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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



BPS



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC MTS Previous Year Paper (Held on: 25 July 2022 Shift 2)

Total Time: 1 Hour : 30 Minute

Total Marks: 100

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	General Intelligence & Reasoning	25	25	0.25	1
2	Numerical Aptitude	25	25	0.25	1
3	General English	25	25	0.25	1
4	General Awareness	25	25	0.25	1

- 1.) A total of 90 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.

General Intelligence & Reasoning

1. In a certain code language, 'life and love' is written as 'ri ti gi', 'life is tangible' is written as 'mi pi ri', and 'love is pure' is written as 'mi gi oi'. How will 'love' be written in that language? (+1, -0.25)

- a. gi
- b. mi
- c. ti
- d. oi

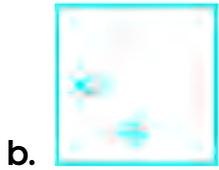
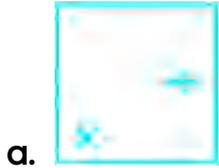
2. Select the option that is related to the fifth term in the same way as the second term is related to the first term and the fourth term is related to the third term. (+1, -0.25)

SUT5 : PRQ11 :: DFE8 : ACB14 :: LNM12 : ?

- a. IKJ18
- b. UWV14
- c. STU16
- d. UVW18

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





4. In a company, seven employees A, B, C, M, K, L and O work on 7 different levels (1 being the highest and 7 being the lowest level). B is above C and C is above just two employees. There are more than four employees above M. B is one level above A and one level below K. L is at level 7. K is below O. (+1, -0.25)

How many employees are above A?

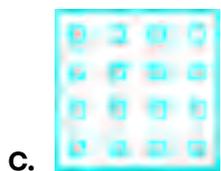
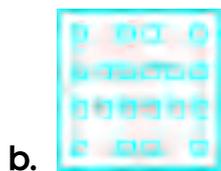
- a. Four
- b. Two
- c. Three
- d. Five

5. What will be the value of the given expression if 'A' means '+', 'B' means '-', 'C' means '×', and 'D' means '÷'? (+1, -0.25)

$$25 B 35 A 12 C 25 D 5 = ?$$

- a. 45
- b. 50
- c. 55
- d. 40

6. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded? (+1, -0.25)





d.

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

PIN : VAX :: RBX : ?

- a. YUH
- b. XUH
- c. XVH
- d. XTH

8. In a certain code language, 'Tings are black red' is coded as 'pr 6 @ rm', 'Black yellow creatures' is coded as 'fg rm 9', and 'Hinge are creatures' is coded as '@ lp fg'. What is the code for 'creatures are' in that language? (+1, -0.25)

- a. fg pr
- b. fg rm
- c. fg @
- d. lp 9

9. In a certain code language, 'Phones are burning' is coded as '7 8 3', and 'That coach was burning' is coded as '6 3 2 4'. What can be the code for 'are' in that language? (+1, -0.25)

- a. 3
 - b. 2
 - c. 8
 - d. 6
-

10. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements. (+1, -0.25)

Statements:

- I. Some X are M.
- II. Some D are M.

Conclusions:

- I. All X are D.
- II. No M is D.
- III. Some X are not D.

- a. Only conclusions II and III follow
 - b. Only conclusion III follows
 - c. All the conclusions follow
 - d. None of the conclusions follow
-

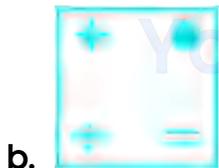
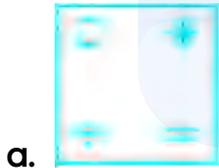
11. Select the option in which the two numbers are related in the same way as the numbers in the given number-pair. (+1, -0.25)

19 : 57 :: ?

- a. 23 : 47
- b. 31 : 91
- c. 29 : 87
- d. 17 : 47

12. Select the figure from among the given options that can replace the question mark (?) in the following series.

(+1, -0.25)



13. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number. (+1, -0.25)

(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 /deleting /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)

$$12 : 8 :: 28 : 16 :: 6 : ?$$

- a. 2
- b. 3
- c. 5
- d. 6

14. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements. (+1, -0.25)

Statements:

- I. Some tyres are bats.
- II. All tyres are laws.

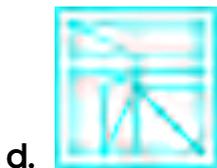
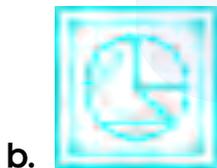
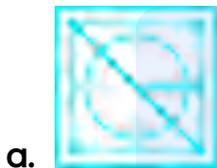
Conclusions:

- I. All laws are bats.
- II. All bats are tyres.

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

15. Select the option in which the given figure is embedded.

(+1, -0.25)



16. In a certain code language, 'WORK' is coded as '67', and 'CUP' is coded as '40'. How will 'KITE' be coded in that code language?

(+1, -0.25)

- a. 36
- b. 45
- c. 38
- d. 42

17. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number. (+1, -0.25)

16 : 45 :: 36 : 105 :: 49 : ?

- a. 142
- b. 152
- c. 147
- d. 144



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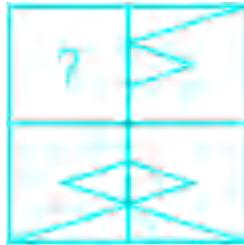
18. Eight boys M, N, O, P, Q, R, S and T are sitting in a row, facing towards the north (but not necessarily in the same order). R is fifth to the right of M. P is fifth to the right of Q. Q is to the immediate right of M. T is third to the left of P. N is third to the right of S. S is an immediate neighbour of M. (+1, -0.25)

Which of the following statements is/are NOT correct?

- I. N is third to the left of R.
 - II. P is sixth to the right of M.
- a. Only I
 - b. Both I and II

- c. Neither I nor II
- d. Only II

19. Select the figure from the given options that can replace the question mark (?) and complete the pattern. (+1, -0.25)



20. Select the letter-cluster from among the given options that can replace the question mark (?) in the following series. (+1, -0.25)

ABCD, YZEF, WXGH, UVIJ, ?

- a. STKL

- b. STLM
 - c. TSKL
 - d. TLSK
-

21. Drake, Pawan, Gagan, Laxman are sitting around a circular table facing the centre (but not necessarily in the same order). Drake is to the immediate right of Gagan, and Laxman is exactly between Drake and Pawan. Which of the following is true about the arrangement? (+1, -0.25)

- a. Pawan is to the immediate left of Laxman.
 - b. Pawan is to the immediate left of Gagan.
 - c. Drake is to the immediate neighbour of pawan and Gagan.
 - d. Drake is to the immediate left of Pawan.
-

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

HP : DT :: RX : ?

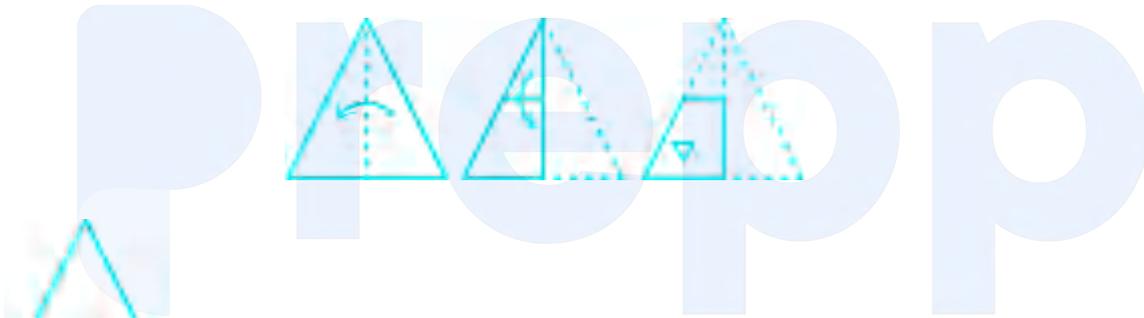
- a. MB
 - b. MC
 - c. NC
 - d. NB
-

23. Which two numbers should be interchanged to make the given equation correct? (+1, -0.25)

$$5 - 4 \div 2 \times 10 + 7 = 7$$

- a. 10 and 2
- b. 5 and 7
- c. 5 and 2
- d. 10 and 5

24. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded? (+1, -0.25)



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

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25. Select the number from among the given options that can replace the question mark (?) in the following series. (+1, -0.25)

48, 96, 288, 1152, ?, 34560

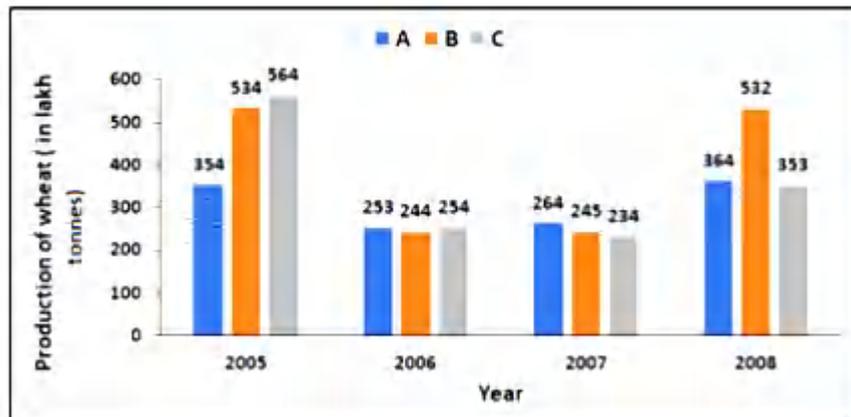
- a. 5980
- b. 5760
- c. 5850
- d. 5720

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Numerical Aptitude

26. The following graph shows the production of wheat (in lakh tonnes) by states A, B and C in four consecutive years. (+1, -0.25)



Find the year which shows the maximum aggregate production of wheat.

- a. 2005
b. 2007
c. 2008
d. 2006
-
27. Mohit earns a profit of ₹54 on selling a pencil for ₹144. What is the profit percentage? (+1, -0.25)

- a. 60%
b. 35%
c. 40%
d. 70%

28. The lengths, the breadths, and the volumes of two cuboids are in the ratios of 4 : 5, 3 : 4, and 2 : 3, respectively. What is the ratio of their heights? (+1, -0.25)

- a. 3 : 5
- b. 10 : 9
- c. 8 : 15
- d. 2 : 3

29. When 175 is added to 12.5% of a number, the resultant is the number itself. What is the value of the number? (+1, -0.25)

- a. 280
- b. 200
- c. 240
- d. 300

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30. An 800-metre-long train can pass a stationary pole completely in 72 seconds. A 1200-metre-long train can also pass a stationary pole completely in 72 seconds. If both the trains are running in the same direction, then the faster train, coming from behind the slower train, can cross the slower train in how much time? (+1, -0.25)

- a. 240 seconds
- b. 360 seconds
- c. 280 seconds

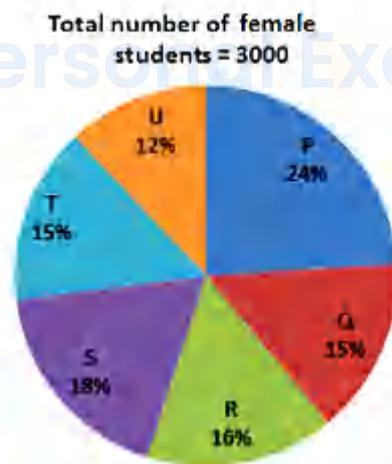
d. 480 seconds

31. The lengths of the parallel sides of a trapezium are x cm and y cm and the area of the trapezium is $\frac{1}{2}(x^2 - y^2)$ cm². What is the distance between the parallel sides (in cm)? (+1, -0.25)

- a. $x - y$
- b. $x + y$
- c. y
- d. x

32. Study the given pie-chart and answer the question that follows. (+1, -0.25)

The pie-chart shows the number of female students in six different colleges P, Q, R, S, T and U, as percentages of the total number of female students in all these six colleges, taken together.



What is the sum of the measures of the central angles of the sectors corresponding to the number of girls in colleges Q and U, taken together?

- a. 96°

- b. 108°
- c. 97.2°
- d. 86.4°

33. Select the number that will come in place of the question mark (?) in the following mathematical statement. (+1, -0.25)

$$49 \times 57 - 41 \times 18 = (?)^2 \times 3 + 1380$$

- a. 15
- b. 21
- c. 3
- d. 7

34. What is the profit percentage of a dishonest cloth merchant who uses a scale which measures $16\frac{2}{3}\%$ less than what is marked on it, and also sells at a price 10% higher than the cost price? (+1, -0.25)

- a. 20%
- b. 32%
- c. 26%
- d. 30%

35. The following table shows the number of trucks of 6 different brands sold from a showroom during a given period of time. (+1, -0.25)

Brand	Trucks
B1	45
B2	35
B3	36
B4	44
B5	28
B6	22

There are 8 tyres on each truck, irrespective of the brand of the truck. What is the average number of tyres per brand?

- a. 280
- b. 300
- c. 260
- d. 240



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36. Radha can complete a piece of work in 3 days, while Raji can complete the same work in 2 days. Both of them complete this work by working together and get ₹150 as total payment for the work done. What is the share of Radha out of the above payment? (+1, -0.25)

- a. ₹70
- b. ₹40
- c. ₹30
- d. ₹60

37. The average marks scored by 8 boys is 72. If the scores of three girls are also included, the average marks increases by 3. The average marks scored by the three girls is: (+1, -0.25)

- a. 95
- b. 83
- c. 78
- d. 68

38. A shopkeeper was offering two successive discounts of 20% and 15% on an item whose marked price is ₹1,000, while another shopkeeper was offering a flat 33% discount on the same item. Find the positive difference in the nominal amounts of discounts given by the two shopkeepers on the sale of the item. (+1, -0.25)

- a. ₹90
- b. ₹10
- c. ₹900
- d. ₹100

39. A bag contains an equal number of 50 -paise, 25-paise, 20-paise and 5 -paise coins. If the total monetary value of all these coins taken together is ₹55, then how many coins of each type are there? (+1, -0.25)

- a. 27
- b. 55

c. 52

d. 50

40. The breadth of a rectangle is $\frac{4}{5}$ of the radius of a circle. The radius of the circle is $\frac{1}{5}$ of the side of a square, whose area is 625 cm^2 . What is the area of the rectangle if the length of rectangle is 20 cm? **(+1, -0.25)**

a. 60 cm^2

b. 150 cm^2

c. 100 cm^2

d. 80 cm^2

41. The monthly income of a person was ₹40,000 . He used to save 25% of his income. His nominal income increases by 15% and his nominal expenditure increases by 20%. What is the percentage change in his nominal savings? **(+1, -0.25)**

a. 7.5%

b. 0%

c. 5%

d. 10%

42. What is the interest payable on ₹12,000 for 3 months at the rate of 10% per annum, if interest is compounded quarterly? **(+1, -0.25)**

a. ₹250

- b. ₹200
- c. ₹300
- d. ₹350

43. $A = 2^k \times 3^5$ and $B = 2^5 \times 3^7$. If the least common multiple of A and B is $2^8 \times 3^7$, then what is the value of K? (+1, -0.25)

- a. 6
- b. 8
- c. 9
- d. 3

44. Find the value of the interest earned on a sum of ₹6,000 for 5 years at 8.4% simple interest rate per annum. (+1, -0.25)

- a. ₹2,520
- b. ₹2,252
- c. ₹2,220
- d. ₹2,250

45. The value of $\frac{2}{3} \times \frac{6}{5} \times \frac{10}{4} + \frac{1}{8} - \frac{3}{8}$ is: (+1, -0.25)

- a. $\frac{4}{3}$
- b. $\frac{3}{4}$

c. $\frac{4}{7}$

d. $\frac{7}{4}$

46. 18 men can do a piece of work in 20 days. After working for 8 days, they get a notice to complete the work 4 days earlier than originally scheduled. How many more men will be required to be hired to complete the work as per the new schedule? (+1, -0.25)

a. 9

b. 12

c. 8

d. 15

47. P_1 is the average of all prime numbers below 12 and P_2 is the average of all prime numbers between 12 and 30. What is the value of $5P_1 - P_2$? (+1, -0.25)

a. 7.8

b. 8.6

c. 9.8

d. 7.5

48. Find the value of k if $5 : k :: 30 : 42$. (+1, -0.25)

a. 8

b. 7

c. 6

d. 9

49. The sum of 12 numbers is 1080. What is the average of these 12 numbers? (+1, -0.25)

a. 72

b. 54

c. 90

d. 84

50. Two cities, Delhi and Jaipur, are 360 km apart. A car goes from Delhi to Jaipur at a speed of 80 km/h and returns to Delhi from Jaipur using the same route at a speed of 120 km/h . What is the average speed of the car? (+1, -0.25)

a. 92 km/h

b. 84 km/h

c. 88 km/h

d. 96 km/h

General English

51. Select the most appropriate meaning of the given idiom. (+1, -0.25)

Kill two birds with one stone

- a. Make peace after an argument
- b. Face several problems at a time
- c. Act cordially despite conflict
- d. To achieve two things by doing a single action

52. Parts of the given sentence have been given as options. 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. (+1, -0.25)

When I reached there she have already started eating.

