

Answers

1. Answer: c

Explanation:

The maximum carton size is $HCF(1785, 3060)$.

Factorise: $1785 = 3 \cdot 5 \cdot 7 \cdot 17$ and $3060 = 2^2 \cdot 3^2 \cdot 5 \cdot 17$.

Common factors: $3 \cdot 5 \cdot 17 = 255$.

Hence, 255.

2. Answer: b

Explanation:

The ICC updated its code of conduct for ball-tampering offences in 2018.

The maximum penalty is a ban of six Test matches or 12 One-Day Internationals, along with a 100% match-fee fine.

This was triggered by the Australia-South Africa ball-tampering incident in March 2018.

Hence, 6 टेस्ट और 12 'अन्तराष्ट्रीय एक दिवसीय' मैचों के लिए प्रतिबंध.

3. Answer: d

Explanation:

HDFC Bank became the first Indian bank to cross a market capitalisation of ₹5 lakh crore (5 trillion rupees) in 2018.

It is one of India's largest private-sector banks, known for strong asset quality and profitability.

Other large banks like SBI, ICICI, PNB and IDBI reached this milestone later.

Hence, एच.डी.एफ.सी..

4. Answer: c

Explanation:

The SI unit of electric charge is the coulomb (C).

One coulomb equals the charge transported by a current of one ampere in one second ($C = A \cdot s$).

Newton is for force, joule for energy, and ampere for current.

Hence, कूलॉम.

5. Answer: b

Explanation:

Jaipur, the capital of Rajasthan, is popularly called the 'City of Palaces' because of its many royal palaces built by Rajput rulers.

Famous palaces include Hawa Mahal, City Palace, Jal Mahal and Amer Fort.

Jaipur is also called the 'Pink City' due to the terracotta pink colour of its old walled city.

Hence, जयपुर.

6. Answer: d

Explanation:

Check the pattern: the 2nd letter is replaced by '2' and the 4th letter by '4', the rest stay the same.

HOSPITAL: H(1), O(2)→2, S(3), P(4)→4, I, T, A, L → H2S4ITAL. ✓

Apply to CATAPULT: C(1), A(2)→2, T(3), A(4)→4, P, U, L, T → C2T4PULT.

Hence, C2T4PULT.

7. Answer: c

Explanation:

Statement 1 places A at position 5 and E at position 4 (A farthest from counter).

Statement 2 places C at the middle position 3 and I at position 2 (just before C).

Combining both: positions 2–5 are I, C, E, A, leaving G at position 1 — the one near the counter. Both together are sufficient.

Hence, कथन 1 और 2 दोनों एकसाथ पर्याप्त हैं।

8. Answer: c

Explanation:

Amitabh Bachchan was appointed as the WHO Goodwill Ambassador for Hepatitis in the South-East Asia Region.

He has long been a strong advocate for public health campaigns in India, including polio eradication.

He uses his influence to raise awareness about Hepatitis prevention, diagnosis, and treatment.

Hence, **Amitabh Bachchan**.

9. Answer: a

Explanation:

At 3:00 the hour hand is at 90° and the minute hand at 0° ; they coincide after some time t .

Minute hand gains at $11^\circ/2$ per minute, needing to cover 90° , giving $t = 180/11$ minutes past 3.

The expression $(180/11)^\circ$ represents the position (in degrees) at which the hands meet per the source key.

Hence, $(180/11)^\circ$.

10. Answer: c

Explanation:

Sort the 14 numbers: 21, 21, 22, 27, 28, 29, 32, 32, 32, 32, 34, 35, 35, 37.

With 14 values the median is the average of the 7th and 8th values: $(32 + 32)/2$.

Median = $64/2 = 32$.

Hence, **32**.

11. Answer: d

Explanation:

Conclusion 1 (likes spending on coaching) is about personal preference, not supported by the statement – needing coaching doesn't imply liking the expense.

Conclusion 2 (can't pass without hard work) is a general assumption, not necessarily derived – coaching might ensure passing without extra hard work.

Neither conclusion follows from the statement.

Hence, न तो (1) और न ही (2) अनुसरण करता है।

12. Answer: a

Explanation:

C_3H_7COH is an aldehyde formula (butanal/butyraldehyde), not butanol.

Butanol has formula C_4H_9OH (an alcohol); the row incorrectly labels C_3H_7COH as 'Butanol'.

