Prepp

Your Personal Exams Guide

NDA	CDS	SSC CGL	CBSE UGC NET
IAS	SSC CHSL	CTET	MPSC
AFCAT	CSIR UDC NET	IBPS PO	UP POLICE
SSC MTS	SBI PO	BPSC	UPTET
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: 12 July 2022 Shift 3)

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

    34, 102, 612, 5508, ?

    a. 64046

    b. 68098

    c. 66096

    d. 68026

2. In a supermarket there are seven toys, A, K, L, P, M, S and T, of different heights. L is taller than S, but shorter than M. K is taller than P. A is taller than only T. L is shorter than only three toys. T is the shortest and M is taller than K. The height of S is shorter than how many toys? **(+1, −0.25)**

    a. Two

    b. Three

    c. Four

    d. One

3. Select the number from among the given options that can replace the question mark (?) in the following series. **(+1, −0.25)**
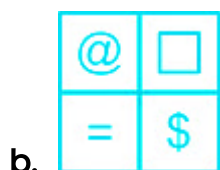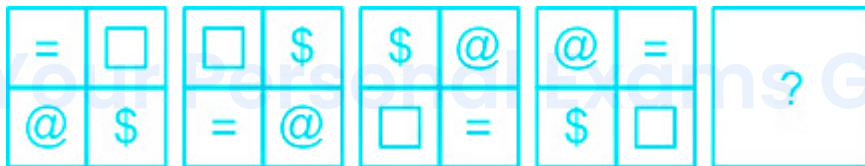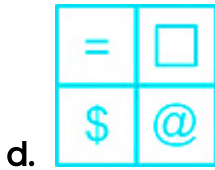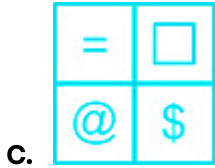
    45, 46, 50, 59, 75, ?

    a. 95

b. 100

c. 105

d. 90

---

4. In a certain code language, 'KING' is coded as '16181320', and 'HOP' is coded as '191211'. How will 'STA' be coded in that language? **(+1, -0.25)**

a. 8627

b. 8926

c. 8276

d. 8726

---

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

a.

b.

c.

=	□
@	$

d.

=	□
$	@

---

6. Select the correct mirror image of the given combination when the mirror is placed at MN as shown below.   (+1, –0.25)

M

WONDERLIST

N

a. OWN∃ᴙLT2I

b. T2IlᴙƎᗡᴎOW

c. MOᴎIlᴙƎᗡ2T

d. T2IDERLᴎOW

---

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

11 : 1000 :: ? : 1728 :: 9 : 512

a. 15

---

b. 7

c. 5

d. 13

---

8. In a certain code language, 'GREATR' is written as 'OZMIBZ', and ' POINTA ' is written as 'XWQVBI'. How will 'FORTAP' be written in that language?   (+1, −0.25)

   a. NWZBHY

   b. NWZBIX

   c. NYZBIX

   d. NXZBIX

---

9. Six friends A, B, C, D, E and F are sitting around a circular table facing the centre (not necessarily in the same order). A sits third to the left of D. D sits to the immediate right of B. B sits second to the left of E. C sits second to the right of F. Who sits second to the right of A?   (+1, −0.25)

   a. C

   b. B

   c. E

   d. F

---

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:

No basket is a trolley.

No trolley is a suitcase.

Conclusions:

I. Some baskets being suitcases is a possibility.

II. Some suitcases are baskets.

a. Only conclusion I follows

b. Both conclusions I and II follow

c. Only conclusion II follows

d. Neither conclusion I nor II follows

---

11. After interchanging the given two digits 4 and 6, what will be the value of the following equation? **(+1, −0.25)**

    $5 + 3 \times 4 - 6 \div 2 = ?$

    a. 15

    b. 21

    c. 41

    d. 35

---

12. What will come in the place of '?' in the following equation, if '×' and '−' are interchanged and also '+' and '÷' are interchanged? **(+1, −0.25)**

    $27 \times 8 - 3 \div 4 + 2 = ?$

a. 5

b. 2

c. 1

d. 7

---

13. Eight girls A, B, C, D, E, F, G and H are sitting in a row, facing towards the north (but not necessarily in the same order). Neither C nor D is at the extreme ends of the row. H is at the extreme right end of the row. Only E is sitting between D and F. Only G is sitting between F and H. C and A are the immediate neighbours of B.Which of the following statements is/are correct?

    (+1, -0.25)

    I. D is fourth to the left of H.

    II. D is the immediate neighbour of B.

    a. Only I

    b. Both I and II

    c. Only II

    d. Neither I nor II

---

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. No X is L.

II. All M are X.

Conclusions:

I. No L is X.

II. No L is M.

III. All M are L.

a. All the conclusions follow

b. Only conclusion III follows

c. Only conclusions I and II follow

d. Only conclusions II and III follow

---

15. Select the option that is embedded in the given figure (rotation is NOT allowed).

(+1, -0.25)

a.

b.

c.

d.

---

16. In a certain code language, 'BALL' is coded as '27' and 'BACK' is coded as '17'. How will 'RACE' be coded in that language? **(+1, -0.25)**

   a. 27

   b. 22

   c. 17

   d. 37

---

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

AAI, AEI, AII, AOI, ?

   a. IIA

   b. EAI

   c. IAA

   d. AUI

---

18. Select the option in which the numbers are related in the same way as are the numbers of the following sets. **(+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)
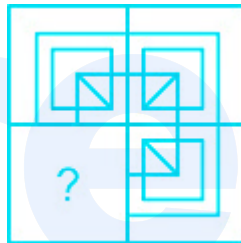
(48, 8, 12)

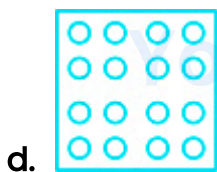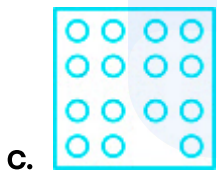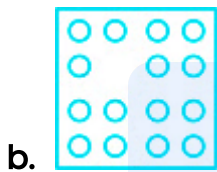(42, 6, 14)
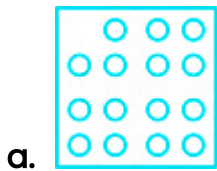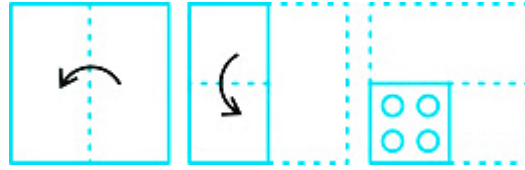
a. (88, 22, 4)

b. (62, 12, 2)

c. (44, 22, 4)

d. (36, 18, 2)

---

19. Select the figure from the options that can replace the question mark (?)   (+1, −0.25)
and complete the pattern (rotation is NOT allowed).

a.

b.

c.

d.

---

20. 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.

21. In a certain code language, 'EARTH' is written as '5118208' and 'BOOK' is written as '2151511'. How will 'COUNTRY' be written in that language?

(+1, −0.25)

a. 3152114201825

b. 3152114201725

c. 3152114191825

d. 3152114201824

---

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)**

BJ : HP :: TQ : ?

a. YW

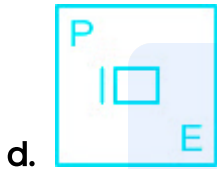b. YX

c. ZX

d. ZW

---

23. Select the option in which the pair of letter-clusters share the same relationship as that shared by the given letter-clusters. **(+1, -0.25)**

FAIR : GYJP

a. RANK : SYPI

b. TOUR : UNVP

c. CROW : DPPU

d. MINT : NGMR

---

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

a. E P □

b. E P |□

c. P E |□

d. P E |□

---
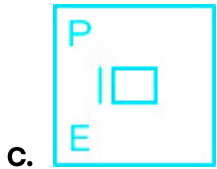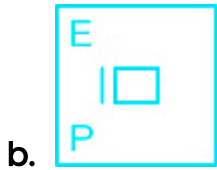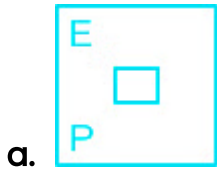
25. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

(+1, -0.25)

MET : NGW :: SAF : TCI :: YEL : ?

a. AGO

b. ZGN

c. ZHO

d. ZGO

Numerical Aptitude

26. If a storeroom of a house is in the shape of a cuboid having a length of 3 m, a width of 2 m, and a height of 4 m, find the total area of its four walls. **(+1, -0.25)**

    a. 50 m^2

    b. 20 m^2

    c. 40 m^2

    d. 24 m^2

---

27. The following table shows the number of bundles of iron bars of 5 different brands sold from a shop during a given week. **(+1, -0.25)**

Brand	Bundles
B1	60
B2	50
B3	40
B4	45
B5	55

    The number of iron bars in each bundle of B1 and B3 is 5. The number of iron bars in each bundle of B2, B4 and B5 is 4. What is the total number of iron bars sold from the shop during that week of all the 5 brands taken together?

    a. 1100

    b. 1200

c. 1150

d. 1250

---

28. While going to office, Sneha travels at a speed of 10 km/h and on her way back, she travels at a speed of 15 km/h. What is her average speed for the whole journey?   **(+1, −0.25)**

a. 14 km/h

b. 12 km/h

c. 11 km/h

d. 13 km/h

---

29. The heights of six people are given as 6 feet 6 inches, 6 feet, 5 feet 8 inches, 6 feet 2 inches, 6 feet 4 inches, and 5 feet 10 inches, respectively. Find the average height of these six people.   **(+1, −0.25)**

a. 6 feet 4 inch

b. 6 feet

c. 6 feet 1 inch

d. 6 feet 6 inch

---

30. If A = $2^3 \times 3^7$, B = $2^7 \times 3^5$ and C = $2^8 \times 3^4$, then what is the least common multiple of A, B and C?   **(+1, −0.25)**

a. $2^{7 \times 37}$

b. $2^6 \times 37$

c. $2^8 \times 37$

d. $2^9 \times 37$

---

31. The price of sugar increases by 15%. By what percentage should the consumption of sugar be decreased so that the expenditure on the purchase of sugar remains the same? [Give your answer correct to 2 decimal places.]   (+1, −0.25)

a. 11.11%

b. 12.5%

c. 14.16%

d. 13.04%

---

32. Simplify the following expression.   (+1, −0.25)

12 + 2.5 + (1.5 of 4) − 2.6

a. 17.9

b. 18.9

c. 18.1

d. 17.1

---

33. A rectangular LCD has an area of 480 cm^2 and a perimeter of 92 cm. If the size of the LCD is defined in terms of the length of the diagonal, then   (+1, −0.25)

what is the size of the LCD?

a. 34 cm

b. 39 cm

c. 31 cm

d. 35 cm

---

34. Ajay, Vijay and Sashi can do a piece of work in 20,40 and 60 days, respectively. In how many days can Ajay do the work if he is assisted by Vijay and Sashi on every fourth day?　　　　(+1, -0.25)

a. 15 days

b. $\frac{50}{3}$ days

c. 12 days

d. $\frac{44}{3}$ days

---

35. The marked price of an item was ₹5,000. While selling the item, the seller offered successive discounts of 15% and 5%. What was the final selling price of the item?　　　　(+1, -0.25)

a. ₹4,730

b. ₹4,370.50

c. ₹4,250

d. ₹4,037.50

---

36. If 30% of a = b, then b% of 50 is the same as: (+1, −0.25)

   a. 5% of a

   b. 10% of a

   c. 15% of a

   d. 12% of a

37. In a bag there are coins of ₹2, ₹5 and ₹10 denominations. The total (+1, −0.25)
number of coins in the bag is 300 . If the number of coins of ₹2 , ₹5 and
₹10 denominations are in the ratio of 1 : 2 : 3, then what is the total amount
of money in the bag?

   a. ₹2,100

   b. ₹2,500

   c. ₹ 3,000

   d. ₹ 2,400

38. 42 boys can complete a piece of work in 20 days working 8 hours per day. (+1, −0.25)
In how many days can 14 boys complete the same work, each boy
working 12 hours per day?

   a. 39 days

   b. 40 days

   c. 41 days

   d. 42 days

39. The following bar graph shows the number of girls in a school over 5 years.   (+1, −0.25)
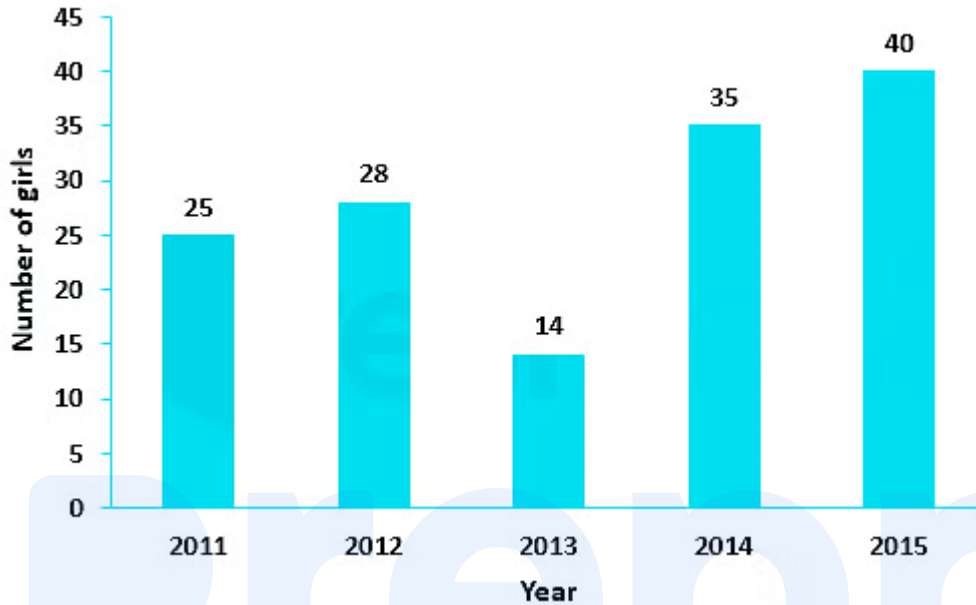
Find the percentage decrease in the number of girls from the year 2012 to the year 2013.

a. 50%

b. 40%

c. 20%

d. 30%

40. If the circumference of a circle is equal to the perimeter of a square, and the radius of the given circle is positive, then which of the following options is correct?   (+1, −0.25)

a. Area of the circle ≥ Area of the square

b. Area of the circle = Area of the square

c. Area of the circle > Area of the square

d. Area of the circle < Area of the square

---

41. What should come in place of the question mark (?) in the following mathematical statement?   (+1, −0.25)

    $?^3 \div 16 = 108$

    a. 10

    b. 17

    c. 12

    d. 8

---

42. What will be the ratio of the interests earned by identical sum of money invested at the same rate of simple interest for 6 years and for 15 years respectively?   (+1, −0.25)

    a. 3 : 5

    b. 5 : 3

    c. 5 : 2

    d. 2 : 5

---

43. The selling price and the cost price of an article are ₹6,000 and ₹5,000, respectively. What is the profit percentage?   (+1, −0.25)

    a. 25%

b. 10%

c. 20%

d. 15%

---

44. The following pie chart shows the percentage-wise distribution of the nominal sales figures of laptops of five different companies during a given period.