- a. No error
- b. When I reached
- c. there she have
- d. already started eating

53. Select the option that will improve the underlined part of the sentence. In case no improvement is needed, select 'No improvement required'. (+1, -0.25)

Not everything that happen in natures is due to global warming alone.

- a. that happening on nature

- b. which happens in natures
 - c. No improvement required
 - d. that happens in nature
-

54. Select the most appropriate meaning of the given idiom. (+1, -0.25)

Bite someone's head off

- a. Respond to someone with anger that is often sudden or unprovoked
 - b. Ignoring something that is evidently wrong or unavoidable
 - c. Cause something to be done in a new way
 - d. Guessing or estimating without full information
-

55. Select the most appropriate option to fill in the blank. (+1, -0.25)

The park is a/an ----- place to stroll and exercise.

- a. unopen
 - b. doubtful
 - c. ideal
 - d. fussy
-

56. Select the most appropriate ANTONYM of the underlined word. (+1, -0.25)

Instead of unambiguous statements, the Union contents itself with simple analyses.

- a. Complex
 - b. clear
 - c. Auspicious
 - d. Antiquated
-

57. Select the most appropriate option to fill in the blank. (+1, -0.25)

Students of St. Xavier's _____ away all the prizes.

- a. bearing
 - b. bore
 - c. borne
 - d. bears
-

58. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'. (+1, -0.25)

The truck picked up more than the usual amount of garbage from our neighbourhood.

The truck picked up more than the usual amount of garbage from our neighbourhood.

- a. greater than
 - b. more than
 - c. much than
 - d. No improvement required
-

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

An abbreviation formed from the initial letters of other words and pronounced as a word

- a. Caption
- b. Slogan
- c. Flotilla
- d. Acronym

60. Select the most appropriate option to fill in the blank. (+1, -0.25)

My mother _____ the maid for her hard work.

- a. priced
- b. prized
- c. praised
- d. prayed

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

Bustle

- a. Rush
- b. Praise
- c. Force

d. Block

62. Select the INCORRECTLY spelt word.

(+1, -0.25)

- a. Contencious
 - b. Prevaricate
 - c. Refute
 - d. Revere
-

63. Parts of the given sentence have been given as options. 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.

(+1, -0.25)

Surgical strike is not the only solution to this problem standing at front of us.

- a. No error
 - b. Surgical strike is not the
 - c. only solution to this problem
 - d. standing at front of us
-

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

(+1, -0.25)

Reliable

- a. Doubtful
- b. Dependable

- c. Dubious
 - d. Dodgy
-

65. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'. (+1, -0.25)

In the nineteenth century, many new ideas about education and learning were being emerged.

- a. was emerging
 - b. have emerging
 - c. No improvement required
 - d. emerged
-

66. 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. (+1, -0.25)

Lucy was annoyed to discover / that her husband / had taking her car keys.

- a. No error
 - b. that her husband
 - c. Lucy was annoyed to discover
 - d. had taking her car keys
-

67. Select the option that will improve the underlined part of the sentence. In case no improvement is needed, select 'No improvement required'. (+1, -0.25)

I gives him some orange juice from the refrigerator.

- a. gave him some
- b. gives him any
- c. given him some
- d. No improvement required

68. Select the most appropriate ANTONYM of the given word. (+1, -0.25)

Pragmatic

- a. Prudent
- b. Aesthetic
- c. Impractical
- d. Dull

69. Select the most appropriate option to fill in the blank. (+1, -0.25)

The main street, which is neither broad nor _____, runs past this square on its way to the railway-station.

- a. shallow
- b. wide
- c. high

d. narrow

70. Select the option that corrects the misspelt words in the given sentence. (+1, -0.25)

I should seccure some company for my lonelly hours.

- a. I should sicure some company for my lonelie hours.
- b. I should secur some company for my loneley hours.
- c. I should secoure some company for my lonely hours.
- d. I should secure some company for my lonely hours.

71. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Tragedy has once again struck the Valachuketil family of Sooppikkada village in Kerala's Kozhikode district as one more member (1) _____ to the Nipah virus infection on Thursday. District Medical Officer V Jayashree told that V Moosa, 60, who had been (2) _____ treatment at Baby Memorial Hospital in the city, died on May 24 morning. This is the fourth death in the family as Moosa's sons Mohammed Sabith and Mohammed Salih, and sister-in-law Mariyam too had died of the infection (3) _____ May. With this, the death (4) _____ due to the virus infection has gone up to 12 . Two persons, whose blood and body fluid samples were (5) _____ positive for the infection, are undergoing treatment.

Select the most appropriate option to fill in blank number 1.

- a. died
- b. succumbed

- c. pioneered
- d. embezzled

72. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Tragedy has once again struck the Valachuketil family of Sooppikkada village in Kerala's Kozhikode district as one more member (1) _____ to the Nipah virus infection on Thursday. District Medical Officer V Jayashree told that V Moosa, 60, who had been (2) _____ treatment at Baby Memorial Hospital in the city, died on May 24 morning. This is the fourth death in the family as Moosa's sons Mohammed Sabith and Mohammed Salih, and sister-in-law Mariyam too had died of the infection (3) _____ May. With this, the death (4) _____ due to the virus infection has gone up to 12 . Two persons, whose blood and body fluid samples were (5) _____ positive for the infection, are undergoing treatment.

Select the most appropriate option to fill in blank number 2.

- a. working
- b. managing
- c. devising
- d. undergoing

73. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Tragedy has once again struck the Valachuketil family of Sooppikkada village in Kerala's Kozhikode district as one more member (1) _____

to the Nipah virus infection on Thursday. District Medical Officer V Jayashree told that V Moosa, 60, who had been (2) _____ treatment at Baby Memorial Hospital in the city, died on May 24 morning. This is the fourth death in the family as Moosa's sons Mohammed Sabith and Mohammed Salih, and sister-in-law Mariyam too had died of the infection (3) _____ May. With this, the death (4) _____ due to the virus infection has gone up to 12 . Two persons, whose blood and body fluid samples were (5) _____ positive for the infection, are undergoing treatment.

Select the most appropriate option to fill in blank number 3.

- a. through
- b. on
- c. in
- d. for

74. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Tragedy has once again struck the Valachuketil family of Sooppikkada village in Kerala's Kozhikode district as one more member (1) _____ to the Nipah virus infection on Thursday. District Medical Officer V Jayashree told that V Moosa, 60, who had been (2) _____ treatment at Baby Memorial Hospital in the city, died on May 24 morning. This is the fourth death in the family as Moosa's sons Mohammed Sabith and Mohammed Salih, and sister-in-law Mariyam too had died of the infection (3) _____ May. With this, the death (4) _____ due to the virus infection has gone up to 12 . Two persons, whose blood and body fluid samples were (5) _____ positive for the infection, are undergoing treatment.

Select the most appropriate option to fill in blank number 4.

- a. tole
- b. toll
- c. scroll
- d. roll

75. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Tragedy has once again struck the Valachuketil family of Sooppikkada village in Kerala's Kozhikode district as one more member (1) _____ to the Nipah virus infection on Thursday. District Medical Officer V Jayashree told that V Moosa, 60, who had been (2) _____ treatment at Baby Memorial Hospital in the city, died on May 24 morning. This is the fourth death in the family as Moosa's sons Mohammed Sabith and Mohammed Salih, and sister-in-law Mariyam too had died of the infection (3) _____ May. With this, the death (4) _____ due to the virus infection has gone up to 12 . Two persons, whose blood and body fluid samples were (5) _____ positive for the infection, are undergoing treatment.

Select the most appropriate option to fill in blank number 5.

- a. implemented
- b. supported
- c. tested
- d. rested

General Awareness

76. Ustad Amjad Ali Khan Bangash is an Indian classical _____ player. (+1, -0.25)

- a. violin
- b. sarod
- c. guitar
- d. sitar

77. Which Article of the Constitution of India provides protection of life and personal liberty? (+1, -0.25)

- a. Article 19
- b. Article 27
- c. Article 24
- d. Article 21

78. Which of the following is a dark reddish coloured stone used as raw material in aluminium smelting? (+1, -0.25)

- a. Mica
- b. Gypsum
- c. Bauxite
- d. Conglomerate

79. Which of the following metals reacts violently with cold water? (+1, -0.25)

- a. Magnesium
 - b. Aluminium
 - c. Potassium
 - d. Zinc
-

80. Which of the following is NOT a greenhouse gas? (+1, -0.25)

- a. Nitrogen
 - b. Methane
 - c. Carbon dioxide
 - d. Nitrous oxide
-

81. Which of the following is NOT a characteristic of Kingdom Fungi? (+1, -0.25)

- a. No mechanisms for locomotion
 - b. Multicellular structure
 - c. With a cell wall
 - d. With chloroplasts
-

82. Which of the following contains the largest amount of fresh water on earth? (+1, -0.25)

- a. Ice caps
 - b. Groundwater
 - c. Atmosphere
 - d. Inland seas
-

83. Who led the Battle of Plassey on behalf of the British East India Company? (+1, -0.25)

- a. Robert Clive
 - b. James Lancaster
 - c. Charles Stuart
 - d. Warren Hastings
-

84. Which of the following is a housing scheme for the rural poor? (+1, -0.25)

- a. Pradhan Mantri Jan Dhan Yojana
 - b. Pradhan Mantri Gramin Awaas Yojana
 - c. Pradhan Mantri Kaushal Vikas Yojana
 - d. Pradhan Mantri Jeevan Jyoti Bima Yojana
-

85. What is the name of the autobiography of famous Indian cricketer, Yuvraj Singh? (+1, -0.25)

- a. Straight from the Heart
- b. Wings of Fire

- c. The Race of My Life
 - d. The Test of My Life
-

86. Census 2011 was the _____ National Census of India. (+1, -0.25)

- a. 11th
 - b. 20th
 - c. 17th
 - d. 15th
-

87. Bihu is a folk dance of _____ (+1, -0.25)

- a. Bihar
 - b. Arunachal Pradesh
 - c. Assam
 - d. Karnataka
-

88. As per the Rigvedic or Early Vedic Period (1500-1000 BC), who among the following was a River Goddess? (+1, -0.25)

- a. Sindhu
- b. Usha
- c. Arika
- d. Agni

89. Babur, the first Mughal emperor, succeeded to the throne of Ferghana in 1494 when he was only _____ years old. (+1, -0.25)

- a. 18
- b. 12
- c. 15
- d. 10

90. The northern plain in India is formed of which soil? (+1, -0.25)

- a. Laterite soil
- b. Arid soil
- c. Alluvial soil
- d. Black soil

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91. Khel Nursery Scheme 2022-23 has been launched to promote sports in _____ (+1, -0.25)

- a. Haryana
- b. Uttar Pradesh
- c. Andhra Pradesh
- d. Maharashtra

92. According to the Constitution of India, the executive power of the State shall be vested in the _____ (+1, -0.25)

- a. President of India
- b. Governor of the state
- c. Chief Minister of the state
- d. Advocate-General of the state

93. In which state of India is Khajuraho dance festival celebrated? (+1, -0.25)

- a. Nagaland
- b. Kerala
- c. Madhya Pradesh
- d. Tamil Nadu

94. The Mughal emperor Bahadur Shah Zafar died in _____. (+1, -0.25)

- a. 1857
- b. 1858
- c. 1862
- d. 1859

95. Which of the following persons took over as the Chief of the Air Staff (CAS) in September 2021? (+1, -0.25)

- a. Arup Raha
 - b. Manoj Mukund Naravane
 - c. Rakesh Kumar Singh Bhadauria
 - d. Vivek Ram Chaudhari
-

96. Who among the following is the recipient of 2021 Abhinandan Saroja National Award by National Institute of Indian Classical Dance? (+1, -0.25)

- a. Nalini Asthana
 - b. Aparna Satheesan
 - c. Rashid Khan
 - d. S Ballesh Bhajantri
-

97. Deepika Kumari is associated with which sport? (+1, -0.25)

- a. Archery
 - b. Chess
 - c. Golf
 - d. Tennis
-

98. Who among the following Indian cricketers is also known as 'Master Blaster'?

- a. Sachin Tendulkar

- b. Rahul Dravid
 - c. Mahendra Singh Dhoni
 - d. Kapil Dev
-

99. What is the rate of income tax (new regime) payable for financial year 2021-2022, by an individual who is under 60 years of age, and has a net income of less than ₹5 lakhs but more than ₹2.5 lakhs? (+1, -0.25)

- a. 10%
 - b. 20%
 - c. 2.5%
 - d. 5%
-

100. Dholavira, which was the ancient Harappan site was divided into _____ parts. (+1, -0.25)

- a. three
- b. five
- c. four
- d. two

prepp
Your Personal Exams Guide

Answers

1. Answer: a

Explanation:

From the given information:



We can see that in both sentences 'love' is common and in both the codes 'gi' is common.

Therefore, love --- gi

Hence the correct answer is option 1)

2. Answer: a

Explanation:

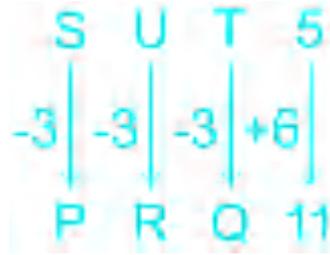
According to the English alphabets and their positional values:

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

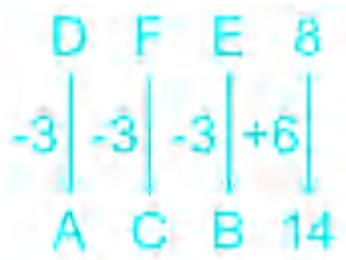
The pattern followed in the given series is:

- Alphabets are decreased to 3 positional values.
- Numbers are added with 6.

