



Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPSC



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC CHSL 2021 (Tier-I) Previous Year Paper (03-Jun-2022) (Shift 3)

Total Time: 1 Hour

Total Marks: 200

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	English Language	25	50	0.5	2
2	General Intelligence	25	50	0.5	2
3	Quantitative Aptitude	25	50	0.5	2
4	General Awareness	25	50	0.5	2

- 1.) A total of 60 minutes is allotted for the examination.
- 2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.
- 3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

English Language

1. Select the most appropriate meaning of the given idiom.

(+2, -0.5)

Have a long face

- a. Look unhappy or disappointed
- b. Portray an ugly expression
- c. Look extremely happy
- d. Look very confident

2. Select the INCORRECTLY spelt word.

(+2, -0.5)

- a. Curiocity
- b. Maturity
- c. Creativity
- d. Generosity

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

(+2, -0.5)

One who believes in the existence of a god or gods

- a. Linguist
- b. Atheist
- c. Theist

d. Leftist

4. From among the words given in bold, select the INCORRECTLY spelt word in the following sentence. (+2, -0.5)

The action was unfortunately constructed not as the necessity of conscience but as deliberate imprudence, and the barrister was unofficially reprimanded.

- a. imprudence
 - b. conscience
 - c. necessity
 - d. reprimanded
-

5. Select the most appropriate ANTONYM of the given word. (+2, -0.5)

Marvellous

- a. Adverse
 - b. Terrible
 - c. tolerable
 - d. Mythical
-

6. Select the option that can be used as a one-word substitute for the underlined group of words. (+2, -0.5)

It is better to contact someone who draws maps to get help in your research project.

- a. Calligraphist
 - b. Psephologist
 - c. Cartographer
 - d. Lexicographer
-

7. Identify the option that arranges the given parts in the correct order to form a meaningful and coherent paragraph. (+2, -0.5)

- a) Further, loud music is also a cause of noise pollution
- b) Noise pollution is the result of aircraft and heavy traffic.
- c) which has been seen to affect people's hearing and
- d) give them severe headaches and high blood pressure

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

8. Select the option that will improve the underlined part of the given sentence. (+2, -0.5)

Danny is the better basketball player in the team.

- a. good
- b. most

- c. best
 - d. gooder
-

9. Select the most appropriate option to fill in the blank. (+2, -0.5)

Two _____ control the judge's decision: justice and impartiality.

- a. officials
 - b. members
 - c. principles
 - d. advocates
-

10. The following sentence contains a grammatical error. Select the option that correctly rectifies the error. (+2, -0.5)

As a rule, single sentences should not be write or printed as paragraphs.

- a. As a rule, single sentences should not be wrote or printed as paragraphs.
 - b. As a rule, single sentences should not write or print as paragraphs.
 - c. As a rule, single sentences shall not have written or printed as paragraphs.
 - d. As a rule, single sentences should not be written or printed as paragraphs.
-

11. Select the most appropriate synonym of the given word. (+2, -0.5)

Pleasing

- a. Gratifying
- b. Festive
- c. Mournful
- d. Sagging

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

(+2, -0.5)

Ardent

- a. Admirable
- b. Beautiful
- c. Sincere
- d. Apathetic

13. Select the most appropriate option to substitute the underline segment in the given sentence.

(+2, -0.5)

Some politicians turn up their face at the hard life of downtrodden people.

- a. turn up their eyes
- b. turn up their nose
- c. turn up their mouth
- d. turn up their ears

14. Spot the error in the given sentence and select the correct sentence from the options given. (+2, -0.5)

All the panel members has been invited for the monthly meeting.

- a. All the panel members was invited for the monthly meeting.
- b. All the panel members been invited for the monthly meeting.
- c. All the panel members have been invited for the monthly meeting.
- d. All the panel members would have being invited for the monthly meeting.

15. Select the option that can be used as a one-word substitute for the given group of words. (+2, -0.5)

Someone who is shy and spends time alone rather than being with others

- a. Egoist
- b. Extravert
- c. Introvert
- d. Monk

16. Select the most appropriate meaning of the given idiom. (+2, -0.5)

The best of both worlds

- a. The best practices in both, ancient times and present times
- b. The best people on Earth and in heaven

- c. An advantageous situation from two different things at a time
 - d. Being good in dreams and in reality
-

17. Select the option that expresses the given sentence in passive voice. (+2, -0.5)

He does not trust anybody.

- a. Anybody is not to be trusted by him.
 - b. Anybody is trusted not by him.
 - c. Nobody is trusted by him.
 - d. Nobody trusts him.
-

18. Select the sentence which has no spelling error. (+2, -0.5)

- a. A magnifisent Humayun tomb was built by Hamida Bano in Delhi.
 - b. There are many magnificent churches in Goa.
 - c. The sight of waterfall was magnifecent in the brochure.
 - d. The bride looked bright, simple and magneficent.
-

19. Select the most appropriate synonym of the given word. (+2, -0.5)

Stymie

- a. Tame
- b. Amaze
- c. Hinder

d. Scare

20. Parts of the given sentence have been given as options. One of them contains a grammatical error. Select the option that has the error. (+2, -0.5)

Though you may not be able to conquer, I exhort you to fought bravely to the last.

- a. Though you may not be
- b. I exhort you
- c. able to conquer
- d. to fought bravely to the last

21. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+2, -0.5)

Many of the major supermarket chains have come under fire with accusations of (1)_____ unethical acts over the past decade. They've wasted tonnes of food, they've underpaid their suppliers and they've contributed to excessive plastic waste in their packaging, which has had its impact on our environment. But supermarkets and grocers are (2)_____ to sit up and take notice. In response to (3)_____ consumer backlash against the huge amounts of plastic waste generated by plastic packaging, some of the largest UK supermarkets have (4)_____ up a pact promising to transform packaging and cut plastic wastage. In a pledge to reuse, recycle or compost all plastic wastage by 2025, supermarkets are now beginning to take (5)_____ responsibility for the part they play in contributing to the damage to our environment, with one major supermarket

announcing their plan to eliminate all plastic packaging in their own-brand products by 2023.

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

- a. various
- b. most
- c. same
- d. much

22. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+2, -0.5)

Many of the major supermarket chains have come under fire with accusations of (1) _____ unethical acts over the past decade. They've wasted tonnes of food, they've underpaid their suppliers and they've contributed to excessive plastic waste in their packaging, which has had its impact on our environment. But supermarkets and grocers are (2) _____ to sit up and take notice. In response to (3) _____ consumer backlash against the huge amounts of plastic waste generated by plastic packaging, some of the largest UK supermarkets have (4) _____ up a pact promising to transform packaging and cut plastic wastage. In a pledge to reuse, recycle or compost all plastic wastage by 2025, supermarkets are now beginning to take (5) _____ responsibility for the part they play in contributing to the damage to our environment, with one major supermarket announcing their plan to eliminate all plastic packaging in their own-brand products by 2023.

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

- a. being start

- b. starting
- c. start
- d. being starting

23. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+2, -0.5)

Many of the major supermarket chains have come under fire with accusations of (1) _____ unethical acts over the past decade. They've wasted tonnes of food, they've underpaid their suppliers and they've contributed to excessive plastic waste in their packaging, which has had its impact on our environment. But supermarkets and grocers are (2) _____ to sit up and take notice. In response to (3) _____ consumer backlash against the huge amounts of plastic waste generated by plastic packaging, some of the largest UK supermarkets have (4) _____ up a pact promising to transform packaging and cut plastic wastage. In a pledge to reuse, recycle or compost all plastic wastage by 2025, supermarkets are now beginning to take (5) _____ responsibility for the part they play in contributing to the damage to our environment, with one major supermarket announcing their plan to eliminate all plastic packaging in their own-brand products by 2023.

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

- a. believing
- b. enlarging
- c. developing
- d. growing

24. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

(+2, -0.5)

Many of the major supermarket chains have come under fire with accusations of (1) _____ unethical acts over the past decade. They've wasted tonnes of food, they've underpaid their suppliers and they've contributed to excessive plastic waste in their packaging, which has had its impact on our environment. But supermarkets and grocers are (2) _____ to sit up and take notice. In response to (3) _____ consumer backlash against the huge amounts of plastic waste generated by plastic packaging, some of the largest UK supermarkets have (4) _____ up a pact promising to transform packaging and cut plastic wastage. In a pledge to reuse, recycle or compost all plastic wastage by 2025, supermarkets are now beginning to take (5) _____ responsibility for the part they play in contributing to the damage to our environment, with one major supermarket announcing their plan to eliminate all plastic packaging in their own-brand products by 2023.

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

- a. signed
- b. bought
- c. settled
- d. resigned

25. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

(+2, -0.5)

Many of the major supermarket chains have come under fire with accusations of (1) _____ unethical acts over the past decade. They've wasted tonnes of food, they've underpaid their suppliers and they've contributed to excessive plastic waste in their packaging, which has had its impact on our environment. But supermarkets and grocers are (2) _____ to sit up and take notice. In response to (3) _____ consumer backlash against the huge amounts of plastic waste generated by plastic packaging, some of the largest UK supermarkets have (4) _____ up a pact promising to transform packaging and cut plastic wastage. In a pledge to reuse, recycle or compost all plastic wastage by 2025, supermarkets are now beginning to take (5) _____ responsibility for the part they play in contributing to the damage to our environment, with one major supermarket announcing their plan to eliminate all plastic packaging in their own-brand products by 2023.

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

- a. little
- b. every
- c. any
- d. some

General Intelligence

26. Select the option that represents the letters that, when sequentially placed from left to right in the blanks below, will complete the letter series. (+2, -0.5)

r d _ n _ d r _ _ b n n d _ r d b _ n d r

- a. r n r d r n
- b. b n r d r r
- c. n n r d r n
- d. b n r d r n

27. Select the correct mirror image if the given combination when the mirror is placed at MN as shown. (+2, -0.5)

h y m 5 7 3

M
|
N

- a. 3 7 5 m y h
- b. 3 7 2 w y h
- c. 3 7 5 w y h
- d. 3 7 5 w y h

28. 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 the fifth number is
- (+2, -0.5)

related to the sixth number.

$$19 : 361 :: ? : 576 :: 6 : 36$$

- a. 25
- b. 24
- c. 22
- d. 23

29. If 'A' denotes '+', 'B' denotes '×', 'C' denotes '−' and 'D' denotes '÷', then what will come in place of '?' in the following equation? (+2, -0.5)

$$(91 \text{ D } 13) \text{ B } 8 \text{ C } 50 \text{ A } 16 \text{ B } 2 \text{ A } (99 \text{ D } 11) = ?$$

- a. 47
- b. 27
- c. 6
- d. 33

30. Which two numbers, from amongst the given options, should be interchanged to make the given equation correct? (+2, -0.5)

$$(36 \div 4) \times 12 + (7 \times 6) - 18 + (3 \times 9) = 63$$

- a. 6 and 4
- b. 3 and 4
- c. 4 and 12

d. 12 and 3

31. Select the option that is related to the fifth term in the same way as the second term is related to the first term and the fourth term is related to the third term. (+2, -0.5)

SYMBOL : YSNYLO :: TALENT : ATOVTN :: MOBILE : ?

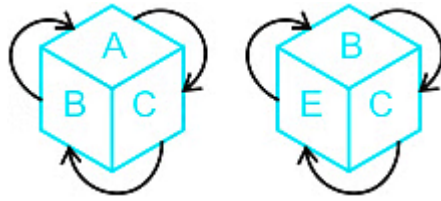
- a. OMIBEL
- b. OMGWEL
- c. OMTSEL
- d. OMYREL

32. Select the correct combination of mathematical signs to replace the * signs and to balance the given equation. (+2, -0.5)

$21 * 5 * 61 * 84 * 4 * 8 * 15$

- a. -, ÷, +, -, =, ×
- b. ×, -, =, ÷, +, +
- c. +, -, =, ×, -, ÷
- d. +, ×, -, =, +, -

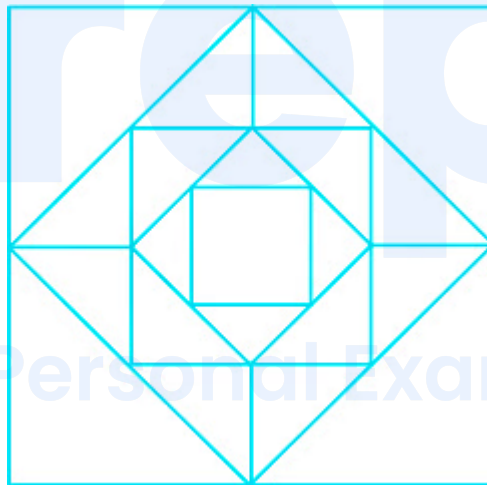
33. Two different position of the same dice are shown, the faces of which are marked from A to F. Select the letter that will be on the opposite to the one showing 'E'. (+2, -0.5)



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

34. How many triangles are there in the given figure?

(+2, -0.5)



- a. 24
- b. 28
- c. 26
- d. 30

35. Select the correct combination of mathematical signs to replace the * signs and to balance the given equation. (+2, -0.5)

$$2 * 5 * 5 * 10 * 5$$

- a. =, x, x, -
- b. x, -, =, -
- c. =, +, +, x
- d. x, x, x, =

36. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number. (+2, -0.5)

$$17 : 48 :: 23 : 66 :: 15 : ?$$

- a. 42
- b. 49
- c. 36
- d. 46

37. Seven friends S, T, U, V, W, X and Y, each has scored different marks in an examination. W scored more than X but less than V. Only three people scored more than V. T scored more than U but less than S. Y scored the least among all. How many persons scored between T and X? (+2, -0.5)

- a. 4
- b. 2

c. 3

d. 1

-
38. Study the given pattern carefully and select the number that can replace the question mark (?) in it. (+2, -0.5)

First row: 17, 8, 153

Second row: 19, 6, 133

Third row: 13, 7, ?

(NOTE: Operations should be performed on the whole numbers, without breaking down the number into its constituent digits. For example, 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.)

a. 103

b. 113

c. 109

d. 104

-
39. Study the given pattern carefully and select the number that can replace the question mark (?) in it. (+2, -0.5)

First row– 12, 51, 159

Second row– 9, 39, 123

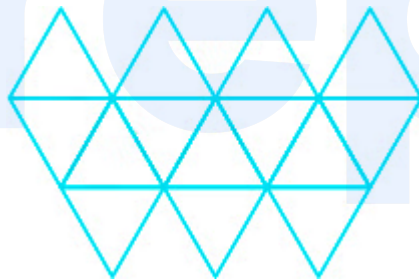
Third row– 8, 35, ?

(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)

- a. 91
- b. 111
- c. 101
- d. 99

40. How many triangles are there in the given figure?

(+2, -0.5)



- a. 18
- b. 14
- c. 19
- d. 16

41. If 19 April 1962 is a Thursday, then what will be the day of the week on 15 June 1965?

(+2, -0.5)

- a. Tuesday

- b. Friday
 - c. Monday
 - d. Sunday
-

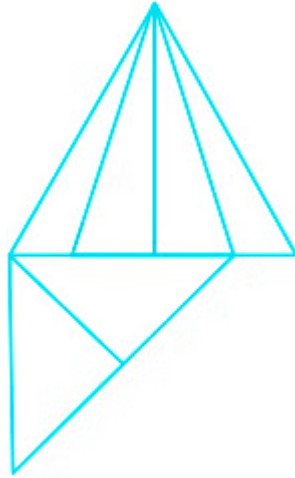
42. The second number in the given number pairs is obtained by performing certain mathematical operation(s) on the first number. The same operation(s) are followed in all the number pairs except one. Find that odd number pair. (+2, -0.5)

- a. 25 : 8
 - b. 169 : 16
 - c. 225 : 12
 - d. 64 : 11
-

43. In a certain code language, "REPORT" is written as "SDQNSS", and "THANKS" is written as "UGBMLR". How will "WINTER" be written in that language? (+2, -0.5)

- a. XHOSFQ
 - b. XHMSFQ
 - c. XHOUFQ
 - d. XIOSFQ
-

44. Find how many triangles are there in the given figure. (+2, -0.5)



- a. 12
- b. 13
- c. 14
- d. 11

45. 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 the fifth number is related to the sixth number. (+2, -0.5)

8 : 72 :: ? : 152 :: 17 : 297

- a. 9
- b. 14
- c. 18
- d. 12

46. In a certain code language, 'PLURAL' is written as 'MQSVMB' and 'SINGLE' is written as 'JTHOFM'. How will 'DOUBLE' be written in that language? (+2, -0.5)

- a. PEVCMF
 - b. PECTDO
 - c. PECVFM
 - d. CMTAKD
-

47. Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series. (+2, -0.5)

A B _ K P C D H _ P E F H K _ G _ H K P

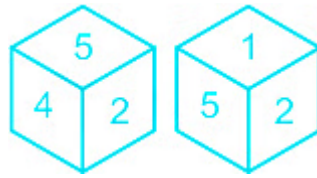
- a. H K P H
 - b. C K E H
 - c. H G P E
 - d. C G P E
-

48. Pointing to a man in photograph, Rohan said, "His daughter's brother is my mother's son's brother." How is the man related to Rohan? (+2, -0.5)

- a. Father's father
 - b. Father's brother
 - c. Brother
 - d. Father
-

49. Two different position of the same dice are shown, the six faces of which are numbered from 1 to 6. Select the number that will be on the face (+2, -0.5)

opposite to the one showing '4'.



