

Prepp

Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPS



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC MTS Previous Year Paper (Held on: 11 Oct 2021 Shift 1)

Total Time: 1 Hour : 30 Minute

Total Marks: 100

Instructions

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

- 1.) A total of 90 minutes is allotted for the examination.
- 2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.
- 3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

General English

1. Select the most appropriate option to substitute the underlined segment. If no substitution is required, select 'No substitution required'. (+1, -0.25)

You will never become a good reader until reading are done with a purpose.

- a. No substitution required
- b. unless reading is
- c. When reading has
- d. until reading will be

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

Fly the nest

- a. To run at a very fast pace to reach home
- b. To lose direction and not reach one's destination
- c. Children returning home after studying abroad
- d. Children leaving their parents' home to live on their own

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

Many industrialists are coming onward to help migrant workers find employment in their villages and cities.

- a. towards
 - b. forward
 - c. No substitution required
 - d. backward
-

4. Select the most appropriate one - word substitution for the given group of words. (+1, -0.25)

A gentle song sung to put a child to sleep

- a. Prayer
 - b. Chorus
 - c. Hymn
 - d. Lullaby
-

5. Select the most appropriate option to substitute the underlined segment in the given sentence. (+1, -0.25)

When have you been waiting for me here?

- a. How long
 - b. How far
 - c. What time
 - d. How late
-

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

(+1, -0.25)

SUBTLE

- a. crafty
 - b. harsh
 - c. faint
 - d. slight
-

7. Fill in the blank with the most appropriate word.

(+1, -0.25)

These discount coupons are _____ for only six months from the date of issue.

- a. attested
 - b. tested
 - c. valid
 - d. solid
-

8. Select the INCORRECTLY spelt word.

(+1, -0.25)

- a. Manual
 - b. Grajual
 - c. Mutual
 - d. Usual
-

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

(+1, -0.25)

STERN

- a. strict
 - b. mild
 - c. lenient
 - d. gentle
-

10. Identify the segment in the sentence which contains a grammatical error.

(+1, -0.25)

Why did you spent so much money on old and useless furniture?

- a. on old
 - b. and useless furniture
 - c. so much money
 - d. Why did you spent
-

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

(+1, -0.25)

PROVOKE

- a. gratify
- b. enrage
- c. hinder
- d. placate

12. Identify the segment in the sentence which contains a grammatical error. (+1, -0.25)

They went on talking while the teacher were teaching an important lesson.

- a. an important lesson
- b. They went on talking
- c. while the
- d. teacher were teaching

13. Select the most appropriate one - word substitution for the given group of words. (+1, -0.25)

Undue favour shown to one's relatives

- a. Nepotism
- b. Nationalism
- c. Despotism
- d. Narcissism

14. Fill in the blank with the most appropriate word. (+1, -0.25)

My employers _____ my salary last year.

- a. rise
- b. rose
- c. raise

d. raised

15. Fill in the blank with the most appropriate word.

(+1, -0.25)

I am tired _____ reminding you to clean your room.

a. at

b. by

c. of

d. to

16. Fill in the blank with the most appropriate word.

(+1, -0.25)

Swami Dayanand _____ the Arya Samaj.

a. invented

b. developed

c. founded

d. discovered

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

(+1, -0.25)

CEASE

a. halt

b. start

c. stop

d. catch

18. Identify the segment in the sentence which contains a grammatical error. (+1, -0.25)

The elegance furnished drawing room indicated that the owner had good taste.

- a. drawing room indicated
 - b. that the owner
 - c. had good taste
 - d. The elegance furnished
-

19. Select the INCORRECTLY spelt word. (+1, -0.25)

- a. Mediocre
 - b. Legible
 - c. Opaque
 - d. Sugestion
-

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

Your guess is as good as mine

- a. To have a better idea than others
- b. To have no idea of the answer
- c. To play a guessing game

d. To have the same idea as another

-
21. Comprehension: 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 blank. (+1, -0.25)

Albert soon got to learn the language of (1) _____ native people. Now, he could talk to (2) _____ about their problems. They too began to (3) _____ him for advice. Some people, (4) _____, were too shy to share their concerns. Albert eventually (5) _____ them that he was there to assist them in all matters.