SUT5 becomes PRQ11

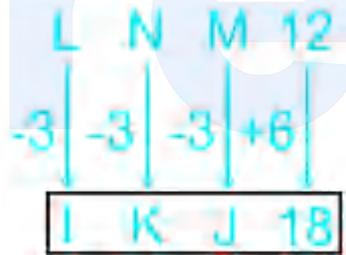


DFE8 becomes ACB14



Similarly,

LNMI2 becomes IKJ18



Hence the correct answer is option 1)

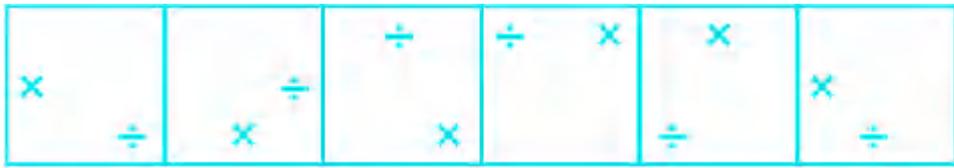
3. Answer: b

Explanation:

The pattern followed in the given series is:

- The cross is moving in anti-clockwise direction and it skips a space at alternate steps.
- The division sign is moving in anti-clockwise direction and it skips a space at alternate steps.

The next step will be:



Now we compare the pattern with the given options:

Option 1)



The pattern is incorrect in this option.

Option 2)



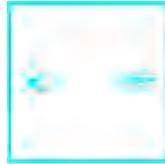
The pattern completely matches.

Option 3)





The pattern is incorrect in this option.
Option 4)



The pattern is incorrect in this option.
Hence the correct answer is option 2)

4. Answer: c

Explanation:

Step 1: L is at level 7.

Step 2: There are more than four employees above M.



After placing L, there are only 6 spots left and we have to place M below more than four i.e. 5. So we place M at 6th.

Step 3: B is above C and C is above just two employees.

Step 4: B is one level above A and one level below K.

Step 5: K is below O.



C is above only 2, thus it is placed at 5th; B is above C and one level above A and therefore A is placed at 4th and B at 3rd; K is one level above B and below O so we place K at 2nd and O at 1st.

Now we can see **there are employees above A.**

Hence **the correct answer is option 3)**

5. Answer: b

Explanation:

From the given information:

Alphabets	Denotation
A	+
B	-
C	×
D	÷

Now we substitute the values in the given equation and solve it using BODMAS rule:

B	Brackets in order (I, II, III, IV)	204C (1) (1) (1) (1) (1)
O	of	31
D	Division (÷)	150000 (1)
M	Multiplication (×)	100 (1) (1)
A	Addition (+)	100 (1) (1)
S	Subtraction (-)	1000 (1)

$$25 - 35 + 12 \times 25 \div 5 = ?$$

$$25 - 35 + 12 \times \underline{25 \div 5} = ?$$

$$25 - 35 + \underline{12 \times 5} = ?$$

$$\underline{25} - 35 + \underline{60} = ?$$

$$\underline{85} - 35 = ?$$

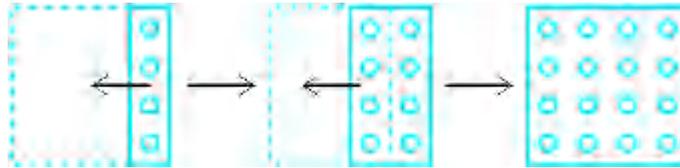
$$50 = \text{Answer}$$

Hence the correct answer is option 2)

6. Answer: c

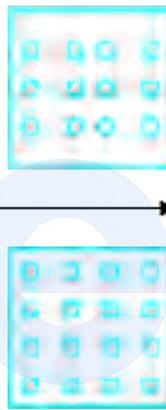
Explanation:

When we unfold the paper step by step we get:



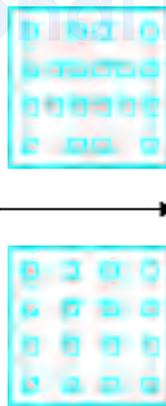
Now we compare the pattern obtained with the given options:

Option 1)



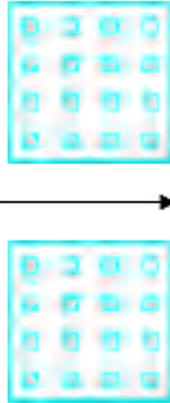
Number of rings are less, so the pattern is incorrect.

Option 2)

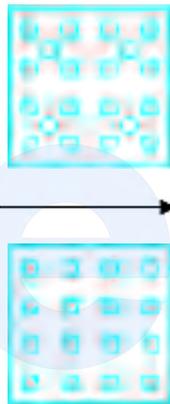


Number of rings are less & there is no symmetry, so the pattern is incorrect.

Option 3)



Both the figures matches completely, so the pattern is correct.
Option 4)



Number of rings are less, so the pattern is incorrect.

Hence the correct answer is option 3)

7. Answer: d

Explanation:

According to the English alphabets and their positional values:

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 pattern followed in the given series is:

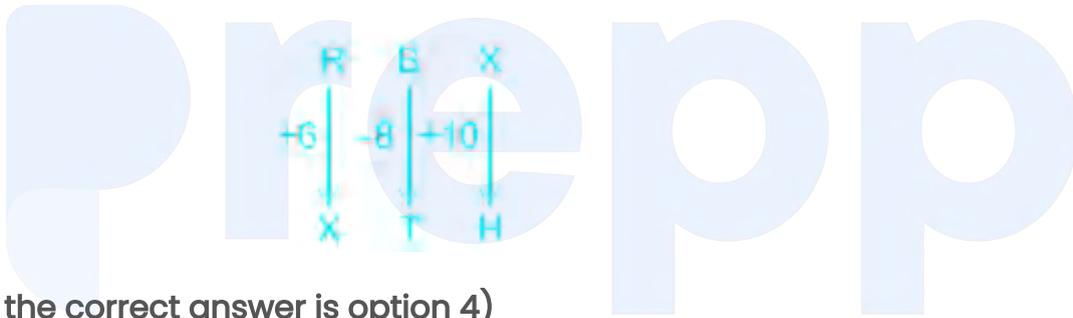
- First alphabet is increased to 6 positional values.
- Second alphabet is decreased to 8 positional values.
- Third alphabet is increased to 10 positional values.

PIN becomes VAX



Similarly,

RBX becomes XTH



Hence the correct answer is option 4)

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8. Answer: c

Explanation:

According to the given information,
When we compare line 1 and 3 we get:



When we compare line 2 and 3 we get:



We can see that,
are is coded as @
creatures is coded as fg

Hence the correct answer is option 3)

9. Answer: c

Explanation:

From the given information:

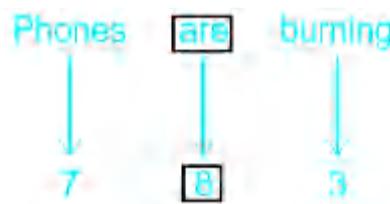
We can see that,

→Code for burning is 3 because it is common in both strings, so option 1 is eliminated.

→Option 2 and option 4 can be easily eliminated because these codes are related to the second string.

→Only option 3 is possible to be the correct answer though there is a possibility of 7 also for "are" but it is not available in the options given.

So, **are** is coded as 8



Hence the correct answer is option 3)

10. Answer: d

Explanation:

From the given statements, the Venn diagram is:



I. All X are D: From the statements, we have some X are M and some D are M so there might be a possibility that some X are D but since not all X are M therefore not all X are D. Thus the conclusion does not follow.

II. No M is D: In statement 2, we have the relation that some D are M and similarly we can say that some M are D. So no M is D is incorrect. So conclusion does not follow.

III. Some X are not D: We have some X are M and some D are M so there is evidence that some X can be D and it will be wrong to say that some X are not D. Therefore the conclusion does not follow.

All the three conclusions does not follow.

Hence the correct answer is option 4)

11. Answer: c

Explanation:

The pattern followed in the given set is:

First number × 3 = Second number

The given set - 19 : 57

19 × 3 = 57

57 = 57

LHS = RHS

Now let's check each option and compare the pattern:

Option 1) 23 : 47

$$23 \times 3 = 57$$

$$69 \neq 57$$

LHS \neq RHS

Option 2) 31 : 91

$$31 \times 3 = 91$$

$$93 \neq 91$$

LHS \neq RHS

Option 3) 29 : 87

$$29 \times 3 = 87$$

$$87 = 87$$

LHS = RHS

Option 4) 17 : 47

$$17 \times 3 = 47$$

$$51 \neq 47$$

LHS \neq RHS

Hence the correct answer is option 3)

12. Answer: c

Explanation:

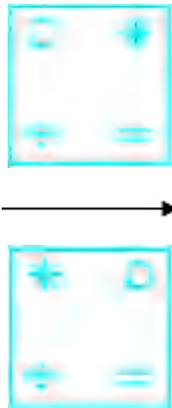
The pattern followed in the given series is:

- = sign is placed at lower right corner in every step.
- In every step there is a new character introduced in the lower left corner.
- Character on the lower left corner will move up in the next step.
- Character on the top left corner will move to it's right in the next step.
- Character on the top right corner will disappear.



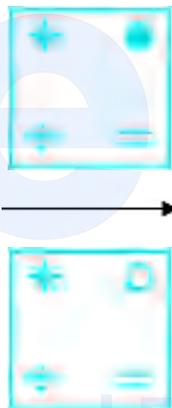
Now we compare the pattern with the given options:

Option 1)



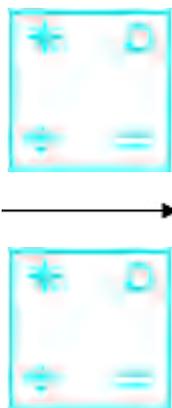
The pattern does not match. This option is incorrect.

Option 2)



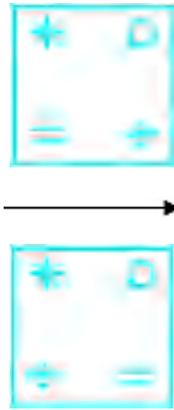
The pattern does not match. This option is incorrect.

Option 3)



The pattern matches completely.

Option 4)



The pattern does not match. This option is incorrect.

Hence the correct answer is option 3)

13. Answer: c

Explanation:

The pattern followed in the given series is:

First number $\div 2 + 2 =$ Second number

The given series:

$12 : 8 :: 28 : 16 :: 6 : ?$

First number $\div 2 + 2 =$ Second number

$$\underline{12} \div \underline{2} + 2 = 8$$

$$\underline{6} + \underline{2} = 8$$

$$8 = 8$$

$12 : 8 :: 28 : 16 :: 6 : ?$

First number $\div 2 + 2 =$ Second number

$$\underline{28} \div \underline{2} + 2 = 16$$

$$\underline{14} + \underline{2} = 16$$

$$16 = 16$$

$$12 : 8 :: 28 : 16 :: 6 : ?$$

First number $\div 2 + 2 =$ Second number

$$6 \div 2 + 2 = \text{Answer}$$

$$3 + 2 = \text{Answer}$$

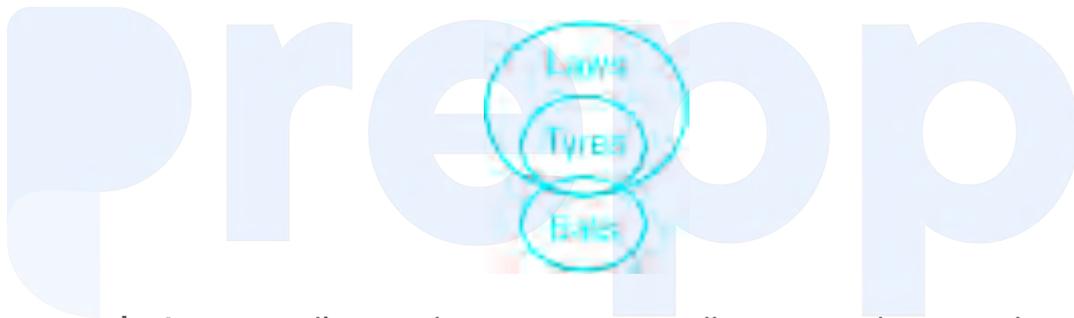
$$5 = \text{Answer}$$

Hence the correct answer is option 3)

14. Answer: d

Explanation:

From the given statements, the Venn diagram is:



I. **All laws are bats:** According to the statements, all tyres are laws and some tyres are bat which can be said as some laws are tyres and some laws are bats. So not all laws are bats. Thus the conclusion does not follow.

II. **All bats are tyres:** From the statement, we have some tyres are bats which indicates some bats are tyres. So it will be wrong to say that all bats are tyres. Therefore the conclusion does not follow.

Both the conclusion does not follow.

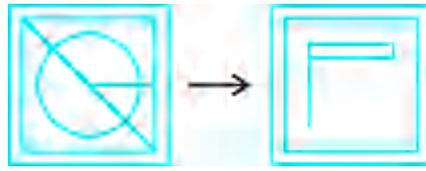
Hence the correct answer is option 4)

15. Answer: d

Explanation:

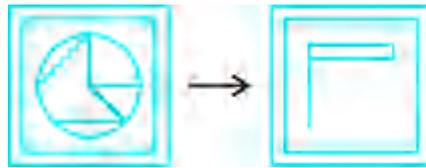
We compare each option with the given figure:

Option 1)



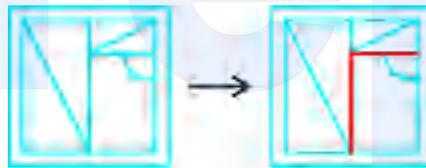
The given figure cannot be embedded. This option is incorrect.

Option 2)



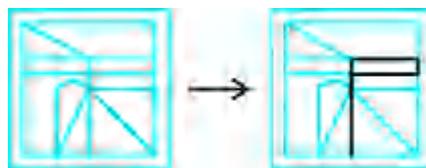
The given figure cannot be embedded. This option is incorrect.

Option 3)



The given figure can be partially embedded. This option is incorrect.

Option 4)



The given figure can be embedded completely. This option is correct.

Hence the correct answer is option 4)

16. Answer: b

Explanation:

According to the English alphabets and their positional values:

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 pattern followed is:

The sum of the positional values of each alphabet = Code



Similarly,



Hence the correct answer is option 2)

17. Answer: d

Explanation:

The pattern followed in the given series is:

$$(\text{First number} - 1) \times 3 = \text{Second number}$$

Let's apply the pattern on the given series:

$$16 : 45 :: 36 : 105 :: 49 : ?$$

(First number - 1) \times 3 = Second number

$$(16 - 1) \times 3 = 45$$

$$15 \times 3 = 45$$

$$45 = 45$$

$$16 : 45 :: 36 : 105 :: 49 : ?$$

(First number - 1) \times 3 = Second number

$$(36 - 1) \times 3 = 105$$

$$35 \times 3 = 105$$

$$105 = 105$$

$$16 : 45 :: 36 : 105 :: 49 : ?$$

(First number - 1) \times 3 = Second number

$$(49 - 1) \times 3 = ?$$

$$48 \times 3 = ?$$

$$144 = \text{Answer}$$

Hence the correct answer is option 4)

18. Answer: c

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Explanation:

Step 1: Q is to the immediate right of M.

Step 2: S is an immediate neighbour of M.



We place Q at the right of M and S to the left of M because right is filled and S is an neighbor.

Step 3: P is fifth to the right of Q.

Step 4: R is fifth to the right of M.



Now we place P to the fifth right of Q and R to the fifth right of M.

Step 5: T is third to the left of P.

Step 6: N is third to the right of S.



Here we place T to the third left of P and N to the third right of S.

Now we place O at the only spot left,



I. **N is third to the left of R:** According to the diagram, N is third to the left of R, therefore this statement is true.

II. **P is sixth to the right of M:** According to the diagram, P is sixth to the right of M, thus this statement is true.

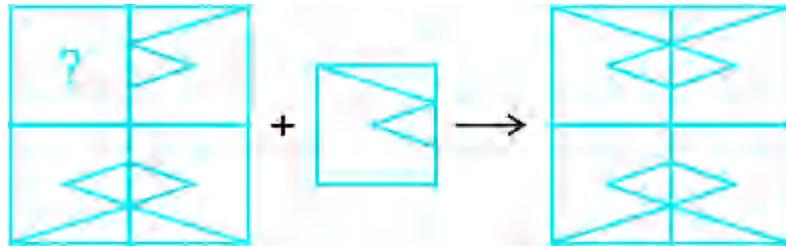
Both the statements are true.

