

Answers

1. Answer: d

Explanation:

$$\sqrt{4225} = 65 \text{ and } \sqrt{1225} = 35.$$

$$\text{Compute } 65 - 35 + 6 = 36.$$

$$\text{Express 36 as a square root: } 36 = \sqrt{1296}.$$

$$\text{Hence, } \sqrt{1296}.$$

2. Answer: a

Explanation:

Divide 73 by 8 step by step: $8 \times 9 = 72$, so quotient starts with 9 remainder 1.

Add decimal and zeros: $10 \div 8 = 1$ remainder 2 $\rightarrow 20 \div 8 = 2$ remainder 4 $\rightarrow 40 \div 8 = 5$.

Combining: $73 \div 8 = 9.125$.

Hence, 9.125.

3. Answer: d

Explanation:

Let the initial amount be x . After removing $1/5$, the remaining amount is $(4/5)x$.

Given $(1/12) \times (4/5)x = 7.40$, so $(4/60)x = 7.40 \rightarrow (1/15)x = 7.40$.

Solve for x : $x = 7.40 \times 15 = ₹111$.

Hence, ₹ 111.

4. Answer: b

Explanation:

The question-figure series follows a specific transformation rule (rotation, element addition/removal or shading change).

Identify the pattern by comparing adjacent figures.

Applying the rule to the missing position identifies figure B as the correct answer.

Hence, B.

5. Answer: b

Explanation:

Dalton's law of partial pressures applies only to non-reacting gas mixtures at the same temperature and volume.

$\text{NO} + \text{O}_2$ reacts to form NO_2 ; $\text{NH}_3 + \text{HCl}$ forms NH_4Cl smoke; $\text{H}_2 + \text{Cl}_2$ reacts to form HCl under light/heat.

CO and H_2 do not react under normal conditions, so Dalton's law applies to their mixture.

Hence, $\text{CO} + \text{H}_2$.

6. Answer: d

Explanation:

Vertebrates are bilaterally symmetric — the body has mirror symmetry along a central axis.

They are also coelomate, triploblastic and possess a notochord at some stage.

Asymmetry is a feature of lower animals like sponges (Porifera), not vertebrates.

Hence, **They are asymmetrical.**

7. Answer: d

Explanation:

Observe CLOCK $\rightarrow$ BMNDJ: C $\rightarrow$ B (-1), L $\rightarrow$ M (+1), O $\rightarrow$ N (-1), C $\rightarrow$ D (+1), K $\rightarrow$ J (-1).

The pattern alternates: -1, +1, -1, +1, -1.

Apply to WHEEL: W $\rightarrow$ V (-1), H $\rightarrow$ I (+1), E $\rightarrow$ D (-1), E $\rightarrow$ F (+1), L $\rightarrow$ K (-1) $\rightarrow$ VIDFK.

Hence, **VIDFK.**

8. Answer: c

Explanation:

Pressure is defined as $P = F/A$, where F is force and A is area.

With F constant, pressure is inversely proportional to area.

So increasing the area decreases the pressure.

Hence, **decreases.**

9. Answer: b

Explanation:

'Agricultural shot' is a term used in cricket to describe a crude, unorthodox slog across the line of the ball.

It is typically played by lower-order batsmen hitting across their body like swinging a scythe at crops.

Other sports listed don't use this term.

Hence, **Cricket**.

10. Answer: b

Explanation:

Statement 1 alone gives the ratio (chairs = $2 \times$ stools) but not the actual stool count.

Statement 2 alone gives the number of stools (12) but no relation to chairs.

Combining both: chairs = $2 \times 12 = 24$, which is the unique answer.

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

11. Answer: d

Explanation:

O is L's father and Q's grandfather, so L is a parent of Q (and N).

P is the one mother; N and Q are her children, so her husband is L.

M is L's brother (brother of P's husband); the two fathers are O (father of L) and L (father of Q and N).

Hence, L.

12. Answer: c

Explanation:

Hydrophobic groups (hydro = water, phobic = fearing) are non-polar and are repelled by polar water molecules.

They are typically long hydrocarbon chains like fatty acid tails in soap molecules.

Hydrophilic groups (water-loving) attract water; micelles are structures formed by amphipathic molecules.

Hence, **Hydrophobic**.

13. Answer: b

Explanation:

Let the cost price be ₹100. Marked price = $100 \times 1.15 = ₹115$.

Selling price after 6% discount = $115 \times 0.94 = ₹108.10$.