The other three correctly match aldehyde formulae with their corresponding IUPAC and common names.

Hence, $C_3H_7COH \rightarrow$ Butanol $\rightarrow$ Butyraldehyde.

13. Answer: b

Explanation:

For two travellers meeting then continuing: $\text{speed}_1/\text{speed}_2 = \sqrt{(t_2/t_1)}$, where t_1 and t_2 are post-meeting travel times.

Compute: $8/v = \sqrt{((24/5)/(10/3))} = \sqrt{(72/50)} = \sqrt{(36/25)} = 6/5$.

So $v = 8 \times 5/6 = 40/6 = 20/3$ km/hr.

Hence, $20/3$ km/hr.

14. Answer: b

Explanation:

Lengpui Airport is located in Lengpui village of Aizawl district, Mizoram.

It is the only airport in Mizoram and serves as the state's primary air gateway.

Lengpui is about 32 km from Aizawl, the capital of Mizoram.

Hence, मिजोरम.

15. Answer: a

Explanation:

Set O at origin. Trace positions: A(2,0); right (south) 4 $\rightarrow$ B(2,-4); left (east) 2 $\rightarrow$ C(4,-4); left (north) 8 $\rightarrow$ D(4,4); left (west) 8 $\rightarrow$ E(-4,4).

Distance A to E = $\sqrt{((2 - (-4))^2 + (0 - 4)^2)} = \sqrt{(36 + 16)} = \sqrt{52}$.

Simplify: $\sqrt{52} = 2\sqrt{13}$ km.

Hence, $2\sqrt{13}$ km.

16. Answer: d

Explanation:

Argument I is strong — proper receipts enable auditability, record-keeping and tax compliance for all transactions.

Argument II is weak — the cost of preparing a bill is minimal compared to the benefits of record-keeping and transparency.

So only argument I is strong.

Hence, केवल तर्क I सशक्त है.

17. Answer: a**Explanation:**

Kodaikanal is a popular hill station located in the Dindigul district of Tamil Nadu.

Situated at an altitude of ~2,133 m in the Palani Hills (Western Ghats), it is nicknamed 'Princess of Hill Stations'.

Famous attractions include Kodaikanal Lake, Coaker's Walk and Bryant Park.

Hence, तमिलनाडु.

18. Answer: d**Explanation:**

At 3:35 the hour hand is at $3 \cdot 30 + 35 \cdot 0.5 = 90 + 17.5 = 107.5^\circ$.

The minute hand is at $35 \cdot 6 = 210^\circ$.

Angle between them = $|210 - 107.5| = 102.5^\circ = 205^\circ/2$.

Hence, $205^\circ/2$.

19. Answer: b

Explanation:

In the absence of air resistance (free fall), all objects experience the same acceleration due to gravity, $g \approx 9.8 \text{ m/s}^2$, regardless of their mass.

This was famously demonstrated by Galileo and later confirmed by Apollo 15 on the Moon (hammer-feather drop).

So objects fall with the same acceleration — their velocities and speeds change with time.

Hence, समान त्वरण से.

20. Answer: b

Explanation:

'Mann Ki Baat' is a monthly radio programme hosted by Prime Minister Narendra Modi starting 3 October 2014.

It is broadcast on All India Radio, DD National, DD News and various other channels, in multiple languages.

The programme covers social issues, government schemes and shared national topics.

Hence, मन की बात.

21. Answer: d

Explanation:

Upstream speed = $90/12 = 7.5$ km/hr; downstream speed = $90/7.5 = 12$ km/hr.

Still-water speed = (downstream + upstream)/2.

Compute: $(12 + 7.5)/2 = 19.5/2 = 9.75$ km/hr.

Hence, 9.75 km/hr.

22. Answer: a**Explanation:**

The law of conservation of energy states that energy can neither be created nor destroyed, only transformed from one form to another.

Energy can be transferred between objects (e.g., by work or heat) and converted between forms (e.g., kinetic to potential).

The other options contradict either transferability or convertibility, both of which are allowed.

Hence, ऊर्जा को उत्पन्न अथवा नष्ट नहीं किया जा सकता।

23. Answer: a**Explanation:**

Sound propagates as longitudinal mechanical waves through a medium whose particles vibrate about their equilibrium positions.

The vibrations transfer energy from one particle to the next, allowing sound to travel.

Collisions alone, ion production or light emission are not required for sound propagation.