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

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

-
22. Comprehension: 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 blank. (+1, -0.25)

Albert soon got to learn the language of (1) _____ native people. Now, he could talk to (2) _____ about their problems. They too began to (3) _____ him for advice. Some people, (4) _____, were too shy to share their concerns. Albert eventually (5) _____ them that he was there to assist them in all matters.

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

- a. himself

- b. them
- c. you
- d. us

23. Comprehension: 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 blank. (+1, -0.25)

Albert soon got to learn the language of (1) _____ native people. Now, he could talk to (2) _____ about their problems. They too began to (3) _____ him for advice. Some people, (4) _____, were too shy to share their concerns. Albert eventually (5) _____ them that he was there to assist them in all matters.

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

- a. appear
- b. advance
- c. approach
- d. arrange

24. Comprehension: 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 blank. (+1, -0.25)

Albert soon got to learn the language of (1) _____ native people. Now, he could talk to (2) _____ about their problems. They too began to (3) _____ him for advice. Some people, (4) _____, were too shy to share their concerns. Albert eventually (5) _____ them that he was there to assist them in all matters.

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

- a. furthermore
- b. however
- c. therefore
- d. moreover

25. Comprehension: 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 blank. (+1, -0.25)

Albert soon got to learn the language of (1) _____ native people. Now, he could talk to (2) _____ about their problems. They too began to (3) _____ him for advice. Some people, (4) _____, were too shy to share their concerns. Albert eventually (5) _____ them that he was there to assist them in all matters.

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

- a. confirmed
- b. decided
- c. settled
- d. assured

General Intelligence & Reasoning

26. Among six objects F, G, H, J, K and L :

(+1, -0.25)

- i. H is twice heavy as K, and J is one and half times as heavy as F.
- ii. G is half as heavy as J.
- iii. F and J together are less heavy than H.
- iv. J and L together are twice as heavy as F.

If the objects are arranged in descending order of their weight, which object will be second from the bottom?

- a. K
- b. L
- c. F
- d. G

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

7 : 294 :: 9 : ?

- a. 648
- b. 576
- c. 881
- d. 452

28. Which option figure would come next in the following figure series?

(+1, -0.25)



29. Choose the set of numbers that is similar to the following set.

(+1, -0.25)

{21, 29, 20}

a. {8, 17, 15}

b. {19, 28, 17}

c. {33, 35, 12}

d. {7, 26, 24}

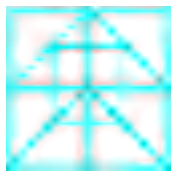
30. If WIDOWER is coded as VKAOXCU, then how would FORTIFY be coded? (+1, -0.25)

- a. EQOTJDB
- b. GMUSHDV
- c. EOQSJCD
- d. EPPTHDC

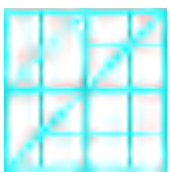
31. Select the option in which the given figure is embedded (rotation is NOT allowed). (+1, -0.25)



a.



b.



c.



d.

32. If POUNDAGE is coded as NOPUEGAD, then how would STAMPING be coded? (+1, -0.25)

- a. AMSTGNIP
- b. TSMGNPIA
- c. TAMSGINP
- d. AMTSGNIP

33. Select the mirror image of the figure marked 'X', when the mirror is placed on the right side of the figure. (+1, -0.25)



a.

b.

c.



d.

34. If 'FESTIVE' is coded as '16113215011' and 'HUNGER' is coded as '1427815114', (+1, -0.25)
then how will 'GRUDGE' be coded?

- a. 15427181511
- b. 12457111851
- c. 15241718511
- d. 14527811151

35. Two statements are followed by two conclusions numbered I and II. (+1, -0.25)
Assuming the statements to be true even if they do not conform to real -
world knowledge, decide which of the conclusions logically follows/
follow from the statements.

Statements :

- 1. Some streams are rivers.
- 2. No river is a lake.

Conclusions :

- I. No stream is a lake.
 - II. Some rivers are streams.
- a. Only conclusion I follows
 - b. Only conclusion II follows

- c. Neither conclusion I nor conclusion II follow
- d. Both conclusion I and II follow

36. Six boys A, B, C, D, E and F are standing in a queue. (+1, -0.25)

- i. There are two boys between B and D, and D is just in front of E.
- ii. A and C are adjacent to B.
- iii. A is just behind E, and C is just in front of F.

Which two boys are exactly in the middle positions?

