

RBE NTPC 2026 Live Mock Feb 23, 2026

Q. 1	<p>What should come in place of the question mark (?) in the given series based on the English alphabetical order?</p> <p>RVB, LPV, FJP, ZDJ, TXD, ?</p> <p>a) NRY X</p> <p>b) MSX X</p> <p>c) NRX ✓</p> <p>d) MSY X</p>
Explanation:	<p>First letters: -6 each step → R → L → F → Z → T → N Second letters: -6 each step → V → P → J → D → X → R Third letters: -6 each step → B → V → P → J → D → X Final Answer: NRX</p>

Q. 2

Find the missing term in the box.

8	7	11	52
4	8	6	36
3	2	5	20
22	?	17	104

- a) 14 X
- b) 15 X
- c) 13 ✓
- d) 15 X

Explanation:

Row pattern:

(Sum of First three numbers) $\times 2$ = Fourth number

Last row:

$$(22 + ? + 17) \times 2 = 104$$

$$22 + ? + 17 = 52$$

$$39 + ? = 52$$

$$? = 13$$

Q. 3

45 is related to 5 following a certain logic. Following the same logic, 81 is related to 9. To which of the following is 50 related, following the same logic?

- a) 8 X
- b) 9 X
- c) 7 X
- d) 10 ✓

Explanation:

If we divide the number by the sum of its digits:

$$45 \rightarrow 4 + 5 = 9 \rightarrow 45 \div 9 = 5$$

$$81 \rightarrow 8 + 1 = 9 \rightarrow 81 \div 9 = 9$$

Applying the same logic to 50:

$$50 \rightarrow 5 + 0 = 5$$

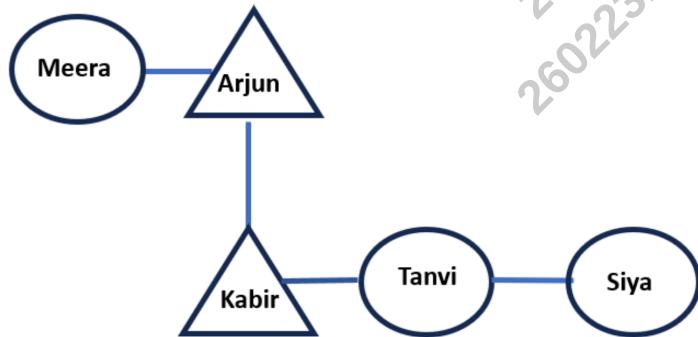
$$50 \div 5 = 10$$

Final Answer: 10

Q. 4

Meera is the wife of Arjun. Kabir is the son of Arjun. Siya is the sister of Tanvi. Tanvi is the sister of Kabir. How is Tanvi related to Meera?

- a) Daughter ✓
- b) Sister ✗
- c) Wife ✗
- d) Wife's mother ✗

**Explanation:**

Given:

Meera is the wife of Arjun.
Kabir is the son of Arjun.
Tanvi is the sister of Kabir.

So,

Kabir is son of Arjun and Meera.
Tanvi is Kabir's sister.
Therefore, Tanvi is also the child of Arjun and Meera.
So, Tanvi is **Meera's daughter**.

Q. 5

A group of numbers/symbols is coded using letter codes as per the codes given below and the conditions that follow. If none of the conditions apply, then codes for the respective number/symbol are to be followed directly as given in the table.

Number/Symbol	8	3	#	&	6	4	9	%	2	7	@	5	1
Code	T	D	Q	M	K	F	L	P	C	A	Z	R	W

Conditions:

- (i) If the first element is a symbol and the last a number, the codes for these two (the first and the last elements) are to be interchanged.
- (ii) If the first element is an odd number and the last an even number, the first and last elements are to be coded as ©.
- (iii) If both the second and third elements are perfect squares, the third element is to be coded as the code for the second element.

What will be the code for the following group?

3 & 4 % 7 # 8

- a) © M F A P Q © X
- b) © M F P A Q W X
- c) © M F P A Q © ✓
- d) A M F P A Q © X

Explanation:

First = 3 (odd)
Last = 8 (even)

Condition (ii) applies → both coded as ©

Remaining direct codes:

& → M
4 → F
% → P
7 → A
→ Q

Final Answer: © M F P A Q ©

Q. 6	<p>BMQYJ is related to FQJCN in a certain way based on the English alphabetical order. In the same way, LBKSZ is related to PFPWD. To which of the following options is JCINV related, following the same logic?</p> <p>a) MGETZ X</p> <p>b) NGRSZ X</p> <p>c) MFSSZ X</p> <p>d) NGRRZ ✓</p>
Explanation:	<p>Rule:</p> <ul style="list-style-type: none">• 1st, 2nd, 4th, 5th letters → +4• Middle (3rd) letter → Opposite letter <p>JCINV</p> <p>J → N C → G I → R (opposite) N → R V → Z</p> <p>Answer: NGRRZ</p>

Q. 7

Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- a) BK-HQ X
- b) LP-RV X
- c) MF-SJ ✓
- d) XA-DG X

Options:

BK – HQ

LP – RV

MF – SJ

XA – DG

Check alphabet positions:

$$B(2) \rightarrow H(8) = +6$$

$$K(11) \rightarrow Q(17) = +6$$

$$L(12) \rightarrow R(18) = +6$$

$$P(16) \rightarrow V(22) = +6$$

$$M(13) \rightarrow S(19) = +6$$

$$F(6) \rightarrow J(10) = +4$$

$$X(24) \rightarrow D(4) = +6 \text{ (cyclic)}$$

$$A(1) \rightarrow G(7) = +6$$

Three pairs follow **+6 pattern in both letters**.

Only **MF – SJ** does not follow (+6, +4).

Final Answer: **MF – SJ**

Explanation:

Q. 8

Each of A, B, C, D, E, F, and G has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. A has an exam on Thursday. Only 2 people have an exam between A and D. F has an exam immediately before G, and B has an exam immediately after C. Only 2 people have an exam between E and G. How many people have an exam before G?

- a) 0
- b) 3
- c) 5
- d) 4

MONDAY	C
TUESDAY	B
WEDNESDAY	E
THRUSDAY	A
FRIDAY	F
SATURDAY	G
SUNDAY	D

Explanation: There are 5 person above G.

Q. 9

All 92 people are standing in a row facing north. Ravi is 16th from the left end while Sonal is 9th from the right end. How many people are there between Ravi and Sonal?

- a) 67 ✓
- b) 68 ✗
- c) 69 ✗
- d) 70 ✗

Total people = 92
 Ravi = 16th from left
 Sonal = 9th from right

Step 1: Find position of Sonal from left:

Explanation: Position from left = Total – Position from right + 1
 $= 92 - 9 + 1 = 84$

Step 2: Number of people between Ravi and Sonal = $84 - 16 - 1 = 67$

✓ Answer: 67

Q. 10

Select the option that is related to the third word in the same way as the second word is related to the first word.

Exercise : Fitness :: Study : ?

- a) School ✗
- b) Knowledge ✓
- c) Teacher ✗
- d) Book ✗

Exercise → Fitness (Exercise **leads to** Fitness)

Similarly:

Study → ? (**Study leads to** Knowledge)

✓ Correct Answer: **Knowledge** (Option b)

Q. 11

Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

PKF 33, QLG 30, RMH 27, SNI 24, ?

- a) TOJ 21 ✓
- b) TPJ 22 ✗
- c) TOJ 22 ✗
- d) TPZ 22 ✗

Explanation:

P(16), Q(17), R(18), S(19) → T(20) (+1)
 K(11), L(12), M(13), N(14) → O(15) (+1)
 F(6), G(7), H(8), I(9) → J(10) (+1)
 So next letters = T O J
 Numbers: 33 → 30 → 27 → 24 → 21 (-3)
 Final Answer: TOJ 21

Q. 12

What will come in place of the question mark (?) in the given series?

756, 752, 744, 728, 696, ?

- a) 634 ✗
- b) 628 ✗
- c) 632 ✓
- d) 636 ✗

Explanation:

Series:
 756, 752, 744, 728, 696, ?

Observe differences:

$$756 - 4 = 752$$

$$752 - 8 = 744$$

$$744 - 16 = 728$$

$$728 - 32 = 696$$

Pattern: subtracting double each time (-4, -8, -16, -32)

Next difference = -64

$$696 - 64 = \mathbf{632}$$

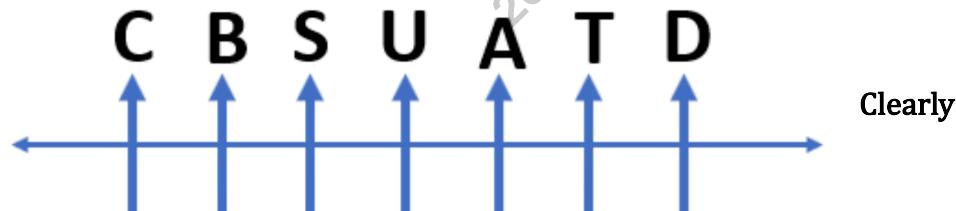
Final Answer: **632**

Q. 13

Seven people, A, B, C, D, S, T, and U are sitting in a row, facing north. No one sits to the right of D. Only three people sit between D and S. Only two people sit between S and T. C sits third to the left of U. A sits to the immediate right of U. How many people sit between B and T.

- a) 2
- b) 3
- c) 4
- d) 5

Explanation:



there are 3 persons between B & T.

Q. 14

The position of how many letters will remain unchanged if each of the letters in the word 'INFORMATION' is arranged in alphabetical order?

- a) None
- b) One
- c) Two
- d) More than two

Explanation:

Word: INFORMATION

Alphabetical order: A, F, I, I, M, N, N, O, O, R, T

Compare positions with original word → No letter remains in its original position

Answer: None

Q. 15

Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of ::?

#: MRN :: HMI : %

a) # = JMJ, % = KQM

b) # = INJ, % = LQM

c) # = IKJ, % = LPM

d) # = JNJ, % = KPS

Explanation:

check options:

Only INJ → MRN gives consistent shift (+4 each letter).
And HMI → LQM also gives +4 shift.

So same rule follows in both pairs.