- a. 5
- b. 2
- c. 1
- d. 3

50. Consider the given statement and the following conclusions and decide which of the conclusions logically follow(s) from the statement. (+2, -0.5)

Statement:

Private school teachers are hard-working.

Conclusion:

- (I) Some hard-working teachers are private school teachers.
- (II) Government employees are not hard-working.

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

Quantitative Aptitude

51. A shopkeeper offers the following four schemes. Which scheme has the maximum discount percentage? (+2, -0.5)

- a) Two successive discounts of 22% and 25%
- b) Buy 3, get 2 free
- c) Buy 5, get 4 free
- d) Buy 4, get 3 free

a. a

b. b

c. d

d. c

52. Ram and Shawan working together can complete a job in 5 hours, where as Ram alone can complete the same job in 6 hours. In how many hours can Shawan alone complete the job? (+2, -0.5)

a. 30

b. 20

c. 35

d. 25

53. If $x + \frac{1}{x} = -3\sqrt{2}$, what is the value of $(x^5 + \frac{1}{x^5})$? (+2, -0.5)

a. $-715\sqrt{2}$

b. $-717\sqrt{2}$

c. $-723\sqrt{2}$

d. $-720\sqrt{2}$

54. The following table gives the age of the children in a class of a school. (+2, -0.5)
Find the number of children in the class whose age is below 11 years but above 8 years.

Age (in years)	8	9	10	11	12
No. of children	13	15	42	22	18

a. 42

b. 28

c. 40

d. 57

55. A boat's speed in still water is 22 km/h, while the river is flowing with a speed of 8 km/h and the time taken to cover a certain distance upstream is 4 hours more than the time taken to cover the same distance downstream. Find the distance. (+2, -0.5)

a. 105 km

b. 110 km

c. 115 km

d. 125 km

56. A sum of money becomes ₹2,000 in 3 years and ₹2,400 in 4 years, at the certain rate of yearly compound interest in case of annual compounding. Find the yearly rate of compound interest. (+2, -0.5)
- a. 20%
 - b. 10%
 - c. 15%
 - d. 25%
-
57. A number is first increased by 25% and then decreased by 10%. If the resulting number is 72, what is the original number? (+2, -0.5)
- a. 75
 - b. 84
 - c. 64
 - d. 56
-
58. The perimeter of an isosceles triangle is 80 cm. If the side that is not equal in length to any of the other two sides is 20 cm, find the length of each of the equal sides. (+2, -0.5)
- a. 25 cm
 - b. 20 cm
 - c. 40 cm
 - d. 30 cm

59. What is the value of the expression $100(\sin 15^\circ \cos 15^\circ)$? (+2, -0.5)

- a. 50
- b. 75
- c. 100
- d. 25

60. Taking $\pi = 3.14$, find the volume of a cylinder having its radius of base as 5 cm and its height as 24 cm. (+2, -0.5)

- a. 1526 cm^3
- b. 1848 cm^3
- c. 1256 cm^3
- d. 1884 cm^3

61. A shopkeeper buys a note book for ₹85. He wants a profit of 20% after giving a discount of 15%. At what price should he mark the note book? (+2, -0.5)

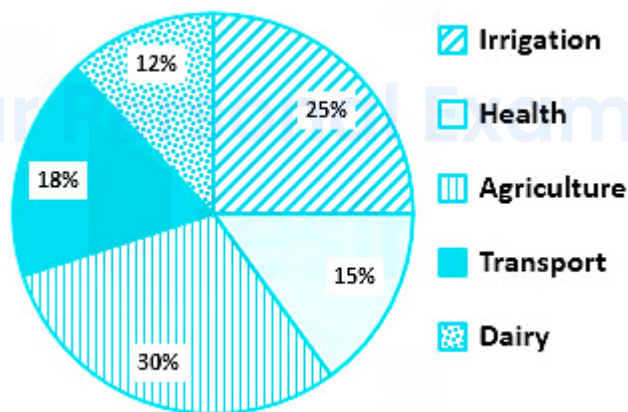
- a. ₹105
 - b. ₹110
 - c. ₹115
 - d. ₹120
-

62. In a class there are 26 boys and 24 girls. The Math teacher administered a test and found that the average score of the whole class is 85. If the average score of the boys was 82, find the average score of the girls. (+2, -0.5)

a. 82
b. 88.25
c. 85
d. 87.5

63. Study the following pie-chart carefully, which shows a state government's expenditure (% allocation) on various sectors during the year 2019. (+2, -0.5)

If ₹27 million were spent on transport in 2019, what would have been the total expenses (in million) of the given state government in that year considering mentioned sectors only?



a. 160
b. 140
c. 150

d. 130

64. Which of the following options does NOT give the lengths of three sides of any triangle? (+2, -0.5)

a. 12, 18, 25

b. 18, 23, 41

c. 7, 10, 12

d. 4, 7, 9

65. In a school, students using school bus, bike and bicycle for transport are in the proportion 6 : 3 : 1. If the total strength of the school is 1200, find the number of students who use bicycle for transport. (Each student uses only one of the given 3 modes of transport) (+2, -0.5)

a. 120

b. 180

c. 240

d. 100

66. Simplify: (+2, -0.5)

$$2[8p + 5 \{n - 2(n - \overline{n + p}) + 4p\}]$$

a. $76p + 10n$

b. $6p + 10n$

- c. $7p + 6n$
 - d. $10p + 10n$
-

67. A person runs at an average speed of 20 km/h for 30 minutes and cycles at a speed of 32 km/h for 1 hour 15 minutes. Calculate the average speed (in km/h, rounded off to 1 decimal place). (+2, -0.5)

- a. 30.5
 - b. 28.6
 - c. 25.4
 - d. 26.3
-

68. When the price of an article was reduced by 25%, its sale was increased by 75%. Calculate the net effect on revenue. (+2, -0.5)

- a. 31.25% decrease
 - b. 31.25% increase
 - c. 39.75% increase
 - d. 39.75% decrease
-

69. An authorised rice dealer purchases rice at ₹32 per kg and sells it at ₹40 per kg. But while selling, he is giving only 900 grams instead of 1 kg. Find the actual profit percentage of the dealer (Correct to one decimal place) (+2, -0.5)

- a. 37.8%
- b. 39.7%

c. 39.8%

d. 38.9%

70. If a, b, c are positive real numbers, what is the value of $\sqrt{a^{-1}b} \times \sqrt{b^{-1}c} \times \sqrt{c^{-1}a}$? (+2, -0.5)

a. 2

b. 3

c. 1

d. 4

71. Which of the following numbers is divisible by 3? (+2, -0.5)

a. 7865001

b. 7803572

c. 7803541

d. 7803593

72. If the areas of three adjacent faces of a cuboidal box are 729 cm^2 , 529 cm^2 , and 289 cm^2 respectively, then find the volume of the box. (+2, -0.5)

a. $10,557 \text{ cm}^3$

b. $10,560 \text{ cm}^3$

c. $10,555 \text{ cm}^3$

d. $10,551 \text{ cm}^3$

73. The table given below provides information about the marks obtained by a group of students in a test. (+2, -0.5)

Marks	No. of Students
Less than 10	2
Less than 20	5
Less than 30	6
Less than 40	8
Less than 50	10

What is total number of students in the group?

- a. 20
- b. 10
- c. 8
- d. 31
74. The average of 25 numbers is 18. The average of the first 12 of these numbers is 14 and that of the last 12 of these numbers is 17. The 13th number is: (+2, -0.5)
- a. 80
- b. 78
- c. 74

d. 82

75. The value of the expression $1800 \div 10\{(18 - 6) + [-2(1 + 2)]\}$ is: **(+2, -0.5)**

a. 20

b. 1080

c. 30

d. 1008

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General Awareness

76. Ustad Bade Ghulam Ali Khan, often touted as Tansen of the 20th century is (+2, -0.5)
famous for which of the following music genres?

- a. Hindustani classical music
- b. Carnatic music
- c. Sufi devotional
- d. Ghazals

77. Which of the following is the autobiography of Maulana Abul Kalam Azad? (+2, -0.5)

- a. Freedom at Midnight
- b. Partition
- c. The Man Who Divided India
- d. India Wins Freedom

78. Tanya Hemant is related to which of the following sports? (+2, -0.5)

- a. Badminton
- b. Tennis
- c. Chess
- d. Hockey

79. In October 2021, an order was issued by the Social Justice and Empowerment Department of Rajasthan to give the benefits of a pension scheme to all persons within _____ categories of disabilities under the 'Rajasthan Social Security Special Persons Pension Scheme' in the state. (+2, -0.5)

- a. 15
- b. 21
- c. 19
- d. 17

80. What happens to the salinity at the surface of the ocean? (+2, -0.5)

- a. Increases by the precipitation process
- b. Decreases by the loss of water to ice or evaporation
- c. Increases by the loss of water to ice or evaporation
- d. Decreases by transpiration

81. What is the common name of CHCl_3 ? (+2, -0.5)

- a. Chloroform
- b. Sodium chloride
- c. Ethylchloride
- d. Hydrochloric acid

82. In the context of micro-finance, SHG refers to _____. (+2, -0.5)

- a. Sustainable Help for Growth
- b. Surety and Help Group
- c. Sustainable Help Grant
- d. Self Help Group

83. In April 2021, the state government of Assam launched the Tractor Distribution Scheme under the Chief Minister Samagra Gramya Unnayan Yojna (CMSGUY) for farmers, with the objectives of reviving the agriculture sector and helping in doubling the farmer's income by _____ (+2, -0.5)

- a. 2022
- b. 2025
- c. 2023
- d. 2024

84. Renowned dancer and actor Minati Mishra was conferred with the Padma Shri for her significant contribution to which of the following Classical Dance forms? (+2, -0.5)

- a. Odissi
- b. Manipuri
- c. Kathakali

d. Kathak

85. In Budget 2022-23, Government of India decided to continue the Scheme of 'Khelo India – National Programme for Development of Sports' over the 15th Finance Commission Cycle (2021-22 to 2025-26) at an outlay of _____.

(+2, -0.5)

- a. ₹4,550 crores
 - b. ₹4,500 crores
 - c. ₹5,000.50 crores
 - d. ₹3,165.50 crores
-

86. Padma Bhushan awardee, Buddhadev Das Gupta was an Indian classical _____ player.

(+2, -0.5)

- a. sarangi
 - b. tambura
 - c. sarod
 - d. tabla
-

87. T Balasaraswati, a dance legend from India was awarded the Padma Vibhushan for her contribution to Indian art and culture, in which of the following dance forms?

(+2, -0.5)

- a. Kuchipudi
- b. Bharatanatyam

- c. Kathakali
 - d. Manipuri
-

88. Who among the following is NOT a Veena player? (+2, -0.5)

- a. Jayanthi Kumaresh
 - b. Sundaram Balchander
 - c. Jasraj
 - d. Veenai Dhanammal
-

89. The reflection on a bathroom mirror, the lake, and the glare on a pair of glasses are caused by which type of reflection? (+2, -0.5)

- a. Multiple reflection
 - b. Specular reflection
 - c. Glossy reflection
 - d. Diffused reflection
-

90. Of which of the following forms are Kelucharan Mahapatra, Sonal Mansingh and Geeta Mahalik famous dancers? (+2, -0.5)

- a. Mohiniattam
- b. Kuchipudi
- c. Bharatanatyam

d. Odissi

91. Who among the following Kuchipudi dancers received the Padma Shri Award in 2022? (+2, -0.5)

- a. Shobha Naidu
 - b. Bhavana Reddy
 - c. Padmaja Reddy
 - d. T Harika
-

92. Which of the following is an example of active transport? (+2, -0.5)

- a. Iron assimilation
 - b. Salt elimination
 - c. Glucose transport
 - d. Sodium and potassium pumps
-

93. Identify the disease that is caused due to inadequate secretion of the hormone insulin from the pancreas? (+2, -0.5)

- a. Tuberculosis
 - b. Diabetes mellitus
 - c. Blood cancer
 - d. Gall stones
-

94. 'Raavan – Enemy of Aryavarta' is written by which of the following writers? (+2, -0.5)

- a. Chetan Bhagat
- b. Aravind Adiga
- c. Vikram Seth
- d. Amish Tripathi

95. Who showed that heating silver cyanide (an inorganic compound) with ammonium chloride (another inorganic compound) produced urea without the aid of any living organism or part of a living organism, in 1828? (+2, -0.5)

- a. Antoine Lavoisier
- b. Friedrich Wohler
- c. Ernest Lawrence
- d. Alfred Werner

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96. Which state in India as per the 2021 Census has the lowest population Density per km²? (+2, -0.5)

- a. Uttarakhand
- b. Nagaland
- c. Arunachal Pradesh
- d. Mizoram

97. 'Jakhan Choto Chilam' is the autobiography of _____. (+2, -0.5)

- a. Satyajit Ray
- b. Sukumar Ray
- c. Taslima Nasrin
- d. Debesh Roy

98. Which Schedule of the Indian Constitution divides the power between the Centre and the state in terms of the union, state and concurrent list? (+2, -0.5)

- a. Fifth Schedule
- b. Ninth Schedule
- c. Third Schedule
- d. Seventh Schedule

99. The World Badminton Championship event 2026 will be organised by _____. (+2, -0.5)

- a. Australia
- b. India
- c. China
- d. Indonesia

100. _____ is a reputed classical dancer of Kathak dance form. (+2, -0.5)

- a. Kanak Rele
- b. Shovana Narayan
- c. Vani Madhav
- d. Madhavi Mudgal

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Answers

1. Answer: a

Explanation:

The correct answer is "Look unhappy or disappointed".

★ Key Points

- **Long faces** make people appear **unpleasant** or serious.
 - **Example:** Mohini came to me with a very **long face**.
- The meaning of "**Look unhappy or disappointed**" is someone who is looking sad or unpleasant.
 - **Example:** The boy looks **unhappy or disappointed**.
- Both of the phrases are similar.
- Therefore, the **option 1)** is the correct solution.

2. Answer: a

Explanation:

The correct answer is "**Curiosity**".

★ Key Points

- **Curiosity** is the enthusiastic desire to learn about something.
 - **Example:** Lisa's **curiosity** led her to ask more questions.
- There is no word **Curiosity** in English.
- **Curiosity** is spelt incorrectly among the given options.

3. Answer: c

Explanation:

The correct answer is "Theist".

★ Key Points

- The question is asking for **someone who believes in god or gods**.
- **Theists** hold that there is/are a god or gods.
 - *Example: John was a theist.*
- Both the meanings are the same.
- So the correct option is **3)**.

★ Additional Information

Let's see the others' meaning.

- A **linguist** is a person who is skilled in languages.
 - *Example: Ram was an accomplished linguist.*
- **Atheist** refers to a person who does not believe in the **existence of any gods**.
 - *Example: I am an atheist.*
- **Leftist** refers to a person with **left-leaning political opinions**.
 - *Example: We are looking for something to distinguish them from other leftists.*
- Therefore, these three options are not matching with the given question.

4. Answer: a

Explanation:

The correct answer is "imprudence".

