



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 (09-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 option to fill in the blank. (+2, -0.5)

She raced _____ towards the train.

- a. crazily
- b. berserk
- c. hectically
- d. frantically

2. Complete the sentence with an appropriate synonym of the word mentioned in the bracket. (+2, -0.5)

Diseases like Verminosis and Mastitis only _____ (damage) domestic cattle.

- a. delight
- b. afflict
- c. relieve
- d. assist

3. Select the most appropriate synonym of the highlighted word. (+2, -0.5)

The hapless incident was a result of sheer negligence by the authorities.

- a. triumphant
- b. joyful

- c. grateful
 - d. ill- fated
-

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

We have _____ long weekend ahead.

- a. an
 - b. one
 - c. a
 - d. the
-

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

There were more than thirty delegates who attend the training programme last summer.

- a. There are more than thirty delegates who attend the training programme last summer
 - b. There were more than thirty delegates who attends the training programme last summer.
 - c. There was more than thirty delegates who attend the training programme last summer
 - d. There were more than thirty delegates who attended the training programme last summer.
-

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

- a. There are more than 3500 types of moskutoes in the world.
- b. The common reaction to mosquito's biting is itching.
- c. Female mosqueteos have a longer life than their male mates.
- d. Like all flies, mosquitoes also have four stages in their life.

7. Select the most appropriate option that can substitute the underlined segment in the given sentence. (+2, -0.5)

Simba and snowy are cute than the other puppies.

- a. more cute
- b. cuter
- c. most cute
- d. cutest

8. Select the most appropriate option that can substitute the underlined words in the given sentence. (+2, -0.5)

Upon hearing the great achievements of the historic character, he was in a state of awed admiration and respect.

- a. wonder
- b. awed
- c. wondering

d. wonderment

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

Snail's pace

- a. Very fast
 - b. Very slow
 - c. Very active
 - d. Very sharp
-

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

Hopefully, things will return to normal in the -----.

- a. past
 - b. future
 - c. present
 - d. earlier
-

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

The teacher gave the question paper.

- a. The question paper was given by the teacher.
- b. The question paper was being given by the teacher.
- c. The question paper was gave by the teacher.

- d. The question paper has been given by the teacher.
-

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

The young king tried to speak, but his tongue seemed to _____ the roof of his mouth, and his lips refused to move.

- a. divide to
 - b. cleave to
 - c. link to
 - d. leave to
-

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

Ipshita knows many languages like French, Dutch and English, and she speaks them fluently.

- a. Translator
 - b. Polyglot
 - c. Bureaucrat
 - d. Prodigy
-

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

- a) Jumped off the bus in front of the old woman's home
- b) It was mid-morning and a very cold, bright day

c) Holding a potted plant before her, a girl of fourteen

d) On the outskirts of town

a. a, b, c, d,

b. a, d, c, b,

c. b, c, a, d

d. c, a, b, d

15. Select the INCORRECTLY spelt word.

(+2, -0.5)

a. Knowlege

b. Marinate

c. College

d. Jocular

16. From among the words given in bold, select the INCORRECTLY spelt word in the following sentence.

(+2, -0.5)

The streets are crowded with tribal urchins in tattered jackets, bowlegged donkeys hauling firewood, steep mountain trails, and occasional palanquins for arthritic bussinessman.

a. bowlegged

b. palanquins

c. urchins

d. bussinessman

17. Select the most appropriate meaning of the highlighted idiom. (+2, -0.5)

The employee took the manager's remark with **a pinch of salt**.

- a. Doubt the truth or value of something
- b. Distasteful and boring
- c. Going for the truth
- d. Ever ready to condemn someone

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

Any resemblance of a character in this book to a living person is _____ incidental.

- a. absolutely
- b. naturally
- c. purely
- d. thoroughly

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

The movers and shakers

- a. People who have a lot of power and influence
- b. Transportation company
- c. Labourers

d. Travelling agency

20. Select the INCORRECTLY spelt word.

(+2, -0.5)

- a. Appetight
 - b. Reliance
 - c. Success
 - d. Confidence
-

21. **Direction:-** In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number.

(+2, -0.5)

(1) _____ areas are also known as the 'countryside' or a 'village' in India. It has a very low population (2) _____. In rural areas, agriculture is the chief source of livelihood along with fishing, cottage (3) _____, pottery etc. The (4) _____ to discover the real rural India still continues in great earnest. Almost (5) _____ economic agency today has a definition of rural India.

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

- a. Ruler
 - b. Country
 - c. City
 - d. Rural
-

22. **Direction:-** In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number. (+2, -0.5)

(1) _____ areas are also known as the 'countryside' or a 'village' in India. It has a very low population (2) _____. In rural areas, agriculture is the chief source of livelihood along with fishing, cottage (3) _____, pottery etc. The (4) _____ to discover the real rural India still continues in great earnest. Almost (5) _____ economic agency today has a definition of rural India.

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

- a. density
- b. bulk
- c. mass
- d. thickness

23. **Direction:-** In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number. (+2, -0.5)

(1) _____ areas are also known as the 'countryside' or a 'village' in India. It has a very low population (2) _____. In rural areas, agriculture is the chief source of livelihood along with fishing, cottage (3) _____, pottery etc. The (4) _____ to discover the real rural India still continues in great earnest. Almost (5) _____ economic agency today has a definition of rural India.

Select the most appropriate option to fill in blank number 3

- a. industrialist

- b. industriousness
- c. industrial
- d. industries

24. Direction:- In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number. (+2, -0.5)

(1) _____ areas are also known as the 'countryside' or a 'village' in India. It has a very low population (2) _____. In rural areas, agriculture is the chief source of livelihood along with fishing, cottage (3) _____, pottery etc. The (4) _____ to discover the real rural India still continues in great earnest. Almost (5) _____ economic agency today has a definition of rural India.

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

- a. resistance
- b. quest
- c. flight
- d. discovery

25. Direction:- In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number. (+2, -0.5)

(1) _____ areas are also known as the 'countryside' or a 'village' in India. It has a very low population (2) _____. In rural areas, agriculture is the chief source of livelihood along with fishing, cottage (3) _____, pottery etc. The (4) _____ to discover the real

rural India still continues in great earnest. Almost (5) _____ economic agency today has a definition of rural India.

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

- a. every
- b. none
- c. both
- d. all

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General Intelligence

26. 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)

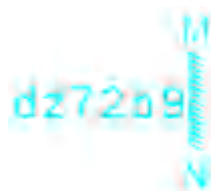
ABROAD : BAILDA :: BEFORE : EBULER :: COUPLE : ?

- a. OCFKLE
- b. OCFKEL
- c. OCPUEL
- d. OCUPEL

27. If 28 February 2015 was Saturday, then what was the day of the week on 28 February 2021? (+2, -0.5)

- a. Thursday
- b. Friday
- c. Saturday
- d. Sunday

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



a. 6d27zb

b. 6q27zp

c. 6b27zb

d. 6d27zb

29. 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)

9 : 32 :: 17 : 56 :: 15 : ?

a. 40

b. 45

c. 50

d. 35

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

$78 * 3 * 12 * 5 * 59 * 17 * 44$

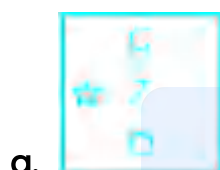
a. -, +, ×, -, =, ×

b. ÷, +, ×, -, +, =

c. +, =, -, +, x, ÷

d. =, -, +, x, -, +

31. Select the figure that will replace the question mark(?) in the following figure series (+2, -0.5)



32. Which of the following numbers will replace the question mark (?) in the given series? (+2, -0.5)

12, 17, 29, 55, 102, 177, ?

- a. 288
- b. 278
- c. 287
- d. 277

33. Which of the following numbers will replace the question mark (?) in the given series? (+2, -0.5)

17, 34, 31, ?, 119, 714

- a. 130
- b. 120
- c. 128
- d. 124

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

First row: 2, 3, 17

Second row: 4, 6, 100

Third row: 5, 2, ?

(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. 129
- b. 127
- c. 125
- d. 120

35. Which letter cluster will replace the question mark (?) to complete the given series? (+2, -0.5)

OHVY, NFSU, MDPQ, ? , KZJI

- a. LAMM
- b. LBMM
- c. LBMP
- d. LBPQ

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)

14 : 112 :: 24 : 312 :: 18 : ?

- a. 198

b. 180

c. 162

d. 148

37. Which of the following numbers will replace the question mark (?) in the given series? (+2, -0.5)

215, 226, 210, ?, 205, 236

a. 228

b. 231

c. 220

d. 216

38. Which of the following numbers will replace the question mark (?) in the given series? (+2, -0.5)

21, 126, 131, ? , 527, 1054

a. 500

b. 513

c. 524

d. 520

39. In a certain code language, 'MYRA' is written as '1426192' and 'VIAAN' is written as '23102215'. How will 'VIDHI' be written in that language? (+2, -0.5)

- a. 23105912
- b. 23105913
- c. 23105910
- d. 23105911

40. Two different positions 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 opposite to the one showing '5'. (+2, -0.5)



- a. 6
- b. 2
- c. 3
- d. 1

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41. In a certain code language, 'SCALE' is written as 'UACJG' and 'LIGHT' is written as 'NGIFV'. How will 'LIMIT' be written in that language? (+2, -0.5)

- a. NOGGV
- b. GNOGV
- c. NGOVG
- d. NGOGV

42. Which of the following letter-clusters will replace the question mark (?) in the given series to make it logically complete? (+2, -0.5)

VYU, TWS, RUQ, PSO, ?

- a. MNQ
- b. QMN
- c. NQM
- d. NMQ

43. How many triangles are there in the given figure? (+2, -0.5)



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

44. Three Statements are given followed by Three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements. (+2, -0.5)

Statements:

All jacks are aces.

No ace is a king.

Some queens are kings.

Conclusions:

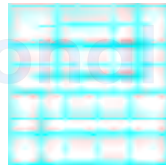
I. Some queens are jacks.

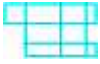
II. Some kings are jacks.

III. No jack is a king.

- a. Only conclusion I follows.
- b. Only conclusion III follows.
- c. Only conclusion I and III follow.
- d. Only conclusion I and II follow.

-
45. Select the option figure which is embedded in the given figure as its part (rotation is NOT allowed). (+2, -0.5)



d. 

46. In a certain code language, 'FRIEND' is written as 'GQJDOC', and 'READER' is written as 'SDBCQF'. How will 'NUMBER' be written in that language? (+2, -0.5)

- a. OTANFQ
- b. OTNAFQ
- c. TONAQF
- d. TOANQF

47. If 29th September 2015 was a Tuesday, then what was the day of the week on 28th September 2019? (+2, -0.5)

- a. Thursday
- b. Saturday
- c. Friday
- d. Wednesday

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





a.

b. $w\gamma a\theta K\epsilon$

c. $\epsilon\gamma\theta a\gamma m$

d. $\epsilon\gamma\theta a\gamma w$

49. If I denotes ' $\div$ ', J denotes ' $\times$ ', K denotes ' $-$ ' and L denotes ' $+$ ', then what will come in place of '?' in the following equation? (+2, -0.5)

$$19 L (22 J 4) K (66 I 11) L (16 J 2) = ?$$

a. 141

b. 130

c. 133

d. 138

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

$$24 : 171 :: ? : 115 :: 4 : 31$$

a. 20

b. 18

c. 16

d. 14

prepp

Your Personal Exams Guide

Quantitative Aptitude

51. The average speed of a car is $1\frac{3}{5}$ times the average speed of a bus. A tractor covers 1150 km in 23 hours. How much distance will the car cover in 4 hours if the speed of the bus is twice the speed of the tractor? (+2, -0.5)

- a. 540 km
- b. 740 km
- c. 440 km
- d. 640 km

52. If $x^2 - 9x + 1 = 0$, what is the value of $x^8 - 6239x^4 + 1$? (+2, -0.5)

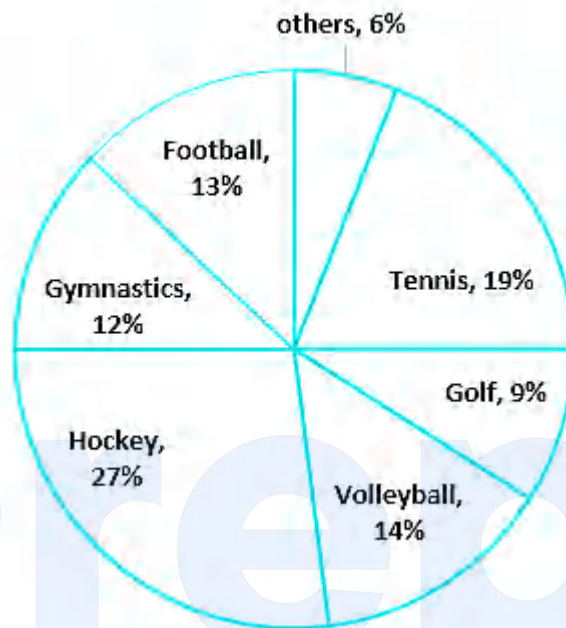
- a. 1
- b. 0
- c. -1
- d. 2

53. $(\operatorname{cosec} \theta - \cot \theta)^2 = ?$, if $0^\circ < \theta < 90^\circ$ (+2, -0.5)

- a. $\frac{1 - \sin \theta}{1 + \cos \theta}$
- b. $\frac{1 - \cos \theta}{1 + \cos \theta}$
- c. $\frac{1 + \cos \theta}{1 - \cos \theta}$
- d. $\frac{1 + \cos \theta}{1 - \sin \theta}$

54. The weekly earnings of a shopkeeper in February 2021 are ₹21,980, ₹20,580, ₹22,380, ₹22,616, respectively. What is his average daily income in February 2021? (+2, -0.5)
- a. ₹3,227
 - b. ₹3,120
 - c. ₹3,127
 - d. ₹3,027
-
55. 3 men and 7 women can complete a task in 10 days. On the other hand, 4 men and 6 women, take 8 days to complete the same task. How long will it take 10 women to complete the same task? (+2, -0.5)
- a. 36 days
 - b. 43 days
 - c. 48 days
 - d. 40 days
-
56. What is the volume of a cylinder with radius 15 cm and height 119 cm? (+2, -0.5)
(Take $\pi = 22/7$)
- a. 84150 cm^3
 - b. 85140 cm^3
 - c. 84510 cm^3
 - d. 85500 cm^3

57. The pie-chart below gives the spending of a country on various sports during a particular year as percentages of total spending of all sports by the country in that year. (+2, -0.5)



Based on the information given in the pie-chart, find the total amount spent (in crores of rupees) by the country on volleyball and gymnastic taken together in that year, if the total spending by the country in that year on all sports taken together was ₹286 crores.

