



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

SSC CHSL 2023 (Tier-II) Previous Year Paper (10-Jan-2024) (Shift 1)

Total Time: 2 Hour : 15 Minute

Total Marks: 405

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Sectional Timing
1	Section I	60	180	60 Min
2	Section II	60	180	60 Min
3	Computer Knowledge	15	45	15 Min

- 1.) A total of 135 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.

Section I

1. Two pipes can fill a cistern separately in 36 minutes and 45 minutes, respectively. A waste pipe can drain off 40 litres per minute. If all the three pipes are opened, the cistern fills in one hour. The capacity (in litres of the cistern) is: (+3, -1)
- a. 600
 - b. 1200
 - c. 300
 - d. 400
-
2. A hollow cube is made of paper to have a volume of 512 cubic units. How much paper in square units will be required to make the cube? (+3, -1)
- a. 328
 - b. 348
 - c. 288
 - d. 384
-
3. Sohan sells sugar at the cost price but uses false weights thus gaining 28% profit. How many grams of sugar is he giving for 3.2 kg sugar? (+3, -1)
- a. 1500
 - b. 1900
 - c. 2200

d. 2500

-
4. The difference between a discount of 27% and two successive discounts of 20% and 10% on a certain bill was ₹56. Find the amount of the bill. (+3, -1)

- a. ₹1,866
- b. ₹5,500
- c. ₹5,600
- d. ₹1,120

-
5. The simplified form of the expression $\frac{(x^2-9) \times (9x^2-1)}{(x-\frac{1}{3}) \times (1-\frac{x}{3})} \times \frac{9}{(x+\frac{1}{3})(1+\frac{x}{3})}$ is _____. (+3, -1)

- a. -729
- b. -81
- c. 729
- d. 81

-
6. The shadow of a tower standing on level ground is found to be 40 m longer when the Sun's altitude is 30° than when it was 45° . Find the height (in meters) of the tower. (+3, -1)

- a. $10(\sqrt{3} - 1)$
- b. $20(\sqrt{3} - 1)$
- c. $20(\sqrt{3} + 1)$
- d. $10(\sqrt{3} + 1)$

-
7. The average salary of all 40 employees, including 35 non - teaching staff members, of a school is ₹4,000. If the average salary of the non - teaching staff members is ₹4,200, find the average salary of the remaining staff of the school. (+3, -1)
- a. ₹3,600
- b. ₹2,600
- c. ₹2,800
- d. ₹2,300
-
8. In $\triangle XYZ$, if $XY = 5$ cm, $XZ = 7$ cm and Q is a point on YZ such that XQ bisects $\angle X$, then YQ : QZ is: (+3, -1)
- a. 5 : 7
- b. 7 : 12
- c. 7 : 5
- d. 5 : 12
-
9. If a transversal intersects two parallel lines, and the difference between two interior angles on the same side of the transversal is 40° , then find the smallest angle among the interior angles. (+3, -1)
- a. 70°
- b. 50°
- c. 40°
-

d. 60°

10. The ratio of the expenditure to the savings of Richa is 2 : 1. If her income and expenditure increase by 20% and 15%, respectively, then find the percentage increase in her savings. (+3, -1)

a. 35%

b. 30%

c. 20%

d. 25%

11. A boat is moving 3 km against the current of the stream in 1 hour and moves 1 km in the direction of the current in 12 minutes. How long will it take the boat to go 6 km in stationary water? (+3, -1)

a. 1 hour and 25 minutes

b. 1 hour and 15 minutes

c. 1 hour and 30 minutes

d. 1 hour and 20 minutes

12. The distribution of 100 workmen employed in a factory according to their monthly salary, showed an average salary of ₹4,500 per month. If the median salary is found to be ₹4,900, find the mode salary. (+3, -1)

a. ₹5,600

b. ₹5,500

c. ₹5,700

d. ₹5,800

13. The average of the first eight multiples of 6 is:

(+3, -1)

a. 24

b. 27

c. 30

d. 25

14. Sudarsan and Abraham appear for an interview for two vacancies. The probability of Sudarsan's selection is $\frac{1}{3}$ and that of Abraham's selection is $\frac{1}{5}$. Find the probability that none of them be selected.

(+3, -1)

a. $\frac{8}{15}$

b. $\frac{14}{15}$

c. $\frac{1}{15}$

d. $\frac{22}{15}$

15. The age of the father 10 years ago was thrice the age of his son. Ten years hence, the father's age will be twice that of his son. What is the ratio of their present ages?

(+3, -1)

a. 3 : 2

b. 7 : 3

c. 5 : 3

d. 5 : 2

16. The ratio of prices of Coffee and Tea is 3 : 4 and the ratio of their quantities consumed by a family is 4 : 7. Find the ratio of expenditures on Coffee and Tea. (+3, -1)

a. 3 : 7

b. 7 : 3

c. 7 : 4

d. 4 : 7

17. The base of a right prism is an equilateral triangle with each side measuring 4 cm. If the lateral surface area is 120 cm^2 , find the volume (in cm^3) of the prism. (+3, -1)

a. $30\sqrt{3}$

b. $40\sqrt{3}$

c. $10\sqrt{3}$

d. $20\sqrt{3}$

18. The runs scored by 11 players in the cricket match are as follows. (+3, -1)

7, 16, 121, 51, 101, 81, 1, 16, 9, 11, 16

Calculate the median of the data.

- a. 51
- b. 11
- c. 22
- d. 16

19. In how many years will ₹2,500 invested at the rate of 16% p.a. simple interest, amount to ₹4,100? (+3, -1)

- a. 4
- b. 3
- c. 5
- d. 6

20. A right rectangular box's measurement are 1.6 m long, 90 cm wide, 60 cm in height. Soap cakes of measurement 6 cm × 5 cm × 40 mm are to be packed in the box, so that no space is left. How many cakes can be packed in the box? (+3, -1)

- a. 6000
- b. 5600
- c. 6500
- d. 7200

21. ₹7,786 is divided among A, B and C in such a manner that the ratio of the amount of A to that of B is 3 : 4 and the ratio of the amount of B to that of C is (+3, -1)

12 : 13. The amount of money received by B is:

- a. ₹7,138
- b. ₹2,977
- c. ₹2,748
- d. ₹5,038

22. A man observed the top of an electric pole at angles of elevation of 60° and 30° , respectively, from two different observation points P and Q. If the distance between P and Q is 10 m, find the height of the pole (in m). (+3, -1)

- a. $5\sqrt{3}$
- b. 5
- c. 15
- d. $15\sqrt{3}$

23. A sells a watch to B at a profit of 33% and B sells it to C at a loss of 20%. If C pays ₹532, then what was the cost price for A? (+3, -1)

- a. ₹500
- b. ₹800
- c. ₹400
- d. ₹600

24. The sum of the ages of a son and father is 52 years; after four years the age of the father will be four times that of the son. What is the present age (in years) of the son? (+3, -1)

- a. 10
- b. 9
- c. 8
- d. 12

25. Simplify : (+3, -1)

$$(\sqrt[3]{\sqrt[3]{343}})^3 \times (\sqrt[3]{\sqrt[3]{216}})^3.$$

- a. 56
- b. 42
- c. $\sqrt[3]{42}$
- d. 42^3

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26. The measures of two angles of a triangle are in the ratio 3 : 7. If the sum of these two measures is equal to the measure of the third angle, then find the smallest angle. (+3, -1)

- a. 27°
- b. 3°
- c. 9°
- d. 36°

27. Find the value of $\sqrt{625} + \sqrt{\frac{625}{100}} + \sqrt{\frac{625}{10000}} + \sqrt{\frac{625}{1000000}}$. (+3, -1)

- a. 27.075
- b. 27.775
- c. 27.75
- d. 27.025

28. In an election, a candidate who gets 90% votes is elected by a margin of 800 votes. What is the total number of votes polled? (+3, -1)

Note : There are only two candidates contesting the election and assume all the votes were valid.

- a. 1050
- b. 950
- c. 1000
- d. 900

29. The compound interest of ₹6,000 in two years, if the rate of interest is 2.5% per annum for the first year and 2% per annum for the second year, will be: (+3, -1)

- a. ₹273
- b. ₹135
- c. ₹270
- d. ₹240

30. Find the average of the prime numbers lying between 69 and 92. (+3, -1)

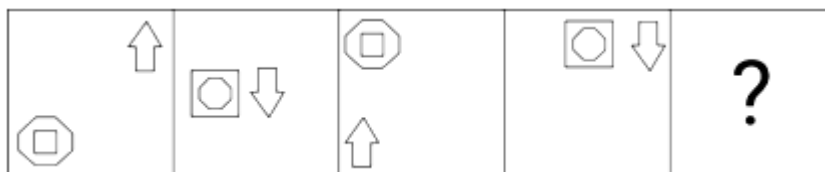
- a. 79
- b. 82
- c. 80
- d. 81

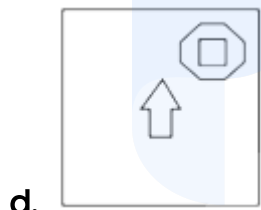
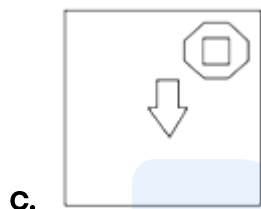
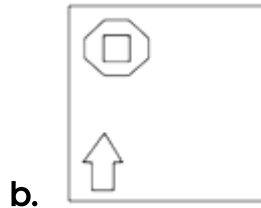
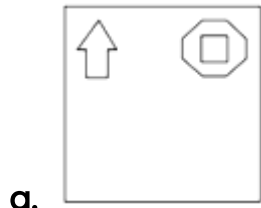
31. Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series. (+3, -1)

C _ EF HNE _ _ NEP RN _ U WNE _

- a. PAWER
- b. FHOSM
- c. NKMEZ
- d. CAHKL

32. Identify the figure given in the options which when put in place of the question mark (?) will logically complete the series? (+3, -1)





33. This question consists of a pair of words which have a certain relationship to each other. Select the pair from the options which has the same relationship as the ones given below: (+3, -1)

Bewilder : Confuse, Harmony : Concord

- a. Fierce : Gentle
- b. Ponder : Contemplate
- c. Docile : Defiant
- d. Timid : Bold

34. A statement is followed by two conclusions, numbered I and II. Find out which of the following conclusion(s) is/are true based on the given statements. (+3, -1)

Statement : $P \leq L \geq M \geq N = U < V < G$

Conclusions :

I. $P > V$

II. $G \leq L$

- a. Both conclusions I and II are true
- b. Only conclusion II is true
- c. Only conclusion I is true
- d. Neither conclusion I nor II is true

35. How many meaningful four-letter English words can be formed using the second, third, fifth and seventh letters of the word TOURIST (when counted from left to right) using each letter only once in each word. (+3, -1)

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

36. Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from (+3, -1)

commonly known facts. You have to decide which conclusion/s logically follow/s from the given statements.

Statements :

All apples are plums.

Some plums are berries.

Some berries are coconuts.

Conclusions :

1. Some berries are plums.
 2. All plums are apples.
 3. Some coconuts are berries.
- a. Only conclusion 3 follows.
 - b. Only conclusion 1 follows.
 - c. Only conclusion 2 follows.
 - d. Both conclusions 1 and 3 follow.

37. Three of the following four are alike in a certain way and thus form a group. (+3, -1)
Which is the one that does NOT belong to that group?

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

- a. 14 – 126

b. $31 - 280$

c. $25 - 225$

d. $12 - 108$

-
38. What will come in place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged ? (+3, -1)

$$163 \div 5 + 147 \times 7 - 19 = ?$$

a. 819

b. 817

c. 816

d. 813

-
39. 11 is related to 55 following a certain logic. Following the same logic, 12 is related to 60. To which of the following is 15 related following the same logic? (+3, -1)

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

a. 85

b. 75

c. 70

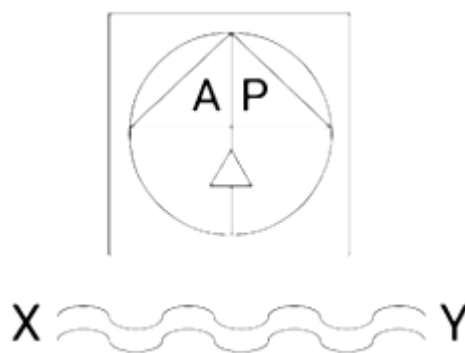
d. 80

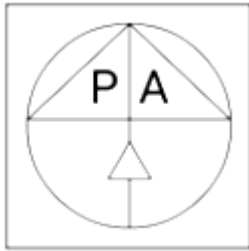
40. Three of the following four are alike in a certain way and thus form a group. (+3, -1)
Which is the one that does NOT belong to that group?

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

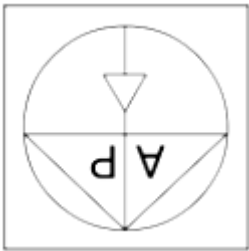
- a. $364 - 182$
- b. $438 - 219$
- c. $524 - 260$
- d. $986 - 493$

41. If the water source is placed along X - Y, as shown in the given figure, which (+3, -1)
of the following options will be the water reflection of the given figure?

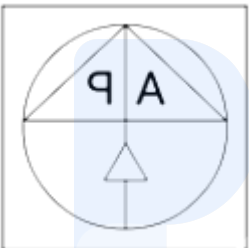




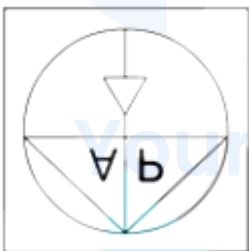
a.



b.



c.



d.

42. A statement is followed by two courses of action, numbered I and II. You must assume everything in the statement to be true and on the basis of the information given in the statement, decide which of the following course(s) of action logically follow(s) for pursuing.

(+3, -1)

Statement : Voltage fluctuation in A's home has damaged many of his new electrical appliances.

Courses of action :

I) A should consult an electrician and install a device to safeguard appliances against fluctuations in voltage.

II) A must replace all the appliances.

- a. Both I and II follow
 - b. Only II follows
 - c. Only I follows
 - d. Neither I nor II follows
-

43. Three of the following four word pairs are alike and thus form a group. Select the word pair that does NOT belong to that group. **(+3, -1)**

- a. Water - bottles
 - b. Clothes - wardrobes
 - c. Money - wallets
 - d. Rice - eat
-

44. All 20 students in a class are standing in a straight line facing north. Neha is 10th from the right end while Nalin is 12th from the left end. How many people stand between Neha and Nalin? **(+3, -1)**

- a. Three
- b. Zero
- c. Two
- d. One

45. In a certain code language, 'KENT' is coded as '9^*7' and 'BENT' is coded as '*~79'. What is the code for 'B' in that code language? (+3, -1)

- a. *
- b. 9
- c. ~
- d. ^

46. Select the word-pair that best represents a similar relationship to the one expressed in the pairs of words given below. (+3, -1)

(The words must be considered as meaningful English words and must not be related to each other based on the number of letters / number of consonants / vowels in the word.)

Quench : Satisfy, Nurture : Foster

- a. Yield : Resist
- b. Jealous : Content
- c. Lethargic : Energetic
- d. Ingenious : Clever

47. Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusion/s logically follow/s from the given statements. (+3, -1)

Statements :

Some bells are pumps.

All pumps are skates.

All bells are kites.

Conclusions :

1. Some kites are skates.

2. Some skates are bells.

3. Some skates are pumps.

a. Both conclusions 1 and 3 follow.

b. Both conclusions 2 and 3 follow.

c. All conclusions 1, 2 and 3 follow.

d. Both conclusions 1 and 2 follow.

-
48. 82 is related to 41 following a certain logic. Following the same logic, 94 is related to 47. To which of the following is 66 related following the same logic? (+3, -1)

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

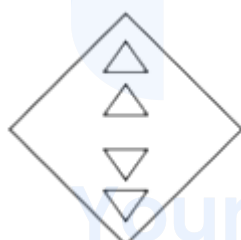
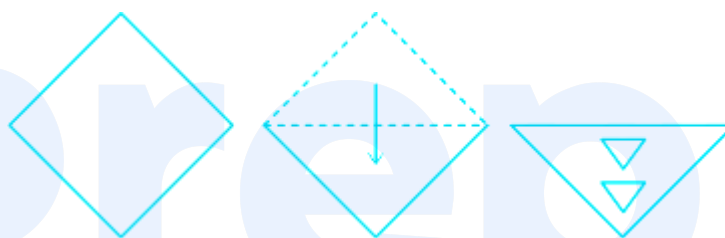
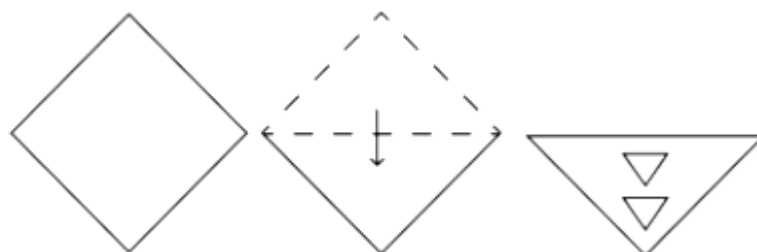
a. 33

b. 23

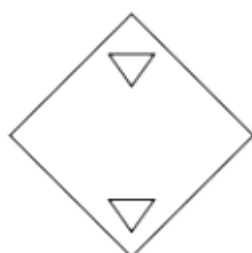
c. 43

d. 13

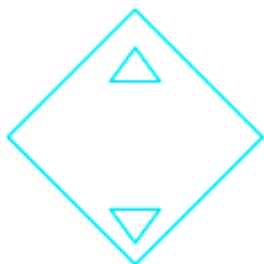
49. A square sheet of paper is folded along the dotted line successively along the directions shown and is then punched in the last. How would the paper look when unfolded? (+3, -1)



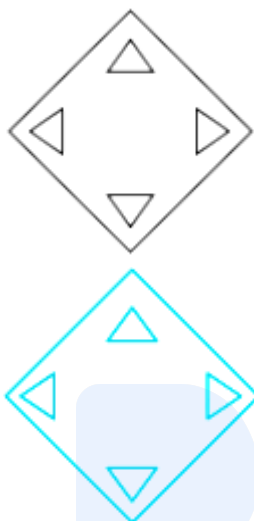
a.



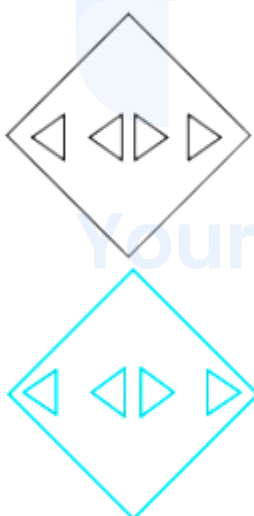
b.



c.



d.



50. 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, number 2, and so on, till the topmost floor is numbered 6. E lives on an odd-numbered floor but not on floor number 5. Only one person lives between E and C. D

(+3, -1)

lives immediately above F. B lives on a lower floor than C. A does not live on the topmost floor. Who lives on the topmost floor?

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

51. What will come in place of '?' in the following equation, if '+' and '-' are interchanged and '×' and '÷' are interchanged ? (+3, -1)

$$617 \div 3 - 84 + 515 \times 5 = ?$$

- a. 1836
- b. 1838
- c. 1834
- d. 1832

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52. Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series. (+3, -1)

GA _ B M _ PB SA _ B YAB _ _ AHB

- a. AWBUY
- b. JAVBE
- c. MFGTY
- d. CHFJK

53. 4 is related to 40 following a certain logic. Following the same logic, 12 is related to 120. To which of the following is 15 related following the same logic? (+3, -1)

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

- a. 200
- b. 205
- c. 100
- d. 150

54. Read the given statement and inferences 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 inferences can be derived from the statement. (+3, -1)

(An inference is something which is not directly stated but can be derived from the given facts/information in the statement.)

Statement :

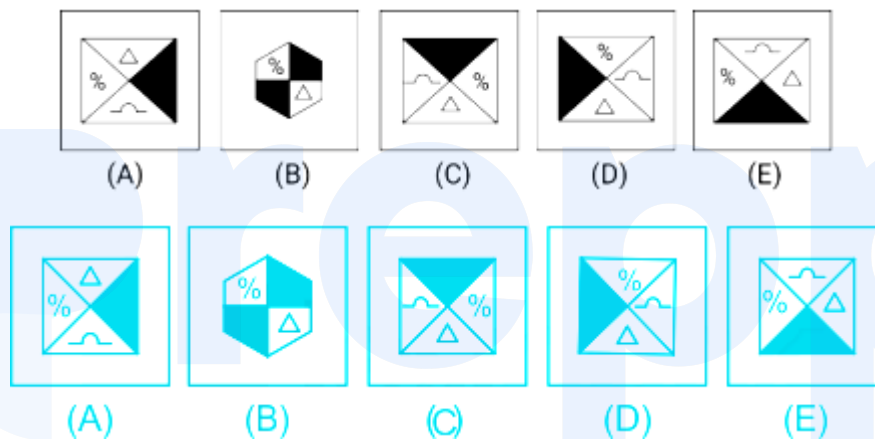
All mammals are warm – blooded animals.

Inferences :

- I. Dogs are warm – blooded animals.
- II. All warm – blooded creatures are mammals.