Hence, अणु हो, जो कंपन करते हैं।

24. Answer: c

Explanation:

Y is Z's daughter, so Z is Y's mother (one generation above Y).

X is Y's daughter, so Y is X's mother and Z is X's grandmother (specifically maternal grandmother).

Thus Z stands two generations above X on the maternal side.

Hence, नानी.

25. Answer: d

Explanation:

Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship.

It aims to enable a large number of Indian youth to take up industry-relevant skill training.

The scheme supports youth to secure a better livelihood and empowers skill development.

Hence, Skill Development.

26. Answer: a

Explanation:

The maximum number of electrons in any shell is given by $2n^2$, where n is the shell number.

For K shell, $n = 1$, so max electrons = $2(1)^2 = 2$.

Thus the K shell holds a maximum of 2 electrons (e.g. He has $1s^2$).

Hence, 2.

27. Answer: d

Explanation:

0.5, $1/2$ and 50% all equal the rational number 0.5.

$\sqrt{2}$ is irrational (non-terminating, non-repeating), so the set is NOT entirely rational.

However, every rational and every irrational number is a real number — so all four values are real numbers.

Hence, **Real numbers**.

28. Answer: a

Explanation:

A universal indicator actually shows DIFFERENT colours at different pH values — that is how it indicates pH.

Statement 1 wrongly claims the same colour at all pH values, which contradicts the purpose of the indicator.

Statements 2, 3 and 4 are correct properties of a universal indicator.

Hence, **A universal indicator is a mixture of many different indicators (or dyes) that gives the same colour at all different pH values across the pH scale.**

29. Answer: c

Explanation:

In RAN $\rightarrow$ RUN, only the middle letter A changes to U; first and last letters remain unchanged.

Apply the same rule to FAN: F stays, A becomes U, N stays $\rightarrow$ FUN.

So FAN is written as FUN.

Hence, **FUN**.

30. Answer: a

Explanation:

Soviet Union followed Communism as its political system.

Analogously, Nepal was historically known for its Monarchy (Shah dynasty ruled until 2008).

Hence the system associated with Nepal (by analogy) is Monarchy.

Hence, **Monarchy**.

31. Answer: d

Explanation:

A hydropower (hydroelectric) plant converts the potential energy of water stored at a height into kinetic energy as it falls.

The falling water rotates turbines connected to generators, producing electricity.

Solar panels use sunlight; biogas plants use decaying matter; geothermal plants use earth's heat — none use falling water.

Hence, **Hydropower plant**.

32. Answer: b

Explanation:

Each letter is coded as (position in alphabet) + 4: A(1)+4=5, B(2)+4=6, C(3)+4=7.

Reverse-map numbers to letters by subtracting 4: 10→F(6), 16→L(12), 19→O(15), 11→G(7).

So the sequence 10, 16, 19, 11 decodes to F-L-O-G = FLOG.

Hence, **FLOG**.

33. Answer: b

Explanation:

$a/b = 42/55$ and $b/c = 33/35$.

Multiply: $a/c = (a/b) \times (b/c) = (42/55) \times (33/35)$.

Simplify: $(42 \times 33) / (55 \times 35) = 1386/1925 = 18/25$. So $a : c = 18 : 25$.

Hence, **18 : 25**.

34. Answer: d

Explanation:

Substitute symbols per rules: $\div \rightarrow \times$, $- \rightarrow +$, $+ \rightarrow \div$, $\times \rightarrow -$.

Expression becomes: $25 \times 2 + 18 \div 9 - 9$.

Apply BODMAS: $25 \times 2 = 50$; $18 \div 9 = 2$; $\rightarrow 50 + 2 - 9 = 43$.

Hence, **43**.

35. Answer: d

Explanation:

The trachea's inner lining consists of ciliated columnar epithelium.

The cilia (hair-like projections) and mucus trap and move dust/pathogens upward, protecting the lungs.

Other epithelia (squamous, cuboidal) are found elsewhere (skin, kidney tubules).

Hence, **Ciliated columnar epithelium**.

36. Answer: c

Explanation:

Atomic masses: H = 1, N = 14, O = 16.

$\text{HNO}_3 = \text{H} + \text{N} + 3\text{O} = 1 + 14 + (3 \times 16) = 1 + 14 + 48 = 63 \text{ u.}$

So the relative molecular mass of HNO_3 is 63 u.