★ Key Points

- The word "**imprudence**" is wrong among the given sentence.
- The word should be **imprudence** not **imprudance**.

- **Imprudence** is a **lack of judgment or diligence** in handling practical or financial matters.
 - Therefore, "**imprudance**" is a word which is spelt incorrectly.
 - The other given options are grammatically correct.
-

5. Answer: b

Explanation:

The correct solution is "**Terrible**".

★ Key Points

- **Marvellous** refers to something that is **very good**.
 - *Example: Ayan has done a **marvellous** job*
- The opposing word to **Marvellous** should serve as the **antonym**.
- **Terrible** denotes which is extremely bad.
 - *Example: The service of the restaurant is **terrible**.*
- Therefore, the opposite word of marvellous is terrible.

★ Additional Information

- **Adverse** refers to impeding achievement or growth.
 - *Example: The match was canceled because of **adverse** weather.*
 - **Tolerable** refers to something that can be tolerated or borne.
 - *Example: The heat was not **tolerable**.*
 - **Mythical** refers to something that only exists in the mind.
 - *Example: Raavan was a **mythical** hero.*
-

6. Answer: c

Explanation:

The correct solution is "**Cartographer**".

★ Key Points

- Someone who creates maps is referred to as a **cartographer** according to the Oxford Dictionary of English app .
- **Example:** Sujan is quite passionate about becoming a **cartographer** .
- The underlined words are asking for the person **who draws maps** .
- Therefore, the correct option is **3)** .

The **correct sentence** is– It is better to contact a cartographer to get help in your research project.

7. Answer: d

Explanation:

The correct answer is "**b, a, c, d**".

★ Key Points

- Each sentence in a **cohesive paragraph** clearly connects to the main sentence or guiding idea, but coherence goes beyond this. When a paragraph is **coherent** , there are no jarring shifts or jumps between any of the sentences.
- Here the first sentence should be "**Noise pollution is the result of aircraft and heavy traffic**".
- If we go more we should say further . The first sentence presents the cause of **noise pollution** .
- The last two sentences are the next **sequences** of noise pollution which are the **results** of noise pollution.
- Therefore, **Option 4)** is the appropriate answer.

8. Answer: c

Explanation:

The correct answer is "best".

★ Key Points

- There is a use of "**the**" before the underlined **adjective** .
- The **superlative degree** of a verb should be used after the article "**the**" .
- When describing something that is at the upper or lower extent of quality, superlative adjectives are utilized (the tallest, the smallest, the fastest, the highest).
- The sentence structure will be **Noun (subject) + verb + the + superlative adjective + noun (object)** .

So the correct sentence will be **Danny is the best basketball player in the team .**

★ Additional Information

- **Good** is the **positive degree** but it does not use after "**the**" .
- **Most** is an **adverb** and also a superlative degree of "**more**" which is an adverb. This will not be making sense before basketball.
- **Gooder** is the **comparative degree** of the verb "good".

9. Answer: c

Explanation:

The correct answer is "**principles**" .

★ Key Points

- A core idea or **principle** that forms the basis of a way of thinking, behaving, or behaving in a certain way.
- According to the sentence, two principles are **justice and impartiality** .
- Justice and impartiality serve as the **judge's guiding principles** .

The correct sentence is **Two principles control the judge's decision: justice and impartiality .**

10. Answer: d

Explanation:

The correct answer is "As a rule, single sentences should not be written or printed as paragraphs."

★ Key Points

- **Should** is a **phrasal verb** that denotes if something is right or best to do, or whether someone must or ought to do something.
- According to the **English grammar**, the past participle form of the verb must be used after "**should be**".
- The past participle form of "**write**" is "**written**".

So the correct sentence will be **As a rule, single sentences should not be written or printed as paragraphs.**

11. Answer: a

Explanation:

The correct answer is "**Gratifying**".

★ Key Points

- Giving a **sense of satisfaction or happiness** is the definition of **pleasing**.
 - ***Example:** He has done a **pleasing** performance.*
- Gratifying refers to something that makes you feel good since it gives you what you need or want.
 - ***Example:** France got a **gratifying** victory.*
- Consequently, the two words have the same meaning.

★ Additional Information

- Let's see the **meaning of other words** .
 - **Festive** refers to the state of being joyful and delightful in line with a festival or other special occasion.
 - **Mourning** is feeling **regret for something** .
 - To **sag** is to **droop, sink, or settle** under pressure or as if there were no tension.
-

12. Answer: d

Explanation:

The correct answer is "**Apathetic**".

★ Key Points

- The adjective **ardent** denotes **a high level of fervor, dedication, or enthusiasm** .
 - *Example: Riya has never seen such an **ardent** pacifist as Joy.*
- **Apathy** is the absence of passion, interest, or care. The emotionless person is called **apathetic** .
 - *Example: Some Americans are **apathetic** .*
- The definitions of ardent and apathetic are mutually exclusive.

★ Additional Information

Let's see the other words.

- To be **admirable** means to merit admiration or respect.
 - Being **beautiful** refers to having an **appealing quality** that makes people happy when they see it or think about it.
 - **Sincerity** is the absence of pretense or deception.
-

13. Answer: b

Explanation:

The correct answer is "**turn up their nose**".

★ Key Points

- " Turn their face " means to **change their personality from a villain to a hero** .
 - **Example:** *Ron **turned his face** to get the job.*
- " Turn up their nose " means **refuse something because it is not good for you**.
 - **Example :** *Annie **turned up her nose** when she was asked to take engineering.*
- Therefore, the appropriate option that would substitute "turn up their face" is "turn up their nose".

★ Additional Information

- Let's see some idioms beginning with " turn ".

Idiom	Meaning	Example
Turn the tables	to reverse the position making a disadvantage into an advantage.	<i>The peon turned the tables when he caught the official taking bribes.</i>
Turn to jelly	feeling weak because of nervousness.	<i>Harry turned to jelly when he was asked to address the school assembly.</i>
Turn up	arrive	<i>Tim turned up for the interview at the right time.</i>

14. Answer: c

Explanation:

The correct answer is "All the panel members have been invited for the monthly meeting."

★ Key Points

- The given question has been started with the **plural form** of the "**panel members**".
- If the subject is a **plural noun or plural pronoun** , use have.
- So the **third option** is the correct one.

The correct sentence is **All the panel members have been invited for the monthly meeting** .

15. Answer: c

Explanation:

The correct answer is "introvert".

★ Key Points

- **One-word replacements** are used to simplify complex sentences by replacing them with a single word. With the **phrase** replaced, the meaning is unchanged, but the sentence is now shorter.
- An **introvert** is a person who possesses traits associated with the introverted personality type, meaning they prefer to pay attention to their own **inner thoughts and ideas** as opposed to what is happening around them.
 - **Example:** Ram is an **introvert** person.
- The **introvert** has the same meaning as the given question.

★ Additional Information

Let's check the meanings of the other words.

- A person who is an **egoist** is one **who is focused with their own interests** .
- **Extraverted** characteristics include being **talkative, active, forceful, and outgoing** .
- A guy who has dedicated his life to **religion** typically gives up some aspects of daily life in the process and is called a **monk** .
- These words are not matching with the given question.

16. Answer: c

Explanation:

The correct answer is "An advantageous situation from two different things at a time" .

★ Key Points

- The most appropriate meaning of the given idiom is "**An advantageous situation from two different things at a time**".
- **The best of all worlds:** When all the benefits of **two separate circumstances** outweigh any **drawbacks** .
 - *Example: Ram got the best of both worlds in one car.*
- According to the meaning, the third option is correct.

★ Additional Information

Let's check the other idioms

Words	Meaning	Examples
World of Goods	When you remark that something has improved someone's life or done them the world of good, you are implying that it has made them feel better .	A vacation will be worked a world of goods for you.
Worlds apart	To be fully at odds with one another or different	Our living conditions are worlds apart .
The World is at your Fingertips	This idiom can be used to describe someone who has many opportunities available to them .	I have all the answers at my fingertips

17. Answer: c

Explanation:

The correct answer is "Nobody is trusted by him ".

★ Key Points

- The given sentence is in a negative and **active voice**. and it needs to be changed to **passive voice** .
- The **passive voice** is used to express interest in the subject of an action rather than the subject or object that actually performs it.
- The **rule for structuring** the sentence of **passive voice** is :
 - The object will be changed into the **subject** .
 - "Does not" will be changed into "**is**" .
 - And the main verb will be used in **past participle form** .
- Here the object is "**anybody**" .But as it is in **negative form** , we should use nobody as the **subject of passive voice** and the verb will be in **past participle form**.

So the answer will be **Nobody is trusted by him** .

★ Additional Information

- Let's see another example of **passive voice** .
- You have an **active voice** when the actor (and the actor can be a person or an object) appears **before the action** in a sentence.
- The **passive voice** is used to express interest in the subject of **an action** rather than the **subject or object** that actually performs it.
- **Example:** I took the pen. (**Active voice**)
 - The pen was taken by me. (**Passive voice**)

18. Answer: b

Explanation:

The correct answer is "There are many magnificent churches in Goa."

★ Key Points

- The common word is "**magnificent**" in all the given sentences.
- Magnificent denotes a size that is **stunning and proportionate** to scale without compromising **decency or aesthetic taste**.
- According to English grammar, the correct word is "**magnificent**" which is correct only in the second option.
- The remaining sentences' spellings of "**magnificent**" are wrong.

Therefore, **option two** is correct.

19. Answer: c

Explanation:

The correct answer is "**Hinder**".

★ Key Points

- To **stymie** is to **stop someone** or something from happening or from accomplishing a goal.
 - **Example:** Bad weather **stymied** the cricket match.
- **Hinder** implies to **restrict someone's capacity for action**.
 - **Example:** It's unclear if the adjustment will benefit or **hinder** our project.
- According to their meaning, the above two words are identical.

★ Additional Information

- When an animal is born in the wild, **taming** refers to the process of conditioning its behaviour so that it no longer naturally avoids humans and instead accepts their presence.
- To be **deeply surprised** or astounded is to **amaze**.
- To be **terrified**, especially suddenly, is to be **scared**.

20. Answer: d

Explanation:

The correct answer is "to fought bravely to the last ".

★ Key Points

- In the given question, all parts are correct without the verb "fought".
- A verb must be in the **to + infinitive form** when wish, learn, and offer are followed by **another verb** .
- The correct form of the verb should be **fight** .

The final sentence should be "Though you may not be able to conquer, I exhort you to fight bravely to the last. "

21. Answer: a

Explanation:

The correct answer is "various ".

★ Key Points

- **Various** refers to something that is **two or more of a distinct kind** .
- Here the speaker is talking about the **different type** of **unethical acts** .
- According to the sentence, Over the past ten years, numerous supermarket chains have faced criticism for alleged unethical behaviour.

The correct sentence is **Many of the major supermarket chains have come under fire with accusations of various unethical acts over the past decade.**

22. Answer: b

Explanation:

The correct answer is " starting ".

★ Key Points

- In the given sentence, there are two subjects that are **supermarkets and grocers**.
- The verb "**be**" and the verb "**-ing**" form combine to generate the **continuous tense** .
- We can see there is "**are**" as a **verb** in the sentence.
- So the **present continuous** form of verb should be used after "**are**" .

The final sentence will be **But supermarkets and grocers are starting to sit up and take notice.**

23. Answer: d

Explanation:

The correct answer is " **growing** ".

★ Key Points

- **Growing** means **becoming greater** in quantity or size.
 - **Example:** *The bushes are **growing** quickly.*
- Therefore, the appropriate option is "Growing".

★ Additional Information

- **Believing** – having faith in something.
 - **Example:** *Rose is still **believing** in angels.*
- **Enlarging** – becoming big.
 - **Example:** *This toy is **enlarging** itself when put in water.*
- **Developing** – becoming better.
 - **Example:** *The city is **developing** for good.*

24. Answer: a

Explanation:

The correct answer is "**signed**".

★ Key Points

- **Signed** is the past and the past participle form of the verb "**sign**".
- In the given sentence, the **auxiliary verb** is "**have**" and we have to use the **past participle** form of verb after "**have**".
- The sentence structure will be **have+verb(past participle)**.

The final sentence is **some of the largest UK supermarkets have signed up a pact promising to transform packaging and cut plastic wastage.**

25. Answer: d

Explanation:

The correct answer is "**some**".

★ Key Points

- "**Some**" means a **minimum amount of**.
 - **Example:** *I had **some** beans for dinner.*
- Therefore, the appropriate answer is "some".

★ Additional Information

- **Little** - small.
 - **Example:** *The **little** girl looks pretty in her frock.*
- **Every** - all
 - **Example:** ***Every** student was asked to follow the rules.*
- **Any** - an unspecified person or object.

- **Example:** Do you have ***any*** colour pens?

26. Answer: d

Explanation:

Here, we need to find the pattern to fill the blanks.

Given: r d _ n _ d r _ _ b n n d _ r d b _ n d r

The logic here is: Each group of 7 letters is made and the words are repeated.

First we will check all the options

- 1) r n r d r n : r d r n n d r - r d b n n d r - r d b n n d r
- 2) b n r d r r : r d b n n d r - r d b n n d r - r d b n n d r
- 3) n n r d r n : r d n n d r - r d b n n d r - r d b n n d r
- 4) b n r d r n : r d b n n d r - r d b n n d r - r d b n n d r

In the option 4, 'b n r d r n' is repeated itself.

Thus, we have r d b n n d r r d b n n d r r d b n n d r

Hence, the missing blanks are '**b n r d r n**'.

27. Answer: a

Explanation:

Here, we are given the word and we need to find the mirror image of it.

First keep in mind that, in mirror image the first letter will be the last letter of the given word. Also, the size of the letters will not change i.e. capital letters will appear capital only.

The correct mirror image of the given combination when the mirror is placed at MN is as shown below :-



Detailed Explanation :-

- The line MN is the mirror.
- The word



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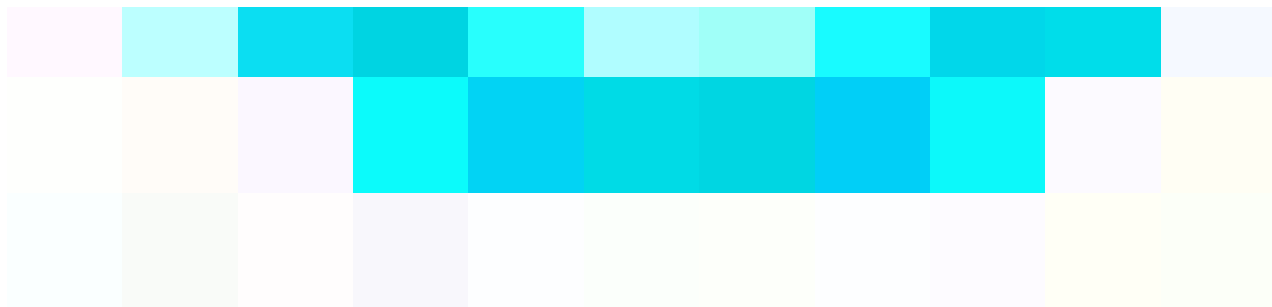