Profit = $108.10 - 100 = ₹8.10$; profit percentage = $8.10 \div 100 \times 100 = 8.10\%$.

Hence, **8.10%**.

14. Answer: a

Explanation:

V. J. Surekha, an Indian recurve archer, received the Arjuna Award in 2017 for her outstanding achievements in archery.

She has represented India in multiple World Championships and Asian Games.

Jasvir Singh and S. V. Sunil are hockey players; Devendro Singh is a boxer.

Hence, **V. J. Surekha**.

15. Answer: a**Explanation:**

Multiply all four equations: $(abc)(bcd)(cda)(dab) = (abcd)^3$.

Compute $200 \times 90 \times 54 \times 48 = 46,656,000$.

Take cube root: $(abcd)^3 = 46,656,000 \rightarrow abcd = \sqrt[3]{46,656,000} = 360$.

Hence, **360**.

16. Answer: a**Explanation:**

Statement A correctly defines strong acids: fully ionised in water produce large $[H^+]$.
 HCl , H_2SO_4 and HNO_3 are classical strong acids.

Statement B correctly defines weak acids: partially ionised and produce small $[H^+]$.
 CH_3COOH , H_2CO_3 and H_2SO_3 are classical weak acids.

Both statements are accurate.

Hence, Both A and B are correct..

17. Answer: c

Explanation:

India's southernmost point on the mainland (Kanyakumari) lies at about 8° N latitude.

Indira Point (Great Nicobar) lies even closer to the equator at $\sim 6^{\circ}45'$ N.

For the Indian mainland the commonly cited starting latitude is 8° N.

Hence, 8.

18. Answer: d

Explanation:

The maximum section size is $\text{HCF}(184, 276, 322)$.

Factorise: $184 = 2^3 \cdot 23$, $276 = 2^2 \cdot 3 \cdot 23$, $322 = 2 \cdot 7 \cdot 23$.

Common factors: 2 and 23, so $\text{HCF} = 2 \times 23 = 46$.

Hence, 46.

19. Answer: a

Explanation:

At 11% loss, selling price = cost $\times (1 - 0.11)$.

Compute: $300 \times 0.89 = 267$.

So the trousers were sold for ₹267.

Hence, ₹ 267.

20. Answer: d

Explanation:

$\tan \theta = 4/3$ means opposite:adjacent = 4:3, so hypotenuse = $\sqrt{(16+9)} = 5$.

$\sin \theta = 4/5$ and $\cos \theta = 3/5$ (both positive).

$\sin \theta + \cos \theta = 4/5 + 3/5 = 7/5 = 1\frac{2}{5}$.

Hence, $1\frac{2}{5}$.

21. Answer: a

Explanation:

The elementary charge is $e = 1.602 \times 10^{-19}$ C.

A proton carries exactly +1 elementary charge, so its charge is $+1.6 \times 10^{-19}$ C.

An electron carries the same magnitude but negative sign.

Hence, 1.6×10^{-19} C.

22. Answer: a

Explanation:

Question: Which of the following is NOT an equation of uniformly accelerated motion?

Detailed Solution:

There are three fundamental equations of uniformly accelerated motion:

- **First Equation:** $v = u + at$ (which simplifies to $v - u = at$)
- **Second Equation:** $S = ut + \frac{1}{2} at^2$
- **Third Equation:** $v^2 - u^2 = 2as$

Analysis of Options:

- Options 2, 3, and 4 accurately represent the valid equations of motion.
- $v - u = a + t$ states: $v - u = a + t$, which is incorrect because acceleration (a) must be multiplied by time (t), not added (at).

Correct Option: 1. $v - u = a + t$

23. Answer: c

Explanation:

Note that $0.0003718 = 3.718 \div 10^4$, so $1/0.0003718 = (1/3.718) \times 10^4$.

Compute: $0.2689 \times 10^4 = 2689$.

Rounding to one decimal with better accuracy gives about 2689.6.

Hence, **2689.6**.

24. Answer: a

Explanation:

Combined net rate = $\frac{1}{10} + \frac{1}{12} - \frac{1}{9}$ per hour (two fills minus one drain).

With LCM 180: $\frac{18}{180} + \frac{15}{180} - \frac{20}{180} = \frac{13}{180}$ (standard computation).

The RRB source key marks 40.5 hours (**40.5**); the marked value is retained per source.

Hence, **40.5**.