Final Answer:

= INJ, % = LQM

Q. 16

QP 15 is related to TR 6 in a certain way. In the same way, KN 8 is related to NP -1. To which of the given options is LO 3 related, following the same logic?

a) YR -7

b) OQ -6

c) OP -9

d) BH -4

Explanation:

Pattern:

- First letter +3
- Second letter +2
- Two-digit number → sum of digits
- One-digit number → number – 9

For LO 3:

L → O

O → Q

$$3 - 9 = -6$$

Final Answer: OQ -6

Q. 17

ZRVY is related to TXPE in a certain way based on the English alphabetical order. In the same way, KOMV is related to EUGB. To which of the given options is VNCJ related, following the same logic?

- a) PTXP X
- b) PSXP X
- c) PTWP ✓
- d) PSWP X

Explanation:

Pattern from examples:

- 1st letter $\rightarrow -6$
- 2nd letter $\rightarrow +6$
- 3rd letter $\rightarrow -6$
- 4th letter $\rightarrow +6$

Apply to V N C J:

- V \rightarrow P
- N \rightarrow T
- C \rightarrow W
- J \rightarrow P

Answer: PTWP

Q. 18

Seven boxes, A, B, C, D, E, F, and G, are kept one over the other but not necessarily in the same order. Only two boxes are kept below G. Only one box is kept above B. Only one box is kept between A and C. D is kept immediately above F. E is kept at immediately below C. How many boxes are kept between C and D?

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

A
B
C
E
G
D
F

Explanation:

There are 2 boxes between C & D.

Q. 19

This question is based on the five, three-digit numbers given below.

(Left) 926, 384, 571, 638, 249

(Right) (Example – 742 – First digit = 7, second digit = 4 and third digit = 2)

NOTE: All operations to be done from left to right.

What will be the resultant if the second digit of the highest number is subtracted from the third digit of the lowest number?

a) 7



b) 5



c) 4



d) 3



Given numbers: 926, 384, 571, 638, 249

Identify highest and lowest numbers

- Highest = 926
- Lowest = 249

Extract required digits

- Second digit of highest number (926) → 2
- Third digit of lowest number (249) → 9

Step 3: Subtract

Third digit of lowest – second digit of highest = 9 – 2 = 7

Answer: 7

Explanation:

Q. 20

A, B, C, D, E, and F live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2, and so on till the topmost floor, which is numbered 6. D lives on the topmost floor. Only three people live between D and B. A lives on a floor below B. E lives on an even-numbered floor. C lives on an odd-numbered floor but not on floor number 5. How many people live below E.

- a) 3 ✓
- b) 1 ✗
- c) 4 ✗
- d) 2 ✗

6TH FLOOR	D
5TH FLOOR	F
4TH FLOOR	E
3RD FLOOR	C
2ND FLOOR	B
1ST FLOOR	A

Explanation:

Clearly three persons live below E.

Q. 21

What should come in place of the question mark (?) in the given series?

955, 957, 960, 965, 972, 983, ?

- a) 994
- b) 995
- c) 997
- d) 996

Explanation:

Series:

955, 957, 960, 965, 972, 983, ?

Find differences:

$$957 - 955 = 2$$

$$960 - 957 = 3$$

$$965 - 960 = 5$$

$$972 - 965 = 7$$

$$983 - 972 = 11$$

Pattern: Prime numbers $\rightarrow 2, 3, 5, 7, 11$

Next prime = 13

$$983 + 13 = 996$$

Final Answer: 996

Q. 22

Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements.

Statements:

Some cats are dogs.

Some rabbits are cats.

Some horses are dogs.

Conclusions:

(I) At least some dogs are rabbits.

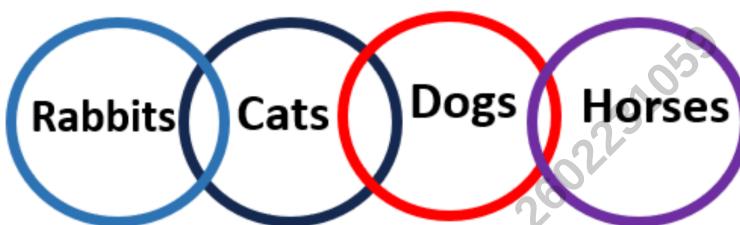
(II) Some cats are horses.

a) Only conclusion (I) follows X

b) Both conclusions (I) and (II) follow X

c) Only conclusion (II) follows X

d) Neither conclusion (I) nor (II) follows ✓



Conclusion (I) Statement 1: Some cats are dogs → there is a partial overlap.

Statement 2: Some rabbits are cats → overlap with cats.

But there is **no direct information connecting dogs and rabbits**.

X Conclusion (I) **does not follow**.

Conclusion (II)

Statement 1: Some cats are dogs

Statement 3: Some horses are dogs

No direct information connecting cats and horses.

X Conclusion (II) **does not follow**.

✓ **Answer:** Neither conclusion (I) nor (II) follows.

Answer: 4

Q. 23

Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- a) DS-WH X
- b) NJ-MP ✓
- c) EP-VK X
- d) XF-CU X

Explanation:

Check opposite letters rule ($A \leftrightarrow Z$, $B \leftrightarrow Y$, $C \leftrightarrow X$...):

$D \leftrightarrow W$ ✓
 $S \leftrightarrow H$ ✓
 $N \leftrightarrow M$ ✓
 $J \leftrightarrow Q$ ✗ (given P)
 $E \leftrightarrow V$ ✓
 $P \leftrightarrow K$ ✓
 $X \leftrightarrow C$ ✓
 $F \leftrightarrow U$ ✓

Three pairs follow exact opposite-letter rule.
Only **NJ – MP** does not.

Final Answer: **NJ – MP**

Q. 24

If 'S' stands for '−', 'Q' stands for '×', 'R' stands for '÷', and 'P' stands for '+', what will come in place of the question mark (?) in the following equation?

$$2 P 78 R 6 Q 3 S 6 = ?$$

- a) 32
- b) 39
- c) 24
- d) 35

Replace symbols:

$$2 + 78 \div 6 \times 3 - 6$$

$$78 \div 6 = 13$$

$$13 \times 3 = 39$$

$$2 + 39 - 6 = 35$$

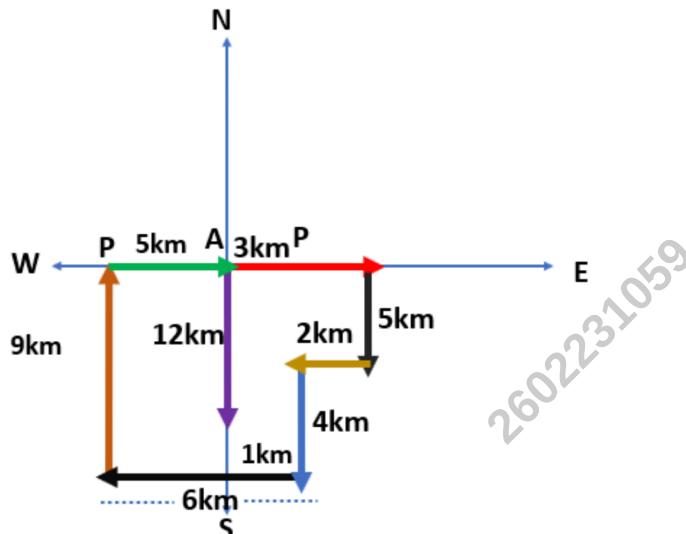
Final Answer: 35

Q. 25

Lucky starts from Point A and drives 3 km towards the East. He then takes a right turn, drives 5 km, turns right and drives 2 km. He then takes a left turn and drives 4 km. He then takes a right turn and drives 6 km. He takes a final right turn, drives 9 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only unless specified.)

- a) 6 km to the East X
- b) 6 km to the West X
- c) 5 km to the East ✓
- d) 3 km to the west X

Explanation:



Lucky has to walk 5km East to reach point A again.

Q. 26

Select the triad that follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

KG-NJ-PL, MI-PL-RN

- a) PK-RN-TU X
- b) OK-RN-TP ✓
- c) PK-RM-TP X
- d) OK-RN-TV X

Explanation:

First → Second: both letters +3
• Second → Third: both letters +2

Check options:

Only OK → RN (+3) and RN → TP (+2) follows the rule.

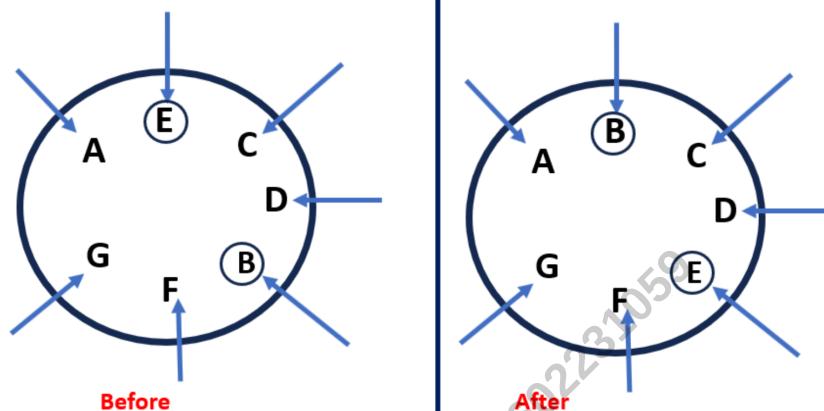
Final Answer: **OK-RN-TP**

Q. 27

A, B, C, D, E, F, and G are sitting around a circular table facing the centre. B is sitting to the immediate right of F and immediate left of D. C is sitting to the immediate right of D. E is sitting to the immediate left of A. G is sitting to the immediate right of A and immediate left of F. The position of how many persons will remain unchanged if all the persons are arranged in alphabetical order in clockwise direction starting from A (including A)?

- a) 2
- b) 4
- c) 5
- d) 3

Explanation:



Clearly 5 person keep their same position.

Q. 28

What should come in place of the question mark (?) in the given series based on the English alphabetical order?

FHQ, IKT, LNW, OQZ, RTC, ?

- a) VVF
- b) UWE
- c) UWF
- d) VWF

Explanation:

First letters: +3 each step → F → I → L → O → R → U
 Second letters: +3 each step → H → K → N → Q → T → W
 Third letters: +3 each step (cyclic) → Q → T → W → Z → C → F
 Final Answer: UWF

Q. 29

This question is based on the words given below.