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

37. If the signs + and \times are interchanged, then which of the following equations would be correct? (+1, -0.25)

- a. $9 \times 3 - 7 + 9 = 19$
- b. $10 \times 5 \div 10 + 10 = 10$
- c. $4 \div 8 + 6 \times 3 = 8$
- d. $18 \times 3 \div 12 + 8 = 20$

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

LOTTERY : WQMTBTF :: SECULAR : ?

- a. BDRTQZK
- b. GTFUCUM
- c. FGTUUCM
- d. DFTUSBM

39. Eight friends P, Q, R, S, T, U, V and W are sitting in a row facing North. (+1, -0.25)

- i. Q sits to the immediate right of P, who is at one of the extreme ends of the line.
- ii. Q sits third to the left of T.
- iii. There are two persons between W and T.
- iii. U is not an immediate neighbor of S and sits to the immediate left of V.
- iv. There are three persons between V and R.

Who are sitting between Q and T?

- a. R and S
- b. U and V
- c. R and U
- d. V and S

40. 'Literature' is related to 'Poetry' in the same way as 'Painting' is related to '_____'. (+1, -0.25)

- a. Expression

- b. Colour
- c. Frame
- d. Portrait

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

$$10 \div 5 - 4 \times 3 + 6 = 13$$

- a. + and \div
- b. and \times
- c. \div and \times
- d. + and -

42. Select the option figure, which when placed in the blank space of the figure marked 'X' would complete the pattern. (+1, -0.25)



b.



c.



d.

43. If CROWN is coded as 68 and DEPEND is coded as 42, then how would IMAGERY be coded? (+1, -0.25)

- a. 68
- b. 67
- c. 71
- d. 73

44. Which number will replace the question mark (?) in the following number series? (+1, -0.25)

7, 9, 13, 16, 25, 29, ?, 50

- a. 47
- b. 38
- c. 41
- d. 45

45. 'Play' is related to 'Actor' in the same way as 'Concert' is related to '-----'. (+1, -0.25)

- a. Symphony
- b. Piano
- c. Musician
- d. Director

46. Select the Venn diagram that best illustrates the relationship among the following classes. (+1, -0.25)

Women, Employed, Mothers



47. Three statements are followed by three conclusions numbered I, II and III. (+1, -0.25)
Assuming the statements to be true even if they do not conform to real - world knowledge, decide which of the conclusions logically follows/follow from the statements.

Statements :

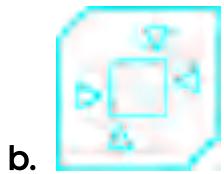
1. All towns are cities.
2. No city is a village.
3. Some cities are corporations.

Conclusions :

- I. Some corporations are villages.
 - II. Some towns are corporations.
 - III. No corporation is a village.
- a. Only conclusion I follows
 - b. Only conclusions I and II follow
 - c. Either conclusion I or conclusion III follows
 - d. Only conclusion II follows

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





49. Which letter - cluster will replace the question mark (?) in the following series? (+1, -0.25)

PMOR, RNNP, TOMN, VPLL, ?

- a. XRJK
- b. XQKJ
- c. VQJJ
- d. YQKJ

50. Which number will replace the question mark (?) in the following number series? (+1, -0.25)

91, 100, 94, 97, 101, 90, 112, ?