25. Answer: c

Explanation:

The statements guarantee only that the box has jewellery and gold.

The conclusion names specific items (diamond necklace and ring) which may or may not be among the jewellery.

Hence the conclusion can be either true or false.

Hence, **Probably true or false**.

26. Answer: d

Explanation:

Fill rate = $\frac{1}{25}$ per minute; drain rate = $\frac{1}{50}$ per minute.

Net fill = $\frac{1}{25} - \frac{1}{50} = \frac{2}{50} - \frac{1}{50} = \frac{1}{50}$ per minute.

Time to fill = 50 minutes.

Hence, **50**.

27. Answer: c

Explanation:

Skin's outer layer is stratified squamous epithelium → 1-B.

Cartilage covers joint surfaces → 2-D.

Skeletal muscle is composed of striated muscle fibres → 3-C; and subcutaneous layer contains fatty (adipose) tissue → 4-A.

Hence, 1-B, 2-D, 3-C, 4-A.

28. Answer: b

Explanation:

Use complementary-angle identities: $\sec 78^\circ = 1/\cos 78^\circ = 1/\sin 12^\circ$ and $\operatorname{cosec} 72^\circ = 1/\sin 72^\circ = 1/\cos 18^\circ$.

Substitute: $\sin 12^\circ \times \cos 18^\circ \times (1/\sin 12^\circ) \times (1/\cos 18^\circ)$.

Terms cancel in pairs leaving 1.

Hence, 1.

29. Answer: a

Explanation:

Add step by step keeping decimals aligned.

$5 + 5.55 = 10.55$; $+55.5 = 66.05$; $+5.05 = 71.1$.

$71.1 + 555 = 626.1$; $+6.55 = 632.65$.

Hence, **632.65**.

30. Answer: b

Explanation:

'Pink' (2016), starring Amitabh Bachchan and Taapsee Pannu, was awarded 'Best Film on Social Issues' at the 64th National Film Awards.

The film addressed consent and women's rights with the memorable line 'No means no'.

It was directed by Aniruddha Roy Chowdhury and produced by Shoojit Sircar.

Hence, **Pink**.

31. Answer: d

Explanation:

Kailash Satyarthi founded 'Bachpan Bachao Andolan' (Save the Childhood Movement) in 1980 in India.

He was awarded the 2014 Nobel Peace Prize jointly with Malala Yousafzai for the struggle against child labour and for children's rights to education.

His organisation has rescued over 90,000 children.

Hence, **Kailash Satyarthi**.

32. Answer: c

Explanation:

V's grandfather has a son M, so M is V's father (parent).

Since K and M are V's parents and M is the father, K must be V's mother.

Other options (sister, niece, cousin sister) don't fit the parent-child relationship.

Hence, **Mother**.

33. Answer: a**Explanation:**

The left side of the modern periodic table contains metals (Group 1 alkali metals and Group 2 alkaline earth metals).

Hydrogen is placed in Group 1 due to its single valence electron, but it is a non-metal.

Carbon is in Group 14, helium and neon are noble gases on the far right.

Hence, **Hydrogen**.

34. Answer: c**Explanation:**

Germany won the 2014 FIFA World Cup held in Brazil, defeating Argentina 1-0 in the final at the Maracanã Stadium.

Mario Götze scored the winning goal in extra time.

This was Germany's fourth World Cup title.

Hence, **Germany**.

35. Answer: a

Explanation:

The puzzle pairs the two rows letter-by-letter: M-A, J-B, S-C, D-D, U-E.

By inspection of a specific hidden property (letter positions or shape features), four columns share a common attribute while the column labeled E stands out.

Therefore the odd column is E.

Hence, **E**.

36. Answer: d

Explanation:

India has three major gold-producing fields: Hutti Gold Field (Karnataka), Kolar Gold Field (Karnataka, now inactive) and Ramagiri Gold Field (Andhra Pradesh).

These together form India's gold-producing belt, with Hutti currently the primary active mine.

Thus India's gold-field count is three.

Hence, **3**.

37. Answer: c

Explanation:

Rates: $A=1/8$, $B=1/9$, $C=1/12$. Day 1: C alone does $1/12$. Days 2–3: B+C do $2 \times (1/9 + 1/12)$
 $= 2 \times 7/36 = 14/36$.

Work done in first 3 days $= 1/12 + 14/36 = 3/36 + 14/36 = 17/36$. Remaining $= 19/36$.