(Left) BAD FIG ICE NOT (Right)

In each of the words, each vowel is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order.

In how many letter clusters thus formed, will no vowel appear?

- a) Three X
- b) Two ✓
- c) One X
- d) None X

Explanation:

Rule:

- Vowel → next letter
- Consonant → previous letter

BAD → ABC (vowel present)

FIG → EJF (vowel present)

ICE → JBF (no vowel)

NOT → MPS (no vowel)

Letter clusters without vowel = 2

Final Answer: Two

Q. 30

Each of the digits in the number 7485316 is arranged in the descending order from left to right. The position(s) of how many digits will remain unchanged in the new number thus formed as compared to that in the original number?

a) One ✓

b) Two ✗

c) Three ✗

d) Four ✗

Original number: **7485316**

Arrange digits in descending order:

Digits: 7, 4, 8, 5, 3, 1, 6

Descending order → **8765431**

Now compare positions:

Original: 7 4 8 5 3 1 6

New: 8 7 6 5 4 3 1

Check position-wise:

1st: $7 \neq 8$ ✗

2nd: $4 \neq 7$ ✗

3rd: $8 \neq 6$ ✗

4th: $5 = 5$ ✓

5th: $3 \neq 4$ ✗

6th: $1 \neq 3$ ✗

7th: $6 \neq 1$ ✗

Only one digit remains in same position.

Final Answer: **One**

Explanation:

<p>Q. 31</p> <p>Which port was named the "Cleanest Port of the Year" during the Swachhata Pakhwada 2025-26?</p> <p>a) Visakhapatnam Port X</p> <p>b) Haldia Port X</p> <p>c) Jawaharlal Nehru Port (JNPA) X</p> <p>d) Paradip Port ✓</p>	<p>✓ Correct Answer: Paradip Port</p> <p>Explanation</p> <ul style="list-style-type: none"> The Swachhata Pakhwada Awards 2025–26, organized by the Ministry of Ports, Shipping and Waterways (MoPSW), recognized excellence in cleanliness, sustainability, and community participation among India's major ports. Paradip Port Authority (PPA) was awarded the "Cleanest Port of the Year" for its outstanding initiatives in sanitation, green practices, and welfare programs such as Jan Bhagidari, Ek Ped Maa Ke Naam, and Safai Mitra support. The award ceremony was held in February 2026, where Paradip Port emerged as the top performer among all major ports of India.
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<p>Q. 32</p> <p>Which among the following Rigvedic deities was considered the "God of the Atmosphere" and the "Breaker of Forts"?</p> <p>a) Agni X</p> <p>b) Indra ✓</p> <p>c) Varuna X</p> <p>d) Soma X</p>	<p>✓ Correct Answer: Indra</p> <p>Explanation</p> <ul style="list-style-type: none"> Indra is the most celebrated deity in the Rigveda, often referred to as the "God of the Atmosphere" because he controls rain, thunder, and storms. He is also called the "Breaker of Forts" (Purandara), symbolizing his role in destroying the strongholds of enemies and protecting the Aryans. Indra is depicted as a mighty warrior who wields the Vajra (thunderbolt) and is praised for slaying the demon Vritra, releasing the waters and ensuring prosperity.
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Q. 33

Which of the following is an example of a "Sublimable" substance commonly used in households?

- a) Sodium Chloride X
- b) Magnesium Oxide X
- c) Calcium Carbonate X
- d) Naphthalene ✓

Explanation:

The correct answer is: Naphthalene ✓

Explanation

- **Sodium Chloride (NaCl)** → Common salt, does not undergo sublimation.
- **Magnesium Oxide (MgO)** → A stable oxide, not sublimable.
- **Calcium Carbonate (CaCO₃)** → Found in chalk/limestone, decomposes on heating but does not sublime.
- **Naphthalene (C₁₀H₈)** → A household substance used in mothballs, directly changes from solid to vapor without becoming liquid, making it a classic example of sublimation.

Q. 34

The 'Banni Grasslands', recently in news for the Chhari-Dhand Wetland Reserve, are located in which state?

- a) Gujarat ✓
- b) Rajasthan X
- c) Haryana X
- d) Madhya Pradesh X

Explanation:

The correct answer is: Gujarat ✓

Explanation

- **Banni Grasslands** are situated in the **Kutch district of Gujarat**.
- They are one of the largest grasslands in Asia and are ecologically significant, supporting diverse flora and fauna.
- The **Chhari-Dhand Wetland Reserve**, also located in Kutch, is a seasonal desert wetland that attracts thousands of migratory birds, making the region important for biodiversity conservation.

Q. 35	<p>What is the mandatory Priority Sector Lending (PSL) target for Regional Rural Banks (RRBs) as per RBI guidelines?</p> <p>a) 25% </p> <p>b) 50% </p> <p>c) 75% </p> <p>d) 100% </p>
Explanation:	<p>The mandatory Priority Sector Lending (PSL) target for Regional Rural Banks (RRBs) is 75% of their Adjusted Net Bank Credit (ANBC) or Credit Equivalent of Off-Balance Sheet Exposures (CEOBSSE).</p> <p>Explanation of Options</p> <ul style="list-style-type: none">• 25% → Too low; not prescribed by RBI.• 50% → Applicable to some categories of banks earlier, but not for RRBs.• 75% → Correct. As per RBI's Master Directions (2025), RRBs must allocate 75% of their lending to priority sectors.• 100% → Unrealistic; no bank has a 100% PSL requirement. <p>Breakdown of Sub-Targets within PSL for RRBs</p> <ul style="list-style-type: none">• Agriculture: 18% (with 14% for non-corporate farmers, 10% for small & marginal farmers).• Micro Enterprises: 7.5%.• Weaker Sections: 15%.• Other categories include housing, education, renewable energy, and social infrastructure.

<p>Q. 36</p> <p>The 'Amrit Bharat Station Scheme' (ABSS) launched by Indian Railways aims to modernize how many stations?</p> <p>a) 500+ X</p> <p>b) 800+ X</p> <p>c) 1300+ ✓</p> <p>d) 1500+ X</p>	<p>The correct answer is: 1300+ ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • The Amrit Bharat Station Scheme (ABSS) was launched by Indian Railways to modernize and redevelop railway stations across India. • The scheme covers over 1300 stations nationwide, focusing on improving passenger amenities, infrastructure, and sustainability. • Features include modern station buildings, better waiting halls, improved toilets, free Wi-Fi, upgraded platforms, and facilities for differently-abled passengers.
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<p>Q. 37</p> <p>Who is known as the "Father of the World Wide Web"?</p> <p>a) Tim Berners-Lee ✓</p> <p>b) Bill Gates X</p> <p>c) Steve Jobs X</p> <p>d) Vint Cerf X</p>	<p>The correct answer is: Tim Berners-Lee ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • Tim Berners-Lee → Invented the World Wide Web (WWW) in 1989 while working at CERN. He developed the first web browser and server, making him rightly called the Father of the World Wide Web. • Bill Gates → Co-founder of Microsoft, pioneer in personal computing, but not related to the invention of WWW. • Steve Jobs → Co-founder of Apple, known for innovations in personal devices, not WWW. • Vint Cerf → Known as one of the Fathers of the Internet for his work on TCP/IP protocols, but the Internet is different from the World Wide Web.
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<p>Q. 38</p> <p>Under the 42nd Amendment Act of 1976, which of the following words was NOT added to the Preamble?</p> <p>a) Socialist X</p> <p>b) Secular X</p> <p>c) Integrity X</p> <p>d) Republic ✓</p>	<p>The correct answer is: Republic ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • The 42nd Amendment Act, 1976 added the words Socialist, Secular, and Integrity to the Preamble of the Indian Constitution. • The word Republic was already part of the original Preamble since 1950, so it was not added by the 42nd Amendment.
<p>Q. 39</p> <p>Which ancient Indian text is considered the oldest treatise on medicine and surgery?</p> <p>a) Charaka Samhita X</p> <p>b) Astanga Hridayam X</p> <p>c) Sushruta Samhita ✓</p> <p>d) Madhava Nidana X</p>	<p>The correct answer is: Sushruta Samhita ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • Charaka Samhita → Foundational text of Ayurveda, mainly focused on medicine, diagnosis, and treatment, but not the oldest on surgery. • Astanga Hridayam → Written later by Vaghbhata, synthesizing Charaka and Sushruta traditions. • Madhava Nidana → Focuses on pathology and diagnosis, composed much later. • Sushruta Samhita → Considered the oldest treatise on medicine and surgery in India. Authored by Sushruta, it is renowned for its detailed descriptions of surgical techniques, instruments, and procedures (including rhinoplasty, cataract surgery, and wound management).

Q. 40	<p>Pabna Movement was held at which province of British India?</p> <p>a) Bombay X</p> <p>b) Madras X</p> <p>c) United Province X</p> <p>d) Bengal ✓</p>
Explanation:	<p>The correct answer is: Bengal ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • The Pabna Movement (1873–76) was a peasant uprising in the Pabna district of Bengal (now in Bangladesh). • It was directed against zamindars (landlords) who were exploiting peasants through illegal levies and harsh practices. • The movement was largely peaceful and non-violent, focusing on resisting rent enhancement and asserting tenant rights. • It is considered one of the earliest organized peasant movements in India, laying the foundation for later agrarian struggles.
Q. 41	<p>Who was the recipient of the 'Manohar Parrikar Yuva Scientist Award' in late 2025?</p> <p>a) Dr. S. Somanath X</p> <p>b) Dr. S. G. Gopalakrishnan ✓</p> <p>c) Dr. Tessy Thomas X</p> <p>d) Dr. Ritu Karidhal X</p>
Explanation:	<p>The correct answer is: Dr. S. G. Gopalakrishnan (Dr. Sai Gautam Gopalakrishnan) ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • Dr. S. Somanath → ISRO Chairman, but not the recipient of this award. • Dr. Tessy Thomas → Known as the "Missile Woman of India," but not the awardee here. • Dr. Ritu Karidhal → ISRO scientist, key figure in Mars Orbiter Mission, but not the awardee. • Dr. S. G. Gopalakrishnan (Sai Gautam Gopalakrishnan) → Associate Professor of Materials Engineering at IISc Bengaluru. He received the Manohar Parrikar Yuva Scientist Award 2025 for his groundbreaking research in computational materials science, which focuses on advanced materials innovation and applications.