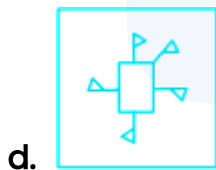
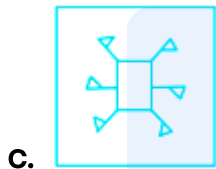
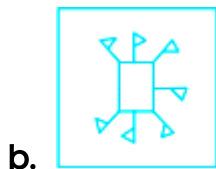
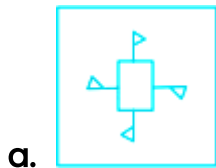
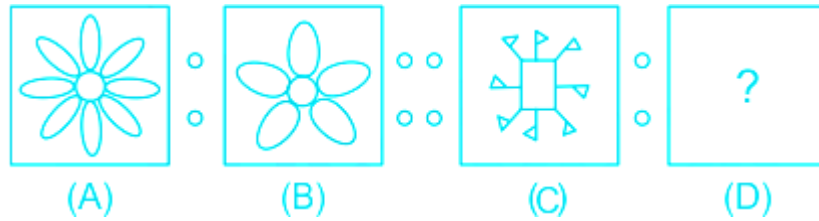
- a. Neither (I) nor (II)
- b. Only (II)
- c. Both (I) and (II)
- d. Only (I)

55. Four of the following five figures are alike in a certain way and thus form a group. Which is the one that does NOT belong to that group? (+3, -1)



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

56. Figure A is related to Figure B in a certain way. Following the same pattern, Figure C is related to Figure D. Study the pattern and select the figure which should be placed in place of D. (+3, -1)



57. How many meaningful four – letter English words can be formed using the first, fourth, fifth and sixth letters of the word SAVOUR (when counted from left to right) using each letter only once in each word.

(+3, -1)

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

58. A statement is followed by two conclusions, numbered I and II. Find out which of the following conclusion(s) is/are true based on the given statements. (+3, -1)

Statement : $T \geq M < W = P \geq Q > R \leq S$

Conclusions :

I. $P \leq M$

II. $Q > T$

- a. Neither conclusion I nor II is true
- b. Only conclusion I is true
- c. Only conclusion II is true
- d. Both conclusions I and II are true

59. Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series. (+3, -1)

CB_W V_SP_NLI HG_B A_XU

- a. XUOFY
- b. XUOEZ
- c. XUOEY
- d. ZUOEZ

60. In a certain code language, '4378' is coded as 'IDOL' and '7832' is coded as 'IDLE'. What is the code for '2' in that code language? (+3, -1)

- a. O
- b. L
- c. E
- d. I

Prepp

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Section II

61. Select the most appropriate synonym of the given word.

(+3, -1)

Decadence

- a. Decline
- b. Liberate
- c. Dispirited
- d. Flowering

62. Select the most appropriate idiom that means the same as the given sentence.

(+3, -1)

Shyama looks innocent, but in reality, she is cunning.

- a. Fortune favours the brave.
- b. Beauty lies in the eyes of the beholder.
- c. Don't judge a book by its cover.
- d. Don't put all your eggs in one basket.

63. Select the option that can be used as a one - word substitute for the given group of words / phrase.

(+3, -1)

A drug or other substance that induces sleep

- a. Energetic
- b. Reviver

- c. Stimulant
- d. Sedative

64. Select the option that expresses the given sentence in reported speech. (+3, -1)

He said to the mechanic, "Will you have the car ready by tomorrow morning?"

- a. He asked the mechanic if he would have the car ready by the next morning.
- b. He told the mechanic if he will have the car ready for the next morning.
- c. He asked the mechanic if he will have the car ready by the previous morning.
- d. He said the mechanic whether he would has the car ready by the following morning.

65. Select the option that converts the given sentence into the superlative degree. (+3, -1)

The river Ganga has some of the purer water on earth.

- a. The river Ganga has some of the most purest water on earth.
- b. The river Ganga has some of the very purest water on earth.
- c. The river Ganga has some of the more purest water on earth.
- d. The river Ganga has some of the purest water on earth.

66. Select the option that expresses the given sentence in passive voice. (+3, -1)

They built a new house last year.

- a. A new house was being built by them last year.
- b. They had been building a new house last year.
- c. A new house was built by them last year.
- d. A new house is being built by them last year.

-
67. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. (+3, -1)

While astrology has / a long history / it is generally / considered pseudoscience.

- a. it is generally
- b. a long history
- c. While astrology has
- d. considered pseudoscience

-
68. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+3, -1)

I have three sisters : / Meera is the elder / and Charu is the youngest.

- a. No error
- b. and Charu is the youngest
- c. I have three sisters:

d. Meera is the elder

69. Select the most appropriate option that best expresses the meaning of the proverb in the given sentence. (+3, -1)

The salesperson for the project offered a sneak peek of the project as we expressed our interest in the area and amenities.

- a. Getting a preview of something
 - b. To try something new
 - c. Sending a brief letter
 - d. To be in a winning position
-

70. Select the most appropriate option to fill in the blank. (+3, -1)

Currently, Mittu and Bittu _____ hard to meet the project deadline.

- a. worked
 - b. are working
 - c. have worked
 - d. were working
-

71. Select the sentence that gives the most appropriate meaning of the idiom 'Keep your chin up'. (+3, -1)

- a. The students diligently completed their homework assignments before the deadline.

- b. Despite facing setbacks, she remained positive and determined to achieve her goals.
- c. The hiker enjoyed the breathtaking view from the mountaintop, taking in the natural beauty.
- d. The scientist conducted experiments and gathered data to support his research hypothesis.

72. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+3, -1)

A man who has been accused of fraud / in an earlier job, he will never be / welcomed in any other organisation.

- a. No error
- b. welcomed in any other organisation
- c. A man who has been accused of fraud
- d. in an earlier job, he will never be

73. Select the most appropriate ANTONYM of the given word. (+3, -1)

Denote

- a. Convey
- b. Conclude
- c. Conceal
- d. Convince

74. Select the most appropriate phrasal verb to fill in the blank.

(+3, -1)

The teacher asked the students to _____ their ideas during the class discussion.

- a. get on
- b. put off
- c. bring up
- d. bring about

75. Identify the INCORRECTLY spelt word in the following sentence and select its correct spelling from the given options.

(+3, -1)

The remoteness of the location made it difficult for the authoreties to reach out to the people.

- a. authorities
- b. locasion
- c. remotness
- d. deficult

76. Select the most appropriate option to fill in the blank.

(+3, -1)

The war _____ badly damaged the country's infrastructure.

- a. has
- b. have

c. was

d. is

77. Select the option that expresses the given sentence in passive voice. (+3, -1)

Perumal has given a challenging assignment to the newly admitted students.

- a. A challenging assignment has been given by Perumal to the newly admitted students.
- b. A challenging assignment will have been given by Perumal to the newly admitted students.
- c. A challenging assignment was given by Perumal to the newly admitted students.
- d. A challenging assignment had been given by Perumal to the newly admitted students.

78. Select the most appropriate phrasal verb to fill in the blank. (+3, -1)

The teacher asked the students to _____ their essays before the deadline.

- a. land in
- b. put off
- c. hand in
- d. hand up

79. Select the option that can be used as a one - word substitute for the given group of words. (+3, -1)

A sudden violent event that brings about great loss or destruction

- a. Blockbuster
- b. Farce
- c. Intrigue
- d. Catastrophe

80. Select the option that can be used as a one - word substitute for the given group of words. (+3, -1)

Someone who has too much admiration for himself or herself

- a. Narcissist
- b. Pantheist
- c. Misogamist
- d. Misanthropist

81. Select the most appropriate synonym of the given word. (+3, -1)

Serene

- a. Chaotic
- b. Calm
- c. Agitated

d. Angry

82. Select the most appropriate option to fill in the blank. (+3, -1)

I did not _____ to university yesterday.

- a. gone
 - b. go
 - c. went
 - d. going
-

83. Select the option that expresses the given sentence in reported speech. (+3, -1)

Anil said to Ria, "I know where everything is kept in the kitchen."

- a. Anil told Ria that he knows where everything was kept in the kitchen.
 - b. Anil told Ria that he knew where everything is kept in the kitchen.
 - c. Anil asked Ria that he knows where everything was kept in the kitchen.
 - d. Anil told Ria that he knew where everything was kept in the kitchen.
-

84. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. (+3, -1)

It is a well - known fact / that the Monarchy is / not the best form / of governance.

- a. that the Monarchy is

- b. of governance.
- c. not the best form
- d. not the best form 4. It is a well-known fact

85. Select the INCORRECTLY spelt word.

(+3, -1)

- a. Maxim
- b. Profligate
- c. Lisentious
- d. Quandary

86. Select the option that expresses the given sentence in passive voice.

(+3, -1)

The teacher will explain the lesson tomorrow.

- a. The lesson is being explained by the teacher tomorrow.
- b. The lesson was explained by the teacher tomorrow.
- c. The lesson will be explained by the teacher tomorrow.
- d. The lesson will have been explained by the teacher tomorrow

87. Select the correct spelling of the underlined word in the given sentence.

(+3, -1)

He made a surreptitiuos phone call while his boss was out of the room.

- a. surreptitious
- b. sureptitious

- c. surreptitious
- d. sarreptitious

88. Select the most appropriate tense form to fill in the blank. (+3, -1)

Tania _____ to the canteen.

- a. were gone
- b. were going
- c. was going
- d. had going

89. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+3, -1)

He looks out of the window at the (1) _____ snow, then turns and takes his wife in his arms, feeling grateful to be here even as he wonders what he is going to do with his life in strictly practical terms. For years, he had (2) _____ himself to do one thing, and he did it well, but he doesn't know whether he wants to keep doing it for the rest of his life, for that matter, whether anyone will let him. He is still worrying when they go to bed.

They've been learning to get by with less, and they'll keep learning. It seems to him as if they're taking a course in loss lately. And as he feels himself falling asleep he has an (3) _____ he believes is important, which he hopes he will remember in the morning, although it is one of those thoughts that seldom (4) _____ translation to the language of daylight hours.

Select the most appropriate option to fill in blank no. 1.

- a. falling

- b. dashing
- c. praying
- d. blazing

90. In the following passage, some words have been deleted. Read the passage (+3, -1) carefully and select the most appropriate option to fill in each blank.

He looks out of the window at the (1) _____ snow, then turns and takes his wife in his arms, feeling grateful to be here even as he wonders what he is going to do with his life in strictly practical terms. For years, he had (2) _____ himself to do one thing, and he did it well, but he doesn't know whether he wants to keep doing it for the rest of his life, for that matter, whether anyone will let him. He is still worrying when they go to bed.

They've been learning to get by with less, and they'll keep learning. It seems to him as if they're taking a course in loss lately. And as he feels himself falling asleep he has an (3) _____ he believes is important, which he hopes he will remember in the morning, although it is one of those thoughts that seldom (4) _____ translation to the language of daylight hours.

Select the most appropriate option to fill in blank no. 2.

- a. trained
- b. mesmerised
- c. penalised
- d. abstained

91. In the following passage, some words have been deleted. Read the passage (+3, -1) carefully and select the most appropriate option to fill in each blank.

He looks out of the window at the (1) _____ snow, then turns and takes his wife in his arms, feeling grateful to be here even as he wonders what he is going to do with his life in strictly practical terms. For years, he had (2) _____ himself to do one thing, and he did it well, but he doesn't know whether he wants to keep doing it for the rest of his life, for that matter, whether anyone will let him. He is still worrying when they go to bed.

They've been learning to get by with less, and they'll keep learning. It seems to him as if they're taking a course in loss lately. And as he feels himself falling asleep he has an (3) _____ he believes is important, which he hopes he will remember in the morning, although it is one of those thoughts that seldom (4) _____ translation to the language of daylight hours.

Select the most appropriate option to fill in blank no. 3.

- a. insight
- b. implication
- c. insurance
- d. instance

92. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+3, -1)

He looks out of the window at the (1) _____ snow, then turns and takes his wife in his arms, feeling grateful to be here even as he wonders what he is going to do with his life in strictly practical terms. For years, he had (2) _____ himself to do one thing, and he did it well, but he doesn't know whether he wants to keep doing it for the rest of his life, for that matter, whether anyone will let him. He is still worrying when they go to bed.

They've been learning to get by with less, and they'll keep learning. It seems to him as if they're taking a course in loss lately. And as he feels himself falling asleep he has an (3) _____ he believes is important, which he

hopes he will remember in the morning, although it is one of those thoughts that seldom (4) _____ translation to the language of daylight hours.

Select the most appropriate option to fill in blank no. 4.

- a. proliferate
- b. survive
- c. install
- d. fabricate

93. Read the given passage and answer the questions that follow.

(+3, -1)

Leadership does not exist without followership. A leader has to be accepted by the group which the former is supposed to lead. To gain acceptability, the leader should cause an emotive impact on the group members. The strength of character exhibited by leaders makes them dear to their followers. A leader is one who effectively inspires followers to achieve worthwhile things. What character of the leader motivates the followers? It is not pomp and show, neither flattery nor sanctioning more incentives. Pomp and show creates a sense of awe and the leader is deified rather as emulated. Flattery is unrealistic and cannot serve as a long-term motivational tool. A leader's style should be one that can be emulated by all irrespective of cadre, class and calibre. Simplicity in one's day - to - day conduct is the only thing that can be adopted by all.

Which of the following desired qualities of a leader is mentioned in the passage?

- a. Simplicity
- b. Deified
- c. Pomp and show

d. Flattery

94. Read the given passage and answer the questions that follow.

(+3, -1)

Leadership does not exist without followership. A leader has to be accepted by the group which the former is supposed to lead. To gain acceptability, the leader should cause an emotive impact on the group members. The strength of character exhibited by leaders makes them dear to their followers. A leader is one who effectively inspires followers to achieve worthwhile things. What character of the leader motivates the followers? It is not pomp and show, neither flattery nor sanctioning more incentives. Pomp and show creates a sense of awe and the leader is deified rather as emulated. Flattery is unrealistic and cannot serve as a long-term motivational tool. A leader's style should be one that can be emulated by all irrespective of cadre, class and calibre. Simplicity in one's day - to - day conduct is the only thing that can be adopted by all.

Select the most appropriate synonym of the given word.

Emulate

- a. Relax
- b. Imitate
- c. Suppose
- d. Exhibit

95. Read the given passage and answer the questions that follow.

(+3, -1)

Leadership does not exist without followership. A leader has to be accepted by the group which the former is supposed to lead. To gain acceptability, the leader should cause an emotive impact on the group members. The strength of character exhibited by leaders makes them dear to their followers. A leader is one who effectively inspires followers to achieve

worthwhile things. What character of the leader motivates the followers? It is not pomp and show, neither flattery nor sanctioning more incentives. Pomp and show creates a sense of awe and the leader is deified rather as emulated. Flattery is unrealistic and cannot serve as a long-term motivational tool. A leader's style should be one that can be emulated by all irrespective of cadre, class and calibre. Simplicity in one's day - to - day conduct is the only thing that can be adopted by all.

According to the passage, why should the leader generate an emotive impact?

- a. To exhibit the character of his followers
- b. To mould the character of a leader
- c. To gain acceptance by the members of the group
- d. To acquire social knowledge

96. Read the given passage and answer the questions that follow.

(+3, -1)

Leadership does not exist without followership. A leader has to be accepted by the group which the former is supposed to lead. To gain acceptability, the leader should cause an emotive impact on the group members. The strength of character exhibited by leaders makes them dear to their followers. A leader is one who effectively inspires followers to achieve worthwhile things. What character of the leader motivates the followers? It is not pomp and show, neither flattery nor sanctioning more incentives. Pomp and show creates a sense of awe and the leader is deified rather as emulated. Flattery is unrealistic and cannot serve as a long-term motivational tool. A leader's style should be one that can be emulated by all irrespective of cadre, class and calibre. Simplicity in one's day - to - day conduct is the only thing that can be adopted by all.

Select the best summary of the passage?

- a. A leader effectively inspires and guides his followers to achieve desired goals.
- b. A leader's style cannot serve as a long - term motivation among the group.
- c. Motivation is the innate quality that enables an individual to be intellectually strong.
- d. Administrative knowledge is essential for the followers to get success.

97. Read the given passage and answer the questions that follow.

(+3, -1)

In 1888, an Atlantic contributor made the case for a "science of names."

"Parents are strangely careless and unscientific in giving names to children," the contributor complained. "They forget that not only from the social point of view it is very advantageous to have one's name remembered, but that from the business point of view notoriety is capital, and must be obtained by persistent and ingenious advertising." Indeed, the contributor argued, a good name will give a child "a start in life equivalent to a cash capital of at least fifteen thousand dollars." One way to ensure this head start? "Be guided by euphonic quality only."

Although not all of this contributor's guidance can or should still apply today, the importance of a name to a child's identity has stayed front of mind for many parents. A name can determine whether a child fits in or stands out - and many parents differ on which of those outcomes is preferable.

According to the contributor, the parents are strangely careless and unscientific in giving names to children because _____.

- a. they do it without considering the business point of view
- b. they do it without discussing it with their relatives and friends

- c. they do it without considering the actual meaning of the name
- d. they do it without considering the latter's interest in it

98. Read the given passage and answer the questions that follow.

(+3, -1)

In 1888, an Atlantic contributor made the case for a "science of names."

"Parents are strangely careless and unscientific in giving names to children," the contributor complained. "They forget that not only from the social point of view it is very advantageous to have one's name remembered, but that from the business point of view notoriety is capital, and must be obtained by persistent and ingenious advertising." Indeed, the contributor argued, a good name will give a child "a start in life equivalent to a cash capital of at least fifteen thousand dollars." One way to ensure this head start? "Be guided by euphonic quality only."

Although not all of this contributor's guidance can or should still apply today, the importance of a name to a child's identity has stayed front of mind for many parents. A name can determine whether a child fits in or stands out – and many parents differ on which of those outcomes is preferable.

Select the most appropriate word in the passage which means 'pleasing and sweet sound'.

- a. Identity
- b. Advantageous
- c. Outcomes
- d. Euphonic

99. Read the given passage and answer the questions that follow.

(+3, -1)

In 1888, an Atlantic contributor made the case for a “science of names.”

“Parents are strangely careless and unscientific in giving names to children,” the contributor complained. “They forget that not only from the social point of view it is very advantageous to have one’s name remembered, but that from the business point of view notoriety is capital, and must be obtained by persistent and ingenious advertising.” Indeed, the contributor argued, a good name will give a child “a start in life equivalent to a cash capital of at least fifteen thousand dollars.” One way to ensure this head start? “Be guided by euphonic quality only.”

Although not all of this contributor’s guidance can or should still apply today, the importance of a name to a child’s identity has stayed front of mind for many parents. A name can determine whether a child fits in or stands out – and many parents differ on which of those outcomes is preferable.

What will be given to a child if he gets a good name?

- a. A good bank balance
- b. A perfect address
- c. professional attitude
- d. A headstart in life

100. Read the given passage and answer the questions that follow.

(+3, -1)

In 1888, an Atlantic contributor made the case for a “science of names.”

“Parents are strangely careless and unscientific in giving names to children,” the contributor complained. “They forget that not only from the social point of view it is very advantageous to have one’s name remembered, but that from the business point of view notoriety is capital, and must be obtained by persistent and ingenious advertising.” Indeed, the

contributor argued, a good name will give a child “a start in life equivalent to a cash capital of at least fifteen thousand dollars.” One way to ensure this head start? “Be guided by euphonic quality only.”

Although not all of this contributor’s guidance can or should still apply today, the importance of a name to a child’s identity has stayed front of mind for many parents. A name can determine whether a child fits in or stands out – and many parents differ on which of those outcomes is preferable.

What is the tone of the speaker in the passage?

- a. Humorous
- b. Sarcastic
- c. Persuasive
- d. Melancholic

101. According to the Census of India-2011, which of the following options represents a group of the most urbanised union territories in India? (+3, -1)

- a. Chandigarh and Lakshadweep
- b. Delhi and Chandigarh
- c. Puducherry and Delhi
- d. Lakshadweep and Puducherry

102. Which is NOT a Directive Principle to be followed by the State for policy - making? (+3, -1)

- a. Tender age of children is not abused

- b. Equal pay for equal work
 - c. The operation of economic system results for concentration of wealth
 - d. The ownership of material resources of the community are for common good
-

103. A 100 mL solution having 0.01 moles of NaOH dissolved in it. The pH of the solution is: (+3, -1)

- a. 13
 - b. 1
 - c. 10
 - d. 2
-

104. In the energy flow diagram of an ecosystem, the flow of energy comes to herbivores from: (+3, -1)

- a. sunlight
 - b. carnivores
 - c. top carnivores
 - d. producers
-

105. In September 2022, the Daspara village in _____ – which is solely dependent on agriculture and fishery – was converted to a nature – based lifestyle and livelihood while reducing the use of chemical fertilisers, becoming India's first modified bio village. (+3, -1)

- a. West Bengal
- b. Tripura
- c. Odisha
- d. Andhra Pradesh

106. A bus moving on a straight road at a speed of 10 km / h increases its speed to 70 km / h in 2 minutes. Find its average acceleration. (+3, -1)

- a. 1 km / minute²
- b. 0.5 km / minute²
- c. 2 km / minute²
- d. 30 km / minute²

107. Severe undernutrition due to the deficiency of food and energy is termed as (+3, -1)

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- a. kwashiorkor
- b. wasting
- c. marasmus
- d. dementia

108. Gases, especially oxygen and carbon dioxide, are essential for the survival of aquatic animals and plants. The gases from the atmosphere reach the aquatic animals and plants through: (+3, -1)

- a. condensation
 - b. evaporation
 - c. sublimation
 - d. diffusion
-

109. What is mainly responsible for the increase in the greenhouse effect? (+3, -1)

- a. Increasing SO₂ levels
 - b. Ozone layer hole
 - c. Chlorofluorocarbon content is rising
 - d. Increasing CO₂ concentration
-

110. Which of the following statements about transfer payments are correct? (+3, -1)

- 1) Transfer payments are made by the government to households.
 - 2) Pension, scholarship etc. are not a part of the transfer payments.
 - 3) Transfer payments are often used as a means of redistributing income within a society.
- a. 1, 2 and 3
 - b. 2 and 3 only
 - c. 1 and 2 only
 - d. 1 and 3 only
-

III. Identify whether the following statements are correct or incorrect.

(+3, -1)

Statement 1 : Khasi and Jaintia hills receive the highest rainfall, which exceeds 1000 cm.