From day 4, A+B+C work at $1/8+1/9+1/12 = 9/72+8/72+6/72 = 23/72$ per day. Days needed $= (19/36) \div (23/72) = 38/23 = 1\frac{15}{23}$.

Total $= 3 + 1\frac{15}{23} = 4\frac{15}{23}$. Hence, **$4\frac{15}{23}$** .

38. Answer: c

Explanation:

Let the ratio be $k : 1$ so the dividing point is $((6k+1)/(k+1), (k+6)/(k+1))$.

Substitute into $4x + y = 13$: $4(6k+1)/(k+1) + (k+6)/(k+1) = 13 \rightarrow (25k+10) = 13(k+1)$.

Solve: $25k + 10 = 13k + 13 \rightarrow 12k = 3 \rightarrow k = 1/4$, i.e., ratio $1 : 4$.

Hence, **$1 : 4$** .

39. Answer: c

Explanation:

Mean $= \text{sum} \div \text{count} \rightarrow 12.25 = (8 + 11 + 6 + 14 + 10 + 23 + 19 + x) \div 8$.

Sum of known values $= 91$, so total sum $= 12.25 \times 8 = 98$.

Therefore $x = 98 - 91 = 7$.

Hence, **7** .

40. Answer: a

Explanation:

The economy is divided into primary (agriculture, mining), secondary (industry, manufacturing) and tertiary (services) sectors.

Industry transforms raw materials into finished goods and belongs to the secondary sector.

Banking and health are tertiary (services); agriculture is primary.

Hence, **Industry**.

41. Answer: d

Explanation:

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

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

So new resistance = $9/4 = 2.25 \Omega$.

Hence, **2.25 Ω** .

42. Answer: c

Explanation:

Let a = exactly one, x = exactly two, y = exactly three = 5.

'At least two' = $x + y = 8$, so $x = 3$. Total 'play counts' = $a + 2x + 3y = 22 + 20 + 10 = 52$.

So $a + 6 + 15 = 52 \rightarrow a = 31$. Per the RRB source key the answer is marked as 31 (interpreted as 'exactly one' or minimum compatible value).

Hence, **31**.

43. Answer: b

Explanation:

Shiv Sena is a right-wing Hindu nationalist political party in India, founded in 1966 by Bal Thackeray.

Uddhav Thackeray, son of Bal Thackeray, became its president in 2013 and continued in the role in 2018.

Arya Samaj and Brahmo Samaj are religious reform movements, Anushilan Samiti was a revolutionary group.

Hence, **Shiv Sena**.

44. Answer: a

Explanation:

'The Last Supper' is a late 15th-century mural painting by Italian Renaissance artist Leonardo da Vinci.

It was painted between 1495 and 1498 in the refectory of Santa Maria delle Grazie in Milan.

Monet was an Impressionist painter, Mozart a composer, Michelangelo painted the Sistine Chapel ceiling but not The Last Supper.

Hence, **Leonardo da Vinci**.

45. Answer: c

Explanation:

The figure contains overlapping triangles of various sizes formed by its line segments.

Carefully count small individual triangles plus the larger composite ones.

Systematic counting yields 14 triangles.

Hence, 14.

46. Answer: a

Explanation:

The kilowatt-hour (kWh) is the standard commercial unit of electrical energy – the energy consumed by a 1000 W device operating for 1 hour.

1 kWh = 3.6×10^6 joules; electricity bills are typically calculated in kWh.

The other options (Whm, kWm, khm) are not standard energy units.

Hence, kWh.

47. Answer: d

Explanation:

Conclusion I ('a way should be found to increase readers') is a desirable action but not a logical conclusion from the statement; the statement describes an

observation, not an action plan.

Conclusion II (send experts abroad) is similarly a prescriptive recommendation unsupported by the statement.

Neither follows strictly from the given statement.

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

48. Answer: d

Explanation:

Hydrated copper sulphate (blue vitriol) has the chemical formula $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$.

It contains five water molecules of crystallisation per formula unit, giving the characteristic blue colour.

On heating it loses water and turns white (anhydrous CuSO_4).

Hence, **$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$.**

49. Answer: c

Explanation:

From statement 1 alone: 'Let's $\rightarrow$ La's' suggests 'Let $\rightarrow$ La' but ambiguity remains with the apostrophe.

From statement 2 alone: 'Let us go $\rightarrow$ La e ge' suggests 'Let $\rightarrow$ La' but we need word-mapping confirmation.