(+1, -0.25)
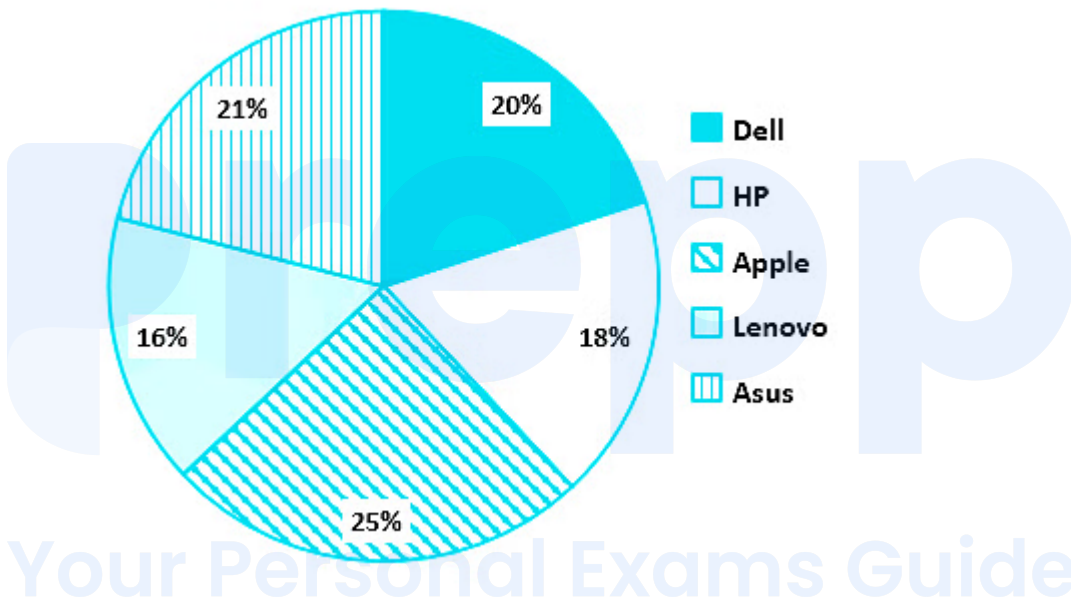
If the total sales of all the companies taken together is ₹55,00,000, then find the difference between the sales of HP and Apple.

a. ₹3,65,000

b. ₹7,50,000

c. ₹4,25,000

d. ₹3,85,000

---

45. A man rows from J to K (upstream) and back from K to J (downstream) **(+1, –0.25)** in a total time of 15 hours. The distance between J and K is 300 km. The time taken by the man to row 9 km downstream is identical to the time taken by him to row 3 km upstream. What is the approximate speed of the boat in still water?

a. 51.33 km/h

b. 47.67 km/h

c. 53.33 km/h

d. 43.67 km/h

46. A sum invested at a certain rate of interest per annum, compounded **(+1, –0.25)** annually, amounts to ₹3,600 in 2 years and to ₹6,480 in 4 years. What is the sum invested?

a. ₹2,500

b. ₹2,000

c. ₹ 2,400

d. ₹3,600

47. In a bag, there are coins of 25 p, 10 p and 5 p in the ratio of 2 : 3 : 5 **(+1, –0.25)** respectively. If the value of all the coins is ₹5.25, then how many 5 p coins are there in the bag?

a. 35

b. 15

c. 45

d. 25

---

48. If a person travels a certain distance at a speed of 10 km/h, and returns **(+1, -0.25)**
through the same route at a speed of 20 km/h, then what will be the
average speed during the whole journey?

a. $\frac{40}{3}$ km/h

b. 15 km/h

c. $\frac{10}{3}$ km/h

d. $\frac{20}{3}$ km/h

---

49. A supermarket has sales of ₹1,48,500, ₹2,00,000, ₹1,64,000, ₹1,88,600 and **(+1, -0.25)**
₹2,40,400 in 5 consecutive months.

How much sales should the supermarket have in the 6th month so that
the average sales for these 6 months become ₹1,88,300?

a. ₹ 2,00,500

b. ₹1,88,300

c. ₹1,64,000

d. ₹1,90,020

---

50. There is a profit of 10% when an item is sold at $\frac{5}{6}$ of its actual selling price. **(+1, -0.25)**
What will be the profit percentage on the cost price when the item is sold
at its actual selling price?

a. 28%

b. 32%

c. 26%

d. 30%

General English

51. Parts of the following 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)

Elizabeth beat her rival with the gold medal in the 2021 summer Olympics.

  a. with the gold medal in the

  b. 2021 summer Olympics

  c. Elizabeth beat her rival

  d. No error

---

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

(+1, -0.25)

Grieve

  a. Assure

  b. Tame

  c. Rejoice

  d. Mourn

---

53. Select the most appropriate ANTONYM of the given word.

(+1, -0.25)

Insatiable

  a. Greedy

  b. Urgent

c. Insistent

d. Fulfilled

---

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

Green tea is good for not only the health but also for _ _ _ _ _ _ _ skin.

a. glowing

b. emotional

c. caustic

d. laborious

---

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

<u>Major hubs of</u> the information technology industry is the Silicon Valley of
Central California.

a. No improvement required

b. A major hub of

c. Major hub by

d. The majors hub of

---

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

My mother's sister <u>work since eight</u> hours every weekday.

a. working of eight

b. works for eight

c. work for eight

d. No improvement required

---

57. Select the INCORRECTLY spelt word. **(+1, −0.25)**

a. Mismatche

b. Securities

c. Essentially

d. Fiscal

---

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

Story of an individual written by himself

a. Biography

b. History

c. Novel

d. Autobiography

---

59. 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)

India has joined / the global fight / among tax evasion.

a. the global fight

b. among tax evasion

c. No error

d. India has joined

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

I like eating chocolates, _____ I hate dark ones.

a. for

b. but

c. because

d. while

61. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required.' (+1, −0.25)

We made sure our new house <u>were closer</u> to a good primary school when moving home last summer.

a. was close

b. No substitution required

c. were closed

d. was closing

---

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

The situation turned ugly as the crowd _____ to riot.

a. begins

b. begun

c. beginning

d. began

---

63. Select the most appropriate synonym of the underlined word in the given   (+1, -0.25)
sentence.

Some simple changes in eating habits can <u>alleviate</u> nausea.

a. sharpen

b. plague

c. exacerbate

d. relieve

---

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

Chase rainbows

a. To be unprepared for something

b. To lose one's patience

c. To pursue unrealistic goals

d. To judge someone

---

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

Hold someone or something at bay

a. Trap or corner a person or animal being hunted or chased

b. To seek punishment for a person or group

c. Prevent someone or something from moving closer

d. To thrive or to grow very successfully

---

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

I _ _ _ _ _ _ _ wish I hadn't invited him.

a. about

b. else

c. almost

d. not

---

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

Alleviate

a. Soothe

b. Ameliorate

c. Aggravate

d. Destroy

---

68. Parts of the following 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)

    She is brave than any other girl in the office.

    a. She is brave

    b. in the office

    c. No error

    d. than any other girl

---

69. 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)

    Why are you <u>looking on my</u> face like this?

    a. looked at my

    b. No improvement required

    c. looking on mine

    d. looking at my

---

70. Select the option that corrects the incorrectly spelt words in the given sentence. (+1, −0.25)

Ventilaton system is mising in this room.

a. Ventiltion system is missing in this room.

b. Ventilation system is mising in this rum.

c. Ventilation system is missing in this room.

d. Wentilation system is mesing in this room.

---

71. 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)

Ants, like most insects, have (1)_____ are known as compound eyes. This means their eyes have multiple lenses, (2)_____ in general, most species of ant do not have particularly great eyes for seeing (3)_____ far. Ants can detect movement and see the areas around them, but (4)_____ more on senses and information they get from their legs and antennae (5)_____ from their eyes.

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

a. whose

b. how

c. what

d. who

72. 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)

Ants, like most insects, have (1)_____ are known as compound eyes. This means their eyes have multiple lenses, (2)_____ in general, most species of ant do not have particularly great eyes for seeing (3)_____ far. Ants can detect movement and see the areas around them, but (4)_____ more on senses and information they get from their legs and antennae (5)_____ from their eyes.

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

   a. whether

   b. so

   c. but

   d. rather

73. 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)

Ants, like most insects, have (1)_____ are known as compound eyes. This means their eyes have multiple lenses, (2)_____ in general, most species of ant do not have particularly great eyes for seeing (3)_____ far. Ants can detect movement and see the areas around them, but (4)_____ more on senses and information they get from their legs and antennae (5)_____ from their eyes.

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

   a. some

b. many

c. enough

d. very

---

74. 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)

Ants, like most insects, have (1)_____ are known as compound eyes. This means their eyes have multiple lenses, (2)_____ in general, most species of ant do not have particularly great eyes for seeing (3)_____ far. Ants can detect movement and see the areas around them, but (4)_____ more on senses and information they get from their legs and antennae (5)_____ from their eyes.

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

a. calculate

b. shout

c. rely

d. struggle

---

75. 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)

Ants, like most insects, have (1)_____ are known as compound eyes. This means their eyes have multiple lenses, (2)_____ in general, most species of ant do not have particularly great eyes for seeing (3)_____ far. Ants can detect movement and see the areas around

them, but (4)_ _ _ _ _ _ _ more on senses and information they get from their legs and antennae (5)_ _ _ _ _ _ from their eyes.

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

a. than

b. when

c. then

d. thus

General Awareness

76. According to the Indian Constitution, the House of People shall consist of not more than _ _ _ _ _ members to represent the Union territories.   **(+1, -0.25)**

   a. thirty

   b. twenty

   c. fifteen

   d. thirty-five

77. In which state of India is the Wangala festival celebrated?   **(+1, -0.25)**

   a. Kerala

   b. Meghalaya

   c. Goa

   d. Jharkhand

78. Who among the following Chahamana ruler defeated Sultan Muhammad Ghori in 1191?   **(+1, -0.25)**

   a. Vigraharaja III

   b. Ajayaraja II

   c. Prithviraja III

   d. Durlabharaja III

79. In which year was Sati banned in India?   **(+1, −0.25)**

    a. 1829

    b. 1831

    c. 1826

    d. 1824

---

80. Who among the following was the founder of the Rashtrakuta dynasty?   **(+1, −0.25)**

    a. Dhruva

    b. Dhantidurga

    c. Amoghavarsha

    d. Govinda III

---

81. 'The White Tiger provides' a darkly humorous perspective of India's class struggle in a globalised world. It is written by _____.   **(+1, −0.25)**

    a. Shashi Tharoor

    b. Amitav Ghosh

    c. Aravind Adiga

    d. Vikram Seth

---

82. In basketball, a free-throw is worth how many points?   **(+1, −0.25)**

a. 4

b. 1

c. 3

d. 2

---

83. Bidar Fort is situated in which state of India?   (+1, -0.25)

a. Gujarat

b. Rajasthan

c. Meghalaya

d. Karnataka

---

84. Which of the following is NOT an example of Pteridophyta?   (+1, -0.25)

a. Equisetum

b. Selaginella

c. Pteris

d. Funaria

---

85. The plate movements on earth are classified into _____ types.   (+1, -0.25)

a. three

b. two

c. five

d. six

---

86. Who among the following became the Brand Ambassador of Khadi Prakritik Paint in July 2021?   (+1, -0.25)

    a. Narendra Singh Tomar

    b. Rajnath Singh

    c. Nitin Gadkari

    d. Arjun Munda

---

87. How many organs of government are there according to the Indian Constitution?   (+1, -0.25)

    a. Two

    b. Four

    c. One

    d. Three

---

88. The Indian census is generally held every _____.   (+1, -0.25)

    a. tenth year

    b. fourth year

    c. fifth year

d. seventh year

---

89. As announced in the Union Budget of Financial Year 2022, corporate surcharge was reduced from 12% to _____.

(+1, -0.25)

a. 7%

b. 8%

c. 1%

d. 9%

---

90. As per Census 2011, which of the following union territories of India has the lowest population?

(+1, -0.25)

a. Daman and Diu

b. Delhi

c. Chandigarh

d. Lakshadweep

---

91. 'Vaghya Murali' dance, associated with Lord Khandoba, originated in which state of India?