- a. ₹82.92 crore
 - b. ₹78.56 crore
 - c. ₹69.84 crore
 - d. ₹74.36 crore
58. A table fan, passing through two hands, is sold finally at a profit of 30% of the original cost price. If the first dealer makes a profit of 25%, then the profit made by the second dealer is: (+2, -0.5)

- a. 5%
- b. 10%
- c. 15%
- d. 4%

59. A rectangular piece of paper is 52 cm long and 22 cm wide. A cylinder is formed by rolling the paper along its breadth. Find the volume of the cylinder. [Take $\pi = \frac{22}{7}$] (+2, -0.5)

- a. 1870 cm^3
- b. 2002 cm^3
- c. 1030 cm^3
- d. 1290 cm^3

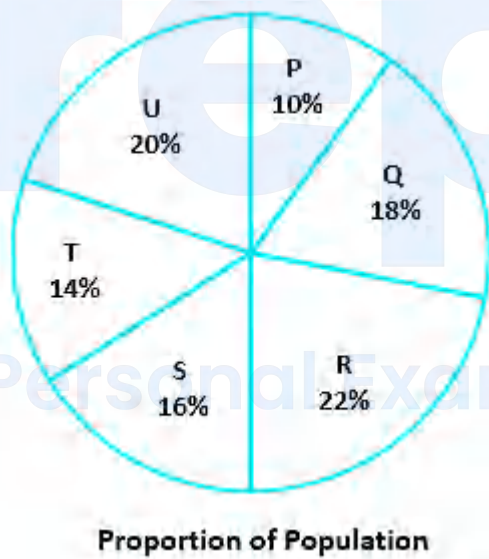
60. A few boys and a few girls appeared for a test. The average score of the boys was 52, the average score of the girls was 72, while the combined average was 60. What was the ratio of the number of girls to the number of boys who took the exam?? (+2, -0.5)

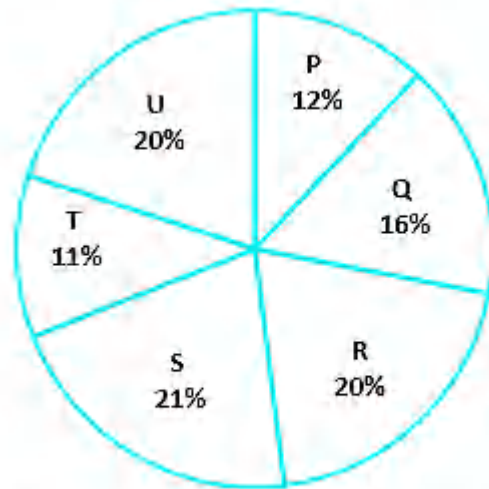
- a. 3 : 2
- b. 13 : 18
- c. 18 : 13
- d. 2 : 3

61. The number 123456 is divisible by: (+2, -0.5)

- a. 4
- b. 14
- c. 56
- d. 7

62. The given pie charts show the proportion of population and the proportion of population below poverty line of six towns P, Q, R, S, T and U in 2018. Study the pie charts and answer the question that follows. (+2, -0.5)





Proportion of Population below poverty line

If the population of town 'U' is 12,00,000, then the population below poverty line of town 'P' is:

- a. 74,000
- b. 68,000
- c. 56,000
- d. 72,000

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63. Anjali and Babita are running on a circular track in opposite directions from same time at same point with speeds of 8 m/sec and 6 m/sec, respectively. If the length of the circular track is 960 m, how many times at distinct points they will meet till they meet at the starting point again? (+2, -0.5)
- a. 7 times
 - b. 6 times
 - c. 12 times
 - d. 14 times

64. The value of $272 \div 16 + [119 \div \{1491 \div 3 (21 - 13 \times 8 + 4 \times 3)\}]$ is. (+2, -0.5)

- a. -9
- b. 0
- c. 8
- d. 11

65. Khushi went to purchase a mixer. The marked price of the mixer was ₹6,000 and 20% flat discount was offered on it by the shopkeeper. How much does Khushi have to pay for the mixer? (+2, -0.5)

- a. ₹4,200
- b. ₹4,500
- c. ₹4,800
- d. ₹5,000

66. The ratio in which a transverse common tangent drawn to two circles with radii 4 cm and 6 cm, respectively, divides the line joining their centres is: (+2, -0.5)

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

67. The table below gives the numbers of units of four different products manufactured by a company during four different months of a particular year. The total number of units manufactured in March of all four products taken together is what percentage of the total number of spoons manufactured by the company in these four given months together? (+2, -0.5)

Product	January	March	May	July
Plate	260	300	288	232
Bowl	292	268	312	208
Spoon	284	236	220	260
Glass	228	292	232	284

- a. 108.4%
- b. 109.6%
- c. 95.78%
- d. 10.96%

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68. The ratio of income and expenditure of a person is 8 : 5. If her income increases by 25% and her expenditure increases by 28%, then what is the percentage increase in her savings? (+2, -0.5)

- a. 18%
- b. 20%
- c. $16\frac{2}{3}\%$
- d. $22\frac{1}{2}\%$

69. The annual salary of Suhas has increased from ₹18,00,000 to ₹22,00,000. (+2, -0.5)
What is the percentage increase? (Correct to two decimal places)

- a. 33.33%
- b. 18.18%
- c. 81.81%
- d. 22.22%

70. A man borrows a sum of ₹1,025 and pays back in two equal yearly instalments. If the rate of interest is 5% p.a, compounded yearly, then how much is each instalments? (+2, -0.5)

- a. ₹425.25
- b. ₹525.32
- c. ₹451.32
- d. ₹551.25

71. Find the mean proportional between 0.04 and 0.0036. (+2, -0.5)

- a. 0.012
- b. 0.12
- c. 0.0012
- d. 0.004

72. Evaluate 107×93 .

(+2, -0.5)

- a. 10047
- b. 9951
- c. 10049
- d. 9953

73. Simplify:

(+2, -0.5)

$$(a^{-1} + b^{-1}) \div (a^{-3} + b^{-3})$$

- a. $\frac{ab}{(a^2 - ab + b^2)}$
- b. $\frac{a^3 b^3}{(a^2 - ab + b^2)}$
- c. $\frac{a^2 b^2}{(a^2 + ab + b^2)}$
- d. $\frac{a^2 b^2}{(a^2 - ab + b^2)}$

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74. The length of the hypotenuse of a right-angled triangle is 37 cm and the length of one of its other two sides is 12 cm. What is the area of the triangle?

(+2, -0.5)

- a. 222 cm^2
- b. 204 cm^2
- c. 216 cm^2
- d. 210 cm^2

75. A washing machine marked at ₹28,000 is sold at two successive discounts of 15% and 10%. An additional discount of 5% is offered for cash payment. The selling price of the washing machine at cash payment is: (+2, -0.5)
- a. ₹21,458
 - b. ₹19,568
 - c. ₹20,349
 - d. ₹18,851

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General Awareness

76. Which of the following is **NOT** correct regarding the election of Vice-President? (+2, -0.5)
- a. He/she is qualified for election as a member of the House of People.
 - b. He/she is qualified for election as a member of the Council of States.
 - c. He/she has completed the age of 35 years of age.
 - d. He/she must be a citizen of India.
-
77. Which of the following autobiographies is written by the great Indian santoor player Shiv Kumar Sharma in 2002? (+2, -0.5)
- a. The Life of a Musician
 - b. That Long Silence
 - c. Journey with a Hundred Strings: My Life in Music
 - d. Abba – God's greatest Gift to Us
-
78. Which of the following does NOT create any corresponding liability for the government? (+2, -0.5)
- a. Revenue receipts
 - b. Capital receipts
 - a. Both (a) and (b)
 - b. Only (b)

- c. Only (a)
 - d. Neither (a) nor (b)
-

79. India finished its best-ever performance at World Athletics U20 Championship at Nairobi in August 2021 with: (+2, -0.5)

- a. 1 gold and 2 silver medals
 - b. 2 silver and 1 bronze medals
 - c. 1 silver and 2 bronze medals
 - d. 3 gold, 2 silver and 1 bronze medals
-

80. Tanvi Shah, an Indian musician to bring home a Grammy has been conferred the award for which of the following contributions? (+2, -0.5)

- a. Best Arrangement (Instruments and Vocals)
 - b. Best Instrumental Composition
 - c. Best song written for Visual Media
 - d. Album of the year
-

81. Rashtriya Kalidas Samman was conferred to which of the following personalities in 2019-20? (+2, -0.5)

- a. Shanta Dhananjayan
- b. Priya Sisodia
- c. Sunaina Hazarilal

d. Sanjaya Dhawale

82. Which of the following novels is NOT written by the famous Hindi writer Premchand? (+2, -0.5)

- a. Idgah
 - b. Mansarovar
 - c. Kashi Ka Assi
 - d. Godaan
-

83. Which Act was enacted in India with the aim of curbing illegal trade in wildlife and derivative parts? (+2, -0.5)

- a. Environment Protection Act, 1986
 - b. Forest Conservation Act, 1980
 - c. Biological Diversity Act, 2002
 - d. Wildlife Protection Act, 1972
-

84. The Winter Olympics games 2022 was organised by which of the following city from 4 February to 20 February 2022? (+2, -0.5)

- a. Brasilia
- b. Beijing
- c. Moscow
- d. Stockholm

85. Guru Debaprasad Das Awardee Durga Charan Ranbir is a teacher and performer of which of the following classical dance forms? **(+2, -0.5)**

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

86. Who among the following Hindustani classical instrumentalists won the Grammy Award in 1993 for his album 'A Meeting by The River' with Ry Cooder? **(+2, -0.5)**

- a. Zakir Hussain
- b. Ricky Kej
- c. AR Rahman
- d. Vishwa Mohan Bhatt

87. Manjusree Chatterjee was awarded the honour of Padma Shri in 2019 for which of the following styles of dance? **(+2, -0.5)**

- a. Manipuri
 - b. Kathakali
 - c. Kuchipudi
 - d. Kathak
-

88. Hafiz Ali Khan was an Indian _____ player of the Bangash gharana. (+2, -0.5)

- a. sarangi
 - b. flute
 - c. sarod
 - d. santoor
-

89. Which of the following is an autobiography of the Indian boxer, Mary Kom? (+2, -0.5)

- a. Unbreakable: An Autobiography
 - b. Undisputed Truth
 - c. Playing it My Way
 - d. The Test of My Life
-

90. What is a good way to measure the population density of fishes found in lakes? (+2, -0.5)

- a. The number of fish caught per trap
 - b. The number of tadpoles trapped
 - c. The oxygen density
 - d. The growth of zooplanktons
-

91. Who among the following personalities was awarded the Padma Shri in 2021 for contributions to Folk dance ? (+2, -0.5)

- a. Manjamma Jogathi
- b. Tulsi Gowda
- c. Dr Sindhutai Sapkal
- d. Rangammal

92. According to Köppen's climate classification scheme, dry climates are subdivided using the capital letter S for semi-arid regions or steppe and W for _____ region. (+2, -0.5)

- a. highland
- b. desert
- c. winter dry
- d. wet

93. As of March 2021, which state of India formulated a new education scheme that will facilitate the upgradation and modernisation of the education sector in the state comprehensively, at a total cost of ₹4,000 crores? (+2, -0.5)

- a. Tamil Nadu
- b. Gujarat
- c. Telangana

d. Odisha

94. Which river in India flows through a rift valley? (+2, -0.5)

- a. Periyar
 - b. Narmada
 - c. Penganga
 - d. Son
-

95. In 1972, _____ coined the term 'pyramid of numbers' that represented the total numbers of individuals (population) present in each trophic level. (+2, -0.5)

- a. Eugene Odum
 - b. Ernst Haeckel
 - c. Arthur Tansley
 - d. Charles Elton
-

96. With reference to the major regions of the northern plains, Bhabar is: (+2, -0.5)

- a. the older alluvium along the river beds forming terraces higher than the flood plain
- b. a narrow belt of about 8 to 16 km that runs in the west-east direction along the foot of the Himalayas from the river Indus to Teesta
- c. composed of newer alluvium and forms flood plains along the river banks

- d. a broad long zone of northern India and southern Nepal running parallel to the lower ranges of the Himalayas
-

97. Which of the following launched People's Plan Campaign 2021- Sabki Yojana Sabka Vikas in September 2021? (+2, -0.5)

- a. Ministry of Finance
 - b. Ministry of Tourism
 - c. Ministry of Panchayati Raj
 - d. Ministry of Home Affairs
-

98. Who among the following was the founder of the Banaras Gharana of the style of khayal singing? (+2, -0.5)

- a. Ustad Inayat Khan
 - b. Pandit Gopal Mishra
 - c. Ustad Mamman Khan
 - d. Ustad Chajju Khan
-

99. Areas like the southern part of Gujarat, eastern Tamil Nadu, northeast peninsula covering Odisha, Jharkhand, Bihar, and East Madhya Pradesh receive rainfall between _____. (+2, -0.5)

- a. 200-300 cm
- b. 250-350 cm
- c. 50-100 cm

d. 100–200 cm

100. In which of the following years was India the host of the Asian Games? (+2, -0.5)

- a. 1994 and 2010
- b. 1951 and 1986
- c. 1982 and 1994
- d. 1951 and 1982

prepp

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Answers

1. Answer: d

Explanation:

The correct answer is, ' **Frantically** '

★ Key Points

- **Frantically** means **hurried and disorderly manner**. (जल्दबाजी और अव्यवस्थित तरीके से)
 - Example, *most of the students write in a frantic fashion just before the time is over for the exam, thus making mistakes.*
- The correct sentence would be, **She raced frantically towards the train.**

★ Additional Information

- **Crazily** means **behaving erratically and wildly**. (गलत और बेतहाशा व्यवहार करना)
 - Example, *the audience sang crazily at the last event.*
- **Berserk** means **out of control**. (नियंत्रण से बाहर)
 - Example, *our uncle's dog goes berserk often which is why he is on a leash at all times.*
- **Hectically** means **engaged or busy**. (व्यस्त)
 - Example, *all administration jobs require employees to work hectically.*

2. Answer: b

Explanation:

The correct answer is, ' **Afflict** '

★ Key Points

- **Afflict** means **to cause pain or trouble**.
- **Damage** means affecting things in a negative manner, through trouble or burden.

- The correct sentence would be, ' Diseases like Verminosis and Mastitis only afflict domestic cattle .'

★ Additional Information

- **Delight** means happiness and joy .
 - Example, *the kids were delighted to see their father return home after a month.*
- **Relieve** means to soften .
 - Example, *sleeping and doing nothing is not going to relieve your troubles.*
- **Assist** means to help.
 - Example, *students will make working models with the assistance of their parents.*

3. Answer: d

Explanation:

The correct answer is, ' Ill-fated'

★ Key Points

- **Ill-fated** means unfortunate or unlucky.
 - Example, *a family had an ill-fated trip to the zoo where they lost their son.*
- **Hapless** means cursed or unlucky .
 - Example, *a child's life becomes a roller-coaster when his parents go through a hapless divorce.*

★ Additional Information

- **Triumphant** means victory or success.
- **Joyful** means happy and blissful.
- **Grateful** means thankful.