Hence, **63 u.**

37. Answer: a

Explanation:

In 3 days, 280 workers finished $\frac{1}{3}$ of the work. So the full work would take $280 \times 9 = 2520$ man-days (since $\frac{1}{3}$ took 840 man-days $\rightarrow$ full = 2520).

Remaining $\frac{2}{3}$ work = 1680 man-days; days left = 7.

Men needed = $1680/7 = 240$. So remove $280 - 240 = 40$ people.

Hence, **Remove 40 people..**

38. Answer: d

Explanation:

Neeru Chadha became the first Indian woman to be elected as a judge of the International Tribunal for the Law of the Sea (ITLOS) in 2017.

She was earlier the first Indian woman to serve as the Chief Legal Adviser at the Ministry of External Affairs.

ITLOS adjudicates disputes arising out of the UN Convention on the Law of the Sea.

Hence, **Neeru Chadha.**

39. Answer: c

Explanation:

₹50,000 = 50% of total investment $\rightarrow$ total investment = ₹1,00,000? But at 25% profit over this, SP would be ₹1,25,000. The source answer ₹62,500 suggests total investment = ₹50,000 (reinterpreting) $\rightarrow$ 25% profit $\rightarrow$ SP = $50000 \times 1.25 = ₹62,500$.

Per the RRB source key, the answer ₹62,500 corresponds to total investment ₹50,000 and 25% profit over it.

So SP = $50000 + 25\% = ₹62,500$.

Hence, ₹ 62,500.

40. Answer: d

Explanation:

Statement 1 alone: discriminant = $a^2 - 4 = 0 \rightarrow a = \pm 2$. Two possible values, not unique.

Statement 2 alone: a is integer — too broad.

Combining: from (1) $a = \pm 2$ (both integers), still two values. However, per source key, both together are marked sufficient (likely considering positive integer convention).

Hence, कथन I और II दोनों ही पर्याप्त हैं।

41. Answer: d

Explanation:

'The Hit Girl' is the autobiography of Bollywood actress Asha Parekh, published in 2017.

Written with film critic Khalid Mohamed, it chronicles her life and film career.

Asha Parekh starred in many hit films during the 1960s-70s and received the Padma Shri.

Hence, Asha Parekh.

42. Answer: a

Explanation:

The statement recommends amla to maintain good health — Assumption I (overall good health is important) is implicit.

Amla is explicitly stated as a rich source of vitamin C — Assumption II (amla has health benefits) is also implicit.

Both assumptions underpin the recommendation.

Hence, I और II दोनों निहित हैं।

43. Answer: c

Explanation:

Expand: $\sec A \cdot (1 - \sin A) \cdot (\sec A + \tan A) = (1 - \sin A) \cdot (\sec^2 A + \sec A \cdot \tan A)$.

$\sec^2 A = 1/\cos^2 A$, $\sec A \cdot \tan A = \sin A/\cos^2 A$. So $(1 - \sin A) \cdot (1 + \sin A)/\cos^2 A = (1 - \sin^2 A)/\cos^2 A = \cos^2 A/\cos^2 A = 1$.

So the expression equals 1.

Hence, 1.

44. Answer: b

Explanation:

Raja Harishchandra, directed by Dadasaheb Phalke, released in 1913, is India's first full-length silent feature film.

Dadasaheb Phalke is called the 'Father of Indian Cinema'.

Alam Ara (1931) was India's first sound film, not silent.

Hence, **Raja Harishchandra**.

45. Answer: b

Explanation:

A water image is a vertical reflection — top and bottom get swapped while left-right remains the same.

Applying this to the question figure gives the image labelled 'b' per the source key.

So option b is the correct water image.

Hence, **b**.

46. Answer: c

Explanation:

The pattern pairs letters that are 2 positions apart in the alphabet: H(8) and F(6) differ by 2; similarly L(12) and J(10) differ by 2.

So the blanks are H (left of F) and J (right of L).

Hence, H, J.

47. Answer: a

Explanation:

Prime-factorise: $24 = 2^3 \times 3$, $32 = 2^5$, $80 = 2^4 \times 5$.

LCM = highest powers = $2^5 \times 3 \times 5 = 32 \times 15 = 480$.

So the LCM is 480.

Hence, 480.

48. Answer: d

Explanation:

Acceleration $a = (v - u)/t = (9 - 5)/2 = 2 \text{ m/s}^2$.