Statement 2 : Ladakh and most western Rajasthan receive rainfall above 150 cm.

- a. Both the statements are incorrect
- b. Both the statements are correct
- c. Only statement 2 is correct
- d. Only statement 1 is correct

112. Which of the following statements related to the United Nations Development Program (UNDP) partnership with Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY – NULM) are correct?

(+3, -1)

- 1) UNDP and DAY – NULM have entered into a collaborative partnership aimed at empowering women to make well-informed career choices in the field of entrepreneurship.
- 2) The partnership will provide support for women looking to start and expand their own enterprises, particularly in sectors such as care economy, digital economy, electric mobility, waste management, food packaging and more.
- 3) Focused on fostering entrepreneurship development and accelerating enterprise growth, the five – year project, extendable beyond 2027, will cover ten cities in the initial phase.
- 4) UNDP will contribute to the initiative by developing community business mentors called ‘Biz – Sakhis’ in selected project locations.

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

113. Which of the following statements are INCORRECT?

(+3, -1)

- 1) The Original Jurisdiction establishes the Supreme Court as an umpire in all disputes regarding federal matters.
- 2) The Supreme Court can give special orders in the form of writs.
- 3) Article 129 of the Indian Constitution mention about appointment of acting Chief Justice of India.
- 4) Every Judge of the Supreme Court of India shall be appointed by the Prime Minister of India.

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

114. Who issued guidelines for the microfinance institutions in India?

(+3, -1)

- a. Finance Ministry
- b. NABARD
- c. State Government

d. Reserve Bank of India

115. Which of the following statement(s) is / are correct about Prarthana Samaj? (+3, -1)

A. Prarthana Samaj or 'Prayer Society' in Sanskrit, was a movement for religious and social reforms.

B. Prarthana Samaj was founded in 1867 by the Dadoba Pandurang and his brother Atmaram Pandurang.

a. Neither A nor B

b. Only A

c. Both A and B

d. Only B

116. Match the following Acts / Policies with the respective years in which they were put into place. (+3, -1)

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Acts / Policies		Year	
A.	Pitt's India Act	1.	1784
B.	Permanent Settlement of Bengal	2.	1793
C.	Introduction of the Subsidiary Alliance System	3.	1798
D.	Abolition of Sati	4.	1829

- a. A - 4, B - 3, C - 2, D - 1
- b. A - 2, B - 1, C - 4, D - 3
- c. A - 2, B - 1, C - 3, D - 4
- d. A - 1, B - 2, C - 3, D - 4

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117. The following sportspersons have created a record in their sports in 2022. (+3, -1)
Match the sportsperson (list I) with their sport (list II).

List I (Sportsperson)		List II (Sport)	
a)	Manpreet Kaur	i)	Shot put
b)	Avinash Sable	ii)	Athlete
c)	Mirabai Chanu	iii)	Archer
d)	Pooja Jatyan	iv)	Weightlifting

- a. a – ii; b – i; c – iv; d – iii
- b. a – i; b – ii; c – iii; d – iv
- c. a – ii; b – i; c – iii; d – iv
- d. a – i; b – ii; c – iv; d – iii

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118. Which of the following cities in India faces monsoon rain first?

(+3, -1)

- a. Bhubaneswar
- b. Kolkata
- c. Thiruvananthapuram
- d. Chennai

119. Which organisation in India holds the responsibility for setting the maximum residue limits (MRLs) of pesticides in food materials? **(+3, -1)**

- a. Indian Statistical Institute (ISI)
- b. Food Safety and Standards Authority of India (FSSAI)
- c. Ministry of Food Processing Industries
- d. Food Corporation of India (FCI)

120. Which of the following statements regarding cricketer Jasprit Bumrah's record at Edgbaston in 2022 are correct? **(+3, -1)**

- 1) Indian captain Jasprit Bumrah broke Brian Lara's world record by scoring 32 runs in an over.
- 2) The world record stayed with Brian Lara for 18 years.
- 3) Brian Lara had hit South African left - arm spinner Robin Peterson for his record.
- 4) Jasprit Bumrah created a world record for maximum runs off a single over in Test cricket by beating Stuart Broad.

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

Computer Knowledge

121. Which among the following is a part of URL (Uniform Resource Locator)? (+3, -1)

- a. Server
- b. Port number
- c. Error code
- d. Multiplexer

122. What is the purpose of the 'Alignment' options in Microsoft Word? (+3, -1)

- a. To insert images and graphics.
- b. To adjust the spacing between lines of text.
- c. To change the font colour of the text.
- d. To control the horizontal or vertical placement of text within margins.

123. What is the role of ROM (Read - Only Memory) in a computer system? (+3, -1)

- a. Managing network connections.
- b. Storing user - generated files and documents.
- c. Storing the computer's firmware and startup instructions.
- d. Providing temporary storage for running applications.

124. What is a 'DDoS attack' in the context of network security? (+3, -1)

- a. An attack that aims to exploit vulnerabilities in software.
- b. An attack that floods a network with excessive traffic to overwhelm and disrupt its operation.
- c. A type of malware that replicates itself and spreads through a network.
- d. A social engineering attack that targets specific individuals.

125. What is 'Phishing' in the context of network security?

(+3, -1)

- a. A type of computer worm that spreads through email attachments.
- b. An attack that floods a network with excessive traffic to disrupt its operation.
- c. A social engineering attack that tricks users into revealing sensitive information.
- d. A type of malware that spreads through infected USB drives.

126. What is a workbook in Excel?

(+3, -1)

- a. A collection of cells with related data
- b. A set of predefined formatting styles
- c. A chart that visualises data
- d. A file containing multiple worksheets

127. What is the keyboard shortcut to 'Paste' copied content from the clipboard in most Windows applications?

(+3, -1)

- a. Ctrl + C
 - b. Ctrl + X
 - c. Ctrl + Z
 - d. Ctrl + V
-

128. What is the main purpose of the 'BCC' field in email composition? (+3, -1)

- a. To include multiple main recipients in a single field.
 - b. To indicate the importance of the email.
 - c. To send copies of the email without revealing the other recipients' addresses.
 - d. To attach files to the email.
-

129. What protocol is commonly used for sending and receiving emails? (+3, -1)

- a. SSH (Secure Shell Protocol)
 - b. SMTP (Simple Mail Transfer Protocol)
 - c. FTP (File Transfer Protocol)
 - d. HTTP (Hypertext Transfer Protocol)
-

130. Which of the following is an example of an output device ? (+3, -1)

- a. Printer
- b. Microphone

- c. Scanner
 - d. Mouse
-

131. What is the purpose of the Arithmetic Logic Unit (ALU) in a Central Processing Unit (CPU)? (+3, -1)

- a. It executes program instructions by performing calculations and logical comparisons.
 - b. It manages the data flow between the CPU and memory.
 - c. It controls the speed of the CPU fan.
 - d. It connects the CPU to peripheral devices.
-

132. How can you open an existing document in Microsoft Word 2016? (+3, -1)

- a. Press Ctrl + S.
 - b. Press Ctrl + P.
 - c. Press Ctrl + N.
 - d. Press Ctrl + O.
-

133. Which keyboard shortcut opens File Explorer (previously known as Windows Explorer) in Windows 10? (+3, -1)

- a. Ctrl + P
- b. Win + E
- c. Ctrl + C

d. Alt + Tab

134. What is the purpose of a search engine on the internet? **(+3, -1)**

- a.** To create and edit documents online.
 - b.** To search and retrieve relevant information from the web.
 - c.** To provide free software downloads.
 - d.** To network with people on social media platforms.
-

135. Which networking protocol is used to assign IP addresses dynamically to devices on a network? **(+3, -1)**

- a.** FTP (File Transfer Protocol)
- b.** HTTP (Hypertext Transfer Protocol)
- c.** SMTP (Simple Mail Transfer Protocol)
- d.** DHCP (Dynamic Host Configuration Protocol)

Answers

1. Answer: b

Explanation:

Given:

Two pipes can fill a cistern separately in 36 minutes and 45 minutes, respectively.

A waste pipe can drain off 40 litres per minute.

If all three pipes are opened, the cistern fills in one hour.

Formula used:

Let the capacity of the cistern be x litres.

Rate of filling by the first pipe = $x / 36$ litres/minute

Rate of filling by the second pipe = $x / 45$ litres/minute

Rate of emptying by the waste pipe = 40 litres/minute

Net rate of filling when all three pipes are open = $(x / 36) + (x / 45) - 40$ litres/minute

Calculation:

The cistern fills in 60 minutes (1 hour), so:

$$\Rightarrow (x / 36) + (x / 45) - 40 = x / 60$$

$$\Rightarrow (5x / 180) + (4x / 180) - 40 = x / 60$$

$$\Rightarrow (9x / 180) - 40 = x / 60$$

$$\Rightarrow (1 / 20)x - 40 = x / 60$$

$$\Rightarrow 3x - 2400 = x$$

$$\Rightarrow 3x - x = 2400$$

$$\Rightarrow 2x = 2400$$

$$\Rightarrow x = 1200$$

$\therefore$ The capacity of the cistern is 1200 litres.

2. Answer: d

Explanation:

Given:

A hollow cube is made of paper to have a volume of 512 cubic units.

Formula used:

$$\text{Volume of a cube (V)} = \text{side}^3$$

$$\text{Surface area of a cube (A)} = 6 \times \text{side}^2$$

Calculation:

Given volume, $V = 512$ cubic units

$$\Rightarrow \text{side}^3 = 512$$

$$\Rightarrow \text{side} = 8 \text{ units}$$

$$\text{Surface area, } A = 6 \times \text{side}^2$$

$$\Rightarrow A = 6 \times 8^2$$

$$\Rightarrow A = 6 \times 64$$

$$\Rightarrow A = 384 \text{ square units}$$

$\therefore$ The correct answer is 384 square units.

3. Answer: d

Explanation:

Given:

Sohan sells sugar at the cost price but uses false weights thus gaining 28% profit.

Calculation:

Let the actual weight of sugar be W grams.

Since he gains 28% profit, we have:

Selling Price (SP) = Cost Price (CP) + 28% of CP

$$SP = CP + 0.28 \times CP$$

$$SP = 1.28 \times CP$$

Therefore, the weight he is giving is reduced by a factor of 1.28

$$\text{Weight Sohan is giving} = 3.2 \text{ kg} / 1.28$$

$$\Rightarrow \text{Weight Sohan is giving} = 3200 \text{ grams} / 1.28$$

$$\Rightarrow \text{Weight Sohan is giving} = 2500 \text{ grams}$$

$\therefore$ The correct answer is 2500 grams.

4. Answer: c

Explanation:

Given:

Difference between a discount of 27% and two successive discounts of 20% and 10% = ₹56

Calculation:

Let the bill amount be ₹x.

Single discount of 27%:

$$\text{Discount} = 0.27x$$

Two successive discounts of 20% and 10%:

$$\text{Effective discount} = 1 - (1 - 0.20) \times (1 - 0.10) = 1 - 0.80 \times 0.90 = 1 - 0.72 = 0.28x$$

Difference between the discounts:

$$0.28x - 0.27x = ₹56$$

$$0.01x = ₹56$$

$$x = ₹56 / 0.01 = ₹5600$$

∴ The amount of the bill is ₹5600.

5. Answer: a

Explanation:

$$\frac{(x^2-9) \times (9x^2-1)}{(x-\frac{1}{3}) \times (1-\frac{x}{3})} \times \frac{9}{(x+\frac{1}{3})(1+\frac{x}{3})}$$

$$\frac{(x-3)(x+3) \times (3x-1)(3x+1)}{(\frac{3x-1}{3}) \times (\frac{3-x}{3})} \times \frac{9}{(\frac{3x+1}{3})(\frac{3+x}{3})}$$

$$\Rightarrow \frac{(-1)(x+3) \times (3x+1)}{(\frac{1}{3}) \times (\frac{1}{3})} \times \frac{9 \times 9}{(3x+1)(3+x)}$$

$$\Rightarrow (-9)(x+3) \times (3x+1) \times \frac{81}{(3x+1)(3+x)}$$

$$\Rightarrow -729$$

6. Answer: c

Explanation:

Given:

The shadow of a tower standing on level ground is found to be 40 m longer when the Sun's altitude is 30° than when it was 45° .

Formula used:

Let h be the height of the tower.

Let x be the length of the shadow when the altitude is 45° .

Then, the length of the shadow when the altitude is 30° is $(x + 40)$ m.

Using trigonometric ratios:

$$\text{For } 45^\circ: \tan 45^\circ = \frac{h}{x}$$

$$\text{For } 30^\circ: \tan 30^\circ = \frac{h}{x + 40}$$

Calculations:

$$\tan 45^\circ = 1$$

$$\Rightarrow h = x$$

$$\tan 30^\circ = \frac{1}{\sqrt{3}}$$

$$\Rightarrow \frac{h}{x + 40} = \frac{1}{\sqrt{3}}$$

Substituting $h = x$:

$$\Rightarrow \frac{x}{x + 40} = \frac{1}{\sqrt{3}}$$

$$\Rightarrow x = \frac{x + 40}{\sqrt{3}}$$

$$\Rightarrow x\sqrt{3} = x + 40$$

$$\Rightarrow x(\sqrt{3} - 1) = 40$$

$$\Rightarrow x = \frac{40}{\sqrt{3} - 1} \times \frac{\sqrt{3} + 1}{\sqrt{3} + 1}$$

$$\Rightarrow x = \frac{40(\sqrt{3} + 1)}{3 - 1}$$

$$\Rightarrow x = 20(\sqrt{3} + 1)$$

Therefore, $h = 20(\sqrt{3} + 1)$

$\therefore$ The correct answer is $20(\sqrt{3} + 1)$.

7. Answer: b

Explanation:

Given:

The average salary of all 40 employees, including 35 non-teaching staff members, of a school is ₹4,000.

The average salary of the non-teaching staff members is ₹4,200.

Formula used:

Average Salary = Total Salary / Number of Employees

Calculation:

Total salary of all employees = 4000×40

$\Rightarrow$ Total salary of all employees = ₹160,000

Total salary of non-teaching staff = 4200×35

$\Rightarrow$ Total salary of non-teaching staff = ₹147,000

Total salary of remaining staff = Total salary of all employees – Total salary of non-teaching staff

$$\Rightarrow \text{Total salary of remaining staff} = 160,000 - 147,000$$

$$\Rightarrow \text{Total salary of remaining staff} = ₹13,000$$

$$\text{Number of remaining staff} = 40 - 35$$

$$\Rightarrow \text{Number of remaining staff} = 5$$

Average salary of remaining staff = Total salary of remaining staff / Number of remaining staff

$$\Rightarrow \text{Average salary of remaining staff} = 13,000 / 5$$

$$\Rightarrow \text{Average salary of remaining staff} = ₹2,600$$

$\therefore$ The correct answer is ₹2,600

8. Answer: a

Explanation:

Given:

In $\triangle XYZ$, $XY = 5$ cm, $XZ = 7$ cm, and Q is a point on YZ such that XQ bisects $\angle X$.

Formula used:

Angle Bisector Theorem: If a point Q lies on the bisector of $\angle X$ in $\triangle XYZ$, then $YQ : QZ = XY : XZ$.

Calculation:

Using Angle Bisector Theorem:

$$YQ : QZ = XY : XZ$$

$$\Rightarrow YQ : QZ = 5 : 7$$

∴ The correct answer is 5 : 7

9. Answer: a

Explanation:

Given:

If a transversal intersects two parallel lines, and the difference between two interior angles on the same side of the transversal is 40° , then find the smallest angle among the interior angles.

Formula used:

Let the two interior angles on the same side of the transversal be x and y .

Since the lines are parallel, we know:

$$x + y = 180^\circ \text{ (sum of interior angles on the same side of the transversal)}$$

$$\text{Given: } x - y = 40^\circ$$

Calculation:

We have the system of equations:

$$x + y = 180^\circ$$

$$x - y = 40^\circ$$

Adding these equations:

$$\Rightarrow (x + y) + (x - y) = 180^\circ + 40^\circ$$

$$\Rightarrow 2x = 220^\circ$$

$$\Rightarrow x = 110^\circ$$

Substitute x back into $x + y = 180^\circ$:

$$\Rightarrow 110^\circ + y = 180^\circ$$

$$\Rightarrow y = 70^\circ$$

The smallest angle among the interior angles is 70° .

$\therefore$ The correct answer is 70° .

10. Answer: b

Explanation:

Given:

The ratio of the expenditure to the savings of Richa is 2:1.

Formula used:

Let expenditure be $2x$ and savings be x .

Income = Expenditure + Savings

Calculation:

$$\text{Initial Income} = 2x + x = 3x$$

$$\text{New Expenditure} = 2x \times 1.15 = 2.3x$$

$$\text{New Income} = 3x \times 1.20 = 3.6x$$

$$\text{New Savings} = \text{New Income} - \text{New Expenditure}$$

$$\Rightarrow \text{New Savings} = 3.6x - 2.3x = 1.3x$$

$$\text{Initial Savings} = x$$

$$\text{Percentage increase in savings} = \frac{1.3x - x}{x} \times 100$$

$$\Rightarrow \text{Percentage increase in savings} = \frac{0.3x}{x} \times 100$$

⇒ Percentage increase in savings = 30%

∴ The percentage increase in Richa's savings is 30%.

11. Answer: c

Explanation:

Given:

A boat is moving 3 km against the current of the stream in 1 hour and moves 1 km in the direction of the current in 12 minutes.

Formula used:

Speed of the boat in still water = $(1/2) \times (\text{Speed against the current} + \text{Speed with the current})$

Calculations:

Speed against the current = $3 \text{ km} / 1 \text{ hour} = 3 \text{ km/hr}$

Speed with the current = $1 \text{ km} / 12 \text{ minutes} = 1 \text{ km} / 0.2 \text{ hours} = 5 \text{ km/hr}$

Speed of the boat in still water = $(1/2) \times (3 \text{ km/hr} + 5 \text{ km/hr}) = 4 \text{ km/hr}$

Time taken to go 6 km in still water = $6 \text{ km} / 4 \text{ km/hr} = 1.5 \text{ hours}$

1.5 hours = 1 hour and 30 minutes

∴ The correct answer is 1 hour and 30 minutes.

12. Answer: c

Explanation:

Given:

Average salary (mean) = ₹4,500

Median salary = ₹4,900

Formula used:

Mode = $3 \times \text{Median} - 2 \times \text{Mean}$

Calculation:

Mode = $3 \times ₹4,900 - 2 \times ₹4,500$

⇒ Mode = $14,700 - 9,000$

⇒ Mode = ₹5,700

∴ The correct answer is ₹5,700.

13. Answer: b

Explanation:

Given:

The first eight multiples of 6 are: 6, 12, 18, 24, 30, 36, 42, 48.

Formula used:

Average of n numbers = $(\text{Sum of n numbers}) / n$

Calculation:

Sum of the first eight multiples of 6 = $6 + 12 + 18 + 24 + 30 + 36 + 42 + 48$

⇒ Sum = 216

⇒ Average = $216 / 8$

⇒ Average = 27

∴ The correct answer is 27.

14. Answer: a

Explanation:

Given:

Probability of Sudarsan's selection (P_S) = $1/3$

Probability of Abraham's selection (P_A) = $1/5$

Formula used:

Probability that none of them are selected = $(1 - P_S) \times (1 - P_A)$

Calculation:

$$1 - P_S = 1 - 1/3 = 2/3$$

$$1 - P_A = 1 - 1/5 = 4/5$$

$$\Rightarrow \text{Probability that none of them are selected} = (2/3) \times (4/5)$$

$$\Rightarrow \text{Probability that none of them are selected} = 8/15$$

∴ The correct answer is 8/15.

15. Answer: b

Explanation:

Given:

The age of the father 10 years ago was thrice the age of his son. Ten years hence, the father's age will be twice that of his son.

Formula used:

Let the present age of the father be F and the present age of the son be S .

$$10 \text{ years ago: } F - 10 = 3(S - 10)$$

$$10 \text{ years hence: } F + 10 = 2(S + 10)$$

Calculations:

From the first equation:

$$F - 10 = 3(S - 10)$$

$$\Rightarrow F - 10 = 3S - 30$$

$$\Rightarrow F = 3S - 20$$

From the second equation:

$$F + 10 = 2(S + 10)$$

$$\Rightarrow F + 10 = 2S + 20$$

$$\Rightarrow F = 2S + 10$$

Equating both expressions for F :

$$3S - 20 = 2S + 10$$

$$\Rightarrow 3S - 2S = 10 + 20$$

$$\Rightarrow S = 30$$

Substitute S into $F = 2S + 10$:

$$F = 2(30) + 10$$

$$\Rightarrow F = 60 + 10$$

$$\Rightarrow F = 70$$

Therefore, the ratio of their present ages is:

$$F : S = 70 : 30$$

$$\Rightarrow 7 : 3$$

$\therefore$ The correct answer is 7 : 3

16. Answer: a

Explanation:

Given:

The ratio of prices of Coffee and Tea is 3:4

The ratio of their quantities consumed by a family is 4:7

Formula used:

$$\text{Expenditure} = \text{Price} \times \text{Quantity}$$

Calculation:

Let the price of coffee be $3x$ and the price of tea be $4x$

Let the quantity of coffee be $4y$ and the quantity of tea be $7y$

$$\text{Expenditure on coffee} = 3x \times 4y = 12xy$$

$$\text{Expenditure on tea} = 4x \times 7y = 28xy$$

$$\Rightarrow \text{Ratio of expenditures on coffee and tea} = 12xy : 28xy$$

$$\Rightarrow \text{Ratio} = 12:28$$

$$\Rightarrow \text{Ratio} = 3:7$$

$\therefore$ The correct answer is 3 : 7

17. Answer: b

Explanation:

Given:

The base of a right prism is an equilateral triangle with each side measuring 4 cm.
The lateral surface area is 120 cm^2 .