Hence **the correct answer is option 3)**

19. **Answer: a**

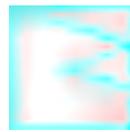
Explanation:

The pattern in the given figure will be mirror image of the pattern on the right because in the lower half we can see the pattern and it's mirror image,



Now we compare each option, with the figure obtained:

Option 1)



The pattern matches completely. This option is correct.

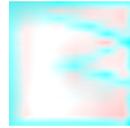
Option 2)



The pattern does not matches.

Option 3)





The pattern does not matches.
Option 4)



The pattern matches but it is inverted.
Hence the correct answer is option 1)

20. Answer: a

Explanation:

According to the English alphabets and their positional values:

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 pattern followed in the given series is:

- First and second alphabets are decreased to 2 positional values.
- Third and fourth alphabets are increased to 2 positional values.

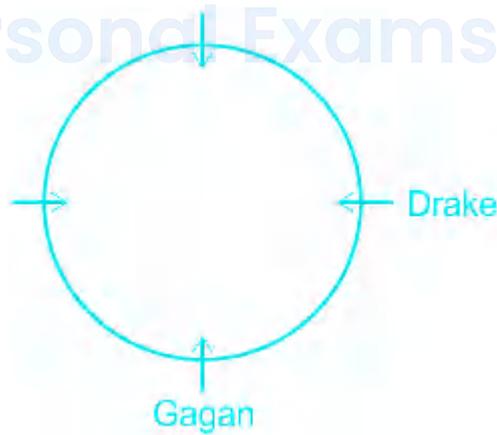


Hence the correct answer is option 1)

21. Answer: b

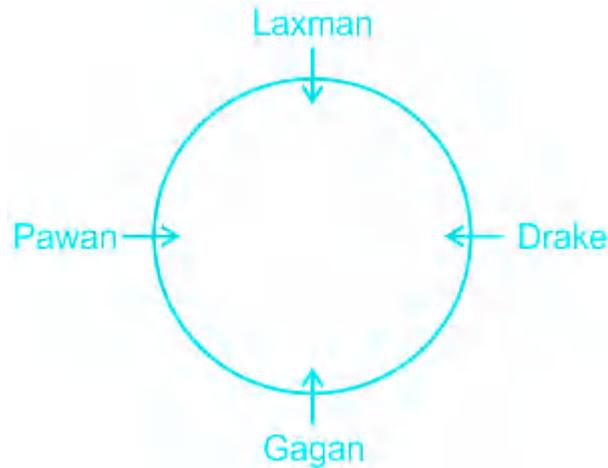
Explanation:

Step 1: Drake is to the immediate right of Gagan.



We place Gagan and then place Drake to his immediate left.

Step 2: Laxman is exactly between Drake and Pawan.



There are two spots left and Pawan & Drake are seated with Laxman in between.

Now we cross check the options with the diagram:

1. Pawan is to the immediate left of Laxman - **Wrong**. Pawan is to the immediate right of Laxman.
2. Pawan is to the immediate left of Gagan - **True**. Pawan is to the immediate left of Gagan.
3. Drake is to the immediate neighbour of pawan and Gagan - Wrong. Drake is to the immediate neighbour of Laxman and Gagan.
4. Drake is to the immediate left of Pawan - Wrong. Drake is to the second left of Pawan.

Hence the correct answer is option 2)

22. Answer: d

Explanation:

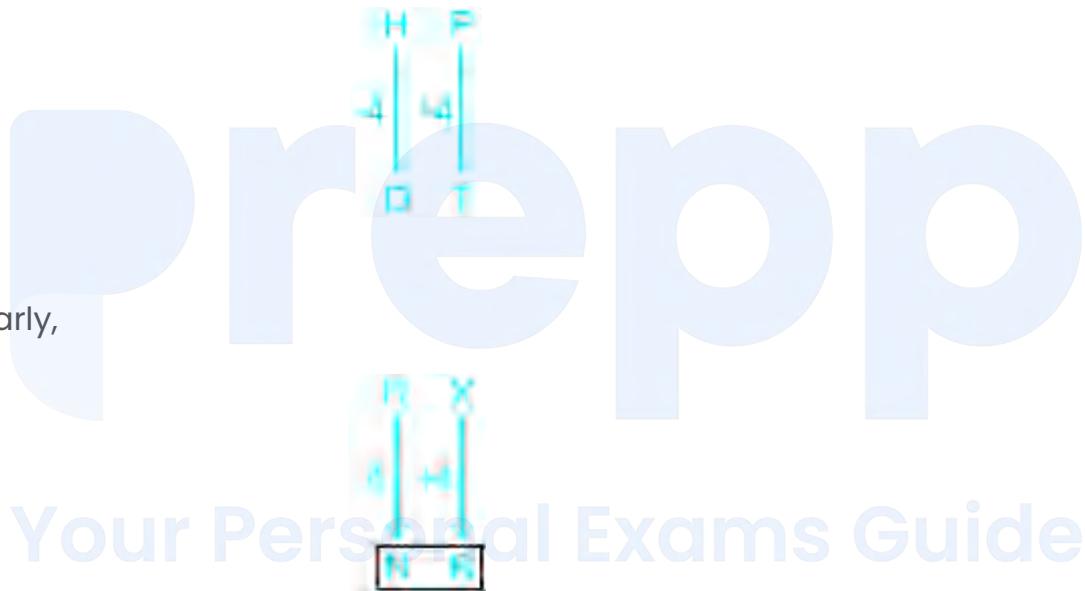
According to the English alphabets and their positional values:

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 pattern followed by the given series is:

- First alphabet is decreased to 4 positional values.
- Second alphabet is increased to 4 positional values.

Similarly,



Hence the correct answer is option 4)

23. Answer: d

Explanation:

Given equation:

$$5 - 4 \div 2 \times 10 + 7 = 7$$

We use the BODMAS rule to solve the equation:

B	Brackets in order (BIDMAS)	BODMAS (Brackets, Indices, Division, Multiplication, Addition, Subtraction)
O	of	of
D	Division (÷)	Division (÷)
M	Multiplication (×)	Multiplication (×)
A	Addition (+)	Addition (+)
S	Subtraction (-)	Subtraction (-)

We apply each option on the given equation and solve the equation:

Option 1) 10 and 2

$$5 - 4 \div 2 \times 10 + 7 = 7$$

$$5 - \underline{4 \div 10} \times 5 + 7 = 7$$

$$5 - \underline{0.4 \times 5} + 7 = 7$$

$$\underline{5} - \underline{2 + 7} = 7$$

$$\underline{12} - \underline{2} = 7$$

$$10 \neq 7$$

Option 2) 5 and 7

$$5 - 4 \div 2 \times 10 + 7 = 7$$

$$7 - \underline{4 \div 2} \times 10 + 5 = 7$$

$$7 - \underline{2 \times 10} + 5 = 7$$

$$\underline{7} - \underline{20 + 5} = 7$$

$$\underline{12} - \underline{20} = 7$$

$$-8 \neq 7$$

Option 3) 5 and 2

$$5 - 4 \div 2 \times 10 + 7 = 7$$

$$2 - \underline{4 \div 5} \times 10 + 7 = 7$$

$$2 - \underline{0.8 \times 10} + 7 = 7$$

$$\underline{2} - \underline{8 + 7} = 7$$

$$\underline{9} - \underline{7} = 7$$

$$2 \neq 7$$

Option 5) 10 and 5

$$5 - 4 \div 2 \times 10 + 7 = 7$$

$$10 - \underline{4 \div 2} \times 5 + 7 = 7$$

$$10 - \underline{2 \times 5} + 7 = 7$$

$$\underline{10} - \underline{10 + 7} = 7$$

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$$17 - 10 = 7$$

$$7 = 7$$

Hence the correct answer is option 4)

24. Answer: c

Explanation:

When we unfold the paper step by step, we get:



Now we compare each option with the pattern obtained:

Option 1)



The pattern does not match. This option is incorrect

Option 2)





The pattern does not match. This option is incorrect
Option 3)



The pattern matches completely.
Option 4)



The pattern is inverted. This option is incorrect
Hence the correct answer is option 3)

25. Answer: b

Explanation:

The pattern followed in the given series is:
Difference between the terms is an increasing multiple.



Hence the correct answer is option 2)

26. Answer: a

Explanation:

Given:

A graph showing the production of wheat (in lakh tonnes) by states A, B and C in four consecutive years, 2005, 2006, 2007 and 2008.

Formula used:

Aggregate = sum of all the observations

Calculation:

For year 2005:

$$\text{Aggregate} = 354 + 534 + 564 = 1452$$

For year 2006 :

$$\text{Aggregate} = 253 + 244 + 254 = 751$$

For year 2007 :

$$\text{Aggregate} = 264 + 245 + 234 = 743$$

For year 2008 :

$$\text{Aggregate} = 364 + 532 + 353 = 1249$$

∴ The year which shows the maximum aggregate production of wheat is 2005.

27. Answer: a

Explanation:

Given:

Mohit earns a profit of ₹54 on selling a pencil for ₹144

Formula used:

$$\text{Profit percentage} = \frac{\text{profit}}{\text{cost price}} \times 100$$

$$\text{Cost Price} = \text{Selling Price} - \text{Profit}$$

Calculation:

$$\text{Profit percentage} = \frac{54}{144-54} \times 100 = 60\%$$

∴ The profit percentage earned by Mohit is 60%.

28. Answer: b

Explanation:

Given:

The lengths, the breadths, and the volumes of two cuboids are in the ratios of 4 : 5, 3 : 4, and 2 : 3, respectively.

Formula used:

Volume of a cuboid is $V = lbh$, where l, b and h are the length, breadth and height respectively.

Calculation:

Let the volume of the first cuboid be $V_1 = l_1 b_1 h_1$

Let the volume of the second cuboid be $V_2 = l_2 b_2 h_2$

On dividing the two equations and substituting the given ratios,

$$\frac{V_1}{V_2} = \frac{l_1 b_1 h_1}{l_2 b_2 h_2} \implies \frac{2}{3} = \frac{4 \times 3 \times h_1}{5 \times 4 \times h_2}$$

$$\frac{h_1}{h_2} = \frac{2 \times 4 \times 5}{4 \times 3 \times 3} = \frac{10}{9}$$

\therefore The ratio of the heights of the two cuboids is 10 : 9

29. Answer: b**Explanation:****Given:**

When 175 is added to 12.5% of a number, the resultant is the number itself.

Formula used:

$$x\% \text{ of } y = \frac{x}{100} \times y$$

Calculation:

Let the number be x .

$$\text{Then, } 175 + \frac{12.5}{100}x = x$$

Solving for x ,

$$\left(\frac{100-12.5}{100}\right)x = 175$$

$$x = 175 \times \frac{100}{87.5} = 200$$

\therefore The number is 200.

30. Answer: b

Explanation:

Given:

An 800-metre-long train can pass a stationary pole completely in 72 seconds.

A 1200-metre-long train can also pass a stationary pole completely in 72 seconds.

Formula used:

$$\text{Time taken} = \frac{\text{distance}}{\text{speed}}$$

Calculation:

$$\text{Speed of the slower train} = \frac{800}{72} = 11.11 \text{ ms}^{-1}$$

$$\text{Speed of the faster train} = \frac{1200}{72} = 16.66 \text{ ms}^{-1}$$

$$\text{Speed of the faster train with respect to the slower train} = 16.66 - 11.11 = 5.55 \text{ m/s}$$

$$\text{Time taken for the faster train to cross the slower train} = \frac{800+1200}{5.55} = 360 \text{ s}$$

∴ The faster train will cross the slower train in 360 seconds.

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31. Answer: a

Explanation:

Given:

The lengths of the parallel sides of a trapezium are x cm and y cm and the area of the trapezium is $\frac{1}{2}(x^2 - y^2)$ cm².

Formula used:

$$x^2 - y^2 = (x + y)(x - y)$$

Calculation:

If the lengths of the parallel sides of a trapezium are x cm and y cm and its height is h cm then, the area of the trapezium = $\frac{1}{2}(x + y)h$

The area of the trapezium = $\frac{1}{2}(x^2 - y^2) = \frac{1}{2}(x + y)(x - y)$

On comparing the two equations, $h = x - y$

\therefore The distance between the parallel sides (in cm) is $x - y$.

32. Answer: c

Explanation:

Given:

The pie-chart showing the number of female students in six different colleges P, Q, R, S, T and U, as percentages of the total number of female students in all these six colleges, taken together.

Formula used:

Measure of central angle = $\frac{\text{percent}}{100} \times 360$

Calculation:

Measure of central angle for Q = $\frac{15}{100} \times 360 = 54^\circ$

Measure of central angle for U = $\frac{12}{100} \times 360 = 43.2^\circ$

\therefore The sum of the measures of the central angles of the sectors corresponding to the number of girls in colleges Q and U, taken together is $54 + 43.2 = 97.2^\circ$

33. Answer: a

Explanation:

Given:

$$49 \times 57 - 41 \times 18 = (?)^2 \times 3 + 1380$$

Formula used:

BODMAS rule:- Any mathematical expression must be solved by following order of priority.

B	Brackets in order	$() , \{ , []$
O	Of	Of
D	Division	\div
M	Multiplication	\times
A	Addition	$+$
S	Subtraction	$-$

Calculation:

On simplifying the left hand side of the equation,

$$49 \times 57 - 41 \times 18 = 2793 - 738 = 2055$$

This means that $(?)^2 \times 3 + 1380 = 2055$

On simplifying,

$$(?)^2 \times 3 = 2055 - 1380 = 675$$

$$\implies (?) = \sqrt{\left(\frac{675}{3}\right)} = 15$$

\therefore The number that will come in place of the question mark (?) in the given mathematical statement is 15.

34. Answer: b

Explanation:

Given:

A dishonest cloth merchant uses a scale which measures $16\frac{2}{3}$ % less than what is marked on it, and also sells at a price 10% higher than the cost price.

Formula used:

$$\text{Profit percentage} = \frac{\text{selling price} - \text{cost price}}{\text{cost price}} \times 100$$

Calculation:

Let the cost price for 100 parts of a cloth be ₹100.

Then, the actual cost price for the merchant for a cloth is $100 - 16.67 = ₹ 83.33$

Since he sells at a price 10% higher than the cost price, the selling price is ₹ 110

$$\text{Profit percentage} = \frac{110 - 83.33}{83.33} \times 100 = 32\%$$

∴ The profit percentage of the merchant is 32%.

35. Answer: a

Explanation:

Given:

A table showing the number of trucks of 6 different brands sold from a showroom during a given period of time is given.

Formula used:

$$\text{Average} = \frac{\text{sum of observations}}{\text{no. of observations}}$$

Calculation:

$$\text{Average} = \frac{8 \times (45 + 35 + 36 + 44 + 28 + 22)}{6} = 280$$

∴ The average number of tyres per brand is 280.

36. Answer: d

Explanation:

Given:

Radha can complete a piece of work in 3 days, while Raji can complete the same work in 2 days. Both of them complete this work by working together and get ₹150 as total payment for the work done.

