



Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPSC



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

Agniveer Vayu Other than Science (Group Y) Other than science Memory Based Test (18 Jan 2023)

Total Time: 45 Minute

Total Marks: 50

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks	Sectional Timing
1	English	20	20	0.25	1	20 Min
2	RAGA	30	30	0.25	1	25 Min

- 1.) A total of 45 minutes is allotted for the examination.
- 2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.
- 3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

English

1. Some parts of the sentence have errors and some are correct. Find out which part has an error and mark that part as your answer. If there are no errors, mark 'No error' as your answer. (+1, -0.25)

Hardly had he departed that the phone rang.

- a. Hardly had
- b. he departed that
- c. the phone rang
- d. No error

-
2. Identify the part of the sentence which has an error in it. In case there is no error the answer will be (D). (+1, -0.25)

Ram has an (A)/ large amount (B)/ of money. (C)/ No error (D)

- a. A
- b. B
- c. C
- d. D

-
3. Select the segment in the sentence, which contains the grammatical error. (+1, -0.25)

They had to wait for the luggages to be put into the cab before they themselves got into it.

- a. They had to wait

- b. to be put into the cab
 - c. for the luggages
 - d. before they themselves got into it
-

4. Select the option that can be used as a one-word substitute for the given group of words. (+1, -0.25)

A decision on which one cannot go back

- a. Irrevocable
 - b. Improbable
 - c. Incredible
 - d. Incurable
-

5. Choose the correctly spelt word. (+1, -0.25)

- a. Peirce
 - b. comfortable
 - c. Luxuries
 - d. Individual
-

6. Select the most appropriate synonym of the given word. (+1, -0.25)

STERN

- a. strict
- b. mild

- c. lenient
 - d. gentle
-

7. Direction: In the following questions, choose the word opposite in meaning (+1, -0.25) to the given word.

Condemn

- a. Castigate
 - b. Strut
 - c. Command
 - d. Commend
-

8. Direction: Choose the most suitable answer to fill the blank: (+1, -0.25)

If you had told me you needed a ride, I _____ earlier.

- a. would have left
 - b. would have been left
 - c. will have left
 - d. will be leaving
-

9. Direction: Choose the most effective word for the blank from the options given below. (+1, -0.25)

Hardly had I reached my office _____ I got your message.

- a. than

- b. before
 - c. after
 - d. when
-

10. Choose the option with the appropriate question tag for the given sentence: (+1, -0.25)

George has never been to India, _ _ _ _ _

- a. has he?
 - b. has George?
 - c. hasn't he?
 - d. hasn't George?
-

11. Direction: Choose the option that best transforms the sentence into its other voice: (+1, -0.25)

We added up the money and found it was correct.

- a. Adding up the money it was found it to be correct by us.
 - b. Adding up the money we found it to be correct.
 - c. The money was added up and found to be correct.
 - d. The money is added up by us and found to be correct.
-

12. Direction: Choose the option that best transforms the sentence into its direct / indirect form: (+1, -0.25)

Can the children get tasty meals at school?

- a. I asked if the children can be getting tasty meals at school.
- b. I asked if the children could get tasty meals at school?
- c. I asked if the children can they get tasty meals at school?
- d. I asked if the children could get tasty meals at school.

13. Arrange the parts(1), (2), (3) and (4) of the following sentences to create meaningful sentences and choose the right option accordingly. (+1, -0.25)

- 1) people think they're
- 2) Blackberry phones used to be
- 3) old-fashioned gadgets
- 4) extremely popular, but now many

- a. 4, 3, 1, 2
- b. 3, 1, 2, 4
- c. 4, 1, 3, 2
- d. 2, 4, 1, 3

14. Given here are four jumbled sentence. Pick the option that gives the correct order. (+1, -0.25)

- A. One day, Maytags's company will create a product
- B. which will wash 660 million loads of laundry per week
- C. and become an empire worth 1.7 billion dollars,
- D. found in over 80 per cent of American households.

- a. BADC

b. BDCA

c. ABDC

d. ABCD

15. Select the noun form of the given word:

(+1, -0.25)

Different

a. Difference

b. Differ

c. Differently

d. Differentness

16. Direction: Find out which part has an error and mark it as your answer. If there is no error, mark 'No error' as your answer.

(+1, -0.25)

No sooner did she see her teacher (A) / when she (B) / stopped copying.
(C) / No error (D)

a. (A)

b. (B)

c. (C)

d. (D)

17. Directions: Read the following passage and answer the given questions:

(+1, -0.25)

Religion and science have often been viewed as having conflicting ideologies, with one relying on faith and the other on evidence. However, many argue that these two concepts can coexist and even complement each other. Religion can provide a moral framework and a sense of purpose, while science can explain the natural world and how it operates. One way in which religion and science can coexist is through the concept of intellect. Religion provides a moral framework and a sense of purpose, while science explains the natural world and how it operates. One example of this coexistence is in the study of the origins of the universe. Many religions have creation myths that describe how the world came to be, while science has the Big Bang theory. Both perspectives offer unique insights and understandings of the origins of the universe, and neither necessarily contradicts the other.

In conclusion, religion and science are not mutually exclusive. They can coexist and even complement one another, providing a deeper understanding of the world and our place in it. Both offer unique perspectives and insights, and neither necessarily contradicts the other. The key is to approach each with an open mind and a willingness to consider different perspectives.

What is the relationship between religion and science?

- a. Religion and science have had a simple relationship throughout history.
- b. Science is a systematic method for understanding the natural world.
- c. Religion and science can coexist and even complement each other.
- d. Science is seen as a threat to traditional religious beliefs.

18. Directions: Read the following passage and answer the given questions: (+1, -0.25)

Religion and science have often been viewed as having conflicting ideologies, with one relying on faith and the other on evidence. However, many argue that these two concepts can coexist and even complement each other. Religion can provide a moral framework and a sense of purpose, while science can explain the natural world and how it operates. One way in which religion and science can coexist is through the concept of intellect. Religion provides a moral framework and a sense of purpose, while science explains the natural world and how it operates. One example of this coexistence is in the study of the origins of the universe. Many religions have creation myths that describe how the world came to be, while science has the Big Bang theory. Both perspectives offer unique insights and understandings of the origins of the universe, and neither necessarily contradicts the other.

In conclusion, religion and science are not mutually exclusive. They can coexist and even complement one another, providing a deeper understanding of the world and our place in it. Both offer unique perspectives and insights, and neither necessarily contradicts the other. The key is to approach each with an open mind and a willingness to consider different perspectives.

What is the key to approaching religion and science according to the passage?

- a. Religion and science can both provide valuable insights and understanding.
- b. The key is to approach each with an open mind and a willingness to consider different perspectives.
- c. The key is to avoid conflating the two; religion and science are mutually exclusive.
- d. Many religious beliefs are not in opposition to scientific facts and theories.

19. Directions: Read the following passage and answer the given questions: (+1, -0.25)

Religion and science have often been viewed as having conflicting ideologies, with one relying on faith and the other on evidence. However, many argue that these two concepts can coexist and even complement each other. Religion can provide a moral framework and a sense of purpose, while science can explain the natural world and how it operates. One way in which religion and science can coexist is through the concept of intellect. Religion provides a moral framework and a sense of purpose, while science explains the natural world and how it operates. One example of this coexistence is in the study of the origins of the universe. Many religions have creation myths that describe how the world came to be, while science has the Big Bang theory. Both perspectives offer unique insights and understandings of the origins of the universe, and neither necessarily contradicts the other. In conclusion, religion and science are not mutually exclusive. They can coexist and even complement one another, providing a deeper understanding of the world and our place in it. Both offer unique perspectives and insights, and neither necessarily contradicts the other. The key is to approach each with an open mind and a willingness to consider different perspectives.