Formula used:

Volume of prism = Base Area $\times$ Height

Base Area of equilateral triangle = $\frac{\sqrt{3}}{4} \times \text{side}^2$

Lateral Surface Area = Perimeter of base $\times$ Height

Calculation:

Perimeter of base = $3 \times 4 = 12 \text{ cm}$

Lateral Surface Area = Perimeter of base $\times$ Height

$120 = 12 \times \text{Height}$

$\Rightarrow \text{Height} = \frac{120}{12}$

$\Rightarrow \text{Height} = 10 \text{ cm}$

Base Area = $\frac{\sqrt{3}}{4} \times 4^2$

$\Rightarrow \text{Base Area} = \frac{\sqrt{3}}{4} \times 16$

$\Rightarrow \text{Base Area} = 4\sqrt{3} \text{ cm}^2$

Volume = Base Area $\times$ Height

$\Rightarrow \text{Volume} = 4\sqrt{3} \times 10$

$$\Rightarrow \text{Volume} = 40\sqrt{3} \text{ cm}^3$$

$\therefore$ The correct answer is $40\sqrt{3} \text{ cm}^3$

18. Answer: d

Explanation:

Given:

The runs scored by 11 players in a cricket match are: 7, 16, 121, 51, 101, 81, 1, 16, 9, 11, 16

Formula used:

Median is the middle value in an ordered list of numbers.

If the number of observations (n) is odd, the median is the value at position $(\frac{n+1}{2})$

Calculation:

First, order the data in ascending order:

1, 7, 9, 11, 16, 16, 16, 51, 81, 101, 121

Number of observations (n) = 11

Position of the median = $(\frac{11+1}{2})$

$\Rightarrow$ Position of the median = 6

The value at the 6th position is 16.

$\therefore$ The median of the data is 16.

19. Answer: a

Explanation:

Given:

Principal (P) = ₹2,500

Amount (A) = ₹4,100

Rate (r) = 16% p.a.

Formula used:

Simple Interest (SI) = $P \times r \times t / 100$

Amount (A) = P + SI

Calculations:

According to formula: Amount (A) = P + SI

$4100 = 2500 + (2500 \times 16 \times t / 100)$

$\Rightarrow 4100 = 2500 + 400t$

$\Rightarrow 4100 - 2500 = 400t$

$\Rightarrow 1600 = 400t$

$\Rightarrow t = 1600 / 400$

$\Rightarrow t = 4 \text{ years}$

$\therefore$ The correct answer is 4 years.

20. Answer: d

Explanation:

Given:

A right rectangular box's measurements are 1.6 m long, 90 cm wide, and 60 cm in height. Soap cakes have measurements of 6 cm $\times$ 5 cm $\times$ 40 mm.

Formula used:

Volume of the box = Length $\times$ Width $\times$ Height

Volume of a soap cake = Length $\times$ Width $\times$ Height

Number of soap cakes = Volume of the box / Volume of a soap cake

Calculation:

Convert all measurements to cm:

1.6 m = 160 cm

40 mm = 4 cm

Volume of the box = 160 cm $\times$ 90 cm $\times$ 60 cm

$\Rightarrow$ Volume of the box = 864000 cm³

Volume of a soap cake = 6 cm $\times$ 5 cm $\times$ 4 cm

$\Rightarrow$ Volume of a soap cake = 120 cm³

Number of soap cakes = 864000 cm³ / 120 cm³

$\Rightarrow$ Number of soap cakes = 7200

$\therefore$ The number of soap cakes that can be packed in the box is 7200.

21. Answer: c

Explanation:

Given:

Total amount = ₹7,786

Ratio of A to B = 3 : 4

Ratio of B to C = 12 : 13

Formula used:

Combine the ratios to find the individual shares.

Calculation:

Ratio of A to B = 3 : 4

Ratio of B to C = 12 : 13

To combine these ratios, make the common term (B) equal in both ratios:

Ratio of A to B = 3 : 4 (multiply by 3)

$\Rightarrow 9 : 12$

Ratio of B to C = 12 : 13

Combined ratio of A : B : C = 9 : 12 : 13

Total parts = $9 + 12 + 13 = 34$

Share of B = $(\text{Total amount} \times \text{Share of B}) / \text{Total parts}$

$\Rightarrow (\text{₹}7,786 \times 12) / 34$

$\Rightarrow \text{₹}2,748$

$\therefore$ The amount of money received by B is ₹2,748.

22. Answer: a

Explanation:

Given:

Angles of elevation from points P and Q: 60° and 30° , respectively

Distance between P and Q: 10 m

Let h be the height of the pole and d be the distance from Q to the base of the pole.

From Point P:

The angle of elevation is 60° . Therefore:

$$\tan(60^\circ) = h / d$$

$$\sqrt{3} = h / d$$

$$\text{Hence, } h = d \times \sqrt{3}$$

From Point Q:

The angle of elevation is 30° . Therefore:

$$\tan(30^\circ) = h / (d + 10)$$

$$1 / \sqrt{3} = h / (d + 10)$$

$$\text{Hence, } h = (d + 10) / \sqrt{3}$$

Set the two expressions for h equal:

$$d \times \sqrt{3} = (d + 10) / \sqrt{3}$$

Solving for d :

$$d \times \sqrt{3} \times \sqrt{3} = d + 10$$

$$3d = d + 10$$

$$2d = 10$$

$$\text{Hence, } d = 5$$

Find the height h :

Substitute $d = 5$ into $h = d \times \sqrt{3}$:

$$h = 5 \times \sqrt{3} = 5\sqrt{3}$$

$\therefore$ The height of the pole is $5\sqrt{3}$.

23. Answer: a

Explanation:

Given:

A sells a watch to B at a profit of 33% and B sells it to C at a loss of 20%. If C pays ₹532, then what was the cost price for A?

Formula used:

Cost price for B = Selling price for C $\div$ (1 - Loss%)

Cost price for A = Cost price for B $\div$ (1 + Profit%)

Calculation:

Cost price for B = ₹532 $\div$ (1 - 0.20)

$\Rightarrow$ Cost price for B = ₹532 $\div$ 0.80

$\Rightarrow$ Cost price for B = ₹665

Cost price for A = ₹665 $\div$ (1 + 0.33)

$\Rightarrow$ Cost price for A = ₹665 $\div$ 1.33

$\Rightarrow$ Cost price for A = ₹500

$\therefore$ The correct answer is 500.

24. Answer: c

Explanation:

Given:

The sum of the ages of a son and father is 52 years; after four years the age of the father will be four times that of the son.

Formula used:

Let the present age of the son be S and the present age of the father be F.

$$S + F = 52 \dots(1)$$

$$F + 4 = 4(S + 4)$$

Calculation:

$$S + F = 52$$

$$F + 4 = 4(S + 4)$$

$$\Rightarrow F + 4 = 4S + 16$$

$$\Rightarrow F = 4S + 12$$

Substitute F in the first equation:

$$S + 4S + 12 = 52$$

$$\Rightarrow 5S + 12 = 52$$

$$\Rightarrow 5S = 40$$

$$\Rightarrow S = 8$$

$\therefore$ The present age (in years) of the son is 8.

25. Answer: b

Explanation:

Given:

$$(\sqrt[3]{(\sqrt[3]{343})})^3 \times (\sqrt[3]{(\sqrt[3]{216})})^3$$

Formula used:

$$(\sqrt[3]{a})^3 = a$$

Calculation:

$$(\sqrt[3]{(\sqrt[3]{343})})^3$$

$$\rightarrow (\sqrt[3]{(343^{1/3})})^3$$

$$\rightarrow 343^{(1/3 \times 1/3) \times 3}$$

$$\rightarrow 343^{1/3}$$

$$\rightarrow 7$$

$$(\sqrt[3]{(\sqrt[3]{216})})^3$$

$$\rightarrow (\sqrt[3]{(216^{1/3})})^3$$

$$\rightarrow 216^{(1/3 \times 1/3) \times 3}$$

$$\rightarrow 216^{1/3}$$

$$\rightarrow 6$$

Multiply the results:

$$\rightarrow 7 \times 6 = 42$$

Therefore, the simplified value is 42.

26. Answer: a

Explanation:

Given:

The measures of two angles of a triangle are in the ratio 3:7. The sum of these two measures is equal to the measure of the third angle.

Formula used:

Sum of angles in a triangle = 180°

Calculation:

Let the measures of the two angles be $3x$ and $7x$.

Sum of these two angles = $3x + 7x = 10x$

Given that the sum of these two measures is equal to the measure of the third angle.

$\Rightarrow$ Third angle = $10x$

Sum of all angles in a triangle = 180°

$\Rightarrow 3x + 7x + 10x = 180^\circ$

$\Rightarrow 20x = 180^\circ$

$\Rightarrow x = 180^\circ / 20$

$\Rightarrow x = 9^\circ$

Smallest angle = $3x$

$\Rightarrow$ Smallest angle = $3 \times 9^\circ$

$\Rightarrow$ Smallest angle = 27°

$\therefore$ The correct answer is 27°

27. Answer: b

Explanation:

Given:

$$\sqrt{625} + \sqrt{\frac{625}{100}} + \sqrt{\frac{625}{10000}} + \sqrt{\frac{625}{1000000}}$$

Formula used:

$$\sqrt{a} + \left(\sqrt{\frac{a}{b}}\right) + \sqrt{\frac{a}{b^2}} + \sqrt{\frac{a}{b^3}}$$

Calculation:

$$\sqrt{625} = 25$$

$$\sqrt{\frac{625}{100}} = \sqrt{6.25} = 2.5$$

$$\sqrt{\frac{625}{10000}} = \sqrt{0.0625} = 0.25$$

$$\sqrt{\frac{625}{1000000}} = \sqrt{0.00625} = 0.025$$

$$\Rightarrow 25 + 2.5 + 0.25 + 0.025$$

$$\Rightarrow 27.775$$

$\therefore$ The value is 27.775

28. **Answer: c**

Explanation:

Given:

In an election, a candidate who gets 90% votes is elected by a margin of 800 votes.

Formula used:

Let total votes be x.

Then, 90% of x - 10% of x = 800

Calculation:

$$90\% \text{ of } x - 10\% \text{ of } x = 800$$

$$\Rightarrow 0.9x - 0.1x = 800$$

$$\Rightarrow 0.8x = 800$$

$$\Rightarrow x = \frac{800}{0.8}$$

$$\Rightarrow x = 1000$$

$\therefore$ The total number of votes polled is 1000.

29. Answer: a

Explanation:

Given:

Principal (P) = ₹6,000

Rate for 1st year (r_1) = 2.5%

Rate for 2nd year (r_2) = 2%

Time (t) = 2 years

Formula used:

Amount after 1st year, $A_1 = P \times (1 + r_1/100)$

Amount after 2nd year, $A_2 = A_1 \times (1 + r_2/100)$

Compound Interest (CI) = $A_2 - P$

Calculations:

$$A_1 = 6000 \times (1 + 2.5/100)$$

$$\Rightarrow A_1 = 6000 \times 1.025$$

$$\Rightarrow A_1 = 6150$$

$$A_2 = 6150 \times (1 + 2/100)$$

$$\Rightarrow A_2 = 6150 \times 1.02$$

$$\Rightarrow A_2 = 6273$$

$$CI = A_2 - P$$

$$\Rightarrow CI = 6273 - 6000$$

$$\Rightarrow CI = 273$$

$\therefore$ The correct answer is ₹273.

30. Answer: a

Explanation:

Given:

Prime numbers between 69 and 92 are: 71, 73, 79, 83, 89

Formula used:

Average = (Sum of prime numbers) / (Number of prime numbers)

Calculations:

Sum of prime numbers = 71 + 73 + 79 + 83 + 89

$$\Rightarrow \text{Sum} = 71 + 73 + 79 + 83 + 89 = 395$$

Number of prime numbers = 5

$$\Rightarrow \text{Average} = 395 / 5$$

$$\Rightarrow \text{Average} = 79$$

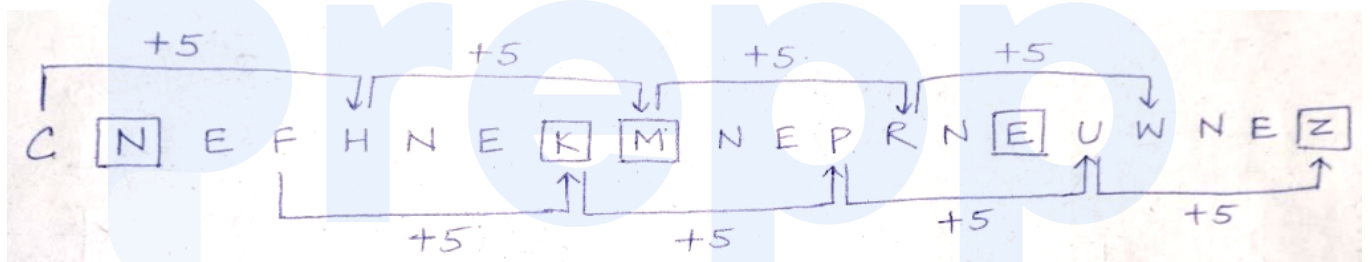
∴ The correct answer is 79.

31. Answer: c

Explanation:

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is,



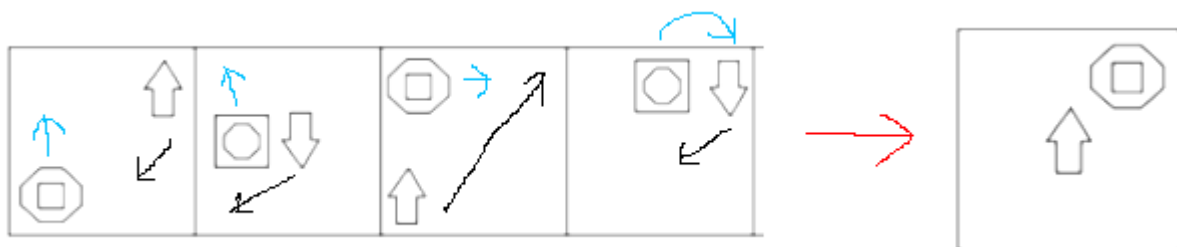
Hence, the correct answer is "NKMEZ".

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32. Answer: d

Explanation:

The logic followed here is,



Hence, the correct answer is "Option 4".

33. Answer: b

Explanation:

The logic followed here is:

Logic: **Both the words of the pair are synonyms.**

Bewilder: Confuse

→ Bewilder means to confuse and surprise.

→ Both are synonyms.

Harmony: Concord

→ Harmony means a state of agreement. Concord means peace and agreement.

→ Both are synonyms.

Let's check each option,

1) **Fierce: Gentle** → Both are antonym.

2) **Ponder: Contemplate** → Ponder means to think about something for a long time. Contemplate means to think carefully about something. Both are synonym.

3) **Docile: Defiant** → Both are antonym.

4) **Timid: Bold** → Both are antonym.

Hence, the correct answer is "**Ponder: Contemplate**".

34. Answer: d

Explanation:

The given statement is: $P \leq L \geq M \geq N = U < V < G$

Conclusions:

I. $P > V \rightarrow$ **False** (There is no definite relation; $P \leq L \geq M \geq N = U < V$)

II. $G \leq L \rightarrow$ **False** (There is no definite relation; $L \geq M \geq N = U < V < G$)

Hence, the correct answer is "**Neither conclusion I nor II is true**".

35. Answer: a

Explanation:

The second, third, fifth and seventh letters of the word TOURIST are "O, U, I, T".

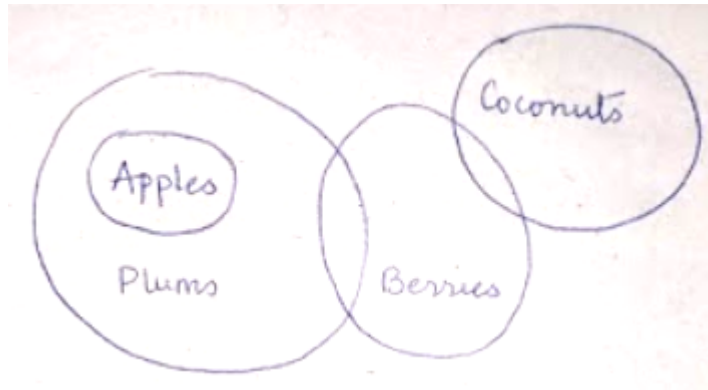
→ Here, we can see that no word can be formed using these letters.

Hence, the correct answer is "**None**".

36. Answer: d

Explanation:

The least possible venn diagram is shown below,



Conclusions:

1. Some berries are plums → **True** (Some plums are berries implies that some berries are plums).
2. All plums are apples → **False** (All apples are plums implies that all plums can be apples. This is possible but not definite).
3. Some coconuts are berries → **True** (Some berries are coconuts implies that some coconuts are berries).

Hence, the correct answer is **"Both conclusions 1 and 3 follow"**.

37. Answer: b

Explanation:

The logic followed here is:

Logic: **Second number = First number × 9**

Let's check each option,

1) 14 - 126

→ $126 = 14 \times 9$

2) 31 - 280

→ $280 \neq 31 \times 9 \Rightarrow$ Doesn't follow the logic.

3) $25 - 225$

→ $225 = 25 \times 9$

4) $12 - 108$

→ $108 = 12 \times 9$

Hence, the correct answer is "31 - 280".

38. Answer: d

Explanation:

B	Brackets in order {}, [], {}	कोष्ठक {}, [], {} क्रम में
O	of	का
D	Division (÷)	भाग (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़े (+)
S	Subtraction (-)	घटाव (-)

Given equation: $163 \div 5 + 147 \times 7 - 19 = ?$

Sign	+	×
Interchange with	-	÷

After interchanging the signs, the equation we get: $163 \times 5 - 147 \div 7 + 19 = ?$

→ $163 \times 5 - 147 \div 7 + 19 = ?$

→ $163 \times 5 - 21 + 19 = ?$

→ $815 - 21 + 19 = ?$

→ $834 - 21 = ?$

→ $813 = ?$

Hence, the correct answer is "813".

39. Answer: b

Explanation:

The logic followed here is:

Logic: **Second number = First number $\times$ 5**

11: 55

→ $55 = 11 \times 5$

12: 60

→ $60 = 12 \times 5$

Similarly,

15: ?

→ $? = 15 \times 5 = 75$

Hence, the correct answer is "75".

40. Answer: c

Explanation:

The logic followed here is:

Logic: **First number = Second number $\times$ 2**

Let's check each option,

1) $364 - 182$

$\rightarrow 364 = 182 \times 2$

2) $438 - 219$

$\rightarrow 438 = 219 \times 2$

3) $524 - 260$

$\rightarrow 524 \neq 260 \times 2 \Rightarrow$ **Doesn't follow the logic.**

4) $986 - 493$

$\rightarrow 986 = 493 \times 2$

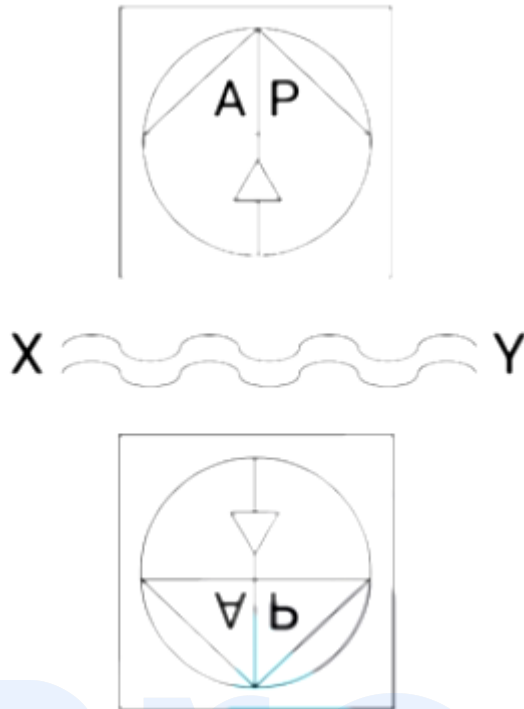
Here, we can see that only Option 3 doesn't follow the logic.

Hence, the correct answer is **"524 - 260"**.

41. Answer: d

Explanation:

The water reflection of the given figure is shown below,



Hence, the correct answer is "Option 4".

42. Answer: c

Explanation:

The given statement is: **Voltage fluctuation in A's home has damaged many of his new electrical appliances.**

Courses of action:

I) A should consult an electrician and install a device to safeguard appliances against fluctuations in voltage → **True** (This action addresses the root cause of the problem (voltage fluctuations) and provides a preventive measure to protect appliances in the future).