. So, the mirror image will start with

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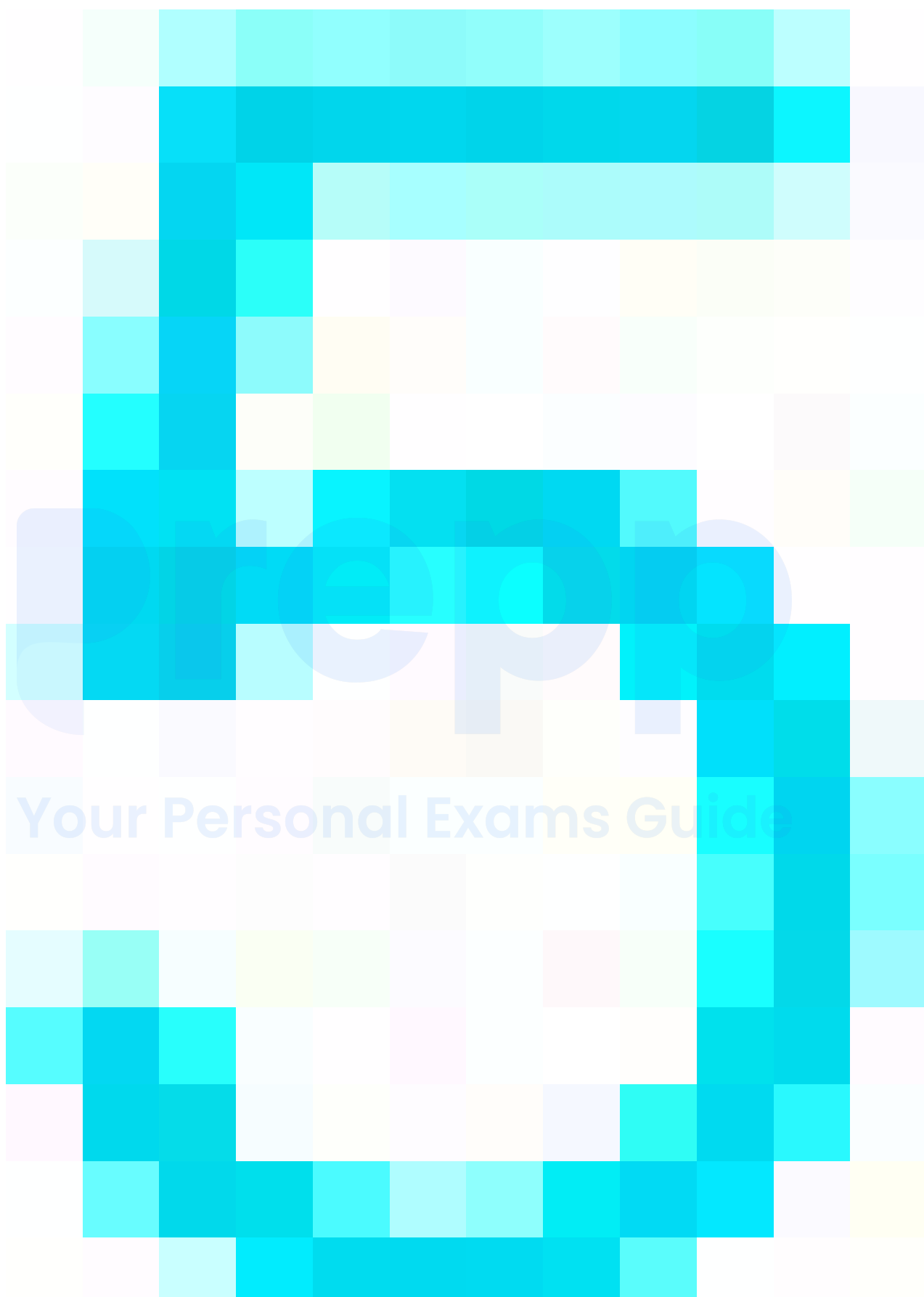


→ Option 2 is eliminated.

- The number

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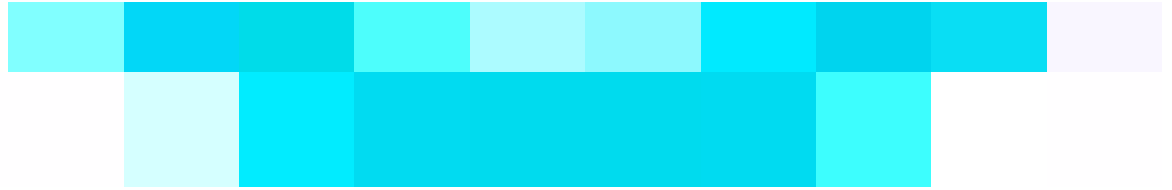


is used . So, the mirror image will be

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→ Options 3 and 4 are eliminated.

Hence, 'Option 1' is the correct answer.

★ Additional Information

- In a mirror image Left changes to right and the right changes to left where top and bottom remains the same .
- When placement of mirror not given, by default we will assume it in vertical direction .
- The starting letter word will be at last after the mirror image drawn with left changes to right and right changes to left.

28. Answer: b

Explanation:

Here, we need to find out the patterns to get the missing number.

The logic here is: Each odd term is multiplied by itself to get the even numbers.

For 19 : 361, we have:

$$\begin{array}{ccc} 19 & & 361 \\ \text{└───┘} & & \\ & \times 19 & \end{array}$$

For 6 : 36, we have:

$$\begin{array}{cc} 6 & 36 \\ | & | \\ \hline & \end{array} \times 6$$

Similarly for ? : 576, we have:

$$\begin{array}{cc} 24 & 576 \\ | & | \\ \hline & \end{array} \times 24$$

Thus, $24 \times 24 = 576$

Hence, the missing number is 24.

29. Answer: a

Explanation:

Here, we have given

(91 D 13) B 8 C 50 A 16 B 2 A (99 D 11)

Substituting 'A' denotes '+', 'B' denotes '×', 'C' denotes '-' and 'D' denotes '÷', we will get,

$$= (91 \div 13) \times 8 - 50 + 16 \times 2 + (99 \div 11)$$

Applying BODMAS rule, we will get,

$$= 7 \times 8 - 50 + 16 \times 2 + 9$$

$$= 56 - 50 + 32 + 9$$

$$= 47$$

Hence, the correct answer is **47**.

30. Answer: c

Explanation:

Here, we will check options one by one.

$$\text{Given: } (36 \div 4) \times 12 + (7 \times 6) - 18 + (3 \times 9) = 63$$

1) 6 and 4

$$\Rightarrow (36 \div 6) \times 12 + (7 \times 4) - 18 + (3 \times 9) = 63$$

Applying BODMAS rule, we will get,

$$\Rightarrow 6 \times 12 + 28 - 18 + 27 = 63$$

$$\Rightarrow 72 + 28 - 18 + 27 = 63$$

$$\Rightarrow 109 = 63, \text{ this is not true}$$

2) 3 and 4

$$\Rightarrow (36 \div 3) \times 12 + (7 \times 6) - 18 + (4 \times 9) = 63$$

Applying BODMAS rule, we will get,

$$\Rightarrow 12 \times 12 + 42 - 18 + 36 = 63$$

$$\Rightarrow 144 + 42 - 18 + 36 = 63$$

$$\Rightarrow 204 = 63, \text{ this is not true}$$

3) 4 and 12

$$\Rightarrow (36 \div 12) \times 4 + (7 \times 6) - 18 + (3 \times 9) = 63$$

Applying BODMAS rule, we will get,

$$\Rightarrow 3 \times 4 + 42 - 18 + 27 = 63$$

$$\Rightarrow 12 + 42 - 18 + 27 = 63$$

$$\Rightarrow 63 = 63, \text{ this is true}$$

4) 12 and 3

$$\Rightarrow (36 \div 4) \times 3 + (7 \times 6) - 18 + (12 \times 9) = 63$$

Applying BODMAS rule, we will get,

$$\Rightarrow 9 \times 3 + 42 - 18 + 108 = 63$$

$$\Rightarrow 27 + 42 - 18 + 108 = 63$$

$$\Rightarrow 159 = 63, \text{ this is not true}$$

Hence, the correct answer is '4 and 12'.

Confusion Point: Keep in mind to apply BODMAS rule, while solving these type of problems.

31. Answer: d

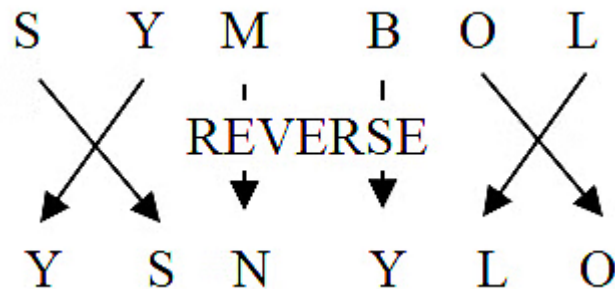
Explanation:

Here, the alphabets and their positions are shown as below:

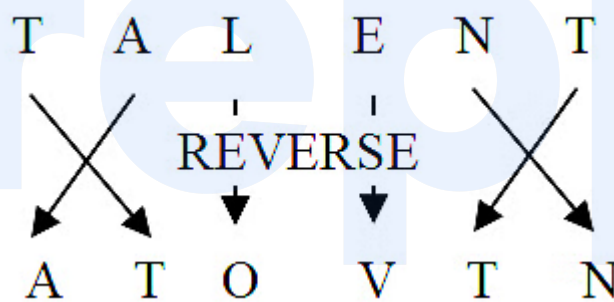
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic here is: The first two letters and the last two letters of each word interchange their positions in code language. And the middle two words are corresponding letters in the coded language.

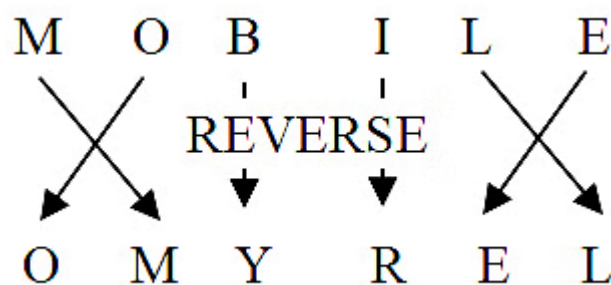
For the word SYMBOL : YSNYLO



For the word TALENT : ATOVTN



Similarly for the word MOBILE : ?



Thus, for the word MOBILE we have the code language has OMYREL

Hence, the code language is 'OMYREL' for the given word.

Confusion Point: Keep in mind the positions of all the letters.

32. Answer: b

Explanation:

Here, we are given a equation and we need to check which signs are correct.

Given: $21 * 5 * 61 * 84 * 4 * 8 * 15$

First of all we will check all the options one by one as below:

1) $-, \div, +, -, =, \times$

$$\Rightarrow 21 - 5 \div 61 + 84 - 4 = 8 \times 15$$

Applying BODMAS rule, we will get,

$$\Rightarrow 21 - 0.081 + 84 - 4 = 8 \times 15$$

$$\Rightarrow 21 - 0.081 + 84 - 4 = 120$$

$\Rightarrow 100.91 = 120$, which is not possible. This is not true.

2) $\times, -, =, \div, +, +$

$$\Rightarrow 21 \times 5 - 61 = 84 \div 4 + 8 + 15$$

Applying BODMAS rule, we will get,

$$\Rightarrow 21 \times 5 - 61 = 21 + 8 + 15$$

$$\Rightarrow 105 - 61 = 21 + 8 + 15$$

$\Rightarrow 44 = 44$, which is possible. This is true.

3) $+, -, =, \times, -, \div$

$$\Rightarrow 21 + 5 - 61 = 84 \times 4 - 8 \div 15$$

Applying BODMAS rule, we will get,

$$\Rightarrow 21 + 5 - 61 = 84 \times 4 - 0.53$$

$$\Rightarrow 21 + 5 - 61 = 336 - 0.53$$

$\Rightarrow -35 = 335.47$, which is not possible. This is not true.

$$4) +, \times, -, =, +, -$$

$$\Rightarrow 21 + 5 \times 61 - 84 = 4 + 8 - 15$$

Applying BODMAS rule, we will get,

$$\Rightarrow 21 + 305 - 84 = 4 + 8 - 15$$

$\Rightarrow 242 = -3$, which is not possible. This is not true.

Hence, the correct option is **2**.

Confusion Point: Keep in mind to apply BODMAS rule, while solving these types of problems.

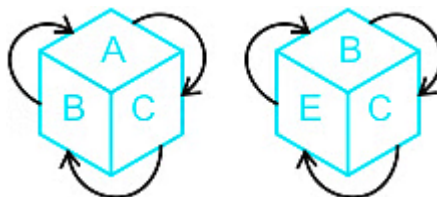
33. Answer: c

Explanation:

The logic followed here is:

If two dice have the same two face values in the given image, then the third number is opposite to each other.

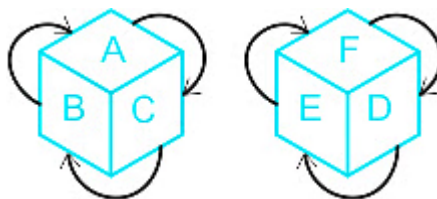
In the given figure, B and C are common .



So, the number opposite to E is A.

Hence, option 3) is the correct answer.

Reference Fig (Wrong)



34. Answer: a

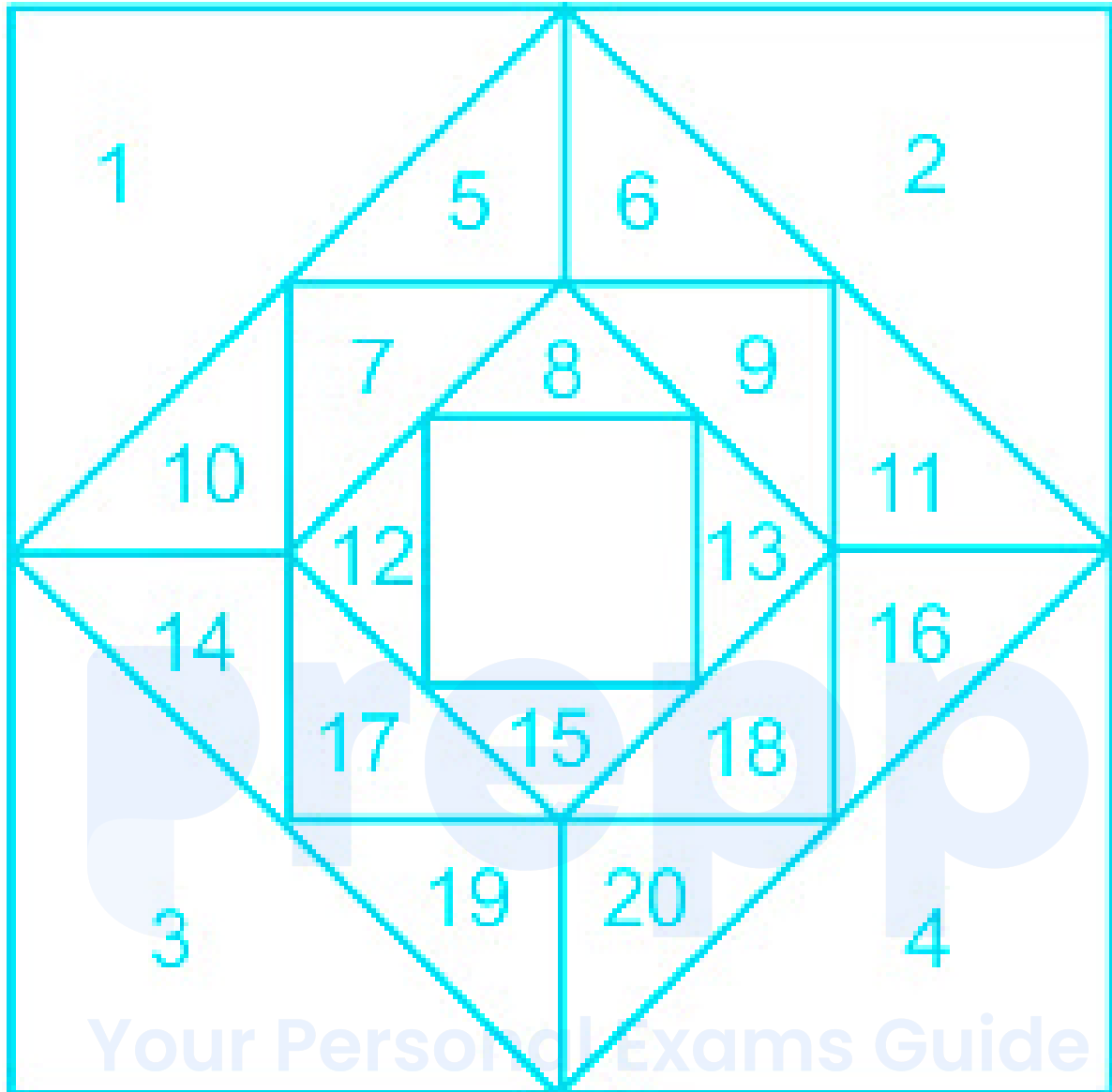
Explanation:

Here, we are given a image and we need to count total number of triangle.

First we need to count the small triangles:

prepp

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Thus, we have 20 triangles.