4. Answer: c

Explanation:

The correct answer is, 'a'

★ Key Points

- A is an indefinite article used for nouns with consonant sounds.
 - Example, *a good trip, a beautiful garden, and a lovely home.*
- Correct sentence would be, 'We have a long weekend ahead.'

★ Additional Information

- An is also an indefinite article, but it is used for vowel (a, e, i, o, and u) sounds.
- One is incorrect as we use articles 'a and an' for time reference.
 - Example, *An hour ago*, but not - one hour ago.
- The is the definite article used for specific nouns.
 - Example, *the cab driver who paints while driving.*

5. Answer: d

Explanation:

The correct answer is, 'There were more than thirty delegates who attended the training programme last summer.'

★ Key Points

- Since the training programme happened last year, all the details of that time will be in the Past Tense.
- There **were** more than thirty delegates who **attended** the training programme last summer.
 - Past tense of 'to be verb' will be plural because it is talking about the plural common noun, 'thirty delegates'.
 - The event took place in the past and any reference to that event will also be in the past, using the Past Tense.

★ Additional Information

- There **are** more than thirty delegates who **attend** the training programme last summer.
 - As the event took place in the past, verbs should also be in the Past Tense.
- There were more than thirty delegates who **attends** the training programme last summer.
 - Simple form of any verb with s (makes) or es (does) is used for third-person-singular in the Present Simple Tense.
 - Example, *Joey cooks delicious pasta.*
- There **was** more than thirty delegates who **attend** the training programme last summer.
 - For common nouns in plural we use the plural form of 'to be verb' – were and are.
 - The event took place in the past, so the Past Tense should be used.

6. Answer: d

Explanation:

The correct answer is, ' **Like all flies, mosquitoes also have four stages in their life .** '

★ Key Points

- This sentence has no spelling errors – **Like all flies mosquitoes also have four stages in their life .**

★ Additional Information

- There are more than 3500 types of moskuitoes in the world .
 - Incorrect – Moskuitoes. Correct – Mosquitoes.
- The common reaction to mosquito's biting is itching .
 - Incorrect – Mosquito's. Correct – Mosquito's biting
- Female mosqueteos have a longer life than their male mates.
 - Incorrect – Mosqueteos. Correct – Mosquitoes.

7. Answer: b

Explanation:

The correct answer is, ' **Cuter** '

★ Key Points

- There are 3 Degrees of Adjectives – Positive, Comparative, and Superlative.
 - Example, **Fast (Positive), Faster (Comparative), and Fastest (Superlative)**.
- The sentence compares Simba and Snowy to other puppies in terms of cuteness.
- The Comparative Degree of Cute is Cuter.
- The correct sentence would be, **Simba and Snowy are cuter than other puppies .**

★ Additional Information

- **More Cute** is another way of saying cuter. But since cuter is a Comparative Degree, we should use that.
- **Most Cute** is another way of saying Cutest.
- **Cutest** is a Superlative Degree, irrelevant since Simba and Snowy's cuteness is being compared with other puppies. This requires the use of a Comparative Degree, not a Superlative.

8. Answer: d

Explanation:

The correct answer is, ' **Wonderment** '

★ Key Points

- Wonderment is a noun word, describing a state of something.
- **Wonderment** means **a state of amazement.**

- The correct sentence would be, **Upon hearing the great achievements of the historic character, he was in wonderment.**

★ Additional Information

- **Wonder** is used as a noun and also as a verb. Wonder means **awe or fascination** .
 - Example, *we watched a French movie with wonder.*
- **Awed** is used as an adjective. Awed means **filled with awe or surprise** .
 - Example, *she took the prize in awed inspiration.*
- **Wondering** is used as an adjective and a noun. Wonder means **a desire to know something** .
 - Example, *Mike was wondering what his friends would gift him on his birthday.*

9. Answer: b

Explanation:

The correct answer is, ' **Very slow** '

★ Key Points

- A snail moves very slowly and keeps the same slow pace even through the troubles.
- **A snail's pace** means **moving very slowly** .
 - Example, *Aarav writes only one page for his book every day, and his work is moving at a snail's pace .*

★ Additional Information

- **Very fast** , doesn't match a snail's characteristics.
- **Very active** , snails don't change their pace which means they are forever slow and not active, irrelevant.
- **Very sharp** , snails don't seem to mind to the trouble much. They don't respond to it, irrelevant.

10. Answer: b

Explanation:

The correct answer is, '**Future**'

★ Key Points

- The usage of 'will' in the sentence indicates the Future Tense.
- Future Tense tells about the things that haven't happened but may happen in the future.
 - Example, *I will go the school tomorrow.*
- The correct sentence would be, **Hopefully, things will return to normal in the future.**

★ Additional Information

- **Past**, indicates going back.
- **Present**, living the moment.
- **Earlier**, it is used to address a point or a period of time before the present.

11. Answer: a

Explanation:

The correct answer is, ' **The question paper was given by the teacher .** '

★ Key Points

- Active and Passive rules say that every Active sentence is turned into a Passive voice by making the doer of Active which is the subject, then the object of the Passive sentence.
 - Example, Active Voice - *Leah baked the cake.* Here Leah is the doer and subject of this sentence.

- Passive Voice – ***The cake was baked by Leah.*** Leah is still the doer, but now is the subject of the sentence.
- Active and Passive rules also state that a sentence of Past Simple Tense use 'was/were + verb' when changed from Active to Passive Voice.
 - Example, Active Voice – ***Jake completed the work.***
 - Passive Voice, ***The work was completed by Jake.***

★ Additional Information

- The following are the Changes in Tense from Active to Passive, for the Past Tense sentences:
 - Past Simple Tense (2nd form of the verb → was/were + 3rd form of the verb)
 - Example, Active Voice – ***Ria dropped the keys.*** Passive Voice – ***The keys were dropped by Ria.***
 - Past Continuous (was + ing-verb → was being + 3rd form of the verb)
 - Example, ***Harry was painting the picture.*** Passive Voice – ***The picture was being painted by Harry.***
- The following table provides the active and passive forms of verbs.

Tense	Verb In Active form	Verb in Passive form
Simple Present	Write	Is written
Simple Past	Wrote	Was written
Simple Future	Will write	Will be written
Present Continuous	Is writing	Is being written
Past Continuous	Was writing	Was being written
Present Perfect	Has written	Had been written
Past Perfect	Had written	Had been written

12. Answer: b

Explanation:

The correct answer is '**cleave to**'.

★ Key Points

- The most appropriate option for the given blank is '**cleave to**'.
- In the given sentence '**to cleave something**' is a phrase.
- The phrase it means 'to stick close to something or someone'. (किसी चीज़ या किसी के करीब रहने के लिए किसी चीज़ / किसी (साहित्यिक) से चिपके रहना)
 - *Example: Her tongue **clove to** the roof of her mouth.*
- Let's look at the meaning of other words:
 - **divide** : to separate into different parts. (विभाजित करना)
 - **link** : a connection or relationship between two or more people or things. (दो या अधिक व्यक्तियों या वस्तुओं के बीच संपर्क सूत्र या संबंध)
 - **leave** : to go away from somebody/something. (किसी व्यक्ति या वस्तु से दूर जाना)
- Thus, the correct answer is **Option 2**.

Correct Sentence: *The young king tried to speak, but his tongue seemed to **cleave to** the roof of his mouth, and his lips refused to move.*

13. Answer: b

Explanation:

The correct answer is, '**Polyglot**'

★ Key Points

- **Polyglot** means **a person who knows or uses multiple languages**.
 - Example, *Randy is a polyglot as he speaks Mandarin, French and Spanish fluently.*
- In the sentence, Ipshita is a polyglot.

★ Additional Information

- Translator is a person who translates information and other details from one language to another.
 - Example, *Andy knows both French and English, so he should aspire to a career as a translator.*
- Bureaucrat is a person working as an administrator for making policies, rules, and regulations for a company, or government .
 - Example, *Geeta works as a bureaucrat for a private organization.*
- Prodigy is a young person with talent .
 - Example, *Ted dances like a professional at the age of 10, he is a prodigy.*

14. Answer: c

Explanation:

The correct answer is, ' b, c, a, d'

★ Key Points

- Every paragraph and scene starts with mentioning of the place and time to paint an image in the reader's mind.
 - Here, It was mid-morning and a very cold, bright day.
- Introduction of characters.
 - Here, It was mid-morning and a very cold, bright day. Holding a potted plant before her, a girl of...
- Adding details to the story.
 - Complete paragraph, **It was mid-morning and a very cold, bright day. Holding a potted plant before her, a girl of fourteen jumped off the bus in front of the old woman's home on the outskirts of town .**

★ Additional Information

- **a, b, c, d** , no introduction of the characters of the setting is provided in the beginning.
- **a, d, c, b** , the characters are not introduced after the setting.
- **c, a, b, d** , the characters are introduced before the setting.

15. Answer: a

Explanation:

The correct answer is, ' **Knowlege** '

★ Key Points

- The correct spelling is Knowledge.
- **Knowledge** means information gained through experience and education .
 - Example, *Mia gained this knowledge by working in France for two years.*

★ Additional Information

- **Marinate** is correct. To marinate means to soak .
 - Example, *some food dishes require to marinate them overnight.*
- **College** is correct. A college is an educational facility where students get work ready .
 - Example, *Picking a college is always a tough decision for students.*
- **Jocular** is correct. Jocular is used as an adjective for funny .
 - Example, *there is always someone in every class to make jocular comments.*

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16. Answer: d

Explanation:

The correct answer is, ' **Bussinessman** '

★ Key Points

- The correct spelling is Businessman.
- **Businessman** means a person who conducts business, in the commerce sector .
 - Example, *Travis is a proper businessman.*

★ Additional Information

- **Bowlegged** is correct. Bowlegged means **having outward curved legs**.
 - Example, *Peter runs weirdly as he is bowlegged.*
 - **Palanquins** is correct. Palanquins is **a covered litter used as a means of transport**.
 - Example, *the king entered the city in his palanquin.*
 - **Urchins** is correct. Urchin means **a poor child in ragged clothes**.
 - Example, *big cities are filled with urchins.*
-

17. Answer: a

Explanation:

The correct answer is, ' **Doubt the truth or value of something** '

★ Key Points

- The literal meaning of a pinch of salt is a little bit of salt.
- Salt is one of those things in the world that everyone prefers to their liking that's why there's always salt on the table wherever you go to eat.
- The sentence, the employee took the manager's remark with **a pinch of salt**.
Meaning – the employee showed his doubt over the manager's remark.

★ Additional Information

- Similar idioms:
 - **Sweet as sugar** – kind or friendly .
 - Example, *Ben is as sweet as sugar.*
 - **Cool as a cucumber** – calm or stress-free
 - Example, *The students were cool as a cucumber during the surprise test.*
-

18. Answer: c

Explanation:

The correct answer is, ' **Purely** '

★ Key Points

- **Purely** means **without a doubt, 100%, or completely** .
- The fiction genre of books and movies uses various names and characteristics so the resemblance is possible, but it's not on purpose.
- The makers invest years developing characters uniquely so if it matches with someone it's purely incident.
- The correct sentence would be, **Any resemblance of a character in this book to a living person is purely incidental** .

★ Additional Information

- **Absolutely** means **surely or totally** .
 - Example, *Liam is absolutely sure about going on the trip.*
- **Naturally** means **without interference or help** .
 - Example, *People naturally become Maya's friends.*
- **Thoroughly** means **in detail or properly**
 - Example, *I checked my room thoroughly yesterday for my other sock.*

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19. Answer: a

Explanation:

The correct answer is, ' **People who have a lot of power and influence** '

★ Key Points

- The literal meaning of movers and shakers is those who move and shake.
- Idioms have deep meanings and are connected to a common understanding.
- The people who can move and shake things. This is only possible if those people had power and the right influence.

★ Additional Information

- Similar idioms:
 - To hold the reins -to be in control
 - Example, *the management holds a reign of every major company.*
 - Paper tiger -a person who is less extreme or threatening than they appear
 - Example, *Helena may seem strict but she is a paper tiger.*
-

20. Answer: a

Explanation:

The correct answer is, 'Appetight'

★ Key Points

- The correct spelling is Appetite.
- The meaning of **appetite** is **hunger, or craving, especially for food**.
 - Example, *a sign of a healthy body is a healthy appetite.*

★ Additional Information

- **Reliance** is correct. It means **dependence**.
 - Example: A *pilgrimage is a high reliance for devotees.*
 - **Success** is correct. It means **victory or completion of a task**.
 - Example: *India achieves success against England in a cricket match.*
 - **Confidence** is correct. It means **belief or faith**.
 - Example: *The boss shows a lot of confidence in his work.*
-

21. Answer: d

Explanation:

The correct answer is, 'Rura l'

★ Key Points

- Rural means areas that are opposite of (big) cities that focus on agriculture and farming .
- Common synonyms for rural areas are villages and countryside.
- The correct sentence would be, **Rural areas are also known as the 'countryside' and a 'village' in India .**

★ Additional Information

- **Ruler** means **the person who rules a particular area or region .**
 - Example, *There were lots of rulers who built eye-catching monuments around the globe.*
- **Country** means **a nation that has states, cities, and small towns in it .**
 - Example, *Australia is a country.*
- **City** is **a region or a large town inside a state of a country .**
 - Example, *Paris is a must-visit city.*

22. Answer: a

Explanation:

The correct answer is, '**density**'

★ Key Points

- **Density** means **compactness .**
- Compactness in living society is determined by population, hence it is known as population density.
- The correct sentence would be, **It has a very low population density .**

★ Additional Information

- **Bulk** means **in large numbers .**
 - Example, *big companies have hundreds of customers to take care of, so they do production in bulk.*
- **Mass** means **a bundle or a stack .**

- Example, *there is always a mass of dirty clothes in his room.*
 - **Thickness** means **width** .
 - Example, *the legs of that table are 3 inches thick.*
-

23. Answer: d

Explanation:

The correct answer is, 'industries '

★ Key Points

- **Industry** means a place where raw materials and manufacturing goods are processed as a finished product or a raw material for other products .
 - Example, *the government has many policies that help and assist various industries in the country.*
- The correct sentence would be, *In rural areas, agriculture is the chief source of livelihood along with fishing, cottage industries, pottery, etc.*

★ Additional Information

- **Industrialist** is a person who owns or manages an industry .
 - Example, *Robin is a visionary industrialist.*
 - **Industriousness** means hardworking .
 - Example, *Brisbane is an industriousness city.*
 - **Industrial** means related to an industry.
 - Example, *coal is an industrial material.*
-

24. Answer: b

Explanation:

The correct answer is, ' quest '

★ Key Points

- **Quest** means to search or pursuit
 - Example, *finding another habitable planet is a never-ending quest.*
- The correct sentence would be, **The quest to discover the real rural India still continues in great earnest.**

★ Additional Information

- **Resistance** means to oppose.
 - Example, *the robber was showing resistance to arrest after being caught.*
- **Flight** means to fly .
 - Example, *the bird took flight and disappeared in the vast blue sky.*
- **Discovery** means to find or uncover something .
 - Example, *H. Carter unearthed one of the greatest tombs ever discovered.*

25. Answer: a

Explanation:

The correct answer is, 'every'

★ Key Points

- **Every** is used for singular nouns.
 - Example, *every student needs to prepare a project on global warming.*
- The correct sentence would be, **Almost every economic agency today has a definition of rural India .**

★ Additional Information

- **None** is used for not any or for no amount.
 - Example, *the teacher found none of the students in his class.*
- **Both** is used for referring to two things or people.
 - Example, *both Jacob and Charlie are home.*
- **All** is used for both singular and plural nouns.
 - Example, *all the students are present.*

26. Answer: b

Explanation:

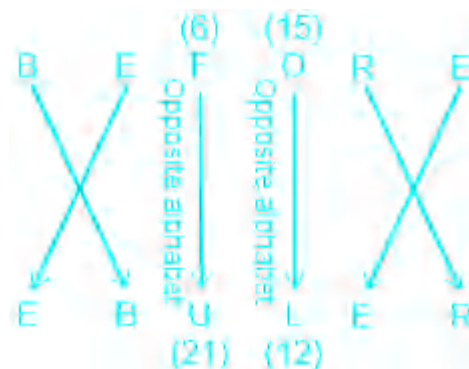
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The pattern in the given series is:

ABROAD becomes BAILDA



BEFORE becomes EBULER



By following the same pattern we get:

COUPLE becomes OCFKEL



Hence the correct answer is OCFKEL.