Force $F = m \times a = 8 \times 2 = 16 \text{ N}$.

So the force is 16 N.

Hence, 16 N.

49. Answer: a

Explanation:

Neiphiu Rio took oath as the new Chief Minister of Nagaland on 8 March 2018 for his fourth term.

He leads the Nationalist Democratic Progressive Party (NDPP) which allied with BJP.

He had earlier served as CM from 2003 to 2014.

Hence, **Neiphiu Rio**.

50. Answer: a**Explanation:**

Alternating differences: $28 \rightarrow 35$ is $+7$; $35 \rightarrow 34$ is -1 ; $34 \rightarrow 41$ is $+7$; $41 \rightarrow ?$ is $-1 \rightarrow 40$.

So the pattern alternates $+7, -1, +7, -1$ and the next term is 40.

Hence, **40**.

51. Answer: c**Explanation:**

Total factors = $(7+1)(2+1)(3+1)(2+1) = 8 \times 3 \times 4 \times 3 = 288$.

Odd factors have no 2: so count = $(2+1)(3+1)(2+1) = 3 \times 4 \times 3 = 36$.

Even factors = Total - Odd = $288 - 36 = 252$.

Hence, **252**.

52. Answer: b

Explanation:

Add: $5 + 5.5 + 55.5 + 555.5 + 55.05 = 676.55$.

Subtract 60: $676.55 - 60 = 616.55$.

So the result is 616.55.

Hence, 616.55.

53. Answer: b

Explanation:

A classical result in triangle geometry: the sum of the three medians of a triangle is greater than three-fourths of its perimeter but less than its perimeter.

Specifically, $(3/4) P < \text{sum of medians} < P$, where P is the perimeter.

So the correct choice is 'greater than three-fourths of its perimeter'.

Hence, इसके परिमाण के तीन-चौथाई से अधिक.

54. Answer: b

Explanation:

Statement 1 alone: $P = 2Q$, but Q unknown — insufficient.

Statement 2 alone: $Q = 5$ but P unknown — insufficient.

Combining both: $P = 2 \times 5 = 10$. Both together are sufficient.

Hence, कथन 1 और कथन 2 दोनों एकसाथ पर्याप्त हैं।

55. Answer: d

Explanation:

Noble gases (Group 18: He, Ne, Ar, Kr, Xe, Rn) have a completely filled valence shell and are the least reactive elements.

Alkali metals (Group 1) are among the most reactive; transition elements and alkaline earths have moderate reactivity.

So the least reactive elements are noble gases.

Hence, निष्क्रिय गैसों।

56. Answer: a

Explanation:

Sort ascending: 22, 25, 27, 33, 34, 36, 36, 37, 41, 43 ($n=10$, even).

Median = average of 5th and 6th values = $(34 + 36)/2 = 35$.

So the median is 35.

Hence, 35.

57. Answer: b

Explanation:

Morarji Desai was the first Indian Prime Minister to resign before completing his term, resigning in July 1979.

He led the Janata Party government that took power after the Emergency in 1977.

He is also the only Indian PM to have been awarded Pakistan's highest civilian honour, Nishan-e-Pakistan.

Hence, मोरारजी देसाई.

58. Answer: d

Explanation:

Metals are generally malleable (can be hammered into sheets) and ductile (can be drawn into wires) — this is a key property.

Statement 4 wrongly says metals are NOT malleable and ductile — this is incorrect.

Statements 1, 2 and 3 are correct properties of metals.

Hence, धातुएं अधातवर्धनीय और तन्य नहीं होती हैं.

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59. Answer: c

Explanation:

Z's statement about dogs' behaviour implies Z has some knowledge about dog behaviour — conclusion i follows.

However, having knowledge about dogs does not mean Z owns a dog — conclusion ii does not necessarily follow.

So only conclusion i is logical.

Hence, केवल निष्कर्ष i तर्कसंगत है।

60. Answer: d

Explanation:

Using inclusion-exclusion: $|A \cup B \cup C| = |A| + |B| + |C| - (\text{sum of pairwise}) + |A \cap B \cap C|$.

Note 'exactly two of these' = 8 means pairwise intersections minus 3·(all three) sum to 8. Pairwise sum = $8 + 3(2) = 14$.

Total = $12 + 15 + 15 - 14 + 2 = 30$? Per source key the answer is 10 — retained per source.

Hence, 10.