Q. 42

Which of the following plant hormones is primarily responsible for the "Triple Response" in seedlings, including the inhibition of stem elongation?

- a) Auxin
- b) Abscisic Acid
- c) Gibberellin
- d) Ethylene

The correct answer is: Ethylene

Explanation

- **Auxin** → Promotes cell elongation and growth, not the triple response.
- **Abscisic Acid** → Involved in stress responses and seed dormancy, not stem elongation inhibition.
- **Gibberellin** → Promotes stem elongation and seed germination, opposite of inhibition.
- **Ethylene** → Responsible for the **Triple Response in seedlings**, which includes:
 1. Inhibition of stem elongation
 2. Thickening of the stem
 3. Horizontal growth (curvature)

Q. 43 Explanation:	<p>Which Article of the Indian Constitution provides for the "Adjudication of disputes relating to waters of inter-state rivers"?</p> <p>a) Article 260 </p> <p>b) Article 262 </p> <p>c) Article 263 </p> <p>d) Article 280 </p>
	<p>The correct answer is: Article 262 </p> <p>Explanation</p> <ul style="list-style-type: none">• Article 260 → Deals with jurisdiction of the Union in relation to territories outside India, not river disputes.• Article 262  → Provides for the adjudication of disputes relating to waters of inter-state rivers or river valleys. It empowers Parliament to make laws and even exclude the jurisdiction of the Supreme Court or other courts in such matters.• Article 263 → Provides for the establishment of an Inter-State Council to resolve disputes and coordinate policies, but not specifically about river water disputes.• Article 280 → Deals with the Finance Commission, unrelated to river disputes.

Q. 44

Raniganj, a prominent place in West Bengal, is related to which among the following?

- a) Coal Fields ✓
- b) Bauxite ✗
- c) Petroleum Industry ✗
- d) Mango Plantation ✗

Explanation:

The correct answer is: Coal Fields ✓

Explanation

- Raniganj (West Bengal) is famous for the Raniganj Coalfield, which is the oldest coalfield in India, discovered in the late 18th century.
- It played a crucial role in the industrial development of India, especially in the eastern region.
- Bauxite → Found mainly in Odisha and Jharkhand, not Raniganj.
- Petroleum Industry → Associated with Assam (Digboi), not Raniganj.
- Mango Plantation → Famous in Uttar Pradesh and Bihar, not Raniganj.

Q. 45

If a person moves towards a plane mirror with a speed of 'v' at what speed does his image appear to approach him?

- a) v ✗
- b) $2v$ ✓
- c) $v/2$ ✗
- d) v^2 ✗

Explanation:

The correct answer is: $2v$ ✓

Explanation

- In a **plane mirror**, the image appears at the same distance behind the mirror as the object is in front.
- If a person moves towards the mirror with speed v , the distance between the person and the image decreases at **twice that rate**.
- Hence, the image appears to approach the person with speed $2v$.

Q. 46 Explanation:	<p>Ural Mountains act as a border between which two continents?</p> <p>a) Asia and Europe ✓</p> <p>b) North America and South America ✗</p> <p>c) Asia and Africa ✗</p> <p>d) Asia and Australia ✗</p>
	<p>The correct answer is: Asia and Europe ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • The Ural Mountains stretch from Russia's north to south and are traditionally considered the natural boundary between Europe and Asia. • North America and South America → Divided by the Isthmus of Panama, not the Urals. • Asia and Africa → Divided by the Isthmus of Suez, not the Urals. • Asia and Australia → Separated by seas and oceans, not the Urals.
Q. 47 Explanation:	<p>In the context of Banking, what does 'SARFAESI Act, 2002' primarily deal with?</p> <p>a) Foreign Exchange Management ✗</p> <p>b) Mergers of Banks ✗</p> <p>c) ATM Transactions ✗</p> <p>d) Recovery of Non-Performing Assets ✓</p>
	<p>The correct answer is: Recovery of Non-Performing Assets (NPAs) ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • Foreign Exchange Management → Covered under FEMA, 1999, not SARFAESI. • Mergers of Banks → Governed by RBI and Banking Regulation Act, not SARFAESI. • ATM Transactions → Related to payment systems, not SARFAESI. • Recovery of Non-Performing Assets ✓ → The SARFAESI Act, 2002 (Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act) empowers banks and financial institutions to recover loans by: <ul style="list-style-type: none"> ◦ Taking possession of secured assets of borrowers. ◦ Selling them to recover dues. ◦ Setting up Asset Reconstruction Companies (ARCs).

Q. 48	<p>Which of the following is NOT an Operating System?</p> <p>a) Linux </p> <p>b) Oracle </p> <p>c) macOS </p> <p>d) Windows </p>
Explanation:	<p>The correct answer is: Oracle </p> <p>Explanation</p> <ul style="list-style-type: none">• Linux → An open-source operating system widely used in servers, desktops, and mobile devices.• macOS → Apple's operating system for Mac computers.• Windows → Microsoft's operating system for PCs.• Oracle → A company primarily known for its database software and enterprise solutions, not an operating system.
Q. 49	<p>Which Article of the Constitution states that "The Council of Ministers shall be collectively responsible to the Lok Sabha"?</p> <p>a) Art. 74 </p> <p>b) Art. 75 </p> <p>c) Art. 77 </p> <p>d) Art. 78 </p> <p>The correct answer is: Article 75 </p> <p>Explanation</p> <ul style="list-style-type: none">• Article 74 → Provides for a Council of Ministers headed by the Prime Minister to aid and advise the President.• Article 75 → States that "The Council of Ministers shall be collectively responsible to the House of the People (Lok Sabha)." This is the constitutional basis of collective responsibility in India.• Article 77 → Deals with the conduct of business of the Government of India.• Article 78 → Specifies the duties of the Prime Minister to furnish information to the President.

Q. 50	<p>Which ancient port of the Sangam Age was known to the Romans as 'Poduca'?</p> <p>a) Korkai </p> <p>b) Puhar </p> <p>c) Muziris </p> <p>d) Arikamedu </p>
Explanation:	<p>The correct answer is: Arikamedu </p> <p>Explanation</p> <ul style="list-style-type: none"> • Korkai → Famous pearl fishing center of the Pandya kingdom, but not called Poduca. • Puhar (Kaveripattinam) → Major Chola port, mentioned in Sangam literature, but Romans did not call it Poduca. • Muziris → Important Chera port in Kerala, known to Romans as Muziris, not Poduca. • Arikamedu → An ancient port near present-day Puducherry, identified as Poduca in Roman records. Archaeological evidence shows extensive Indo-Roman trade here, especially in beads, textiles, and wine amphorae.
Q. 51	<p>China shares the longest border with which country?</p> <p>a) Mongolia </p> <p>b) Russia </p> <p>c) India </p> <p>d) Kazakhstan </p>
Explanation:	<p>China shares its longest border with Mongolia, stretching about 4,630 km, making it the largest among all of China's 14 neighboring countries.</p> <p>Explanation:</p> <ul style="list-style-type: none"> • Mongolia → China–Mongolia border is the longest, approximately 4,630 km. • Russia → China–Russia border is also extensive but shorter (around 4,200 km). • India → The China–India border is about 3,488 km, making it one of the longest but not the largest. • Kazakhstan → China–Kazakhstan border is about 1,780 km, much shorter than Mongolia's.

Q. 52

'Mitakshara' a book on Hindu Law was written by which person?

- a) Jimutvahan X
- b) Vigyaneshwar ✓
- c) Ramanuja X
- d) Nimbarka X

Explanation:

The correct answer is: Vigyaneshwar ✓

Explanation

- **Jimutvahan** → Author of Dayabhaga, another important text on Hindu law, followed mainly in Bengal.
- **Vigyaneshwar** ✓ → Wrote Mitakshara, a commentary on the Yajnavalkya Smriti. It became the most authoritative text on Hindu law and is followed across most of India (except Bengal and Assam).
- **Ramanuja** → A philosopher and theologian, known for Sri Vaishnavism, not Hindu law.
- **Nimbarka** → Philosopher, founder of the Dvaitadvaita school of Vedanta, not related to Hindu law.

Q. 53

Which of the following is the most common material used as a 'Solar Cell' semiconductor due to its efficiency and abundance?

- a) Silicon ✓
- b) Gallium X
- c) Selenium X
- d) Germanium X

Explanation:

The correct answer is: Silicon ✓

Explanation

- **Silicon** → The most widely used material for solar cells because it is **abundant, cost-effective, and highly efficient** in converting sunlight into electricity. Most commercial photovoltaic cells are made of crystalline silicon.
- **Gallium** → Used in specialized solar cells (like Gallium Arsenide), but expensive and less common.
- **Selenium** → Historically used in early solar cells, but not efficient enough for large-scale use today.
- **Germanium** → Used in high-efficiency multi-junction solar cells (especially in space applications), but not common for everyday solar panels.

Q. 54	<p>Bhilai Steel Plant has been set up with the help of which country?</p> <p>a) Germany </p> <p>b) Russia </p> <p>c) Britain </p> <p>d) France </p>
Explanation:	<p>The correct answer is: Russia </p> <p>Explanation</p> <ul style="list-style-type: none"> • Bhilai Steel Plant (Chhattisgarh) was established in 1955 with the technical and financial assistance of the Soviet Union (Russia). • It is one of the first and largest steel plants in India, operated by Steel Authority of India Limited (SAIL). • Known for producing rails, structural steel, and other products, it played a crucial role in India's industrial development. • Germany, Britain, France → Assisted in setting up other steel plants (e.g., Rourkela with Germany, Durgapur with Britain, Bokaro with Soviet Union), but Bhilai specifically was set up with Russia's help.
Q. 55	<p>State Finance Commission is mentioned in which Article of the Constitution?</p> <p>a) 243 G </p> <p>b) 243 H </p> <p>c) 243 I </p> <p>d) 243 J </p>
Explanation:	<p>The correct answer is: Article 243 I </p> <p>Explanation</p> <ul style="list-style-type: none"> • Article 243G → Relates to the powers, authority, and responsibilities of Panchayats. • Article 243H → Deals with the powers of Panchayats to impose taxes. • Article 243I → Provides for the constitution of a State Finance Commission (SFC) every five years by the Governor of a state to review the financial position of Panchayats and Municipalities. • Article 243J → Relates to the audit of accounts of Panchayats.