27. Answer: d

Explanation:

Year: 2015 to 2021 = 6 years , 2 leap years ; Odd days = 8 = 1

Month : February to February = 0 ; Odd days = 0

Date : 28th to 28th = 0 ; odd days = 0

Total odd days = 1 + 0 + 0 = 1

Therefore, Saturday + 1 = Sunday.

Hence the correct answer is Sunday.

28. Answer: d

Explanation:

The mirror image of the given combination is:



On comparing the options with the mirror image, we get:
Option 1)

The combination does not match.

$6d27zb \rightarrow qd57zb$

Option 2)

The combination does not match.

$6qz7zp \rightarrow qd57zb$

Option 3)

The combination does not match.

$qb57zb \rightarrow qd57zb$

Option 4)

The combination match completely.

$qd57zb \rightarrow qd57zb$

Hence the correct answer is option 4)

29. Answer: c

Explanation:

The pattern in the given series is:

First term $\times 3 + 5 =$ Second term

Let's apply the pattern to the given series:

In 9 : 32

First term $\times 3 + 5 =$ Second term

$$9 \times 3 + 5 = 32$$

$$27 + 5 = 32$$

$$32 = 32$$

LHS = RHS

In 17 : 56

First term $\times 3 + 5 =$ Second term

$$17 \times 3 + 5 = 56$$

$$51 + 5 = 56$$

$$56 = 56$$

LHS = RHS

In 15 : ?

First term $\times 3 + 5 =$ Second term

$$15 \times 3 + 5 = \text{Second term}$$

$$45 + 5 = \text{Second term}$$

$$50 = \text{Second term}$$

Hence **the correct answer is 50.**

30. Answer: b

Explanation:

Given:

$$78 * 3 * 12 * 5 * 59 * 17 * 44$$

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

Let's apply each option on the given equation:

Option 1) -, +, ×, -, =, ×

$$78 - 3 + 12 \times 5 - 59 = 17 \times 44$$

$$78 - 3 + 60 - 59 = 748$$

$$138 - 3 - 59 = 748$$

$$76 \neq 748$$

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

Option 2) ÷, +, ×, -, +, =

$$78 \div 3 + 12 \times 5 - 59 + 17 = 44$$

$$26 + 12 \times 5 - 59 + 17 = 44$$

$$26 + 60 - 59 + 17 = 44$$

$$103 - 59 = 44$$

$$44 = 44$$

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

Option 3) +, =, -, +, ×, ÷

$$78 + 3 = 12 - 5 + 59 \times 17 \div 44$$

$$78 + 3 = 12 - 5 + 59 \times 0.3$$

$$78 + 3 = 12 - 5 + 22.7$$

$$81 = 34.7 - 5$$

$$81 \neq 29.7$$

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

Option 4) =, -, +, ×, -, +

$$78 = 3 - 12 + 5 \times 59 - 17 + 44$$

$$78 = \underline{3} - 12 + \underline{295} - 17 + \underline{44}$$

$$78 = \underline{342} - 12 - 17$$

$$78 \neq 313$$

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

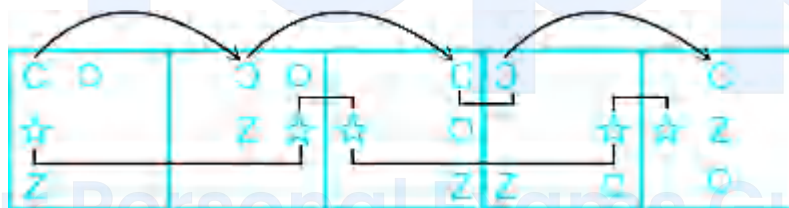
Hence the correct answer is option 2.

31. Answer: a

Explanation:

The logic followed here is:

- O moves in clockwise direction.
- In every figure, star is in the position of mirror image of the previous image.
- C is also following a pattern.



Lets check each option:

- 1) It is following the logic.
- 2) C is not following the pattern.
- 3) The figure is not following the pattern.
- 4) The figure is not following the pattern.

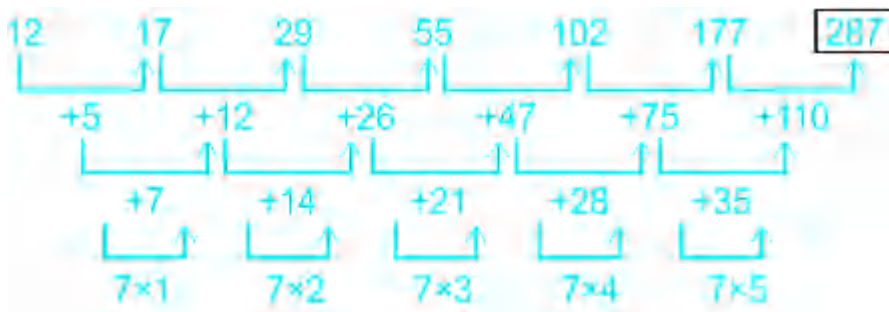
Thus, **option 1** will replace the ?. All other options are eliminated.

Hence, '**option 1**' is the correct answer.

32. Answer: c

Explanation:

The pattern followed here is as follows:



Value of ' ? ' is 287 .

Hence, 'option 3' is the correct answer.

33. Answer: d

Explanation:

The pattern followed here is as follows:



Value of ' ? ' is replaced by 124 .

Hence, 'option 4' is the correct answer.

34. Answer: a

Explanation:

Logic : Cube of first number + Square of second number = Third number

- 2, 3, 17

$$\Rightarrow 2^3 + 3^2 = 17$$

- 4, 6, 100

$$\Rightarrow 4^3 + 6^2 = 100$$

Similarly, 5, 2, ?

$$\Rightarrow 5^3 + 2^2 = 129$$

Hence, 'option 1' is the correct answer.

35. Answer: b

Explanation:

The positional values of English alphabet is as follows:

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

The pattern followed here is:

$$\begin{array}{l}
 (15)O \xrightarrow{-1} (14)N \xrightarrow{-1} (13)M \xrightarrow{-1} (12)L \xrightarrow{-1} (11)K \\
 (8)H \xrightarrow{-2} (6)F \xrightarrow{-2} (4)D \xrightarrow{-2} (2)B \xrightarrow{-2} (26)Z \\
 (22)V \xrightarrow{-3} (19)S \xrightarrow{-3} (16)P \xrightarrow{-3} (13)M \xrightarrow{-3} (10)J \\
 (25)Y \xrightarrow{-4} (21)U \xrightarrow{-4} (17)Q \xrightarrow{-4} (13)M \xrightarrow{-4} (9)I
 \end{array}$$

Hence, 'option 2' is the correct answer.

36. Answer: b

Explanation:

Logic : First number $\times$ (Half of first number + 1) = Second number

• 14 : 112

$$\Rightarrow 14 \times (14 \div 2 + 1)$$

$$\Rightarrow 14 \times (7 + 1)$$

$$\Rightarrow 14 \times 8 = 112$$

• 24 : 312

$$\Rightarrow 24 \times (24 \div 2 + 1)$$

$$\Rightarrow 24 \times (12 + 1)$$

$$\Rightarrow 24 \times 13 = 312$$

Similarly, 18 : ?

$$\Rightarrow 18 \times (18 \div 2 + 1)$$

$$\Rightarrow 18 \times (9 + 1)$$

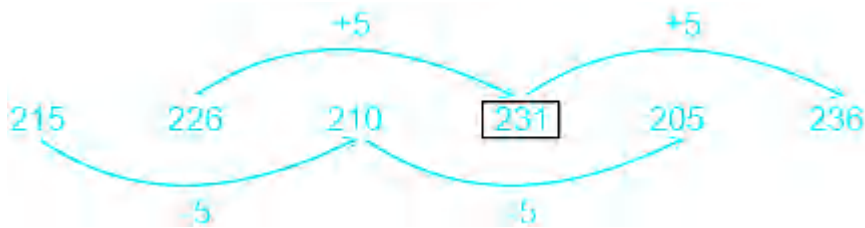
$$\Rightarrow 18 \times 10 = 180$$

Hence, 'option 2' is the correct answer.

37. Answer: b

Explanation:

The pattern followed here is as follows:



Thus, ' ? ' is replaced by **231** .

Hence, 'option 2' is the correct answer.

38. Answer: c

Explanation:

The pattern followed here is as follows:



Value of ' ? ' is **524** .

Hence, 'option 3 ' is the correct answer.

Your Personal Exams Guide

39. Answer: c

Explanation:

The positional values of the English alphabet is as follows:

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

The pattern followed here is:

'MYRA' is written as '1426192'

$$\begin{array}{l} M(13) \xrightarrow{+1} 14 \\ Y(25) \xrightarrow{+1} 26 \\ R(18) \xrightarrow{+1} 19 \\ A(1) \xrightarrow{+1} 2 \end{array}$$

'VIAAN' is written as '23102215'

$$\begin{array}{l} V(22) \xrightarrow{+1} 23 \\ I(9) \xrightarrow{+1} 10 \\ A(1) \xrightarrow{+1} 2 \\ A(1) \xrightarrow{+1} 2 \\ N(14) \xrightarrow{+1} 15 \end{array}$$

Similarly, 'VIDHI' will be written as:

$$\begin{array}{l} V(22) \xrightarrow{+1} 23 \\ I(9) \xrightarrow{+1} 10 \\ D(4) \xrightarrow{+1} 5 \\ H(8) \xrightarrow{+1} 9 \\ I(9) \xrightarrow{+1} 10 \end{array}$$

Hence, 'option 3' is the correct answer.

40. Answer: b

Explanation:



Common number in both the dices = 5

Start with common number 5 moving clockwise.

Opposite letters:

4 $\Rightarrow$ 3

6 $\Rightarrow$ 1

5 $\Rightarrow$ 2

Hence, '2' is the opposite of 5.

41. Answer: d

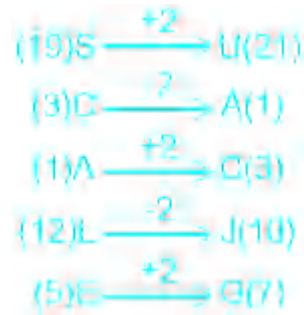
Explanation:

The positional values of the English alphabet is as follows:

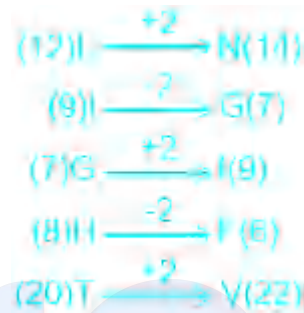
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The pattern followed here is:

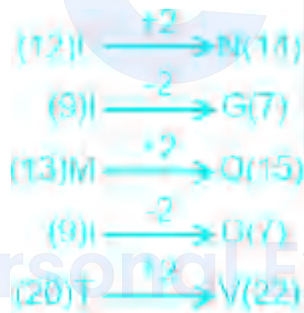
'SCALE' is written as 'UACJG'



'LIGHT' is written as 'NGIFV'



Similarly, 'LIMIT' will be written as:



Hence, 'option 4' is the correct answer.

42. Answer: c

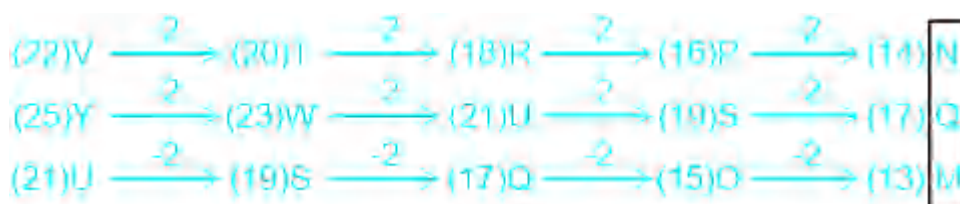
Explanation:

The positional values of the English alphabet is as follows:

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

The pattern followed here is:

VYU, TWS, RUQ, PSO, ?

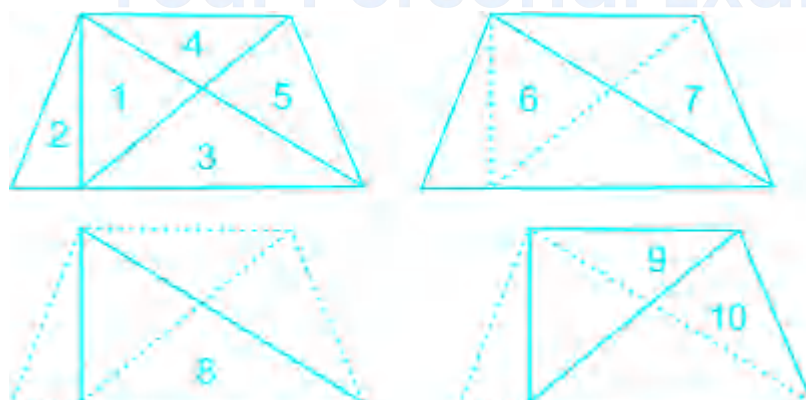


Hence, 'option 3' is the correct answer.

43. Answer: a

Explanation:

The figure is given below:



There are 10 triangles.

Hence, 'option 1' is the correct answer.

44. Answer: b

Explanation:

Statements:

All jacks are aces.

No ace is a king.

Some queens are kings.