Next, we will count big triangles while combining two or more of them,

- 1) combine number 5 and 6,
- 2) combine number 10 and 14,
- 3) combine number 11 and 16,
- 4) combine number 19 and 20,

So, here we got 4 more triangles.

Thus, total in all = $20 + 4 = 24$ triangle.

Hence, the correct answer is **24**.

35. Answer: b

Explanation:

Given equation: $2 * 5 * 5 * 10 * 5$.

BODMAS Table:

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

Let's check each option one by one.

Option 1) =, ×, ×, -

Given: $2 * 5 * 5 * 10 * 5$

After replacing the * signs we get;

$$\Rightarrow 2 = \underline{5 \times 5 \times 10} - 5$$

$$\Rightarrow 2 = \underline{250 - 5}$$

$$\Rightarrow 2 \neq 245$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Option 2) ×, -, =, -

Given: $2 * 5 * 5 * 10 * 5$

After replacing the * signs we get;

$$\Rightarrow \underline{2 \times 5} - 5 = \underline{10 - 5}$$

$$\Rightarrow \underline{10 - 5} = 5$$

$$\Rightarrow 5 = 5$$

$$\Rightarrow \text{LHS} = \text{RHS}$$

Option 3) =, +, +, ×

$$\text{Given: } 2 * 5 * 5 * 10 * 5$$

After replacing the * signs we get;

$$\Rightarrow 2 = 5 + 5 + \underline{10 \times 5}$$

$$\Rightarrow 2 = \underline{5 + 5 + 50}$$

$$\Rightarrow 2 \neq 60$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Option 4) ×, ×, ×, =

$$\text{Given: } 2 * 5 * 5 * 10 * 5$$

After replacing the * signs we get;

$$\Rightarrow \underline{2 \times 5 \times 5 \times 10} = 5$$

$$\Rightarrow 500 \neq 5$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Hence, the correct answer is "Option 2".

36. Answer: a

Explanation:

Here, we need to find the pattern to get the missing number.

The logic here is: Each odd term is multiplied by 3 and then the answer is subtracted by 3 to get the final answer.

For 17 : 48, we have,



For 23 : 66, we have,



Similarly for 15 : ?



Hence, the missing number is 42.

37. Answer: c

Explanation:

Here, we have some statements and using that we need to solve.

According to the given statements as below:

1) W scored more than X but less than V.

$\Rightarrow X < W < V$

2) T scored more than U but less than S.

$$\Rightarrow U < T < S$$

3) Y scored the least among all.

$$\Rightarrow Y < X$$

4) Only three people scored more than V.

$$\Rightarrow V < \text{three people}$$

$$\Rightarrow V < U < T < S$$

Thus, combining all the given statements, we will get,

$$\Rightarrow Y < X < W < V < U < T < S$$

so, only 3 persons scored between T and X.

Hence, the correct option is 3.

38. Answer: d

Explanation:

Here, we need to find the pattern to get the missing numbers.

The logic here is:

Logic: First number x Second number + First number = Third Number

In each row, the 1st is multiplied with the 2nd term and then the answer is added with the 1st term to get the 3rd term of each row.

In 1st row $\rightarrow 17, 8, 153$

$$\Rightarrow 17 \times 8 + 17 = 153$$

And,

In 2nd row $\rightarrow 19, 6, 133$

$$\Rightarrow 19 \times 6 + 19 = 133$$

Similarly,

In 3rd row $\rightarrow 13, 7, ?$

$$\Rightarrow 13 \times 7 + 13 = 104$$

Hence, the missing number is "104".

39. Answer: b

Explanation:

Here, we need to find the pattern to get the missing number.

The logic here: The 1st term of each row is multiplied by 4 and then the answer is added by 3 to get the 2nd term of each row. Again the 2nd row is multiplied by 3 and the answer is added by 6 to get the 3rd term of each row.

So,

1st row:

$$12 \times 4 + 3 = 51, 51 \times 3 + 6 = 159$$

2nd row:

$$9 \times 4 + 3 = 39, 39 \times 3 + 6 = 123$$

Thus, for the 3rd row:

$$8 \times 4 + 3 = 35, 35 \times 3 + 6 = 111$$

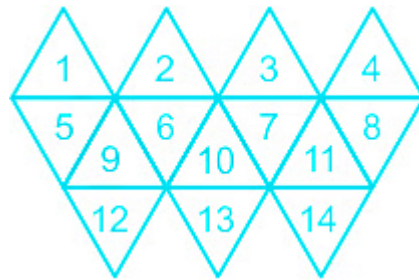
Hence, the correct answer is **111**.

40. Answer: c

Explanation:

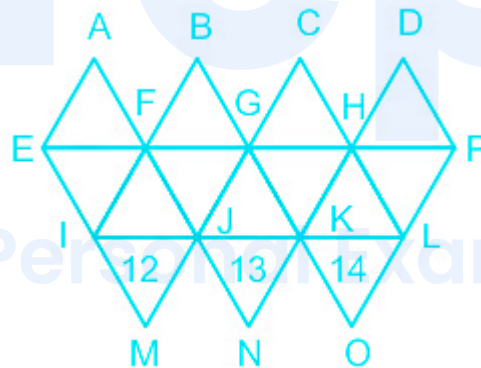
Here, we have a image and find out the total number of triangles.

First we will count the small triangles as:



Here, we got total of 14 triangle.

Next, we will combine these small triangles to get big triangles as:



So, here the triangles are: IBK, JCL, EMG, FNH, GOP – a total of 5 triangles.

Thus, a total of $14 + 5 = 19$ triangles.

Hence, the correct answer is **19**.

41. Answer: a

Explanation:

Here, we need to find the day from the given day given.

So, in 19th April 1963 is ordinary year = 1 odd day

And in 1964 is a leap year = 2 odd days.

Again in 1965 is ordinary year = 1 odd day

So, we are given 19th April 1962 is Thursday then 19th April 1965 is $1 + 2 + 1 = 4$ odd days = Monday.

Next in the year 1965

April = 30 days = $30 - 19 = 11$ days left from 19th April

May = 31 days and June = 15 days

Thus, the total number of days = $11 + 31 + 15 = 57 = 8$ weeks = 1 odd day

So, 15th June 1965 = Monday + 1 = Tuesday

Hence, the correct answer is **Tuesday**.

Confusion Point: Keep in mind what are leap years and ordinary year and number of odd days they have. Also, check how to find the leap year too.

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42. Answer: c

Explanation:

Here, we need to find the pattern to get the missing number.

The logic here is: Take out the square root of each of the 1st term and then the answer is added by 3 to get the final answer.

So,

$$1) \sqrt{25} = 5 + 3 = 8,$$

$$2) \sqrt{169} = 13 + 3 = 16,$$

3) $\sqrt{225} = 15 + 3 = 18 \neq 12$, as we are given in the option. This is the odd one out.

4) $\sqrt{64} = 8 + 3 = 11$

Hence, the correct answer is **225 : 12**.

43. Answer: a

Explanation:

Here, the alphabets and their positions are shown as below:

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 here is: For each word, the odd letters are added by 1 and the even letters are subtracted by 1 to get the code language.

So, for the word REPORT:

R E P O R T
 ↓ ↓ ↓ ↓ ↓ ↓
 +1 -1 +1 -1 +1 -1
 ↓ ↓ ↓ ↓ ↓ ↓
 S D Q N S S

And, for the word THANKS:

T H A N K S
 ↓ ↓ ↓ ↓ ↓ ↓
 +1 -1 +1 -1 +1 -1
 ↓ ↓ ↓ ↓ ↓ ↓
 U G B M L R

Thus, for the word WINTER:



Hence, the correct option is 1.

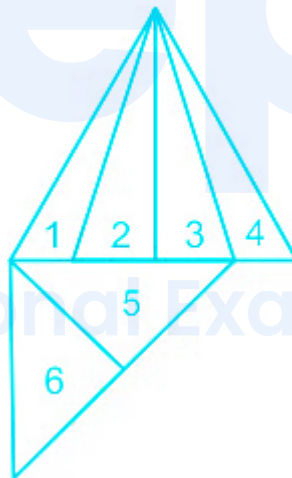
Confusion Point: Keep in mind the positions of all the letters.

44. Answer: b

Explanation:

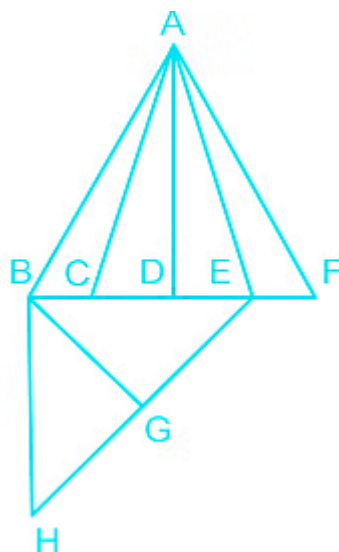
Here, we have an image and count total number of triangles.

First we will count small triangles as below:



So, we have a 6 triangles.

Next, we will combine small triangles and count them as below:



So, here the triangles are: BAD, BAE, BAF, CAE, CAF, DAF, HBE - a total of 7 triangles.

Thus, in all we have $6 + 7 = 13$ triangles.

Hence, we have 13 triangles in all.

45. Answer: d

Explanation:

Here, we need to find the pattern to get the missing number.

The logic here is: Each odd term is multiplied by itself and then this answer is added by 8 to get the final answer.

For 8 : 72,

$$\begin{array}{ccc} 8 & & 72 \\ | & & \uparrow \\ \text{---} & & \\ & x8 + 8 & \end{array}$$

For 17 : 297,

$$\begin{array}{ccc} 17 & & 297 \\ \downarrow & & \uparrow \\ & \text{x17 +8} & \end{array}$$

Similarly we have, ? : 152,

$$\begin{array}{ccc} \boxed{12} & & 152 \\ \downarrow & & \uparrow \\ & \text{x12+8} & \end{array}$$

Hence, the missing number is 12.

46. Answer: c

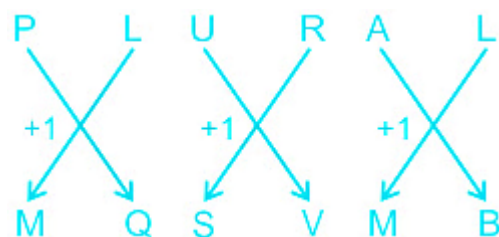
Explanation:

Here, the alphabets and their positions are shown as below:

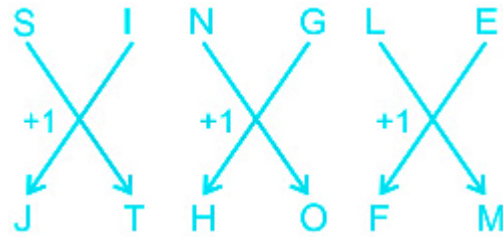
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic follows here is: Each letter is added by one and every two letters interchange their positions in code language.

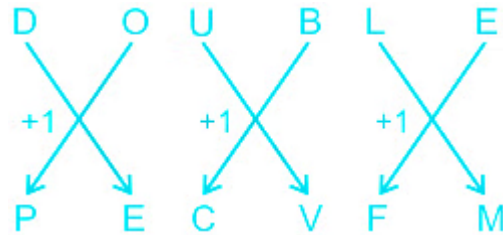
For, the word PLURAL:



For, the word SINGLE:



Thus, for the word DOUBLE:



Hence, the correct answer is **PECVFM**

Confusion Point: Keep in mind the positions of all the letters.

47. Answer: a

Explanation:

Here, we need to find the pattern to fill the missing blanks.

Given: A B _ K P C D H _ P E F H K _ G _ H K P

The logic here is: There is a group of 5 letters. Each group is starting with two consecutive letters starting from AB. And the remaining three letters of each group are same i.e. H K P.

First we will check all the options:

- 1) HKPH: A B H K P C D H K P E F H K P G H H K P
- 2) CKEH: A B C K P C D H K P E F H K E G H H K P
- 3) HGPE: A B H K P C D H G P E F H K P G E H K P
- 4) CGPE: A B C K P C D H G P E F H K P G E H K P

In the option 1, 'H K P H' forms the pattern.

Hence, the missing letters are 'H K P H'.

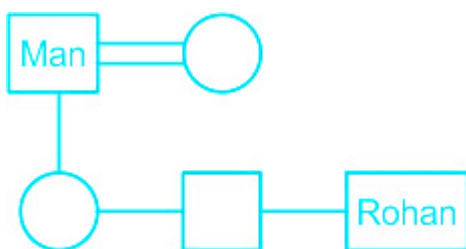
48. Answer: d

Explanation:

Family chart:

Symbol in Diagram	Meaning
○	Female
□	Male
=	Married Couple
—	Siblings
	Difference of a generation

According to given statement:



The man in photograph is **Rohan's father** .

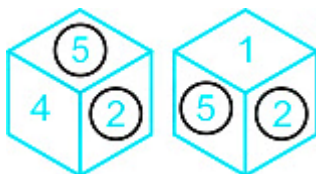
Hence, '**option 4**' is the correct answer.

49. Answer: c

Explanation:

Here, we have two dices given and having two faces common.

So, we have:



So, we will rotate the 2nd dice in such a way that, we get the same positions of common faces as in 1st dice.

Thus, face 1 is opposite to face 4.

Hence, the number '1' will be on the face opposite to the one showing '4'.

50. Answer: c

Explanation:

Here, we have some statements and need to see which conclusion are correct or not.

So, for a given statement: Private school teachers are hard-working.

Thus, for the given conclusion, we have:

- 1) Some hard-working teachers are private school teachers: This is true as it is given in the statement that the private school teachers are hardworking.
- 2) Government employees are not hard-working: This is not true, as nothing about the government employee is mentioned in the statement.

Hence, only **conclusion 1** follows.

51. Answer: d

Explanation:

GIVEN:

4 schemes offered by shopkeeper

FORMULA USED:

$$S.P. = (1 - d_1/100) \times (1 - d_2/100) \times M.P.$$

Where, S.P. = Selling price , M.P. = Marked price , d1 and d2 = successive discounts respectively.

$$\text{Discount} = (M.P. - S.P.)$$

$$\text{Discount\%} = (\text{Discount} / M.P.) \times 100$$

CALCULATION:

Let us assume Marked price be Rs100.

On considering condition (a) , we have

Here d1 = 22% , d2 = 25%

$$S.P. = (1 - 22/100) \times (1 - 25/100) \times 100 = 78/100 \times 75/100 \times 100 = \text{Rs}58.5.$$

$$\text{Discount} = (100 - 58.5) = \text{Rs}41.5$$

$$\text{Discount\%} = (41.5/100) \times 100 = 41.5\%$$

On considering condition (b), we have

Buy 3 get 2 free ,

Now, as we have assumed Marked price of 1 article = Rs100

Hence, M.P. of 5 articles = Rs500.

⇒ As, 2 articles are free,

⇒ Hence, S.P. of 3 articles = Rs300 ⇔ Discount = (500 - 300) = Rs200.

⇒ Discount% = $(200/500) \times 100 = 40\%$.

On considering condition (c),we have

Buy 5 get 4 free,

Now, M.P. of 9 articles = Rs900.

⇒ As, 4 articles are free,

⇒ Hence, S.P. of 5 articles = Rs500. ⇔ Now, Discount = (900 -500) = Rs400.

⇒ Discount% = $(400/900) \times 100 = 44.44\%$

On considering condition (d), we have

Buy 4 get 3 free,

⇒ Now, M.P. of 7 articles Rs700.

⇒ As, 3 articles are free.

⇒ Hence, S.P. of 4 articles = Rs400 ⇔ Now, Discount = (700 -400) = Rs300.

⇒ Discount% = $(300/700) \times 100 = 42.85\%$

Since, condition (c) i.e. Buy 5 get 4 free has maximum discount % i.e. 44.44%.

Hence, condition (c) is in option(4) which has maximum percentage among all the given conditions i.e.44.44%.

52. Answer: a

Explanation:

GIVEN:

Time taken by Ram and Shawan together complete the work = 5 hours

Ram alone completes the work = 6 hours

FORMULA USED:

Efficiency = Total work / No. of time taken.

CALCULATION:

Let us assume the total work be 30 unit

....(you can assume any number but for the sake of calculation, we have taken L.C.M of 5 and 6)

Now, Time taken by Ram and Shawan together = 5 hours

⇒ Efficiency of Ram and Shawan = $30 / 5 = 6$ unit/hours

⇒ As, Ram alone takes 6 hrs.