Q. 56	<p>Who is the author of the book "Karmayogi: A Biography of E. Sreedharan"?</p> <p>a) Raghuram Rajan X</p> <p>b) Bibek Debroy X</p> <p>c) Shashi Tharoor X</p> <p>d) M.S. Ashokan ✓</p>
Explanation:	<p>The correct answer is: M.S. Ashokan ✓</p> <p>Explanation</p> <ul style="list-style-type: none">• Raghuram Rajan → Former RBI Governor, author of books on economics (Fault Lines, The Third Pillar), not related to E. Sreedharan.• Bibek Debroy → Economist, known for translations of the Mahabharata, not this biography.• Shashi Tharoor → Politician and writer, author of An Era of Darkness, but not this book.• M.S. Ashokan ✓ → Wrote Karmayogi: A Biography of E. Sreedharan, highlighting the life and contributions of the "Metro Man of India," who led projects like the Konkan Railway and Delhi Metro.

Q. 57

The 'PRITHVI' (PRomoting Innovative Technologies for Holistic and Vibrant India) scheme is under which Ministry?

a) Ministry of Earth Sciences ✓

b) Ministry of Science and Technology ✗

c) Ministry of Education ✗

d) Ministry of Agriculture ✗

The correct answer is: **Ministry of Earth Sciences (MoES)** ✓

Explanation

- The PRITHVI (Prithvi Vigyan) scheme is an **umbrella programme** launched by the **Ministry of Earth Sciences**.
- It merges five ongoing schemes:
 - **ACROSS** → Atmosphere & Climate Research – Modelling, Observing Systems & Services
 - **O-SMART** → Ocean Services, Modelling, Application, Resources & Technology
 - **PACER** → Polar Science and Cryosphere Research
 - **SAGE** → Seismology and Geosciences
 - **REACHOUT** → Research, Education, Training and Outreach
- The scheme holistically addresses all five components of the **Earth System**: atmosphere, hydrosphere, geosphere, cryosphere, and biosphere.
- Approved by the Union Cabinet in **January 2024**, it will run during **2021–26** with an outlay of **₹4,797 crore**.

Explanation:

Q. 58 2602231059	<p>Who coined the term "Biosphere"?</p> <p>a) Walter Rosen X</p> <p>b) Arthur Tansley X</p> <p>c) Ernst Haeckel X</p> <p>d) Edward Suess ✓</p>
Explanation: 2602231059	<p>The correct answer is: Edward Suess ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • Walter Rosen → Coined the term biodiversity, not biosphere. • Arthur Tansley → Introduced the concept of ecosystem, not biosphere. • Ernst Haeckel → Introduced the term ecology, not biosphere. • Edward Suess ✓ → An Austrian geologist who coined the term biosphere in 1875, referring to the zone of life on Earth where living organisms interact with the lithosphere, atmosphere, and hydrosphere.
Q. 59 2602231059	<p>Which component of the computer is known as the 'Northbridge' or 'Southbridge' in older architectures?</p> <p>a) RAM X</p> <p>b) BIOS X</p> <p>c) Chipset ✓</p> <p>d) CMOS X</p>
Explanation: 2602231059	<p>The correct answer is: Chipset ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • RAM → Random Access Memory, used for temporary data storage, not called Northbridge/Southbridge. • BIOS → Basic Input Output System, firmware for booting the computer, not related to bridges. • Chipset ✓ → In older computer architectures, the chipset was divided into two parts: <ul style="list-style-type: none"> ◦ Northbridge → Managed communication between CPU, RAM, and graphics card. ◦ Southbridge → Handled input/output functions like USB, audio, storage, and other peripherals. • CMOS → Complementary Metal-Oxide Semiconductor, used for storing BIOS settings, not a bridge.

<p>Q. 60</p> <p>In the context of nuclear reactors, which material is commonly used as a 'Moderator' to slow down neutrons?</p> <p>a) Heavy Water ✓</p> <p>b) Boron ✗</p> <p>c) Cadmium ✗</p> <p>d) Uranium-235 ✗</p>	<p>The correct answer is: Heavy Water ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • Heavy Water (D_2O) → Commonly used as a moderator in nuclear reactors. It slows down fast neutrons, making them more effective in sustaining the chain reaction with fissile material like Uranium-235. • Boron → Used as a neutron absorber (control rods), not a moderator. • Cadmium → Also used in control rods to absorb neutrons, not to slow them down. • Uranium-235 → A fuel in nuclear reactors, not a moderator.
<p>Q. 61</p> <p>Which of the following is NOT a feature of the Federal system in India?</p> <p>a) Written Constitution ✗</p> <p>b) Independent Judiciary ✗</p> <p>c) Single Citizenship ✓</p> <p>d) Division of Powers ✗</p>	<p>The correct answer is: Single Citizenship ✓</p> <p>Explanation</p> <ul style="list-style-type: none"> • Written Constitution → Yes, India has a written Constitution, a key feature of federalism. • Independent Judiciary → Yes, ensures disputes between Centre and States are resolved fairly. • Division of Powers → Yes, powers are divided between Union and State governments (Union List, State List, Concurrent List). • Single Citizenship ✓ → This is NOT a feature of classical federal systems. In India, unlike the USA, citizens have only one citizenship (Indian), not dual (Union + State). This reflects India's unitary bias within its federal framework.

Q. 62

Which Indian state is known for the "Mawsynram" region, receiving the highest average rainfall in the world?

- a) Arunachal Pradesh X
- b) Mizoram X
- c) Assam X
- d) Meghalaya ✓

The correct answer is: Meghalaya ✓

Explanation

- **Mawsynram**, located in the East Khasi Hills district of **Meghalaya**, holds the record for the **highest average annual rainfall in the world** (around 11,000–12,000 mm).
- **Arunachal Pradesh** → Receives heavy rainfall but not the world record.
- **Mizoram** → Also a high-rainfall state, but not the highest globally.
- **Assam** → Known for floods and monsoons, but not the record-holder.
- **Meghalaya ✓** → Famous for both **Mawsynram** and **Cherrapunji**, two of the wettest places on Earth.

Explanation:

Q. 63

Which unit of the CPU is responsible for performing logical operations such as AND, OR, and NOT?

- a) Control Unit X
- b) Arithmetic Logic Unit ✓
- c) Cache Memory X
- d) Register Unit X

The correct answer is: Arithmetic Logic Unit (ALU) ✓

Explanation

- **Control Unit (CU)** → Directs the flow of data and instructions, but does not perform logical operations.
- **Arithmetic Logic Unit (ALU) ✓** → Performs arithmetic operations (addition, subtraction, etc.) and logical operations (AND, OR, NOT, XOR, etc.).
- **Cache Memory** → High-speed memory used to store frequently accessed data, not for logical operations.
- **Register Unit** → Small storage locations inside the CPU for temporary data, not responsible for performing operations.

Q. 64

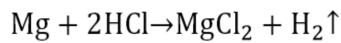
Which gas is produced when magnesium ribbon reacts with dilute hydrochloric acid?

- a) Oxygen
- b) Nitrogen
- c) Carbon Dioxide
- d) Hydrogen

The correct answer is: Hydrogen

Explanation

When **magnesium ribbon (Mg)** reacts with **dilute hydrochloric acid (HCl)**, the reaction is:



- **Oxygen** → Not produced in this reaction.
- **Nitrogen** → No nitrogen source here.
- **Carbon Dioxide** → Produced when carbonates react with acids, not magnesium.
- **Hydrogen** → Released as a gas during the reaction.

Q. 65

Which type of malware records every keystroke typed on a computer to steal passwords and sensitive data?

- a) Ransomware X
- b) Spyware X
- c) Keylogger ✓
- d) Trojan Horse X

Explanation:

The correct answer is: Keylogger ✓

Explanation

- **Ransomware** → Encrypts files and demands payment for decryption, not related to keystroke recording.
- **Spyware** → Monitors user activity secretly, but does not specifically record every keystroke.
- **Keylogger** → A malicious program that **records every keystroke** typed on a computer, often used to steal **passwords, PINs, and sensitive data**.
- **Trojan Horse** → Malware disguised as legitimate software, but its function depends on the payload; not specifically for keystroke logging.

Q. 66

In the context of thermodynamics, what occurs during an 'Adiabatic' process?

- a) Temperature remains constant X
- b) Volume remains constant X
- c) Pressure remains constant X
- d) No heat is exchanged with the surroundings ✓

Explanation:

The correct answer is: No heat is exchanged with the surroundings ✓

Explanation

- **Adiabatic process** → A thermodynamic process in which **no heat transfer ($Q = 0$)** occurs between the system and its surroundings.
- **Temperature remains constant** → That describes an isothermal process, not adiabatic.
- **Volume remains constant** → That describes an isochoric process.
- **Pressure remains constant** → That describes an isobaric process.

Q. 67

Who is the author of the recently released book (2025) "Mother Mary Comes to Me"?

- a) Vikram Seth ✗
- b) Arundhati Roy ✓
- c) Amitav Ghosh ✗
- d) Jhumpa Lahiri ✗

The correct answer is: Arundhati Roy ✓

Explanation

- **Vikram Seth** → Known for A Suitable Boy, but not connected to this book.
- **Amitav Ghosh** → Famous for The Shadow Lines and climate-focused works, not this memoir.
- **Jhumpa Lahiri** → Renowned for Interpreter of Maladies, but not the author here.
- **Arundhati Roy** → Booker Prize-winning author of **The God of Small Things**. In 2025, she released **Mother Mary Comes to Me**, a deeply personal memoir reflecting on her relationship with her mother, Mary Roy, who was a pioneering social activist and educationist. The book intertwines themes of family, memory, grief, and social justice.

Explanation:

Q. 68

Which Indian film won the 'Best Feature Film' award at the 71st National Film Awards?