(+1, -0.25)

a. Maharashtra

b. Bihar

c. Rajasthan

d. Gujarat

92. Who among the following is the first singer to be presented with India's highest civilian honour, the Bharat Ratna? **(+1, -0.25)**

    a. Bismillah Khan

    b. Ustad Ali Akbar Khan

    c. Madurai Shanmukhavadivu Subbulakshmi

    d. Hariprasad Chaurasia

93. Where was the Formula One 2013 Indian Grand Prix held? **(+1, -0.25)**

    a. Kari Motor Speedway

    b. Chicane Circuit

    c. Madras Motor Race Track

    d. Buddh International Circuit

94. Of the options listed below, the speed of sound is highest in_____ at 25ºC. **(+1, -0.25)**

    a. Ethanol

    b. Aluminium

    c. Oxygen

    d. Hydrogen

95. The core of the earth is mainly made up of _____. **(+1, -0.25)**

a. nickel and silica

b. silica and magnesium

c. nickel and iron

d. silica and alumina

---

96. PM-DevINE is the Prime Minister's development initiative for _ _ _ _ _ _ _   (+1, -0.25)
India.

   a. south-east

   b. north-east

   c. south-west

   d. north-west

---

97. As per Census 2011, under which of the following ranges does the literacy   (+1, -0.25)
rate in India fall?

   a. 90%-95%

   b. 50%-55%

   c. 30%-35%

   d. 70%-75%

---

98. Who among the following emphasised the worship of God as Nirankar   (+1, -0.25)
(formless) in Punjab, India?

   a. Guru Gobind Singh

b. Maharaja Ranjit Singh

c. Baba Dayal Das

d. Baba Ram Singh

---

99. Starch in potatoes reacts with _____, turning to a blue colour. **(+1, -0.25)**

   a. Fluorine

   b. Bromine

   c. Iodine

   d. Chlorine

---

100. Indrani Rahman was associated with which classical dance of India? **(+1, -0.25)**

   I. Bharatanatyam dance

   II. Odissi dance

   a. Neither I nor II

   b. Both I and II

   c. Only II

   d. Only I

Answers

1. **Answer: c**

   Explanation:

   The logic followed here is:

34	102	612	5508	66096
	×3	×6	×9	×12

   So, ' 66096' will complete the series.

   Hence, the correct answer is "Option 3".

2. **Answer: c**

   Explanation:

   Given: S even toys, A, K, L, P, M, S and T.

   1) A is taller than only T & T is the shortest.

   _ _ > _ _ > _ _ > _ _ > _ _ > A > T

   2) L is shorter than only three toys.

   _ _ > _ _ > _ _ > L > _ _ > A > T

   3) L is taller than S, but shorter than M.

   4) M is taller than K.

   5) K is taller than P.

   M > K > P > L > S > A > T

So, The height of S is shorter than **Four** toys.

Hence, the correct answer is **"Option 3"** .

---

3. Answer: b

Explanation:

The logic followed here is:

$$45 \xrightarrow{+1 \,(1^2)} 46 \xrightarrow{+4 \,(2^2)} 50 \xrightarrow{+9 \,(3^2)} 59 \xrightarrow{+16 \,(4^2)} 75 \xrightarrow{+25 \,(5^2)} \boxed{100}$$
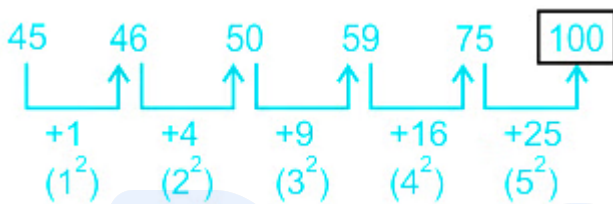
So, '100' will complete the series.

Hence, the correct answer is **"100"** .

---

4. Answer: d

Explanation:

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

The logic followed here is:

'KING' is coded as '16181320'.

```
K    I    N    G
|    |    |    |
↓    ↓    ↓    |Opposite
|    |    |    ↓
P    R    M    T
|    |    |    |
↓    ↓    ↓    ↓
16   18   13   20
```

'HOP' is coded as '191211'.
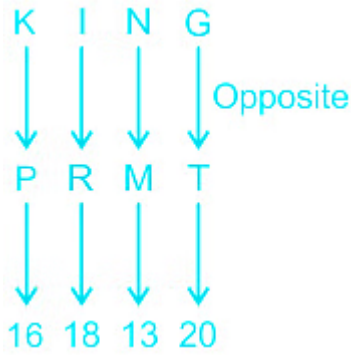
```
H    O    P
|    |    |
↓    ↓    |Opposite
|    |    ↓
S    L    K
|    |    |
↓    ↓    ↓
19   12   11
```
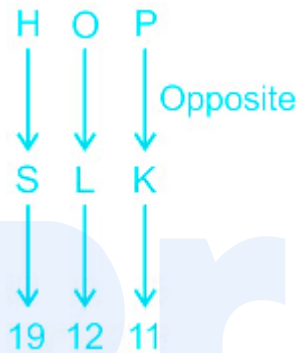
Similarly, for STA

```
S    T    A
|    |    |
↓    ↓    |Opposite
|    |    ↓
H    G    Z
|    |    |
↓    ↓    ↓
8    7    26
```
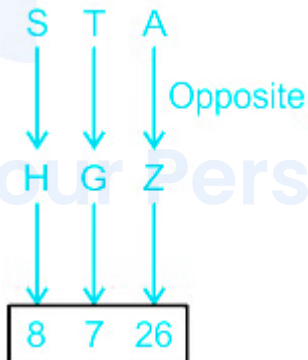
So, ' STA' will be written as ' 8726 '.

Hence, the correct answer is "Option 4" .

5. **Answer: c**

Explanation:

The logic followed here is:

Each symbol is rotating one place in anticlockwise direction to the next image.
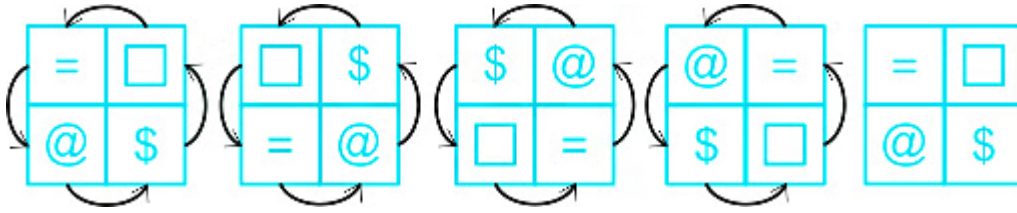
Hence, the correct answer is "Option 3" .

---

6. **Answer: b**

Explanation:

The correct mirror image of the given figure is:

Hence, the correct answer is "Option 2" .

---

7. **Answer: d**

Explanation:

The logic followed here is:

(1st number – 1) ^{3} = 2nd number .

Now, 11 : 1000

→ (11 – 1) ^{3} = (10) ^{3}

= 10 × 10 × 10 = 1000.

For, 9 ∶ 512

→ (9 – 1) 3 = (8) 3

= 8 × 8 × 8 = 512.

Similarly, for **? ∶ 1728**

→ (13 – 1) 3 = (12) 3

= 12 × 12 × 12 = 1728.

Hence, the correct answer is "Option 4".

---

8. **Answer: b**

Explanation:

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

The logic followed here is:

'GREATR' is written as 'OZMIBZ'.

G R E A T R
↓ ↓ ↓ ↓ ↓ ↓ +8
O Z M I B Z

'POINTA' is written as 'XWQVBI'.

P O I N T A
↓ ↓ ↓ ↓ ↓ ↓ +8
X W Q V B I
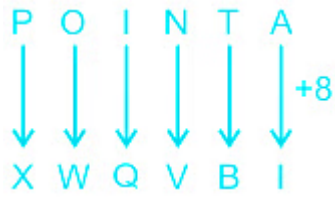
Similarly, for FORTAP

F O R T A P
↓ ↓ ↓ ↓ ↓ ↓ +8
N W Z B I X
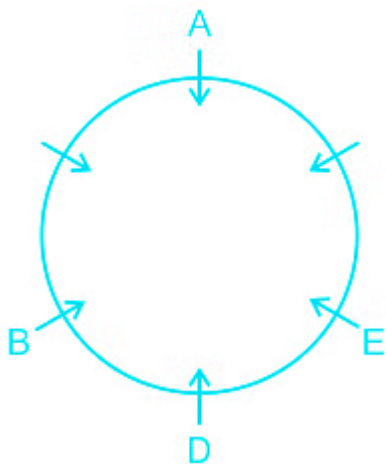
So, ' FORTAP' will be written as ' NWZBIX '.

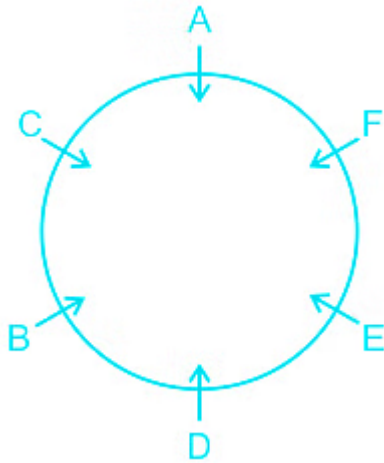Hence, the correct answer is "Option 2".

9. **Answer: b**

Explanation:

Given: Six friends A, B, C, D, E and F

1) A sits third to the left of D.

2) D sits to the immediate right of B.

3) B sits second to the left of E.

4) C sits second to the right of F.

So, B sits second to the right of A.

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

10. **Answer: a**

Explanation:

Statement:

No basket is a trolley.

No trolley is a suitcase.

The least possible diagram for the given statements is as follows:

Conclusions:

(i) Some baskets being suitcases is a possibility – **True** (There is no direct relation given between Baskets and Suitcase, so it can be possible).

(ii) Some suitcases are baskets - False(There is no direct rel ation given between Baskets and Suitcase, so it can be possible, not definite).

Here, Only conclusion I follows .

Hence, the correct answer is "Option 1" .

---

11. Answer: b

Explanation:

BODMAS Table:

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

Given equation: $5 + 3 \times 4 - 6 \div 2 = ?$

Now, if ' 4 and 6' are interchanged, then:

$\Rightarrow 5 + 3 \times 6 - \underline{4 \div 2} = ?$

$\Rightarrow 5 + \underline{3 \times 6} - 2 = ?$

$\Rightarrow \underline{5 + 18} - 2 = ?$

$\Rightarrow \underline{23 - 2} = 21.$

Hence, the correct answer is "Option 2" .

---

12. Answer: a

Explanation:

BODMAS Table:

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

Given equation: 27 × 8 − 3 ÷ 4 + 2 = ?

Now, if '×' and '−' and '+' and '÷' are interchanged, then:

⇒ 27 − 8 × 3 + **4 ÷ 2**= ?

⇒ 27 −**8 × 3**+ 2 = ?

⇒ **27**− 24 **+ 2** = ?

⇒**29 − 24**= 5.

Hence, the correct answer is "Option 1" .

---

13. **Answer: a**

Explanation:

Given: Eight girls A, B, C, D, E, F, G and H.

1) H is at the extreme right end of the row.

2) Only G is sitting between F and H.

3) Only E is sitting between D and F.

4) C and A are the immediate neighbo rs of B.

5) Neither C nor D is at the extreme ends of the row.
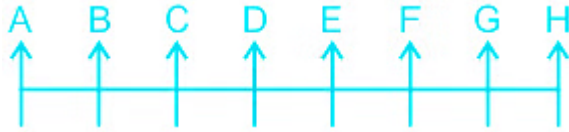
Here,

I. D is fourth to the left of H - **True.**

II. D is the immediate neighbor of B - False.

So, 'Only I' statement is true here.

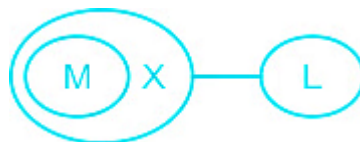Hence, the correct answer is **"Option 1"**.

---

14. **Answer: c**

Explanation:

Statements:

I. No X is L.

II. All M are X.

The least possible diagram for the given statements is as follows:

Conclusions:

(i) No L is X - **True** (Because No X is L).

(ii) No L is M - True (Because All M are X and No X is L, so no L is M).