Select the most appropriate ANTONYM of the given word.
"INTELLECT"

- a. Genius
- b. Wizard
- c. Stupidity
- d. Sage

20. Directions: Read the following passage and answer the given questions: (+1, -0.25)

Religion and science have often been viewed as having conflicting ideologies, with one relying on faith and the other on evidence. However, many argue that these two concepts can coexist and even complement each other. Religion can provide a moral framework and a sense of purpose, while science can explain the natural world and how it operates. One way in which religion and science can coexist is through the concept of intellect. Religion provides a moral framework and a sense of purpose, while science explains the natural world and how it operates. One example of this coexistence is in the study of the origins of the universe. Many religions have creation myths that describe how the world came to be, while science has the Big Bang theory. Both perspectives offer unique insights and understandings of the origins of the universe, and neither necessarily contradicts the other.

In conclusion, religion and science are not mutually exclusive. They can coexist and even complement one another, providing a deeper understanding of the world and our place in it. Both offer unique perspectives and insights, and neither necessarily contradicts the other. The key is to approach each with an open mind and a willingness to consider different perspectives.

Give an example of how religion and science coexist in the study of the origins of the universe.

- a. Many religions have creation myths, while science has the Big Bang theory.
- b. Scientists have used telescopes and other observational techniques to study the history of the universe, while theologians have used scriptures.
- c. The universe is believed to have been created by the god Brahma.
- d. The big bang theory is a scientific explanation for the origins of the universe.

RAGA

21. Recently in July 2022, who amongst the following has won the Wimbledon men's title 2022? (+1, -0.25)
- a. Roger Federer
 - b. Novak Djokovic
 - c. Bjorn Borg
 - d. Nick Kyrgios
-
22. Which movie has won the Best Feature Film award at the 68th National Film Awards announced in July 2022? (+1, -0.25)
- a. Soorarai Pottru
 - b. Badhaai Do
 - c. KGF Chapter-1
 - d. Tanhaji
-
23. Which Indian state is the largest by area? (+1, -0.25)
- a. Maharashtra
 - b. Uttar Pradesh
 - c. Rajasthan
 - d. Madhya Pradesh
-

24. In which medium sound travels faster? (+1, -0.25)

- a. Solid
 - b. Liquid
 - c. Gas
 - d. None of these
-

25. Who is the current President of India? (+1, -0.25)

- a. Ram Nath Kovind
 - b. Droupadi Murmu
 - c. Jagdeep Dhankhar
 - d. M. Venkaiah Naidu
-

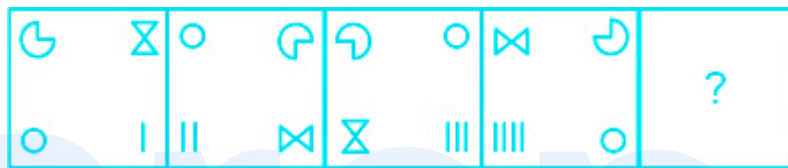
26. Where was the capital of Shivaji Maharaj? (+1, -0.25)

- a. Raigarh
 - b. Sindhudurg
 - c. Poona
 - d. Kolhapur
-

27. How many spokes are there in the Ashoka Chakra depicted on the National flag of India? (+1, -0.25)

- a. 36
- b. 24
- c. 16
- d. 32

28. Select the figure that will come in place of the question mark (?) in the following figure series. (+1, -0.25)



- a.
- b.
- c.
- d.

29. Select the figure that does not belong in the following series. (+1, -0.25)



- a. A
- b. D
- c. B
- d. C

30. Five girls are sitting in a row. Rashi is not adjacent to Sulekha or Abha. (+1, -0.25)
Anuradha is not adjacent to Sulekha. Rashi is adjacent to Monika. Monika is at the middle of the row. Then, Anuradha is adjacent to whom out of the following?

- a. Abha
- b. Monika
- c. Sulekha
- d. Rashi

31. If a mirror is placed on the shaded line, then which of the following options (+1, -0.25)
is the mirror image of the given figure?



- a. 74sJKt26

b. 74sJKt56

c. 95tKJfs7

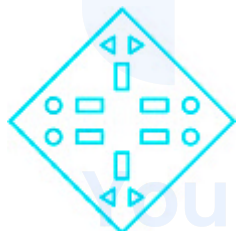
d. 65tKJfs7

32. A paper is folded and cut as shown below. How will it appear when unfolded?

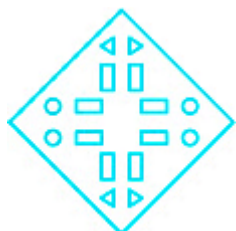
(+1, -0.25)



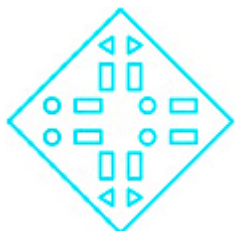
a.

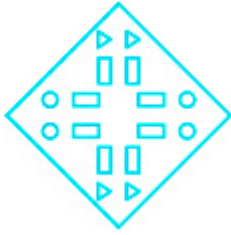


b.



c.





d.

33. Pointing to a girl in a photo, Amitha said, "She is the sister of the son of the wife of my husband." (+1, -0.25)

How is the girl in photo related to Amitha?

- a. Sister
- b. Daughter
- c. Niece
- d. Sister-in-law

34. A lion prowled 900 m North from its den. It took a right turn and prowled 800 m. It, then took a right turn and prowled 700 m. It, again, took a right turn and prowled 600 m. Which direction is the lion facing now? (+1, -0.25)

- a. North
- b. West
- c. East
- d. South

35. Shwet is taller than Anu and Vani is smaller than Dev, Tanu is Taller than Vani and smaller than Samar, Anu is taller than Samar. Dev is smaller than Anu. (+1, -0.25)

Who is tallest among all?

- a. Shweta
- b. Samar
- c. Vani
- d. Anu

36. What should come in the place of question mark (?) in the following? (+1, -0.25)

Maharashtra : India :: Texas : ?

- a. USA
- b. Canada
- c. Mexico
- d. Turkey

37. Which of the following represent the correct relationship between Cat, Dog, Pet ? (+1, -0.25)





38. In a certain code language, if PERSON is coded as "OCOOJH", then how is REPORT coded in that language? (+1, -0.25)

- a. QCMKMN
- b. QCMKMM
- c. OCMKMN
- d. OCMKMM

39. Find the mirror image of 8:20 ? (+1, -0.25)

- a. 3:20
- b. 3:40
- c. 3:30
- d. 4:40

40. Find the missing number. (+1, -0.25)

0, 3, 8, 15, 24, ? 48

- a. 35
- b. 30

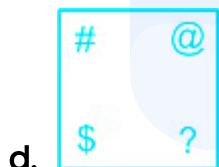
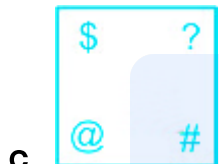
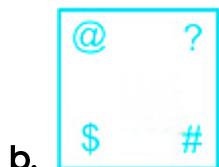
c. 27

d. 36

41. Select the option that is related to the third figure in the same way as the second figure is related to the first figure. (+1, -0.25)



42. Select the figure from the options that can replace the question mark (?) (+1, -0.25)
- in the following figure series.