Possible Venn Diagram:



Conclusions

I. Some queens are jacks → False (Since all jacks are aces)

II. Some kings are jacks → False (Since all jacks are aces)

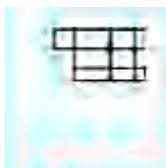
III. No jack is a king → **True** (Since all jacks are aces and no ace is a king)

Hence, **only conclusion III follows.**

45. Answer: d

Explanation:

The figure is given below:



Hence, 'option 4' is the correct answer.

46. Answer: b

Explanation:

The positional values of the English alphabet is as follows:

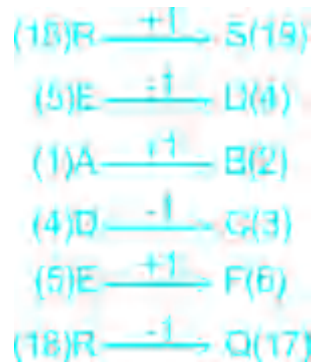
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The pattern followed here is:

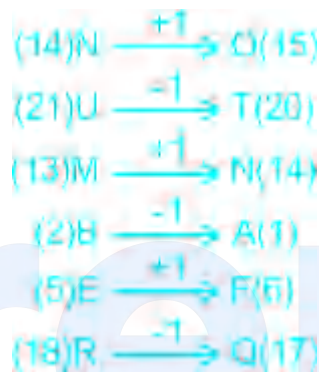
'FRIEND' is written as 'GQJDOC'

$$\begin{array}{l}
 (6)F \xrightarrow{+1} G(7) \\
 (18)R \xrightarrow{-1} Q(17) \\
 (9)I \xrightarrow{+1} J(10) \\
 (5)E \xrightarrow{-1} D(4) \\
 (14)N \xrightarrow{+1} O(15) \\
 (4)D \xrightarrow{-1} C(3)
 \end{array}$$

'READER' is written as 'SDBCQ'



Similarly, 'NUMBER' will be written as:



Hence, 'option 2' is the correct answer.

47. Answer: b

Explanation:

Given : 29th September 2015 was a Tuesday

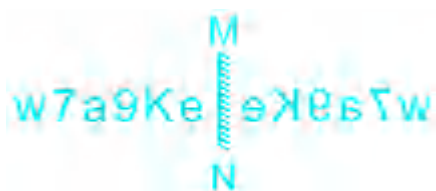
- Total number of days in a normal year = 365
- Total number of days in a leap year = 366
- Total number of odd days in a normal year = $365/7 = 1$
- Total number of odd days in a leap year = $366/7 = 2$
- 29th September 2015 (Tuesday) + 2(2016) + 1(2017) + 1(2018) + 1(2019) = 29th September 2019 (Sunday)
- Thus, 29th September 2019 (Sunday) - 1 = 28th September 2019 (Saturday)

Hence, 'option 2' is the correct answer.

48. Answer: d

Explanation:

The correct mirror image of the given figure when the mirror is placed at MN:



Hence, 'option 4' is the correct answer.

49. Answer: c

Explanation:

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

Decoding the information,

Sign	I	J	K	L
Means	÷	×	-	+

Given:

$$19 \text{ L } (22 \text{ J } 4) \text{ K } (66 \text{ I } 11) \text{ L } (16 \text{ J } 2)$$

After replacing the signs from left to right and using the BODMAS rule,

$$= 19 + (22 \times 4) - (66 \div 11) + (16 \times 2)$$

$$= 19 + 88 - 6 + 32$$

$$= 133$$

Hence, "133" is the correct answer.

50. Answer: c

Explanation:

The logic followed here is:

$$(\text{First number} \times 7) + 3 = \text{Second number}$$

$$24 : 171 \rightarrow (24 \times 7) + 3 = 168 + 3 = 171$$

$$? : 115 \rightarrow (\underline{16} \times 7) + 3 = 112 + 3 = 115$$

$$4 : 31 \rightarrow (4 \times 7) + 3 = 28 + 3 = 31$$

Hence, **option 3** is the correct answer.

51. Answer: d

Explanation:

Given:

The average speed of a car is $1\frac{3}{5}$ times the average of a bus.

A tractor covers 1150 km in 23 hours.

The speed of the bus is twice the speed of the tractor.

Calculations:

Speed of tractor = $1150/23 = 50\text{km/h}$

Then, speed of the bus is $2(\text{speed of tractor}) = 2(50) = 100\text{km/h}$.

Now, the average speed of the car = $1\frac{3}{5} (\text{speed of bus}) = \frac{8}{5} \times (100) = 160\text{km/h}$

Now, the distance covered by car in 4 hours is $160 \times (4) = 640 \text{ km}$.

Hence, The distance covered by car in 4 hours is 640 Km.

52. Answer: b

Explanation:

Given:

$$x^2 - 9x + 1 = 0$$

Calculations:

According to the question,

$$\Rightarrow x^2 - 9x + 1 = 0$$

$$\Rightarrow x^2 + 1 = 9x$$

$$\Rightarrow x + \frac{1}{x} = 9$$

$$\Rightarrow \left(x + \frac{1}{x}\right)^2 = 81$$

$$\Rightarrow x^2 + \frac{1}{x^2} + 2 = 81$$

$$\Rightarrow x^2 + \frac{1}{x^2} = 79$$

$$\Rightarrow \left(x^2 + \frac{1}{x^2}\right)^2 = 6241$$

$$\Rightarrow x^4 + \frac{1}{x^4} = 6241 - 2 = 6239$$

$$\Rightarrow x^8 + 1 - 6239x^4 = 0$$

Hence, the required value of $x^8 + 1 - 6239x^4$ is 0.

NOTE -To avoid the calculation in the last step use digital sum.

53. Answer: b

Explanation:

Calculations:

$$(\operatorname{cosec} \theta - \cot \theta)^2$$

$$= \left(\frac{1}{\sin \theta} - \frac{\cos \theta}{\sin \theta} \right)^2$$

$$= \frac{(1 - \cos \theta)^2}{\sin^2 \theta}$$

$$= \frac{(1 - \cos \theta)^2}{1 - \cos^2 \theta}$$

$$= \frac{(1 - \cos \theta)^2}{(1 - \cos \theta)(1 + \cos \theta)}$$

$$= \frac{(1 - \cos \theta)}{(1 + \cos \theta)}$$

$\therefore$ The Required simplified value is $\frac{(1 - \cos \theta)}{(1 + \cos \theta)}$.

54. Answer: c

Explanation:

Given:

Average daily income for February month = Rs.560

Calculation:

The number of days in February 2021 is 28.

The sum of his income of all four weeks of the month is

$$= ₹21,980 + ₹20,580 + ₹22,380 + ₹22,616$$

$$= ₹. 87,556$$

$$\begin{aligned}\text{Average daily income} &= (\text{Total monthly income} / \text{number of days in month}) = \frac{87556}{28} \\ &= ₹.3127\end{aligned}$$

∴ His average daily income is ₹.3,127.

55. Answer: d

Explanation:

Given:

3men + 7women takes 10 days,

4men + 6women takes 8 days.

Formula used:

Total work = Efficiency × days

Calculations:

By solving equation (1) and (2)

$$\Rightarrow (3m + 7w) \times 10 = (4m + 6w) \times 8$$

$$\Rightarrow 30m + 70w = 32m + 48w$$

$$\Rightarrow 30m - 32m = 48w - 70w$$

$$\Rightarrow -2m = -22w$$

$$\Rightarrow m/w = 11/1$$

$$\Rightarrow \text{Total work} = (4 \times 11 + 6) \times 8$$

$$\Rightarrow \text{Total work} = 400 \text{ unit}$$

$$\Rightarrow \text{Time taken by 10 woman} = 400/10$$

$$\Rightarrow \text{Time taken by 10 woman} = 40 \text{ days}$$

$\therefore$ 10 woman can complete the work in 40 days

56. Answer: a

Explanation:

Given:

Radius of cylinder = 15 cm

Height of cylinder = 119 cm

Formula used:

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

Calculation:

According to the question

Volume of cylinder

$$\Rightarrow \pi r^2 h$$

$$\Rightarrow \frac{22}{7} \times (15)^2 \times 119$$

$$\Rightarrow \text{Rs. } 84150$$

$\therefore$ The volume of the cylinder is Rs. 84150.

★ Shortcut Trick

After using the formula and putting the value To avoid the long calculation check the unit digit and divisibility of 11.

57. Answer: d

Explanation:

Given:

Total amount spent that year = Rs. 286 crores

Calculations:

Money spent on volleyball = 14% of 286 crores

= 0.14×286 crores

Money spent on gymnastics = 12% of 286 crores

= 0.12×286 crores

Total amount spent on volleyball and gymnastics together

= 0.14×286 crores + 0.12×286 crores

= $(0.14 + 0.12) \times 286$ crores

= 0.26×286 crores

= 74.36 crores

∴ The Required amount is Rs. 74.36 crores.

58. Answer: d

Explanation:

Given:

Fan passing through two hands sold finally at a profit of 30%.

First profit on fan = 25%

Calculation:

Let the cost of fan be Rs.100.

Then, Fan's S.P at First hand at 25% profit =

⇒ Rs. 125

Fan's final selling price at 30% whole profit

⇒ Rs. 130

Now, According to question, Second profit is (130 - 125)

⇒ Rs. 5

Now, the cost price for second hand is = Rs. 125

Second profit percentage = $\frac{5}{125} \times 100 = 4\%$

Hence, The required Profit % is 4%.

59. Answer: b**Explanation:****Given:**

Length & Width of the Rectangle is 52 cm & 22 cm respectively

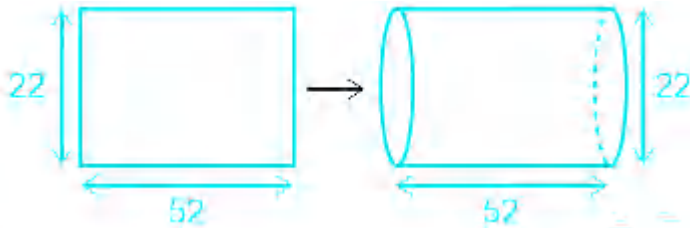
Formula Used:

Volume of Cylinder = $\pi r^2 h$,

Circumference of a Circle = $2 \pi r$

where r is radius and h is height

Calculation:



According to the question,

Circumference of a cylinder = $2 \pi r$

$$\Rightarrow 22 = 2 \pi r$$

$$\Rightarrow 22 = 2 \times \frac{22}{7} \times r$$

$$\Rightarrow r = \frac{7}{2}$$

Now the volume of a Cylinder = $\pi r^2 h$

$$\Rightarrow \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times 52$$

$$\Rightarrow 2002$$

$\therefore$ The volume of a Cylinder is 2002 cm^2

60. Answer: d

Explanation:

Given:

The average score of boys is 52.

The average score of girls is 72.

The average score of boys and girls combined is 60.

Calculations:

Let the number of boys be 'x' and number of girls be 'y'.

Then, according to question,

$$\text{Average score of boys} = (\text{sum of boys scores})/x = 52$$

$$\Rightarrow \text{sum of boys scores} = 52x$$

$$\text{And, Similarly sum of girls scores} = 72y$$

According to the question

$$\Rightarrow 52x + 72y = 60(x + y)$$

$$\Rightarrow (72 - 60)y = (60 - 52)x$$

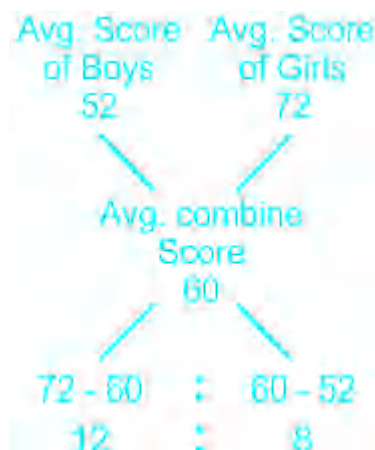
$$\Rightarrow 12y = 8x$$

$$\Rightarrow \frac{x}{y} = \frac{3}{2}$$

$\therefore$ The Required ratio is 2 : 3.

★ **Shortcut Trick**

Using the allegation method,



$$\Rightarrow \text{Boys : Girls} = 12 : 8$$

$$\Rightarrow B : G = 3 : 2$$

Then Girls : Boys = 2 : 3

$\therefore$ The Required ratio is 2 : 3.

61. Answer: a

Explanation:

Given:

Number = 123456

Formula used:

For any number to get divided by 4, the last two digits must be divided by 4.

Calculation:

In the given number, the last two digits are 56.

We know that 56 is divisible by 4.

$$\Rightarrow \frac{56}{4} = 14$$

Hence, we can say that the number 123456 is divisible by 4.

62. Answer: d

Explanation:

GIVEN:

The population of town U is 1200000

Concept Used:

The percentage is calculated by dividing the number by the whole and multiplying by 100

Calculation:-

⇒ According to the question,

⇒ The Proportion of the population of U is 20%

⇒ $20\% = 1200000$

⇒ $1\% = 60000$

⇒ $100\% = 60000 \times 100 = 6000000$

⇒ The proportion of the population of town P is

⇒ $10\% = 6000000$

⇒ $1\% = 600000$

⇒ The population below the poverty line of town P is 12%

⇒ $12\% \text{ of } 6000000 = (12 \times 600000) / 100 = 12 \times 6000 = 72000$

⇒ The population below the poverty line of town P is 72000

63. Answer: a

Explanation:

Given:

Speed of Anjali = 8 m/sec

Speed of Babita = 6 m/sec

Formula used:

Speed = Distance/Time

Solution:

From the given data,

Anjali can complete a round in = $960/8 = 120$ seconds

Babita can complete a round in = $960/6 = 160$ seconds

They meet again at the starting point in = $\text{LCM}(120,160) = 480$ seconds

Now, relative speed of Anjali and Babita = $8 + 6 = 14$ m/s

When they meet on the track, they both covered 960 m together.

Time taken by them to cover 960 m = $(960/14)$ seconds

After every $(960/14)$ seconds, they will meet on the track.

So in 480 seconds, they meet

$\Rightarrow 480/(960/14) = 7$ times

Hence they meet 7 times on the track at distinct points till they meet at on starting point again.

64. **Answer: b**

Explanation:

Given:

$$272 \div 16 + [119 \div \{1491 \div 3 (21 - 13 \times 8 + 4 \times 3)\}]$$

Formula used:

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

Calculation:

First of all, we will solve brackets, and inside brackets, multiplication and addition are given, so we will prefer multiplication first.

$$\text{So, } 272 \div 16 + [119 \div \{1491 \div 3 (21 - \underline{13 \times 8} + \underline{4 \times 3})\}]$$

$$= 272 \div 16 + [119 \div \{1491 \div 3 (\underline{21 - 104} + \underline{12})\}]$$

Now, we will solve the innermost bracket

$$= 272 \div 16 + [119 \div \{1491 \div \underline{3 (-71)}\}]$$

Now, We will open the innermost bracket, and hence, perform, multiplication.

$$= 272 \div 16 + [119 \div \{1491 \div \underline{-213}\}]$$

Now, we will perform the division in the inner bracket.

$$= 272 \div 16 + [119 \div \{\underline{-7}\}]$$

Now, we will perform the division in the inner bracket.

$$= 272 \div 16 + [\underline{-17}]$$

Now, we will perform division,

$$= \underline{17} - 17$$

Further solving, we get 0.