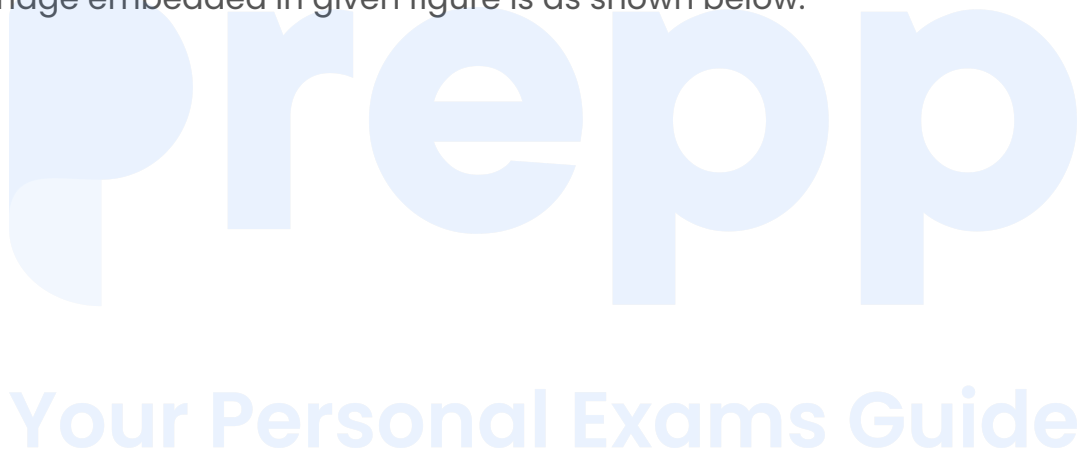(III) All M are L - False(Because All M are X and No X is L, so no L is M).

Here, Only conclusions I and II follow .

Hence, the correct answer is "Option 3" .

---

15. **Answer: a**

Explanation:

The image embedded in given figure is as shown below:

No.	Option	Question	Answer
1.			Embedded
2.			Not Embedded
3.			Not Embedded
4.			Not Embedded

Hence, "O ption 1" is the correct answer.

16. **Answer: a**

Explanation:

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

The logic followed here is:

Sum of Place value = Given Code.

'BALL' is coded as '27'.

⇒ B(2) + A(1) + L(12) + L(12)

⇒ 2 + 1 + 12 + 12 = 27.

'BACK' is coded as '17'.

⇒ B (2) + A (1) + C (3) + K(11)

⇒ 2 + 1 + 3 + 11 = 17.

Similarly, for **'RACE'**

⇒ R (18) + A (1) + C (3) + E(5)

⇒ 18 + 1 + 3 + 5 = 27.

So, 'RACE' will be coded as 27.

Hence, the correct answer is "Option 1" .

17. **Answer: d**

Explanation:

The logic followed here is:
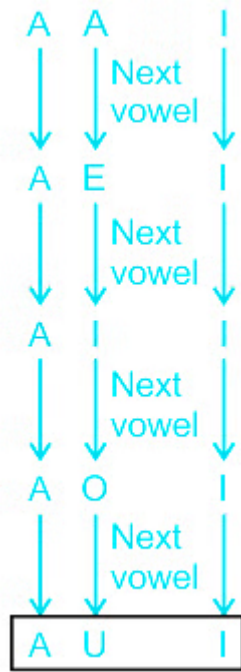
So, ' AUI ' will complete the series.

Hence, the correct answer is "AUI" .

---

18. **Answer: c**

Explanation:

The logic followed here is:

(1st number ÷ 2nd number) × 2 = 3rd number .

Now,

(48, 8, 12)

⇒ (48 ÷ 8) × 2

⇒ 6 × 2 = 12.

For (42, 6, 14)

⇒ (42 ÷ 6) × 2

⇒ 7 × 2 = 14.

Now, checking the options:

Option 3: **(44, 22, 4)**

⇒ **(44 ÷ 22) × 2**

⇒ **2 × 2 = 4.**

Hence, the correct answer is "Option 3".

---

19. Answer: a

Explanation:

The image that complete the pattern is:
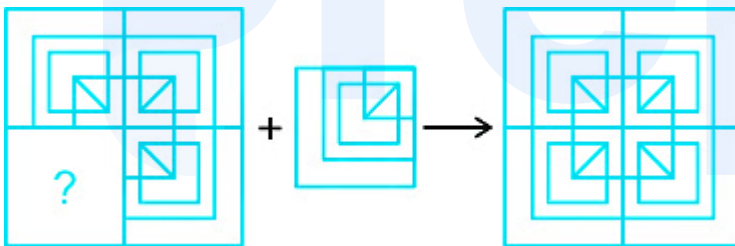
Hence, the correct answer is "Option 1".

---

20. Answer: d

Explanation:

The paper when unfolded will appear as shown below:
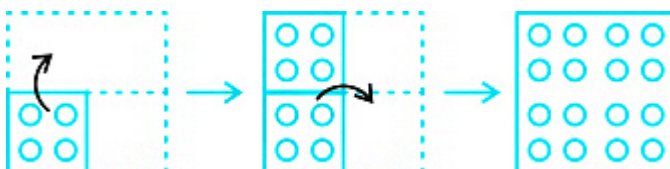
Hence, the correct answer is "Option 4" .

21. **Answer: a**

Explanation:

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

The logic followed here is:

Letters is coded as their place value .

'EARTH' is written as '5118208'

E A R T H
↓ ↓ ↓ ↓ ↓
5 1 18 20 8

'BOOK' is written as '2151511'

B O O K
↓ ↓ ↓ ↓
2 15 15 11
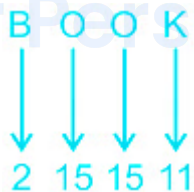
Similarly, for COUNTRY

C O U N T R Y
↓ ↓ ↓ ↓ ↓ ↓ ↓
3 15 21 14 20 18 25

So, COUNTRY will be written as ' 3152114201825 '.

Hence, the correct answer is "Option 1" .

22. Answer: d

Explanation:

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

The logic followed here is: Letters + 6

For, BJ : HP
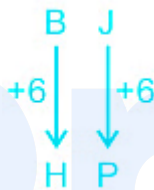
Similarly, for TQ:

So, 'TQ' will be related to 'ZW'.

Hence, the correct answer is "Option 4" .

23. Answer: c

Explanation:

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

The logic followed here is:

FAIR : GYJP
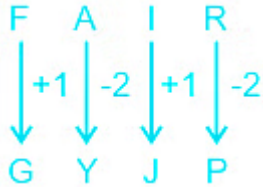
Similarly, for CROW : DPPU
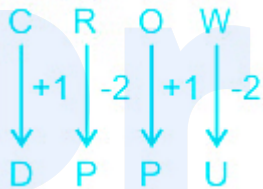
Hence, the correct answer is "Option 3".

---

24. **Answer: b**

Explanation:

The logic followed here is:

Step I: E is moving at corners with its mirror image in the next box.

Step II: P is moving at corners with its mirror image in the next box.
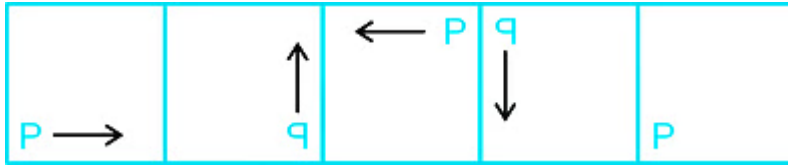
Step III: Lines are increasing by +1 to its next boxes.
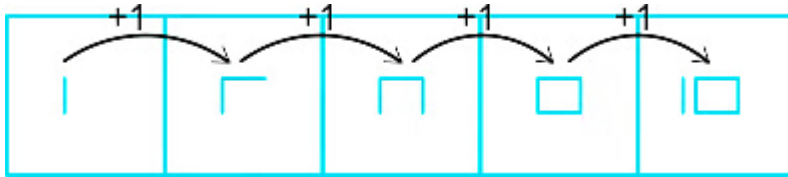
So, the series will be:

Hence, the correct answer is "Option 2".

---

25. Answer: d

Explanation:

The logic followed here is:

For, MET : NGW
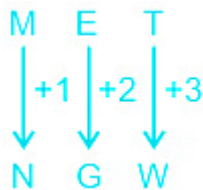
For, SAF : TCI
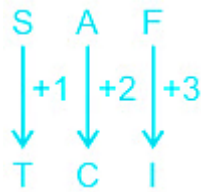
Similarly, for YEL:
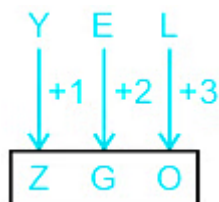
Hence, the correct answer is "Option 4".

---

26. **Answer: c**

Explanation:

Given:

length of 3 m, width of 2 m, and height of 4 m.

Formula Used:

Area of 4 walls = $2(l + b)h$

Calculations:

⇒ Area of 4 walls = $2(l + b)h$

⇒ Area of 4 walls = $2(3 + 2)4 = 40$

∴ The area of 4 walls of the room is 40 m^2.

---

27. **Answer: a**

Explanation:

Given:

The number of iron bars in each bundle of B1 and B3 is 5.

The number of iron bars in each bundle of B2, B4 and B5 is 4.

Calculation:

The number of iron bars in each bundle of B1 and B3 is 5.

Total number of bundles in B1 and B3 = 60 + 40 = 100

Total number of bars in B1 and B3 = 100 × 5 = 500   ....(i)

The number of iron bars in each bundle of B2, B4 and B5 is 4.

Total number of bundles in B2, B4 and B5 = 50 + 55 + 45 = 150

Total number of bars in B2, B4 and B5 = 150 × 4 = 600   ....(ii)

Total number of iron bars sold from the shop during that week of all the 5 brands taken together = 500 + 600

⇒ 1100

∴ Option 1 is the correct answer.

---

28. **Answer: b**

Explanation:

Given:-

S_1= 10 km/h

s_2 = 15 km/h

Concept Used:-

Average Speed = 2S1S2/(S1 + S2)

Calculation:-

Average Speed = 2S1S2/(S1 + S2)

⇒ (2 × 10 × 15)/(10 + 15)

⇒ (2 × 10 × 15)/(2 5)

⇒ 12 km/hr

∴ Average Speed = 12 km/h

---

29. **Answer: c**

Explanation:

Given:

The heights of six people are given as 6 feet 6 inches, 6 feet, 5 feet 8 inches, 6 feet 2 inches, 6 feet 4 inches, and 5 feet 10 inches.

Concept Used:

Average = Sum of given numbers/ Total number

Calculation:

The heights of six people are given as 6 feet 6 inches, 6 feet, 5 feet 8 inches, 6 feet 2 inches, 6 feet 4 inches, and 5 feet 10 inches.

Sum of heights = 6.6 + 6 + 5.8 + 6.2 + 6.4 + 5.10

⇒ 36.1 feet

Average = 36.1/6

⇒ 6.1

⇒ 6 feet 1 inch

∴ Option 3 is the correct answer.

---

30. **Answer: c**

Explanation:

Concept:

LCM is the product of Prime factors with the highest power

Explanation:

Here, the Prime factors are:

$A = 2^3 × 37$

$B = 2^7 × 35$

$C = 2^8 × 34$

The highest power for 2 is 2^8

The highest power for 3 is 3^7

∴ LCM $= 2^8 × 37$

---

31. **Answer: d**

Explanation:

GIVEN:

The price of sugar is raised by 15%

Expenditure remains the same

FORMULA USED:

Price = Expenditure/Consumption

CALCULATION:

Let the original price be 100x

New price after increase in price = 100x + 100x × 15/100 = 115x

As expenditure remains same.

Then, New consumption/Original consumption = Original Price/New price = 100x/115x

New consumption/Original consumption= 20/23

Reduction in consumption = (23 –20) = 3

Reduction in percentage = 3/23 × 100 = 13.04%.

Hence, the percentage reduction is 13.04% .

---

32. **Answer: a**

Explanation:

Given:

12 + 2.5 + (1.5 of 4) – 2.6

Concept used:

Follow the BODMAS rule according to the table given below:

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

Calculation:

12 + 2.5 + (1.5 of 4) – 2.6

⇒ 12 + (6) – 0.1

⇒ 18 – 0.1

⇒17.9

∴ The answer to the expression is **17.9.**

---

33. **Answer: a**

Explanation:

Given:

The perimeter of a rectangular LCD is 92m. Whereas its area is 480m^2

Calculation

Let the length = l and breadth = b

Then 2(l + b) = 92

L+ b = 46 … (1)

And lb = 480 ....(2)

Now $(l - b)^2 = (l + b)^2 - 4lb$

$\Rightarrow (l - b)^2 = 2116 - 4 \times 480$

$\Rightarrow (l - b)^2 = 2116 - 1920 = 196$

$(l - b) = 14$ ....(3)

From, equation (1) and (3)

B = 16, and I = 30

Then $(Diagonal)^2 = 30^2 + 16^2$

$(Diagonals)^2 = 1156$

Diagonals = 34.

---

34. **Answer: b**

Explanation:

Given:

Ajay takes = 20 days

Vijay takes = 40 days

Sashi takes = 60 days

Vijay and Sashi assisted on every fourth day.

Calculation:

Total work = LCM(20, 40, 60) = 120 unit

Efficiency of Ajay = 120/20 = 6

Efficiency of Vijay = 120/40 = 3

Efficiency of Sashi = 120/60 = 2

Ajay's 3 days work = 6 × 3 = 18 units

Ajay, Vijay and Sashi one day work = 11 unit

∴ Work done in 4 days = 18 + 11

⇒ 29

∴ Work done in 16 days = 29 × 4 = 116 unit

Remaining work = 120 – 116 = 4 unit

Ajay done 4 unit work in 4/6 or 2/3 days.

Total days taken by Ajay to complete the work if he is assisted by Vijay and Sashi on every fourth day = 16 + 2/3

⇒ 50/3 days

∴ Option 2 is the correct answer.