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43. If $[(216)^4 \div 36^4] \times 6^5 = 6^m$ then $m = ?$ (+1, -0.25)

- a. 13
- b. 11
- c. 10
- d. 9

44. The perimeter of a rectangle and a square are 160 m each. The area of the rectangle is less than that of the square by 100 sq. m. The length of

(+1, -0.25)

the larger side of the rectangle is :

- a. 70 m
- b. 60 m
- c. 40 m
- d. 50 m

45. If diagonal of cube is $\sqrt{12}$ cm, then its volume in cm^3 is: (+1, -0.25)

- a. 18
- b. 9
- c. 6
- d. 8

46. In an election between two candidates, one got 56% of the total valid votes, 14% of the votes are invalid. If the total number of votes was 90000, what was the number of valid votes the other candidate got? (+1, -0.25)

- a. 52345
- b. 43344
- c. 42990
- d. 34056

47. A man walks at the rate of 5 km/hr for 6 hours and at 4 km/hr for 12 hours. (+1, -0.25)
The average speed of the man is:

- a. 4
- b. $4\frac{1}{2}$
- c. $4\frac{1}{3}$
- d. $4\frac{2}{3}$

48. A shopkeeper sells his articles at their cost price but uses a faulty balance which reads 1000 gm for 800 gm. What is the actual profit percentage? (+1, -0.25)

- a. 20%
- b. 25%
- c. 30%
- d. 40%

49. The LCM of two numbers is 48. The numbers are in the ratio 2:3. The sum of the numbers is - (+1, -0.25)

- a. 28
- b. 32
- c. 40
- d. 64

50. After taking $\frac{1}{5}$ th of the contents out of my purse, $\frac{1}{12}$ th of the remainder was found to be Rs. 7.40. How much money did the purse initially contain? (+1, -0.25)

- a. Rs. 115
- b. Rs. 113
- c. Rs. 111
- d. Rs. 106

Prepp

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Answers

1. Answer: b

Explanation:

The erroneous part is "he departed that"

★ Key Points

- In Option 2, the usage of *"that" is incorrect instead of this we need to use "when"*.
- With **"hardly/scarcely"** we always use a conjunction **"when"**.
- Let's see an example-
 - **Hardly** had I reached the station **when** the train came.
- Hence, the correct sentence is- *Hardly had he departed **when** the phone rang.*

2. Answer: a

Explanation:

The correct answer is "A".

★ Key Points

- In the given sentence, the usage of "an" is incorrect instead of this we need to use "a"
- We use "an" with the nouns which have vowel sound and we use "a" with the nouns which have consonant sound. "large" has consonant sound hence, we need to use "a"
- The correct sentence is: *"Ram has **a large amount of money**."*

★ Additional Information

- *Although 'Number and amount' have similar meanings, there is a difference between them:*

- *'Number' is used for things that can be counted, while 'Amount' is used for things that cannot be counted.*
- For example:
 - The **number** of butter was not enough for him.



- The **amount** of butter was not enough for him.



3. Answer: c

Explanation:

The correct answer is for the luggages .

★ Key Points

- There are some uncountable nouns (followed by a singular verb) which don't take the articles 'a/an', many, few, and plural forms:

- Furniture, scenery, luggage, temper, hair, knowledge, equipment, pottery, music, jewellery, etc.
- Example :
 - *The sceneries at my friend's house enchanted me.*



- *The scenery at my friend's house enchanted me.*



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- As per the rule given above, 'luggage' will be used instead of 'luggages' in the 4th **part** of the given question.

Correct sentence: *They had to wait for the **luggage** to be put into the cab before they themselves got into it.*

★ Additional Information

- The nouns given below seem plural in form but in actuality are singular:
 - news, billiards, summons, physics, measles, innings, etc.
 - Example:
 - *Physics is an interesting subject.*

- हाँ कुछ uncountable nouns (followed by asingular verb) जो article'a/an', many, few, and plural form: नहीं लेते हैं:
 - Furniture, scenery, luggage, temper, hair, knowledge, equipment, pottery, music, jewellery, etc.
 - उदाहरण :
 - *The sceneries at my friend's house enchanted me.*



- *The scenery at my friend's house enchanted me.*



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- ऊपर दिए गए नियम के अनुसार, 'luggage' को देखते हुए सवाल के 4th part में 'luggages' के स्थान पर इस्तेमाल किया जाएगा।

सही वाक्य: *They had to wait for the luggage to be put into the cab before they themselves got into it.*

4. Answer: a

Explanation:

The correct answer is 'Irrevocable'.



Key Points

- Let us look at the meaning of the given options -
 - Irrevocable - not able to be changed, reversed, or recovered; final.
 - Improbable - not likely to be true or to happen.
 - Incredible - impossible to believe.

- Incurable – (of a person or their behavior) not able to be changed or reformed.
- From the above meanings, it is clear that irrevocable is the best word to substitute for the given group of words.
- Hence, option 1 is the correct answer.

5. Answer: b

Explanation:

The correct answer is 'comfortable'.

★ Key Points

- **Comfortable** is spelt correctly. It means (especially of clothes or furnishings) providing physical ease and relaxation.
- The correct spellings (and the meanings) of the other words are:
- **Peirce** -- Pierce : to go into or through something. (नुकीले औज़ार से किसी वस्तु में छेद करना)
 - **Example** – *The needle pierced into her skin.*
- **Luxuries** -- Luxuries : indulgence in and enjoyment of rich, comfortable, and sumptuous living . (विलासिता)
 - **Example** – *The life of the ruling class was comfortable and even luxurious from early times.*
- **Individual** -- Individual: single/ separate. (समूह से अलग; अकेला)
 - **Example** – *These styles can be adapted to suit individual tastes.*
- Hence, the correct answer is **option 2**.

6. Answer: a

Explanation:

The correct answer is 'strict'.

★ Key Points

- The most appropriate synonym of the given word ' **Stern** ' is **Strict** '.
- **Stern** : very serious; not smiling. (कठोर, बहुत गंभीर; मुस्कान-रहित)
 - *Example: His voice was **stern** again.*
- **Strict** : not allowing people to break rules or behave badly. [सख्त, कठोर (नियम भंग या गलत व्यवहार को सहन न करने वाला)]
 - *Example: Samir's very **strict** with his children.*

Correct Answer: *strict.*

★ Additional Information

- Let's look at the **meaning** of other words:
 - **mild** : not strong; not very bad. (नरम; हलका)
 - **lenient** : (used about punishment or person who punishes) not as strict as expected. [(दंड या दंड देने वाला व्यक्ति) जो आशा के अनुरूप कठोर न हो; नरम, सौम्य]
 - **gentle** : (used about people) kind and calm; touching or treating people or things in a careful way so that they are not hurt. [(व्यक्ति) दयालु और शांत; बिना चोट पहुँचाए कोमलता से व्यवहार करने वाला; सौम्य]

7. Answer: d

Explanation:

The correct answer is 'Commend'.

★ Key Points

- The word 'Condemn' is a verb and it means **to criticize something or someone strongly , usually for moral reasons.**
 - For example, *The 26/11 terrorist attack in Mumbai was **condemned** as an act of barbarism and cowardice.*
- The marked option 'Commend' means **to formally praise someone or something.**
 - For example, *The judge **commended** the girl for her bravery.*

- So, we can say that ' **Commend** ' can function as the opposite word of ' **Condemn** .'

Hence, the correct answer is **Option 4** .

★ Additional Information

- **Castigate** ⇒ to criticize someone or something severely .
- **Strut**⇒ to walk in a proud, confident gait.
- **Command**⇒ to order someone (esp in military) or control and responsibility over something.

8. Answer: a

Explanation:

The correct answer is 'would have left.'