65. Answer: c

Explanation:

Given:

The marked price of the mixer is 6000

The discount on the mixer is 20%

Formula Used:

$$\text{Discount price} = \frac{MP \times \text{discount}}{100}$$

where MP is marked price

discount is the discount offered by the shopkeeper

Calculations:

$$\Rightarrow \text{Cost of mixer} = 6000$$

$$\Rightarrow 20\% \text{ of the cost price of the mixer will be or Discounted Price} = \frac{6000 \times 20}{100} = 60 \times 20 = \text{Rs. } 1200$$

$$\Rightarrow \text{The cost of mixer after 20\% discount} = \text{total price} - \text{Discounted Price} = 6000 - 1200 = \text{Rs. } 4800$$

$\therefore$ The cost of the mixer after a 20% discount will be 4800

★ **Shortcut Trick**

If the discount is 20% then Khushi will have to pay 80% of the marked price so paid amount is $6000 \times (80/100) = 4800$

66. Answer: a

Explanation:

Given:

Radius of the circles are 4 cm and 6 cm.

Concept used:

If two triangles are similar then the ratio of the corresponding sides of the triangles are equal.

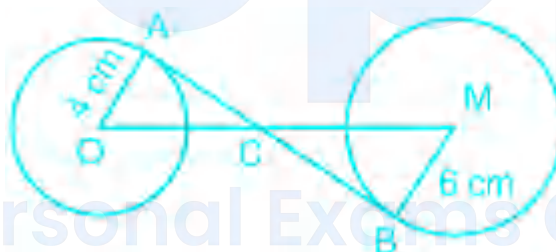
Calculations:

Let us draw two circles with centre O and centre M and radius 4 cm and 6 cm respectively.

And the transverse common tangent touches the circle with centre O at A and touches circle having centre M at B and the transverse tangent and line joining A and B meets at C.

So, $AO = 4$ cm and $BM = 6$ cm

Now, In $\triangle AOC$ and $\triangle BMC$, We have:



$\Rightarrow$ Angle A = Angle B = 90° (tangent and radius at same point are perpendicular to each other)

$\Rightarrow$ Angle AOC = Angle BMC (OA and MB are perpendicular to the same line AB. So, $OA \parallel MB$, Thus, by alternate angle theorem Angle AOC = Angle BMC)

Hence, $\triangle AOC \sim \triangle BMC$

therefore, $\frac{AO}{BM} = \frac{OC}{MC} = \frac{4}{6} = \frac{2}{3}$

Hence, The Required ratio is 2 : 3.

67. Answer: b

Explanation:

GIVEN:

Four different products manufactured in four different months

CALCULATION:

Total number of units manufactured in March of all products = (300 + 268 + 236 + 292) = 1096.

Total number of spoons manufactured in four different months = (284 + 236 + 220 + 260) = 1000.

Now, Required percentage = $(1096/1000) \times 100 = 109.6\%$.

Hence, the required percentage is 109.6%.

68. Answer: b

Explanation:

Given:

Ratio of income and expenditure = 8 : 5

Increase in income = 25%

Increase in expenditure = 28%

Concept Used:

Saving = Income – Expenditure

Calculation:

⇒ Let the income be Rs 8 and expenditure be Rs 5

⇒ Savings = $8 - 5 = \text{Rs } 3$

⇒ Income after increase = $8 + \frac{25}{100} \times 8 = 10 \text{ Rs}$

⇒ Expenditure after increase = $5 + \frac{28}{100} \times 5 = 6.4 \text{ Rs}$

⇒ New Savings = $10 - 6.4 = 3.6 \text{ Rs}$

⇒ Increase in her savings = $3.6 - 3 = \text{Rs } 0.6$

⇒ Percentage increase in savings = $\frac{0.6}{3} \times 100 = 20 \%$

Hence, the percentage increase in her savings is 20%.

★ Shortcut Trick

$I = 8, E = 5, S = 3$ (from ratio income to expenditure 8 : 5)

$$8 \times 25 = 5 \times 28 + 3 \times X$$

$$X = (200 - 140)/3 = 20\%$$

69. Answer: d

Explanation:

Given:

Original Salary = Rs 18,00,000

Salary after increase = Rs 22,00,000

Concept Used:

Percentage Increase = $(\text{Increase} \div \text{Original Salary}) \times 100$

Calculation:

$$\Rightarrow \text{Increase in annual salary} = 2200000 - 1800000$$

$$= \text{Rs } 4,00,000$$

$$\Rightarrow \text{Percentage Increase} = \frac{400000}{1800000} \times 100$$

$$\Rightarrow \text{Percentage Increase} = \frac{2}{9} \times 100 = 22.22 \%$$

$\therefore$ The percentage increase in the annual salary is 22.22%

70. Answer: d

Explanation:

Given:

Principal Amount = Rs 1,025

Rate = 5% p.a. compounded annually

Time = 2 years

Concept Used:

Principal Amount = Amount $\left(1 + \frac{\text{Rate}}{100}\right)^n$

Calculation:

$\Rightarrow$ Let x be the amount paid at the end of 2 years.

$$\Rightarrow 1025 \left(1 + \frac{5}{100}\right)^2 = x \left(1 + \frac{5}{100}\right) + x$$

$$\Rightarrow 1025 \left(\frac{105}{100}\right)^2 = x \times \frac{105}{100} + x$$

$$\Rightarrow 1025 \times \frac{105}{100} \times \frac{105}{100} = \frac{105x}{100} + x$$

$$\Rightarrow 1025 \times \frac{441}{400} = \frac{205x}{100}$$

$$\Rightarrow x = \frac{1025 \times 441}{205 \times 4} = 5 \times 110.25 = 551.25 \text{ Rs}$$

Hence, the amount of each installment is Rs 551.25

71. Answer: a

Explanation:

Given:

Number 1 = 0.04

Number 2 = 0.0036

Concept Used:

Mean Proportional = $\sqrt{a \times b}$

Calculation:

$\Rightarrow$ Mean proportional = $\sqrt{0.04 \times 0.0036}$

$\Rightarrow$ Mean proportional = $\sqrt{0.000144}$

$\Rightarrow$ Mean proportional = 0.012

Hence, the mean proportional between 0.04 and 0.0036 is 0.012

72. Answer: b

Explanation:

Given:

107×93

Concept Used:

$$(a + b) \times (a - b) = a^2 - b^2$$

Calculation:

⇒ We can write 107×93 as,

$$\Rightarrow 107 \times 93 = (100 + 7) \times (100 - 7)$$

$$\Rightarrow (100 + 7) \times (100 - 7) = 100^2 - 7^2$$

$$\Rightarrow 10000 - 49 = 9951$$

Hence, the simplified value of the expression is 9951

★ **Shortcut Trick**

Go by the digital sum because the digital sum of every option is different.

The digital sum of every option 1, 2, 3, and 4 is 3, 6, 5, and 8 respectively.

$$107 \times 93 = 8 \times 3 = 24 = 6$$

so option 2 is correct.

73. Answer: d

Explanation:

Given:

$$(a^{-1} + b^{-1}) \div (a^{-3} + b^{-3})$$

Concept Used:

$$\text{Inverse} = \frac{1}{\text{Original}}$$

Calculation:

$$\Rightarrow (a^{-1} + b^{-1}) \div (a^{-3} + b^{-3})$$

$$\Rightarrow \left(\frac{1}{a} + \frac{1}{b}\right) \div \left(\frac{1}{a^3} + \frac{1}{b^3}\right)$$

$$\Rightarrow \frac{\frac{1}{a} + \frac{1}{b}}{\frac{1}{a^3} + \frac{1}{b^3}} = \frac{\frac{a+b}{ab}}{\frac{b^3+a^3}{a^3b^3}}$$

$$\Rightarrow \frac{(a+b) \times a^3b^3}{ab \times (b^3+a^3)} = \frac{(a+b) \times a^3b^3}{ab \times (a+b)(a^2+b^2-ab)}$$

$$\Rightarrow \frac{a^2b^2}{a^2+b^2-ab}$$

Hence, the simplified value of the expression is $\frac{a^2b^2}{a^2+b^2-ab}$

74. Answer: d

Explanation:

Given:

Hypotenuse = 37 cm

Length of one side = 12 cm

Concept Used:

$$\text{Hypotenuse}^2 = \text{Base}^2 + \text{Perpendicular}^2$$

$$\text{Area of Triangle} = \frac{1}{2} \times \text{Base} \times \text{Height}$$

Calculation:

⇒ Putting the values in the Hypotenuse formula,

$$\Rightarrow 37^2 = \text{Base}^2 + 12^2$$

$$\Rightarrow \text{Base}^2 = 1369 - 144 = 1225$$

$$\Rightarrow \text{Base} = \sqrt{1225} = 35 \text{ cm}$$

$$\Rightarrow \text{Now, Area of triangle} = \frac{1}{2} \times 35 \times 12 = 35 \times 6$$

$$\Rightarrow \text{Area of triangle} = 210 \text{ cm}^2$$

Hence, the area of the triangle is 210 cm².

75. Answer: c

Explanation:

Given:

Marked Price of washing machine = Rs 28,000

Successive discounts = 15% and 10%

Additional discount on cash payment = 5%

Concept Used:

Price after discount = Marked Price – Discount % of Marked Price

Calculation:

⇒ After a discount of 15%,

⇒ New Marked Price = 28000 – 15% of 28000

⇒ New Marked Price = $28000 - \frac{15}{100} \times 28000 = 28000 - 4200 = 23800$ Rs

⇒ Now, Again discount of 10%,

⇒ New Marked Price = 23800 – 10% of 23800

⇒ New Marked Price = $23800 - \frac{10}{100} \times 23800 = 23800 - 2380 = 21420$ Rs

⇒ Additional Discount of 5% = 21420 – 5% of 21420

⇒ Final Marked Price = $21420 - \frac{5}{100} \times 21420 = 21420 - 1071 = 20349$ Rs

∴ The final marked price of the washing machine is Rs 20,349.

★ **Shortcut Trick**

$$28000 \times (85/100) \times (90/100) \times (95/100) = 20,349.$$

use the digital sum to eliminate options.

76. Answer: a

Explanation:

The correct answer is He/she is qualified for election as a member of the House of People.

★ Key Points

- **Election of Vice-President**
 - The **Vice-President** is elected by an electoral college made up of **representatives from both Houses of Parliament** using a single transferable vote under the proportional representation system.
 - **Voting** in this election is conducted **confidentially** .
 - All members of **both Houses of Parliament** make up the **Electoral College, which chooses the Vice-President** .
 - A candidate cannot win the vice presidential nomination unless –
 - **He/she is qualified for election as a member of the Council of States.**
 - **He/she has completed the age of 35 years of age.**
 - **He/she must be a citizen of India.**

★ Additional Information

- The Vice-President is not a **member of the state legislature or of either house of parliament** .
 - If a **member of either the House of Parliament or the House of the Legislature of any state** is elected vice president, he or she is deemed to have resigned from **that position** on the day they enter the office.
 - When the **President cannot perform his duties because of absence, illness, or any other reason, the Vice-President serves as President until a new President is elected** and is the **ex-officio Chairman of the Rajya Sabha** .
-

77. Answer: c

Explanation:

The correct answer is Journey with a Hundred Strings; My Life in Music.

★ Key Points

- Journey with a Hundred Strings: My Life in Music is written by the great Indian santoor player Shiv Kumar Sharma in 2002.
 - Indian classical musician and santoor player Pandit Shvkkumar Sharma (13 January 1938) is credited with modifying the santoor for Indian classical music .
 - He cooperated as a music composer with I ndian flautist Hariprasad Chaurasia and wrote the music for numerous Indian movies, such as Faasle (1985), Chandni (1989), and Lamhe (1991) .
 - In 2002, Shiv Kumar Sharma wrote an autobiography "Journey with a Hundred Strings: My Life in Music."
 - In 1986 , Sharma received the Sangeet Natak Akademi Award .
 - In 1991 , he received the Padma Shri , India's fourth-highest civilian honour, and in 2001 , he received the Padma Bhushan , the nation's third-highest civilian honour.

★ Additional Information

Autobiography	Author	Year
The Life of a Musician	Ferguson Leenox A	2022
That Long Silence	Shashi Deshpande	1988
Abba – God’s greatest Gift to Us	Amaan Ali	2002

78. Answer: c

Explanation:

The correct answer is Only (a).

★ Key Points

- **Revenue Receipts**
 - **Revenue receipts** are defined as **those receipts that neither increase a government's liabilities nor decrease its assets** .
 - They are **routine and ongoing in nature** , and the government receives them as **part of daily operations** .
 - **Taxes and other levies collected by the Centre, interest and dividends received on investments, and fees and charges paid to the government for services** are all considered revenue receipts.
 - Revenue receipts must meet the **following two requirements** :
 - **No liability**: The **government is not liable for any revenue received** . For example, unlike borrowings, taxes received by the government do not result in any liabilities for it.
 - **No asset reduction**: The **amount of assets owned by the government does not decrease as a result of revenue** . Therefore, because the sale of the share reduced the government's assets, it is not possible for it to report the earnings from the sale of the stake as revenue.

★ Additional Information

- **Capital Receipts**
 - **Receipts that create liabilities or decrease financial assets are referred to as capital receipts** .
 - **Incoming monetary flows** are also referred as Capital receipts.
 - Both **debt and non-debt capital receipts** are possible.
 - Capital receipts are significantly **influenced by loans from the Reserve Bank of India (RBI), foreign governments, and the general public** .
 - The **government's estimated capital receipts for the 2020–21 financial year were Rs. 1,074,306 crore** .
 - While the **actual capital receipts for the 2018–19 Budget were Rs 763,518 crore** , the **revised** projections for the **2019–20 Budget** came in at Rs

772,529 crore .

79. Answer: b

Explanation:

The correct answer is 2 silver and 1 bronze medal.

★ Key Points

- U20 World Athletics Championships 2021
 - The 2021 World Junior Championships, also known as World Athletics U20 Championships , were held in the Moi International Sports Center in Nairobi, Kenya, from August 18 to August 22, 2021 .
 - The Under 20 World Athletics Championships in 2021 in Nairobi, Kenya , saw an outstanding performance from the Indian athletics team .
 - The athletes overcame all obstacles to bring home a total of three medals: two silver and one bronze .
 - The medal winners included 17-year-old Shaili Singh, who came in second in the women's long jump competition by one centimetre.
 - Rohtak-native Amit Kumar won silver in the men's 10 km race walk and bronze in the 4x400m mixed relay competition at the U20 Championships in Nairobi.
 - Indian athletes who won medals at the U20 World Athletics Championships in Nairobi in 2021 were congratulated by Prime Minister Narendra Modi .

