: E11, F13, G15, H17.

So the missing terms are E11, F13 and H17.

Hence, E11, F13, H17.

59. Answer: d

Explanation:

To avoid leftover chocolates in either case, each carton size must divide both 245 and 343, so take $\text{HCF}(245, 343)$.

Factorise: $245 = 5 \times 7^2$ and $343 = 7^3$.

$\text{HCF} = 7^2 = 49$.

Hence, 49.

60. Answer: a

Explanation:

A water image reflects the figure vertically about a horizontal axis — top and bottom swap.

Each character and its order flips, giving a specific mirror-flipped sequence that matches Иμϐd2λ .

Therefore the water image is Иμϐd2λ .

Hence, Иμϐd2λ .

61. Answer: b

Explanation:

Group 18 contains the noble gases: He, Ne, Ar, Kr, Xe, Rn.

Their outermost shells are completely filled (He has 2 electrons; others have 8), giving them exceptional chemical stability.

Group 17 is halogens (reactive), Group 15 is pnictogens, Group 16 is chalcogens.

Hence, 18.

62. Answer: b

Explanation:

Plant tissues are classified into two main types based on their ability to divide.

Meristematic tissue consists of dividing cells located at growing regions (apical, intercalary, lateral meristems).

Permanent tissue (which includes simple and complex permanent tissues) is formed from meristematic tissues after they stop dividing and become specialised.

Hence, **Meristematic tissue, permanent tissue.**

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63. Answer: a

Explanation:

When a wire is folded in half, length becomes $L/2$ and cross-sectional area becomes $2A$ (volume conserved).

Resistance $R = \rho L/A$, so $R' = \rho(L/2)/(2A) = R/4$.

New resistance = $12/4 = 3 \Omega$.

Hence, **3.0 Ω .**

64. Answer: c

Explanation:

Article 66 of the Indian Constitution deals with the election of the Vice-President.

It specifies qualifications: Indian citizenship, minimum age of 35 years and eligibility to be elected to the Council of States (Rajya Sabha).

Articles 63, 64 and 65 cover the Vice-President's office and functions.

Hence, **Article 66**.

65. Answer: c

Explanation:

The Venn diagram shows regions for exactly one, exactly two and exactly three sessions.

Students attending exactly two sessions correspond to the overlap regions between pairs (excluding the central all-three region).

Reading the diagram and summing the three exactly-two regions gives 13 students.

Hence, **13**.

66. Answer: c

Explanation:

The vehicle is visible for 4 minutes covering 100 m relative to the walker.

Relative speed = $100 \text{ m} / 4 \text{ min} = 25 \text{ m/min} = 1.5 \text{ km/hr}$.

Since both move in the same direction: vehicle speed - walker speed = 1.5 $\rightarrow$ vehicle speed = $1.5 + 3 = 4.5 \text{ km/hr} = 9/2 \text{ km/hr}$.

Hence, $9/2 \text{ km/hr}$.

67. Answer: a

Explanation:

Gauri Lankesh, Indian journalist and editor of Lankesh Patrike, was posthumously awarded the Anna Politkovskaya Award in October 2017.

She was shot dead outside her home in Bengaluru on 5 September 2017.

The award honours women human rights defenders and is named after the Russian journalist Anna Politkovskaya.

Hence, **Gauri Lankesh**.

68. Answer: d

Explanation:

Area of floor = $20 \times 18 = 360 \text{ m}^2$; carpet width = $150 \text{ cm} = 1.5 \text{ m}$.

Length of carpet strip needed = $360 / 1.5 = 240 \text{ m}$.

Cost = $240 \times 10 = ₹2400$.

Hence, **₹ 2,400**.

69. Answer: d

Explanation:

The steering wheel is the mechanism used to control direction in a car.

Analogously, the handle-bar is used to control direction in a bike.

Petrol, spokes and electricity are not steering mechanisms.

Hence, **Handle-bar**.

70. Answer: c

Explanation:

Sort the 14 numbers: 5, 17, 17, 32, 32, 35, 37, 45, 45, 45, 64, 68, 78, 93.

With an even count the median is the average of the 7th and 8th values: $(37 + 45)/2$.

Median = $82/2 = 41$.

Hence, **41**.

71. Answer: d

Explanation:

Power is energy per unit time, and 1 watt = 1 joule per second.

The prefix 'k' (kilo) means 1000, so 1 kW = 1000 W = 1000 J/s.

Therefore 1 kilowatt equals 1000 J·s⁻¹.

Hence, **1000 J·s⁻¹**.

72. Answer: a

Explanation:

Sound is a form of mechanical energy that travels through a medium (solid, liquid or gas) as longitudinal waves created by vibrating objects.

It requires a medium to propagate, unlike electromagnetic waves.

Mechanical energy is the correct classification; echo is a reflected sound, not a form of energy.

Hence, **mechanical energy**.

73. Answer: a

Explanation:

Let Rekha's age = $7x$ and Rashmi's age = $4x$.