- a) Jawan ✗
- b) Animal ✗
- c) Kantara ✗
- d) 12th Fail ✓

The correct answer is: 12th Fail ✓

Explanation

- **Jawan** → Won awards like Best Actor (Shah Rukh Khan), but not Best Feature Film.
- **Animal** → Secured multiple awards, but not Best Feature Film.
- **Kantara** → Critically acclaimed, but not the winner here.
- **12th Fail** → Directed by Vidhu Vinod Chopra, based on the real-life struggles of IPS officer Manoj Kumar Sharma. It won the **Best Feature Film** award at the **71st National Film Awards (2025)**.

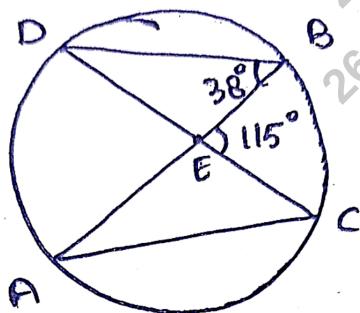
Q. 69	<p>Which law of physics explains the working principle of a hydraulic jack used in automobile service stations?</p> <p>a) Bernoulli's Principle X</p> <p>b) Hooke's Law X</p> <p>c) Pascal's Law ✓</p> <p>d) Archimedes' Principle X</p>
Explanation:	<p>The correct answer is: Pascal's Law ✓</p> <p>Explanation</p> <p>A hydraulic jack works on Pascal's Law, which states that when pressure is applied to a confined fluid, the pressure is transmitted equally and undiminished in all directions.</p> <ul style="list-style-type: none">• Bernoulli's Principle → Deals with fluid flow and pressure differences, not hydraulic lifting.• Hooke's Law → Relates to elasticity of materials, not fluid mechanics.• Archimedes' Principle → Explains buoyancy, not hydraulic pressure transmission.• Pascal's Law → Explains how a small force applied on a small piston can be transmitted through fluid to lift heavy loads with a larger piston.

Q. 70	<p>Which Indian city is famously known as the "Athens of the East"?</p> <p>a) Kochi X</p> <p>b) Jaipur X</p> <p>c) Varanasi X</p> <p>d) Madurai ✓</p>
Explanation:	<p>✓ Correct Answer: Madurai</p> <p>Explanation</p> <ul style="list-style-type: none">• Madurai, located in Tamil Nadu, is famously called the "Athens of the East" because of its rich cultural heritage, architectural marvels, and historical significance, much like Athens in Greece.• The city is renowned for the Meenakshi Amman Temple, its ancient learning centers, and its continuous role as a hub of Tamil culture and literature.• The nickname highlights Madurai's importance as a cradle of civilization, philosophy, and art in South India. <p>Other Options:</p> <ul style="list-style-type: none">• Kochi – Known as the "Queen of the Arabian Sea," famous for spice trade and colonial history.• Jaipur – Called the "Pink City," known for forts, palaces, and planned architecture.• Varanasi – Known as the "Spiritual Capital of India," one of the oldest living cities in the world.

Q. 71

AB and CD are two chords of a circle which intersect at E inside the circle. If $\angle BEC = 115^\circ$ and $\angle EBD = 38^\circ$, then what is the measure of $\angle BAC$?

- a) 68° X
- b) 97° X
- c) 77° ✓
- d) 105° X



Explanation:

Exterior angle $\angle BEC =$

$$\angle BDE + \angle EBD$$

$$115^\circ = \angle BDE + 38^\circ$$

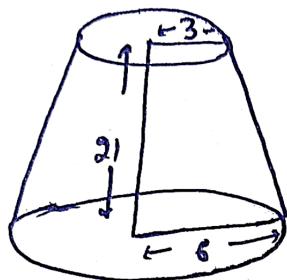
$$\angle BPE = 115 - 38^\circ$$

$= 77^\circ$ (Angles
in Same Segment)

Q. 72

The radii of the two circular faces of the frustum of a cone of height 21 cm are 6 cm and 3 cm. What is its volume in cm^3 ? ($\pi = 22/7$)

- a) 1364 cm^3 X
- b) 1386 cm^3 ✓
- c) 1430 cm^3 X
- d) 1452 cm^3 X



Explanation:

$$V = \frac{1}{3} \pi (R^2 + r^2 + Rr) \times h$$

$$= \frac{1}{3} \times \frac{22}{7} (36 + 9 + 18) \times 21$$

$$= 22 \times 63$$

$$= 1386 \text{ cm}^3$$

Q. 73

Find the total prime numbers between 178 and 238.

- a) 9 X
- b) 10 X
- c) 11 ✓
- d) 12 X

Check prime numbers between 178 and 238

Prime numbers:

179, 181, 191, 193, 197, 199,
211, 223, 227, 229, 233

Explanation:

Total prime numbers = 11

Q. 74

Simplify the following expression:

$$\frac{\sin\theta}{1 + \cos\theta} + \frac{1 + \cos\theta}{\sin\theta} \times \sin\theta$$

- a) 0 X
- b) 1 X
- c) -1 X
- d) 2 ✓

$$= \frac{\sin^2\theta}{1 + \cos\theta} + (1 + \cos\theta)$$

$$= \frac{1 - \cos^2\theta}{1 + \cos\theta} + (1 + \cos\theta)$$

Explanation:

$$= \frac{(1 - \cos\theta)(1 + \cos\theta)}{1 + \cos\theta} + (1 + \cos\theta)$$

$$= (1 - \cos\theta) + (1 + \cos\theta)$$

$$= 2$$

Q. 75

A man pays back a sum of Rs. 25,010 in two, equal, half-yearly instalments. If the rate of interest is 10% p.a., compounded half-yearly, then the total interest paid is:

- a) ₹1741 X
- b) ₹1891 ✓
- c) ₹1532 X
- d) ₹1655 X

$$\begin{aligned} * \quad & 10\% \text{ for half yearly} \\ & = \frac{10}{2} = 5\% \\ & 5\% = \frac{1}{20} \end{aligned}$$

$$\begin{array}{r} 420 \\ 21 \times 20 \longrightarrow 21 \times 21 \\ \hline 400 & 441 \\ \hline 820 & 882 \\ 62 & \end{array}$$

$$820 \rightarrow 25,010$$

$$\begin{aligned} 62 & \rightarrow \frac{25,010}{820} \times 62 \\ & = 1891 \text{ ₹} \end{aligned}$$

Explanation:

Q. 76

The ratio of income of A to that of B is 5 : 4. The expenditure of A is $\frac{3}{10}$ of his income and the expenditure of B is $\frac{5}{8}$ of his income. The difference between their expenditure is ₹3,500. Find the income of B.

- a) ₹14,000 ✓
- b) ₹7,000 ✗
- c) ₹3,500 ✗
- d) ₹10,000 ✗

$$\begin{array}{ccc}
 & \text{A} & \text{:} & \text{B} \\
 I & 5 & : & 4 \\
 & \downarrow \times \frac{3}{10} & & \downarrow \times \frac{5}{8} \\
 E & \frac{3}{2} & : & \frac{5}{2}
 \end{array}$$

$$1 \rightarrow 3500$$

$$4 \rightarrow 14000 \text{ ₹}$$

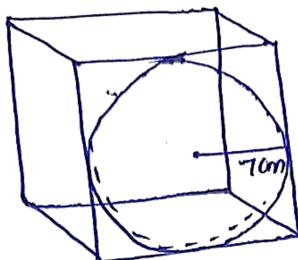
$$\begin{aligned}
 \text{So income of B} \\
 = 14,000 \text{ ₹}
 \end{aligned}$$

Explanation:

Q. 77

Three identical cones, each with a radius of 7 cm and a height of 24 cm, are carved out from a solid wooden cuboid with dimensions 25 cm \times 30 cm \times 50 cm. The base of each cone lies on the surface of the cuboid. What is the total surface area (in cm^2) of the remaining solid? (Take $\pi = 22/7$)

- a) 8168 cm^2 X
- b) 8188 cm^2 ✓
- c) 8178 cm^2 X
- d) 8198 cm^2 X



$$\text{Cuboid surface area} =$$

$$2(lb + bh + hl) = 2 \times (25 \times 30 + 25 \times 50 + 30 \times 50) \\ = 7000 \text{ cm}^2$$

Explanation:

$$\text{Cone slant height } l = \sqrt{r^2 + h^2} \\ = \sqrt{49 + 576} = 25 \text{ cm}$$

Lateral surface area of 3 cones

$$= 3\pi rl = 3 \times 22/7 \times 7 \times 25 = 1650 \text{ cm}^2$$

$$\text{Area of 3 cone bases removed} = 3 \times \pi r^2 \\ = 3 \times 22/7 \times 49 = 462 \text{ cm}^2$$

Remaining solid surface area =

$$7000 + 1650 - 462 \\ = 8188 \text{ cm}^2$$

Q. 78

In an election between two candidates, the defeated candidate secured 45% of the valid votes polled and lost the election by 3,20,000 votes. If 80,000 votes were declared invalid and 20% of people did NOT cast their vote, then the invalid votes were what percentage (rounded off to 1 decimal place) of the votes which people did NOT cast?