★ Additional Information

- U20 World Athletics Championships
 - Athletes competing in the under-20 age group of athletics (those who were 19 years old or younger on December 31, of the competition year) compete in the World Athletics U20 Championships , which are held every two years .
 - The event was first held as the 1986 IAAF World Junior Championships in Athletics and changed its name to the IAAF World U20 Championships in

November 2015 .

- The current name was adopted with the **name change of the sports governing body** in 2019 .
- With one **gold and four silver medals** in individual and relay sprinting events **between 2000 and 2004**, Anneisha McLaughlin-Whilby is the most **successful athlete** at the championships.

80. Answer: c

Explanation:

The correct answer is Best song written for Visual Media.

★ Key Points

- **Tanvi Shah**
 - **Tanvi Shah** was born on **December 1st, 1985** , and she is from **Tamil Nadu** .
 - She has performed songs in **Arabic, Telugu, Tamil, Hindi, Spanish, and Portuguese** .
 - For **writing the Spanish lyrics** for the song **Jai Ho**, he shared the **Grammy Award for Best Song Written for Visual Media** at the **52nd Grammy Awards** alongside **AR Rahman and Gulzar**.
 - Other honours received by her include the **2009 BMI Award** and the **World Sound Track Award (2009)** .
 - In **2011** , Tanvi walked the **red carpet** at the **Latin Grammys** .
 - More recently, **she performed on stage** with **South African singer and composer Lebohang Morake**, who is best known for creating the **soundtrack** for the motion pictures and stage performances of **The Lion King** .

★ Additional Information

- **The Grammy Award**
 - The **US Recording Academy** presents the **Grammy Award**, or simply **Grammy** , to honour "**Outstanding Achievement in the Music Industry**."
 - A **gilded gramophone** is pictured on the trophy.

- The **Grammy Awards** are the first of the Big Three networks' major music **awards** that are held annually.
- To recognise the musical achievements of **singers for the year 1958**, the **first Grammy Awards ceremony took place on May 4, 1959**.
- Many **Grammy Award categories were changed for 2012** by The Recording Academy following the 2011 ceremony.
- The **MGM Grand Garden Arena** hosted the **64th Grammy Awards on April 3, 2022**, in Las Vegas.

81. Answer: c

Explanation:

The correct answer is Sunaina Hazarilal.

★ Key Points

- Sunaina Hazarilal
 - Sunaina Hazarilal Agarwal is a well-known Kathak expert in India and is thought to be the last living member of the Janakiprasad Gharana of Kathak, also known as the Banaras Gharana.
 - Sunaina runs the Natawari Dance Academy and is in charge of the Kathak department at the Bharatiya Vidya Bhavan in Mumbai's Sangeet and Nartan Shiksha Peeth.
 - She received the fourth-highest civilian award, the Padma Shri, from the Indian government in 2011.
 - She has been awarded the 2019–20 Rashtriya Kalidas Samman by the MP government for classical dancing.
 - She also received the Sangeet Natak Akademi Award in 2003.

★ Additional Information

- Rashtriya Kalidas Samman
 - The **government of Madhya Pradesh** in India annually presents the **prestigious Rashtriya Kalidas Samman**.

- The honour bears **Kalidas name**, a well-known author of Classical Sanskrit in prehistoric India.
- In **1980** , the Kalidas Samman was **first given out** .
- Initially, it was awarded every other year in the **categories of classical music, classical dance, theatre, and visual arts** .
- From **1986–87 onwards** , the awards were **given out annually** in each of the four categories.
- The prize is given out in **recognition of exceptional performance in one of the four categories** .

82. Answer: c

Explanation:

The correct answer is Kashi ka Assi.

★ Key Points

- Premchand
 - Premchand , also known as Dhanpat Rai Srivastava, was an Indian author **best known for his contemporary Hindustani writing** .
 - He was born on **July 31, 1880** , and died on **October 8, 1936** .
 - **Hindi and Urdu social fiction** were invented by Premchand.
 - He was one of the **first writers to discuss caste systems, the suffering of working women, and other issues that were prevalent in late 1880s culture** .
 - He is one of the most well-known authors on the Indian continent and is **recognised as one of the greatest Hindi authors of the first half of the 20th century** .
 - He has written various novels, including, **Godaan, Karmabhoomi, Gaban, Mansarovar, and Idgah** .
 - In a **book titled Soz-e-Watan** , he released his first collection of **five short stories** .

★ Additional Information

- **Kashi Ka Assi**
 - **Kashi Nath Singh** published his first Hindi book, **Kashi Ka Assi**, in 2004 .
 - This book served as the basis for the **film Mohalla Assi** .
 - The **Assi** that is associated with Kashi— **either the city or the author** —is known as Kashi Ka Assi.
 - He has incorporated **actual persons and actual dialogues** into this book .
 - Between **1990 and 1998** , the **Ram Janmabhoomi agitation** and the **Mandal Commission's implementation** are covered in the story.

83. Answer: d

Explanation:

The correct answer is Wildlife Protection Act, 1972.

★ Key Points

- **Wildlife Protection Act, 1972**
 - The **Indian Parliament** enacted the **Wildlife (Protection) Act** in 1972 with the aim of **curbing illegal trade in wildlife and derivative parts** .
 - In order to safeguard environmental and ecological security, this Act provides for the **protection of the nation's wild animals, bird species, and plant species** .
 - The Act was last modified in the year **2006** .
 - The Act imposes **limitations on the hunting of numerous animal species** .
 - **Constitutional Provisions** for the Wildlife Act:
 - According to **Article 48A of the Indian Constitution**, the State must **maintain the environment, preserve animals, and preserve forests** . The **42nd Amendment** , passed in **1976** , introduced this **section to the Constitution** .
 - **Article 51A** states that the **Indian people are subject to a number of fundamental duties** . One of them is to have **compassion for all living things** and to **preserve and enhance the natural environment**, which includes **woods, lakes, rivers, and wildlife** .

★ Additional Information

- **Environment Protection Act, 1986**
 - In **1986** , the **Environment (Protection) Act** was passed .
 - It was passed primarily for the purpose of ensuring the **preservation and enhancement of the environment**, as well as for issues related to it .
- **Forest Conservation Act, 1980**
 - The **Indian Parliament** passed the **Forest (Conservation) Act** of 1980 to secure the **preservation of forests and the resources they contain** .
 - It was passed to **stop the continuing deforestation of India's forests** .
 - On **October 25, 1980** , it went into effect. It included **five sections** .
- **Biological Diversity Act, 2002**
 - The **Indian Parliament** passed the **Biological Diversity Act, 2002** to safeguard **biodiversity** and make it easier for local communities to **manage biological resources sustainably** .

84. Answer: b

Explanation:

The correct answer is Beijing.

★ Key Points

- **Winter Olympics games 2022**
 - The **2022 Winter Olympics**, also known as **Beijing 2022** or the **XXIV Olympic Winter Games** , were an international **winter multi-sport competition** that took place in **Beijing, China, and the surrounding territories** from **February 4 through February 20, 2022** , with competition in some events commencing on February 2.
 - **The top country in Winter Olympics 2022:**
 - **Norway has won the most medals** at the Winter Olympics 2022 in Beijing, taking home **37 in all, including 16 golds** , to lead the medal table for the second consecutive Winter Olympics.

- A new record for the most gold medals won at a single Winter Olympics has been set.
- China , the host country, came in third with 15 medals , while Germany came in second with 27 total medals .
- India at the 2022 Winter Olympics:
 - Arif Khan, a male alpine skier , was the only member of the Indian team to compete .
 - He carried the national flag during the opening ceremony , and a volunteer carried it during the closing ceremony.
 - At the games, India was unable to bring home any medals .

★ Additional Information

- The 2022 Winter Olympic Games' award ceremony took place at Beijing's National Stadium , also referred to as the Bird's Nest, on February 20, 2022.
- The Games included 109 events in all, spread over 15 disciplines, in 7 different sports .
- The Game's venues were spread up among three zones: Beijing, Yanqing, and Zhangjiakou .
- For the 2026 Winter Olympics in Milan and Cortina d'Ampezzo, Italy, the Games' Presidency has officially been transferred .
- Beijing is on track to make history by being the first city to ever host both the summer and winter Olympics .

85. Answer: d

Explanation:

The correct answer is Odissi.

★ Key Points

- Durga Charan Ranbir
 - Shri Durga Charan Ranbir was born in 1951 in Kamaguru village in Orissa .
 - A prominent guru of contemporary Odissi is Durga Charan Ranbir .

- He received his **Odissi training** from legendary gurus **Debaprasad Das and Pankaj Charan Das** .
- **Durga Charan Ranbir** has succeeded in **carving out a unique dance path while following the teachings of his mentor** , Debaprasad Das.
- Critics have **praised** many of his choreographies.
- He provided **Odissi training in esteemed institutions** in a number of locations, including **Cuttack, Bhubaneswar, Kolkata, Delhi, and the US** .
- He currently runs his own institution in **Bhubaneswar called Nrutyayan** .
- He has **received numerous honours** for his contributions to Odissi, including **the Orissa Sangeet Natak Akademi Award, Orissa Samman by the Orissa Press Academy, Veda Vyas Award of Bhanja Kala Kendra, etc.**

★ Additional Information

- **Guru Debaprasad Das**
 - In the Indian state of **Odisha**, **Deba Prasad Das** was born in 1932 to a **Karana** family in the small town of **Keul Chabi Sua**, which is close to **Cuttack** .
 - He was an **Indian classical dancer** who was regarded by critics and connoisseurs as **one of the four founding gurus of the Indian classical dance style known as Odissi**.
 - His Odissi style is **strong and distinctive** .
 - He received the **1974 Odisha Sangeet Natak Akademi Award** as well as the **Sangeet Natak Akademi Award** in 1977 .
 - **Gayatri Chand** , a senior dancer in the **Deba Prasad Das** style, **wrote a book about him and his art called "Guru Debaprasad Das: Icon of Odissi"** after **25 years of his demise in 2012** .

86. Answer: d

Explanation:

The correct answer is Vishwa Mohan Bhatt.

★ Key Points

- **Vishwa Mohan Bhatt**
 - Legendary **Hindustani classical music** instrumentalist **Vishwa Mohan Bhatt** , also known as **V. M. Bhatt** (born **July 27, 1950**) ,plays the **Mohan veena** (slide guitar) .
 - The **67-year-old** musician resides in **Rajasthan** with his family .
 - Bhatt is best known for the **Grammy Award-winning** album '**A Meeting by the River with Ry Cooder** .
 - Additionally, he has worked with **Western musicians** including the **Taj Mahal, Béla Fleck, and Jerry Douglas** on other fusion and cross-cultural projects .
 - The Government of India honoured him in **2002 and 2017**, with the **Padma Shri and Padma Bhushan** , respectively.

★ Additional Information

- **A Meeting by The River**
 - **Ry Cooder and Vishwa Mohan Bhatt** collaborated on the album '**A Meeting by the River**, which was **recorded in September 1992** and published in **April 1993** by the record label **Water Lily Acoustics** .
 - **Cooder plays slide guitar** on this spontaneous, group project album, and **Bhatt plays a stringed instrument he invented called the Mohan veena** .
 - **Production, engineering, and mastering** for **A Meeting by the River** were handled by **Kavichandran Alexander, Jayant Shah, Alexander, Kevin Michael Gray, and Paul Stubblebine** .
 - On **Billboard's Top World Music Albums** list, it peaked at **position four** .
 - The album is included in **Tom Moon's 2008 book 1,000 Recordings to Hear Before You Die** .

87. Answer: d

Explanation:

The correct answer is Kathak.

★ Key Points

- **Manjusree Chatterjee**
 - **Shrimati Manjushree Chatterjee** , who was born in **Calcutta** on **May 14, 1941** , started learning **Kathak dance** under **Nalin Kumar Ganguly** .
 - Later, after receiving training in the **art** from **Guru Shambhu** , she performed at a **number of national festivals** and **led workshops and lecture demonstrations** both in India and overseas.
 - She continues to mentor aspiring Kathak dancers at her **Kala Vihar** dance studio in **Kolkata** .
 - Shrimati Manjushree Chatterjee has received the **Sahitya Kala Parishad Samman**, the **Rashtriya Ekta Samman** from the **Rajiv Gandhi Foundation**, as well as the **Sangeet Natak Akademi Award (2011)** for her contributions to dance.
 - She was awarded the honour of **Padma Shri** in **2019** for **Kathak** .

★ Additional Information

- **Kathak**
 - One of the **eight primary styles of Indian classical dance** is **kathak** .
 - It is **Uttar Pradesh's** traditional style of dance.
 - The Vedic **Sanskrit words Katha**, which means "**story**," and **Kathakar**, which means "**the one who tells a story**" or "**to do with stories**," are the roots of the word **Kathak** .
 - Kathak dancers **use intricate footwork, flexible body movements, and, most importantly, expressive facial expressions** to convey a variety of **stories** .
 - The **three different styles of Kathak, or "gharanas"**, are named after the places where the Kathak dance tradition originated: **Jaipur, Banaras, and Lucknow** .
 - The **Banaras and Lucknow gharanas** emphasise **expressive facial expressions and delicate hand gestures** , whereas the **Jaipur Gharana** places more emphasis on **foot movements**

88. Answer: c

Explanation:

The correct answer is sarod.

★ Key Points

- Hafiz Ali Khan (1888–1972) was an Indian **sarod player**.
- A fifth-generation descendant of the **Bangash Gharana** (school or style) of **sarod players**.
- Hafiz Ali was known for the **lyrical beauty** of his music and the **crystal-clear tone** of his strokes.
- The sarod is **an adaptation of the Afghan rabab**, which arrived in India during the 16th century.
- The modern form of the instrument was **designed in the 19th century**.



★ Additional Information

- **Sarangi**, also called saran or saranga, **short-necked fiddle** used throughout **South Asia**, particularly for folk and classical Hindustani music.
- **The flute** is a family of classical music instruments in the woodwind group.
- The Indian santoor instrument is **a trapezoid-shaped hammered dulcimer** and **a variation of the Iranian Santur**.

89. Answer: a

Explanation:

The correct answer is Unbreakable: An Autobiography.

★ Key Points

- **Unbreakable: An Autobiography** is the autobiography of the unbreakable Mary Kom who never let anything come between her and her quest for winning.
- She worked hard and showed the world that with mere hard work and utmost dedication it is possible for even a **farmer's daughter** to become the world's leading woman boxer.
- At a glittering event at **Bangalore's Forum Mall**, Mary Kom launched her much-awaited autobiography, **Unbreakable**.
- Published by Harper Collins, the book chronicles Mary's **relentless struggle** and **an unflinching passion for boxing**.
- "My story is the same as that of thousands of women in this country", she said .