Hence, Efficiency of Ram = $30 / 6 = 5$ unit/hours

Now, Efficiency of Shawan = $(6 - 5) = 1$ unit/h

No. of hours taken by Shawan = $30 / 1 = 30$ hours.

Hence, Shawan takes 30 hours to complete the work.

53. Answer: b

Explanation:

GIVEN:

$$x + 1/x = -3\sqrt{2}$$

FORMULA USED:

$$(a + b)^2 = a^2 + b^2 + 2ab.$$

$$(a + b)^3 = a^3 + b^3 + 3ab(a + b)$$

CALCULATION:

we have $x + 1/x = -3\sqrt{2}$ Now, on squaring both the sides, we get

$$\Rightarrow (x + 1/x)^2 = (-3\sqrt{2})^2$$

$$\Rightarrow x^2 + 1/x^2 + 2 \times x \times 1/x = 18.$$

$$\Leftrightarrow (x^2 + 1/x^2) = 16.$$

$x + 1/x = -3\sqrt{2}$ Now, on taking cube on both the sides, we have

$$\Rightarrow (x + 1/x)^3 = (-3\sqrt{2})^3.$$

$$\Rightarrow x^3 + 1/x^3 + 3 \times x \times 1/x(x + 1/x) = -54\sqrt{2}.$$

$$\Rightarrow x^3 + 1/x^3 + 3 \times (-3\sqrt{2}) = -54\sqrt{2}.$$

$$\Rightarrow x^3 + 1/x^3 = -45\sqrt{2}.$$

Now, $(x^5 + 1/x^5)$ can be written as $(x^2 + 1/x^2)(x^3 + 1/x^3) - (x + 1/x)$

$$\Rightarrow \text{Now, } (x^5 + 1/x^5) = 16 \times (-45\sqrt{2}) - (-3\sqrt{2}) = (-720\sqrt{2} + 3\sqrt{2}) = -717\sqrt{2}.$$

Hence, the required value is $-717\sqrt{2}$.

54. Answer: d

Explanation:

GIVEN:

Number of children of age between (8 -11) years

CALCULATION:

According to the given question,

Number of children below 11 years and above 8 years = Children of age group of 9 and 10 years

⇒ Number of children of age group of 9 and 10 years = (15 + 42) = 57 years.

Hence, the number of children of age below 11 years and above 8 years = 57 years.

55. Answer: a

Explanation:

GIVEN:

Difference in time = 4 hours

still water speed = 22 km/h

stream speed = 8 km /h

FORMULA USED:

Distance = Speed × Time

Speed in upstream = (still water's speed - stream speed)

Speed in downstream = (still water speed + stream speed)

CALCULATION:

Here, still water speed = 22 km/h , stream speed = 8 km/h

Upstream speed = (22 - 8) = 14 km/h , Downstream speed = (22 + 8) = 30 km/h.

According to the given question ,

Time taken to cover Upstream distance is 4 hours more than Downstream

Now, let the required distance be d then,

$$\Rightarrow \frac{d}{(22-8)} - \frac{d}{(22+8)} = 4$$

$$\Rightarrow \frac{d}{14} - \frac{d}{30} = 4 \quad \Leftrightarrow (30d - 14d)/420 = 4$$

$$\Rightarrow 16d = 420 \times 4$$

$$\Rightarrow d = 105 \text{ km.}$$

Hence, the required distance is 105 km.

56. Answer: a

Explanation:

GIVEN:

Sum becomes Rs2,000 = 3 years.

Sum becomes Rs2,400 = 4 years

FORMULA USED:

$A = P \times (1 + R/100)^t$) Where A = Amount , P = Principal , R = Rate of interest and t = time in years.

CALCULATION:

$$2,000 = P \times (1 + R/100)^3 \dots\dots\dots(1)$$

$$2,400 = P \times (1 + R/100)^4 \dots\dots\dots(2)$$

Now, (2) ÷ (1) , we get

$$24/20 = (1 + R/100)$$

$$\Rightarrow R/100 = 1/5$$

$$\Rightarrow R = 20$$

Hence, yearly Rate of Compound Interest is 20%.

57. Answer: c

Explanation:

GIVEN:

resulting number = 72

FORMULA USED:

Successive percentage change = $X - Y - \frac{X \times Y}{100}$ Where X and Y are percentage increase and decrease respectively

CALCULATION:

Let the original number be x

Here, $X = 25\%$ increase, $Y = 10\%$ decrease

Successive % change = $25 - 10 - \left(\frac{25 \times 10}{100}\right) = +12.5\%$ (+) sign shows increase.

$$\Rightarrow x + 12.5\%x = 72.$$

$$\Rightarrow x + \frac{125}{1000}x = 72.$$

$$\Rightarrow x + \frac{1}{8}x = 72. \Leftrightarrow \frac{9x}{8} = 72 \Leftrightarrow x = 64.$$

Hence, the original number is 64.

58. Answer: d

Explanation:

GIVEN:

Perimeter = 80 cm.

length of an unequal side = 20 cm.

FORMULA USED:

$P = 2a + b$ units. Where P = Perimeter, a = length of two equal sides. and b = length of base or unequal side.

CALCULATION:

Here $P = 80$ cm , $b = 20$ cm

$$\Rightarrow P = 2a + b$$

$$\Rightarrow 80 = 2a + 20$$

$$\Rightarrow 2a = 60$$

$$\Rightarrow a = 30 \text{ cm.}$$

Hence, Length of each of the equal sides is 30 cm.

59. Answer: d

Explanation:

GIVEN:

$$100 (\sin 15^\circ \cos 15^\circ)$$

FORMULA USED:

$$\sin(A - B) = \sin A \cos B - \cos A \sin B$$

$$\cos(A - B) = \cos A \cos B + \sin A \sin B$$

CALCULATION:

$$\sin 15^\circ = \sin(45^\circ - 30^\circ) = \sin 45^\circ \cos 30^\circ - \cos 45^\circ \sin 30^\circ = \left(\frac{1}{\sqrt{2}} \times \frac{\sqrt{3}}{2} \right) - \left(\frac{1}{\sqrt{2}} \times \frac{1}{2} \right) = \frac{(\sqrt{3}-1)}{2\sqrt{2}}.$$

$$\cos 15^\circ = \cos(45^\circ - 30^\circ) = \cos 45^\circ \cos 30^\circ + \sin 45^\circ \sin 30^\circ = \left(\frac{1}{\sqrt{2}} \times \frac{\sqrt{3}}{2} \right) + \left(\frac{1}{\sqrt{2}} \times \frac{1}{2} \right) = \frac{(\sqrt{3}+1)}{2\sqrt{2}}$$

$$\text{Now, } 100 \left(\sin 15^\circ \cos 15^\circ \right) = 100 \times \frac{(\sqrt{3}-1)}{2\sqrt{2}} \times \frac{(\sqrt{3}+1)}{2\sqrt{2}} = 100 \times \frac{2}{8} = 25.$$

Hence, the value is 25.

60. Answer: d

Explanation:

Given:

Radius of base = 5 cm

Height = 24 cm

Concept Used:

$$\text{Volume of Cylinder} = \pi r^2 h$$

Calculation:

⇒ Putting the values in the formula,

$$\Rightarrow \pi r^2 h = 3.14 \times 5^2 \times 24$$

$$\Rightarrow 3.14 \times 5^2 \times 24 = 3.14 \times 600$$

$$\Rightarrow 3.14 \times 600 = 1884 \text{ cm}^3.$$

Hence, the volume of the cylinder is 1884 cm³.

61. Answer: d

Explanation:

$\frac{SP-CP}{CP}$ **Given:**

Cost Price of notebook = Rs 85

Discount% = 15%

Profit% = 20%

Concept Used:

$$\text{Profit\%} = \frac{SP - CP}{CP}$$

Calculation:

⇒ Let the marked price of a notebook be Rs x

⇒ Discount on the notebook = $x - 0.15x = \text{Rs } 0.85x$

⇒ Selling Price of a notebook = Rs $0.85x$

⇒ Putting the value in the Profit% formula,

$$\Rightarrow \text{Profit\%} = \frac{0.85x - 85}{85}$$

$$\Rightarrow \frac{20}{100} = \frac{0.85x - 85}{85}$$

$$\Rightarrow 0.85x - 85 = 17$$

$$\Rightarrow x = \frac{102}{0.85} = 120$$

Hence, the marked price of the notebook will be Rs 120

62. Answer: b

Explanation:

Given:

Number of boys in class = 26

Number of girls in class = 24

Average score of whole class = 85

Average score of boys = 82

Concept Used:

Average = Total Sum of Values $\div$ Number of values

Calculation:

$\Rightarrow$ Let the total marks scored by whole class be x

$\Rightarrow$ Average score of class = $\frac{x}{26+24} = \frac{x}{50}$

$\Rightarrow x = 50 \times 85 = 4250$

$\Rightarrow$ Let the total marks scored by boys be y

$\Rightarrow$ Average score of boys = $\frac{y}{26}$

$\Rightarrow y = 26 \times 82 = 2132$

$\Rightarrow$ Marks scored by girls = $4250 - 2132 = 2118$

$\Rightarrow$ Average score by girls = $\frac{2118}{24} = 88.25$

Hence, the average marks scored by the girls is 88.25

★ Shortcut Trick

alligation method:-

$\Rightarrow (85 - 82)/(x - 85) = 24/26$

$\Rightarrow 3/(x - 85) = 12/13$

$\Rightarrow 12x - 12 \times 85 = 39$

$\Rightarrow 12x - 1020 = 39$

$\Rightarrow 12x = 1059$

$\Rightarrow x = 88.25$

63. Answer: c

Explanation:

Given:

Spent on transport in 2019 = Rs 27 million

Expenses share of transport = 18%

Expenses share of agriculture = 30%

Expenses share of health = 15%

Expenses share of irrigation = 25%

Expenses share of dairy = 12%

Concept Used:

Total composition of each sector = Percentage Expenses $\times$ Amount in one percent

Calculation:

$\Rightarrow$ 18% of transport expenses contain = Rs 27 million = Rs 27,000,000

$\Rightarrow$ 1% of the expenses include = $\frac{27000000}{18} = 1,500,000$

$\Rightarrow$ Now, Expenses share of agriculture = $30 \times 1500000 = 45,000,000$

$\Rightarrow$ Expenses share of health = $15 \times 1500000 = 22,500,000$

$\Rightarrow$ Expenses share of irrigation = $25 \times 1500000 = 37,500,000$

$\Rightarrow$ Expenses share of dairy = $1500000 \times 12 = 18,000,000$

$\Rightarrow$ Total Expenses of all sectors = $27,000,000 + 45,000,000 + 22,500,000 + 37,500,000 + 18,000,000$

$\Rightarrow$ Total Expenses of all sectors = Rs 150,000,000

Hence, the total expenses (in million) of the given sectors in the state government is 150 million.

From the pie chart,

★ Alternate Method

Expense on transport = 18%

18% = 27 M

Then total expense = 100% = $(27/18) * 100 = 150$ M

64. Answer: b

Explanation:

Given:

Length of Triangle 1 = 12, 18, 25

Length of Triangle 2 = 18, 23, 41

Length of Triangle 3 = 7, 10, 12

Length of Triangle 4 = 4, 7, 9

Concept Used:

Sum of two sides of triangle > Third Side

Calculation:

⇒ For Triangle 1,

⇒ $12 + 18 = 30 > 25$

⇒ This is a true condition for a triangle.

⇒ For triangle 2,

⇒ $18 + 23 = 41 \not> 41$

⇒ This is a false condition for a triangle.

⇒ For triangle 3,

$$\Rightarrow 7 + 10 = 17 > 12$$

⇒ This is a true condition for a triangle.

⇒ For triangle 4,

$$\Rightarrow 4 + 7 = 11 > 9$$

⇒ This is a true condition for a triangle.

Hence, the sides of Triangle 2 as 18, 23 and 41, cannot be the lengths of the sides of a triangle.

65. Answer: a

Explanation:

Given:

Ratio of students using school bus, bike and bicycle = 6 : 3 : 1

Total strength of school = 1200

Concept Used:

Total Students = Ratio × Number of students using any one vehicle

Calculation:

⇒ Let the number of students using school bus, bike and bicycle be $6x$, $3x$ and x respectively.

$$\Rightarrow 6x + 3x + x = 1200$$

$$\Rightarrow 10x = 1200$$

$$\Rightarrow x = 120$$

⇒ Number of students who use bicycle for transport = $x = 120$

Hence, the number of students who use bicycle for transport is 120

66. Answer: a

Explanation:

Given:

$$2[8p + 5 \{n - 2(n - \overline{n + p}) + 4p\}]$$

Concept Used:

BODMAS = Bracket, Of, Division, Multiplication, Addition, Subtraction

Calculation:

$$\Rightarrow 2[8p + 5 \{n - 2(n - \overline{n + p}) + 4p\}]$$

$$\Rightarrow 2[8p + 5 \{n - 2(n - n - p) + 4p\}]$$

$$\Rightarrow 2[8p + 5 \{n + 2p + 4p\}] = 2[8p + 5n + 30p]$$

$$\Rightarrow 16p + 10n + 60p = 76p + 10n$$

Hence, the value of the simplified expression is $76p + 10n$

67. Answer: b

Explanation:

Given:

Average speed of a person while running = 20 km/h

Time taken by person in running = 30 minutes

Average speed of a person while cycling = 32 km/h

Time taken by person in cycling = 1 hour 15 minutes

Concept Used:

Speed = Distance $\div$ Time

Calculation:

⇒ Convert the time taken in hours by dividing the minutes by 60,

⇒ So, 30 minutes = $\frac{30}{60} = 0.5$ hours and 1 hour 15 minutes = $\frac{75}{60} = 1.25$ hours

⇒ For the running speed,

⇒ Putting the values in the formula of speed,

$$\Rightarrow 20 = \frac{\text{Distance}}{0.5}$$

⇒ Distance = $20 \times 0.5 = 10$ km

⇒ For the cycling speed,

$$\Rightarrow 32 = \frac{\text{Distance}}{1.25}$$

⇒ Distance = $32 \times 1.25 = 40$ km

⇒ Now, total average speed = $\frac{40+10}{0.5+1.25}$

⇒ Total average speed = $\frac{50}{1.75} = 28.6$ km/h

Hence, the average speed of a person is 28.6 km/h.

68. Answer: b

Explanation:

Given:

Price of article reduction = 25%

Sale of article increment = 75%

Concept Used:

Net effect on revenue = Increment in sale – Reduction percentage in Price –
((Increment in sale × Reduction Percentage in price) ÷ 100)

Calculation:

⇒ Putting the values in the formula,

$$\Rightarrow \text{Net effect on revenue} = 75 - 25 - \frac{75 \times 25}{100} \%$$

$$\Rightarrow \text{Net effect on revenue} = 50 - \frac{75}{4} \%$$

$$\Rightarrow \text{Net effect on revenue} = 50 - 18.75 = 31.25 \%$$

⇒ As the net effect result is in positive sign, then there is an increment.

Hence, the net effect on revenue is increase with 31.25 %

69. Answer: d

Explanation:

Given:

Cost Price of rice = Rs 32

Selling Price of rice = Rs 40

Concept Used:

$$\text{Profit \%} = \frac{\text{Profit}}{\text{CP}} \times 100$$

Calculation:

⇒ Dealer sells 900 grams of rice instead of 1 kg

$$\Rightarrow \text{Cost price of 900 grams} = \frac{900}{1000} \times 32 = 28.8 \text{ Rs}$$

$\Rightarrow$ Selling price of 900 grams will be equal to selling price of 1 kg

$$\Rightarrow \text{Selling price of 900 grams} = \text{Rs } 40$$

$$\Rightarrow \text{Profit} = \text{SP} - \text{CP} = 40 - 28.8 = \text{Rs } 11.2$$

$$\Rightarrow \text{Profit \%} = \frac{11.2}{28.8} \times 100$$

$$\Rightarrow \text{Profit \%} = 38.9 \%$$

Hence, the overall profit percentage made by the rice dealer is 38.9 %.