II) A must replace all the appliances → **False** (This action addresses the damage that has already occurred but does not provide a solution to prevent future damage from voltage fluctuations. While replacing damaged appliances may be necessary, it does not solve the underlying issue).

Hence, the correct answer is "Only I follows".

43. Answer: d

Explanation:

The logic followed here is:

Logic: **The second word is used to store or keep the first word.**

1) **Water - bottles** → Water is stored in bottles.

2) **Clothes - wardrobes** → Clothes are kept in wardrobes.

3) **Money - wallets** → Money is kept in wallets.

4) **Rice - eat** → This pair represents an action (to eat) performed on rice ⇒ **Doesn't follow the logic.**

Hence, the correct answer is "**Rice - eat**".

44. Answer: b

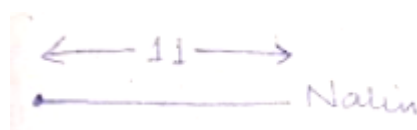
Explanation:

According to the given information,

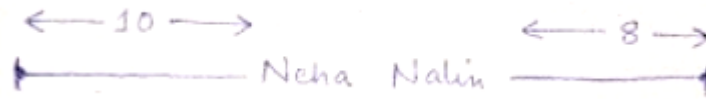
1) Neha is 10th from the right end.



2) Nalin is 12th from the left end.



On combining both, we get:



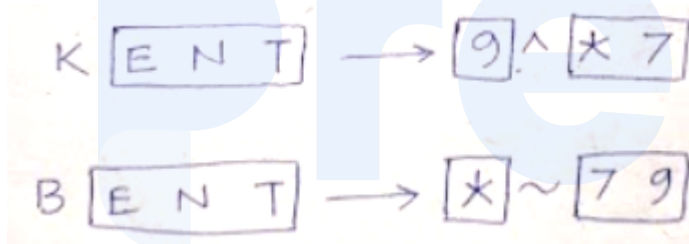
Here, we can see that zero people are standing between Neha and Nalin.

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

45. Answer: c

Explanation:

According to the given information,



Here, we can see that the code for 'B' is '~'.

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

46. Answer: d

Explanation:

Logic: The given pair of words are synonyms of each other.

Quench : Satisfy → Quench means to satisfy one's needs or thirst. Quench is a synonym of satisfy.

Nurture : Foster → Both these words means to help something to grow. Nurture is a synonym of foster.

Now, we check the options one by one as follows:

Option 1) Yield : Resist → Yield is an antonym of Resist.

Option 2) Jealous : Content → Jealous is an antonym of Content.

Option 3) Lethargic : Energetic → Lethargic is the antonym of Energetic.

Option 4) Ingenious : Clever → Ingenious is a synonym of Clever. Both the words mean the same.

Therefore, **Ingenious : Clever** is the word-pair which follows a similar relationship.

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

47. Answer: c

Explanation:

Given:

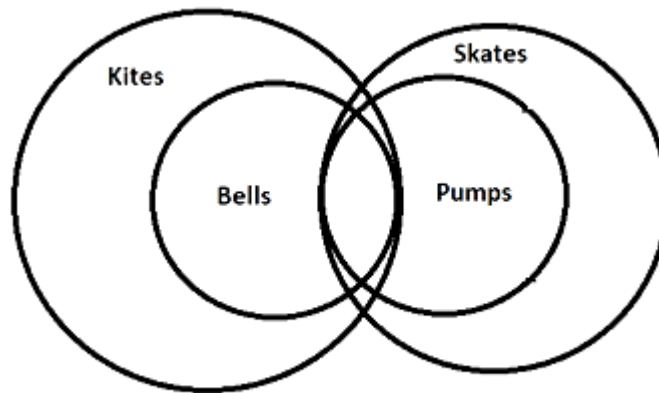
Statements :

Some bells are pumps.

All pumps are skates.

All bells are kites.

The least possible Venn Diagram is given as follows:



Conclusions :

1. Some kites are skates. → **Follows.** (Some bells are pumps. All pumps are skates. All bells are kites. So, some kites are definitely skates.)
2. Some skates are bells. → **Follows.** (Some bells are pumps. All pumps are skates. All bells are kites. So, some skates are definitely bells.)
3. Some skates are pumps. → **Follows.** (All pumps are skates and so, some skates are definitely pumps.)

Therefore, all the conclusions follow.

Hence, the correct answer is "Option 3".

48. Answer: a

Explanation:

Given: 82 is related to 41 following a certain logic. Following the same logic, 94 is related to 47.

Logic: **First number** = $2 \times$ **Second number**.

For 82 is related to 41-

$$\rightarrow 82 = 2 \times 41$$

→ $82 = 82$

For 94 is related to 47-

→ $94 = 2 \times 47$

→ $94 = 94$

Similarly, 66 is related as-

→ $66 = 2 \times 33$

→ $66 = 66$

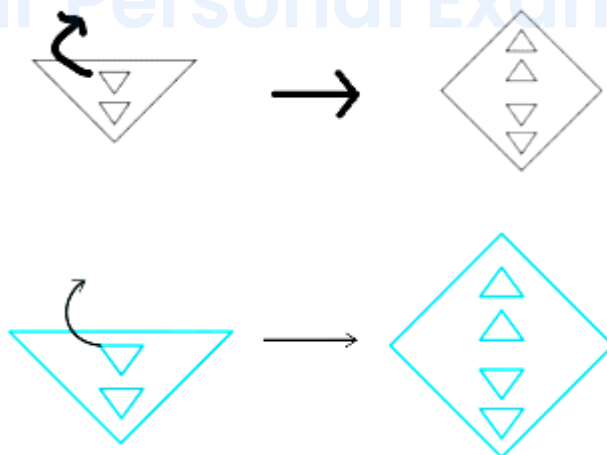
Therefore, 66 is related to 33 by the same logic.

Hence, the correct answer is "Option 1".

49. Answer: a

Explanation:

The image obtained when the paper is unfolded is as shown below:



Hence, the correct answer is "Option 1".

50. Answer: c

Explanation:

Given: 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, number 2, and so on, till the topmost floor is numbered 6.

Based on the given conditions, we get the following arrangements:

1. E lives on an odd-numbered floor but not on floor number 5.
2. Only one person lives between E and C.

From these, we get these two cases as follows:

prepp

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FLOOR NUMBER	PERSON	
	CASE 1	CASE 2
6		
5		
4		
3	E	C
2		
1	C	E

3. B lives on a lower floor than C. This eliminates Case 1 from above, and we get-

FLOOR NUMBER	PERSON
6	
5	
4	
3	C
2	B
1	E

4. A does not live on the topmost floor.

5. D lives immediately above F.

From these, we get the final floor arrangement as follows:

FLOOR NUMBER	PERSON
6	D
5	F
4	A
3	C
2	B
1	E

Therefore, D lives on the topmost floor.

Hence, the correct answer is "Option 3".

51. Answer: d

Explanation:

B	Brackets in order {}, {}, []	ब्रेकेट {}, {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (-)	घटाव (-)

Given equation: $617 \div 3 - 84 + 515 \times 5 = ?$

Given: '+' and '-' are interchanged and '×' and '÷' are interchanged.

$$\rightarrow 617 \div 3 - 84 + 515 \times 5 = ?$$

$$\rightarrow 617 \times 3 + 84 - \underline{515 \div 5} = ?$$

$$\rightarrow \underline{617 \times 3} + 84 - 103 = ?$$

$$\rightarrow \underline{1851 + 84} - 103 = ?$$

$$\rightarrow \underline{1935 - 103} = ?$$

$$\rightarrow 1832 = 1832$$

Hence, the correct answer is "Option 4".

52. Answer: b

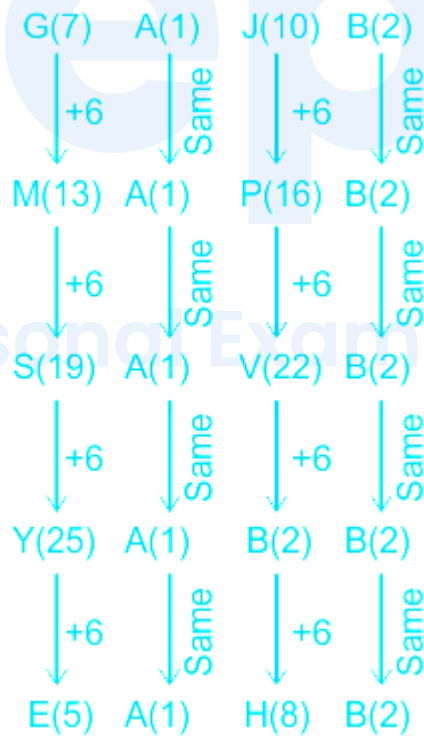
Explanation:

Given: GA_B M_PB SA_B YAB_ _AHB

We check the options one by one as follows:

Option 1) GAAB/ MWPB/ SABB/ YABU/ YAHB → There is no clear pattern here.

Option 2) GAJ B/ MA PB/ SAV B/ YABB/ EAHB → There is a clear pattern followed here which is given as follows:



Option 3) G A M B / M F P B / S A G B / Y A B T / Y A H B → There is no clear pattern here.

Option 4) G A C B / M H P B / S A F B / Y A B J / K A H B → There is no clear pattern here.

Therefore, the correct combination of letters is J A V B E.

Hence, the correct answer is "Option 2".

53. Answer: d

Explanation:

Given: 4 is related to 40 following a certain logic. Following the same logic, 12 is related to 120.

Logic: **First number $\times$ 10 = Second number.**

For 4 is related to 40-

$$\rightarrow 4 \times 10 = 40$$

$$\rightarrow 40 = 40$$

For 12 is related to 120-

$$\rightarrow 12 \times 10 = 120$$

$$\rightarrow 120 = 120$$

Similarly, 15 is related as-

$$\rightarrow 15 \times 10$$

$$\rightarrow 150 = 150$$

Therefore, 15 is related to 150 by the same logic.

Hence, the correct answer is "Option 4".

54. Answer: d

Explanation:

Given:

Statement :

All mammals are warm – blooded animals.

Inferences :

I. Dogs are warm – blooded animals. → **Can be derived.** (All breeds of dogs are mammals, which live on land. So, dogs are warm blooded animals.)

II. All warm – blooded creatures are mammals. → **Cannot be derived.** (The converse of the given statement cannot be inferred as it may or may not be true. All warm blooded creatures are mammals cannot be inferred hence.)

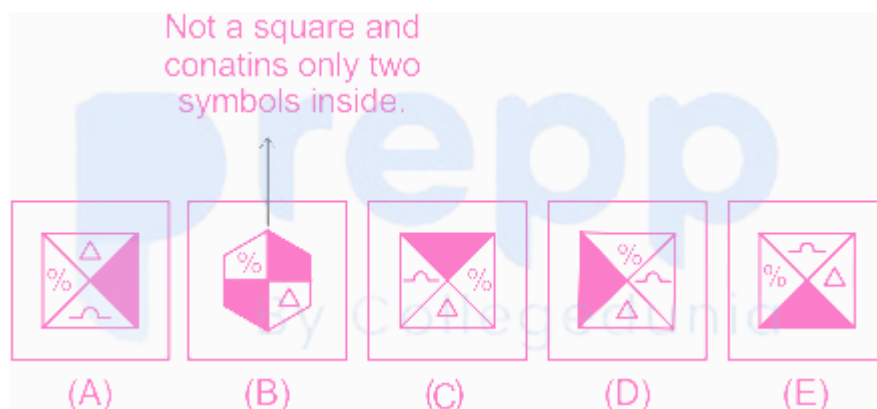
Therefore, only inference I can be derived.

Hence, the correct answer is "Option 4".

55. **Answer: a**

Explanation:

Logic: All the give figures except one are squares with one darkened inner triangle and three similar symbols inside.



Not a square and
contains only two
symbols inside.

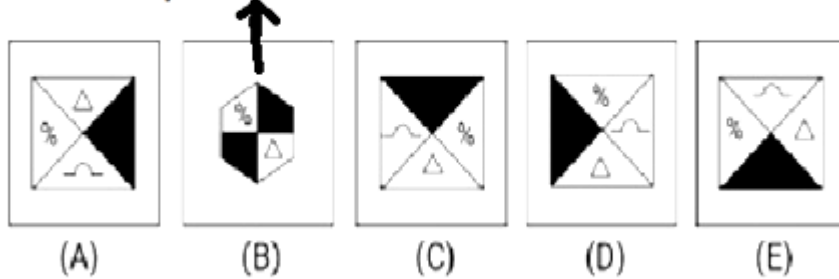


Figure B is a hexagon with only two symbols inside.

Therefore, figure B doesn't belong to the group.

Hence, the correct answer is "Option 1".

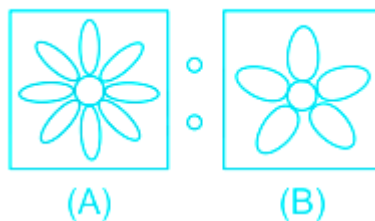
56. Answer: d

Explanation:

Logic: The number of petals in figure B is 3 less than that in figure A.

For figure A and B, we get-

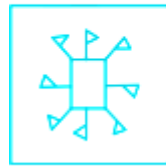
No. of petals = 8 No. of petals = 5



Similarly,

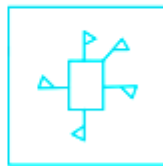
For figure C,

No. of outside
flaglike
figure = 8



(C)

No. of outside
flaglike
figure = 5



(D)

Therefore, only the figure in option 4 has 5 outside flag-like figures.

Hence, the correct answer is "Option 4".

57. Answer: c

Explanation:

Given word: SAVOUR

(left) S A V O U R (right)

The first, fourth, fifth and sixth letters of the word SAVOUR (when counted from left to right) are S, O, U, and R.

Thus, the meaningful four letter English words which can be formed are – SOUR and OURS.

Therefore, two meaningful four letter English words can be formed.

Hence, the correct answer is "Option 3".

58. Answer: a

Explanation:

Given:

Statement : $T \geq M < W = P \geq Q > R \leq S$

Conclusions :

I. $P \leq M \rightarrow$ False. ($M < W = P$, this clearly indicates that $M < P$.)

II. $Q > T \rightarrow$ False. ($T \geq M < W = P \geq Q$, it gives no direct relation between Q and T .)

Therefore, neither conclusion I nor II is true.

Hence, the correct answer is "**Option 1**".

59. Answer: d

Explanation:

Given: CB_W V_SP _NLI HG_B A_XU

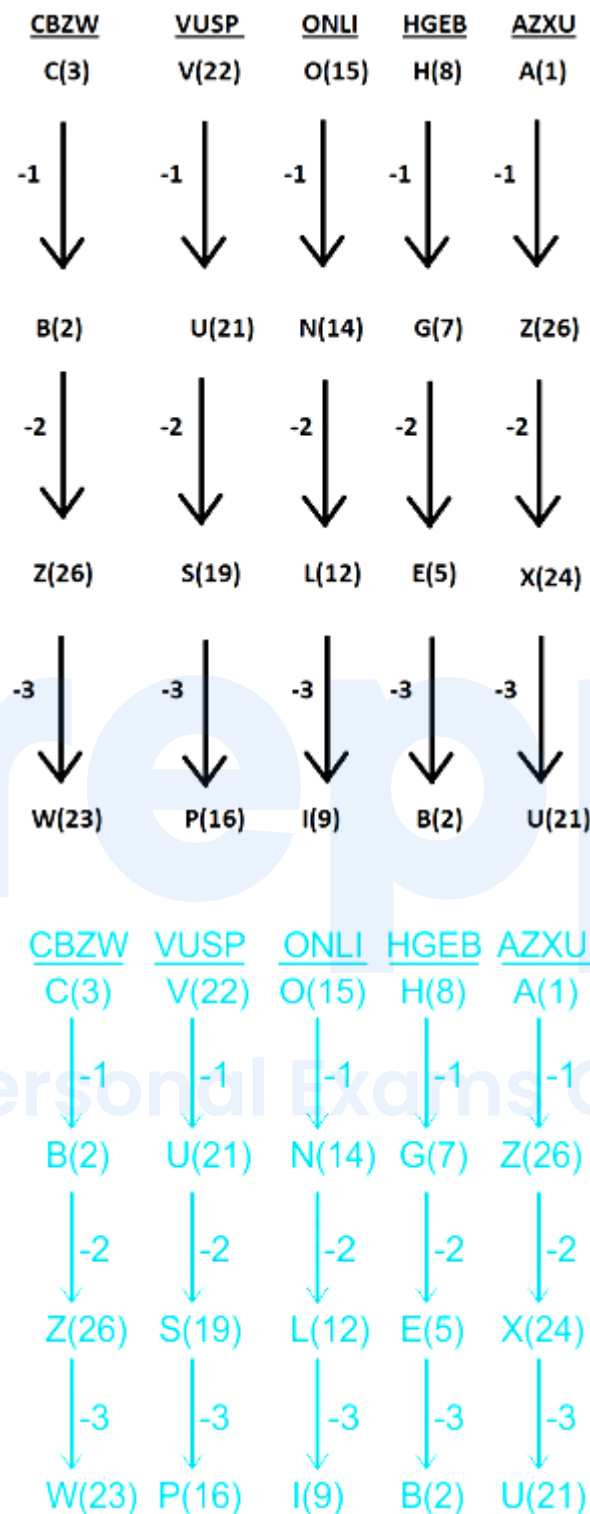
We check the options one by one as follows:

Option 1) CBXW/ VUSP/ ONLI/ HGFB/ AYZU $\rightarrow$ There is no clear pattern here.

Option 2) CBXW/ VUSP/ ONLI/ HGE B/ AZXU $\rightarrow$ There is no clear pattern here.

Option 3) CBXW/ VUSP/ ONLI/ HGE B/ AYZU $\rightarrow$ There is no clear pattern here.

Option 4) CBZ W/ VUSP/ ONLI/ HGE B/ AZXU $\rightarrow$ There is a pattern followed here which is given as follows:



Therefore, the correct combination of letters is ZUOEZ.

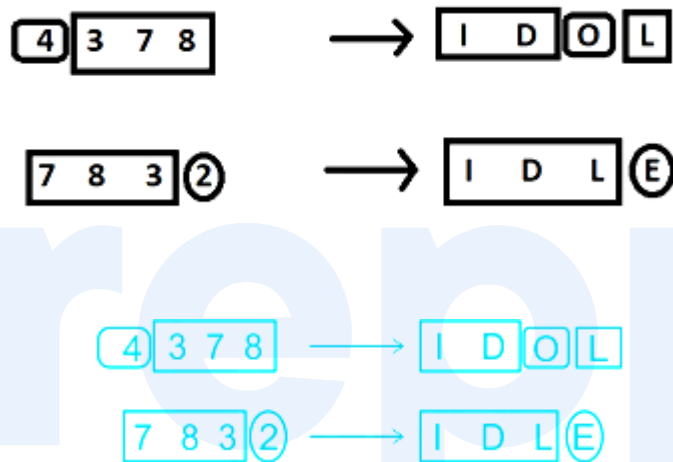
Hence, the correct answer is "Option 4".

60. Answer: c

Explanation:

Given: '4378' is coded as 'IDOL' and '7832' is coded as 'IDLE'.

The logic is as follows:



So, the codes for 7, 8, 3 are I, D and L but not in any particular order as it cannot be determined exactly.

'4' is coded as 'L'.

'2' is coded as 'E'.

Therefore, '2' is coded as 'E'.

Hence, the correct answer is "Option 3".

61. Answer: a

Explanation:

The correct answer is: **Decline**.

★ Key Points

- The word "**decadence**" refers to a state of moral or cultural decline characterized by excessive indulgence in pleasure or luxury. (पतन)
 - **Example:** The decadence of the Roman Empire is often cited as a reason for its fall.
- "**Decline**" means a gradual and continuous loss of strength, numbers, quality, or value. (अवनति)
 - **Example:** The decline of traditional industries has led to economic hardship in many areas.
- Hence, we can infer that "decline" is a synonym of "decadence".

Therefore, the correct answer is: **Decline**.

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Liberate** (मुक्त करना): To set someone free from a situation, especially imprisonment or slavery.
 - **Example:** The soldiers were sent to liberate the hostages from the terrorists.
- **Dispirited** (निराश): Having lost enthusiasm and hope; disheartened.
 - **Example:** The team felt dispirited after their defeat in the finals.
- **Flowering** (खिलना): The process of developing fully and producing flowers.
 - **Example:** The flowering of the cherry blossoms attracts many tourists each year.

62. Answer: c

Explanation:

The correct answer is: **Option 3**.

★ Key Points

- The idiom **"Don't judge a book by its cover"** means that one should not judge the value or worth of something or someone based solely on outward appearances. (किसी चीज़ या व्यक्ति को केवल बाहरी दिखावट के आधार पर नहीं आंकना चाहिए।)
 - **Example:** Just because he dresses shabbily doesn't mean he's not a successful businessman. Don't judge a book by its cover.
- **Shyama looks innocent, but in reality, she is cunning** implies that appearances can be deceiving, which aligns perfectly with the idiom "Don't judge a book by its cover." (श्यामा मासूम दिखती है, लेकिन वास्तव में वह चालाक है।)
 - **Example:** Although the house looked small from the outside, it was surprisingly spacious inside. Don't judge a book by its cover.