Formula used:

Total work = LCM

$$Time = \frac{Work}{Efficiency}$$

Ratio of x and y is $\frac{x}{y}$

Calculation:

Work done by Radha in one day is $\frac{1}{3}$

Work done by Raji in one day is $\frac{1}{2}$

Hence, the ratio of their contribution to daily work is $\frac{2}{3}$

Let Radha's pay be x and Raji's pay be 150 - x.

$$\text{Then, } \frac{x}{150-x} = \frac{2}{3}$$

Solving for x,

$$3x = 300 - 2x$$

$$x = \frac{300}{5} = 60$$

∴ Radha's pay is ₹ 60

★ Alternate Method

LCM of (2, 3) = 6 = Total Work

$$\text{Efficiency} = \frac{\text{Work}}{\text{Time}}$$

$$\text{Efficiency of Radha} = \frac{6}{3} = 2$$

$$\text{Efficiency of Raji} = \frac{6}{2} = 3$$

Since payment will be done according to the efficiency so,

$$\text{Radha's pay} = \frac{\text{Radha Efficiency}}{\text{Total Efficiency}} \times \text{Total Payment}$$

$$\text{Radha's pay} = \frac{2}{5} \times 150 = ₹ 60$$

37. Answer: b

Explanation:

Given:

The average marks scored by 8 boys is 72. If the scores of three girls are also included, the average marks increases by 3.

Formula used:

$$\text{Average} = \frac{\text{sum of all the observations}}{\text{total no. of observations}}$$

Calculation:

Let the average marks of the three girls be x .

Then, the total average is,

$$75 = \frac{(72 \times 8) + 3x}{11}$$

Solving for x ,

$$x = \frac{(75 \times 11) - (72 \times 8)}{3} = 83$$

∴ The average marks of the three girls is 83.

38. Answer: b

Explanation:

Given:

The shopkeeper was offering two successive discounts of 20% and 15% on an item whose marked price is ₹1,000

Another shopkeeper was offering a flat 33% discount on the same item

Formula Used:

$$\text{Successive Discount} = X + Y - \frac{XY}{100}$$

Calculation:

On offering two successive discounts of 20% and 15%,

$$\Rightarrow \text{The single discount will be} = X + Y - \frac{XY}{100} = 20 + 15 - \frac{20 \times 15}{100} = 35 - \frac{300}{100} = 35 - 3 = 32$$

The single discount will be 32%

$$\Rightarrow \text{The price of the item after the discount will be} = \text{MarkedPrice} \times \frac{\text{discount}}{100} = 1000 \times \frac{32}{100} = ₹ 320$$

On offering the discount of 33%

$$\Rightarrow \text{The price of the item after the discount will be} = \text{MarkedPrice} \times \frac{\text{discount}}{100} = 1000 \times \frac{33}{100} = ₹ 330$$

Hence, The positive difference in the nominal amounts of discounts given by the two shopkeepers on the sale of the item will be = the price of the item after discount 33% - the price of the item after two successive discounts of 20% and 15%,

$$= ₹ 330 - ₹ 320$$

$$= ₹ 10$$

39. Answer: b

Explanation:

Given:

A bag contains an equal number of 50 -paise, 25-paise, 20-paise and 5-paise coins

The total monetary value of all these coins taken together is ₹55

Concept Used:-

The ratio is the comparison of two quantities of the same kind by division.

Calculation:-

Let the number of coins be x

⇒ The total monetary value of all these coins taken together is ₹55 = $55 \times 100 = 5500$ paise

The bag contains an equal number of 50 paise, 25 paise, 20 paise, and 5 paise coins

⇒ The Total monetary value of the coin will be = $50 \times x + 25 \times x + 20 \times x + 5 \times x = 100x$

But the monetary value of coins is 5500 paise

$$\Rightarrow 100 \times x = 5500$$

$$\Rightarrow x = 55 \text{ coins}$$

Hence, The bag contains 55 coins of each type

40. Answer: d

Explanation:

Given:

The breadth of a rectangle is $\frac{4}{5}$ of the radius of a circle

The radius of the circle is $\frac{1}{5}$ of the side of a square, whose area is 625 cm^2

The length of the rectangle is 20 cm

Formula Used:

The area of the square = a^2

The area of the rectangle = $l \times b$

Calculations:

According to the question,

The breadth of a rectangle (b) is $\frac{4}{5}$ of the radius of a circle (r)

$$\Rightarrow b = \frac{4}{5} \times r$$

The radius of the circle (r) is $\frac{1}{5}$ of the side of a square (a)

$$\Rightarrow r = \frac{1}{5} \times a$$

\Rightarrow The area of square = a^2

$$\Rightarrow 625 = a^2$$

$$\Rightarrow a = 25 \text{ cm}$$

\Rightarrow The radius of the circle will be = $\frac{1}{5} \times a = \frac{1}{5} \times 25 = 5 \text{ cm}$

The breadth of the rectangle will be

$$\Rightarrow b = \frac{4}{5} \times r$$

$$\Rightarrow b = \frac{4}{5} \times 5 = 4 \text{ cm}$$

⇒ The area of the rectangle will be $= l \times b = 20 \times 4 = 80 \text{ cm}^2$

Hence, The area of the rectangle will be 80 cm^2

41. Answer: b

Explanation:

Given:

The monthly income of a person was ₹40,000

He used to save 25% of his income

His nominal income increases by 15% and his nominal expenditure increases by 20%

Formula Used:

$$\text{Percentage} = \frac{\text{Value}}{\text{Total value}} \times 100$$

Calculation:

The total income of a person is ₹ 40000 and he used to save 25%

The saving is

$$\Rightarrow \text{Percentage} = \frac{\text{saving}}{\text{income}} \times 100$$

$$\Rightarrow 25 = \frac{\text{saving}}{40000} \times 100$$

$$\Rightarrow \text{Saving} = 25 \times 400 = ₹10000$$

⇒ The expenditure of a person is = Total Income - Savings

$$\text{Expenditure} = ₹40000 - ₹10000 = ₹ 30000$$

As the income is increased by 15%

$$\Rightarrow \text{Increased income} = 40000 \times \frac{15}{100} = ₹6000$$

⇒ New income will be = previous income + Increased income

$$\text{New Income} = ₹40000 + ₹6000 = ₹46000$$

The expenditure is also increased by 20%

$$\Rightarrow \text{Increase expenditure} = 30000 \times \frac{20}{100} = ₹6000$$

⇒ New expenditure will be = previous expenditure + Increased expenditure

$$\text{New expenditure} = ₹30000 + ₹6000 = ₹36000$$

⇒ New savings of a person is = Total Income - expenditure

$$\text{New saving} = 46000 - 36000 = ₹10000$$

$$\Rightarrow \text{The percentage change in savings} = \frac{\text{Change in saving}}{\text{Previous income}} \times 100 = \frac{10000 - 10000}{10000} \times 100 = 0\%$$

Hence, The percentage change in his nominal savings is 0%

42. Answer: c

Explanation:

Given: Your Personal Exams Guide

Principal Amount = ₹12000

Time (T) = 3 months

Rate of Interest (R) = 10% per annum

The amount borrowed is compounded quarterly

Formula Used:

$$\text{Amount} = P \times \left(1 + \frac{R}{100}\right)^T$$

Compound interest = Amount - Principal

Calculation:

Rate=10%

$$\Rightarrow \text{Time} = 3 \text{ months} = \frac{3}{12} = \frac{1}{4}$$

For quarterly, the rates are divided by 4, and time is multiplied by 4

$$\Rightarrow \text{New Rates} = \frac{10}{4} = \frac{5}{2}$$

$$\Rightarrow \text{New Time} = \frac{1}{4} \times 4 = 1 \text{ quarter}$$

$$\Rightarrow \text{Amount} = P \times \left(1 + \frac{R}{100}\right)^T = 12000 \times \left(1 + \frac{5}{100}\right)^1 = 12000 \times \left(1 + \frac{1}{40}\right)^1 = 12000 \times \left(\frac{41}{40}\right) = 300 \times 41 = ₹12300$$

$$\Rightarrow \text{Compound interest is} = \text{Amount} - \text{Principal} = ₹12300 - ₹12000 = ₹300$$

Hence, The compound Interest payable at compounded quarterly is ₹300

43. Answer: b

Explanation:

Given:

$$A = 2^k \times 3^5 \text{ and } B = 2^5 \times 3^7$$

The least common multiple (LCM) of A and B is $2^8 \times 3^7$

Concept Used:

LCM is the method to find the smallest possible multiple of two or more numbers

Calculation:

$$\Rightarrow A = 2^k \times 3^5 \text{ and } B = 2^5 \times 3^7$$

LCM we have to take the highest power of the Number

From the above value

⇒ The highest power of 3 = 7

⇒ The LCM of A and B = $2^8 \times 3^7$

From LCM:

⇒ The highest power of 2 is 8

⇒ From A and B the highest power of 2 is 8

⇒ The power of 2 from A and B is K and 5 respectively

Hence, The value of k will be 8

44. Answer: a

Explanation:

Given:

Principal Amount (P) = ₹6000

Time (T) = 5 Years

Rate of Interest (R) = 8.4% per annum

The amount borrowed is at simple interest

Formula Used:

$$\text{Simple Interest} = \frac{P \times R \times T}{100}$$

Where, P = Principal

R = Rate of Interest

T = Time (in years)

Calculation:

$$\Rightarrow \text{The interest earned is} = \frac{P \times R \times T}{100} = \frac{6000 \times 8.4 \times 5}{100} = ₹2520$$

Hence, The value of interest earned is ₹2520

45. Answer: d

Explanation:

Given:

$$\frac{2}{3} \times \frac{6}{5} \times \frac{10}{4} + \frac{1}{8} - \frac{3}{8}$$

Formula Used:

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

Calculation:

$$\Rightarrow \frac{2}{3} \times \frac{6}{5} \times \frac{10}{4} + \frac{1}{8} - \frac{3}{8}$$

$$\Rightarrow \frac{2}{1} \times \frac{2}{5} \times \frac{5}{2} + \frac{1}{8} - \frac{3}{8}$$

$$\Rightarrow 2 + \frac{1}{8} - \frac{3}{8}$$

$$\Rightarrow \frac{16+1-3}{8}$$

$$\Rightarrow \frac{17-3}{8}$$

$$\Rightarrow \frac{14}{8}$$

$$\Rightarrow \frac{7}{4}$$

∴ The Correct Answer is $\frac{7}{4}$

46. Answer: a

Explanation:

Given:

18 men can do a piece of work in 20 days

After working for 8 days, they get a notice to complete the work 4 days earlier than originally scheduled

Formula Used:

$$\frac{M_1 \times D_1 \times H_1}{W_1} = \frac{M_2 \times D_2 \times H_2}{W_2}$$

Calculation:

18 men can complete the work in 20 days

$$\Rightarrow \text{The total work} = 18 \times 20 = 360$$

$$\Rightarrow \text{Work for 8 days then the work complete in 8 days} = 18M \times 8D = 144$$

$$\Rightarrow \text{The work done in 8 days by 18 men} = 144$$

$$\Rightarrow \text{The remaining work is} = 360 - 144 = 216$$

The work should be completed in 4 days before the schedule and the men already do the work for 8 days

$$\Rightarrow \text{The remaining days is} = 20 - 4 - 8 = 20 - 12 = 8 \text{ days}$$

The more men required to complete the work in 8 days are

$$\Rightarrow \text{Total work} = \frac{M_2 \times D_2 \times H_2}{W_2}$$

$$\Rightarrow 216 = (18 + x) \times 8$$

$$\Rightarrow 18 + x = 27$$

$$\Rightarrow x = 27 - 18 = 9$$

Hence, 9 more men are required to complete the work as per the new schedule.

47. Answer: a

Explanation:

Given:

P 1 is the average of all prime numbers below 12

P 2 is the average of all prime numbers between 12 and 30

Formula Used:

$$\text{Average} = \frac{\text{Sum Of Observations}}{\text{Total No. of Observation}}$$

Calculation:

⇒ The prime number between 1 to 30 are 2, 3, 5, 7, 11, 13, 17, 19, 23, 29

⇒ The average of prime no. below 12 is

$$\Rightarrow \text{Average} (P_1) = \frac{\text{Sum Of Observations}}{\text{Total No. of Observation}} = \frac{2+3+5+7+11}{5} = \frac{28}{5}$$

⇒ The average of prime no. between 12 to 30 is

$$\Rightarrow \text{Average} (P_2) = \frac{\text{Sum Of Observations}}{\text{Total No. of Observation}} = \frac{13+17+19+23+29}{5} = \frac{101}{5} = 20.2$$

$$\Rightarrow \text{The value of } 5P_1 - P_2 = 5 \times \frac{28}{5} - 20.2 = 28 - 20.2 = 7.8$$

Hence, The value of $5P_1 - P_2$ is 7.8

48. Answer: b

Explanation:

Given:

$$5 : k :: 30 : 42$$

Formula Used:

$$\frac{a}{b} = \frac{c}{d}$$

Calculation:

The equation is $5 : k :: 30 : 42$

On comparing the above equation with (1)

⇒ We get, $a=5$, $b=k$, $c=30$ and $d=42$

Put the value of a , b , c , d in eq (1), we get

$$\Rightarrow \frac{5}{k} = \frac{30}{42}$$

$$\Rightarrow \frac{1}{k} = \frac{1}{7}$$

On reciprocal the above equation, we get

$$\Rightarrow k=7$$

Hence, The value of k is 7

49. Answer: c

Explanation:

Given:

The sum of 12 numbers is 1080

Formula Used:

$$\text{Average} = \frac{\text{Sum of numbers}}{\text{Total numbers}}$$

Calculation:

⇒ The sum of numbers = 1080

⇒ Total numbers = 12

$$\Rightarrow \text{Average} = \frac{\text{Sum of numbers}}{\text{Total numbers}} = \frac{1080}{12} = 90$$

Hence, The average of these 12 numbers is 90

50. Answer: d

Explanation:

Given:

Distance between Delhi and Jaipur = 360 km

A car goes from Delhi to Jaipur at a speed of 80 km/h and returns to Delhi from Jaipur using the same route at a speed of 120 km/h

Formula Used:

$$\text{Average speed} = \frac{2 \times x \times y}{x + y}$$

Calculation:

⇒ The speed of the car (x) from Delhi and Jaipur = 80 km/h

⇒ The speed of the car(y) from Delhi and Jaipur = 120 km/h

$$\Rightarrow \text{Average speed} = \frac{2 \times x \times y}{x + y} = \frac{2 \times 80 \times 120}{80 + 120} = \frac{2 \times 80 \times 120}{200} = 96 \text{ km/h}$$

Hence, The average speed of the car is 96 km/h

51. Answer: d

Explanation:

The correct answer is **option 4) To achieve two things by doing a single action.**

★ Key Points

- The idiom "kill two birds with one stone" is a figurative expression that means to **accomplish two objectives with a single action.**
- It implies efficiency and productivity by solving two problems at once or accomplishing two goals with a single effort.
- The phrase originates from the practice of hunting, where a stone is thrown to hit and kill a bird, and it is an efficient way to catch two birds with one throw.

52. Answer: c

Explanation:

The correct answer is - option 3) there she have.

★ Key Points

- The given sentence is: "**When I reached there she have already started eating.**"
- This sentence is in the **past tense**, as indicated by the verb "reached," which is the past tense form of "reach." However, the verb "have" in "she have already started eating" is in the present tense. It should be in the past tense to match the tense of the sentence.
- The correct past tense form of "have" is "had." Therefore, the correct sentence should be: "When I reached there, she had already started eating."
- The word "there" is used correctly in this sentence, indicating the location where the speaker arrived. The phrase "already started eating" is also correct and is in the past tense, indicating that the action had already taken place before the speaker arrived.

- So, the error is in the part "there she have," which should be corrected to "there she had" to make the sentence grammatically correct.
-

53. Answer: d

Explanation:

The correct answer is: **that happens in nature.**

★ Key Points

- The original sentence is grammatically incorrect because "natures" should be singular "nature". Option 4 corrects this error by using the singular form "nature" and the correct verb tense "happens".
- Option 1 is incorrect because "happening" is a gerund and cannot be used as the subject of the sentence.
- Option 2 is incorrect because "natures" is still plural and the incorrect verb tense "happens" is used.
- Option 3 is incorrect because the original sentence contains a grammatical error.