★ Key Points

- The given sentence is the type 3 conditional .
- The type 3 conditional is used to refer to a time that is in the past, and a situation that is contrary to reality.
- The structure of type 3 conditional is:

If clause	Main clause
If + past perfect	perfect conditional or perfect continuous conditional

- Example : *If it had rained you would have gotten wet.*
- Hence, the correct answer is 'would have left.'
- Correct sentence : *If you had told me you needed a ride, I **would have left** earlier.*

★ Additional Information

- The zero conditional is used for when the time being referred to is now or always and the situation is real and possible.

- The zero conditional is often used to refer to general truths.
- The tense in both parts of the sentence is the simple present.
- In zero conditional sentences, the word "if" can usually be replaced by the word "when" without changing the meaning.

★ Hinglish

- दिया गया वाक्य type 3 conditional है।
- Type 3 conditional का उपयोग उस समय को संदर्भित करने के लिए किया जाता है जो अतीत में है, और ऐसी स्थिति जो वास्तविकता के विपरीत है।
- Type 3 conditional की structure है:

If clause	Main clause
If + past perfect	perfect conditional or perfect continuous conditional

- Example : *If it had rained you would have gotten wet.*

9. Answer: d

Explanation:

The correct answer is 'when.'

★ Key Points

- If the second event occurs immediately after the first, we can express that idea using the structure **hardly ... when** .
 - यदि पहली के तुरंत बाद दूसरी घटना होती है, तो हम उस विचार को संरचना **hardly ... when** का उपयोग करके व्यक्त कर सकते हैं।
 - **Example** : *Hardly had I reached the station **when** the train came.*
- **Correct sentence**: *Hardly had I my office **when** I got your message.*

★ Additional Information

- When we begin a sentence with a negative word, we put the auxiliary verb before the subject.

- **Example :** *No sooner had she read the letter than she started crying.*
~~*No sooner she read the letter than she started crying.*~~

10. Answer: a

Explanation:

The correct answer is 'has he?'.
Prepp

★ Key Points

- A question tag means a short phrase such as 'isn't it?' or 'did you?' at the end of a sentence that changes it into a question and is often used to ask somebody to agree with you.
 - For example: *She said half price, didn't she?*
- If the main clause is positive , the question tag is usually negative , and if the main clause is negative , the question tag is positive .
- The sentence and the question tag must be in the same tense .
- For the negative question tag , use the Contracted form of 'helping verb' and 'not '
- By referring to the above explanation, it can be concluded that has he? should be the appropriate option to be chosen for filling the blank.

Hence, the correct answer is option 1 .
Your Personal Exams Guide

11. Answer: c

Explanation:

The correct answer is 'The money was added up and found to be correct . '

★ Key Points

- The given sentence is in Active Voice. As per the given question we have to change it into Passive Voice.

- The structure of the given sentence is as follows:
 - Subject + V2 + Object. (Active Voice)
 - Subject (objective case) + was/were + V3 + Object (subjective case). (Passive Voice)
- Example:
 - *Their cousin showed them some rare photographs.* (Active Voice)
 - *They were shown some rare photographs by their cousin.* (Passive Voice)
- In the first part of the sentence:
 - The subject of the given sentence is 'We'.
 - The object of the given sentence is 'The money'.
 - The subject will be put in place of the object and the object will be put in place of the subject.
 - And 'added up' will be changed into 'was added up'.
 - "Money" must use "was" with it.
- As the second part is connected with the help of the conjunction "**and**" so the same rules will be applied to the verb "**found**."
- Therefore, as per the points mentioned above, we find that the correct answer is Option 3.

Correct sentence : *The money was added up and found to be correct.*

12. Answer: d

Explanation:

The correct answer is 'I asked if the children could get tasty meals at school.'

★ Key Points

- The given interrogative sentence is in the direct speech.
- The rules of **Direct and Indirect speech** for **interrogative sentence** conversions.
 - Inverted commas are removed in indirect speech.
 - The reporting verb said/said to is changed to "asked, demanded, ordered, enquired" as per the nature of the sentence.

- The first person in the reported speech changes according to the subject of reporting speech.
- In Reported Speech change of the second person depends on the object of reporting speech.
- The third person remains unchanged.
- To make the indirect speech for questions that can be answered in YES/NO, the word "if" or "whether" is used before the reported speech within the sentence.
- "Can" changes to "could."
- Structure:
 - (Can + Subject+ V1 + Object?) (Direct Speech)
 - (If + Subject + could + V1 + Object) (Indirect Speech)
- Example:
 - *He said to me "Can you help me?"*
 - *He asked me if I could help him.*
- Therefore, the correct answer is Option 4 .

Correct sentence : *I asked if the children could get tasty meals at school.*

13. Answer: d

Explanation:

The correct answer is '2, 4, 1, 3'.

★ Key Points

- The part '2' is independent of any other sentences as it is giving information about the **noun** '*Blackberry phones*' that *earlier they used to very popular but with the passage of time, people are considering them old fashioned gadgets* . Hence, '2' is the first part .
- The phrase '*extremely popular*' mentioned in the part '4' refers back to the noun '*Blackberry phones*' mentioned in the part '2'. Hence, '4' follows '2'.
- The noun '*people*' mentioned in the part '1' is linked with the phrase '*but now many*' mentioned in the part '4'. Hence, '1' follows '4'.

- The sentence ' 3 ' is the concluding sentence . Hence, ' 3 ' is the last sentence.
- The correct sequence is 2, 4, 1, 3.

Paragraph after rearranging the sentences :- *Blackberry phones used to be extremely popular, but now many people think they're old-fashioned gadgets.*

Hence, the correct answer is option 4 .

14. Answer: d

Explanation:

The correct answer is "ABCD"

★ Key Points

- The first sentence will be A because it introduces Maytag's company and its product
 - **One day, Maytag's company will create a product**
- The second sentence will be B because it states further about the utility of the product
 - **which will wash 660 million loads of laundry per week**
- The third sentence will be C because it states about the empire created by the product
 - **and become an empire worth 1.7 billion dollars.**
- The last sentence will be D because it describes the empire as so huge that the product will be found in every house.
 - **found in over 80 per cent of American households.**

Hence, the correct passage is: *One day, Maytag's company will create a product which will wash 660 million loads of laundry per week and become an empire worth 1.7 billion dollars, found in over 80 per cent of American households.*

15. Answer: a

Explanation:

The correct answer is "Difference"

★ Key Points

- The correct answer is "Difference"
- The given word "Different" is an adjective that means "not the same as another or each other; unlike in nature, form, or quality."
- "Difference" is a noun that means "the way in which two or more things which you are comparing are not the same"
- Let's see examples-
 - She seems to wear something **different** every day.
 - What's the **difference** between an ape and a monkey?

Hence, the correct answer is "Option 1 i.e. Difference"

16. Answer: b

Explanation:

The correct answer is '(B).'

★ Key Points

- The error lies in Part B of the sentence.
- In a sentence, the use of 'when' is incorrect.
- The conjunction 'No sooner ---- than' is used to denote simultaneous actions.
- 'No sooner' is always followed by 'than' and not 'when.'
 - Example: *No sooner had I received her call than I left for her place.*
- Therefore, the use of 'when' in Part B of the sentence should be replaced with 'than.'
- Hence, the correct answer is '(B).'

The Correct Sentence: No sooner did she see her teacher **than** she stopped copying.