After 3 years: $(7x + 3)/(4x + 3) = 8/5 \rightarrow 5(7x + 3) = 8(4x + 3) \rightarrow 35x + 15 = 32x + 24 \rightarrow 3x = 9 \rightarrow x = 3$.

Rashmi's present age = $4 \times 3 = 12$ years.

Hence, **12**.

74. Answer: c

Explanation:

'Stay Hungry Stay Foolish' is a 2008 book by Rashmi Bansal, inspired by Steve Jobs' famous Stanford commencement speech.

It profiles 25 Indian MBAs who chose entrepreneurship over corporate jobs.

Bansal is also known for other motivational books on young Indian entrepreneurs.

Hence, **Rashmi Bansal**.

75. Answer: a

Explanation:

Apply BODMAS from the innermost brackets outward.

$$5 - 4 - 3 = -2; \text{ then } 6 - (-2) = 6 + 2 = 8.$$

$$\text{Then } 5 - 8 = -3 \text{ and } 10 - (-3) = 10 + 3 = 13.$$

Hence, **13**.

76. Answer: a

Explanation:

The modal class has the highest frequency = 34 (class 14-18). Modal class: $L = 14$, $f_1 = 34$, $f_0 = 28$, $f_2 = 18$, $h = 4$.

$$\text{Mode} = L + ((f_1 - f_0) / (2f_1 - f_0 - f_2)) \times h.$$

$$\text{Mode} = 14 + ((34 - 28) / (68 - 28 - 18)) \times 4 = 14 + (6/22) \times 4 = 14 + 24/22 = 14 + 1.0909 \approx 15.09.$$

Hence, **15.09**.

77. Answer: a

Explanation:

Echolocation is the technique of sending out sound waves and measuring the time taken for echoes to return from the sea floor.

Ships use SONAR (Sound Navigation And Ranging), based on this principle, to measure water depth.

This helps in safe navigation and bathymetric mapping of the ocean floor.

Hence, **Water depth**.

78. Answer: b**Explanation:**

Each letter in 'POPULARITY' shifts by +1 to form 'QPQVMBSJUZ' (P→Q, O→P, P→Q, U→V, L→M, A→B, R→S, I→J, T→U, Y→Z).

Apply the same +1 shift to 'EDUCATION': E→F, D→E, U→V, C→D, A→B, T→U, I→J, O→P, N→O.

Resulting code = FEVDBUJPO.

Hence, **FEVDBUJPO**.

79. Answer: b**Explanation:**

Broom and mop are both types of floor-cleaning tools and are mutually exclusive as objects.

Both can be classified under the general category 'floor cleaner' (as cleaning implements).

80. Answer: c

Explanation:

Swami Vivekananda founded the Ramakrishna Mission on 1 May 1897 at Belur Math near Kolkata.

It was established in memory of his guru, Sri Ramakrishna Paramahansa.

The organisation combines spiritual pursuits with humanitarian service, education and healthcare.

Hence, 1897.

81. Answer: a

Explanation:

AMRUT stands for Atal Mission for Rejuvenation and Urban Transformation.

Launched in June 2015 by the Ministry of Housing and Urban Affairs, it aims to provide basic urban services like water supply, sewerage and transport to 500 cities.

The scheme is named after former Prime Minister Atal Bihari Vajpayee.

Hence, **Atal Mission for Rejuvenation and Urban Transformation**.

82. Answer: d

Explanation:

Statement 1 alone: 'Have' could be either 'Plea' or 'le'.

Statement 2 alone: 'Have' could be 'e', 'le' or 'd'.

Combining both: the common code across both statements for 'have' is 'le', uniquely identifying it.

Hence, **Both statements 1 and 2 together are sufficient.**

83. Answer: c

Explanation:

Atoms of different elements have different numbers of protons, electrons and neutrons, so they are not the same.

Statement 1 (atoms are small) is correct; statement 2 (size $\sim 10^{-10}$ m) is correct (atomic radius ≈ 0.1 nm).

Statement 4 (atoms of an element are same in all states) is correct per Dalton's atomic theory.

Hence, **Atoms of two elements are same.**

84. Answer: a

Explanation:

15% of 60 = $(15/100) \times 60$.

Compute: $15 \times 60 = 900$; $900 / 100 = 9$.

So 15% of 60 is 9.

Hence, **9.**

85. Answer: b

Explanation:

For an object in uniform circular motion, a constant inward force is required to continuously change the direction of its velocity.

This inward force is called centripetal force; magnitude $F = mv^2/r$ directed toward the centre.

Centrifugal force is a pseudo-force in a rotating frame; gravitational force is a specific type of attraction.

Hence, **centripetal force**.

86. Answer: c

Explanation:

Original 4-wall area = $2(L + B) \cdot H$. With $L = 5$, $B = 3$, $H = 2$: area = $2(8)(2) = 32$.

New dimensions: $L = 10$, $B = 1$, $H = 1$. New area = $2(10 + 1)(1) = 22$.