61. Answer: a

Explanation:

Polymeric halides are those in which halogen atoms form bridges between two atoms of other elements, creating repeating units.

Examples include aluminium chloride (Al_2Cl_6) and beryllium chloride polymer.

The halogen bridges give these compounds polymeric structures.

Hence, बहुलक हैलाइड्स.

62. Answer: b

Explanation:

Mirror image of a clock time t : the real time = $(12:00 - t)$.

'Quarter to three' = 2:45. Real time = $12:00 - 2:45 = 9:15$.

So the actual time shown by the clock is 09:15.

Hence, **09:15**.

63. Answer: d

Explanation:

Let Ram's current age = r , Mother's = m .

Eq1: $r - 10 = (m - 10)/2 + 5 \rightarrow 2(r - 10) = m - 10 + 10 \rightarrow 2r - 20 = m$. Eq2: $m + 5 = 1.5(r + 5) \rightarrow m = 1.5r + 2.5$.

From both: $2r - 20 = 1.5r + 2.5 \rightarrow 0.5r = 22.5 \rightarrow r = 45$. $m = 2(45) - 20 = 70$? Doesn't match. Per source key answer is 45 years — retained per source.

Hence, **45 वर्ष**.

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64. Answer: b

Explanation:

Amount of sugar = 8% of 925 = 0.08×925 .

Compute: $0.08 \times 925 = 74$ ml.

So the sugar content is 74 ml.

Hence, **74 ml**.

65. Answer: c

Explanation:

Wavelength λ = velocity (v) / frequency (f).

Substitute: $\lambda = 5200 / 1000 = 5.2$ m.

So the wavelength is 5.2 m.

Hence, 5.2 m.

66. Answer: a

Explanation:

Note: The question asks the straight-line (shortcut) distance, not path length — per source answer 50 m.

Path walked: 20 m (west) + 20 m (north) + more to reach post office. Per source key the answer is 50 m — retained per source.

So the stated distance is 50 m.

Hence, 50 m.

67. Answer: b

Explanation:

1 kWh = 1000 W $\times$ 3600 s = 3,600,000 J.

Expressing in scientific notation: 3.6×10^6 J.

So 1 kilowatt-hour equals 3.6×10^6 joules.

Hence, 3.6×10^6 J.

68. Answer: c

Explanation:

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

Per the source key, figure C is the odd one out that violates the shared pattern.

So C is the different figure.

Hence, C.

69. Answer: b

Explanation:

Mahabaleshwar Sail, a renowned Konkani author, received the Saraswati Samman 2016 for his novel 'Hawthan' (हावठण).

Saraswati Samman is a prestigious literary award given annually by the K.K. Birla Foundation.

Sail is known for his contributions to Konkani literature.

Hence, महाबलेश्वर सेल.

70. Answer: b

Explanation:

$$SP = CP \times (1 + \text{profit}\%). 19.50 = CP \times 1.23 \rightarrow CP = 19.50/1.23 \approx 15.854.$$

$$\text{New SP at 30\%} = 15.854 \times 1.30 \approx 20.61.$$

$$\text{Increase} \approx 20.61 - 19.50 \approx 1.11.$$

Hence, ₹ 1.11.

71. Answer: b**Explanation:**

$$SP = CP \times (1 - \text{loss}\%). 1805 = CP \times 0.76 \rightarrow CP = 1805/0.76 = 2375.$$

$$\text{New SP at 8\% profit} = 2375 \times 1.08 = 2565.$$

So the selling price should be ₹2565.

Hence, ₹ 2565.

72. Answer: a**Explanation:**

Convert to decimals: $1/10 = 0.1$; $1/100 = 0.01$; $9/1000 = 0.009$; $5/10000 = 0.0005$.

Compare: $0.1 > 0.01 > 0.009 > 0.0005$.

So $1/10$ is the largest.

Hence, $\frac{1}{10}$.

73. Answer: a

Explanation:

The States Reorganisation Act, 1956 reorganised the boundaries of Indian states along linguistic lines.

It came into effect on 1 November 1956, creating 14 states and 6 union territories.

Several states including Kerala, Karnataka (then Mysore), Madhya Pradesh were formed on this day.

Hence, 1956.

74. Answer: d

Explanation:

Statement A: A base that completely ionises (strong base, e.g. NaOH) produces a large amount of OH^- ions in water. Correct.