★ Additional Information

- A conjunction is a joiner, a word that connects (conjoins) parts of a sentence.
- Coordinating conjunctions join equals to one another.
 - Example: *Most children like sweets and cookies.*
- Coordinating conjunctions go in between items joined, not at the beginning or end.
 - Example : *I like coffee, but I don't like tea.*

★ Hinglish

- दिए गए वाक्य का हिंदी अनुवाद:
 - जैसे ही उसने अपने शिक्षक को देखा उसने नकल करना बंद कर दिया।
- एक वाक्य में 'when' का प्रयोग गलत है।
- साथ-साथ होने वाली क्रियाओं को दर्शाने के लिए conjunction 'No sooner ---- than' का प्रयोग किया जाता है।
- 'No sooner' के बाद हमेशा '**than**' आता है न कि 'when' ।

17. Answer: c

Explanation:

The correct answer is " **Religion and science can coexist and even complement each other.**"

★ Key Points

- Option '3' is correct.
 - From the passage: '*.... Religion and science have often been viewed as having conflicting ideologies, with one relying on faith and the other on evidence. However, **many argue that these two concepts can coexist and even complement each other.**....*'
 - The passage states that **religion and science can coexist and even complement each other.** Religion provides a moral framework and a sense of purpose, while science explains the natural world and how it operates.
 - Thus, in this context, we can say that the correct answer is option "3"

- Options 1, 2, and 4 are incorrect because there isn't sufficient supportive information in the passage to consider them to be the right answers.

Hence, the correct answer is "*Religion and science can coexist and even complement each other.*"

18. Answer: b

Explanation:

The correct answer is " **The key is to approach each with an open mind and a willingness to consider different perspectives.**"

★ Key Points

- Option '2' is correct.
 - From the passage: '*.... Both offer unique perspectives and insights, and neither necessarily contradicts the other. **The key is to approach each with an open mind and a willingness to consider different perspectives....***'
 - According to the passage, the key to approaching religion and science is recognizing that they offer different perspectives on the same question and can coexist by considering them as valid ways of understanding and making sense of the world.
 - Thus, in this context, we can say that the correct answer is option "2"
- Options 1, 3, and 4 are incorrect because there isn't sufficient supportive information in the passage to consider them to be the right answers.

Hence, the correct answer is "*The key is to approach each with an open mind and a willingness to consider different perspectives.*"

19. Answer: c

Explanation:

The correct answer is " **Stupidity** ."

★ Key Points

- " **Intellect** " refers to the ability to think and understand things, especially complex or abstract ideas. It can also refer to a person's mental capacity or intelligence. ("बुद्धि" चीजों को सोचने और समझने की क्षमता को संदर्भित करती है, विशेष रूप से जटिल या अमूर्त विचारों को। यह किसी व्यक्ति की मानसिक क्षमता या बुद्धि का भी उल्लेख कर सकता है।)
 - **Example** : "She has a keen *intellect* and was able to understand the complex theory quickly."

Let's see the meanings of the given words

- " **Genius** " refers to a person who is exceptionally intelligent or talented, often used to describe someone who is a prodigy or has exceptional abilities in a specific field. ("जीनियस" एक ऐसे व्यक्ति को संदर्भित करता है जो असाधारण रूप से बुद्धिमान या प्रतिभाशाली है, अक्सर किसी ऐसे व्यक्ति का वर्णन करने के लिए उपयोग किया जाता है जो एक विलक्षण है या किसी विशिष्ट क्षेत्र में असाधारण क्षमता रखता है।)
 - **Example** : "Albert Einstein is considered a *genius* in the field of physics."
- " **Wizard** " refers to a person who is skilled or expert in a particular field, often used to describe someone who is highly proficient in the use of a particular technology or software. It can also refer to a person who has magical powers. ("जादूगर" एक ऐसे व्यक्ति को संदर्भित करता है जो किसी विशेष क्षेत्र में कुशल या विशेषज्ञ है, अक्सर किसी ऐसे व्यक्ति का वर्णन करने के लिए प्रयोग किया जाता है जो किसी विशेष तकनीक या सॉफ्टवेयर के उपयोग में अत्यधिक कुशल होता है। यह किसी ऐसे व्यक्ति को भी संदर्भित कर सकता है जिसके पास जादुई शक्तियां हों।)
 - **Example** : "He is a *wizard* at programming and can fix any problem within minutes."
- " **Stupidity** " refers to the state or quality of being stupid, which means lacking intelligence or common sense. ("मूर्खता" मूर्ख होने की स्थिति या गुणवत्ता को संदर्भित करता है, जिसका अर्थ है बुद्धि या सामान्य ज्ञान की कमी।)
 - **Example** : "The *stupidity* of his decision led to the failure of the project."
- " **Sage** " refers to a person who is wise and has a lot of knowledge and experience, often used to describe someone who is respected for their wisdom and insight. ("ऋषि" एक ऐसे व्यक्ति को संदर्भित करता है जो बुद्धिमान है और जिसके पास बहुत ज्ञान और अनुभव है, अक्सर किसी ऐसे व्यक्ति का वर्णन करने के लिए प्रयोग किया जाता है जो उनकी बुद्धि और अंतर्दृष्टि के लिए सम्मानित होता है।)

- **Example :** "The old **sage** had lived a long life and had much wisdom to impart to the young people."

According to the meanings of the given words, the correct answer is **Option 3, i.e., Stupidity.**

20. Answer: a

Explanation:

The correct answer is " **Many religions have creation myths, while science has the Big Bang theory.**"

★ Key Points

- Option '1' is correct.
 - From the passage: '....**Many religions have creation myths that describe how the world came to be, while science has the Big Bang theory** . Both perspectives offer unique insights and understandings of the origins of the universe, and neither necessarily contradicts the other'
 - The passage states that many religions have creation myths that describe how the world came to be, while science has the Big Bang theory . Both perspectives offer unique insights and understandings of the origins of the universe, and neither necessarily contradicts the other.
 - Thus, in this context, we can say that the correct answer is option "1"
- Options 2, 3, and 4 are incorrect because there isn't sufficient supportive information in the passage to consider them to be the right answers.

Hence, the correct answer is "**Many religions have creation myths, while science has the Big Bang theory.**"

21. Answer: b

Explanation:

The correct answer is 'Novak Djokovic'

★ Key Points

- Serbia Novak Djokovic won a seventh Wimbledon men's title with a four-set triumph over Nick Kyrgios.
- The top seed at the Championships has now won 21 major titles.
- He is just one short of all-time record men's leader Rafael Nadal, and one ahead of 20-time Grand Slam champion Roger Federer.
- Roger Federer has won a men's record eight titles at Wimbledon.
- Djokovic joins Federer, Bjorn Borg and Pete Sampras as the only men's players to have won four consecutive Wimbledon titles.
- Kazakhstan's Elena Rybakina made a brilliant comeback after being set down to beat Tunisian third-seed Ons Jabeur 3-6, 6-2, 6-2 and win the Women's Singles title at Wimbledon.
- Rybakina became the first-ever Kazakh female player in the Open Era to win a WTA title on grass and is also the Kazakh female player with the most WTA-level titles in the Open Era (3).
- The 23-year-old also became the youngest female player to win the title in Wimbledon since Petra Kvitova in 2011.
- The Wimbledon Championships 2022 is a Grand Slam tennis tournament that takes place at the All England Lawn Tennis and Croquet Club in Wimbledon, London, United Kingdom.
- The tournament is played on grass courts, with all main draw matches to be played at the All England lawn tennis and croquet club, Wimbledon.

22. Answer: a

Explanation:

The correct answer is Soorarai Pottru.

★ Key Points

- The winners of **the 68th National Film Awards-2020** were announced by Information & Broadcasting Ministry on 22 July 2022 in New Delhi.

- **Best Feature Film:** Soorarai Pottru
- **Best Actor:** Suriya for Soorarai Pottru & Ajay Devgn for Tanhaji
- Madhya Pradesh won the 'Most Film Friendly State' award.
- **Best Actress:** Aparna Balamurali for Soorarai Pottru.