★ Shortcut Trick

$$\Rightarrow (\text{S.P./C.P.}) = (40/32) \times (1000/900) = 25/18$$

$$\Rightarrow \text{If C.P} = 18x \text{ then S.P} = 25x$$

$$\therefore \text{Profit\%} = [(25x - 18x)/18x] \times 100 = (7x/18x) \times 100 = 38.9\%.$$

70. Answer: c

Explanation:

Given:

$$\sqrt{a^{-1}b} \times \sqrt{b^{-1}c} \times \sqrt{c^{-1}a}$$

Calculation:

$$\Rightarrow \sqrt{a^{-1}b} \times \sqrt{b^{-1}c} \times \sqrt{c^{-1}a}$$

$$\Rightarrow \sqrt{\frac{1}{a} \times b} \times \sqrt{\frac{1}{b} \times c} \times \sqrt{\frac{1}{c} \times a}$$

$$\Rightarrow \sqrt{\frac{b}{a}} \times \sqrt{\frac{c}{b}} \times \sqrt{\frac{a}{c}}$$

$$\Rightarrow \sqrt{\frac{b}{a} \times \frac{c}{b} \times \frac{a}{c}} = 1$$

Hence, the simplified value of the expression is 1

71. Answer: a

Explanation:

Given:

Numbers which is divisible by 3

Concept Used:

Divisibility Test of 3 = Sum of all digits of a number to be divisible by 3

Calculation:

⇒ Sum of digits of 7865001 = $7 + 8 + 6 + 5 + 0 + 0 + 1 = 27$

⇒ So, 27 is divisible by 3

⇒ Sum of digits of 7803572 = $7 + 8 + 0 + 3 + 5 + 7 + 2 = 32$

⇒ So, 32 is not divisible by 3

⇒ Sum of digits of 7803541 = $7 + 8 + 0 + 3 + 5 + 4 + 1 = 28$

⇒ So, 28 is not divisible by 3

⇒ Sum of digits of 7803593 = $7 + 8 + 0 + 3 + 5 + 9 + 3 = 35$

⇒ So, 35 is not divisible by 3

Hence, the number which is divisible by 3 is 7865001

72. Answer: a

Explanation:

Given:

Areas of 3 adjacent faces,

729 cm^2 , 529 cm^2 , and 289 cm^2

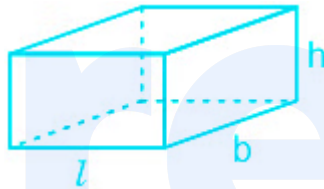
Concept Used:

Area of single cuboidal face = $l \times b$,

Volume of Cuboid = $l \times b \times h$

where l is the length, b is the breadth, and h is the height.

Calculation:



According to the question,

$$l \times b = 729$$

$$b \times h = 529$$

$$h \times l = 289$$

Multiplying all three results, we will get

$$\Rightarrow l \times b \times b \times h \times h \times l = 729 \times 529 \times 289$$

$$\Rightarrow l^2 \times b^2 \times h^2 = 729 \times 529 \times 289$$

Taking square root on both sides,

$$\Rightarrow l \times b \times h = \sqrt{729 \times 529 \times 289}$$

$$\Rightarrow l \times b \times h = 10,557$$

$\therefore$ The volume of a cuboid is $10,557 \text{ cm}^3$.

73. Answer: b

Explanation:

GIVEN:

Marks obtained by a group of students in a test

CALCULATION:

No. of students who secure less than 10 marks = 2.

No. of students who secure less than 20 marks = $(5-2) = 3$.

No. of students who secure less than 30 marks = $6 - (3+2) = (6-5) = 1$.

No. of students who secure less than 40 marks = $8 - (2+3+1) = (8-6) = 2$.

No. of students who secure less than 50 marks = $10 - (2+3+1+2) = 2$.

Now, Total number of students in the group = $(2 + 3 + 1 + 2 + 2) = 10$.

Hence, the total number of students are 10.

Your Personal Exams Guide

74. Answer: b

Explanation:

Given:

Average of 25 numbers = 18

Average of first 12 numbers = 14

Average of last 12 numbers = 17

Concept Used:

Average = Sum of numbers $\div$ Number of values

Calculation:

$\Rightarrow$ Total sum of 25 numbers = $25 \times 18 = 450$

$\Rightarrow$ Average of first 12 numbers = 14

$\Rightarrow$ So, sum of first 12 numbers = $14 \times 12 = 168$

$\Rightarrow$ Average of last 12 numbers = 17

$\Rightarrow$ So, sum of last 12 numbers = $17 \times 12 = 204$

$\Rightarrow$ Value of the 13th number = $450 - (168 + 204) = 450 - 372$

$\Rightarrow$ Value of the 13th number = 78

Hence, the value of the 13th number is 78

75. Answer: c

Explanation:

Given: **Your Personal Exams Guide**

$$1800 \div 10\{(18 - 6) + [-2(1 + 2)]\}$$

Concept Used:

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

Calculation:

$$\Rightarrow 1800 \div 10\{(18 - 6) + [-2(1 + 2)]\} = 1800 \div 10\{(18 - 6) + [-2 \times 3]\}$$

$$\Rightarrow 1800 \div 10\{(18 - 6) - 6\}$$

$$\Rightarrow 1800 \div 10\{12 - 6\}$$

$$\Rightarrow 1800 \div 60$$

$$\Rightarrow 30$$

Hence, the simplified value of the given expression is 30

Your Personal Exams Guide

76. Answer: a

Explanation:

The correct answer is Hindustani classical music.

★ Key Points

- Ustad Bade Ghulam Ali Khan was an Indian Hindustani classical vocalist, from the **Patiala gharana** he most famous stalwart of Hindustani music .
- The major vocal forms or styles associated with Hindustani classical music are dhrupad, khyal, and tarana .

- Light classical forms include **dhamar, trivat, chaiti, kajari, tappa, tap-khyal, ashtapadis, thumri, dadra, ghazal and bhajan** .

★ Additional Information

- **Carnatic music** known as Karnāṭaka saṃgīta or Karnāṭaka saṅgītam in the South Indian languages, is a system of music commonly associated with South India, including the modern Indian states of Karnataka, Andhra Pradesh, Telangana, Kerala and Tamil Nadu, and Sri Lanka .
- **Sufi music** refers to the devotional music of the Sufis, inspired by the works of Sufi poets like Rumi, Hafiz, Bulleh Shah, Amir Khusrow, and Khwaja Ghulam Farid.
- Qawwali is the best-known form of Sufi music and is most commonly found in the Sufi culture
- **The ghazal is a form of amatory** poem or ode, originating in Arabic poetry.
- A ghazal may be understood as a poetic expression of both the pain of loss or separation and the beauty of love in spite of that pain.

77. Answer: d

Explanation:

The correct answer India Wins Freedom.

★ Key Points

- Abul Kalam Ghulam Muhiyuddin Ahmed bin Khairuddin Al-Hussaini Azad was an Indian independence activist, Islamic theologian, writer and a senior leader of the Indian National Congress.
- India Wins Freedom is an enlightening account of the partition from the author, Maulana Azad's perspective. It includes his personal experiences when India became independent and his ideas on freedom and liberty.

★ Additional Information

- **Freedom at Midnight** is the true story of the events surrounding Indian independence, beginning with the appointment of Lord Mountbatten of Burma as the last Viceroy of British India, and ending with the assassination and funeral of Mahatma Gandhi.
- **Mohammed Ali Jinnah (1876–1948) saw the realisation of his ambition, the formation of a sovereign nation for Indian Muslims: Pakistan, a year before he died as its supreme leader.** Jinnah was a brilliant barrister and orator. His brilliance is described by Rafiq Zakaria in his book "The Man who divided India".

78. Answer: a

Explanation:

The correct answer is Badminton.

★ Key Points

- Tanya Hemanth, who idolizes world No.1 Chinese Taipei, won her first title in 2018 at the Dubai Junior International Series.
- She then captured a **silver medal** at **Cyprus Junior** in **2019** and a **bronze medal** in both the singles and doubles in Dubai a few months later.
- A seventeen-year old player reaching the final of a senior international tournament from the qualifying stages is bound to catch the eyeballs.



79. Answer: b

Explanation:

The correct answer is 21

★ Key Points

- The social Justice and Empowerment department Rajasthan State Government has brought t RAJSSP scheme .
- The total payment processing for citizens is going to sponsor by the Central Government and State Government employees.
- Rajasthan Social Security Pension has empowered the various sections and thus benifitted many individuals and specially the weaker sections of the society.

★ Additional Information

- Rajasthan Social Security Pension has merged different central schemes under this one scheme to provide better facilities
- **Indira Gandhi National Old Age Pension Scheme** , Indira Gandhi National Widow Pension Scheme, and Indira Gandhi National Disability Pension Scheme are some central Government schemes included under RAJSSP.

80. Answer: c

Explanation:

The correct answer is Increases by the loss of water to ice or evaporation

★ Key Points

- In sea water there is typically close to 35 grams of dissolved salts in each liter.
- It is written as 35 ‰ The normal range of ocean salinity ranges between 33–37 grams per liter (33‰ – 37‰).

★ Additional Information

- As we have seen, most differences in salinity are due to variations in evaporation, precipitation, runoff, and ice cover.
- All of these processes occur at the ocean surface, not at depth.
- The most pronounced differences in salinity should be found in surface waters

81. Answer: a

Explanation:

The correct answer is Chloroform.

★ Key Points

- **Chloroform**

- **Chloroform** is a **colorless, volatile, liquid derivative** of trichloromethane.
- It has an **ether-like odor**.
- It is used as a solvent and in the production of refrigerant freon.
- It appears as a **clear colorless liquid**.
- It is **denser than water** and **slightly soluble in water**.
- **Nonflammable** under most conditions, but burns under extreme conditions.
- **Used as a solvent** , to make other chemicals, as a fumigant.

★ Additional Information

- **Sodium Chloride**

- **Sodium chloride** is the common salt.
- Its formula is **NaCl**.
- It is **easily soluble in water** and **partially soluble or insoluble in other liquids**.
- They are white crystals that do not have an odour but possess a taste.
- In its aqueous state NaCl acts as a **good conductor of electricity** due to the free movement of the ions.

- **Ethyl chloride**

- **Ethyl chloride** is a **colorless mobile liquid below 54oF (12oC)**, and above this boiling point.
- It is a **colorless gas**.
- It is **highly volatile, flammable, and has a sweet odor**.
- It is a **versatile, organic compound** used in a variety of applications.

- **Hydrochloric acid**

- **Hydrochloric acid** is an inorganic chemical.
- It is a **strong corrosive acid** with a chemical formula **HCl**.
- **It is colourless and viscous**.
- It is corrosive and has a distinctively pungent smell.

82. Answer: d

Explanation:

Correct answer is Self Help Group.

★ Key Points

- A **self-help group** (commonly abbreviated **SHG**) is a financial intermediary committee usually composed of 12 to 25 local women between the ages of **18 and 50**.
- Most self-help groups are in India, though they can be found in other countries, mainly in **South Asia and Southeast Asia**.
- A SHG is commonly a group of people who work on daily wages who form a **loose grouping or union**.
- Money is collected from those who are **able to donate and given to members in need**.



★ Additional Information

- A **sustainable help to growth** provides economic opportunities for the poor, builds resilience, and prepares low-income countries for the impacts of climate change while limiting current emissions and environmental degradation.
- Sustainability research grants **support the research and development a variety of methods, tools, guidance and programs** that further the application of sustainability within decision-making.
- The **surety** is the guarantee of the debts of one party by another.

83. Answer: a

Explanation:

The correct answer is 2022.

★ Key Points

Tractor Distribution Scheme

- The state govt. of Assam has launched the **Tractor Distribution Scheme**.
- The main objective of his scheme is to revive the agricultural sector and help in **doubling the farmer's income by 2022**.
- A group of 8-10 people who are **actual adult farmers** can apply for a tractor distribution scheme.
- This scheme will strengthen the agriculture sector if the **farmers properly utilize these tractors**.
- The state govt. has allotted **Rs 1000 crore** for the successful implementation of this scheme .

★ Additional Information

Chief Minister Samagra Gramya Unnayan Yojna

- A 5-year mega-mission called **Chief Minister Samagra Gramya Unnayan Yojana (CMSGUY)** was launched in the Financial Year (FY) 2016-17.

- It is scheduled to culminate in the FY 2021-22, coinciding with 75 years of India's Independence.
- Its aim was **to double the farm income, in unison with the vision of Hon'ble Prime Minister Shri Narendra Modi.**
- Under CMSGUY there is a proposal to initiate massive investments in rural areas for complete rural empowerment in a period of five years.
- This is sought to be achieved through 'saturation model' by covering each revenue village through focused interventions in
 - **Direct economic activities**
 - **Logistic support includes market linkages**
 - **Community support.**

84. Answer: a

Explanation:

The correct answer is Odissi.

★ Key Points

Odissi

- **Odissi** is one of the Classical dance forms of India which **originates from the Odisha state of India.**
- The examples of this dance can be seen in the **Udayagiri and Khandagiri Caves in Odisha.**
- The name came from '**odra nritya**' which is mentioned in **Natya Shastra.**
- "**Odissi**" dance form represents **Water.**
- **Minati Mishra** was conferred with the **Padma Shri** for her significant contribution to **Odissi.**

★ Additional Information

- **Kathak**
 - **Kathak originated from Uttar Pradesh.**
 - It is one of the eight forms of ancient classical dances of India.

- Famous Kathak dance is derived from **Katha or storytellers**.
- **Kathakali**
 - **Kathakali is one performing art that distinguishes Kerala.**
 - The words '**Katha**' mean story and '**Kali**' mean drama.
 - It is traditionally performed within the temple precincts.
 - The language used for Kathakali songs is **Manipravalam, i.e. a mixture of Malayalam and Sanskrit.**
- **Bharatanatyam**
 - Bharata Natyam is considered to be the **oldest form of dance**.
 - It is mother of all other styles of classical dance in India.
 - The classical Indian dance **Bharatanatyam originated from the art of temple dancers in the South India state of Tamil Nadu.**

85. Answer: d

Explanation:

The correct answer is ₹3,165.50 crore.

★ Key Points

- The Government has decided to continue the Scheme of over the 15th Finance Commission Cycle at an outlay of **Rs 3165.50 crore**.
- The twin objectives were mass participation and promotion of excellence in sports,
- The **Khelo India Scheme** is the **flagship Central Sector Scheme** of the Ministry of Youth Affairs & Sports.
- It aims at infusing sports culture and achieving sporting excellence in the country.
- It includes **playfield development; community coaching development; promotion of community sports.**

★ Additional Information

15th Finance Commission Cycle

- The **Fifteenth Finance Commission** is an Indian Finance Commission constituted in November **2017**.
- It is to give recommendations for devolution of taxes and other fiscal matters for **five fiscal years**.
- The commission's chairman is **Nand Kishore Singh** since March 2014.
- Its full-time members are **Ajay Narayan Jha, Ashok Lahiri and Anoop Singh**.
- The important points about the latest report of the 15th Finance Commission of India are:
 - **Maintaining vertical devolution at 41%**
 - **On GST**
 - **On Gross Tax Revenue**
 - **On Horizontal Devolution**
 - **On Revenue Deficit Grants (RDG)**

86. Answer: c

Explanation:

The correct answer is Sarod.

★ Key Points

- **Buddhadev Das Gupta**
 - **Buddhadev Das Gupta** was an Indian classical musician who played the **sarod**.
 - He used to **reside in Kolkata, India**.
 - He was one of the **artists featured in Nimbus Records' The Raga Guide**.
 - **In 2011, Das Gupta, was offered the Padma Shri** by the government of India, but he turned it down saying "it was far too late in the day".
 - **In January 2012**, he had been **conferred with the Padma Bhushan**.
 - He was awarded **Sangeet Natak Akademi Award in 1993** and **Sangeet Natak Akademi Tagore Ratna in 2011**.

★ Additional Information

Sr. No.	Name of instrument	Artists' name
1	Shehnai	Bismillah Khan
		Ali Ahmed Hussain
		Bageshwari Qamar
2	Sitar	Pt. Ravi Shankar
		Shahid Parvez Khan
		Budhaditya Mukherjee
3	Sarod	Amjad Ali Khan Bangash
		Ali Akbar Khan
		Allauddin Khan
4	Veena	Asad Ali Khan
		Zia Mohiuddin Dagar
		Ayyagari Syamasundaram

87. Answer: b

Explanation:

The correct answer is Bharatanatyam.