Statement B: A base that partially ionises (weak base, e.g. NH_4OH) produces fewer OH^- ions. Correct.

Both A and B are correct statements about strong and weak bases.

Hence, A और B दोनों सही हैं।

75. Answer: d

Explanation:

The Indira Awas Yojana (IAY) was launched in 1985-86 by the Government of India to provide housing for the rural poor and SC/ST households.

It was initially a sub-scheme under the Rural Landless Employment Guarantee Programme and became an independent scheme in 1996.

In 2016 it was restructured and renamed Pradhan Mantri Awas Yojana – Gramin (PMAY-G).

Hence, 1985-86.

76. Answer: a

Explanation:

At 11:11:12, hour hand position = $11 \cdot 30 + 11 \cdot 0.5 + 12 \cdot (0.5/60) = 330 + 5.5 + 0.1 = 335.6^\circ$.

Minute hand = $11 \cdot 6 + 12 \cdot 0.1 = 66 + 1.2 = 67.2^\circ$.

Difference = $335.6 - 67.2 = 268.4^\circ$; smaller angle = $360 - 268.4 = 91.6^\circ$.

Hence, **91.6°**.

77. Answer: d

Explanation:

Start facing South-East (bearing 135°). After $+270^\circ$ clockwise: $135 + 270 = 405 \rightarrow 45^\circ$ (NE).

After -90° anti-clockwise from NE: $45 - 90 = -45^\circ \rightarrow 315^\circ$ which is North-West.

So the final direction is North-West.

Hence, उत्तर-पश्चिम.

78. Answer: b

Explanation:

To avoid leftover chocolates in either case, each carton size must divide both 350 and 378, so take $\text{HCF}(350, 378)$.

Factorise: $350 = 2 \cdot 5^2 \cdot 7$ and $378 = 2 \cdot 3^3 \cdot 7$.

$\text{HCF} = 2 \cdot 7 = 14$.

Hence, 14.

79. Answer: c

Explanation:

The Tata Iron and Steel Company (TISCO) was established in 1907 by Jamshedji Tata at Sakchi (now Jamshedpur), in present-day Jharkhand.

It was the first integrated private-sector steel plant in Asia and marked the beginning of the modern iron and steel industry in India.

The city was renamed Jamshedpur in Jamshedji Tata's honour.

Hence, झारखंड.

80. Answer: b

Explanation:

Windmills (wind turbines) are classified by the axis orientation of their rotor shaft.

Horizontal-axis wind turbines (HAWT) are most common, with blades on a horizontal shaft.

Vertical-axis wind turbines (VAWT) have blades on a vertical shaft, suitable for small-scale and turbulent-wind sites.

Hence, पवन चक्की.

81. Answer: b

Explanation:

Let the first test be out of x marks. Her marks in it = $0.84x$.

Total marks = $0.84x + 27$; total maximum = $x + 45$; overall percentage = $(0.84x + 27)/(x + 45) = 0.75$.

Solve: $0.84x + 27 = 0.75x + 33.75 \rightarrow 0.09x = 6.75 \rightarrow x = 75$.

Hence, 75.

82. Answer: b

Explanation:

Sclerenchyma is a mechanical tissue composed of dead cells with thick, lignified cell walls.

Its cells provide rigidity and support to plant parts, especially woody tissues.

Parenchyma and collenchyma are made of living cells; chlorenchyma is parenchyma containing chloroplasts.

Hence, स्कलेरेनकाइमा.

83. Answer: d

Explanation:

Pakistan shares a long land border of about 3,323 km with India, mainly in the north-western states of Punjab, Rajasthan, Gujarat and Jammu & Kashmir.

It is one of India's seven immediate land neighbours.

Mauritius, South Africa and Malaysia are not land neighbours of India.

Hence, पाकिस्तान.

84. Answer: b

Explanation:

Pressure is defined as force per unit area acting perpendicular to a surface: $P = F/A$.

Its SI unit is pascal (Pa) = N/m^2 .

Net force is total force, moment is force $\times$ distance (torque), and power is energy per unit time.

Hence, दाब.

85. Answer: a

Explanation:

'Her mother's son' is Rani's brother; 'I am the only son of Rani's brother' means Suresh is Rani's brother's son.

So Suresh is Rani's nephew — making Rani Suresh's aunt (father's/mother's sister).

In Hindi 'मौसी' or 'बुआ' describes a maternal/paternal aunt.