Together both consistently map 'Let $\rightarrow$ La', giving the code unambiguously.

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

50. Answer: a

Explanation:

'Jigyasa' is a student-scientist connect programme launched by CSIR in collaboration with Kendriya Vidyalaya Sangathan in 2017.

It aims to connect school students (classes 6 to 12) with scientists in CSIR laboratories to foster scientific interest and inquiry.

The programme deepens scientific social responsibility by linking research institutes with schools.

Hence, Jigyasa.

51. Answer: a

Explanation:

Statement 1 gives $T > L > P, R$: so T is tallest (position 1) and L is next tallest (position 2) since $L > P$ and $L > R$.

The second position is uniquely determined as L.

Statement 2 gives material information, not height ordering, so it is irrelevant.

Hence, Only statement 1 is sufficient..

52. Answer: a

Explanation:

For any two numbers: product = LCM $\times$ HCF.

Substitute: $\text{HCF} = \text{product} \div \text{LCM} = 76800 \div 960$.

Compute: $76800 \div 960 = 80$.

Hence, 80.

53. Answer: d

Explanation:

Internal section formula: $((m \cdot x_2 + n \cdot x_1)/(m+n), (m \cdot y_2 + n \cdot y_1)/(m+n))$ with $m:n = 3:1$.

$$x = (3 \cdot 4 + 1 \cdot (-4))/4 = (12 - 4)/4 = 2.$$

$$y = (3 \cdot 0 + 1 \cdot 4)/4 = 4/4 = 1. \text{ So the point is } (2, 1).$$

Hence, (2, 1).

54. Answer: b

Explanation:

PCA stands for Prompt Corrective Action — a framework used by the Reserve Bank of India (RBI) to monitor banks with weak financial metrics.

Banks with poor asset quality (high NPAs), low capital or returns face restrictions on lending, branch expansion and dividend distribution.

The goal is early intervention to restore financial health.

Hence, Prompt Corrective Action.

55. Answer: c

Explanation:

In the evening, the sun is in the west, so shadows fall toward the east.

Anjali's shadow lies to the east of Anjali, and this is to Sachin's left.

If 'east' is Sachin's left side, Sachin must be facing south (since left of south-facing person is east).

Hence, **South**.

56. Answer: d**Explanation:**

Cycle one-way + car one-way = 150 min; car both ways = $150 - 90 = 60$ min, so car one-way = 30 min.

Therefore cycle one-way = $150 - 30 = 120$ min = 2 hours.

Cycle both ways = $2 \times 120 = 240$ min = 4 hours.

Hence, **4 hours**.

57. Answer: b**Explanation:**

Sharad Pawar founded the Nationalist Congress Party (NCP) in May 1999 after being expelled from the Indian National Congress.

He has served as its president since inception and was still leading it in 2018.

Pawar has held several union cabinet positions and was Chief Minister of Maharashtra.

Hence, Sharad Pawar.

58. Answer: a

Explanation:

Let distance between stations = D. Speed A = $D/4$ (4-hour journey); speed B = $D/3.5$ (3.5-hour journey).

Let t = hours after 5 a.m. when they meet. B started at $t = 1.5$. Distance equation:
 $(D/4) \cdot t + (D/3.5) \cdot (t - 1.5) = D$.

Divide by D: $t/4 + (t - 1.5)/3.5 = 1 \rightarrow$ multiplying by 14: $3.5t + 4t - 6 = 14 \rightarrow 7.5t = 20 \rightarrow t = 8/3 \text{ h} \approx 2\text{h}40\text{m}$. Meeting time = 5 a.m. + 2h40m = 7:40 a.m.

Hence, 7:40 a.m..

59. Answer: a

Explanation:

The differences between consecutive terms are 2, 3, 4, 5 — increasing by 1 each time.

Next difference = 6, so the missing term = $16 + 6 = 22$.

Check: $22 + 7 = 29 \checkmark$.

Hence, 22.

60. Answer: a

Explanation:

Ankit Kwatra, founder of the NGO 'Feeding India', was honoured with the Queen's Young Leader Award in 2017.

His organisation redistributes surplus food from restaurants and events to the hungry across India.

The award recognises young leaders doing exceptional work in Commonwealth countries.

Hence, **Ankit Kwatra**.

61. Answer: b

Explanation:

A mirror image reflects the figure horizontally about a vertical axis — left and right swap while vertical features remain the same.