★ Important Points

- The National Film Awards is the most prominent film award ceremony in India.
- Established in 1954, it has been administered, along with the International Film Festival of India and the Indian Panorama, by the Indian government's Directorate of Film Festivals since 1973.
- **The National Film Awards:**
 - First awarded: 10 October 1954; 67 years ago
 - Location: Vigyan Bhavan, New Delhi
 - Presented by: Directorate of Film Festivals

23. Answer: c

Explanation:

The correct answer is Rajasthan.

★ Key Points

- Rajasthan is the largest state in India in terms of area.
- It covers an area of **342,239 sq. km** and has a population of **6.85 crores** as per the 2011 census .
- **Uttar Pradesh** is the largest state of India in terms of population.

★ Additional Information

- Area-wise states–

S.No.	States
1	Rajasthan
2	Madhya Pradesh
3	Maharashtra
4	Uttar Pradesh

- Population-wise states-

S.No.	States
1	Uttar Pradesh
2	Maharashtra
3	Bihar
4	West Bengal

24. Answer: a

Explanation:

★ Key Points

Sound waves:

- Sound waves are mechanical waves , that is, they require a material medium to travel .
- It is the movement of the medium that transmits the wave.
- Since the density of solids is high and the molecules of a solid are closely packed , sound waves are quickly transmitted from one molecule to the next thus enabling it to travel faster.
- The speed of sound , therefore, is fastest in solids , followed by liquids (less dense than solids) and then gas (least dense).

- Sound cannot travel in a vacuum as there is no material medium.



Important Points Speed of Sound in Different Media:

- The speed of sound in the air is 331 m/s^{-1} at 0°C and 344 m/s^{-1} at 22°C .
- It depends on the type of medium through which it is travelling.
- It depends on the temperature and pressure of that medium.
- Speed of sound Decrease – when it passes from the solid to the gaseous state of a given medium.
- Speed of sound Increase – In any medium, when temperature and humidity increase.
- Speed of Sound– Solid > Liquid > Gases

Thus, in solid medium sound travels faster.

25. Answer: b

Explanation:

The correct answer is Droupadi Murmu.



Key Points

- Droupadi Murmu
 - She was the Former governor of Jharkhand and tribal leader from Odisha, Droupadi Murmu.
 - She was the first member of a scheduled tribe to be nominated for the position of President of India.
 - The BJP-led NDA officially nominated her for the 2022 presidential race.
 - Droupadi Murmu is serving as India's 15th president.
 - She triumphed over Yashwant Sinha, the joint candidate for the opposition.



Additional Information

- She is the first President born in Independent India and the youngest person to hold the position .
- Before being chosen as president, she served in a number of cabinet positions for the Government of Odisha between 2000 and 2004.
- She was the ninth governor of Jharkhand from 2015 to 2021.

26. Answer: a

Explanation:

The correct answer is Raigarh.

★ Key Points

- Raigarh was the capital of Shivaji .
- Shivaji:
 - Chhatrapati Shivaji Maharaj , great Maratha ruler was born on 19 February 1630 at Shivneri Fort in Pune District in the present-day state of Maharashtra.
 - Shivaji was given excellent training in military warfare and administration .
 - He was married for the first time in 1640 to Saibai .
 - Shivaji displayed his military zeal for the first time in 1645 when as a teenager .
 - He successfully got control of the Torna Fort which was under Bijapur .
 - He also acquired the Kondana Fort .
 - Both these forts were under Adil Shah of Bijapur .
 - Shah then got Shahaji imprisoned in a bid to contain Shivaji.
 - Some accounts say that Shivaji surrendered these forts to get his father released.
 - Shahaji died in 1664-65 in an accident.
 - After this, Shivaji resumed his raids and extended his territories.

27. Answer: b

Explanation:

The Correct Answer is 24.

- The Ashoka Chakra which features in the middle of the tricolour, has **twenty-four spokes**.
- It was adopted on July 22, 1947.

★ Important Points

- The wheel is called the Ashoka Chakra because it appears on a number of edicts of Ashoka.
- Each spoke on the chakra symbolizes one principle of life and also the twenty-four hours in the day, which is why it is also called the '**Wheel of Time**'.
- Some of the twenty-four principles that the spokes represent are — **love, courage, patience, self-sacrifice, truthfulness, righteousness, spiritual knowledge, and faith, among others.**

28. Answer: b

Explanation:

Explanation:

The pattern followed in the given series is:

The number of lines increases in every step and it moves left to right in the bottom.

The partial circle moves left to right in the top and it moves clockwise.

The ring moves clockwise.

Next step:

The number of lines will be 5.

The partial circle will be at left and face towards right.

The ring will be at bottom left.

Now we consider the given options:

Option 1) The partial circle is placed incorrectly.

Option 2) The pattern is correct.

Option 3) The partial circle is placed incorrectly.

Option 4) The partial circle is placed incorrectly.

Hence the correct answer is option 2.

29. Answer: c

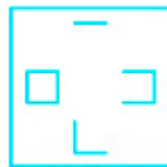
Explanation:

The logic is followed here :



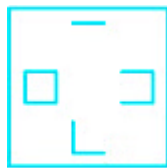
A

⇒ This diagram contains four elements



C

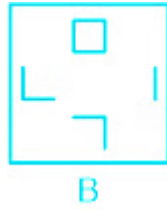
⇒ This diagram contains four elements



D

⇒ This diagram contains four elements





⇒ This diagram **does not contain** same four elements.



is missing from the diagram.

So, B is not belong to the series.

Hence, the correct answer is "option 2".

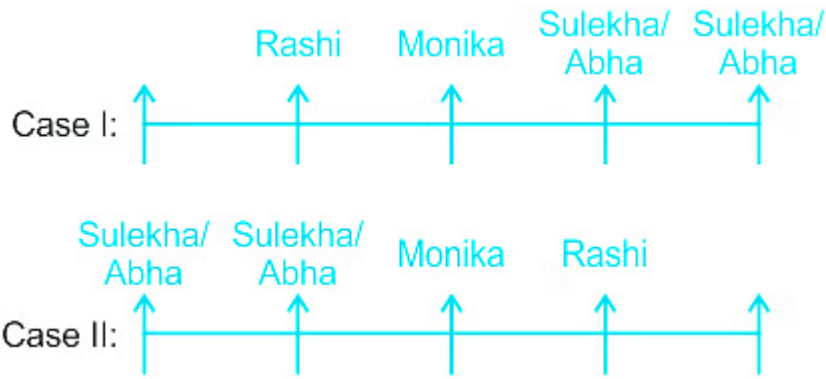
30. Answer: d

Explanation:

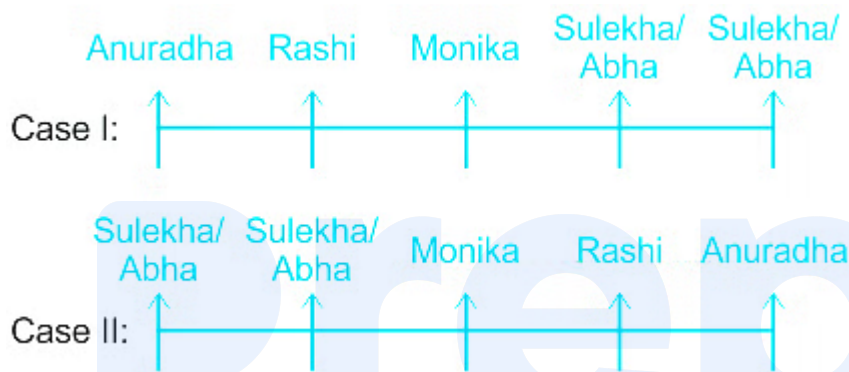
1. Rashi is adjacent to Monika.
2. Monika is at the middle of the row.