Therefore, the correct answer is: **Option 3.**

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Fortune favours the brave** (साहसी लोगों का भाग्य साथ देता है): This idiom means that people who take risks often succeed.
 - **Example:** She decided to start her own business, and it turned out to be very successful. Fortune favours the brave.
- **Beauty lies in the eyes of the beholder** (सौंदर्य देखने वाले की आँखों में होता है): This means that the perception of beauty is subjective.
 - **Example:** He finds modern art beautiful, while others don't. Beauty lies in the eyes of the beholder.
- **Don't put all your eggs in one basket** (सभी अंडे एक ही टोकरी में न रखें): This means one should not concentrate all efforts and resources in one area as one could lose everything.
 - **Example:** He invested all his money in one company, and it went bankrupt. Don't put all your eggs in one basket.

63. Answer: d

Explanation:

The correct answer is: Option(4) i.e. **Sedative**.

★ Key Points

- The word "**Sedative**" means a drug or other substance that induces sleep or drowsiness. (नींद लाने वाली दवा)
 - **Example:** The doctor prescribed a sedative to help the patient sleep better.

Therefore, the correct answer is: **Sedative**.

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Energetic** (ऊर्जावान): Showing or involving great activity or vitality.
 - **Example:** The energetic children were playing outside all day.
- **Reviver** (पुनर्जीवित करने वाला): Something that revives or revitalizes.
 - **Example:** The cold juice acted as a reviver on the hot summer day.
- **Stimulant** (उत्तेजक): A substance that raises levels of physiological or nervous activity in the body.
 - **Example:** Caffeine is a common stimulant found in coffee.

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64. Answer: a

Explanation:

The correct answer is 'I' i.e. He asked the mechanic if he would have the car ready by the next morning.

★ Key Points

- The sentence in direct speech is a question in the future tense.
- When converting it to reported speech, "said to" changes to "asked" because it's a question.

- The future tense "will you" changes to "would he" to maintain the correct sequence of tenses.
- "By tomorrow morning" is correctly converted to "by the next morning" in reported speech.

Hence, the correct answer is option 1.

65. Answer: d

Explanation:

The correct answer is '4' i.e. The river Ganga has some of the purest water on earth.

★ Key Points

- The original sentence uses the comparative form "**purier**."
- In the superlative degree, the comparative adjective "**purier**" changes to "**purest**."
- The correct superlative phrase is "some of the **purest** water on earth."

Hence, the correct answer is option 4.

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66. Answer: c

Explanation:

The correct answer is '3' i.e. A new house was built by them last year.

★ Key Points

- In the active voice, the subject "**they**" performs the action "**built**" on the object "a new house."
- In the passive voice, the object "**a new house**" becomes the subject.
- The verb "**built**" changes to "was built" to match the tense and maintain the passive construction.

- The original sentence's time reference "**last year**" remains the same.

Hence, the correct answer is option 3.

67. Answer: d

Explanation:

The correct answer is option 4 i.e. considered pseudoscience.

★ Key Points

- A definite article "**a**" is required before "**pseudoscience**" to be grammatically correct.
- The correct phrase should be "**considered a pseudoscience.**"
- The other parts of the sentence are grammatically correct.

Hence, the part with the error is option 4.

68. Answer: d

Explanation:

The correct answer is option 4 i.e. Meera is the elder.

★ Key Points

- The term "**elder**" is used when comparing only two people. Since there are three sisters, the correct term is "eldest."
- The corrected phrase should be "**Meera is the eldest.**"
- The other parts of the sentence are grammatically correct.

Hence, the part with the error is option 4.

69. Answer: a

Explanation:

The correct answer is: **Option 1** i.e. Getting a preview of something.

★ Key Points

- The phrase "**sneak peek**" means getting a brief and informal preview of something. (झलक)
 - **Example:** The author gave a sneak peek of her upcoming novel to a select group of fans.
- "**Getting a preview of something**" refers to seeing or experiencing a part of something before it is fully available. (पूर्वावलोकन)
 - **Example:** We got a preview of the new movie before its official release.

Therefore, the correct answer is: **Option 1** i.e. Getting a preview of something.

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **To try something new** (कुछ नया आजमाना): It means to experience or attempt something that one has not done before.
 - **Example:** She decided to try something new and joined a cooking class.
- **Sending a brief letter** (संक्षिप्त पत्र भेजना): It refers to the act of sending a short written message.
 - **Example:** He sent a brief letter to his parents explaining his absence.
- **To be in a winning position** (जीत की स्थिति में होना): It means to be in a favorable position to win or succeed.
 - **Example:** The team was in a winning position after scoring the last goal.

70. Answer: b

Explanation:

The correct answer is option 2 i.e. are working.

★ Key Points

- The sentence begins with "**Currently**," indicating an action that is happening at the present moment.
- The present continuous tense "**are working**" correctly expresses ongoing action.
- The other options do not fit the context of an ongoing current action:
 - "**Worked**" is past tense.
 - "**Have worked**" is present perfect tense.
 - "**Were working**" is past continuous tense.

Hence, the correct answer is option 2.

71. Answer: b

Explanation:

The correct answer is: **Option 2.**

★ Key Points

- The idiom "**Keep your chin up**" means to remain positive and optimistic, especially during difficult times. (मुश्किल समय में सकारात्मक और आशावादी बने रहना)
 - **Example:** Even after losing the match, the coach told the players to keep their chins up and focus on the next game.
- **Despite facing setbacks, she remained positive and determined to achieve her goals** means that even though she encountered difficulties, she stayed hopeful and focused on her objectives. (वह कठिनाइयों का सामना करने के बावजूद सकारात्मक और अपने लक्ष्यों को प्राप्त करने के लिए दृढ़ संकल्पित रही)
 - **Example:** After several failed attempts, he kept his chin up and eventually succeeded in passing the exam.

Therefore, the correct answer is: **Option 2.**

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Option 1: The students diligently completed their homework assignments before the deadline** (छात्रों ने समय सीमा से पहले अपने होमवर्क असाइनमेंट को परिश्रमपूर्वक पूरा किया)
 - **Example:** The students were praised for their diligence in completing their homework on time.
- **Option 3: The hiker enjoyed the breathtaking view from the mountaintop, taking in the natural beauty** (पहाड़ी पर चढ़ने वाले ने पहाड़ की चोटी से लुभावने दृश्य का आनंद लिया और प्राकृतिक सुंदरता को आत्मसात किया)
 - **Example:** The hiker was mesmerized by the panoramic view from the summit.
- **Option 4: The scientist conducted experiments and gathered data to support his research hypothesis** (वैज्ञानिक ने अपने शोध परिकल्पना का समर्थन करने के लिए प्रयोग किए और डेटा इकट्ठा किया)
 - **Example:** The scientist's thorough experiments provided strong evidence for his hypothesis.

72. Answer: d

Explanation:

The correct answer is option 4 i.e. in an earlier job, he will never be.

★ Key Points

- The phrase "**he will never be**" is unnecessary as it introduces a redundant subject "he."
- The sentence already has **a subject** "A man who has been accused of fraud," making "he" redundant and incorrect.
- The **corrected version** should simply be "A man who has been accused of fraud in an earlier job will never be welcomed in any other organisation."
- The other parts of the sentence are grammatically correct.

Hence, the part with the error is option 4.

73. Answer: c

Explanation:

The correct answer is: **Conceal**.

★ Key Points

- The word "**Denote**" means to be a sign of; to indicate or represent something. (सूचित करना)
 - **Example:** The red color on the map denotes danger zones.
- "**Conceal**" means to hide or keep something secret; to prevent something from being known or seen. (छुपाना)
 - **Example:** She tried to conceal her disappointment when she didn't get the job.
- Hence, we can infer that the opposite of '**denote**' is '**conceal**'.

Therefore, the correct answer is: **Conceal**.

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Convey** (व्यक्त करना): To communicate or express something.
 - **Example:** He tried to convey his feelings through a heartfelt letter.
- **Conclude** (निष्कर्ष निकालना): To bring something to an end or to reach a decision.
 - **Example:** The meeting concluded with a vote of thanks.
- **Convince** (मनाना): To persuade someone to do something or to believe that something is true.
 - **Example:** She managed to convince him to join the team.

74. Answer: c

Explanation:

The correct answer is option 3 i.e. bring up.

★ Key Points

- The phrasal verb "**bring up**" means to introduce or mention a topic in a conversation or discussion.
- The context of the sentence involves students sharing their ideas during a class discussion, which aligns with the meaning of "**bring up**."
- The other options do not fit the context:
 - "**Get on**" means to proceed or make progress.
 - "**Put off**" means to delay or postpone something.
 - "**Bring about**" means to cause something to happen.

Hence, the correct answer is option 3.

75. Answer: a

Explanation:

The correct answer is: Option 1.

★ Key Points

- The word "**authoreties**" is incorrectly spelt. The correct spelling is "**authorities**". (अधिकारियों)
 - **Example:** The authorities have taken strict measures to ensure public safety.
- "**Authorities**" refers to people or organizations having power or control in a particular, typically political or administrative, sphere. (अधिकारियों)
 - **Example:** The local authorities are responsible for maintaining the infrastructure of the city.

Therefore, the correct answer is: Option 1.

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Locasion** (स्थान): This is also incorrectly spelt. The correct spelling is "**location**".
(स्थान)
 - **Example:** The location of the new restaurant is perfect for attracting tourists.
- **Remotness** (दूरदराज): This is also incorrectly spelt. The correct spelling is "**remoteness**". (दूरदराज)
 - **Example:** The remoteness of the village makes it a peaceful place to live.
- **Deficult** (कठिन): This is also incorrectly spelt. The correct spelling is "**difficult**".
(कठिन)
 - **Example:** Solving this puzzle is quite difficult.

76. Answer: a

Explanation:

The correct answer is option 1 i.e. has.

★ Key Points

- The verb "**has**" is used with singular subjects to form the present perfect tense.
- The subject "**The war**" is singular, so "has" is the correct form.
- The present perfect tense "has badly damaged" indicates that the damage occurred at an unspecified time before now and has a present relevance.
- The other options do not fit the grammatical structure:
 - "**Have**" is used with plural subjects.
 - "**Was**" is past tense and would require a different sentence structure.
 - "**Is**" is present tense and would also require a different sentence structure.

Hence, the correct answer is option 1.

77. Answer: a

Explanation:

The correct answer is option 1 i.e. A challenging assignment has been given by Perumal to the newly admitted students.

★ Key Points

- In passive voice, the focus is on the action and the object rather than the subject.
- The original sentence is in the present perfect tense, "**has given.**"
- The correct passive voice form for the present perfect tense is "**has been given.**"
- **Option 2** ("A challenging assignment will have been given") is in the future perfect tense, which does not match the original sentence.
- **Option 3** ("A challenging assignment was given") is in the simple past tense, which does not match the original sentence.
- **Option 4** ("A challenging assignment had been given") is in the past perfect tense, which does not match the original sentence.

Hence, the correct answer is option 1.

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78. Answer: c

Explanation:

The correct answer is option 3 i.e. hand in.

★ Key Points

- The phrasal verb "**hand in**" means to submit something, particularly a piece of work or an assignment.
- The context of the sentence involves students submitting their essays, which fits the meaning of "**hand in.**"
- The other options do not fit the context:

- "Land in" means to arrive at or come to a particular place or situation.
- "Put off" means to delay or postpone something.
- "Hand up" is not a commonly used phrasal verb and does not fit the context.

Hence, the correct answer is option 3.

79. Answer: d

Explanation:

The correct answer is: **Catastrophe**.

★ Key Points

- The word "**Catastrophe**" means a sudden violent event that brings about great loss or destruction. (आपदा)
 - **Example:** The earthquake was a catastrophe that left thousands of people homeless.
- "**Blockbuster**" refers to something, especially a film or book, that is a great commercial success. (सुपरहिट)
 - **Example:** The movie was a blockbuster, breaking all box office records.
- Hence, we can infer that the correct one-word substitute for a sudden violent event that brings about great loss or destruction is '**Catastrophe**'.

Therefore, the correct answer is: **Catastrophe**.

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Blockbuster** (सुपरहिट): Something, especially a film or book, that is a great commercial success.
 - **Example:** The movie was a blockbuster, breaking all box office records.
- **Farce** (मूर्खतापूर्ण नाटक): A comic dramatic work using buffoonery and horseplay.

- **Example:** The play turned out to be a farce, full of ridiculous situations and slapstick humor.
- **Intrigue** (षड्यंत्र): The secret planning of something illicit or detrimental.
 - **Example:** The novel is full of intrigue, with numerous plot twists and hidden agendas.

80. Answer: a

Explanation:

The correct answer is: **Option 1.**

★ Key Points

- The word "**Narcissist**" means someone who has an excessive admiration for themselves. (आत्ममुग्ध व्यक्ति)
 - **Example:** John's narcissistic behavior makes it difficult for him to maintain relationships.
- "**Narcissist**" refers to a person who is overly self-involved, often vain and selfish. (आत्मप्रेमी)
 - **Example:** Her constant need for attention and admiration reveals her narcissistic tendencies.
- Hence, we can infer that the correct one-word substitute for someone who has too much admiration for themselves is '**Narcissist**'.

Therefore, the correct answer is: **Option 1.**

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Pantheist** (सर्वेश्वरवादी): A person who believes that God is present in all natural things.
 - **Example:** As a pantheist, she finds spirituality in nature and the universe.
- **Misogamist** (विवाह विरोधी): A person who hates marriage.

- **Example:** His views on marriage make him a misogynist.
- **Misanthropist** (मनुष्यद्वेषी): A person who dislikes humankind and avoids human society.
 - **Example:** The old man was a misanthropist who lived alone in the woods.

81. Answer: b

Explanation:

The correct answer is: **Option 2.**

★ Key Points

- The word "**Serene**" means calm, peaceful, and untroubled. (शांत)
 - **Example:** The lake was serene in the early morning, with no ripples disturbing its surface.
- "**Calm**" refers to a state of being free from agitation, excitement, or disturbance. (शांत)
 - **Example:** She remained calm during the emergency, which helped everyone else stay composed.

Therefore, the correct answer is: **Option 2.**

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Chaotic** (अराजक): Completely disordered or confused.
 - **Example:** The office was chaotic after the announcement of the merger.
- **Agitated** (उत्तेजित): Feeling or appearing troubled or nervous.
 - **Example:** She was visibly agitated after hearing the bad news.
- **Angry** (गुस्से में): Feeling or showing strong annoyance, displeasure, or hostility.
 - **Example:** He was angry when he found out someone had scratched his car.

82. Answer: b

Explanation:

The correct answer is option 2 i.e. go.

★ Key Points

- The verb form after "**did not**" should be the base form of the verb.
- "**Go**" is the base form of the verb "to go."
- "**Gone**" is the past participle form, which is incorrect in this context.
- "**Went**" is the past tense form, but it is incorrect after "did not."
- "**Going**" is the present participle form, which is also incorrect in this context.

Hence, the correct answer is option 2.

83. Answer: d

Explanation:

The correct answer is option 4 i.e. Anil told Ria that he knew where everything was kept in the kitchen.

★ Key Points

- In reported speech, present tense verbs are usually changed to their past tense forms.
- "**I know**" changes to "**he knew**" because "know" is in the present tense and must be changed to the past tense "knew."
- "**Is kept**" changes to "was kept" for the same reason, the present tense "is" changes to the past tense "was."
- The reporting verb "said to" changes to "told" since the sentence is an assertion, not a question.

Hence, the correct answer is option 4.

84. Answer: a

Explanation:

The part that contains the error is option 1 i.e. that the Monarchy is.

★ Key Points

- The error lies in the incorrect use of the article "**the**" before "**Monarchy**."
- The word "**Monarchy**" should not be preceded by "the" when it is used in a general sense.
- The correct sentence should be, "It is a well-known fact that Monarchy is not the best form of governance."
- The other parts of the sentence are grammatically correct.

Hence, the error is in option 1.

85. Answer: c

Explanation:

The correct answer is: **Option 3.**

★ Key Points

- The word "**Lisentious**" is incorrectly spelt. The correct spelling is "Licentious". (लुच्चा)
 - **Example:** His licentious behavior caused a lot of trouble at the event.
- "**Licentious**" refers to someone who is morally unrestrained or disregards accepted rules and standards. (लुच्चा)
 - **Example:** The novel was criticized for its licentious content.

Therefore, the correct answer is: **Option 3.**

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Maxim** (सूक्ति): A short, pithy statement expressing a general truth or rule of conduct.
 - **Example:** "Honesty is the best policy" is a well-known maxim.
- **Profligate** (अपव्ययी): Recklessly extravagant or wasteful in the use of resources.
 - **Example:** His profligate spending habits led him into debt.
- **Quandary** (दुविधा): A state of perplexity or uncertainty over what to do in a difficult situation.
 - **Example:** She was in a quandary about whether to accept the job offer.

86. Answer: c

Explanation:

The correct answer is option 3 i.e. The lesson will be explained by the teacher tomorrow.

★ Key Points

- The structure for converting an active sentence in the simple future tense to passive voice is: **subject + will be + past participle + by + agent**.
- In the given sentence, "**the teacher**" is the subject, "**will explain**" is the verb phrase in the future tense, and "the lesson" is the object.
- In the passive voice, "**the lesson**" becomes the subject, "will explain" changes to "will be explained," and "the teacher" becomes the agent prefixed by "by."

Hence, the correct answer is option 3.

87. Answer: c

Explanation:

The correct answer is: **Option 3** i.e. surreptitious.

★ Key Points

- The word "**surreptitious**" means something that is done in a secret or stealthy way to avoid detection. (गुप्त)
 - **Example:** He made a surreptitious phone call while his boss was out of the room.
- "**Sureptitiuos**" is an incorrect spelling of the word "surreptitious". (ग़लत वर्तनी)
 - **Example:** Incorrect: He made a sureptitiuos phone call while his boss was out of the room.

Therefore, the correct answer is: **Option 3** i.e. surreptitious.

★ Additional Information

Here are the other options explained along with their Hindi meanings and example sentences:

- **Surreptitious** (ग़लत वर्तनी): This is an incorrect spelling of "surreptitious".
 - **Example:** Incorrect: He made a surreptitious phone call while his boss was out of the room.
- **Sureptitious** (ग़लत वर्तनी): This is also an incorrect spelling of "surreptitious".
 - **Example:** Incorrect: He made a sureptitious phone call while his boss was out of the room.
- **Sarreptitious** (ग़लत वर्तनी): This is another incorrect spelling of "surreptitious".
 - **Example:** Incorrect: He made a sarreptitious phone call while his boss was out of the room.

88. Answer: c

Explanation:

The correct answer is option 3 i.e. was going.

★ Key Points

- The subject "**Tania**" is singular, so the verb form should be singular as well.
- The correct past continuous tense for the subject "**Tania**" is "**was going.**"

Hence, the correct answer is option 3.

89. Answer: a

Explanation:

The correct answer is '**falling**'.

★ Key Points

- The **context of the passage** indicates a scene where snow can be observed through the window.
- Snow often "**falls**," making "**falling snow**" the most appropriate and natural phrase to describe the scene.
- Other options such as "dashing," "praying," and "blazing" do not fit the context of snow and are not commonly used to describe snow.
- Using "**falling**" accurately depicts the typical motion and behavior of snowflakes.

Therefore, the correct answer is '**Option 1**'.

Complete Passage: He looks out of the window at the (1)falling snow, then turns and takes his wife in his arms, feeling grateful to be here even as he wonders what he is going to do with his life in strictly practical terms. For years, he had (2) devoted himself to do one thing, and he did it well, but he doesn't know whether he wants to keep doing it for the rest of his life, for that matter, whether anyone will let him. He is still worrying when they go to bed.

They've been learning to get by with less, and they'll keep learning. It seems to him as if they're taking a course in loss lately. And as he feels himself falling asleep he has an (3) insight he believes is important, which he hopes he will remember in the morning, although it is one of those thoughts that seldom (4) survives translation to the language of daylight hours.

★ Additional Information

- “Falling” (गिरती) : Correct as it describes the natural action of snowflakes.
- “Dashing” (तेज़ भागना): Incorrect as it does not relate to the usual behavior of snow.
- “Praying” (प्रार्थना कर रही): Incorrect as it does not fit the description of snow.
- “Blazing” (धधकते): Incorrect as it is typically used to describe fire or intense light, not snow.

90. Answer: a

Explanation:

The correct answer is 'trained'.

★ Key Points

- The context of the passage indicates that the subject has spent years developing a specific skill set.
- “Trained” is the most appropriate choice as it implies dedication and effort in learning to do one thing well.
- Other options like “mesmerised,” “penalised,” and “abstained” do not fit the context.

Therefore, the correct answer is 'Option 1'.

Complete Passage: He looks out of the window at the (1)falling snow, then turns and takes his wife in his arms, feeling grateful to be here even as he wonders what he is going to do with his life in strictly practical terms. For years, he had (2)trained himself to do one thing, and he did it well, but he doesn't know whether he wants to keep doing it for the rest of his life, for that matter, whether anyone will let him. He is still worrying when they go to bed.

They've been learning to get by with less, and they'll keep learning. It seems to him as if they're taking a course in loss lately. And as he feels himself falling asleep he has an (3) insight he believes is important, which he hopes he will remember in the morning, although it is one of those thoughts that seldom (4) survives translation to the language of daylight hours.

★ Additional Information

- **"Trained"** (प्रशिक्षित) : Correct as it fits the context of dedicating oneself to learning a skill.
- **"Mesmerised"** (मंत्रमुग्ध): Incorrect as it means to be captivated and does not fit the context.
- **"Penalised"** (दंडित): Incorrect as it means to be punished and does not fit the context.
- **"Abstained"** (परहेज): Incorrect as it means to deliberately avoid something and does not fit the context.