---

35. **Answer: d**

Explanation:

Given:

Marked price of the article = Rs. 5000

Two successive discounts are 15% and 5%

Concept used:

SP = MP – MP × Discount%

Calculation:

Price after 1st discount = 5000 × 85/100

⇒ 4250

Price after 2nd discount = 4250 × 95/100

⇒ ₹4,037.50

∴ The required selling price after discounts is **₹ 4,037.50.**

---

36. **Answer: c**

Explanation:

Given:

30% of a = b

Calculation:

Let a = 100

b = 30

According to the question:

⇒ 50% of 30 = (50/100) × 30 = 15

∴ b% of 50 = 15% of a

∴ **Option 3 is the correct answer.**

---

37. **Answer: a**

Explanation:

Calculation:

Let, the number of ₹2, ₹5, and ₹10 denominations in the bag are x, 2x, and 3x.

Given, The Total number of coins is 300.

Hence,

⇒ x + 2x + 3x = 300

⇒ x = 50

So the number of coins of ₹2, ₹5, and ₹10 denominations are 50, 100, and 150.

The total amount will be given by:

⇒ 50 × 2 + 5 × 100 + 10 × 150

⇒ 100 + 500 + 1500

⇒ 2100

∴ Option 1 is the correct answer.

---

38. **Answer: b**

Explanation:

Given:

42 boys can complete a piece of work in 20 days working 8 hours per day.

Formula used:

$$M1 \times D1 \times T1 = M2 \times D2 \times T2$$

where,

M = number of men

D = number of days

T = Hours per day

W = Work done

Calculation:

Let 14 boys have to work for T days

According to question

42 × 20 × 8 = 14 × 12 × T

⇒ T = 20 × 2

⇒ T = 40 days

Hence, 40 days is the correct answer.

---

39. Answer: a

Explanation:

Calculation:

According to the question

The percentage decrease is given by = [(28 – 14)/28] × 100 = 50%

∴ Option 1 is the correct answer.

---

40. Answer: c

Explanation:

Formula used:

Area of circle = πr^2

Circumference of circle = 2πr

Perimeter of square = 4a

Area of square = a^2

Calculation:

Let the radius of the circle be r.

According to the question

The perimeter of a square = circumference of a circle

⇒ 4a = 2πr

⇒ a = $\frac{\pi r}{2}$

Area of square = $(\frac{\pi r}{2})^2$

Now,

Area of circle/Area of square = $\pi r^2 / (\frac{\pi r}{2})^2$

Area of circle/Area of square = > 1

∴ Area of circle > Area of the square.

41. **Answer: c**

Explanation:

Calculation:

$?^3 ÷ 16 = 108$

⇒ $?^3 = 16 × 108$

⇒ $?^3 = 1728$

⇒ ? = 12

∴ Option 3 is the correct answer.

---

42. Answer: d

Explanation:

Given:

First SI period = 6 years

Second SI period = 15 years

Concept Used:

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

Calculation:

⇒ For 6 years,

⇒ SI = $\frac{6 \times R \times P}{100}$ = $\frac{6PR}{100}$

⇒ For 15 years,

⇒ SI = $\frac{15 \times R \times P}{100}$ = $\frac{15PR}{100}$

⇒ Ratio of SI = $\frac{\frac{6PR}{100}}{\frac{15PR}{100}}$ = $\frac{6PR \times 100}{15PR \times 100}$ = $\frac{2}{5}$

⇒ Ratio of SI = 2 : 5

Therefore, the ratio of simple interest is 2 : 5.

---

43. Answer: c

Explanation:

Given :

The selling price and the cost price of an article are ₹6000 and ₹5000, respectively.

Formula:

Profit = SP − CP

Profit % = [Profit/CP] × 100

Calculation:

Profit = 6000 - 5000 = Rs. 1000

Profit = [1000/5000] × 100 = 20%

∴ Profit% is 20%

∴ Option 3 is the correct answer.

---

44. **Answer: d**

Explanation:

Given:

The total sales of all the companies taken together is ₹55,00,000.

Calculation:

According to the question:

The difference between the sales of HP and Apple given by:

⇒ (25% - 18%) × 55,00,000

⇒ (7%) × 55,00,000

⇒ ₹3,85,000

∴ Option 4 is the correct answer.

---

45. Answer: c

Explanation:

Given:

A man rows from J to K (upstream) and back from K to J (downstream) in a total time of 15 hours.

The distance between J and K is 300 km.

Concept Used:

Speed = Distance/Time

Calculation:

Let us assume that the speed of boat in still water is B and speed of stream is S.

A man rows from J to K (upstream) and back from K to J (downstream) in a total time of 15 hours. The distance between J and K is 300 km.

$$\Rightarrow \frac{300}{B+C} + \frac{300}{B-C} = 15$$

$$\Rightarrow \frac{20}{B+C} + \frac{20}{B-C} = 1 \quad \text{................(I)}$$

The time taken by the man to row 9 km downstream is identical to the time taken by him to row 3 km upstream.

$$\Rightarrow \frac{9}{B+C} = \frac{3}{B-C}$$

$$\Rightarrow \frac{B+C}{B-C} = \frac{3}{1}$$

Apply Componendo and Dividendo Rule;

$$\Rightarrow \frac{B}{C} = \frac{2}{1}$$

∴ Speed of boat in still water, B = 2x km/h, and

Speed of stream, S = x km/h

Put these values in equation(i),

$\Rightarrow \frac{20}{2x+x} + \frac{20}{2x-x} = 1$

$\Rightarrow \frac{20}{3x} + \frac{20}{x} = 1$

⇒ 20 + 60 = 3x

⇒ x = 80/3

∴ Speed of boat in still water, B = 2x km/h = 2 × 80/3

⇒ 160/3 = 53.33 km/h

∴ Option 3 is the correct answer.

---

46. **Answer: b**

Explanation:

Concept Used:

A = P $(1 + r/100)^t$

Calculation:

A = P $(1 + r/100)^t$

⇒ 3600 = P $(1 + r/100)^2$ ......(i)

Again,

⇒ 6480 = P $(1 + r/100)4$ ....(ii)

Divide equation (ii) from equation (i)

⇒ 6480/3600 = $(1 + r/100)^2$ ....(iii)

From equation(i),

⇒ $(1 + r/100)^2 = 3600/P$

Put the value in equation(iii),

⇒ $6480/3600 = 3600/P$

⇒ $P = (3600 × 3600)/6480$

⇒ P = ₹2000

∴ Option 2 is the correct answer.

---

47. Answer: d

Explanation:

Given:

There are coins of 25 p, 10 p, and 5 p in the ratio of 2 : 3 : 5 respectively

Calculation:

1 Rupee = 100 paise

Rs. 5.25 = 525 paise

25p : 10p : 5p = 2 : 3 : 5

25 × 2x + 10 × 3x + 5 × 5x = 525

50x + 30x + 25x = 525

105x = 525

x = 5

Number of paise we got from adding all 5 ps coins = 5 × 5 × 5 = 125

Number of 5 ps coins = 125/5 = 25

---

48. Answer: a

Explanation:

Given:

A person travels a certain distance at a speed of 10 km/h and returns through the same route at a speed of 20 km/h.

Concept Used:

Average Speed = $2S_1S_2/(S_1 + S_2)$

where, S_1 = First Speed

S_2 = Second Speed

Calculation:

S_1 = 10 km/h

S_2 = 20 km/h

Average Speed = $2S_1S_2/(S_1 + S_2)$

$\Rightarrow (2 \times 10 \times 20)/(10 + 20)$

$\Rightarrow 400/30$

$\Rightarrow 40/3$ km/h

∴ Option 1 is the correct answer.

---

49. Answer: b

Explanation:

Given:

A supermarket has sales of ₹1,48,500, ₹2,00,000, ₹1,64,000, ₹1,88,600 and ₹2,40,400 in 5 consecutive months.

Calculation:

Let the sale for 6th month = x

Hence, sum of Sales for 6 months = 1,48,500 + 2,00,000 + 1,64,000 + 1,88,600 + 2,40,400 + x = 941500 + x

Average of Sales = Sum of Sales per month/No. of months

⇒ 188300 = (941500 + x)/6

⇒ 1129800 = 941500 + x

⇒ x = 188300

---

50. **Answer: b**

Explanation:

Given:

By selling an article at $\frac{5}{6}$ of selling price, a trader incurred a profit of 10%.

Formula Used:

Profit% = (selling price - cost price)/cost price × 100

Calculation:

Let the cost price of that article be Rs. 100x

Selling price when sold at $\frac{5}{6}$ of original selling price = 100x + 100x × 10%

⇒ 110x

Original selling price = 110x × $\frac{6}{5}$ = 132x

Required profit % = [(132x – 100x)/100x] × 100

⇒ 32%

∴ The profit percentage on selling it at its actual selling price is 32%.

---

51. Answer: a

Explanation:

The correct answer is **with the gold medal in the** .

⭐ **Key Points**

- **With** should be replaced by **to** .
- **Beat (someone) to something:** to succeed before another person does.
    - **Example:** *When I went to take the keys I found that someone had beaten me to it.*
- The verb **beat** takes a preposition **to** when it is followed by a noun.
- Thus, the option that contains an error is **option 1** .

---

52. Answer: d

Explanation:

The correct answer is ' **Mourn** '.

⭐ **Key Points**

- The most appropriate **synonym** of the given word ' **Grieve** ' is ' **Mourn** '.
- **Grieve** : to feel great sadness (especially about the death of somebody you love). [(प्रियजन के निधन पर) गहरी उदासी होना]

- *Example: It **grieves** me to see my brother struggling like this.*
- **Mourn** : to feel and show great sadness, especially because somebody has died. [दुख या शोक मनाना (विशेषतः किसी की मृत्यु पर)]
  - *Example: She is still **mourning** (for) her child.*

Correct Answer:*Mourn.*

⭐ **Additional Information**

- Let's look at the meaning of other words:
  - **Tame** : (used about animals or birds) not wild or afraid of people. [(पशु या पक्षी) घरेलू, पालतू (न कि जंगली या लोगों से डरने वाले)]
  - **Assure** : to promise somebody that something will certainly happen or be true, especially if he/she is worried. (आश्वासन देना, भरोसा दिलाना, ढाढ़स बाँधना या बँधाना)
  - **Rejoice** : to feel or show great happiness. (बहुत हर्षित होना या हर्ष मनाना)

---

53. **Answer: d**

Explanation:

The correct answer is **fulfilled** .

⭐ **Key Points**

- **Insatiable:** that cannot be satisfied; very great. जिसे तृप्त न किया जा सके, अतृप्त; अपरितोष्य, अत्यधिक
- **Fulfilled:** feeling happy and satisfied. प्रसन्न व संतुष्ट
- Thus, the most appropriate antonym of **insatiable** is **fulfilled** .

⭐ **Additional Information**

- **Urgent:** needing immediate attention. जिस पर तुरंत ध्यान देना अपेक्षित है, तुरंत कार्रवाई की अपेक्षा वाला; अत्यावश्यक, बहुत ज़रूरी
- **Greedy:** wanting more food, money, power, etc. than you really need.अपनी वास्तविक आवश्यकता से अधिक भोजन, पैसों आदि की कामना करनेवाला व्यक्ति; लोभी, लालची

- **Insistent:** continuing for a long time in a way that cannot be ignored. देर तक चलने वाला (अतएव अनुपेक्षणीय)

---

54. Answer: a

Explanation:

The correct answer is **glowing** .

⭐ **Key Points**

- **Glowing:** showing the radiance of health, excitement, etc. प्रकाश से युक्त
  - **Example:** *The western sky was glowing pink.*
- Thus, the most appropriate option to fill in the blank is **option 1.**

⭐ **Additional Information**

- **Emotional:** connected with people's feelings. भावनात्मक
- **Caustic:** critical in a cruel way. तीक्ष्ण, कटु रूप से निंदात्मक
- **Laborious:** needing a lot of time and effort. जिसमें बहुत समय और प्रयत्न की अपेक्षा हो; श्रमसाध्य

---

55. Answer: b

Explanation:

The correct answer is **A major hub of** .

⭐ **Key Points**

- **A major hub of** should replace **major hubs of** .
- **A major hub** is used for Silicon Valley of Central California and therefore, it should be used in the **singular form** .
- Thus, there should be a **subject-verb agreement** .
- Also, the use of **a major hub** is more suitable with **is** .

- Thus, the option that will improve the underlined part of the given sentence is **option 2** .

---

56. Answer: b

Explanation:

The correct answer is **works for eight** .

⭐ **Key Points**

- The use of **for** is more appropriate here instead of **since** .
- The word 'for' is used to show a **period of time in the past, present, or future** .
- The preposition 'for' is used to denote a specific **amount of time** in which someone or something was performing an action.
- The word 'since' is used to refer to a time **(an action that began in the past and is still continuing)** .
- The word 'since' refers to a particular **point of time** from when the action started/began in the past to the present.
- Also, **work** should be replaced by **works** because **my mother's sister is singular,** and therefore, a **singular verb (works)** should be used.
- Thus, the option that will improve the underlined part of the given sentence is **option 2** .

---

57. Answer: a

Explanation:

The correct answer is **mismatche** .

⭐ **Key Points**

- The correct spelling and meaning of the selected option are as follows:

- **Mismatch:** a combination of things or people that do not go well together or are not suitable for each other. अनुपयुक्त मेल; बेमेल
- Thus, the incorrectly spelt word is given in **option 1**.