★ Additional Information

- The Autobiography of Mike Tyson (Tyson is considered to be one of the greatest heavyweight boxers of all time) is Undisputed Truth: My autobiography.
- **Playing It My Way** is the autobiography of former Indian cricketer Sachin Tendulkar.
- The book "**The Test of My Life: From Cricket to Cancer and Back**" is an autobiography of Yuvraj Singh.

90. Answer: a

Explanation:

The correct answer is The number of fish caught per trap.

★ Key Points

- The population density of a fish in a lake can be measured by **the number of fish per trap in the lake**.
- The three types of age pyramids are **Expanding, Stable, and declining**.
- A stable age pyramid is also known as **a 'bell-shaped' pyramid**.
- In this type of pyramid, the **pre and post-reproductive populations are the same**.



★ Additional Information

- Figures described by Sjögren reflected an average tadpole survival rate of **1 – 2 %**, while other studies estimated that **tadpole survival rates may average at around 1%**.
- The density of O₂ is **16 kg/m³** at NTP.
- Zooplankton can reproduce rapidly, and **populations can increase by about 30 per cent a day under favourable conditions**.
- Zooplankton reaches maturity quickly and **lives short, but productive lives**.

91. Answer: a

Explanation:

The correct answer is Manjamma Jogathi,

★ Key Points

- Transgender folk dancer **Manjamma Jogati** received a Padma Shri honour for her contribution to the arts today.

- President Ram Nath Kovind handed over the award at the 2021 Padma awards ceremony at Rashtrapati Bhavan.
- Jogati is also the first transwoman President of Karnataka Janapada Academy.
- **Kanaka Raju**, Padma Shri awardee who has kept tribal folk dance Gussadi alive.

★ Additional Information

- The award is given in three categories, namely :
 - Padma Vibhushan for exceptional and distinguished service.
 - Padma Bhushan for distinguished service of a high order .
 - Padma Shri for **distinguished service**.
- **Padma Shree**, is the fourth-highest civilian award of the Republic of India, after the **Bharat Ratna, the Padma Vibhushan and Padma Bhushan**.
- Instituted on 2 January 1954, the award is conferred in recognition of "distinguished contribution in various spheres of activity including the arts, education, industry, literature, science, acting, medicine, social service and public affairs".

92. Answer: b

Explanation:

The correct answer is Desert.

★ Key Points

- According to Köppen's climate classification scheme, dry climates are subdivided using the capital letter S for semi-arid regions or steppe and W for the **desert regions**.
- **Dry climates** are divided into **steppe or semi-arid climates (BS)** and **desert climates (BW)**.
- They are further subdivided as subtropical steppe (BSh) and subtropical desert (BWh) at latitudes from 15° - 35° and mid-latitude steppe (BSk) and mid-latitude desert (BWk) at latitudes between 35° - 60°.

★ Additional Information

- The Koeppen climate classification system recognizes **five major climatic types and each type is designated by a capital letter- A, B, C, D, E, and H.**
- The seasons of dryness are indicated by the **small letters: f, m, w, and s.**
- The small letters a, b, c, and d refer to the degree of severity of temperature.
- The five main groups are **A (tropical), B (dry), C (temperate), D (continental), and E (polar).**
- Each group and subgroup is represented by a letter. All climates are assigned a main group (the first letter). All climates except for those in the E group are assigned a seasonal precipitation subgroup (the second letter).

93. Answer: c

Explanation:

The correct answer is Telangana.

★ **Key Points**

- The Telangana State state of India formulated a new education scheme that will facilitate the upgradation and modernisation of the education sector in the state comprehensively, at a total cost of ₹4,000 crores.
- The government has always focused on providing quality education to children from poorer sections.
- **Telangana** has formulated a new education scheme that will facilitate the upgradation and modernization of the education sector in the State **comprehensively at a total cost of Rs 4,000 crore.**
- The government has set aside Rs 2,000 crore in the 2021-22 budget for the new education scheme.
- Under the scheme, the government, in the next two years, will provide basic facilities in all government schools on a large scale.

★ **Additional Information**

- **NEP will be replacing the 10+2 curriculum structure with a 5+3+3+4 structure.**
- The new system has proposed 12 years of school education with 3 years of pre-schooling.

- Anganwadi. **3-6 years of age is globally recognized** as the crucial age for the mental development of the child.
- The Cabinet Committee of the Central Government recently approved the **"New Education Policy 2021-2022-2023."**

94. Answer: b

Explanation:

The correct answer is Narmada.

★ Key Points

- **The Narmada and the Tapi** are the major rivers in India that flow through **rift valleys**.
- The Narmada originates on the western flank of the Amarkantak plateau at a height of about 1,057 m.
- The other rivers which flow through the rift valley include the **Damodar River** in Chota Nagpur Plateau and Tapi
- The **Tapti River and Mahi River** also flow through rift valleys, but between different ranges.
- There are **three** rivers in India that flow through a rift valley. The two other rivers which flow through a rift valley are Damodar and Narmada.

★ Additional Information

- A rift valley is **a lowland region that forms where Earth's tectonic plates move apart or rift**.
- Rift valleys are found both on land and at the bottom of the ocean, where they are created by the process of seafloor spreading.
- The linear depression may subsequently be further deepened by the forces of erosion
- In India **on the southern slopes of the Vindhya mountain ranges, at the Malwa plateau escarpment boundary** is formed, under which the rift valley is formed and the Narmada river flows in this valley in the west direction.

★ Additional Information

- Periyar river is the longest river in Kerala.
 - It is popularly known as the lifeline of Kerala.
 - The length of the Periyar river is 244 km.
 - It originates from Sivagiri Hills in the Western Ghats and empties into Kodungallur lake.
 - It passes through two states: Kerala and Tamil Nadu.
 - The major Tributaries are:
 - Muthirapuzha River
 - Mullayar River
 - Cheruthoni River
 - Perinjankutti River
 - Edamala River
- The Penganga River is a tributary of the **Wardha River**, which is a tributary of the Pranhita River, which flows into the **Godavari**.
- Son river originates from the Amarkantak plateau in the Anuppur district of Madhya Pradesh.
 - It flows through Madhya Pradesh, Chhatisgarh, Uttar Pradesh, Jharkhand and finally joins Ganga in Bihar near Patna.
 - Ghaghra, Johilla, Chhoti Mahanadi, Gopad, Rihand, Kanhar, and North Koel are the tributaries of the Son river.
 - The Bansagar Dam in Madhya Pradesh is also on the Son river.

95. Answer: d

Explanation:

The correct answer is Charles Elton.

★ Key Points

- The **First law of thermodynamics** states that energy can neither be created nor destroyed but can be transformed from one form to another.

- This represents the total number of individuals (population) present at each trophic level.
- The term “**pyramid of numbers**” was first coined by **Elton** in 1972.
- The ecological pyramids were developed by **Charles Elton**, an English zoologist, and animal ecologist, in 1927.
- They are also called **Eltonian pyramids**.

★ Additional Information

- **Eugene Pleasants Odum** was an American **biologist** at the University of Georgia known for his pioneering work on ecosystem ecology.
- **Ernst Heinrich Philipp August Haeckel** was a **German zoologist, naturalist, eugenicist**, philosopher, physician, professor, marine biologist, and artist.
- **Sir Arthur George Tansley** FLS, FRS was an English botanist and a pioneer in the science of ecology.
 - **Tansley** taught at these **universities and at Oxford**, where he served as **Sherardian Professor of Botany** until his retirement in 1937.
- Ecology was first described as a separate field of knowledge in 1866 by the German zoologist, Ernst Haeckel in his book 'Generelle Morphologie der Organismen'.

96. Answer: b

Explanation:

The correct answer is option 2.

★ Key Points

- After going down from the mountain an **arrow belt** is formed which is **8-16 km** by the **deposition** of **river pebbles**. This **belt** is called **Bhabar**.
- It lies **parallel** to the **Shiwalik range**. **Streams** again **appear** in this **region** and **make it a wet** and **marshy region**.
- The **bhabar** tract comprises **gravel** and **un-assorted sediment deposits**.
- This **sediment present** in the **soil** is **deposited** by **rivers descending** from the **Himalayan mountains**.

- This region is not good for cultivation .The area is popular with big trees with large roots .

★ Additional Information

- **Bhangar** – is the older alluvium along the river beds forming terraces, which are dark in colour, rich in humus content and productive. Bhangar is generally a well-drained and the most productive land of the Great Plains of India.
- **The Khadar** is composed of newer alluvium and forms the flood plains along the river banks. They are sandy clays and loams, drier and leached, less calcareous and carbonaceous.
- **Tarai**, also spelled Terai, region of northern India and southern Nepal running parallel to the lower ranges of the Himalayas.

97. Answer: c

Explanation:

The correct answer is Ministry of Panchayati Raj.

★ Key Points

- The **central government** has decided to **launch the People's Plan Campaign**, also known as “**Sabki Yojana Sabka Vikas** ” in **September 2019** .
- It aims to draw up **Gram Panchayat Development Plans (GDPDs)** in the country and **place them on a website** where anyone **can see the status** of the **various government's flagship schemes** .
- A **comparison** of the **performance among** the **larger states** shows that **Kerala ,Tamil Nadu, and Andhra Pradesh** , in that order, were the **top scorers** , while **GPs in Jharkhand ,Assam, Bihar, and Madhya Pradesh** were at the **bottom** .
- A recent study of **100 randomly chosen GPs** by the National Institute of Rural Development has shown that several GP has reported improvements while others have slipped down over the past year. A fresh survey is, therefore, significant.

★ Additional Information

- The **Ministry of Finance** is a ministry within the **Government of India** concerned with the **economy of India** , serving as the Treasury of India. The **current Finance Minister** of India is **Nirmala Sitharaman** .
- The **Ministry of Tourism** is the **nodal agency** for the formulation of national **policies and programs** and for the **coordination of activities** of various Central **Government Agencies** ,**State Governments/UTs**, and the **Private Sector** for the development and promotion of tourism in the country. The Ministry is headed by the **Union Minister for Tourism and Ministers of State**. The **current tourism minister** is **Shri G. Kishan Reddy** .
- The Ministry of **Panchayati Raj** is a branch of the **Government of India** . **Shri Giriraj Singh** has taken charge as the Union Minister of Rural Development and Panchayati Raj.
- The **Ministry of Home Affairs**, or simply the **Home Ministry** , is a ministry of the **Government of India** . The **current home minister** is **Amit Shah** .

98. Answer: b

Explanation:

The correct answer is Pandit Gopal Mishra.

★ Key Points

- The Banaras tabla gharana was developed a little over 200 years ago by Pandit Ram Sahai (1780–1826). At the **age of nine** , Ram moved to Lucknow to become a disciple of **Modhu Khan** of the **Lucknow Gharana** .
- **Banaras Gharana** is **one of the six most common styles** of playing the **Indian tabla** .
- **Pandit Gopal Mishra (1921–1977)** was one of the **greatest sarangi players** of the **twentieth century** .
- He was the **younger brother (by fifteen years)** of **Hanuman Prasad Mishra** from whom he learned as well as from his father **Sur Sahai Mishra** and from the eminent Banaras vocalist **Bara Ram Das** .

★ Additional Information

- **Ustad Inayat Khan** also known as **Nath Singh** was one of India's **most influential sitar and surbahar players** in the first decades of the 20th century.
- Delhi Gharana was founded by **Sidhar Khan Dhadi** in the early 18th Century. Sometimes referred to as the inventor of the tabla, **Sidhar Khan Dhadi** is the earliest available name associated with tabla in historical records. He was initially a pakhawaj player from the tradition of **Lala Bhavanidas**.
- The Bhendibazaar Gharana was founded around 1890 by **brothers Chhajju Khan, Nazir Khan, and Khadim Hussain Khan** in the **Bhendi bazaar** area of **Mumbai**.

99. Answer: d

Explanation:

The correct answer is 100–200 cm.

★ Key Points

- Rainfall between 100–200 cm is **received** in the **southern parts** of Gujarat ,east Tamil Nadu ,northeastern Peninsula covering Odisha ,Jharkhand ,Bihar ,eastern Madhya Pradesh ,northern Ganga plain along the **sub-Himalayas** and the **Cachar Valley** and **Manipur** .
- They are the **area of Medium Rainfall** .
- **Duration of the monsoon in India** –
 - The **Southern part of India** , being **near to the sea** ,gets rainfall **early** and **for a longer duration** than the **northern part** .
 - **As rain-bearing winds cross western ghats** humidity **decreases** and so **does rainfall** in the **northern part of India** .
 - The **Southern part** of India **receives rainfall** from the **southwest monsoon** and the retreating **southwest monsoon (northeast monsoon)** .

★ Additional Information

- The monsoon rainfall has a **declining** trend with **increasing distance** from the **sea** .Kolkata receives 119 cm during the **southwest monsoon period**, Patna 105 cm ,Allahabad 76 cm , and Delhi 56 cm .

- The **highest rainfall** occurs along the **west coast** , on the **Western Ghats** , as well as in the **sub-Himalayan areas** in the **northeast** and the **hills of Meghalaya** . Here the **rainfall exceeds 200 cm** . In **some parts** of **Khasi and Jaintia hills** , the **rainfall exceeds 1,000 cm** . They are the **area of high Rainfall** .
- **Western Uttar Pradesh ,Delhi ,Haryana ,Punjab ,Jammu and Kashmir ,eastern Rajasthan ,Gujarat , and Deccan Plateau** receives **rainfall between 50-100 cm** . They are the **area of Low Rainfall** .
- **Parts of the Peninsula** , especially in **Andhra Pradesh ,Karnataka and Maharashtra ,Ladakh , and most of western Rajasthan** receive **rainfall below 50 cm** . It is the **area of Inadequate Rainfall** .

100. Answer: d

Explanation:

The correct answer is 1951 and 1982.

★ Key Points

- The **Asian Games** , also known as **Asiad** , is a **continental multi-sport event** held **every four years** among **athletes** from **all over Asia** .
- The **Games** were **regulated** by the **Asian Games Federation** from the **first Games in New Delhi ,India ,until the 1978 Games** .
- It was **firstly organized** in the **1951 Asian Games in New Delhi, India** .
- **New Delhi** , the national **capital of India** , has **hosted the Asian Games on two occasions** :the **inaugural 1951 Asian Games** and the **1982 Asian Games** .
- **Asian Games, 2023** will be a multi-sport event celebrated in **Hangzhou, Zhejiang, China**.

★ Additional Information

- There have been **nine nations that have hosted** the Asian Games. Forty-six nations have participated in the Games, including Israel, which was excluded from the Games altogether after Israel managed to win a silver medal (in their last participation) at the 1974 Asian Games in Iran. The most recent games

were held in Jakarta and Palembang, Indonesia from 18 August to 2 September 2018.

- The Asian Games Movement uses symbols to represent the **ideals embodied in the Asian Games charter**.

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