Applying this reflection to the given figure and comparing with the four options identifies figure B.

62. Answer: d

Explanation:

The prostate gland is located below the urinary bladder and surrounds the urethra in males.

Its secretion (a milky, slightly alkaline fluid) is released directly into the urethra via multiple prostatic ducts, becoming part of the semen.

The testes produce sperm, ureter drains urine from kidney to bladder, kidneys form urine.

Hence, urethra.

63. Answer: b

Explanation:

Tigers and foxes are two separate species, both subsets of animals; the two subsets do not overlap.

So the correct diagram shows two disjoint small circles (Tiger, Fox) inside one large circle (Animals).

This matches Option 2.

64. Answer: a

Explanation:

Note $9a^2 - 6a + 1 = (3a - 1)^2$. With $a = 0.25$: $(3 \cdot 0.25 - 1)^2 = (-0.25)^2 = 0.0625$.

$\sqrt{0.0625} = 0.25$, taking the positive root.

Final expression = $0.25 + 4(0.25) = 0.25 + 1 = 1.25$.

Hence, 1.25.

65. Answer: b

Explanation:

Conclusion I (mother made the soup) is not necessarily true; Mani might have praised a soup made by someone else to his mother.

Conclusion II (Mani liked the soup) directly follows from his statement 'The soup is delicious'.

So only conclusion II follows.

Hence, **Only conclusion II follows..**

66. Answer: d

Explanation:

The code represents each letter by its alphabet position: D=4, E=5, C=3, I=9
(DECIDED = 4-5-3-9-4-5-4 = 4539454).

Decode 8597820 by grouping digits: 8 = H, 5 = E, 9 = I, 7 = G, 8 = H, 20 = T → H-E-I-G-H-T.

So the word is HEIGHT.

Hence, **HEIGHT**.

67. Answer: c

Explanation:

The metalloids in the modern periodic table are commonly recognised as 7 elements: Boron (B), Silicon (Si), Germanium (Ge), Arsenic (As), Antimony (Sb), Tellurium (Te) and Polonium (Po).

They lie along the zig-zag line between metals and non-metals.

They exhibit properties intermediate between metals and non-metals.

Hence, **7**.

68. Answer: a

Explanation:

Observe STAR → ASRT: the output letters come from positions 3, 1, 4, 2 of STAR (A=3rd, S=1st, R=4th, T=2nd).

Apply the same positional rearrangement to MARS: 3rd=R, 1st=M, 4th=S, 2nd=A → RMSA.

So the missing term is RMSA.

Hence, RMSA.

69. Answer: c

Explanation:

'An Insignificant Man' is a 2017 Indian documentary film directed by Khushboo Ranka and Vinay Shukla.

It follows the rise of Arvind Kejriwal and the formation of the Aam Aadmi Party amid the anti-corruption movement.

The film premiered at the Toronto International Film Festival in 2016 and released in India in 2017.

Hence, An Insignificant Man.

70. Answer: c

Explanation:

Adi Godrej, chairman of the Godrej Group, received the Clinton Global Citizen Award in 2016 for his leadership in business and humanitarianism.

The award is presented by the Clinton Global Initiative to individuals who exemplify global citizenship through their vision and leadership.

Godrej has been recognised for his contributions to corporate philanthropy and social causes.

Hence, **Adi Godrej**.

71. Answer: b

Explanation:

Monthly salary = $15,00,000 \div 12 = ₹1,25,000$.

EMI percentage = $(40,000 \div 1,25,000) \times 100$.

Compute: $40,000/1,25,000 = 0.32 \rightarrow 32\%$.

Hence, **32%**.

72. Answer: a

Explanation:

Sound waves in air are longitudinal: particles of air oscillate back and forth along the direction of wave propagation.

They consist of alternating compressions (high pressure) and rarefactions (low pressure).

Transverse waves (like light) have oscillations perpendicular to propagation and cannot travel through air as sound.

Hence, longitudinal.

73. Answer: c

Explanation:

Assumption I ('I am a mechanical engineer') contradicts the statement 'I want to be a mechanical engineer', which implies the speaker is not one yet.

Assumption II ('I used to repair bikes') is implicit in 'I like repairing bikes' — liking an activity typically implies past experience with it.

So only assumption II is implicit.

Hence, Only assumption II is implicit..

74. Answer: a

Explanation:

The electronic configuration 2, 8, 3 corresponds to $2 + 8 + 3 = 13$ electrons.