⭐ **Additional Information**

- **Securities:** fungible and tradable financial instruments used to raise capital in public and private markets. प्रतिभूतियां
- **Essentially:** when you consider the basic or most important part of something. मूल रूप से, मूलतः
- **Fiscal:** connected with government or public money, especially taxes. सरकार या सार्वजनिक धन (विशेषतः करों) से संबंधित; राजवित्तीय

---

58. **Answer: d**

Explanation:

The correct answer is **autobiography**.

⭐ **Key Points**

- **Autobiography:** the story of a person's life written by that person. आत्मकथा, आत्मचरित
  - **Example:** Her *autobiography* was published in 1993.
- The option that can be used as a one-word substitute for the given group of words is **option 4**.

⭐ **Additional Information**

- **Biography:** the story of a person's life written by somebody else. (अन्य व्यक्ति द्वारा लिखित) किसी व्यक्ति का जीवनचरित; जीवनी
- **History:** all the events of the past. अतीत की घटनाएँ, इतिहास
- **Novel:** a book that tells a story about people and events that are not real. उपन्यास, कल्पना-प्रसूत कथा

---

59. Answer: b

Explanation:

The correct answer is **among tax evasion.**

⭐ <u>Key Points</u>

- **Among** should be replaced by **against** .
- **Fight against:** to oppose or struggle against (a person, thing, cause, etc) in any manner.
- The use of **against** is more appropriate here because against is used in the sense of opposing or disagreeing with somebody/something.
- **Among** is used when **talking about people or things that are not distinct and are viewed as a group** .
- Thus, the option that contains the error is **option 2** .

60. Answer: b

Explanation:

The correct answer is **but** .

⭐ <u>Key Points</u>

- **But** is used to link items which are the same grammatical type (**coordinating conjunction**).
- But is used to **connect ideas that contrast** .
- Thus, the most appropriate option to fill in the blank is **option 2** .

⭐ <u>Additional Information</u>

- **For:** used to talk about a purpose or a reason for something.
- **Because:** for the reason that. क्योंकि
- **While:** during the time that; when. उस समय जब; जब

61. Answer: a

Explanation:

The correct answer is **was close** .

⭐ **Key Points**

- **Was** should be used here instead of **were** .
- **Was** is the **first and third-person singular past tense** of the verb **to be** , while **were** is the **second-person singular past and plural past** of the verb **to be** .
- **Out new house** is **singular** and therefore, the use of **was** is more appropriate here.
- Thus, the most appropriate option to substitute the underlined segment in the given sentence is **option 1** .

62. Answer: d

Explanation:

The correct answer is **began** .

⭐ **Key Points**

- **Simple past tense** is used in the given sentence.
- **The simple past** is a verb tense that is used to talk about **things that happened or existed before now** .
- The **V2 form of the verb** is used in the simple past tense.
- Thus, the use of the **V2 form of begin (began)** is correct here.
- Hence, the most appropriate option to fill in the blank is **option 4** .

63. Answer: d

Explanation:

The correct answer is **relieve** .

⭐ Key Points

- **Alleviate:** to make something less strong or bad. (पीड़ा या कष्ट के) प्रभाव को कम करना
- **Relieve:** to make an unpleasant feeling or situation stop or get better. कष्ट या चिंता में राहत पहुँचाना
- Thus, the most appropriate synonym of the underlined word in the given sentence is given in **option 4** .

⭐ Additional Information

- **Sharpen:** to become or to make something sharp or sharper. तेज़ या अधिक तेज़ होना या करना
- **Plague:** any infectious disease that spreads quickly and kills many people. तेज़ी से फैलने वाला कोई भी संक्रामक रोग जिससे बड़ी संख्या में रोगियों की मृत्यु हो जाती है
- **Exacerbate:** to make something worse, especially a disease or problem. बिगाड़ देना (विशेषतः रोग या समस्या को)

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64. **Answer: c**

Explanation:

The correct answer is **to pursue unrealistic goals** .

⭐ Key Points

- **Chase rainbows:** trying to do or achieve something that is not really possible or realistic.
  - **Example:** *I know she wants to become an actor but I think she should stop chasing rainbows and get an office job.*
- Thus, the most appropriate meaning of the given idiom is given in **option 3** .

---

65. Answer: c

Explanation:

The correct answer is **prevent someone or something from moving closer** .

⭐ **Key Points**

- **Hold someone or something at bay:** in the position of being unable to move closer while attacking or trying to approach someone.
  - **Example:** *The Indian soldiers keep the attackers at bay.*
- Thus, the most appropriate meaning of the given idiom is given in **option 3** .

66. Answer: c

Explanation:

The correct answer is **almost** .

⭐ **Key Points**

- **Almost** : very nearly; not quite. लगभग; क़रीब-क़रीब
  - **Example:** *By 10 pm, **almost** everyone had arrived home.*
- Thus, the most appropriate option to fill in the blank is **option 3.**

⭐ **Additional Information**

- **About:** a little more or less than; approximately लगभग
- **Else:** another, different person, thing or place. अन्य और भिन्न व्यक्ति, वस्तु या स्थान
- **Not:** used to give the following word or phrase a negative meaning. एकदम अगले शब्द या वाक्यांश को निषेध का अर्थ देने के लिए प्रयुक्त

67. Answer: c

Explanation:

The correct answer is **aggravate** .

⭐ **Key Points**

- **Alleviate:** to make something less strong or bad (पीड़ा या कष्ट के) प्रभाव को कम करना
- **Aggravate:** to make something worse or more serious. (स्थिति को) बिगाड़ देना; बदतर करना या होना, अधिक गंभीर बनाना
- Thus, the most appropriate antonym of the given word is expressed in **option 3** .

⭐ **Additional Information**

- **Soothe:** to make somebody calmer or less upset; to comfort somebody. किसी व्यक्ति की परेशानी या विक्षोभ कम करना; किसी को आराम या राहत पहुँचाना
- **Ameliorate:** to make something better. (स्थिति आदि) सुधारना, बेहतर करना
- **Destroy:** to damage something so badly that it can no longer be used or no longer exists. नष्ट करना

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68. Answer: a

Explanation:

The correct answer is **she is brave** .

⭐ **Key Points**

- **Braver** should be used instead of **brave** .
- The comparative degree is the **first level of comparison** that can be used to **evaluate and differentiate** the similar quality or qualities possessed by the subjects in a particular context.
- When two items/people are compared, **a comparative degree** is used by putting 'er' to the adjective word in association with the word **'than** '.
- Thus, the option that contains a grammatical error is **option 1** .

69. Answer: d

Explanation:

The correct answer is **looking at my** .

⭐ **Key Points**

- **At** should be used instead of **on** .
- **Look at:** to direct one's eyes towards someone or something so that one can see them.
    - **Example:** *She turned back and **looked at** him.*
- Thus, the option that will improve the underlined part of the sentence is **option 4** .

70. Answer: c

Explanation:

The correct answer is **Ventilation system is missing in this room.**

⭐ **Key Points**

- The spelling of **missing** is incorrect in the given sentence.
- The correct spelling and meaning of the above word are as follows:
    - **Missing:** lost or not in the right or usual place. गुम; अपने स्थान से ग़ायब या अनुपस्थित
- Thus, the option that corrects the incorrectly spelt word in the given sentence is **option 3** .

71. Answer: c

Explanation:

The correct answer is **what** .

⭐ <u>Key Points</u>

- Here, **what** is used as a **clause** .
- A what clause is **a type of noun clause** (or a free relative clause) that **begins with the word what** .
- In a declarative sentence, a what clause, which **functions as a noun** , may serve as the **subject** (usually followed by a form of the verb be), subject complement, or object of a sentence.
- Thus, the most appropriate option to fill in the blank no. 1 is **option 3** .
- Correct Paragraph: Ants, like most insects, have<u>what</u>are known as compound eyes. This means their eyes have multiple lenses, (2)_____ in general, most species of ant do not have particularly great eyes for seeing (3)_____ far. Ants can detect movement and see the areas around them, but (4)_____ more on senses and information they get from their legs and antennae (5)_____ from their eyes.

---

72. **Answer: c**

Explanation:

The correct answer is **but** .

⭐ <u>Key Points</u>

- The use of **but** is appropriate here.
- We use **but** to link items that are the same grammatical type (coordinating conjunction).
- But is used to **connect ideas that contrast.**
- Thus, the most appropriate option to fill in the blank no. 2 is **option 3** .
- Correct Paragraph: Ants, like most insects, have <u>what</u> are known as compound eyes. This means their eyes have multiple lenses,<u>but</u>in general, most species of ant do not have particularly great eyes for seeing (3)_____ far. Ants can detect movement and see the areas around them, but (4)_____ more on

senses and information they get from their legs and antennae (5)_ _ _ _ _ _ _ from their eyes.

---

73. Answer: d

Explanation:

The correct answer is **very.**

⭐ **Key Points**

- **Very** is used before adverbs and adjectives to add **emphasis** .
- Very means **'to a great degree'** .
- The word **far** is **an adjective** here.
- Thus, the most appropriate option to fill in blank no. 3 is **option 4** .
- **Correct Paragraph:** Ants, like most insects, have <u>what </u>are known as compound eyes. This means their eyes have multiple lenses,<u>but</u> in general, most species of ant do not have particularly great eyes for seeing **very** far. Ants can detect movement and see the areas around them, but (4)_ _ _ _ _ _ _ more on senses and information they get from their legs and antennae (5)_ _ _ _ _ _ _ from their eyes.

---

74. Answer: c

Explanation:

The correct answer is **rely.**

⭐ **Key Points**

- **Rely:** to need somebody/something and not be able to live or work properly without him/her/it. किसी पर निर्भर होना (ठीक ढंग से रह पाने या कुछ कर पाने के लिए)
  - **Example:** My mother **relies** on me for financial support.
- Thus, the most appropriate option to fill in blank no. 4 is **option 3** .

- Correct Paragraph: Ants, like most insects, have <u>what</u> are known as compound eyes. This means their eyes have multiple lenses, <u>but</u> in general, most species of ant do not have particularly great eyes for seeing very far. Ants can detect movement and see the areas around them, but<u>rely</u>more on senses and information they get from their legs and antennae (5)_____ from their eyes.

⭐ <u>Additional Information</u>

- **Calculate:** to find something out by using mathematics; to work something out. गणना करना, हिसाब लगाना, परिकलन करना
- **Shout:** to speak or cry out in a very loud voice. ऊँची आवाज़ में बोलना या चीख़ना
- **Struggle:** to try very hard to do something, especially when it is difficult. कोई (विशेषतः कठिन) काम करने के लिए कठोर प्रयास करना

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75. **Answer: a**

Explanation:

The correct answer is **than** .

⭐ <u>Key Points</u>

- **Than** is used in comparisons as a conjunction (as in "she is younger than I am") and as a preposition ("he is taller than me").
- When two items/people are compared, **a comparative degree i** s used by putting 'er' to the adjective word in association with the word 'than'. In some cases, **'more'** is used.
- Thus, the most appropriate option to fill in blank no. 5 is **option 1** .
- Correct Paragraph: Ants, like most insects, have <u>what</u> are known as compound eyes. This means their eyes have multiple lenses, <u>but</u> in general, most species of ant do not have particularly great eyes for seeing very far. Ants can detect movement and see the areas around them, but <u>rely</u> more on senses and information they get from their legs and antennae **than** from their eyes.

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76. **Answer: b**

Explanation:

The correct answer is <u>twenty</u>.

⭐ <u>Key Points</u>

- There can be a maximum of 552 members in the Indian Lok Sabha
- The maximum strength of the Lok Sabha envisaged by the Constitution for Union Territories in India <u>is 20</u>
- The maximum strength of the Lok Sabha seats envisaged by the Constitution for states in India is 530.
- At present only 543 members are elected for Lok Sabha from different states and UTs.
- Out of 543 members, 530 members are from states

⭐ <u>Additional Information</u>

Rajya Sabha

- Rajya Sabha or council of states is the upper house of the Indian Parliament. It was the first time constituted on 3rd April 1952.
- Rajya Sabha represents States and Union territories, and its members are elected indirectly by the members of the legislative assembly and legislative council.
- The fourth Schedule of the Indian constitution deals with the distribution of seats of Rajya Sabha among States and Union territories.
- Members of the Rajya Sabha are elected through a proportional representation method by means of a single transferrable vote system.
- Members of the Rajya Sabha are elected for 6 years and one-third of members of the Rajya Sabha retire every two years.

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77. **Answer: b**

Explanation:

The correct answer is <u>Meghalaya</u>.

⭐ <u>Key Points</u>

- Known as the '100 Drum Festival', the Wangala Festival is a traditional festival in the northeastern Indian state of Meghalaya.
- The festival kicked off on November 12th, 2021.
- The festival lasts from two days to a week.
- It is one of the most important festivals of the Garo Tribe.
- The tribesmen make sacrifices to please their god Saljong.

⭐ <u>Additional Information</u>

- The Wangala festival marks the end of a period of toil, that brings good results to the fields which also signifies the onset of winter.
- It is also celebrated in honour of the Sun God that marks the end of the long harvest season.
- Wangala is celebrated with different forms of dance.
- These dances are performed on the tunes of folk songs that are played on drums and primitive flute.
- Additionally, these flutes are made of buffalo horns.
- On the first day of the festival, people celebrate it with a ceremony called Ragula.
- This ceremony is performed in the house of the village's chief.
- Then on the second day of celebration, which is called Kakkat, people begin the ceremony by dancing to the rhythms of long oval-shaped drums.
- In this celebration, young and old join together while men play the drums and women perform traditional dance forms. The dance form is known as Dama Dagota.