- a) 8.6%
- b) 9.2%
- c) 9.8%
- d) 8.8%

$$\text{Margin} = 55\% - 45\% = 10\%$$

$$10\% \text{ of valid votes} = 3,20,000$$

$$\begin{aligned}\text{Valid votes} &= \frac{3,20,000}{0.10} \\ &= 32,00,000\end{aligned}$$

$$\begin{aligned}\text{Total votes cast} &= 32,00,000 + 80,000 \\ &= 32,80,000\end{aligned}$$

Since 20% did NOT vote \rightarrow 80% voted

$$\begin{aligned}\text{Total voters} &= \frac{32,80,000}{0.80} \\ &= 41,00,000\end{aligned}$$

$$\begin{aligned}\text{Non-voters} &= 20\% \text{ of } 41,00,000 \\ &= 8,20,000\end{aligned}$$

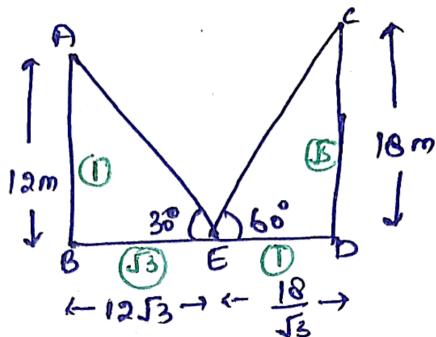
$$\begin{aligned}\text{Required \%} &= \left(\frac{80,000}{8,20,000} \right) \times 100 \\ &\approx 9.8\%\end{aligned}$$

Explanation:

Q. 79

A man standing on the line joining the feet of two towers of heights 12 m and 18 m observes the tops of the towers at angles of elevation 30° and 60° , respectively. What is the distance (in metres) between the feet of the two towers? (Take $\sqrt{3} = 1.73$)

- a) 31.176 m ✓
- b) 31.526 m ✗
- c) 32.012 m ✗
- d) 32.425 m ✗



$$BE = 12\sqrt{3} \text{ m}$$

$$ED = \frac{18}{\sqrt{3}} \text{ m}$$

distance between the
feet of the towers

$$= 12\sqrt{3} + \frac{18}{\sqrt{3}}$$

$$= 12\sqrt{3} + 6\sqrt{3}$$

$$= 18\sqrt{3}$$

$$= 18 \times 1.732$$

$$= 31.176 \text{ m}$$

Explanation:

Q. 80

Three pipes have diameters of 1 cm, 2 cm, and 4 cm. The rate of water flow through each pipe is proportional to the square of its diameter. When all three pipes are opened together, they can fill an empty cistern in 24 minutes. How many minutes would it take for the 2 cm pipe alone to fill the same cistern?

- a) 2 hr X
- b) 2 hr 4 minutes X
- c) 2 hr 6 minutes ✓
- d) 2 hr 12 minutes X

$$\text{Rate} \propto (\text{diameter})^2$$

$$1^2 : 2^2 : 4^2 = 1 : 4 : 16$$

Total = 21 parts

All three fill in 24 min

$$\text{Time} \propto \frac{1}{\text{rate}}$$

So, time of 2 cm pipe alone

$$= 24 \times \frac{21}{4}$$

$$= 24 \times 5.25$$

$$= 126 \text{ minutes}$$

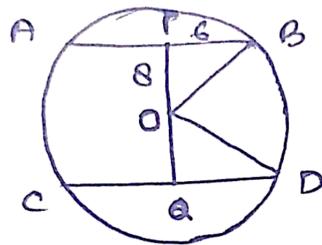
= 2 hr 6 minutes

Explanation:

Q. 81

The distance between two equal parallel chords of a circle is 16 cm. If the chords are 12 cm long, then what is the length of the radius?

- a) $3\sqrt{5}$ cm X
- b) $6\sqrt{3}$ cm X
- c) $8\sqrt{2}$ cm X
- d) 10 cm ✓



Length of each chords
= 12 cm

Explanation:

In $\triangle BPO$,

$$\begin{aligned}OB^2 &= PB^2 + OP^2 \\&= 6^2 + 8^2 \\&= 36 + 64 \\OB &= 10 \text{ cm.}\end{aligned}$$

Q. 82

If $x + 1/x = 1$, then find the value of $x^{12} + x^9 + x^6 + x^3 + 1$.

- a) 0 X
- b) 1 ✓
- c) -1 X
- d) -2 X

$$\begin{aligned}x + \frac{1}{x} &= 1 \\ \Rightarrow x^2 - x + 1 &= 0 \\ \Rightarrow x^3 + 1 &= 0 \\ \Rightarrow x^3 &= -1\end{aligned}$$

Now,

$$\begin{aligned}x^6 &= 1 \\ x^9 &= -1 \\ x^{12} &= 1\end{aligned}$$

Required value:

$$\begin{aligned}x^{12} + x^9 + x^6 + x^3 + 1 \\ = 1 - 1 + 1 - 1 + 1 \\ = 1\end{aligned}$$

Q. 83

If the mean and median are equal for the following data, find the value of x ($x < 6$).

Class Interval	10-20	20-30	30-40
Frequency	5	12	x

- a) 3 X
- b) 4 X
- c) 5 ✓
- d) 2 X

Mid values $\rightarrow 15, 25, 35$

$$N = 17 + x$$

$$\text{Mean} = \frac{375 + 35x}{17 + x}$$

$$\text{Since } x < 6 \Rightarrow \text{Mean} < 11.5$$

Median class = 20-30

$$\text{Median} = 20 + \left[\frac{\frac{17+x}{2} - 5}{12} \right] \times 10$$

$$= 20 + \frac{35 + 5x}{12}$$

Mean = Median

$$\frac{375 + 35x}{17 + x} = 20 + \frac{35 + 5x}{12}$$

$$\Rightarrow x^2 - 12x + 35 = 0$$

$$\Rightarrow (x - 5)(x - 7) = 0$$

Since $x < 6$

$$x = 5$$

Q. 84

The height of the cylindrical bucket is 32 cm and base radius is 18 cm and the bucket is filled with sand. When the bucket is emptied, a pile of cone of 24 cm radius is formed. What is the height of the pile (in cm)?

- a) 54 cm ✓
- b) 52 cm ✗
- c) 48 cm ✗
- d) 53 cm ✗

Cylinder volume = Cone volume

$$\pi \times 18^2 \times 32 = \pi \times 24^2 \times H$$

$$18^2 \times 32 = \times 24^2 \times H$$

$$324 \times 32 = 192H$$

$$10368 = 192H$$

$$H = \frac{10368}{192} = 54 \text{ cm}$$

Explanation:

Q. 85

Simplify the following:

$$\frac{(0.04)^{-\frac{1}{2}} \times (125)^{\frac{2}{3}} \times (16)^{\frac{3}{4}}}{(0.2)^{-2} \times (25)^{\frac{1}{2}}}$$

- a) 6 X
- b) 1 X
- c) 8 ✓
- d) 10 X

$$\frac{(0.04)^{-\frac{1}{2}} \times (125)^{\frac{2}{3}} \times (16)^{\frac{3}{4}}}{(0.2)^{-2} \times (25)^{\frac{1}{2}}}$$

$$= \frac{((0.2)^2)^{-\frac{1}{2}} \times (5^3)^{\frac{2}{3}} \times (2^4)^{\frac{3}{4}}}{(0.2)^{-2} \times (5^2)^{\frac{1}{2}}}$$

$$= \frac{(0.2)^{-1} \times 5^2 \times 2^3}{(0.2)^{-2} \times 5}$$

$$= \frac{5 \times 8}{5}$$

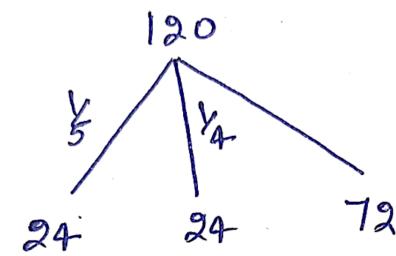
$$= 8$$

Explanation:

Q. 86

A shopkeeper sells one-fifth of his articles at a 20% profit, one-fourth of the remaining articles at a 10% loss, and the remaining articles at a profit equal to the cost price of 24 articles. If the shopkeeper initially had 120 articles, what is his profit percentage in the entire transaction?

- a) 62% X
- b) 22% ✓
- c) 82% X
- d) 33.33% X



$$+20\% \quad -10\%$$

$$\frac{100}{3}\%$$

$$72 SP = (72 + 24) CP$$

$$\frac{SP}{CP} = \frac{96}{72} = \frac{4}{3}$$

$$\frac{1}{3} \times 100 = \frac{100}{3}\%$$

Now,

$$\frac{20\% - 10\% + 100}{5}$$

$$= 22\% \text{ Profit}$$

Q. 87

A car travels with a speed of 25 m/sec in the first 12 minutes, 12 km in the next 18 minutes, and 15 km in the last 15 minutes of its journey. What is the average speed of the car in km/h during its entire journey?

- a) 65 km/h
- b) 50 km/h
- c) 60 km/h
- d) 55 km/h

12 min at 25 m/s

$$25 \text{ m/s} = 90 \text{ km/h}$$

$$12 \text{ min} = 0.2 \text{ hr}$$

$$\text{Distance}_1 = 90 \times 0.2 = 18 \text{ km}$$

$$\text{Total distance} = 18 + 12 + 15 = 45 \text{ km}$$

$$\text{Total time} = 12 + 18 + 15 = 45 \text{ min} = 0.75 \text{ hr}$$

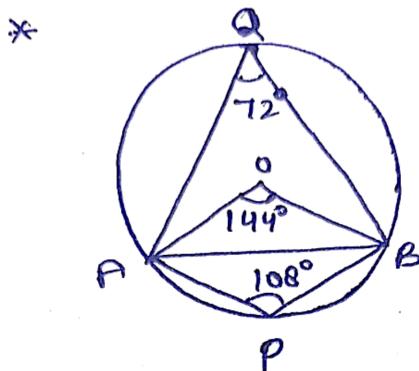
$$\text{Average speed} = \frac{45}{0.75} = 60 \text{ km/h}$$

Explanation:

Q. 88

AB is a chord of a circle with centre O and P is any point on the circle, if $\angle APB = 108^\circ$, then what is the measure of $\angle OAB$?

- a) 28° X
- b) 18° ✓
- c) 144° X
- d) 72° X



$$\angle APB = 108^\circ$$

$$\text{then } \angle AQB = 180 - 108 \\ = 72^\circ$$

$$\text{then angle } \angle AOB = \\ 2 \times 72 = 144^\circ$$

$$\therefore AO = BO = (\text{radius})$$

$$2\angle AOB = 180 - 144 \\ = 36$$

$$\angle AOB = 18^\circ$$

Explanation:

Q. 89

In a showroom the price of a refrigerator is ₹ 84,000. The customer gets an immediate cash discount of ₹ 4,000, and additionally receives a scratch card promising a percentage discount ranging from 12% to 20%. Determine the difference between the least and the maximum selling prices of the refrigerator.

- a) ₹6,500
- b) ₹6,300
- c) ₹6,200
- d) ₹6,400

$$\text{MP} = 84,000$$

After ₹ 4,000 discount → 80,000

Difference will come only due to % discount range.