91. Answer: a

Explanation:

The correct answer is '**insight**'.

★ Key Points

- The context of the passage highlights a moment of reflection and realization that the character experiences as he falls asleep.
- **"Insight"** is the most appropriate choice because it refers to a clear understanding of a complex situation or a deep perception that the character is experiencing.
- Other options like "implication," "insurance," and "instance" do not fit the context.

Therefore, the correct answer is '**Option I**'.

Complete Passage: He looks out of the window at the (1)falling snow, then turns and takes his wife in his arms, feeling grateful to be here even as he wonders what he is going to do with his life in strictly practical terms. For years, he had (2)trained himself to do one thing, and he did it well, but he doesn't know whether he wants to keep doing it for the rest of his life, for that matter, whether anyone will let him. He is still worrying when they go to bed.

They've been learning to get by with less, and they'll keep learning. It seems to him as if they're taking a course in loss lately. And as he feels himself falling asleep he has an (3)insight he believes is important, which he hopes he will remember in the

morning, although it is one of those thoughts that seldom (4) survives translation to the language of daylight hours.

★ Additional Information

- “**Insight**” (अंतर्दृष्टि) : Correct as it implies a deep understanding or realization.
- “**Implication**” (निहितार्थ) : Incorrect as it refers to a conclusion drawn from something but lacks the reflective element.
- “**Insurance**” (बीमा) : Incorrect as it refers to financial protection and is unrelated to the context.
- “**Instance**” (उदाहरण) : Incorrect as it means an example or occurrence and does not convey a deep realization.

92. Answer: b

Explanation:

The correct answer is “**survive**”.

★ Key Points

- The context of the passage suggests the character has a realization as he falls asleep, but he is uncertain if he will remember this realization in the morning.
- “**Survive**” is the most appropriate choice because it implies the realization must endure through the transition from night to day.
- Other options like “proliferate,” “install,” and “fabricate” do not fit the context.

Therefore, the correct answer is ‘**Option 2**’.

Complete Passage: He looks out of the window at the (1)falling snow, then turns and takes his wife in his arms, feeling grateful to be here even as he wonders what he is going to do with his life in strictly practical terms. For years, he had (2)trained himself to do one thing, and he did it well, but he doesn't know whether he wants to keep doing it for the rest of his life, for that matter, whether anyone will let him. He is still worrying when they go to bed.

They've been learning to get by with less, and they'll keep learning. It seems to him as if they're taking a course in loss lately. And as he feels himself falling asleep he

has an (3)insight he believes is important, which he hopes he will remember in the morning, although it is one of those thoughts that seldom (4)survive translation to the language of daylight hours.

★ Additional Information

- “**Survive**” (बच पाना) : Correct as it fits the context of enduring through the night.
- “**Proliferate**” (फैलना): Incorrect as it means to increase rapidly and doesn't fit the context.
- “**Install**” (स्थापित करना): Incorrect as it means to set up something, unrelated to thoughts.
- “**Fabricate**” (गढ़ना): Incorrect as it means to invent and is not suitable for the context of a fleeting thought.

93. Answer: a

Explanation:

The correct answer is option 1 i.e. Simplicity.

★ Key Points

- The **passage emphasizes** that simplicity in conduct is a crucial quality of a leader that can be emulated by followers.
- **It specifically mentions** that pomp and show, flattery, and sanctioning more incentives are not the qualities that should characterize a leader.
- The quality of being deified is associated with creating a sense of awe, not a desired quality for effective leadership as per the passage.
- The passage highlights simplicity as the quality that followers can adopt irrespective of their cadre, class, or calibre.

Hence, the correct answer is option 1.

94. Answer: b

Explanation:

The correct answer is option 2 i.e. Imitate.

★ Key Points

- The word "**emulate**" means to try to equal or surpass someone, especially by imitating them.
- Option 2 "**Imitate**" is the most appropriate synonym for "emulate" as it means to copy or mimic someone.
- Option 1 "**Relax**" means to become less tense or anxious, which is not related to imitating.
- Option 3 "**Suppose**" means to assume something to be true without proof, which is not related to emulating.
- Option 4 "**Exhibit**" means to show or display something, which does not convey the meaning of trying to copy or match someone.

Hence, the correct answer is option 2.

95. Answer: c

Explanation:

The correct answer is option 3 i.e. To gain acceptance by the members of the group.

★ Key Points

- The **passage states** that leadership does not exist without followership and that a leader has to be accepted by the group they are supposed to lead.
- **Creating an emotive** impact on the group members is essential for the leader to gain acceptability.
- **Options 1, 2, and 4** are not mentioned in the passage as reasons for generating an emotive impact.

- The passage emphasizes that the acceptability of a leader is crucial for effective leadership, which is achieved through an emotive impact.

Hence, the correct answer is option 3.

96. Answer: a

Explanation:

The correct answer is option 1 i.e. A leader effectively inspires and guides his followers to achieve desired goals.

★ Key Points

- **The passage discusses** how leadership is dependent on followership and the acceptance of a leader by the group.
- **The leader's strength** of character and simplicity in conduct are highlighted as qualities that inspire followers.
- **Option 1** captures the essence of the passage by stating that a leader inspires and guides followers to achieve worthwhile things.
- **Option 2** is incorrect as the passage mentions that certain styles (like pomp and show or flattery) cannot serve as long-term motivation, not that a leader's style in general cannot motivate.
- **Option 3** is not addressed in the passage; it focuses on the qualities of a leader rather than individual intellectual strength.
- **Option 4** is not mentioned in the passage, which focuses on leadership qualities rather than administrative knowledge for followers' success.

Hence, the correct answer is option 1.

97. Answer: a

Explanation:

The correct answer is option 1 i.e. they do it without considering the business point of view.

★ Key Points

- The **passage states** that parents are careless and unscientific in giving names to children, specifically mentioning that they forget the importance of a name from both a social and business point of view.
- The contributor highlights that a name can have significant business implications and that notoriety through a memorable name can be considered a form of capital.
- **Option 2** is incorrect as discussing the name with relatives and friends is not mentioned in the passage.
- **Option 3** is incorrect because the passage does not focus on the actual meaning of the name but rather on its euphonic quality and its impact in social and **business contexts**.
- **Option 4** is incorrect as there is no mention in the passage of parents considering the child's personal interest in the name.

Hence, the correct answer is option 1.

98. Answer: d

Explanation:

The correct answer is option 4 i.e. Euphonic.

★ Key Points

- The passage mentions the term "**euphonic quality**" in the context of choosing a child's name.
- "**Euphonic**" refers to sounds that are pleasing and sweet, which aligns with the meaning given in the question.
- Options like "Identity," "Advantageous," and "Outcomes" do not fit the description of "pleasing and sweet sound."

Hence, the correct answer is option 4.

99. Answer: d

Explanation:

The correct answer is option 4 i.e. A head start in life.

★ Key Points

- The **passage states** that a good name will give a child “a start in life equivalent to a cash capital of at least fifteen thousand dollars.” This means that a good name can provide a significant advantage or head start in life.
- **Option 1** is incorrect as the passage does not refer to a bank balance directly.
- **Option 2** is incorrect as the passage does not mention anything about an address.
- **Option 3** is incorrect because there is no mention of a professional attitude being given by a good name in the passage.

Hence, the correct answer is option 4.

100. Answer: c

Explanation:

The correct answer is option 3 i.e. Persuasive.

★ Key Points

- **The speaker** in the passage is making a case for the importance of names and guiding parents on how to choose them carefully. This demonstrates a persuasive tone as the speaker aims to convince the audience of their viewpoint.
- **Option 1** is incorrect as there is no humor in the passage.

- **Option 2** is incorrect because sarcasm implies mockery, which is not present in the passage.
- **Option 4** is incorrect as melancholy refers to sadness, which is not the tone of the passage.

Hence, the correct answer is option 3.

101. Answer: b

Explanation:

The correct answer is Option 2

★ Key Points

- **Delhi and Chandigarh** are the most urbanized union territories in India according to the Census of India-2011.
- The Census of India-2011 provides comprehensive data on the urbanization levels across various states and union territories.
- Urbanization is measured by the proportion of the population living in urban areas compared to the total population.
- Delhi, being the capital territory, has a significant urban population with extensive infrastructure and metropolitan features.
- Chandigarh, designed by the famous architect Le Corbusier, is known for its urban planning and high urban population density.

★ Additional Information

- According to the Census of India-2011, urbanization in India has been on the rise, with more people moving to cities for better opportunities and living standards.
- Union territories like **Delhi and Chandigarh** have seen rapid urban growth due to their strategic importance and administrative functions.
- Urban planning and development initiatives in these territories have contributed to their high urbanization levels.

- The Census of India is conducted every ten years and is the most reliable source of demographic data in the country.
-

102. Answer: c

Explanation:

The correct answer is Option 3

★ Key Points

- The Directive Principles of State Policy are guidelines for the framing of laws by the government.
- They are included in Part IV of the Constitution of India and aim to create social and economic conditions under which citizens can lead a good life.
- **Option 3: "The operation of economic system results for concentration of wealth" is NOT a Directive Principle.**
- Other options such as ensuring the tender age of children is not abused, equal pay for equal work, and the ownership of material resources of the community being for the common good, are part of the Directive Principles.

★ Additional Information

- The Directive Principles are non-justiciable in nature, meaning they are not legally enforceable by the courts for their violation.
 - They are considered fundamental in the governance of the country and aim to establish a just society in India.
 - Examples of Directive Principles include the promotion of international peace and security, the organization of village panchayats, and the provision of free legal aid.
 - These principles act as a yardstick in the hands of the electorate to measure the performance of the government.
-

103. Answer: a

Explanation:

Concept:

- pH and pOH: pH is a measure of the hydrogen ion concentration in a solution, while pOH is a measure of the hydroxide ion concentration.
- Relationship between pH and pOH: The sum of pH and pOH is always 14 at 25°C.
 - $\text{pH} + \text{pOH} = 14$
 - For a strong base like NaOH, which dissociates completely in water:
 - $\text{NaOH} \rightarrow \text{Na}^+ + \text{OH}^-$

Calculations:

Given that,

- Volume of solution (V) = 100 mL = 0.1 L
- Moles of NaOH = 0.01 moles

The molarity (M) of NaOH solution is given by:

M =

M = 0.1 M

Since NaOH is a strong base, it dissociates completely in water:

$[\text{OH}^-] = 0.1 \text{ M}$

pOH is calculated using the formula:

$\text{pOH} = -\log[\text{OH}^-]$

$\text{pOH} = -\log(0.1) = 1$

Using the relationship between pH and pOH:

$\text{pH} + \text{pOH} = 14$

$\text{pH} = 14 - \text{pOH}$

$$\text{pH} = 14 - 1 = 13$$

So, the pH of the solution is 13.

★ Additional Information

- The pH scale ranges from 0 to 14, with 7 being neutral. Values below 7 indicate acidity, and values above 7 indicate alkalinity.
- Strong bases like NaOH have high pH values, typically close to 14.

104. Answer: d

Explanation:

The correct answer is producers

★ Key Points

- **Producers** are organisms, typically plants, that produce energy through photosynthesis using sunlight.
- In the energy flow diagram of an ecosystem, energy from the sun is captured by **producers** (plants) and then transferred to herbivores when they consume the plants.
- This energy transfer is crucial for the survival of herbivores, which rely on producers as their primary food source.
- Producers form the base of the food chain and support all other levels of consumers.

★ Additional Information

- **Photosynthesis** is the process by which producers convert sunlight into chemical energy in the form of glucose.
- Herbivores, such as deer and rabbits, consume these producers to obtain the energy necessary for their growth and survival.
- The energy transfer continues up the food chain from herbivores to carnivores and top carnivores.

- The efficiency of energy transfer between trophic levels is typically around 10%, meaning a significant amount of energy is lost as heat at each level.
- This concept is fundamental to understanding ecological dynamics and the structure of food webs.

105. Answer: b

Explanation:

The correct answer is Tripura

★ Key Points

- **Daspara village** in Tripura was converted to a nature-based lifestyle and livelihood, becoming India's first modified bio village in September 2022.
- The village is solely dependent on **agriculture and fishery**.
- This transition included **reducing the use of chemical fertilizers** and adopting more sustainable practices.
- This initiative reflects a growing trend towards sustainable development and environmental conservation in rural India.

★ Additional Information

- Tripura is known for its diverse culture and natural beauty, making it an ideal location for such sustainable initiatives.
- The state government has been actively promoting **organic farming and sustainable agricultural practices** to improve the livelihood of its farmers.
- Such initiatives are crucial for **environmental conservation** and can serve as a model for other regions in India.

106. Answer: b

Explanation:

Concept:

- Average acceleration: The change in velocity divided by the time taken to change the velocity is called average acceleration.
- Formula for average acceleration: Average acceleration (a) is given by the formula:
 - $a = (v_f - v_i) / t$
- Where:
 - v_f is the final velocity
 - v_i is the initial velocity
 - t is the time taken

Calculations:

Given that,

- Initial velocity, $v_i = 10 \text{ km/h}$
- Final velocity, $v_f = 70 \text{ km/h}$
- Time taken, $t = 2 \text{ minutes} = 2/60 \text{ hours} = 1/30 \text{ hours}$

So we have a formula for average acceleration,

$$a = (v_f - v_i) / t$$

Substituting the given values:

$$a = (70 - 10) / (1/30) = 60 \times 30 = 1800 \text{ km/h}^2$$

To convert km/h^2 to km/min^2 , we divide by 3600 (since 1 hour = 60 minutes and hence $(60 \text{ minutes})^2 = 3600 \text{ minutes}^2$):

$$a = 1800 / 3600 = 0.5 \text{ km/min}^2$$

So the average acceleration of the bus is 0.5 km/min^2 .

★ Additional Information

- Acceleration is a vector quantity that has both magnitude and direction.

- Deceleration is negative acceleration where the speed of an object decreases over time.
 - In SI units, acceleration is measured in meters per second squared (m/s^2).
-

107. Answer: c

Explanation:

The correct answer is marasmus

★ Key Points

- **Marasmus** is a severe form of undernutrition caused by a deficiency of calories and energy.
- It primarily affects young children and is characterized by significant weight loss, muscle wasting, and depletion of fat stores.
- Marasmus results from prolonged starvation and inadequate intake of protein and calories, leading to a state of extreme emaciation.
- The condition is often seen in areas with famine, severe poverty, and limited access to food resources.

★ Additional Information

- **Kwashiorkor** is another form of severe undernutrition but is primarily due to protein deficiency and not necessarily calorie deficiency.
 - Symptoms of marasmus include severe wasting of muscles, stunted growth, and a weakened immune system, making the child more susceptible to infections.
 - Immediate medical intervention, adequate nutrition, and proper care are essential for the treatment and recovery of individuals suffering from marasmus.
-

108. Answer: d

Explanation:

The correct answer is diffusion

★ Key Points

- **Diffusion** is the process through which gases from the atmosphere reach aquatic animals and plants.
- In diffusion, molecules move from an area of higher concentration to an area of lower concentration until equilibrium is achieved.
- This process is essential for maintaining the oxygen and carbon dioxide balance in aquatic environments.
- Both oxygen and carbon dioxide are crucial for the respiration and photosynthesis processes in aquatic life forms.

★ Additional Information

- **Condensation** is the process by which water vapor becomes liquid water, and it is not involved in the transport of gases to aquatic environments.
- **Evaporation** is the process of turning liquid water into vapor, which also does not contribute to the transport of gases into water.
- **Sublimation** is the transition of a substance directly from the solid to the gas phase without passing through the liquid phase, which is not relevant to gas exchange in water.
- **Diffusion** is the primary method through which gases like oxygen and carbon dioxide enter and exit the water, enabling aquatic life to survive.

109. Answer: d

Explanation:

The correct answer is Increasing CO₂ concentration

★ Key Points

- **Increasing CO₂ concentration** is the primary factor contributing to the enhancement of the greenhouse effect.
- The greenhouse effect is a natural phenomenon where certain gases in the Earth's atmosphere trap heat, preventing it from escaping into space and thereby warming the planet.
- Human activities, particularly the burning of fossil fuels such as coal, oil, and natural gas, have significantly increased the concentration of carbon dioxide (CO₂) in the atmosphere.
- This rise in CO₂ levels enhances the greenhouse effect, leading to global warming and climate change.
- Other greenhouse gases include methane (CH₄), nitrous oxide (N₂O), and fluorinated gases, but CO₂ is the most abundant and has the most significant impact.

★ Additional Information

- **SO₂ levels** (Sulfur dioxide) primarily contribute to acid rain rather than the greenhouse effect.
- **Ozone layer hole** refers to the depletion of the ozone layer, which protects the Earth from harmful ultraviolet radiation, but it is not a primary factor in the greenhouse effect.
- **Chlorofluorocarbons (CFCs)** are potent greenhouse gases and also contribute to ozone layer depletion, but their concentration is much lower compared to CO₂.
- Efforts to mitigate climate change focus on reducing CO₂ emissions through renewable energy sources, energy efficiency, reforestation, and other measures.

110. Answer: d

Explanation:

The correct answer is 4 Only.

★ Key Points

Transfer Payments:

- **Transfer payments are made by the government to households.** This includes payments such as unemployment benefits, social security, and welfare payments. These payments are meant to support individuals and families in need. *Hence, Statement 1 is correct.*
- **Pension, scholarship etc. are not a part of the transfer payments.** This statement is incorrect because pensions and scholarships are indeed considered transfer payments. Transfer payments are non-exchange transactions where the government provides financial support without receiving any goods or services in return. *Hence, Statement 2 is not correct.*
- **Transfer payments are often used as a means of redistributing income within a society.** The government utilizes transfer payments as a tool for redistributing income to ensure a more equitable distribution of wealth and to provide financial assistance to those in need. *Hence, Statement 3 is correct.*

Therefore, the correct answer is **4 Only** as statements 1 and 3 are correct.

111. Answer: d

Explanation:

The correct answer is **4 Only**.

★ Key Points

- **Statement 1:** Khasi and Jaintia hills receive the highest rainfall, which exceeds 1000 cm.
 - This statement is correct. The Khasi and Jaintia hills, located in Meghalaya, India, are known for receiving some of the highest rainfall in the world. Mawsynram, which is located in the Khasi Hills, holds the record for the highest average annual rainfall.
- **Statement 2:** Ladakh and most western Rajasthan receive rainfall above 150 cm.
 - This statement is incorrect. Ladakh and most of western Rajasthan are arid regions that receive very low rainfall. Ladakh, being a cold desert, and

western Rajasthan, being part of the Thar Desert, generally receive less than 50 cm of annual rainfall.

- Based on the above points, **Statement 1 is correct** and **Statement 2 is incorrect**. Therefore, the correct answer is **4 Only**.

112. Answer: b

Explanation:

The correct answer is **2) 1, 2 and 4**.

★ Key Points

UNDP Partnership with DAY – NULM:

- **Statement 1:** UNDP and DAY – NULM have entered into a collaborative partnership aimed at empowering women to make well-informed career choices in the field of entrepreneurship. This statement is correct as the partnership focuses on empowering women, particularly in entrepreneurship.
- **Statement 2:** The partnership will provide support for women looking to start and expand their own enterprises, particularly in sectors such as care economy, digital economy, electric mobility, waste management, food packaging and more. This statement is also correct as it highlights the various sectors in which women will receive support to start and expand their enterprises.
- **Statement 3:** Focused on fostering entrepreneurship development and accelerating enterprise growth, the five-year project, extendable beyond 2027, will cover ten cities in the initial phase. This statement is not correct. The initial phase does not specify a five-year project extendable beyond 2027.
- **Statement 4:** UNDP will contribute to the initiative by developing community business mentors called 'Biz – Sakhis' in selected project locations. This statement is correct as UNDP will develop community business mentors to support the initiative.

Therefore, the correct answer is option **2) 1, 2 and 4**.

113. Answer: c

Explanation:

The correct answer is 3 and 4.

★ Key Points

- **Original Jurisdiction:** The Original Jurisdiction of the Supreme Court establishes it as an umpire in disputes regarding federal matters, such as disputes between different states or between the center and states. *Hence, Statement 1 is correct.*
- **Writs by Supreme Court:** The Supreme Court can issue special orders in the form of writs for the enforcement of fundamental rights under Article 32 of the Indian Constitution. *Hence, Statement 2 is correct.*
- **Article 129:** Article 129 of the Indian Constitution does not mention the appointment of an acting Chief Justice of India. Instead, it declares the Supreme Court to be a court of record. *Hence, Statement 3 is incorrect.*
- **Appointment of Judges:** The appointment of Judges of the Supreme Court of India is done by the President of India as per Article 124 of the Indian Constitution, not by the Prime Minister. *Hence, Statement 4 is incorrect.*

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114. Answer: d

Explanation:

The correct answer is Reserve Bank of India

★ Key Points

- The **Reserve Bank of India (RBI)** issued guidelines for microfinance institutions in India.
- The guidelines cover various aspects such as the regulation of interest rates, transparency in operations, and measures to prevent over-indebtedness of

borrowers.

- The RBI's regulations aim to ensure that microfinance institutions operate in a manner that is fair and beneficial to the borrowers, especially those from economically weaker sections.
- The guidelines are part of the RBI's broader mandate to regulate and supervise the financial sector in India, ensuring stability and consumer protection.