3. Rashi is not adjacent to Sulekha or Abha.



4. Anuradha is not adjacent to Sulekha.



Clearly, Anuradha is adjacent to Rashi.

Hence, '**Rashi**' is the correct answer.

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31. **Answer: d**

Explanation:

The logic follows here is:

When the mirror is placed on the shaded line, the left side and right side changed vice-versa where the top and bottom remain the same.

Thus, the correct mirror image of the given figure will be :

74sJKt26 | 05tXLe47

Hence, the correct answer is "Option 4".

★ Additional Information

In Mirror image left side and right side changed vice-versa where top and bottom remain the same.

Reflection of an object into the water is its water image. It appears by inverting an object vertically i.e. upside down.

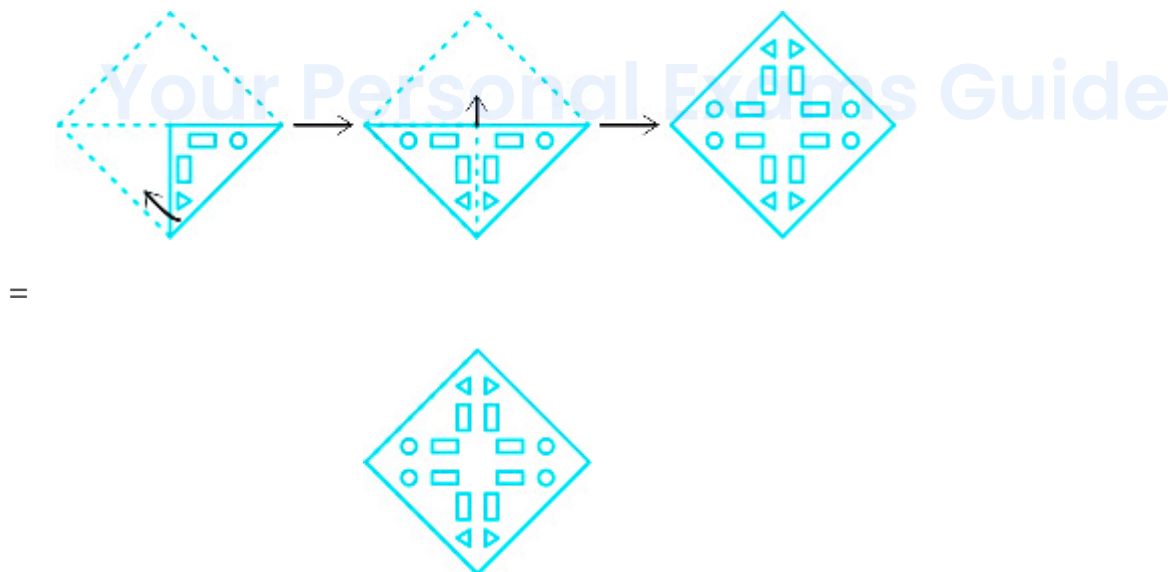
The water image of the figure looks like mirror image of the figure in case the mirror is horizontally at the bottom of the figure.

Water image is just a reflection where top and bottom part of the images changed where left and right side of the image remain same.

32. Answer: b

Explanation:

Here we can see that the given paper is folded three times.



Hence, the correct answer is "Option2"

33. Answer: b

Explanation:

Preparing the family tree using the following symbols,

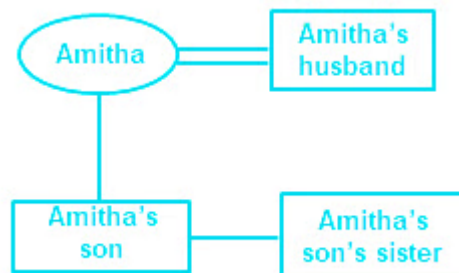
Symbol in Diagram	Meaning
○	Female
□	Male
==	Married Couple
—	Siblings
	Difference of A Generation

Given:

" She is the sister of the son of the wife of my husband. "

Break the statement: Amitha husband's wife is Amitha.

We can draw the following Family Tree from the information given above:

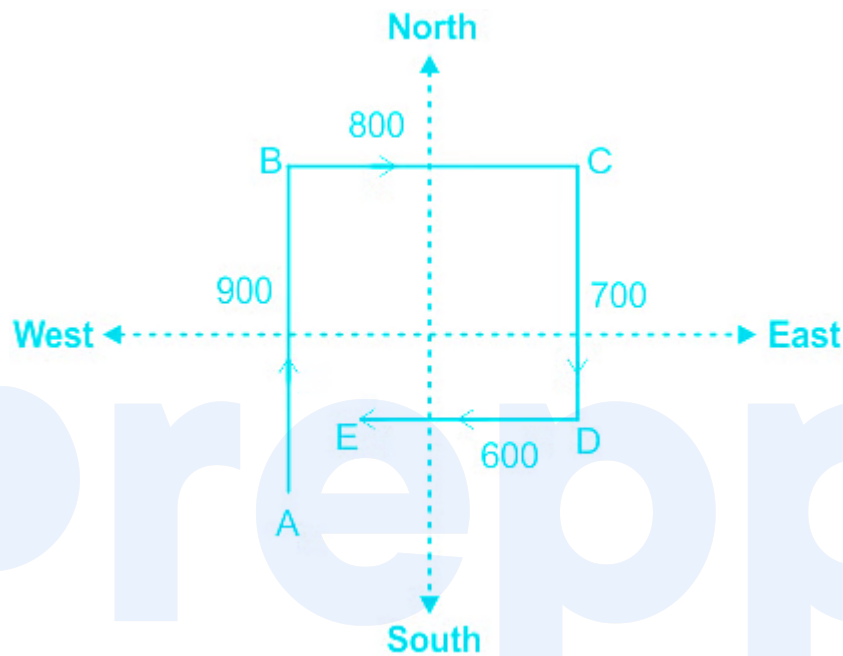


Hence, the girl is the "Daughter" of Amitha

34. Answer: b

Explanation:

As per the given information, the direction and distance diagram is as follows:



At the end, the lion is facing in the **West** direction.

Hence, the correct answer is "**West**".

35. Answer: a

Explanation:

Arrangement of heights according to the given information:

(1) Shwet a is taller than Anu.

Shweta > Anu

(2) Vani is smaller than Dev.

Dev > Vani

(3) Tanu is Taller than Vani and smaller than Samar.

Samar > Tanu > Vani

(4) Anu is taller than Samar.

Anu > Samar

(5) Dev is smaller than Anu.

Anu > Dev

Possible arrangement:

Shweta > Anu > Dev > Samar > Tanu > Vani

The position of Dev may vary with Samar and Tanu.

Here, **Shweta** is the tallest among all.

Here, the correct answer is "**Shweta**".

36. Answer: a

Explanation:

The logic followed here is:

Maharashtra : India → Maharashtra is the state of India.

Similarly,

Texas : USA → Texas is the state of the USA.

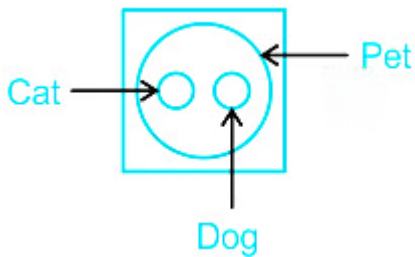
Hence, the correct answer is "USA".