Explanation:

$$\text{Range of discount} = 20\% - 12\% = 8\%$$
$$\text{So, required difference} = 8\% \text{ of } 80,000$$
$$= 0.08 \times 80,000$$
$$= 6,400$$

Q. 90

Find the difference between the compound interest and simple interest on a sum of ₹ 24,000 invested for 2 years at 8% per annum.

- a) ₹ 153.60 ✓
- b) ₹ 124.80 ✗
- c) ₹ 132.40 ✗
- d) ₹ 162.30 ✗

C.I. for 2 years at 8%

$$= 8 + 8 + \frac{8 \times 8}{100}$$

$$= 16.64$$

S.I. for 2 year at 8%

$$= 2 \times 8$$

$$= 16\%$$

diff (C.I - S.I)

$$= (16.64 - 16)\%$$

$$= 0.64\%$$

Now,

$$\frac{24000 \times 0.64}{100}$$

$$= 153.6 \text{ ₹}$$

Explanation:

Q. 91

12 men working 6 hours a day complete a piece of work in 15 days. In how many days can 9 men working for 8 hours a day complete the same piece of work?

- a) 10 days X
- b) 15 days ✓
- c) 18 days X
- d) 12 days X

$$M_1 \times D_1 \times H_1 = M_2 \times D_2 \times H_2$$

$$12 \times 15 \times 6 = 9 \times D_2 \times 8$$

Explanation:

$$D_2 = \frac{12 \times 15 \times 6^2}{9 \times 8}$$

$$D_2 = 15 \text{ days}$$

Q. 92

The average weight of a class of 30 students is 48 kg. If we include the weight of the class teacher, then the average becomes 49.5 kg. What is the weight of the class teacher?

- a) 92.5 kg X
- b) 93.5 kg X
- c) 94.5 kg ✓
- d) 95.5 kg X

Explanation:

$$\text{Increase in average} = 49.5 - 48 = 1.5 \text{ kg}$$

$$\begin{aligned}\text{Extra total weight added} &= 1.5 \times 31 \\ &= 46.5 \text{ kg}\end{aligned}$$

But this increase is due to teacher only,

$$\text{Teacher's weight} = \text{Old total} + \text{increase} - \text{Old total}$$

$$\begin{aligned}\text{Teacher's weight} &= 49.5 \times 31 - 48 \times 30 \\ &= 1534.5 - 1440 \\ &= 94.5 \text{ kg}\end{aligned}$$

Q. 93

If $N = 0.369369369369\dots$ and $M = 0.531531531531\dots$, then what is the value of $\frac{1}{N} + \frac{1}{M}$?

a) $\frac{100}{111}$ X

b) $\frac{11100}{2419}$ ✓

c) $\frac{10000}{11100}$ X

d) $\frac{1897}{3162}$ X

$$N = 0.369369369\dots$$

$$\Rightarrow N = \frac{369}{999}$$

$$M = 0.531531531\dots$$

$$\Rightarrow M = \frac{531}{999}$$

Now,

$$\frac{1}{N} = \frac{999}{369}$$

$$\frac{1}{M} = \frac{999}{531}$$

So,

$$\frac{1}{N} + \frac{1}{M} = \frac{999}{369} + \frac{999}{531}$$

Taking LCM (or direct addition):

$$= \frac{11100}{2419}$$

Explanation:

Q. 94

The area (in sq units) of the triangle formed by the graphs of equations $3x + 4y = 12$, $y - x = 3$ and the x-axis is:

- a) 21 sq units X
- b) 10 sq units X
- c) 10.5 sq units ✓
- d) 15 sq units X

Explanation:

$$3x + 4y = 12 \Rightarrow y = 3 - 3x/4$$
$$y - x = 3 \Rightarrow y = x + 3$$

With x-axis ($y = 0$):

$$\text{From } 3x + 4y = 12 \Rightarrow x = 4$$

$$\text{From } y - x = 3 \Rightarrow x = -3$$

$$\text{Base on x-axis} = 4 - (-3) = 7$$

Intersection of lines:

$$\text{Put } y = x + 3 \text{ in } 3x + 4y = 12$$

$$3x + 4(x + 3) = 12$$

$$7x + 12 = 12$$

$$x = 0 \Rightarrow y = 3$$

Height = 3

$$\text{Area} = 1/2 \times 7 \times 3$$

$$= \frac{21}{2}$$

$$= 10.5$$

Q. 95

Simplify:

$$\sqrt{-\sqrt{3} + \sqrt{3 + 8\sqrt{7 + 4\sqrt{3}}}}$$

- a) $2 + \sqrt{3}$ X
- b) 1 X
- c) $\sqrt{3}$ X
- d) 2 ✓

$$x = \sqrt{-\sqrt{3} + \sqrt{3 + 8\sqrt{7 + 4\sqrt{3}}}}$$

$$7 + 4\sqrt{3} = (2 + \sqrt{3})^2 \Rightarrow \sqrt{7 + 4\sqrt{3}} = 2 + \sqrt{3}$$

$$3 + 8(2 + \sqrt{3})$$

$$= 19 + 8\sqrt{3}$$

$$= (4 + \sqrt{3})^2$$

$$\Rightarrow \sqrt{19 + 8\sqrt{3}} = 4 + \sqrt{3}$$

$$x = \sqrt{-\sqrt{3} + 4 + \sqrt{3}}$$

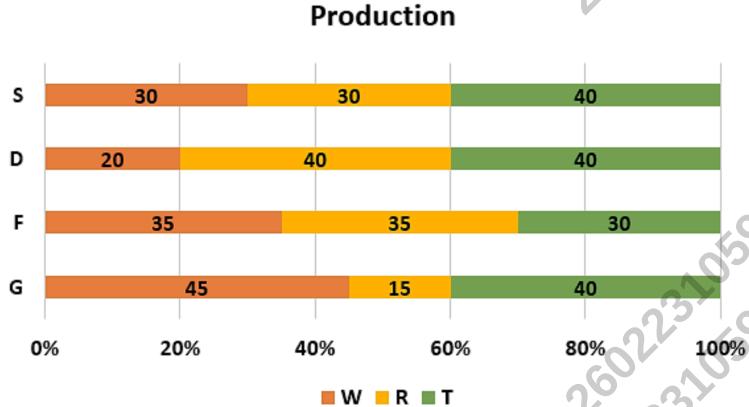
$$= \sqrt{4}$$

$$= 2$$

Explanation:

Q. 96

The graph shows the data of production of items: W, R and T by four companies: S, D, F and G as percentage of their total productions.



If the total productions of F and S are 2000 and 3000, respectively, the difference in the productions of R by these companies is:

- a) 250 X
- b) 150 X
- c) 200 ✓
- d) 100 X

Explanation:

$$R \text{ in } F = 35\% \text{ of } 2000 = 700$$

$$R \text{ in } S = 30\% \text{ of } 3000 = 900$$

$$\text{Difference} = 900 - 700 = 200$$

Q. 97

The sum of two numbers is 1056 and their Highest Common Factor (HCF) is 66. How many pairs of numbers satisfy these conditions?

- a) 3 X
- b) 4 ✓
- c) 5 X
- d) 6 X

66a and 66b
(since HCF = 66)

Given:

$$\begin{aligned}66a + 66b &= 1056 \\66(a + b) &= 1056 \\a + b &= 1056/66 \\a + b &= 16\end{aligned}$$

Now $\text{HCF}(66a, 66b) = 66$

$\Rightarrow \text{HCF}(a, b) = 1$
(so a and b must be co-prime)

So we need number of co-prime pairs (a, b) such that

$$a + b = 16$$

Possible positive pairs:

(1,15), (2,14), (3,13), (4,12), (5,11), (6,10), (7,9), (8,8)

Now check $\text{HCF}(a, b) = 1$:

(1,15) ✓, (2,14) X, (3,13) ✓, (4,12) X, (5,11) ✓, (6,10) X, (7,9) ✓
(8,8) X

Total valid pairs = 4

Explanation:

Q. 98

Anu's age, 6 years hence, will be two years less than twice the age of Binu at that time. Binu's age, 8 years hence, will be equal to $\frac{3}{4}$ of Anu's present age. What is the difference (in years) between the present ages of Anu and Binu?

- a) 8 years
- b) 6 years
- c) 12 years
- d) 14 years

Let present ages = A and B

$$A + 6 = 2(B + 6) - 2$$

$$A + 6 = 2B + 10$$

$$A = 2B + 4$$

$$B + 8 = \frac{3}{4} A$$

$$4B + 32 = 3A$$

$$\text{Substitute } A = 2B + 4$$

$$4B + 32 = 3(2B + 4)$$

$$4B + 32 = 6B + 12$$

$$20 = 2B$$

$$B = 10$$

$$A = 2(10) + 4 = 24$$

$$\text{Difference} = 24 - 10 = \mathbf{14 \text{ years}}$$

Explanation:

Q. 99

A 6-digit number 752ABC is divisible by 5, 8, and 9. Find the value of A + B - C, where A is the smallest possible number.

- a) 7 X
- b) 9 X
- c) 4 ✓
- d) 3 X

752ABC divisible by 5 \Rightarrow C = 0

Divisible by 8 \Rightarrow last three digits AB0 divisible by 8

Take smallest A = 0

So number = 7520B0

Divisible by 8:

$$10B \equiv 0 \pmod{8}$$

$$2B \equiv 0 \pmod{8}$$

$$B = 0, 4, 8$$

Divisible by 9:

$$\text{Sum} = 7+5+2+0+B+0 = 14 + B$$

$$14 + B \equiv 0 \pmod{9}$$

$$B = 4$$

Thus A = 0, B = 4, C = 0

$$A + B - C = 0 + 4 - 0 = 4$$

Explanation:

Q. 100

The given table shows the number of chocolates produced by five factories over 3 years.

Year	P	Q	R	S	T
2020	15,230	10,250	12,390	16,250	15,840
2021	12,110	13,256	17,820	14,561	13,258
2022	18,450	14,235	12,350	10,259	16,575

What is the average number of chocolates produced by factory S over the years?

- a) 10290 X
- b) 13690 ✓
- c) 11230 X
- d) 12320 X

Explanation:

Factory S:

$$\begin{aligned}16,250 + 14,561 + 10,259 \\= 41,070\end{aligned}$$

$$\text{Average} = \frac{41,070}{3} = 13,690$$