Hence, the corrected form of the sentence is: **Not everything that happens in nature is due to global warming alone.**

54. Answer: a

Explanation:

The correct answer is - option 1) **Respond to someone with anger that is often sudden or unprovoked.**

★ Key Points

- The idiom "Bite someone's head off" means to respond to someone's comment, question or statement with anger, especially in an unprovoked or

sudden manner.

- It implies that the person is overly aggressive or hostile in their response. The idiom is often used to describe someone who is easily angered or who reacts aggressively to a situation.
 - The other options are not related to the meaning of this idiom:
 - Ignoring something that is evidently wrong or unavoidable is not related to the meaning of the given idiom.
 - Cause something to be done in a new way does not convey the same meaning as the idiom "Bite someone's head off".
 - Guessing or estimating without full information does not convey the same meaning as the idiom "Bite someone's head off".
-

55. Answer: c

Explanation:

The correct answer is: **ideal**.

★ **Key Points**

- Option 3) ideal is the correct option as it means perfect or best suited for a particular purpose. In this context, the park is the best place for strolling and exercising.
- Option 1) unopen means not open or closed. It is not appropriate in this context.
- Option 2) doubtful means uncertain or not confident. It is not appropriate in this context.
- Option 4) fussy means overly concerned with minor details or picky. It is not appropriate in this context."

Therefore, the correct sentence is: *The park is a/an **ideal** place to stroll and exercise.*

56. Answer: a

Explanation:

The correct answer is: **complex**.

★ Key Points

- 'Complex' is the antonym of 'simple'.
 - Explanation: 'Simple' means clear and easy to understand. Complex means complicated and difficult to understand. Therefore, complex is the opposite of unambiguous.
- Therefore, the correct answer is: **complex**.

★ Additional Information

Meanings of other options:

- **Clear** means flawless, without any mark.
- **Auspicious** means favorable or promising, which is not related to the meaning of the underlined word.
- **Antiquated** means old-fashioned or outdated, which is also not related to the meaning of the underlined word.

57. Answer: b

Explanation:

The correct answer is "**bore**" (Option 2).

★ Key Points

- The verb "bear" has multiple meanings, but in the given sentence, it means "**to carry or support**". The correct form of the verb in this context is "bore", which is the past tense of "bear". Therefore, the correct sentence is:
- "**Students of St. Xavier's bore away all the prizes.**"
- This sentence means that the students of St. Xavier's won all the prizes and carried them away.

★ Additional Information

- The other options are not correct in this context:
- "Bearing" is a **gerund** form of "bear", which means "carrying or supporting". However, it is not the correct form of the verb to use in this sentence.
- "Borne" is the **past participle** of "bear", which is used in the passive voice. However, it is not the correct form of the verb to use in this sentence.
- "Bears" is the **present tense** of "bear", which is not the correct form of the verb to use in this sentence.

58. Answer: b

Explanation:

The correct answer is: **more than**.

★ Key Points

- The correct phrase to use in this sentence is "more than," which means a greater amount or quantity.
- "Greater then" (option 1) is incorrect because "greater" is used to compare two things, while "more than" is used to indicate a quantity.
- "Much than" (option 3) is also incorrect because "much" is used to indicate a large amount or degree, but it cannot be used in comparison with "than."
- Option 4 is also incorrect because 'then' means 'next' or 'after that' and it doesn't fit the context of the sentence.

Therefore, the corrected sentence is: **The truck picked up more than the usual amount of garbage from our neighbourhood.**

59. Answer: d

Explanation:

The correct answer is 4) **Acronym**.

★ Key Points

- An **acronym** is a **word formed from the first letter of each word in a phrase or a series of words**, and it is pronounced as a word.
 - The other options don't fit the given definition:
 - A **caption** is a **title or brief explanation accompanying an illustration or a photograph**.
 - A **slogan** is a **short and striking or memorable phrase used in advertising**.
 - A **flotilla** is a **group of small boats or ships**.
 - Therefore, the correct answer is **4) Acronym**.
-

60. **Answer: c**

Explanation:

The correct answer is **3) praised**.

★ Key Points

- The verb "**praise**" means to express **warm approval or admiration of someone or something**, and it fits the context of the sentence as the **speaker's mother is appreciating the hard work of the maid**.
 - The other options don't fit the context of the sentence:
 - "**Priced**" means to **fix a price on something**, and it doesn't make sense in this context.
 - "**Prized**" means to **value highly**, and it doesn't make sense in this context.
 - "**Prayed**" means to **offer prayers**, and it also doesn't fit the context of the sentence.
 - Therefore, the correct answer is **3) praised**.
-

61. **Answer: a**

Explanation:

The correct answer is "Rush" (Option 1).

★ Key Points

Bustle means to move in a busy and hurried way, typically with noise and commotion.

Rush also means to move quickly and with urgency.

Therefore, rush is the most appropriate synonym for bustle.

★ Additional Information

The other options are not synonyms for the word bustle:

Praise means to express admiration or approval, which is not related to the meaning of bustle.

Force means to make someone or something do something against their will, which is not related to the meaning of bustle.

Block means to obstruct or stop something from happening, which is not related to the meaning of bustle.

62. Answer: a

Explanation:

The correct answer is - **Contencious**.

★ Key Points

- The three correctly spelled words are - Prevaricate, Refute, Revere
 - The word that is misspelled is 1) **Contencious**.
 - The correct spelling is "**contentious**," which means **causing or likely to cause an argument; controversial**.
 - Therefore, the correct answer is 1) **Contencious**.
-

63. Answer: d

Explanation:

The part of the sentence that contains an error is 4) "standing at front of us."

The correct preposition to use in this context is "in front of us" instead of "at front of us."

So, the corrected sentence would be: "Surgical strike is not the only solution to this problem standing in front of us."

Therefore, the correct answer is 4) "standing in front of us."

64. Answer: b

Explanation:

The correct answer is 2) Dependable.

★ Key Points

- Reliable means **consistently good in quality or performance; able to be trusted.**
- Among the given options, "**dependable**" is the most appropriate synonym for "reliable" as it also means **trustworthy and reliable.**
- The other options such as **doubtful, dubious, and dodgy** have the **opposite meanings of reliable** and are therefore not appropriate synonyms.

★ Additional Information

- **Doubtful** means - feeling uncertain about something.
 - **Dubious** - hesitating or doubting.
 - **Dodgy** - dishonest or unreliable.
-

65. Answer: d

Explanation:

The correct answer is: **emerged**.

★ Key Points

- Option 4 is correct because it uses the past tense verb "emerged" which is the correct form to describe an action that happened in the past. The sentence is referring to a specific time period in the past (nineteenth century), so the past tense is appropriate.
- Option 1, "was emerging," is incorrect because it uses the past continuous tense which implies that the action was ongoing or in progress at a specific time in the past. However, the sentence is referring to a completed action, so the past simple tense is more appropriate.
- Option 2, "have emerging," is incorrect because it uses the present perfect tense which implies that the action started in the past and is still ongoing or has some relevance to the present. However, the sentence is referring to a specific time period in the past, so the past simple tense is more appropriate.
- Option 3, "No improvement required," is incorrect because the original sentence is grammatically incorrect. It uses the present participle form "being emerged" which is not a correct verb form.

Therefore, the correct answer is: **In the nineteenth century, many new ideas about education and learning emerged.**

66. Answer: d

Explanation:

The erroneous part is: had taking her car keys.

★ Key Points

- The error in the sentence is the use of "taking" instead of "taken".
- Grammatically, "taking" is the present participle form of the verb "take" and is used to indicate an ongoing action.
- However, in this sentence, the action of taking the car keys is already completed in the past. Therefore, the past participle form "taken" should be used instead.

Therefore, the corrected form of the sentence is: *Lucy was annoyed to discover that her husband had **taken** her car keys.*

67. Answer: a

Explanation:

The correct answer is: **gave him some.**

★ **Key Points**

- Option 1 is correct because it uses the past tense form of the verb "give" which is "gave" to match the past tense of the sentence. "I gave" is the correct subject-verb agreement in the past tense.
- Option 2 is incorrect because it uses the present tense form of the verb "give" which is "gives" and does not agree with the subject "I".
- Option 3 is incorrect because it uses the past participle form of the verb "give" which is "given" and does not match the subject-verb agreement in the sentence.
- Option 4 is incorrect because the original sentence is in the present tense and needs to be changed to the past tense to match the context of the sentence. Also, 'gives' doesn't agree with 'I', which makes the sentence grammatically incorrect.

Therefore, the corrected form of the sentence is: **I *gave him some* orange juice from the refrigerator.**

68. Answer: c

Explanation:

The correct answer is: **Impractical**.

★ Key Points

- **Pragmatic:** dealing with things sensibly and realistically in a way that is based on practical rather than theoretical considerations.
- **Impractical** is the correct antonym of pragmatic as it means not sensible or realistic; not practical. It is the opposite of pragmatic which is based on practical considerations.

★ Additional Information

- Meaning of the other options:
 - **Prudent:** acting with or showing care and thought for the future.
 - **Aesthetic:** concerned with beauty or the appreciation of beauty.
 - **Dull:** lacking interest or excitement.

69. Answer: d

Explanation:

The correct answer is: **narrow**.

★ Key Points

- Option 2) wide is the opposite of narrow, so it cannot be used to fill in the blank.
- Option 3) high is not appropriate to describe a street, as streets are not vertical structures.
- Option 1) shallow is used to describe depth, and is not appropriate to describe the width of a street.

- Therefore, option 4) narrow is the correct option to fill in the blank. It means not wide, limited in width."

Therefore, the correct sentence is: *The main street, which is neither broad nor narrow, runs past this square on its way to the railway-station.*

70. Answer: d

Explanation:

The correct answer is: **I should secure some company for my lonely hours.**

★ Key Points

- The correct spelling of the word is "secure" which means to obtain or acquire something.
- The correct spelling of "lonely" is also used in option 4.
- Option 1 misspells "secure" and "lonely" while option 2 misspells "lonely" and "secure". Option 3 misspells "secure" and adds an extra "o" to "secure".

Therefore, the correct answer is: **I should secure some company for my lonely hours.**

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71. Answer: b

Explanation:

The correct answer is **option 2) succumbed.**

★ Key Points

- In the given context, the sentence talks about a family member of the Valachukettil family who has died due to the Nipah virus infection.
- The word "**succumbed**" means to **die from a disease or injury**, which fits perfectly in the given context.

- The other options, such as "died", "pioneered", and "embezzled" do not fit the context and are not appropriate to use in this sentence.
- Therefore, option 2) **succumbed** is the correct answer.

★ Additional Information

- Meanings of the options:
- 1) **died** - to cease to live; to pass away
- 2) **succumbed** - to give way to superior force; to yield; to die from a disease or injury
- 3) **pioneered** - to be the first to do or explore something; to lead the way
- 4) **embezzled** - to steal or misappropriate money that has been entrusted to one's care

72. Answer: d

Explanation:

The correct answer is - Option 4) **undergoing**.

★ Key Points

- The most appropriate option to fill in blank number 2 is "undergoing", as it is mentioned in the sentence that V Moosa had been **undergoing treatment** at Baby Memorial Hospital in the city.

Hence, the correct sentence would be: "**District Medical Officer V Jayashree told that V Moosa, 60, who had been undergoing treatment at Baby Memorial Hospital in the city, died on May 24 morning.**"

★ Additional Information

- **Working:** the act of performing tasks or carrying out a job or occupation in exchange for payment or other forms of compensation.
- **Managing:** the act of controlling, directing, or supervising the work or activities of others in order to achieve a particular goal or objective.

- **Devising:** the act of creating, inventing, or planning something, often through a process of careful thought and analysis.
 - **Undergoing:** the act of experiencing or undergoing a particular process, often one that involves difficulty or challenge, such as a medical treatment or personal growth.
-

73. Answer: c

Explanation:

The correct answer is - **option 3) in**.

★ Key Points

The most appropriate option to fill in blank number 3 is "in", as the sentence is referring to the time period during which the family members died of the infection.

Option 1, "**through**", would imply that the deaths occurred over a longer period of time or continued beyond May.

Option 2, "**on**", is not appropriate as it suggests a specific date, rather than a time period.

Option 4, "**for**", would not make sense in this context as it does not convey any meaningful information about the time period of the deaths.

Therefore, the correct answer is **option 3, "in"**.

74. Answer: b

Explanation:

The correct option to fill in blank number 4 is "**toll**".

★ Key Points

- The sentence mentions the number of deaths caused by the Nipah virus infection, which has increased to 12 with the recent death of V Moosa.
- The word that fits grammatically and semantically in this context is "toll", which means **the number of deaths or casualties caused by a particular event or circumstance**.
- Therefore, the sentence should read as "With this, the death toll due to the virus infection has gone up to 12."

75. **Answer: c**

Explanation:

The correct option to fill in blank number 5 is "**tested**".

★ Key Points

- The sentence mentions that two persons are undergoing treatment after their blood and body fluid samples were found positive for the Nipah virus infection.
- The sentence requires a verb that denotes the process of checking or examining the samples for the virus.
- Among the given options, "tested" is the most appropriate choice as it fits both grammatically and contextually.
- The verb "**tested**" means to **conduct a procedure to check the properties or quality of something**.
- Therefore, the correct sentence should read as "**Two persons, whose blood and body fluid samples were tested positive for the infection, are undergoing treatment.**"

76. **Answer: b**

Explanation:

The correct answer is Sarod.

★ Key Points

- Ustad Amjad Ali Khan is an Indian classical sarod player, best known for his clear and fast ekhara taans.
- He was awarded India's second highest civilian honor Padma Vibhushan in 2001.
- sarod, stringed musical instrument of the lute family that is common to the Hindustani music tradition of northern India, Pakistan, and Bangladesh.
- The modern classical sarod is about 100 cm (39 inches) long and has a slightly waisted wood body with a skin belly.

★ Additional Information

- The violin is probably the best known and most widely distributed musical instrument in the world.
 - The violin, sometimes known as a fiddle, is a wooden chordophone in the violin family.
 - Most violins have a hollow wooden body. It is the smallest and thus highest-pitched instrument in the family in regular use.
- The guitar is a fretted musical instrument that typically has six strings.
 - It is usually held flat against the player's body and played by strumming or plucking the strings with the dominant hand, while simultaneously pressing selected strings against frets with the fingers of the opposite hand.
- Sitar is a plucked stringed instrument, originating from the Indian subcontinent, used in Hindustani classical music.
 - The instrument was invented in medieval India, flourished in the 18th century, and arrived at its present form in 19th-century India.

77. Answer: d

Explanation:

The correct answer is Article 21.

★ Key Points

- It guarantees the right of persons to life with human dignity.
- It is a right guaranteed against State Action as distinguished from violation of such right by private individuals.
- This article is written by Shruti Singh, a student at Lloyd Law College, Greater Noida.
- Protection of life and personal liberty No person shall be deprived of his life or personal liberty except according to procedure established by law.

★ Additional Information

- Article 27 states that Everyone has the right freely to participate in the cultural life of the community , to enjoy the arts and to share in scientific advancement and its benefits.
- Article 24 says that "No child below the age of fourteen years shall be employed to work in any factory or mine or engaged in any other hazardous employment."
 - The fundamental right against exploitation guaranteed to all citizens prohibits child labour in mines, factories, and hazardous conditions.
- Article 19 states that "Everyone has the right to freedom of opinion and expression"
 - this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

78. Answer: c

Explanation:

The correct answer is Bauxite.

★ Key Points

- Bauxite is a sedimentary rock with a relatively high aluminium content.
- It is the world's main source of aluminium and gallium.
- The principal uses of bauxite are multipurpose covering metallurgy, chemical industries, as raw material in building and road aggregates.