★ Key Points

- T Balasaraswati was awarded the Padma Vibhushan for her contribution to Indian art and culture, in **Bharatnatyam**.
- **Tanjore Balasaraswati** also known as **Balasaraswati** was an Indian dancer, and her rendering of Bharatanatyam, a classical dance style that originated in the South Indian state of **Tamil Nadu**, made this style of dancing well known in different parts of India and many parts of the world.

- She was awarded the **Padma Bhushan** in 1957 and the **Padma Vibhushan** in 1977, the third and the second highest civilian honors given by the Government of India.
- She received numerous awards in India, including the President's Award from the **Sangeet Natak Akademi** and **Sangita Kalanidhi** from the Madras Music Academy, South India's highest award for musicians.
- India Today based on a survey, classified her as one of the **100 prominent Indians** who have shaped the destiny of India.

★ Additional Information

- **Bharatanatyam** is a major form of Indian classical dance that originated in **Tamil Nadu**.
- **Kuchipudi** is one of the eight major Indian classical dances. It originates from a village named Kuchipudi in the Indian state of **Andhra Pradesh**.
- **Kathakali** or 'story play' took shape in **Kerala** in southern India in the seventeenth century under the patronage of the prince of Karnataka.
- The **Manipuri** Dance, also referred to as the Manipuri Raas Leela, is one of the eight major Indian classical dance forms, originating from the state of **Manipur**.

88. Answer: c

Explanation:

The correct answer is Jasraj.

★ Key Points

- **Pandit Jasraj** was an Indian classical vocalist, belonging to the **Mewati gharana**.
- His musical career spanned **75 years** resulting in national and international fame, respect and numerous major awards and accolades.
- The **veena**, also spelled **vina**, comprises various chordophone instruments from the Indian subcontinent.

- Ancient musical instruments evolved into many variations, such as **lutes**, **zithers** and **arched harps**.

★ Additional Information

- Jayanthi Kumaresh is an Indian Veena musician.
- Jayanthi comes from a lineage of musicians who have been **practising Carnatic music** for six generations and started playing the Saraswati.
- Sundaram Balachander was an Indian veena player and filmmaker.
- He directed, produced, and also composed music for a few of his films.
- Balachander was awarded the **Padma Bhushan in 1982**.
- Veenai Dhanamma was a highly accomplished Carnatic musician, and the torchbearer of the school of Carnatic music that goes by her name.
- She was both a vocalist and a performer on the Saraswati veena.

89. Answer: b

Explanation:

The correct answer is Specular reflection.

★ Key Points

- The reflection on a bathroom mirror, the lake, and the glare on a pair of glasses are caused by **Specular reflection**.
- **Specular reflection** reflects all light which arrives from a given direction at the same angle, whereas diffuse reflection reflects light in a broad range of directions.
- The distinction may be illustrated with surfaces coated with **glossy paint and matte paint**.
- Measurement of **specular reflection** is performed with normal or varying incidence reflection spectrophotometers (reflectometer) using a scanning variable-wavelength light source.
- Lower quality measurements using a **glossmeter** quantify the glossy appearance of a surface in gloss units.

★ Additional Information

- **Multiple reflection** of light is the reflection of light back and forth several times between reflecting surfaces.
- **Glossy surfaces** are actually specular surfaces with micro surfaces at angles to surface plane. These micro surfaces reflect light not only specularly but also diffusely, giving the surface a glossy appearance.
- **Diffuse reflection** is the reflection of light or other waves or particles from a surface such that a ray incident on the surface is scattered at many angles rather than at just one angle as in the case of specular reflection.

90. Answer: d

Explanation:

The correct answer is Odissi.

★ Key Points

- **Kelucharan Mahapatra, Sonal Mansingh and Geeta Mahalik** famous dancers of Odissi .
- Odissi, also referred to as **Orissa** in old literature, is a major ancient Indian classical dance that origin in the Hindu temples of Odisha – an eastern coastal state of India.
- Odissi Dance originates from the Indian state of **Odisha** .
- According to Natya Shastra, ' **Odhra Magadha** ' is the earliest form of present-day Odissi Dance.
- Odissi is one of the **eight** Indian Classical Dances .

★ Additional Information

- **Mohiniyattam** is an Indian classical dance form that developed and remained popular in the state of **Kerala** .
- **Kuchipudi** is one of the eight major Indian classical dances.
- It originates from a village named Kuchipudi in the Indian state of **Andhra Pradesh** .

- Bharatanatyam is a major form of Indian classical dance that originated in Tamil Nadu .

91. Answer: c

Explanation:

The correct answer is Padmaja Reddy.

- Kuchipudi dancer, **Padmaja Reddy** received the Padma Shri Award in 2022.
- Padmaja Reddy is from **Hyderabad**
- She has received **Sangeeta Nataka Akademi Award**, the highest award given by the Indian government to practicing artists.
- she was the first person from **Telangana** to ever receive this honor.
- She also runs a dance academy called **Pranav Institute of Kuchipudi Dance**.
- She was invited to give a performance at the official residence of India's Prime Minister: 10, Race Course Road.

★ Additional Information

- Shobha Naidu was among the foremost Kuchipudi dancers of India and a disciple of the renowned master Vempati Chinna Satyam.
- Bhavana Reddy is an Indian classical Kuchipudi dancer, singer, songwriter, and guru/teacher.
- She is the younger daughter and disciple of renowned dancing couple **Raja Radha Reddy** and **Kaushalya Reddy** .

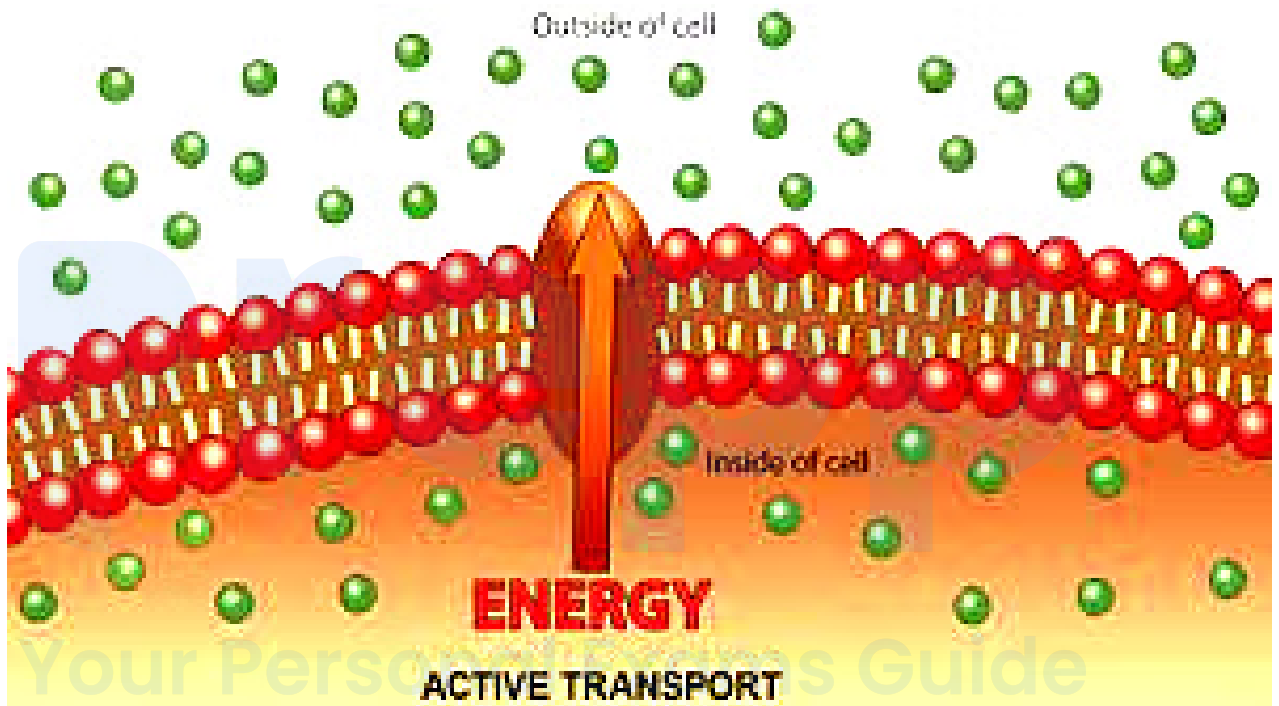
92. Answer: d

Explanation:

Correct answer is Sodium and potassium pumps.

★ Key Points

- The **Sodium-potassium pump** present on the cell membrane is a classic example of active transport.
- Which transports **3 sodium ions outside** and **2 potassium ions inside** of the cell per ATP.
- Active transport is used by **cells to accumulate needed molecules** such as glucose and amino acids.
- Active transport powered by **adenosine triphosphate (ATP)** is known as primary active transport.
- Transport that uses an **electrochemical gradient** is called secondary transport.
-



★ Additional Information

- Iron assimilation_ The absorption of most dietary iron occurs in the duodenum and proximal jejunum and depends heavily on the physical state of the iron atom.
- The reversibility of the salt elimination reaction can be attributed to the **solvation of the sodium cations by tetrahydrofuran**, and the affinity of the Lewis acidic lanthanide centers for tetrahydrofuran and chloride relative to the aminodiboranate anion.
- Glucose transporters are **a wide group of membrane proteins that facilitate the transport of glucose across the plasma membrane**, a process known as

facilitated diffusion.

93. Answer: b

Explanation:

Correct answer is Diabetes mellitus.

★ Key Points

- **Diabetes or Insulin-dependent diabetes mellitus** is caused due to insufficient secretion of insulin. The individual with diabetes has high levels of blood sugar.
- Diabetes mellitus refers to **a group of diseases that affect how your body uses blood sugar (glucose)**.
- Glucose is vital to your health because it's an **important source of energy** for the cells that make up your muscles and tissues.
- It's also your **brain's main source of fuel**.



★ Additional Information

- Tuberculosis (TB) is **caused by a bacterium called Mycobacterium tuberculosis**.

- The bacteria **usually attack the lungs** , but TB bacteria can attack any part of the body such as the **kidney, spine, and brain**.
- A **cancer** of blood-forming tissues, hindering the body's ability to fight infection.
- Gallstones are **hardened deposits of digestive fluid that can form in your gallbladder**.

94. Answer: d

Explanation:

Correct answer is Amish Tripathi.

★ Key Points

- Amish Tripathi is an Indian author.
- He is known for his book series **Shiva Trilogy and Ram Chandra Series**.
- **Raavan: Enemy of Aryavarta** is the **seventh book of Amish Tripathi**, sixth book of Amishverse, and third book of Ram Chandra Series.
- It chronicles the **life of Ravan** until the time he **kidnaps Sita**.
- The book was **released on 1 July 2019** and published by Westland.

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★ Additional Information

- **Chetan Bhagat** is an Indian author, columnist and youtuber.
- **Aravind Adiga** is an Indian **writer and journalist**. His debut novel, *The White Tiger*, won the 2008 Man Booker Prize.
- **Vikram Seth** CBE, FRSL is an Indian **novelist and poet**.
- Vikram Seth has written several novels and poetry books.

95. Answer: b

Explanation:

Correct answer is Friedrich Wohler.

★ Key Points

- Friedrich Wöhler was the first to **synthesize an organic compound from an inorganic substance**.
- In 1828, he **synthesized urea** by slowly **evaporating a water solution of ammonium cyanate**, which he had prepared by adding silver cyanate to ammonium chloride.
- It is often cited as the starting point of **modern organic chemistry**.
- Wöhler, Friedrich (1800–82) German chemist who **first isolated aluminium and beryllium, and discovered calcium carbide**.

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★ Additional Information

- **Antoine Lavoisier** is most noted for his **discovery of the role oxygen plays in combustion**. Antoine Lavoisier was a French Chemist who discovered that air is responsible for combustion and the source of acidity.
- **Ernest Orlando Lawrence** was a pioneering American nuclear physicist and winner of the Nobel Prize in Physics in **1939 for his invention of the cyclotron**.
- **Alfred Werner** was a Swiss chemist who was a student at ETH Zurich and a professor at the University of Zurich.

96. Answer: c

Explanation:

The correct answer is **Arunachal Pradesh**.

★ Key Points

- The 2021 Census of India, also the 16th Indian Census, is intended to be carried out in **2023**.
- In April 2019, a data user conference was held and it was announced that **330,000** enumerators would be enlisted.
- Arunachal Pradesh has the lowest population density with **17 persons per sq. km**, whereas our national capital has the highest population density with 11,320 persons per sq. km. Sikkim is the least populous.

★ Additional Information

- The state with the lowest population density is Arunachal Pradesh.
- Union Territory with the lowest density of population is **Andaman & Nicobar Islands**.
- The Union Territory with the highest population density is **Delhi**.

97. Answer: a

Explanation:

The correct answer is Satyajit Ray.

★ Key Points

- Satyajit Ray was an Indian director, screenwriter, documentary filmmaker, author, essayist, lyricist, magazine editor, illustrator, calligrapher, and music composer.
- Throughout his career, Satyajit Ray maintained that the best technique of filmmaking was the one that was not noticeable, that technique was merely a means to an end.
- He disliked the idea of a film that drew attention to its style rather than the contents.

★ Additional Information

- Sukumar Ray was a Bengali writer and poet from the Indian subcontinent.

- He is remembered mainly for his writings for children.
- He was the son of children's story writer **Upendrakishore Ray Chowdhury and the father of Indian filmmaker Satyajit Ray**
- Taslima Nasrin is a Bangladeshi-Swedish writer, physician, feminist, secular humanist, and activist.
- She is known for her writing on women's oppression and criticism of religion. Some of her books are banned in Bangladesh.
- She has been blacklisted and banished from the Bengal region
- Debesh Roy was a Bengali writer and scholar from India. He is best known for his Sahitya Akademi Award-winning novel *Teesta Parer Brittanta*.

98. Answer: d

Explanation:

The correct answer is **Seventh Schedule**.

★ Key Points

- The Seventh Schedule to the Constitution of India defines and specifies allocation of powers and functions between Union & States
- It contains three lists; i.e. 1) Union List, 2) State List and 3) Concurrent List.
- Originally there was 97 subjects in union list but now it is 100 subjects in union list.

★ Additional Information

- The Ninth Schedule was brought in the Indian Constitution on 18 June 1951 to abolish the Zamindari system .
- The third Schedule contains the "Forms of Oaths or Affirmations" of various constitutional posts .
- The Fifth Schedule of the Constitution deals with the administration and control of Scheduled Areas as well as of Scheduled Tribes residing in any State other than the States of Assam, Meghalaya, Tripura, and Mizoram .

99. Answer: b

Explanation:

The correct answer is India

★ Key Points

- The 2026 BWF World Championships will be the 30th edition of the prestigious badminton tournament of BWF held annually .
- It will be held in India in 2026 .



★ Additional Information

- The **BWF World Championships**, formerly known as IBF World Championships, and also known as the World Badminton Championships, is a badminton tournament sanctioned by Badminton World Federation
- The Olympic-bound **P V Sindhu is the world champion in women's singles**
- She has won two bronze and two silver medals at the world championships.

100. Answer: b

Explanation:

The correct answer is Shovana Narayan.

★ Key Points

- **Shovana Narayan** is a recognized Indian Kathak dancer and a career officer with the Indian Audit and Accounts Service. She performs in India and internationally, and has been awarded the Padma Shri. She trained under Birju Maharaj.

★ Additional Information

- **Kanak Rele** is an Indian dancer, choreographer, and academic best known as an exponent of Mohiniyattom. She is the founder-director of the Nalanda Dance Research Centre and the founder-principal of the **Nalanda Nritya Kala Mahavidyalaya in Mumbai**.
- **Madhavi Mudgal** is an Indian classical dancer known for her Odissi dance style. She has won several awards, including the Sanskriti Award, 1984, President of India's award of Padma Shri, 1990, and the Orissa.
- **Vani Madhav** is one among the few established new generation Odissi Dancers of India .

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