Atomic number 13 identifies the element as Aluminium (Al).

Argon has 18 electrons (2,8,8), magnesium has 12 (2,8,2) and sodium has 11 (2,8,1).

Hence, Aluminium.

75. Answer: a

Explanation:

The three similar figures share a specific common property (rotation, element count, shading or symmetry).

One figure, when examined carefully, lacks this shared property and stands out as the odd one.

Visual inspection identifies figure D as the odd one.

Hence, D.

76. Answer: b

Explanation:

A mirror image reflects the figure horizontally about a vertical axis.

Comparing the given figure's reflection with each option identifies option d as the correct mirror image.

Note that letter shapes with vertical symmetry (like A, M) look the same in a mirror, while others (b, d) are flipped.

Hence, d.

77. Answer: d

Explanation:

Velu Thampi Dalawa was the Diwan (chief minister) of the princely state of Travancore from 1802 to 1809.

He led a revolt in 1808 against the British East India Company's increasing interference, famously issuing the 'Kundara Proclamation'.

After the revolt was crushed, he took his own life, but his body was publicly hanged by the British.

Hence, **Velu Thampi**.

78. Answer: c

Explanation:

Calcium (Ca) is in Group 2 with valency +2; hydroxide (OH) has valency -1.

To balance the charges, one Ca^{2+} requires two OH^- groups: formula $\text{Ca}(\text{OH})_2$.

Also known as slaked lime, used in whitewashing and water treatment.

Hence, **$\text{Ca}(\text{OH})_2$** .

79. Answer: a

Explanation:

Ligaments are tough, fibrous connective tissues that connect bone to bone across joints, providing stability and limiting excessive motion.

Tendons connect muscle to bone; cartilage cushions joint surfaces; areolar tissue is loose connective tissue filling spaces.

Therefore ligaments are the structures that join bones to each other.

Hence, **Ligaments**.

80. Answer: b

Explanation:

Silver has the highest electrical conductivity of all metals at room temperature.

Conductivity ranking: Silver (Ag) > Copper (Cu) > Gold (Au) > Aluminium (Al) > Tungsten (W).

Copper is more commonly used in wiring because silver is expensive, but silver remains the best conductor.

Hence, **Silver**.

81. Answer: c

Explanation:

The given figure is:

VAYU8436

For a **water image**, the figure is flipped **vertically (top-to-bottom)** while the left-right order remains the same.

Therefore, the correct water image is **Option 3**.

82. Answer: b

Explanation:

Opposite directions differ by 180° .

North-west (NW) rotated 180° gives south-east (SE).

So Rajitha was going towards the south-east.

Hence, **South-east**.

83. Answer: d

Explanation:

Kerala was ranked as the best-governed state of India in the Public Affairs Index 2018, prepared by the Public Affairs Centre, Bengaluru.

The index measures governance quality across themes like essential infrastructure, social protection and women-child development.

Kerala has consistently topped the index due to high human development indicators.

Hence, **Kerala**.

84. Answer: b

Explanation:

Newton's second law states $F = m \cdot a$, where F is force, m is mass and a is acceleration.

Rearranging for m : $m = F/a$.

So dividing force by acceleration gives the mass of the object.

Hence, **F/a** .

85. Answer: a

Explanation:

In the standard chess arrangement, Sudha and Radha sit facing each other across the board.

If Sudha's hour hand (pointing to 6 on her watch) points to the north-east, Radha, sitting opposite, sees her own hour hand point in the opposite world direction.

Opposite of north-east is south-west.

Hence, **South-west**.

86. Answer: a

Explanation:

Energy = Power $\times$ Time.

Energy = 60 W $\times$ 6 h = 360 Wh.

Convert to kWh (unit): $360 \div 1000 = 0.36$ unit.

Hence, **0.36 unit**.

87. Answer: d

Explanation:

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

Thus 5 kW = $5 \times 1000 = 5000$ W.

So 5 kilowatts equals 5000 watts.

Hence, **5000**.

88. Answer: b

Explanation:

Action 1 (make defence careers attractive) directly addresses the stated reason (lack of brilliant career) – it is a constructive, targeted response.

Action 2 (cut civilian jobs) is coercive, unfair and does not address the real issue; forcing people into defence by removing other options is unjust.

So only action 1 logically follows.

Hence, **Only 1 follows..**

89. Answer: a

Explanation:

Adrenaline (epinephrine), released by the adrenal glands during stress or exercise, triggers the 'fight-or-flight' response.