- Bauxite is the best and only material for making aluminum metal.
- Bauxite is used in chemical industry, refractory brocks, abrasive, cement, steel, and petroleum.

★ Additional Information

- **Micas** are a group of silicate minerals whose outstanding physical characteristic is that individual mica crystals can easily be split into extremely thin elastic plates.
- **Gypsum** is a soft sulfate mineral composed of calcium sulfate dihydrate, with the chemical formula $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$.
 - It is widely mined and is used as a fertilizer and as the main constituent in many forms of plaster, blackboard or sidewalk chalk, and drywall.
- **Conglomerate** is a combination of multiple business entities operating in entirely different industries under one corporate group, usually involving a parent company and many subsidiaries.

79. Answer: c

Explanation:

The correct answer is Potassium.

★ Key Points

- Potassium metal is soft and white with a silvery lustre, has a low melting point, and is a good conductor of heat and electricity.
- Potassium imparts a lavender colour to a flame, and its vapour is green.
- Potassium is a silvery-white metal that is soft enough to be cut with a knife with little force.
- Potassium metal reacts rapidly with atmospheric oxygen to form flaky white potassium peroxide in only seconds of exposure.
- Potassium reacts with cold waterto form potassium hydroxide and hydrogen gas

★ Additional Information

- Magnesium is the eighth most abundant element in the Earth's crust, but does not occur uncombined in nature.
 - It is found in large deposits in minerals such as magnesite and dolomite.
- Aluminum is a lightweight silvery white metal of main Group 13 (IIIA, or boron group) of the periodic table.
 - Aluminum is the most abundant metallic element in Earth's crust and the most widely used nonferrous metal.
- Zinc is a slightly brittle metal at room temperature and has a silvery-greyish appearance when oxidation is removed.
 - It is the first element in group 12 (IIB) of the periodic table.

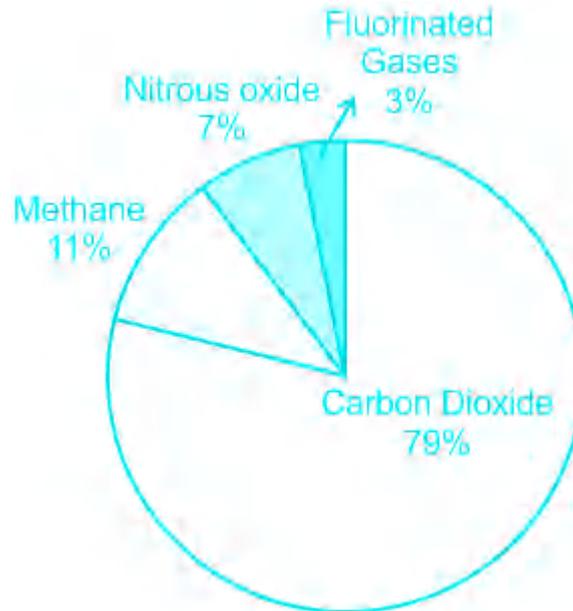
80. Answer: a

Explanation:

The correct answer is Nitrogen.

★ Key Points

- A greenhouse gas is a gas that, when its concentration rises, heats the atmosphere.
- Additionally, it becomes trapped in its surroundings and is unable to escape the interior layer of the Earth's atmosphere.
- These gases pollute the environment because they taint it.
- Carbon dioxides, methane, chlorofluorocarbons, and sulphur dioxide are a few examples of greenhouse gases.
- However, neither oxygen, nitrogen, nor argon is among the gases that cause global warming.



★ Additional Information

- Nitrogen (N₂) (78%), oxygen (O₂) (21%), and argon (Ar) (0.9%), which make up the majority of the Earth's atmosphere, are not greenhouse gases because they do not vibrate in a way that alters the distribution of their electrical charges, and because monatomic gases like Ar do not have vibrational modes.
- Infrared (IR) radiation, therefore, has almost no effect on them.
- Their IR interaction through collision-induced absorption is similarly negligible in comparison to the effects of the main greenhouse gases that affect Earth.
- Listed in decreasing order of average global mole fraction, the following greenhouse gases are the most prevalent in the atmosphere of Earth:
 - Water vapour;
 - Carbon dioxide;
 - Methane ;
 - Nitrous oxide;
 - Ozone;
 - Chlorofluorocarbons;
 - Hydrofluorocarbons;
 - Perfluorocarbons.

81. Answer: d

Explanation:

The correct answer is With chloroplasts.

★ Key Points

- Fungi are eukaryotic organisms that include microorganisms such as yeasts, moulds and mushrooms.
- These organisms are classified under **kingdom fungi**. The organisms found in Kingdom fungi contain a **cell wall and are omnipresent**.
- They are classified as **heterotrophs among the living organisms**.
- **Kingdom Fungi** does not have chloroplast the reason behind that is **fungi are not plants:fungi lack chloroplasts**.
 - **unifying feature of plants is readily observable to the eye, and these chlorophyll-containing plastids continue to be an important milestone for our modern understanding of plant evolution**
 - **Fungi do not have chloroplast, Kingdom Fungi are single-celled or multicellular, heterotrophic organisms with a cell wall.**

★ Additional Information

- They have no mechanisms for locomotion as Fungi are **multicellular,with a cell wall, organelles including a nucleus, but no chloroplasts**.
- **Multicellular fungi** reproduce by making spores. Mold is a multicellular fungus.
 - It consists of **filaments called hyphae that can bunch together into structures called mycelia**.
 - Several **mycelia grouped together are a mycelium and these structures form the thallus or body of the mold**.
- **Fungal cells** have a **thick cell wall, but in fungi, it is made of complex polysaccharides called chitin and glucans**.
 - **Chitin** also found in the **exoskeleton of insects, gives structural strength to the cell walls of fungi**.
 - The **wall protects the cell from desiccation and predators**.

82. Answer: a

Explanation:

The correct answer is Ice caps.

★ Key Points

- An ice cap is a glacier, a thick layer of ice and snow, that covers fewer than 50,000 square kilometers (19,000 square miles).
- Ice and glaciers are part of the water cycle, even though the water in them moves very slowly.
- An ice cap is a thick layer of ice and snow that covers large areas of land.
 - Ice caps usually find ice caps in the North and South Poles of the Earth.
- The color white reflects sunlight (heat) more than darker colors, and as ice is so white, sunlight is reflected back out to the sky, which helps to create weather patterns.

★ Additional Information

- Inland seas are landlocked seas that are only connected to the ocean through narrow channels.
 - They usually contain many islands, channels, sounds, and straits.
 - Inland sea was first defined for the Seto Inland Sea, separating the three main islands of Japan and connected to the Pacific Ocean through narrow channels.
- An atmosphere is a layer of gas or layers of gases that envelope a planet, and is held in place by the gravity of the planetary body.
 - A planet retains an atmosphere when the gravity is great and the temperature of the atmosphere is low.
- Groundwater is the water present beneath Earth's surface in rock and soil pore spaces and in the fractures of rock formations.
 - About 30 percent of all readily available freshwater in the world is groundwater.
 - A unit of rock or an unconsolidated deposit is called an aquifer when it can yield a usable quantity of water.

83. Answer: a

Explanation:

The correct answer is Robert clive.

★ Key Points

- Major-General Robert Clive was the first British Governor of the Bengal Presidency.
- He began as a writer for the East India Company (EIC) who established the military and political supremacy of the EIC by securing a decisive victory at the Battle of Plassey in Bengal.
- The Battle of Plassey was fought in north-eastern India on 23 June 1757.
- Troops of the British East India Company, led by Robert Clive, came up against the forces of Siraj-ud-Daulah, the last Nawab of Bengal, and his French allies.
- The main reason "The Battle of Plassey" took place when Nawab of Bengal Siraj-ud-Daulah did not like the uncontrolled use of privileges by the East India Company's officials.
 - Also, the workers of the company stopped paying the taxes that became one of the reasons for the Battle of Plassey.

★ Additional Information

- Charles Stuart was an officer in the East India Company Army and is well known for being one of the few British officers to embrace Hindu culture while stationed there, earning the nickname Hindoo Stuart.
- Warren Hastings was a British colonial administrator, who served as the first Governor of the Presidency of Fort William, the head of the Supreme Council of Bengal, and so the first Governor-General of Bengal in 1772–1785.
 - Warren Hastings and Robert Clive are credited with laying the foundation of the British Empire in India.
- James Lancaster merchant who commanded the first English vessel to reach the East Indies and who established the first English trading post in Southeast Asia.

84. Answer: b

Explanation:

The correct answer is Pradhan Mantri Gramin Awaas Yojana

★ Key Points

- Pradhan Mantri Gramin Awas Yojana is the 'Prime Minister's Rural Housing Scheme'.
- Previously Indira Awas Yojana, is a social welfare programme, created by the Indian Government, to provide housing for the rural poor in India.
 - A similar scheme for urban poor was launched in 2015 as Housing for All by 2022.
- Pradhan Mantri Awas Yojana (PMAY) is an initiative by the Government of India in which affordable housing will be provided to the urban poor with a target of building 2 crore (20 million) affordable houses by 31 March 2022.

★ Additional Information

- Pradhan Mantri Jan Dhan Yojana is a financial inclusion program of the Government of India open to Indian citizens
 - It aims to expand affordable access to financial services such as bank accounts, remittances, credit, insurance and pensions.
- Pradhan Mantri Jeevan Jyoti Bima Yojana is a Government-backed Life insurance scheme in India.
 - It was originally mentioned in the year 2015 Budget speech by the then-Finance Minister, late Arun Jaitley in February 2015.
 - It was formally launched by Prime Minister Narendra Modi on 9 May in Kolkata.
- Pradhan Mantri Kaushal Vikas Yojana is a skill development initiative scheme of the Government of India for recognition and standardisation of skills.

85. Answer: d

Explanation:

The correct answer is The test of My Life.

★ Key Points

- The book "The Test of My Life: From Cricket to Cancer and Back" is an autobiography of Yuvraj Singh.
- In the end, he writes about his NGO YOUWECAN "an organisation to provide free cancer diagnosis in rural India."
- He is a former Indian international cricketer who played in all formats of the game.
- He is an all-rounder who batted left-handed in the middle order and bowled slow left-arm orthodox, and is known for his aggressive batting style and all-round ability.
- Cricketer Yuvraj Singh was diagnosed with a cancerous tumour.
 - He had mediastinal Seminoma Cancer.
 - Yuvraj Singh underwent treatment in the US and was discharged from the hospital after his third and final chemotherapy in March 2012.

★ Additional Information

- Its an amazing autobiography written by Great Cricket Legend "Kapil Dev"
 - "The Straight from the Heart" is the highly motivational and highly inspirational book.
 - Kapil Dev Ramlal Nikhanj is an Indian former cricketer.
 - He was a fast-medium bowler and a hard-hitting middle-order batsman, and was named by Wisden as the Indian Cricketer of the Century in 2002
- Wings of Fire is the autobiography of the "Missile Man of India and President of India Dr. A. P. J. Abdul Kalam".
 - It was written by him and Arun Tiwari.
- The Race of My Life is the autobiography of Indian athlete Milkha Singh, coauthored with daughter Sonia Sanwalka.
 - The film Bhaag Milkha Bhaag is based on it.

86. Answer: d

Explanation:

The correct answer is 15th.

★ Key Points

- 15th Indian Census was conducted in two phases, house listing and population enumeration.
- The House listing phase began on 1 April 2010 and involved the collection of information about all buildings.
- India is recognised for its 'unity in diversity' and the census gives the citizens a chance to study this diversity and associated facets of their nation through its society, demography, economics, anthropology, sociology, statistics, etc
- Census 2011 was important because The Indian Census is the most credible source of information on Demography (Population characteristics), Economic Activity, Literacy and Education, Housing Household Amenities, Urbanisation, Fertility and Mortality etc.

★ Additional Information

- In 20th Livestock Census, 35.94% - Cattle, 27.80% - Goat, 20.45% - Buffaloes, 13.87% - Sheep, 1.69% - Pigs.
 - Mithun, Yaks, Horses, Ponies, Mules, Donkeys and Camels taken together contribute 0.23% of the total livestock.
- The Government of India decided in May 1949 to take steps to develop a systematic collection of data on population size, its growth, etc.
 - this set up an organization in the Ministry of Home Affairs under the Registrar General of India and ex-officio Census Commissioner.

87. Answer: c

Explanation:

The correct answer is Assam.

★ Key Points

- The **Bihu dance** is an indigenous **folk dance from the Indian state of Assam** related to the Bihu festival and an **important part of Assamese culture**.
- The **Bihu dance** takes its name from the **Bohag Bihu festival** also called Rangali Bihu, the **national festival of Assam**, which celebrates the **Assamese New Year**.
- The festival takes place during **mid-April** and the Bihu dance is meant to **celebrate and emulate the seasonal spirit, celebrating fertility and passion**.
- **Assam** without talking about the **world famous Bihu dance**, which has become the **identity of the northeastern state**.
 - Performed mostly during the **annual Bihu festival celebrated around April**, it is **Assam's most popular folk dance**.

★ Additional Information

- **Jhumar** is a **traditional folk dance of Bihar**, which is performed by the **rural women**.
 - There is **no fixed season for this beautiful dance form, it is a dance, which is performed at all times**.
 - **Jat-Jatin** is the **most popular folk dance of North Bihar**, especially in the **Mithila and Koshi regions**. It is performed by **a man and a woman the man is going far away to work**.
- The **Chalo dance** is part of **Arunachal Pradesh's** called **Chalo Loku**. This festival is a **grand celebration in the state and takes place every year in October and November**.
- The **ritual dances of Karnataka** are known as **Kunitha**. One such dance is the **Dollu Kunitha**, a **popular dance form accompanied by singing and the beats of decorated drums**. This dance is **primarily performed by men from the shepherd or Kuruba caste**.

88. Answer: a

Explanation:

The correct answer is Sindhu.

★ Key Points

- **Sindhu**
- The Sindhu River, also referred to as the **Indus River** is a major waterway in South Asia.

One of the longest rivers in the world, the Sindhu has a total length of over **2,000 miles** and runs **south from the Kailash Mountain in Tibet** all the way to the **Arabian Sea in Karachi, Pakistan**.

It is the most important supplier of water resources to the **Punjab and Sindh plains**, it forms the backbone of agriculture and food production in Pakistan.

★ Additional Information

- **Agni River**
 - **Agni River** is a stream in **Madhya Pradesh**.
 - **Agni River** is situated nearby to **Chhota Tawa River**, and **northeast of Madni Reserved Forest**.
- **The Rigvedic period**, also known as the **Early Vedic period**, is the first stage, while the Later Vedic period is the second.
 - The production of the **Rigvedic hymns** relates to the age of the **Early Vedic era**.
 - This date is estimated to be **between 1500 and 1000 BC**.
 - **Between 1000 and 600 BC**, the later Vedic era occurs.
 - The country of **seven rivers**, is mentioned in the **Rig Veda**.
 - This comprises the **Jhelum, Chenab, Ravi, Beas, and Sutlej rivers in Punjab**, as well as the **Indus and Saraswathi rivers**.

89. Answer: b

Explanation:

The correct answer is 12.

★ Key Points

- **Babur** was a descendant of Timur and Genghis Khan. His original name was Zahiruddin Muhammad.
- In **1494 at the age of 12**, Babur became the ruler of Farghana (at present in Chinese Turkistan) succeeding Umar Shaikh Mirza, his father.
- Babur succeeded in securing the **dynasty's position in Delhi** after a series of sultanates failed to consolidate their seats and his empire went on to rule for over 300 years in India.