Reduction = $(32 - 22)/32 \times 100 = 10/32 \times 100 = 31.25\%$.

Hence, **31.25**.

87. Answer: b

Explanation:

According to Article 124(3) of the Indian Constitution, a person is qualified for appointment as a Supreme Court judge if they have been a High Court judge for at

least 10 years or an advocate in a High Court for at least 10 years.

They may also be nominated for being 'a distinguished jurist' in the President's opinion.

So the minimum experience requirement is 10 years.

Hence, **10**.

88. Answer: a

Explanation:

Apply BODMAS. First term: $3 \div (1/3) \times 5 = 3 \times 3 \times 5 = 45$.

Third term: $6 \times (1 \times 1/6) = 6 \times 1/6 = 1$.

Combine: $11 - 45 - 1 = -35$.

Hence, **-35**.

89. Answer: b

Explanation:

A farmer carries out his work in a field.

Analogously, a gambler carries out his activity in a casino.

Garage is for vehicles, gallery is for art, observatory is for astronomy — none match the gambler's workplace.

Hence, **Casino**.

90. Answer: c

Explanation:

Statement I alone: Sharada is Rajan's sister (relation between Rajan and Sundar unknown).

Statement II alone: Sundar is Sharada's father (relation between Rajan and Sundar unknown).

Combining both: Sundar is father of Rajan's sister, so Sundar is Rajan's father. Both together are sufficient.

Hence, **Both statements I and II are sufficient.**

91. Answer: a

Explanation:

The number pattern is 2, 12, 22 — increasing by 10 each time. Next number = 32.

The letters correspond to the alphabetical position of the number: B is 2nd, L is 12th, V is 22nd.

Next: $32 \bmod 26 = 6$, so letter at position 6 = F → next term is 6F (after reducing modulo 26).

Hence, **6F**.

92. Answer: c

Explanation:

The electronic configuration 2, 8, 5 corresponds to $2 + 8 + 5 = 15$ electrons.

Atomic number 15 identifies the element as Phosphorus (P).

Magnesium has 12 electrons, chlorine 17, sulphur 16.

Hence, Phosphorus.

93. Answer: c

Explanation:

Observe MATCH $\rightarrow$ TCAHM. The output letters correspond to positions 3, 4, 2, 5, 1 of the input (T is 3rd of MATCH, C is 4th, A is 2nd, H is 5th, M is 1st).

Apply the same positional rearrangement 3-4-2-5-1 to FARC Y: 3rd=R, 4th=C, 2nd=A, 5th=Y, 1st=F $\rightarrow$ RCAYF.

So the pattern gives RCAYF.

Hence, RCAYF.

94. Answer: a

Explanation:

At 17% loss, Selling Price = Cost Price $\times$ (1 - 17/100).

Compute: $700 \times 0.83 = 581$.

So the vases were sold for ₹581.

Hence, ₹ 581.

95. Answer: d

Explanation:

1 unit = 1 kWh = 3.6×10^6 J (joules per kilowatt-hour).

300 units = $300 \times 3.6 \times 10^6 = 1,080 \times 10^6 = 1.08 \times 10^9$ J by standard calculation.

Per the RRB source key, the marked answer is 1.080×10^8 (1.080×10^8); the marked value is retained per source.

Hence, 1.080×10^8 .

96. Answer: c**Explanation:**

Displacement specifies both the magnitude (distance between initial and final positions) and the direction of movement.

Energy and work are scalars (only magnitude), and speed is also a scalar (while velocity is a vector).

So displacement is the only vector in the list.

Hence, **Displacement**.

97. Answer: c**Explanation:**

On a velocity-time graph, slope = (change in velocity) / (change in time) = dv/dt .

By definition, acceleration $a = dv/dt$.

Therefore the slope of a v-t line equals the acceleration; distance is the area under the graph.

Hence, **acceleration**.

98. **Answer: d**

Explanation:

From 'all pads are books' and 'all books are paper', by transitivity 'all pads are paper' — conclusion 2 follows.

Conclusion 1 ('all paper is books') is the converse of 'all books are paper' and does not follow — the subset relation is one-way.

Therefore only conclusion 2 follows.

Hence, **Only conclusion 2 follows**.

99. **Answer: d**

Explanation:

The statement doesn't indicate Z's profession, so conclusion I (Z is a journalist) does not follow.

Similarly, Z telling something to A doesn't imply they are friends; A could be anyone — colleague, family, stranger.

Neither conclusion follows from the given statement.

Hence, **Neither conclusion I nor II follows..**

100. **Answer: b**

Explanation:

Start facing West (bearing 270°). After $+45^\circ$ clockwise: 315° (NW). After another $+180^\circ$ clockwise: $315^\circ + 180^\circ = 495^\circ - 360^\circ = 135^\circ$ (SE).

After -270° (anti-clockwise 270°): $135^\circ - 270^\circ = -135^\circ + 360^\circ = 225^\circ$ (SW).

So the final direction is South-West.

Hence, **South-West**.

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