78. **Answer: c**

Explanation:

The correct answer is <u>Prithviraja III</u>.

⭐ <u>Key Points</u>

- Prithviraj III also called Prithviraj Chauhan was a Rajput warrior king of the Chauhan (Chahamana) clan of rulers who established the strongest kingdom in Rajasthan.
- The Battles of Tarain, also known as the Battles of Taraori, were a series of two battles fought in 1191 and 1192 A.D between Prithviraj Chauhan and Ghurid ruler Muhammad Ghori.
- In the First Battle of Tarain (1191), **Prithviraj Chauhan defeated Mohd. Ghori.**
- In the Second Battle of Tarain (1192), Mohd. Ghori defeated Prithviraj Chauhan.
- The Second Battle of Tarain led to the establishment of Muslim rule in India.

⭐ <u>Additional Information</u>

Other important battles of the Medieval Era:

- Battle of Chandawar (1194) - Between Mohd. Ghori and Jai Chand.
- First Battle of Panipat (1526) - Between Babur and Ibrahim Lodhi.
- Battle of Kanwa (1527) - Between Babur and Rana Sanga.
- Battle of Chausa (1539) - Between Humayun and Sher Shah.

79. **Answer: a**

Explanation:

The correct answer is <u>1829</u>.

⭐ <u>Key Points</u>

- On 4 December 1829,Lord Bentinck issued Regulation XVII, declaring Sati to be illegal and punishable in criminal courts .
- Lord William Bentinck served as Governor-General of India between 1828 and 1835.
- Raja Ram Mohan Roy was the social reformer who worked hard for the abolition of this 'Sati Pratha' ritual .

- Due to the fierce campaign and lobbying of Raja Rammohan Roy and others, Sati practice was formally banned in all the lands under Bengal Presidency by Lord William Bentinck on 4 December 1829 .

⭐ Additional Information

- 'Sati pratha' was a Hindu ritual where the widow had to sit on her husband's funeral pyre and burn alive .
  - The Portuguese banned the practice in Goa by 1515.
  - In the 16th century, Humayun was the first to try a royal agreement against the practice. Akbar was next to issue official orders prohibiting Sati, and since then it was done voluntarily by women.

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80. **Answer: b**

Explanation:

The correct answer is <u>Dantidurga</u>.

⭐ Key Points

Dantidurga:

- The Rashtrakuta Empire of Manyakheta was founded by Dantidurga (reigned 735-756 CE), also known as Dantivarman II.
- Gulbarga was his capital in Karnataka.
- He was succeeded by his uncle Krishna I, who extended the kingdom to all of Karnataka.
- In 753 Dantidurga defeated the Chalukyas and took the titles Rajadhiraja and Parameshvara.
- In the mid-eighth century, Rashtrakuta chief Dantidurga overthrew his Chalukyan overlord and performed a ritual called hiranya-garbha (literally, the golden womb).
- It was believed that performing this ritual with the help of Brahmanas would result in the sacrificer being reborn as a Kshatriya, even if he was not a Kshatriya by birth.

81. Answer: c

Explanation:

The correct answer is Aravind Adiga.

⭐ Key Points

- Aravind Adiga is the writer of the novel 'The White Tiger'.
- At the age of just 33 in 2008 Aravind Adiga won the Booker prize for his first novel, The White Tiger.
- Aravind Adiga was born in 1974 in Madras (now called Chennai) and grew up in Mangalore in the south of India.
- His second novel 'Last Man in Tower' was published in 2011.
- His latest novel was Selection Day, 2016 sports fiction novel.
- His novel "Amnesty" is going to be published and released in 2020.

⭐ Additional Information

Authors	Books
Vikram Seth	A Suitable Boy
Amitav Ghosh	Sea of Poppies
Shashi Tharoor	Pride, Prejudice, and Punditry

82. Answer: b

Explanation:

The correct answer is 1.

⭐ Key Points

- A game of Basketball is played with two teams, with 5 players from each team on the court at one time (that means 10 playing at one time).
- The maximum number of players on the bench differs by the league you're playing in.
  In international play, a maximum of 7 players is allowed on the bench, resulting in a roster of 12 players.
- A free throw is worth 1 point.
- Visheh Bhriguvanshi is the current captain of the Indian basketball team.
- Shireen Limaye is the current captain of the Indian Women's National Basketball Team.

⭐ **Additional Information**

- Famous Indian Basketball Players of All Time:-
    - Satnam Singh.
    - Amjyot Singh.
    - Amritpal Singh.
    - Ajmer Singh.
    - Anitha Pauldurai.
    - Geethu Anna Jose.

83. **Answer: d**

Explanation:

The correct answer is **Karnataka**.

⭐ **Key Points**

- Bidar Fort:
    - Bidar Fort is a fort at Bidar, Karnataka, India.
    - In 1427, Sultan Ahmad Shah I of the Bahmanid Dynasty relocated his capital from Gulbarga to Bidar and constructed a fort and a variety of Islamic structures.
    - The fort of Bidar contains about 30 monuments.

- In 2014, UNESCO added the complex to its "tentative list" of potential World Heritage Sites.
- The rise and fall of the Bahmani dynasty, the emergence and split of the five Deccan Sultans, capture by the Barid Shahi and Adil Shahi dynasties, and eventually being won by the Mughal emperor Aurangzeb in the blockade of Bidar in 1657 have all beenwitnessedby the Bidar Fort.

⭐ **Additional Information**

- Karnataka
  - The official language of Karnataka is **Kannada**.
  - The capital of Karnataka is **Bengaluru**.
  - State animal: **Elephant**.
  - State bird: **Indian Roller**.
  - State tree: **Sandal**.
  - State flower: **Lotus**.

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84. **Answer: d**

Explanation:

The correct answer is **Funaria**.

⭐ **Key Points**

- Pteridophyta:
  - Pteridophyta Plants from this group have well-developed roots, stems, and leaves, and separate tissues for the conduction of food and water.
  - They do not bear flowers and fruits.
  - They reproduce with the help of spores formed along the back or posterior surface of their leaves.
  - Examples - are ferns like *Nephrolepis, Marsilea, Pteris, Adiantum, Equisetum, Selaginella, Lycopodium*, etc.
  - Thereby, all the correct answer is "all of the above"

⭐ **Additional Information**

- Kingdom plants are divided into five groups- Thallophytes, Bryophytes, Pteridophytes, Gymnosperms, and Angiosperms.
- Thallophyta
    - The plant body is not differentiated from roots, stems, and leaves.
    - They are commonly called algae.
- Bryophyta
    - These are small terrestrial plants.
    - They show differentiation in the body design, with stem, leaf-like structures, and root-like structures.
- Pteridophyta
    - The plant body is differentiated into roots, stems, and leaves, apart from having a specialized tissue for conduction.
- Gymnosperms
    - Gymnosperms are plants with naked seeds.
- Angiosperms
    - Angiosperms are seed-bearing plants. Seeds develop inside tissues that get modified to form the fruit of the plant.

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85. **Answer: a**

Explanation:

The correct answer is **three**.

⭐ **Key Points**

- Tectonic Movements:
    - The surface of the earth consists of some plates, comprising the upper mantle.
    - These plates are always moving, thus affecting the earth's crust.
    - These movements are categorized into **three types: constructive, destructive, and conservative.**
    - Constructive is when two plates move away from each other, they correspond to mild earthquakes.

- When two plates move towards each other and collide, this is known as destructive plate boundaries.
- This is very destructive. Conservative corresponds to passing by of plates of crust. Earthquakes of this type have varying intensities.

⭐ **Additional Information**

1. **Continental Drift Theory** → Alfred Wegner (1912)
2. **Elastic Rebound Theory** → H. F. Reed (1906)
3. **Convection Current Theory** → Arthur Holms (1930s)

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86. Answer: c

Explanation:

The correct answer is <u>Nitin Gadkari</u>.

⭐ **Key Points**

- Micro, Small, and Medium Enterprises, MSME Minister Nitin Gadkari has become the brand ambassador of Khadi Prakritik Paint.
- It is India's first and only paint made from cow dung.
- He also inaugurated the new automated manufacturing unit of this paint in <u>Jaipur</u> on 6 July 2021.
- Currently, the daily production of the paint is 500 litres which will go up to 1,000 litres per day.

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87. Answer: d

Explanation:

The correct answer is <u>Three</u>.

⭐ **Key Points**

According to the Constitution of India, there are three organs of government.

- These are the legislature, the executive and the judiciary.
- The legislature refers to our elected representatives.
- The executive is a smaller group of people who are responsible for implementing laws and running the government.
- The judiciary refers to the system of courts in this country.
- In order to prevent the misuse of power by any one branch of government, the Constitution says that each of these organs should exercise different powers.
- Through this, each organ acts as a check on the other organs of government. This ensures the balance of power between all three organs of the state.

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88. **Answer: a**

Explanation:

The correct answer is <u>tenth year</u>.

⭐ **Key Points**

- Census is conducted under the provisions of the Census Act, 1948, as per the Constitution of India, and this data is collected every 10 years.
- All the censuses since 1951 were conducted under the 1948 Census of India Act.
- The Census is conducted once every ten years.
- The 2011 Census is the 7th Census in Independent India.
- The decennial Census of India has been conducted 15 times, as of 2011.
- The first complete census was taken in 1881.
- British Viceroy Lord Mayo started the concept of the census in 1872.
- Post-1949, it has been conducted by the Registrar General and Census Commissionerof India under the Ministry of Home Affairs, Government of India.

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89. **Answer: a**

Explanation:

The correct answer is **7%**.

⭐ **In News**

- Union Finance Minister Nirmala Sitharaman recently presented Budget 2022 and announced that the government will reduce the corporate surcharge from 12% to 7%.

⭐ **Key Points**

- Giving details, Sitharaman said to provide an opportunity to correct an error, taxpayers can now file an updated return within 2 years from the relevant assessment year.
- She proposes to provide that any income from the transfer of any virtual digital asset shall be taxed at the rate of 30%.
- No deduction in respect of any expenditure or allowance shall be allowed while computing such income, except the cost of acquisition.
- She also said the Centre has proposed to reduce the Minimum Alternative Tax to 15 percent for co-operative societies at par with the corporate.
- During the Budget presentation, Sitharaman proposed that both Centre and states government employees' tax deduction limit should be increased from 10% to 14% to help the social security benefits of state govt employees and bring them at par with the Central govt employees.
- She went on to add that the digital rupee is to be issued using blockchain and other technologies; to be issued by RBI starting 2022-23.
- This will give a big boost to the economy.

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90. **Answer: d**

Explanation:

The correct answer is **Option 4**.

⭐ <u>Key Points</u>

- Sikkim **(690,251)** is the smallest state and **Lakshadweep (73,183)** is the smallest union territory in India on the basis of population.
- Census is the method, which is adapted to track and review the country's progress in the past decade, monitor the on-going schemes of the Government.
- The motto of Census 2011 was "Our Census, Our Future".

⭐ <u>Additional Information</u>

- The census of India was conducted in the two phases first in House listing and second phase in Population counting.
- According to the Census reports on 31 March 2011, the Population of India has increased to 1.21 billion with a Decadal Growth of 17.70 percent of the total population.
- The Adult Literacy Rate has increased to 74.04% with a Decadal Growth of 9.21%.
- The Indian Government decided in May 1949 to initiate steps for Developing a Systematic collection of Statistics Data on the size of the Population and its Growth Rate.
- So it established an Organisation in the Ministry of Home Affairs under the name of Registrar General and Ex-Officio Census Commissioner.
- Registrar General office founded in the year 1961 under the Home ministry in India. The rank of Registrar is usually held by a C ivil Servant He/ She must be holding the rank of the Joint Secretary level.

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91. **Answer: a**

Explanation:

The correct answer is <u>Maharashtra</u>.

⭐ <u>Key Points</u>

- **Vaghyaya Murali,** is a **Maharashtran folk dance** based on the story of **Khandoba**, the **reincarnation of Lord Shiva on earth.**
- Khandoba is a regional deity in **Maharashtra and the foremost centre of worship of Khandoba is Jejuri.**
- In this dance males are assumed as **Vaghyaya and females as Murali.**

⭐ Additional Information

- List of the Folks Dances from the Different States:-

State	Folk Dance
Andhra Pradesh	Kuchipudi, Vilasini Natyam, Andhra Natyam, Bhamakalpam, Veeranatyam, Dappu, Tappeta Gullu, Lambadi, Dhimsa, Kolattam, Butta Bommalu.
Assam	Bihu, Bichhua, Natpuja, Maharas, Kaligopal, Bagurumba, Naga dance, Khel Gopal, Tabal Chongli, Canoe, Jhumura Hobjanai
Bihar	Jata-Jatin, Bakho-Bakhain, Panwariya, Sama Chakwa, Bidesia.
Gujarat	Garba, Dandiya Ras, Tippani Juriun.
Himachal Pradesh	Jhora, Jhali, Chharhi, Dhaman, Chhapeli, Mahasu, Nati, Dangi.
Chhattisgarh	Gaur Maria, Panthi, Raut Nacha, Pandwani, Vedamati, Kapalik, Bharthari Charit, Chandaini.
Jharkhand	Alkap, Karma Munda, Agni, Jhumar, Janani Jhumar, Mardana Jhumar, Paika, Phagua,Hunta Dance, Mundari Dance, Sarhul, Barao, Jhitka, Danga, Domkach, Ghora Naach.
Manipur	Dol Cholam, Thang-Ta, Lai Haraoba, Pung Cholom, Khamba Thaibi, Nupa Dance, Raslila, Khubak Ishii, Lou Sha.
Madhya Pradesh	Jawara, Matki, Aada, Khada Nach, Phulpati, Grida Dance, Selalarki, Selabhadoni, Maanch.