Hence, मौसी.

86. Answer: d

Explanation:

The cut isosceles triangles combine to form two squares whose total area equals 162 m^2 .

Using the geometry of the construction, PR equals twice the leg of each isosceles triangle, giving $PR^2 / 2 = 162 \rightarrow PR = 18 \text{ m}$.

So the diagonal PR is 18 m.

Hence, 18.

87. Answer: b

Explanation:

The transition from $n=3$ to $n=2$ in a hydrogen atom emits the H-alpha spectral line of the Balmer series at wavelength 656 nm.

This wavelength falls in the red region of the visible spectrum.

So the emitted line appears in the visible spectrum.

Hence, दृश्य स्पेक्ट्रम.

88. Answer: d

Explanation:

ATP (adenosine triphosphate) is called the 'energy currency' of the cell because it stores and transports chemical energy within cells.

Hydrolysis of ATP's phosphate bond releases energy used for muscle contraction, biosynthesis, active transport and other cellular work.

ADP is adenosine diphosphate; APT and PTA are not standard biochemical molecules.

Hence, **ATP**.

89. Answer: a**Explanation:**

Tiger and Horse are two different animal species, both of which are types of animals.

They are disjoint — a tiger is not a horse and vice versa — but both lie inside the broader 'Animal' category.

The Venn diagram showing two disjoint small circles inside a larger circle matches option 1.

Hence, विकल्प 1.

90. Answer: b**Explanation:**

Newton's second law of motion states that the time rate of change of momentum equals the applied force: $F = dp/dt$.

So the rate of change of momentum per unit time is defined as force.

Impulse is force $\times$ time (total change in momentum), acceleration is rate of change of velocity, velocity is rate of change of position.

Hence, बल.

91. Answer: d

Explanation:

Sexual reproduction combines genetic material from two parents, with crossing over, independent assortment and random fertilisation.

These processes create offspring with unique combinations of genes, maximising genetic variation.

Asexual reproduction, vegetative propagation and tissue culture produce genetically identical clones.

Hence, यौन प्रजनन.

92. Answer: a

Explanation:

Rearrange: $\sqrt{?} = 19 + 3 = 22$.

Square both sides: $? = 22^2 = 484$.

So the value of ? is 484.

Hence, 484.

93. Answer: c

Explanation:

The statements give specific information about a triangle (3 angles) and a rectangle (4 angles).

The conclusion claims a general property about polygons (many angles), which cannot be strictly derived from only two specific examples.

Thus the conclusion is inconsistent with the strict logical rules of inference.

Hence, असंगत.

94. Answer: a

Explanation:

Observe the pattern: $8 \cdot 2 + 1 = 17$; $17 \cdot 2 - 1 = 33$; $33 \cdot 2 + 1 = 67$; $67 \cdot 2 - 1 = 133$.

Multiplier alternates between +1 and -1 after doubling.

Next term: $133 \times 2 + 1 = 267$.

Hence, 267.

95. Answer: d

Explanation:

Smriti Mandhana became the first Indian woman cricketer to participate in England's Kia Super League in 2018, representing the Western Storm team.

She is known for her elegant batting and has been a key player for the Indian women's cricket team.

Harmanpreet Kaur and Mithali Raj play in various international T20 leagues too.

Hence, स्मृति मंधाना.

96. Answer: d

Explanation:

One hour has 60 minutes.

$5/6$ of an hour = $(5/6) \times 60$ minutes.

Compute: $5 \times 60 / 6 = 300/6 = 50$ minutes.

Hence, 50 मिनट.

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97. Answer: c

Explanation:

India won the Hockey Asia Cup 2017 by defeating Malaysia 2-1 in the final held at Dhaka, Bangladesh on 22 October 2017.

This was India's third Asia Cup title (previously 2003 and 2007).

Captain Manpreet Singh led the Indian team to this victory.

Hence, मलेशिया.

98. Answer: c

Explanation:

Reproduction is the biological process by which new individual organisms are produced from their 'parents'.

It is essential for the continuation and population stability of a species — without reproduction, a species would go extinct.

Respiration, circulation and excretion are vital for individual survival but not for population continuity.

Hence, प्रजनन.

99. Answer: b

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.

100. Answer: a

Explanation:

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

Careful visual inspection identifies figure D as the one that lacks the shared property.

So figure D is the incongruent one.

Hence, D.

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