★ Additional Information

- The Kingdom of Ferghana was ruled by the Ikhshids, who submitted as vassal to the Chinese Tang between 659 and 790.
- It was attacked by the Tibetan Empire in 715. The Umayyad Caliphate in 715 deposed the ruler, and installed a new king Alutar on the throne.
- The throne of Ferghana represents the royal crown of the place or region or kingdom or territory inherited.
- Fergana has been a center for oil production in the Fergana Valley since the region's first oil refinery was built near the city in 1908.
 - Since then, more refineries have been added, and Fergana is one of the most important centers of oil refining in Uzbekistan.

90. Answer: c

Explanation:

The correct answer is Alluvial Soil.

★ Key Points

- Alluvial soil is one of the best soils, requiring the least water due to its high porosity.
- The consistency of alluvial soil ranges from drift sand and rich, loamy soil to silt clays.
- India is one of the richest countries in the world in terms of alluvial soil, which covers more than 46% of its total land area.
- Alluvial soils remove sediments and nutrients flowing in the adjacent water.

- They can also **remove other contaminants from rivers and improve water quality for downstream communities**
 - All **alluvial soil s** form by **flooding**.
 - Alluvial soils are the deposits or materials from rivers
- The **northern plains** have **intense deposits of alluvial soil**. Alluvial soil **contains amounts of lime, potash, and phosphorus**.
- Alluvial soil helps in the **growth of crops such as paddy, sugarcane, wheat, rice, maize, and other pulses**.

★ Additional Information

- **Laterite Soil** are the **soil layer that is rich in iron oxide and derived from a wide variety of rocks weathering under strongly oxidizing and leaching conditions**.
 - It forms in **tropical and subtropical regions where the climate is humid**.
- **Arid soils** have **surface horizons with several unique characteristics**. Many arid soils, for example, are covered by **desert pavement that overlies vesicular A and E horizons**.
 - Other arid soils are covered by **salt efflorescence in areas where shallow groundwater has risen by capillarity and evaporated at the surface**.
- **Black soils** are **mineral soils which have a black surface horizon, enriched with organic carbon that is at least 25 cm deep**.
 - **Black soil** is a black-colored soil rich in **humus and contains a high percentage of phosphoric acid, phosphorus, and ammonia**.

91. Answer: a

Explanation:

The correct answer is Haryana.

★ Key Points

- **Khel Nursery Scheme**
 - **Haryana government has launched “Khel Nursery Scheme” to promote sports in the state.**

- Under the scheme, sports nurseries will be started in government, private educational institutions and private sports institutions.
- It was launched by **Sandeep Singh, Minister of State for Sports and Youth Affairs.**
- These nurseries will further enhance the talent of the youth of the state.
- The sports nurseries are being opened for the sports included in the Olympic, Asian and Commonwealth Games.

★ **Additional Information**

● **Sports Promotional Schemes of Sports Authority of India:**

- National Sports Talent Contest Scheme (NSTC) – for Sub-Junior level trainees
- Army Boys Sports Company Scheme (ABSC) – for Sub-Junior level trainees
- SAI Training Centres Scheme (STC) – for Junior level trainees
- Extension Centre of STC /SAG
- Special Area Games Scheme (SAG) – for Junior level trainees
- Centre of Excellence Scheme (COX) – for Senior level trainees
- COME and PLAY Scheme

92. **Answer: b**

Explanation:

The correct answer is **Governor of the state.**

★ **Key Points**

● **Article 154: Executive power of State**

- The **executive power of the State** shall be **vested in the Governor.**
- It shall be exercised by him either directly or through officers subordinate to him in accordance with this Constitution
- Nothing in this article shall
 - be deemed to transfer to the Governor any functions conferred by any existing law on any other authority

- prevent Parliament or the Legislature of the State from conferring by law functions on any authority subordinate to the Governor

★ Additional Information

• **Article 53 – Executive power of the Union**

- The **executive power of the Union** shall be **vested in the President**.
- It shall be exercised by him either directly or through officers subordinate to him in accordance with this Constitution.
- Without prejudice to the generality of the foregoing provision:
 - the supreme command of the Defence Forces of the Union shall be vested in the President
 - the exercise thereof shall be regulated by law
- Nothing in this article shall be
 - deemed to transfer to the President any functions conferred by any existing law on the Government of any State or other authority
 - prevent Parliament from conferring by law functions on authorities other than the President.

93. Answer: c

Explanation:

The correct answer is Madhya Pradesh.

★ Key Points

• **Khajuraho dance festival**

- The Khajuraho Dance Festival is **organized by the Madhya Pradesh Kala Parishad**.
- It is a **one-week festival** of classical dances held annually beside the Khajuraho temples in Chhatarpur district.
- The festival is conducted in **February from the 20th to the 26th**.
- This festival highlights the richness of the Indian classical dance styles such as Kathak, Bharathanatyam, Odissi, Kuchipudi, etc.
- Modern Indian dance has been added recently.

- The dances are performed in an open-air auditorium, usually in front of the Chitragupta Temple dedicated to the Sun God.

★ Additional Information

- **Festivals in Nagaland**
 - Hornbill
 - Mim Kut
 - Sekrenyi
 - Aoleng
 - Moatsii Mong
- **Festivals in Kerala**
 - Onam
 - Thrissur Pooram
 - Attukal Pongala
 - Vishu Festival
 - Makaravilakku
- **Festivals in Tamil Nadu**
 - Pongal
 - Thiruvaiyaru Festival
 - Thaipusam
 - Natyanjali Dance Festival
 - Mahamaham

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94. Answer: c

Explanation:

The correct answer is 1862.

★ Key Points

- **Bahadur Shah Zafar**
 - Bahadur Shah Zafar was the **twentieth and last Mughal Emperor** of India as well as an **Urdu poet**.
 - He was the **second son** and the **successor to his father, Akbar II**.

- He wrote a number of **Urdu ghazals**.
- The court that he maintained was home to several renowned Urdu scholars, poets and writers
- He ruled over a Mughal Empire that had by the early 19th century been reduced to only the city of Delhi.
- Bahadur Shah Zafar had **four wives**. His wives were:
 - Begum Ashraf Mahal
 - Begum Akhtar Mahal
 - Begum Zeenat Mahal
 - Begum Taj Mahal
- In **1862, at the age of 87**, he had reportedly acquired some illness.
- Zafar died on **Friday, 7 November 1862 at 5 am**.

★ Additional Information

List of Mughal Emperors in India

Emperor	Reign
Babur	1526-1530
Humayun	1530-1540
	1540-1556
Akbar	1556-1605
Jahangir	1605-1627
Shah Jahan	1628-1658
Aurangzeb	1658-1707
Bahadur Shah	1707-1712
Jahandar Shah	1712-1713
Furrukhsiyar	1713-1719

95. Answer: d

Explanation:

The correct answer is Vivek Ram Chaudhari.

★ Key Points

- Vivek Ram Chaudhari
 - Air Chief Marshal Vivek Ram Chaudhari, PVSM AVSM VM ADC is an air officer of the Indian Air Force.
 - He currently serves as the **Chief of the Air Staff (CAS)**.
 - He took over as the 27th CAS succeeding Air Chief Marshal Rakesh Kumar Singh Bhadauria on 30 September 2021.
 - He earlier served as the **45th Vice Chief of the Air Staff** and as the Air Officer Commanding-in-Chief Western Air Command.
 - During his career, Chaudhari has been awarded:
 - the **Vayu Sena Medal** in **2004**
 - the **Ati Vishisht Seva Medal** in **2015**
 - the **Param Vishisht Seva Medal** in **2021**

★ Additional Information

- Arup Raha
 - Air Chief Marshal Arup Raha, PVSM, AVSM, VM, ADC, D.Litt. was the **21st Chief of the Air Staff** of the Indian Air Force.
 - He was also the **Chairman of the Chiefs of Staff Committee**.
 - In 2018, the state-run Sidho Kanho Birsha University awarded Arup Raha with an honorary D.Litt.
- Manoj Mukund Naravane
 - General Manoj Mukund Naravane PVSM AVSM SM VSM ADC is a **retired Indian Army General**.
 - He served as the **27th Chief of the Army Staff (COAS)**.
 - He also served the temporary Chairman of the Chiefs of Staff Committee from 15 December 2021.

- The general served as the **40th Vice Chief of Army Staff (VCOAS)** of the Indian Army.
- **Rakesh Kumar Singh Bhadauria**
 - Air Chief Marshal Rakesh Kumar Singh Bhadauria PVSM AVSM VM ADC is a **retired Indian Air Force officer**.
 - He served as the Chief of the Air Staff of the Indian Air Force.
 - He retired on 30 September 2021 and was succeeded by Air Chief Marshal Vivek Ram Chaudhari.

96. Answer: b

Explanation:

The correct answer is Aparna Satheesan.

★ Key Points

- **Aparna Satheesan**
 - Aparna is a professional **Bharatanatyam and Kuchipudi dancer**.
 - She is the **recipient of the 2021 Abhinandan Saroja National Award** by the National Institute of Indian Classical Dance.
 - She was nominated for her excellence in performance, choreographic skills and charity work in the field of dance.
 - Aparna demonstrated her artistic skills across the globe.
 - She is the recipient of the prestigious **Natya Shiromani National Award by India festival Organization USA**.
 - She is also the recipient of the **Bharata Shastra Nritya Praveena Award by the All India Dancer's Association**.

★ Additional Information

- **Nalini Asthana**
 - Nalini Asthana is known for her great performances of the **Benaras Gharana style of Kathak**.
 - She is also known for her contributions to the popularisation of the Benaras Gharana style of Kathak both in India and abroad.

- She has set a record by dancing at the **height of 18,000-ft at Kailash Mansarovar and Badri Nath.**
- In the **year 2022**, Govt of India conferred her with the **Padma Shri award.**
- **Rashid Khan**
 - Ustad Rashid Khan is an **Indian classical musician** in the Hindustani music tradition.
 - He belongs to the Rampur-Sahaswan gharana.
 - He is the great-grandson of Gharana founder Inayat Hussain Khan.
 - He was awarded **Padma Shri and Sangeet Natak Akademi Award in 2006.**
- **S Balleesh Bhajantri**
 - S. Balleesh Bhajantri is an **Indian classical Hindustani Shehnai player.**
 - He plays often for **Prasar Bharati's All India Radio (AIR) and Doordarshan.**
 - He was awarded India's fourth-highest civilian honor, **the Padma Shri, in 2022.**

97. Answer: a

Explanation:

The correct answer is Archery.

★ Key Points

- **Deepika Kumari**
 - Deepika Kumari is an **Indian professional archer.**
 - She won a **gold medal in the 2010 Commonwealth games** in the women's individual recurve event.
 - She won **individual gold medals at the Archery World Cup Stage 1.**
 - She also **defeated Mexico by 5-1** in the final to win **gold in Paris.**
 - She was conferred the **Arjuna Award in the year 2012** by President of India Pranab Mukherjee.
 - In February **2014**, she was honored with the **FICCI Sportsperson of the Year Award.**
 - The Government of India awarded her the civilian honor of the **Padma Shri in 2016.**

★ Additional Information

- Indian **Golf players**
 - Anirban Lahiri
 - Jyoti Randhawa
 - Aditi Ashok
 - Jeev Milkha Singh
 - Sharmila Nicollet
- Indian **Chess players**
 - Vishwanathan Anand
 - Koneru Humpy
 - Vidit Gujrathi
 - Krishnan Sasikiran
- Indian **Tennis players**
 - Sania Mirza
 - Leander Paes
 - Ankita Raina
 - Shikha Uberoi
 - Vijay Amritraj

98. Answer: a

Explanation:

The correct answer is Sachin Tendulkar.

★ Key Points

- **Sachin Ramesh Tendulkar** is an Indian **former international cricketer** who captained the Indian national team.
- He is regarded as one of the greatest batsmen in the history of cricket.
- Fans call him **'The Little Master,' 'The Bradman of Modern Era,' 'The God of Cricket' and 'The Master Blaster.'**
- He made his debut for India in **1989 at just 16 years of age.**

- Tendulkar received the **Arjuna Award in 1994** for his outstanding sporting achievements.
- He received the **Khel Ratna Award**, India's highest sporting honor, **in 1997**.
- He was awarded **Padma Shri and Padma Vibhushan awards in 1999 and 2008**.
- He was awarded **Bharat Ratna in 2013**.

★ Additional Information

- **Mahendra Singh Dhoni**
 - Mahendra Singh Dhoni is an **Indian former professional cricketer**.
 - He was **captain of the Indian national cricket team** in limited-overs formats.
 - He is a **right-handed wicket-keeper batsman**.
 - He led the team to three ICC trophies including the 2007 ICC World Twenty20, 2011 ICC Cricket World Cup and 2013 ICC Champions Trophy.
 - Under his captaincy, India won the **ACC Asia Cup two times, in 2010 and 2016**.
- **Kapil Dev**
 - Kapil Dev Ramlal Nikhanj is an **Indian former cricketer**.
 - He was a **fast-medium bowler** and a **hard-hitting middle-order batsman**.
 - He was named by **Wisden as the Indian Cricketer of the Century in 2002**.
 - Dev captained the Indian cricket team that **won the 1983 Cricket World Cup**.

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99. Answer: d

Explanation:

The correct answer is 5%.

★ Key Points

- Income tax is levied on the income earned by all individuals, HUF, partnership firms, LLPs and Corporates as per the Income-tax Act of India.
- Indian Income tax levies tax on individual taxpayers on the basis of a **slab system**.

- Slab system means different tax rates are prescribed for different ranges of income.
- It means the tax rates keep increasing with an increase in the income of the taxpayer.
- This type of taxation enables progressive and fair tax systems in the country.
- Such income tax slabs tend to undergo a change during every budget.
- These slab rates are different for different categories of taxpayers.
- Income tax has classified three categories of “individual” taxpayers such as:
 - **Individuals (aged less than 60 years)**
 - **Senior citizens (60 to 80 years of age)**
 - **Super senior citizens (aged more than 80 years)**

★ Additional Information

Income tax slabs and rates for individuals for FY 2021-22 and FY 2022-23

Old Tax Regime	Total income	New Tax Regime
NIL	Up to Rs 2.5 lakh	NIL
5%	From Rs 2,50,001 to Rs 5 lakh	5%
20%	From Rs 5,00,001 to Rs 7.5 lakh	10%
	From Rs 7,50,001 to Rs 10 lakh	15%
30%	From Rs 10,00,001 to Rs 12.5 lakh	20%
	From Rs 12,50,001 to Rs 15 lakh	25%
	From Rs 15,00,001 to above	30%

100. **Answer: a**

Explanation:

The correct answer is three.

★ Key Points

• **Dholavira**

- Dholavira is where the remains of a part of the Harappan civilization exist.
- Dholavira was situated in the **Kutch area of Gujarat**.
- The city is located on an island called **Khadir Bet**.
- It is **one of the five largest Harappan sites** and the most prominent of archaeological sites
- It is connected by an umbilical cord of a road that streaks across to the mainland.
- Dholavira was divided into three principal divisions- **the Citadel, the Middle Town and the Lower town**.
- It is also considered as having been **the grandest of cities of its time**.

★ Additional Information

• **Harappan civilization**

- Harappan civilization is also called as **Indus Valley Civilization (IVC)**.
- **John Marshall** was the first researcher to use the term, 'Indus Valley Civilization'.
- Indus Valley Civilization (IVC) is **one of the four great civilizations of the world**.
- It flourished along the **flood plains of Indus and Ghaggar-Hakra**.
- It was spread across the western part of South Asia that now lies in **India, Pakistan and Afghanistan**.
- Indus Valley Civilization spread from the year **2500 – 1750 BC** according to radio-carbon dating.
- The capital cities were **Mohenjodaro and Harappa**.