92. **Answer: c**

Explanation:

The correct answer is <u>Madurai Shanmukhavadivu Subbulakshmi</u>.

⭐ <u>Key Points</u>

- Madurai Shanmukhavadivu Subbulakshmi was an Indian Carnatic singer from Madurai, Tamil Nadu.
- She was the first musician ever to be awarded the Bharat Ratna(1998), India's highest civilian honor.
- She is also the first Indian musician to receive the Ramon Magsaysay award in 1974 with the citation reading "Exacting purists acknowledge Srimati M. S. Subbulakshmi as the leading exponent of classical and semi-classical songs in the Carnatic tradition of South India.
- M.S. also acted in a few Tamil films in her youth, her first movie, Sevasadanam, was released on 2 May 1938.
- She was conferred with a number of awards for his excellence some of the are
  - Padma Bhushan in 1954
  - Sangeet Natak Akademi Award in 1956
  - Sangeetha Kalanidhi in 1968
  - Ramon Magsaysay award (often considered Asia's Nobel Prize) in 1974
  - Padma Vibhushan in 1975

93. **Answer: d**

Explanation:

The correct answer is <u>Buddh International Circuit</u>.

⭐ <u>Key Points</u>

- The first Indian Grand Prix was held at the Buddha International circuit on 30th October 2011.
- The Indian Grand Prix was a Formula One (F1) race in the calendar of the FIA Formula One Championship, which was held at the Buddha International circuit in sector 25 along Yamuna Expressway in Gautam Buddha district of Uttar Pradesh.
- It happened from 2011 to 2013, Sebastian Vittel won all three times.

⭐ <u>Important Points</u>

Adrian Sutil	- He is a German racing driver, who raced in Formula One for seven seasons: from 2007-2011, then 2013-2014. - He drove for the Spyker F1 Team, Force India F1 Team, and the Sauber F1 Team.
NarayanKartikeyan	- Kumar Ram Narain Karthikeyan born in Madras is the first Formula One motor racing driver from India. - He debuts in 2005 with the Jordan team, In 2011 he is driving for the Hispania Racing team in Formula One.
JessonBaton	- He is a British racing driver. - He won the 2009 Formula One World Championship when he drove for the Brawn GP team.

⭐ <u>Additional Information</u>

- The Buddh International Circuit is an F1 racing track located in Greater Noida near Delhi, India.
- Buddh International Race Circuit has been designed by renowned German architect and racetrack designer, Herman Tilke.
- The 10 billion cost Buddh International Circuit has a length of 5.14 KM, with 1.1 lakhs seating capacity in an area of 875 acres.
- List of Formula One drivers and their nationality:

Michael Schumacher	German
Lewis Hamilton	British
Max Verstappen	Belgium
Sebastian Vettel	German
Daniel Ricciardo	Australian
Carlos Sainz Jr.	Spanish

94. **Answer: b**

Explanation:

The correct answer is <u>Aluminium</u>.

⭐ <u>Key Points</u>

State	Medium	Speed (m s $^{-1}$)
Gas	Air (0 °C)	331
	Air (20 °C)	343
	Helium	965
	Oxygen (0 °C)	**316**
	Hydrogen	**1284**
Liquids	Water (0 °C)	1402
	Water (20 °C)	1482
	Ethanol (20 °C)	**1160**
	Seawater	1522
Solids	**Aluminium**	**6420**
	Copper	3560
	Steel	5941

- Hence among the given options, **Aluminium** is the correct answer.

⭐ <u>Additional Information</u>

- Sound is a longitudinal wave in which particles oscillate in direction of propagation of the wave.
- The speed of sound is more in solids, followed by liquids and gases.
- The speed also changes with the temperature.
- The speed is given as

$$V = \sqrt{\frac{B}{\rho}}$$

- B is the bulk modulus, ρ is the density of the medium.
- Solids and liquids have higher mass densities (r) than gases. But the corresponding increase in both the modulus (B) of solids and liquids is much higher.
- This makes the speed of sound the highest in solid.


95. **Answer: c**

Explanation:

The correct answer is **nickel and iron**.

⭐ <u>Key Points</u>

<u>The Core</u> –

- The earthquake wave velocities helped in understanding the existence of the core of the earth.
- The core-mantle boundary is located at the depth of 2,900 km.
- The outer core is in a liquid state while the inner core is in a solid state.
- The density of material at the mantle core boundary is around 5 g/cm^3 and at the centre of the earth at 6,300 km, the density valueis approximately 13g/cm^3.
- The core is made up of very heavy material mainly constituted by nickel and iron.

- It is sometimes referred to as the nife layer.

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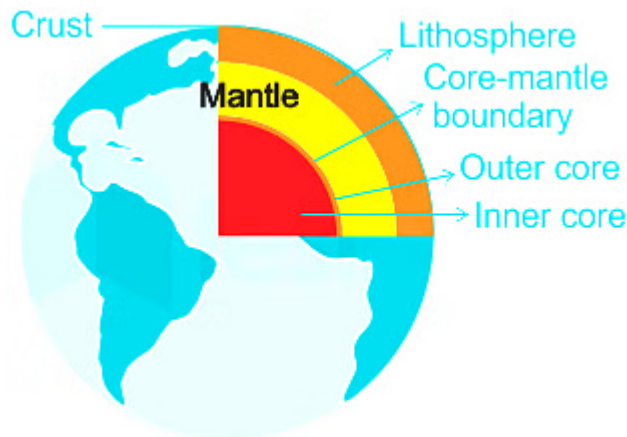
96. **Answer: b**

Explanation:

The correct answer is <u>Northeast</u>.

⭐ <u>Key Points</u>

- In the Union Budget 2022–23, PM-DevINE was introduced to address development gaps in the North Eastern Region (NER).
- The Government continues to place a high priority on the development of the NE Region as seen by the unveiling of PM-DevINE.
- The quantity of resources available for developing the North East Region has been increased through PM-DevINE.
- It won't take the place of current Central and State Schemes.
- While some of the PM-DevINE projects that will be approved for 2022–2023 are included in the Budget announcement, other projects that could have a significant socioeconomic impact or create opportunities for sustainable livelihood for the general public **(such as providing basic infrastructure in all primary health care centres or comprehensive facilities in government primary and secondary schools, for example)** might be taken into consideration in the future.

⭐ <u>Additional Information</u>

- During the final four years, the Prime Minister's Development Initiative for the North East Region (PM-DevINE) has been authorised by the Union Cabinet, which is presided over by Prime Minister Shri Narendra Modi of the 15th Finance Commission, from **2022–2023 to 2025–2026.**
- The Ministry of Development of the North Eastern Region will implement the newly created Scheme, PM-DevINE, which is a Central Sector Scheme with 100% Central support (DoNER).

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97. Answer: d

Explanation:

The correct answer is **70%-75%**.

- According to the 2011 census, the literacy rate in India was 74.04%, up from 64.84% in 2001. It falls in 70%-75%.

⭐ **Key Points**

- Census 2011
    - Kerala has the highest literacy rate among the Indian states-- 96.2%.
    - National Capital Delhi stands on number two with an 89% literacy rate.
    - Andhra Pradesh has ranked the worst amongst all the Indian states with a 66.4% literacy rate.
    - Karnataka and Telangana have a literacy rate lower than the national average-- 72.8% and 77.2% respectively.
    - Uttarakhand stands at number three with a literacy rate of 87.6% and Assam stands at number four with an 85.9% literacy rate.
    - The gap between the male and female literacy rate is thinnest in Kerala with a 2.2% difference.
    - The gap between the male and female literacy rate at all Indian levels is 14.4%. The male literacy rate is 84.7% while the female literacy rate is 70.3%.
    - The state of Kerala has the lowest gap between the urban and rural literacy rates-- 1.9%.

- Telangana has the worst literacy gap between the rural and urban areas.
- The urban literacy rate of **Telangana is 23.4%** higher than the rural literacy rates.
- The state of **Andhra Pradesh has this difference by 19.2%.**

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98. Answer: c

Explanation:

The correct answer is **Baba Dayal Das**.

⭐ **Key Points**

- Baba Dayal Das:
  - Nirankari is a religious reform movement within Sikhism.
  - The Nirankari movement was founded by Baba Dayal Das in 1851.
  - He believed that God is formless, or nirankar.
  - The movement expanded in northwest Punjab.
  - He was a Sahajdhari Sikh.
  - His main mission was to reintroduce Sikhs back to the Adi Granth.
  - He set up the Nirnarki Gurudwara after the partition.
  - He reinterpreted Guru Nanak's teachings and aimed to free people from superstitions.
  - He emphasized the worship of God without any form.

⭐ **Additional Information**

- Guru Gobind Singh ji:
  - The last of the ten Sikh Gurus.
  - Guru Gobind Singh was born on 22nd December 1666 in Patna, Bihar.
  - He became the Sikh guru at the age of nine, following the demise of his father, Guru Tegh Bahadur, the ninth Sikh Guru.
  - He was assassinated in 1708.
  - His literary contributions include the Jaap Sahib, Benti Chaupai, Amrit Savaiye, etc.

- He also wrote the Zafarnama which was a letter to the Mughal Emperor Aurangzeb.
- **Maharaja Ranjit Singh**
  - He was popularly known as Sher-e-Punjab or "Lion of Punjab".
  - He was the first Maharaja of the Sikh Empire.
  - They ruled the northwest Indian subcontinent in the early half of the 19th century.
  - He fought his first battle at the age of 10 alongside his father.
- Baba Ram Singh
  - Ram Singh Kuka was the second guru of the Namdharisect of Sikhism.
  - He is credited as being the first British Indian to use non-cooperation and boycott British goods and services as a political tool.
  - He was exiled to Rangoon, Burma (Myanmar) by the British colonial government of India on 18 January 1872.

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99. **Answer: c**

Explanation:

The correct answer is <u>Iodine</u>.

⭐ <u>Key Points</u>

- **Starch in potatoes** reacts with **Iodine** , turning to a **blue colour.**
- Starch is a type of carbohydrate present in many of our food items. Such as bread, potato, etc.
- The following procedure follows for conducting a test for the presence of starch in potato :
  - Place a potato slice in separate and clean Petri plates.
  - With the help of a dropper, place 2-3 drops of iodine solution on the potato slice.
  - Note the change in color and record your observation.
  - A Blue-black color appears on the potato slice .
  - Potato contains starch which gives blue-black in color on the addition of iodine solution.

⭐ **Additional Information**

- Proteins :
  - Proteins are primary foodstuffs and are made up of amino acids .
  - A protein is the largest of this class of compounds and usually contains a minimum of 50 amino acids.
  - Proteins regulate metabolism . They make 12-15% of diet calories.
  - Sources of proteins are milk, eggs, fish, meat, pulses, soybean, and legumes .
- Vitamin B12 (Cynocobalamine) :
  - It is a cobalt-containing vitamin .
  - It is found in animal proteins such as meat, liver, and fish.
  - It is the only vitamin, not found in vegetables .
  - Deficiency of vitamin B12 causes pernicious anemia and degeneration of the spinal cord to ataxia leading to paralysis.
- Vitamin C (Ascorbic acid) :
  - This is the earliest known vitamin.
  - Vitamin C is rapidly destroyed by heat and decreases with time.
  - It helps in the absorption of iron and provides resistance in cold .
  - Sources of vitamin C are all citrus fruits , especially almond, orange, and lemon.

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100. **Answer: b**

Explanation:

The correct answer is **Both I and II**.

⭐ **Key Points**

- **Indrani Rahman** was an Indian classical dancer of **Bharatanatyam, Kuchipudi, Kathakali, and Odissi, which she popularized in the West, and later settled in New York in 1976.**
- In 1952, she won the Miss India pageant.

- She popularized the Indian classical dance form, Odissi during her international tours.
- Indrani received the Padma Shri in 1969 and the Sangeet Natak Akademi Award in the performing arts and also the Taraknath Das Award.

⭐ <u>**Additional Information**</u>

- As per Sangeet Natak Akademi, there exist eight classical dance forms in India, which include Bharatnatyam, Kuchipudi, Kathakali, Mohiniattam, Odissi, Manipuri, Kathak, and Sattriya.
- Bharatnatyam-
    - It is a classical dance from Tamil Nadu.
    - Rukmini Devi Arundale, another famous proponent of Bharatnatyam, is remembered for giving global recognition to the dance.
- Kuchipudi-
    - It is a classical dance from Andhra Pradesh.
    - Radha Reddy and Raja Reddy, Yamini Krishnamurthy, Indrani Rahman, etc are famous proponents.
- Kathakali-
    - It is a classical dance from Kerala.
    - Guru Kunchu Kurup, Gopi Nath, Kottakal Sivaraman, Rita Ganguly, etc are famous proponents.

- Kathak-
  - It is a classical dance from Uttar Pradesh.
  - Birju Maharaj, Lacchu Maharaj, Sitara Devi, Damayanti Joshi, etc are famous proponents.