37. Answer: b

Explanation:

The logic followed here is:

Dog and Cat are the Pet animals.

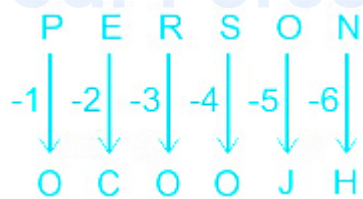


The correct answer is "option (2)".

38. Answer: a

Explanation:

The logic followed here is:



Similarly,



Hence, the correct answer is "option (1)".

39. Answer: b

Explanation:

While using the formula:

Mirror Image of Clock = 11:60 - Given Time

= 11:60 - 8:20

= 3:40

Hence, the correct answer is "option (2)".

40. Answer: a

Explanation:

The logic followed here is:



The correct answer is "option (1)".

41. Answer: c

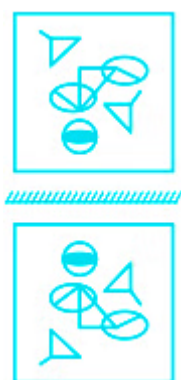
Explanation:

The logic followed in the given figures:



→

Figure (2) is the water image of figure (1).



Similarly,

In



→

Figure (4) is the water image of figure (3).



Hence, the correct answer is "Option (3)".

42. Answer: c

Explanation:

The images in the figure are shifting its position by rotating in:

- For '@' - It is shifting in the anti-clockwise direction.



- For '\$' - It is shifting in the anti-clockwise direction.



- For '#' - It is shifting in the anti-clockwise direction.



- For '?' - It is shifting in the anti-clockwise direction.



- For 'LINE' (



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) – It is not shifting and are in the decreasing order.

\$? @ #	? # \$ @	# @ ? \$	@ \$ # ?	\$? @ #
-------------	-------------	-------------	-------------	-------------

Hence, "Option - (3)" is the correct answer.

43. Answer: d

Explanation:

Formula used:

1. $(a^m)^n = a^{mn}$
2. $a^m \times a^n = a^{m+n}$
3. $a^m / a^n = a^{m-n}$

Calculation:

$$[(216)^4 \div 36^4] \times 6^5 = 6^m$$

$$\Rightarrow [(6^3)^4 \div (6^2)^4] \times 6^5 = 6^m$$

By using the above properties

$$\Rightarrow [(6^{12-8})] \times 6^5 = 6^m$$

$$\Rightarrow 6^4 \times 6^5 = 6^m$$

$$\Rightarrow 6^9 = 6^m$$

$$\therefore m = 9$$

44. Answer: d

Explanation:

Given:

$$\text{Perimeter of rectangle} = 160\text{m} = 2(\text{length} + \text{breadth})$$

$$\text{Length} + \text{breadth} = 80$$

$$\text{Perimeter of square} = 160\text{m} = 4 \times \text{side of square}$$

$$\text{Side of square} = 40\text{m}$$

$$\text{Area of square} = 40 \times 40 = 1600 \text{ sq m}$$

Given,

$$\text{Area of rectangle} = 1600 - 100 = 1500 \text{ sq.cm}$$

$$\text{Area of rectangle} = \text{length} \times \text{breadth}$$

$$\Rightarrow \text{Length} \times \text{breadth} = 1500$$

Solving equations,

$$\Rightarrow \text{Length} + 1500/\text{length} = 80$$

$$\Rightarrow \text{Length}^2 + 1500 - 80 \text{ length} = 0$$

$$\Rightarrow \text{Length} = 50 \text{ or } 30$$

$\therefore$ The length of the rectangle is 50 cm.

45. Answer: d

Explanation:

Given:

$$\text{Diagonal of cube} = \sqrt{12}$$

Formula used:

Volume of cube = (side)³

Volume of diagonal = side $\times \sqrt{3}$

Calculation:

According to the question:

Volume of diagonal = side $\times \sqrt{3}$

$$\Rightarrow \sqrt{12} = \text{side} \times \sqrt{3}$$

$$\Rightarrow \sqrt{(4 \times 3)} = \text{side} \times \sqrt{3}$$

$$\Rightarrow 2\sqrt{3} = \text{side} \times \sqrt{3}$$

$$\Rightarrow \text{side} = 2 \text{ cm}$$

Now,

Volume of cube = (side)³

$$\Rightarrow (2)^3 = 8 \text{ cm}^3$$

$\therefore$ The volume of a cube is 8 cm³.

46. Answer: d

Explanation:

Given:

one got 56% of the total valid votes

14% of the votes are invalid

If the total number of votes was 90000

Calculation:

Total number of votes = 90000

14% of the votes are invalid,

Hence, (100% - 14%) of the votes are valid

Valid votes = 86% of 90000

$$= \frac{86 \times 90000}{100}$$

= 77400 votes

One got 56% of the valid votes

= 56% of 77400

$$= \frac{56 \times 77400}{100}$$

= 43344 votes

Number of the valid votes of the other candidate = 77400 - 43344

= 34056 votes

∴ Answer is 34056.

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47. Answer: c

Explanation:

Formula used:

Average speed = Total Distance / Total time

Calculation:

Case-1 Person walks at the rate of 5 km/hr for 6 hours

Distance = 5 × 6 = 30 km

Case-2 Person walks at the rate of 4 km/hr for 12 hours

$$\text{Distance} = 4 \times 12 = 48 \text{ km}$$

$$\text{Average speed} = \text{Total Distance} / \text{Total time}$$

$$\text{Average Speed} = \frac{30+48}{6+12} = \frac{78}{18} = 4\frac{1}{3}$$

∴ The correct answer is $4\frac{1}{3}$.

48. Answer: b

Explanation:

★ Shortcut Trick

Let CP = SP = 100

$$\begin{array}{rcl} \text{CP} & : & \text{SP} \\ 100 & : & 100 \\ 4 \times 800 & : & 1000 \\ \hline 4 & : & 5 \end{array}$$

$$\Rightarrow \text{Profit Percentage} = (1/4) \times 100 = 25\%$$

∴ The actual profit percentage is 25%.

Given:

Actual weight of article = 1000 gm

Faulty weight of article = 800 gm

Formula used:

$$\text{Profit percent due to wrong weight} = \left[\frac{\text{Error}}{(\text{True weight} - \text{Error})} \right] \times 100$$

Calculation:

Actual weight of article = 1000 gm

Faulty weight of article = 800 gm

$$\text{Error} = 1000 - 800 = 200 \text{ gm}$$

$$\text{Profit percent due to wrong weight} = \left[\frac{\text{Error}}{(\text{True weight} - \text{Error})} \right] \times 100$$

$$\Rightarrow (200/800) \times 100 = 25\%$$

$\therefore$ The actual profit percentage is 25%.

49. Answer: c

Explanation:

Given

The LCM of two numbers is 48. The numbers are in the ratio 2:3.

Concept used

Lcm and Hcf

Calculation

Let two numbers be $2x$ and $3x$

Their Lcm = $6x$

$$\Rightarrow 6x = 48$$

$$\Rightarrow x = 8$$

Sum of the numbers

$$\Rightarrow 2x + 3x = 5x$$

$$\therefore 5 \times 8 = 40$$

50. Answer: c

Explanation:

Calculation:

Let, the purse contained X rupees initially.

$$\Rightarrow \frac{1}{12} \times \left[1 - \frac{1}{5}\right] \times X = 7.40$$

$$\Rightarrow \frac{1}{12} \times \frac{4}{5} \times X = 7.40$$

$$\Rightarrow (X/15) = 7.40$$

$$\Rightarrow X = 111$$

The purse initially contain Rs. 111

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