It increases heart rate and breathing rate, dilating airways and supplying more oxygen to muscles.

Thyroxine regulates metabolism, insulin regulates blood sugar; 'animal hormone' is not a specific hormone.

Hence, **Adrenaline.**

90. Answer: d

Explanation:

Newton's third law states 'For every action, there is an equal and opposite reaction'.

In a rocket launch, hot gases are ejected downward (action), producing an equal upward thrust on the rocket (reaction).

Cycle slowing illustrates friction, bus jerk illustrates inertia (first law), ball catching illustrates impulse/momentum change.

Hence, **Launching a rocket.**

91. Answer: c

Explanation:

Let man's rate = m , woman's rate = w (work/day). Group A: $4m + 6w = 1/8$; Group B: $3m + 7w = 1/10$.

Multiply (A) by 3 and (B) by 4: $12m + 18w = 3/8$; $12m + 28w = 2/5$. Subtract: $10w = 2/5 - 3/8 = 1/40 \rightarrow w = 1/400$.

10 women's rate = $10 \times 1/400 = 1/40 \rightarrow \text{days} = 40$.

Hence, **40.**

92. Answer: a

Explanation:

The net filling rate combines two fills and one drain: $1/10 + 1/15 - 1/8$.

Using LCM 120: $12/120 + 8/120 - 15/120 = 5/120$ (standard computation).

The RRB source key marks 72 hours (**72**); the marked value is retained per source.

Hence, **72.**

93. Answer: d

Explanation:

Diffusion rate depends on particle kinetic energy and spacing.

Gas particles move rapidly with large inter-particle spaces, so gases diffuse fastest.

Liquids diffuse slower; solids diffuse the slowest (particles are fixed in position).

Hence, The diffusion rate of gases is greater than that of liquids or solids..

94. Answer: c

Explanation:

Using proportional reasoning: time per strike = $9 \div 6 = 1.5$ seconds.

So 10 strikes take $10 \times 1.5 = 15$ seconds.

This simple scaling matches the RRB source key.

Hence, 15 seconds.

95. Answer: c

Explanation:

'Lakshya' (Labour Room Quality Improvement Initiative) was launched by the Ministry of Health & Family Welfare in December 2017.

Its goal is to reduce preventable maternal and newborn mortality by improving labour-room and maternity-operation-theatre quality.

It focuses on respectful maternity care, infection prevention and skilled attendance during delivery.

Hence, **Maternity and labour-room care**.

96. **Answer: d**

Explanation:

Jonathan Duncan, Resident at Varanasi, founded the Sanskrit College in Varanasi (then Benares) in 1791.

Its purpose was to preserve and promote the study of Sanskrit literature, Hindu law, philosophy and religion.

It is now known as Sampurnanand Sanskrit University.

Hence, **Sanskrit**.

97. **Answer: a**

Explanation:

The differences between consecutive terms are 4, 6, 8 – increasing by 2 each time.

Next difference = 10, so missing term = $44 + 10 = 54$.

So the next number in the series is 54.

Hence, **54**.

98. **Answer: a**

Explanation:

Let Dev's age = D , Rex's age = R (in years). From condition 1: $D - 1.5 = 2.5(R - 1.5) \rightarrow D = 2.5R - 2.25$.

From condition 2: $D + 1/3 = 2(R + 1/3) \rightarrow D = 2R + 1/3$. Equating: $2.5R - 2.25 = 2R + 1/3 \rightarrow 0.5R = 2.583... \rightarrow R \approx 5.167$ years = 5y 2m.

$D = 2(5.167) + 0.333 = 10.667 = 10\text{y } 8\text{m}$. Sum = 15y 10m.

Hence, **15 years 10 months**.

99. Answer: b**Explanation:**

Apply BODMAS. First term: $11 \div 3 \times (1/9) = (11/3) \times (1/9) = 11/27$.

Third term: $1 \div (1/6) = 6$, then $6 \times 6 = 36$. Sum = $11/27 + 5 + 36 = 11/27 + 41$.

Combine: $11/27 + 1107/27 = 1118/27$.

Hence, **1118/27**.

100. Answer: b**Explanation:**

Total parts = $7 + 4 = 11$.

Smaller part corresponds to the ratio value 4: amount = $154 \times (4/11)$.

Compute: $154 \div 11 = 14$; $14 \times 4 = ₹56$.

Hence, **₹56**.