★ Additional Information

- The **Reserve Bank of India** is the central banking institution of India, which controls the issuance and supply of the Indian rupee and aims to secure monetary stability in India.
- Established on **1st April 1935**, the RBI plays a crucial role in the development and regulation of the country's financial system.
- The RBI's functions include managing the country's currency, overseeing the monetary policy, regulating financial institutions, and ensuring financial stability.
- Microfinance institutions play a vital role in providing financial services to the underserved and unbanked segments of the population, making the RBI's guidelines critical for their effective functioning.
- The regulation of microfinance by the RBI helps in mitigating risks such as over-lending and ensures the sustainability of the microfinance sector.

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115. Answer: c

Explanation:

The correct answer is **3 Both A and B.**

★ Key Points

- **Prarthana Samaj** or 'Prayer Society' in Sanskrit, was indeed a movement for religious and social reforms. It aimed at rational worship and social reforms such as the abolition of caste system and the promotion of women's education.

- **Prarthana Samaj** was founded in 1867 by Dadoba Pandurang and his brother **Atmaram Pandurang**. The society was influenced by the Brahmo Samaj movement in Bengal and aimed to make people believe in one God and worship only one God.
- The Prarthana Samaj worked towards the betterment of society by fighting against social evils like child marriage, untouchability, and the dowry system.
- It also laid emphasis on the education of women and the upliftment of the oppressed classes.
- Both statements A and B are correct and provide a comprehensive overview of the objectives and founding of the Prarthana Samaj.

116. Answer: d

Explanation:

The correct answer is A-1, B-2, C-3, D-4.

★ Key Points

- **Pitt's India Act** was enacted in **1784** to address the administrative and financial issues faced by the British East India Company. **Hence, A matches with 1.**
- **Permanent Settlement of Bengal** was introduced in **1793** by Lord Cornwallis, which aimed to create a reliable revenue source for the British administration by fixing land revenue. Hence, B matches with 2.
- **Introduction of the Subsidiary Alliance System** was done by Lord Wellesley in **1798** to expand British influence in India by making Indian states dependent on British forces for defense. Hence, C matches with 3.
- **Abolition of Sati** was implemented in **1829** by Lord William Bentinck, which prohibited the practice of burning widows on their husband's funeral pyre. Hence, D matches with 4.

★ Additional Information

- **Pitt's India Act:**
 - Also known as the East India Company Act 1784, it was named after the then British Prime Minister William Pitt the Younger.

- The Act established a system of dual control by the British government and the East India Company.
- **Permanent Settlement of Bengal:**
 - This settlement created a new class of landlords, the Zamindars, who were given hereditary rights to collect land revenue.
 - It aimed to ensure a steady revenue stream for the British administration but often led to the exploitation of peasants.
- **Subsidiary Alliance System:**
 - Under this system, Indian rulers were not allowed to have their independent armed forces and had to rely on British troops stationed in their territories.
 - In return, they had to pay for the maintenance of these troops or cede territory.
- **Abolition of Sati:**
 - The abolition was a significant social reform aimed at ending the inhumane practice of Sati.
 - It was part of broader efforts by the British to introduce social and legal reforms in India.

117. Answer: d

Explanation:

The correct answer is a-i, b-ii, c-iv, d-iii.

★ **Key Points**

- **Manpreet Kaur** is a renowned Indian athlete who specializes in the **Shot put**. She has set remarkable records in this field. **Hence, a matches with i.**
- **Avinash Sable** is an exceptional **Athlete** known for his achievements in the track and field events, particularly in steeplechase. Hence, b matches with ii.
- **Mirabai Chanu** is a celebrated Indian sportsperson in the field of **Weightlifting**. She has garnered international recognition for her performances. Hence, c matches with iv.

- **Pooja Jatyan** is an accomplished **Archer** who has made significant contributions and achieved records in archery. Hence, d matches with iii.

★ Additional Information

- **Shot put:**
 - Shot put is a track and field event involving "putting" (pushing rather than throwing) a heavy spherical object—the shot—as far as possible.
 - It requires a combination of strength, technique, and explosive power.
- **Athletics:**
 - Athletics includes a variety of events such as running, jumping, and throwing.
 - Avinash Sable is specifically known for his prowess in steeplechase, a distance track running event.
- **Weightlifting:**
 - Weightlifting is a sport in which athletes attempt a maximum-weight single lift of a barbell loaded with weight plates.
 - Mirabai Chanu has excelled in this sport, winning numerous medals at international competitions.
- **Archery:**
 - Archery is a sport that involves shooting arrows at a target for accuracy from a set distance.
 - Pooja Jatyan has made significant strides in this sport, representing India at various international platforms.

118. **Answer: c**

Explanation:

The correct answer is Thiruvananthapuram

★ Key Points

- **Thiruvananthapuram** is the first city in India to receive monsoon rains.
- It is located in the southern state of Kerala, which is the entry point for the southwest monsoon in India.

- The monsoon typically reaches Thiruvananthapuram by the end of May or the beginning of June.
- The arrival of the monsoon in Thiruvananthapuram marks the beginning of the rainy season across the Indian subcontinent.

★ Additional Information

- The southwest monsoon is a seasonal wind pattern that brings heavy rainfall to India, crucial for agriculture and water supply.
- Kerala's coastline and Western Ghats play a significant role in the monsoon's entry and distribution.
- Monsoon forecasting is essential for planning and mitigating the impacts of heavy rains and potential flooding.
- Other cities in India receive monsoon rains progressively after Thiruvananthapuram as the monsoon advances northward.

119. Answer: b

Explanation:

The correct answer is Food Safety and Standards Authority of India (FSSAI).

★ Key Points

- The **Food Safety and Standards Authority of India (FSSAI)** is responsible for setting the maximum residue limits (MRLs) of pesticides in food materials.
- The FSSAI was established under the **Food Safety and Standards Act, 2006**, which consolidates various acts and orders related to food safety and regulation in India.
- It is an autonomous body under the **Ministry of Health & Family Welfare, Government of India**.
- The primary aim of FSSAI is to ensure that the food products being sold are safe for consumption and meet the required standards.
- FSSAI sets standards for food articles and regulates their manufacture, storage, distribution, sale, and import to ensure the availability of safe and wholesome food for human consumption.

★ Additional Information

- The **Food Safety and Standards Act, 2006** was enacted to provide a systematic and comprehensive approach to food safety and regulation.
- FSSAI operates at the central level, while there are corresponding State Food Safety Authorities in each state for enforcement and implementation at the state level.
- The organization also works on promoting general awareness about food safety and hygiene among consumers and food businesses.
- FSSAI's regulations and standards are regularly updated to address emerging challenges and advancements in food science and technology.

120. Answer: a

Explanation:

The correct answer is Option 1: 2, 3 and 4.

★ Key Points

- **Statement 1:** Indian captain Jasprit Bumrah broke Brian Lara's world record by scoring 32 runs in an over. **This statement is correct.**
- **Statement 2:** The world record stayed with Brian Lara for 18 years. **This statement is correct.**
- **Statement 3:** Brian Lara had hit South African left-arm spinner Robin Peterson for his record. **This statement is correct.**
- **Statement 4:** Jasprit Bumrah created a world record for maximum runs off a single over in Test cricket by beating Stuart Broad. **This statement is correct.**

★ Additional Information

- **Brian Lara's World Record:**
 - Brian Lara's record for the most runs in a single over in Test cricket was set in 2003, when he scored 28 runs off an over from South African spinner Robin Peterson.

- This record stood for 18 years until it was broken by Jasprit Bumrah in 2022.
 - **Jasprit Bumrah's Achievement:**
 - In July 2022, during a Test match at Edgbaston, Jasprit Bumrah scored 29 runs off Stuart Broad in a single over, with the over totaling 35 runs due to extras, thus setting a new world record.
 - This remarkable feat highlighted Bumrah's versatility as a cricketer, demonstrating his prowess not just as a bowler but also as a capable batsman.
-

121. Answer: b

Explanation:

The correct answer is Port number

★ Key Points

- **Port number** is a component of a URL (Uniform Resource Locator).
- A URL is used to specify addresses on the World Wide Web.
- It typically consists of the protocol (such as HTTP or HTTPS), the domain name, and may include a port number, path, query string, and fragment identifier.
- The port number is used to identify a specific process or service on the server. For example, HTTP typically uses port 80, while HTTPS uses port 443.
- Including the port number in the URL allows communication with the correct service or application on the server.

★ Additional Information

- A URL can also include a **username and password** for authentication, although this is less common.
- The **domain name** part of the URL can be either an IP address or a human-readable name that is resolved to an IP address via DNS (Domain Name System).
- The **path** specifies the exact resource within the domain that the client wants to access.

- **Query strings** are used to pass additional parameters to the server, typically in the format of key-value pairs.
- The **fragment identifier** is used to point to a specific section within a resource, usually within an HTML document.

122. Answer: d

Explanation:

The correct answer is To control the horizontal or vertical placement of text within margins.

★ Key Points

- The 'Alignment' options in Microsoft Word are used to **control the horizontal or vertical placement of text within margins.**
- These options include left alignment, center alignment, right alignment, and justified alignment for horizontal placement.
- Vertical alignment can be adjusted within text boxes, tables, or entire pages.
- Proper alignment of text ensures better readability and a professional appearance of the document.

★ Additional Information

- To adjust text alignment, you can use the alignment buttons located on the toolbar in Microsoft Word.
- Left alignment is the default setting where text aligns with the left margin.
- Center alignment centers the text between the left and right margins.
- Right alignment aligns text with the right margin.
- Justified alignment adjusts the spacing between words so that the text aligns evenly along both the left and right margins, creating a clean look.
- Vertical alignment options can be found in the Page Setup dialog box under the Layout tab for whole pages or within table cell properties for specific table cells.

123. Answer: c

Explanation:

The correct answer is Storing the computer's firmware and startup instructions

★ Key Points

- **ROM (Read-Only Memory)** is a type of non-volatile memory used in computers and other electronic devices.
- It is primarily used to store the computer's **firmware and startup instructions**.
- Firmware is a specific class of computer software that provides the low-level control for the device's specific hardware.
- Unlike RAM (Random Access Memory), ROM retains its contents even when the computer is powered off.
- This makes ROM crucial for the **booting process** of the computer, as it holds the initial program that the processor uses to start the computer system after it is turned on.

★ Additional Information

- ROM is typically programmed during the manufacturing process, and its contents cannot be modified easily or at all, depending on the type of ROM.
- There are different types of ROM, including **PROM (Programmable ROM)**, **EPROM (Erasable Programmable ROM)**, and **EEPROM (Electrically Erasable Programmable ROM)**.
- EEPROM can be reprogrammed and erased multiple times using an electrical charge, making it more flexible than other types of ROM.
- ROM is essential for the basic functioning of any computer system, ensuring that critical software is always available to the hardware.

124. Answer: b

Explanation:

The correct answer is an attack that floods a network with excessive traffic to overwhelm and disrupt its operation.

★ Key Points

- A **Distributed Denial of Service (DDoS) attack** aims to overwhelm and disrupt the normal traffic of a targeted server, service, or network by flooding it with an excessive amount of traffic from multiple sources.
- These attacks exploit the capacity limits of network resources such as the infrastructure that enables a website to function.
- Because the attack comes from multiple distributed sources, it is extremely difficult to stop the assault by blocking a single IP address.
- DDoS attacks can target various layers of the OSI model, including network, transport, and application layers.

★ Additional Information

- **Mitigation strategies** for DDoS attacks include the use of firewalls, anti-DDoS hardware, and cloud-based protection services.
- Organizations can also use traffic analysis tools to identify and filter out malicious traffic.
- It's important to have a response plan in place to quickly address and mitigate the effects of a DDoS attack.
- DDoS attacks have become increasingly sophisticated, often involving multiple attack vectors and targeting different layers of the network simultaneously.

125. Answer: c

Explanation:

The correct answer is 3) A social engineering attack that tricks users into revealing sensitive information.

★ Key Points

- **Phishing** is a type of social engineering attack often used to steal user data, including login credentials and credit card numbers.
- It occurs when an attacker, masquerading as a trusted entity, dupes a victim into opening an email, instant message, or text message.
- The recipient is then tricked into clicking a malicious link, which can lead to the installation of malware, the freezing of the system as part of a ransomware attack, or the revealing of sensitive information.
- Phishing is one of the oldest and most widespread internet scams, and it continues to be a significant concern in network security.

★ Additional Information

- **Phishing attacks** can be conducted through various communication channels including email, social media, phone calls, and text messages.
- Common signs of phishing attempts include unsolicited requests for sensitive information, generic greetings, and suspicious links or attachments.
- To protect against phishing, users should verify the source of unexpected requests, use multi-factor authentication, and keep their software updated.
- Organizations often conduct **phishing awareness training** to educate employees about recognizing and responding to phishing attempts.
- Reporting phishing attempts to appropriate authorities can help in mitigating the risks and preventing future attacks.

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126. Answer: d

Explanation:

The correct answer is 4) A file containing multiple worksheets

★ Key Points

- An Excel workbook is a **file that contains one or more worksheets**.
- Each worksheet within a workbook can hold data, charts, and other information.
- Workbooks are used to organize and manage related data in one file, making it easier to analyze and share information.

- Users can add, delete, and rename worksheets within a workbook to suit their needs.
- The .xlsx file extension is typically used for Excel workbooks.

★ Additional Information

- Excel is a powerful tool for data analysis and visualization, widely used in various fields such as finance, research, and administration.
- Workbooks can contain various types of data, including numbers, text, formulas, and functions.
- Excel provides numerous features for data manipulation, including sorting, filtering, and pivot tables.
- Workbooks can be saved in different formats, such as .xls, .csv, and .pdf, depending on the user's needs.
- Excel also supports collaboration, allowing multiple users to work on the same workbook simultaneously.

127. Answer: d

Explanation:

The correct answer is Ctrl + V

★ Key Points

- The keyboard shortcut **Ctrl + V** is used to 'Paste' copied content from the clipboard in most Windows applications.
- Other common keyboard shortcuts include **Ctrl + C** for copying, **Ctrl + X** for cutting, and **Ctrl + Z** for undoing the last action.
- These shortcuts are widely used across various applications to enhance productivity and streamline workflow.
- Learning and using keyboard shortcuts can significantly speed up your tasks and improve efficiency.

★ Additional Information

- Keyboard shortcuts are combinations of keys that provide an alternative way to do something that you'd typically do with a mouse.
- They are especially useful for repetitive tasks, reducing the time required to switch between the keyboard and mouse.
- Most operating systems and software applications support a wide range of keyboard shortcuts, and they can often be customized to suit individual preferences.
- Using keyboard shortcuts can also help reduce the risk of repetitive strain injuries by minimizing the amount of movement needed to perform tasks.

128. Answer: c

Explanation:

The correct answer is Option 3

★ Key Points

- The 'BCC' field in email composition is used to **send copies of the email without revealing the other recipients' addresses**.
- BCC stands for **Blind Carbon Copy**.
- When you include an email address in the BCC field, the primary recipient and other BCC recipients will not see that email address.
- This feature is useful for maintaining privacy among recipients.
- It helps in preventing an email recipient from seeing the addresses of other recipients, which is particularly useful in business communications.

★ Additional Information

- Other fields in email composition include '**To**', '**CC**', and '**Subject**'.
- The '**To**' field is used for the main recipients of the email.
- The '**CC**' (Carbon Copy) field is used to send a copy of the email to additional recipients, whose email addresses are visible to all other recipients.
- Using BCC can help to reduce the chances of recipients' email addresses being harvested for spam.

129. Answer: b

Explanation:

The correct answer is 2) SMTP (Simple Mail Transfer Protocol).

★ Key Points

- **SMTP (Simple Mail Transfer Protocol)** is the protocol used for sending emails.
- It is a part of the application layer of the TCP/IP protocol suite.
- SMTP is used to transfer messages from the sender's email client to the recipient's email server.
- For receiving emails, protocols like **IMAP (Internet Message Access Protocol)** and **POP3 (Post Office Protocol)** are commonly used.
- SMTP works in conjunction with these protocols to ensure the complete transmission and reception of email messages.

★ Additional Information

- **SSH (Secure Shell Protocol)** is used for secure remote login and other secure network services over an unsecured network.
- **FTP (File Transfer Protocol)** is used for transferring files between a client and server on a computer network.
- **HTTP (Hypertext Transfer Protocol)** is used for transmitting hypertext requests and information on the internet.
- Each of these protocols has its specific use case, and they are not interchangeable.

130. Answer: a

Explanation:

The correct answer is Printer

★ Key Points

- A **Printer** is an example of an output device.
- Output devices are used to send data from a computer to another device or user.
- Other examples of output devices include monitors, speakers, and projectors.
- These devices receive data from the computer and translate it into a form that is understandable to the user.

★ Additional Information

- A **Microphone** is an example of an input device, which is used to input sound data into the computer.
- A **Scanner** is also an input device, used to input images or documents into the computer.
- A **Mouse** is another input device, used for navigating and providing input to the computer's user interface.
- Output devices play a crucial role in the overall functioning of computer systems by providing a way for the computer to communicate information to the user.

131. Answer: a

Explanation:

The correct answer is 1) It executes program instructions by performing calculations and logical comparisons.

★ Key Points

- The **Arithmetic Logic Unit (ALU)** is a critical component of the CPU that **executes program instructions** by performing calculations and logical comparisons.
- The ALU handles **arithmetic operations** like addition, subtraction, multiplication, and division.
- It also performs **logical operations** such as AND, OR, NOT, and XOR, which are essential for decision-making processes in programs.

- By executing these operations, the ALU enables the CPU to process data and run applications effectively.

★ Additional Information

- The **Control Unit (CU)** and the ALU together form the CPU's core, where the CU directs the operations and the ALU performs the actual data processing.
- The ALU can be found in various types of processors, including general-purpose CPUs, microcontrollers, and graphics processing units (GPUs).
- Modern CPUs may have multiple ALUs to handle parallel processing tasks, thereby improving performance and efficiency.
- The development and optimization of ALUs have been fundamental in advancing computer technology and enabling more complex computing tasks.

132. Answer: d

Explanation:

The correct answer is Press Ctrl + O

★ Key Points

- **Press Ctrl + O** is the shortcut to open an existing document in Microsoft Word 2016.
- Using this shortcut will bring up the Open dialog box, allowing you to browse and select the document you want to open.
- This shortcut is a quick and efficient way to access previously created documents without having to navigate through multiple menus.
- Other common shortcuts in Microsoft Word include **Ctrl + S** to save a document, **Ctrl + P** to print a document, and **Ctrl + N** to create a new document.

★ Additional Information

- **Microsoft Word** is a widely used word processing software developed by Microsoft.
- Word allows users to create, edit, format, and print documents.
- It includes various features such as spell check, grammar check, text formatting options, and templates for different types of documents.
- Microsoft Word is part of the Microsoft Office suite, which also includes other productivity tools like Excel, PowerPoint, and Outlook.
- Learning keyboard shortcuts can significantly improve efficiency and productivity when working with Microsoft Word.

133. Answer: b

Explanation:

The correct answer is Win + E

★ Key Points

- **Win + E** is the keyboard shortcut to open File Explorer in Windows 10.
- File Explorer, previously known as Windows Explorer, is a file management application that is part of the Windows operating system.
- Using the **Win + E** shortcut quickly opens File Explorer, allowing users to manage files and folders efficiently.
- Other common keyboard shortcuts in Windows include **Ctrl + C** for copy, **Ctrl + V** for paste, and **Alt + Tab** for switching between open applications.

★ Additional Information

- **File Explorer** is a crucial tool for navigating the file system in Windows.
- It provides a graphical user interface to access files, folders, and drives on your computer.
- File Explorer also includes features such as file search, quick access to frequently used folders, and the ability to manage network locations.
- In addition to **Win + E**, other useful Windows shortcuts include **Win + D** to show the desktop, **Win + L** to lock the computer, and **Win + R** to open the Run dialog box.

134. Answer: b

Explanation:

The correct answer is To search and retrieve relevant information from the web.

★ Key Points

- **To search and retrieve relevant information from the web** is the primary purpose of a search engine on the internet.
- Search engines use algorithms to index web pages and provide the most relevant results based on the user's query.
- Popular search engines include **Google, Bing, and Yahoo**, among others.
- They help users find websites, images, videos, and other content online.
- Advanced search features may include filters for date, type of content, and specific keywords.

★ Additional Information

- Search engines use **web crawlers** to gather information from websites.
- They store data in an **index** to quickly retrieve relevant results.
- Search engine optimization (SEO) is a practice to improve the visibility of a website in search engine results.
- Search engines also offer features like **autocomplete** to assist users in finding information faster.
- Besides web pages, search engines can also index **images, videos, news articles, and academic papers**.
- Users can perform **advanced searches** using operators like quotes for exact phrases, minus sign to exclude words, and site: to search within a specific website.

135. Answer: d

Explanation:

The correct answer is **DHCP (Dynamic Host Configuration Protocol)**.

★ Key Points

- **DHCP (Dynamic Host Configuration Protocol)** is the networking protocol used to assign IP addresses dynamically to devices on a network.
- It allows devices to join a network without the need for manual configuration of IP addresses.
- DHCP operates on a client-server model where the DHCP server assigns an IP address from a defined range to a client device for a specific lease time.
- This protocol simplifies the management of IP addresses in large networks and ensures that IP address conflicts are minimized.

★ Additional Information

- **FTP (File Transfer Protocol)** is used for transferring files between computers on a network.
- **HTTP (Hypertext Transfer Protocol)** is the foundation of data communication for the World Wide Web.
- **SMTP (Simple Mail Transfer Protocol)** is used for sending emails across networks.
- DHCP is a critical protocol in modern networks, ensuring efficient IP address management and reducing administrative overhead.

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