- a. 83
- b. 123
- c. 87
- d. 79

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Numerical Aptitude

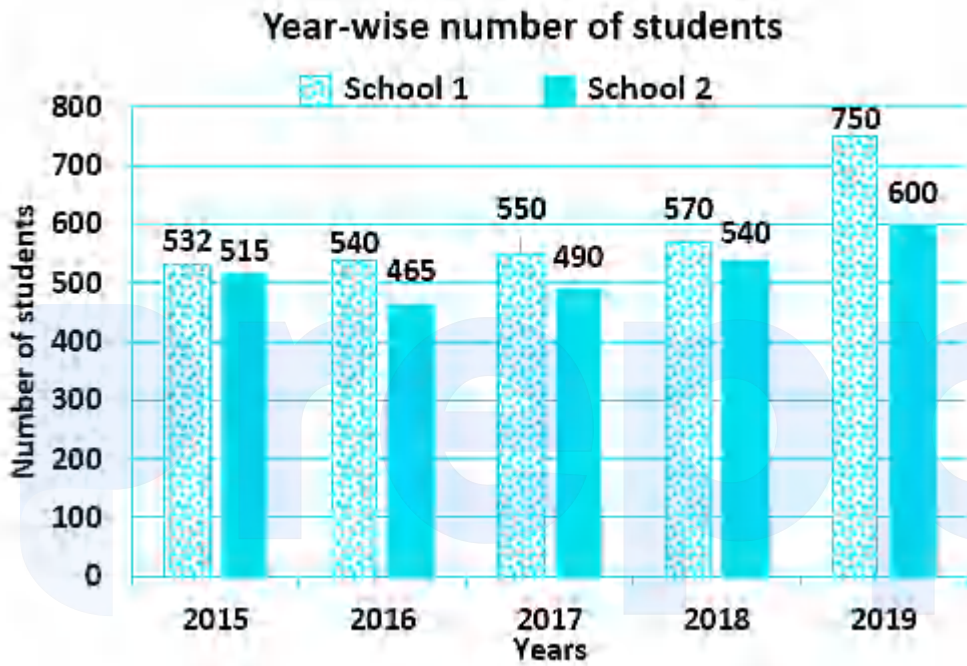
51. What will be the compound interest on a sum of ₹ 22,500 at the rate of 16% per annum for 1 year, when interest is compounded half yearly? (+1, -0.25)
- a. ₹3, 600
 - b. ₹ 3,700
 - c. ₹ 3,744
 - d. ₹ 36,244
-

52. 12 men can complete a painting work in 8 days. However, 16 women can complete the same painting work in 12 days. 8 men started painting the house. After 6 days of painting, 2 men were replaced by 4 women. Now how many days will they take to complete the remaining painting? (+1, -0.25)
- a. 4
 - b. 6
 - c. 8
 - d. 5
-

53. An almirah was sold at a profit of 15%. If its cost had been 5% less and it had been sold for ₹ 1,470 less, then the profit would have been 10%. What is the cost price of the almirah? (+1, -0.25)
- a. ₹ 14,000
 - b. ₹ 29,400

- c. ₹ 16,100
- d. ₹ 2,94,000

54. The year - wise student enrollment of two schools over a period of 5 years has been presented in the following bar graph. (+1, -0.25)



In which year is the difference of enrollment in the two schools, the least?

- a. 2015
- b. 2016
- c. 2018
- d. 2017

55. The simplified value of $\frac{119 - [48 \div 6 - 7 \{5 \times 12 \div 3 - (15 - 3 - 8)\}]}{24 \div 3 - 9 \text{ of } 3 + (52 - 8 - 4) \div 6}$ is : (+1, -0.25)

- a. $-\frac{111}{11}$

b. $-\frac{127}{27}$

c. $\frac{127}{43}$

d. $\frac{111}{11}$

-
56. A wire is in the form of a square of side 33 cm. If the wire is molded to form a circle, then what is the radius of the circle? (+1, -0.25)

(Use $\pi = \frac{22}{7}$)

a. 21 cm

b. 33 cm

c. 16.5 cm

d. 42 cm

-
57. From a wooden cubical block of side 10 cm, a sphere of radius 4.2 cm is carved out. How much wood is wasted in the process? (Use $\pi = \frac{22}{7}$) (+1, -0.25)

a. 476.3 cm^3

b. 689.536 cm^3

c. 310.464 cm^3

d. 523.8 cm^3

-
58. The product of two positive numbers is 1344 and their ratio is 7 : 12. The smaller of these number is: (+1, -0.25)

a. 16

- b. 28
 - c. 112
 - d. 48
-

59. Two dealers offer an item at the same marked price ₹ 3,000. The first dealer allows successive discounts of 10% and 15%. The other dealer allows successive discounts of 20% and 5%. Find the difference in the selling price of the item under the two offers. (+1, -0.25)

- a. ₹ 15
 - b. ₹ 20
 - c. ₹ 10
 - d. ₹ 25
-

60. A bus moves from station A towards station B, which is at a distance of 189 km. An hour later, a car, the ratio of whose speed with the bus is 3 : 2, starts from station A and moves towards station B. Find the speed of the bus (in km/h), if the car arrives at station B in half an hour earlier than the bus. (+1, -0.25)

- a. 41
 - b. 37.8
 - c. 42
 - d. 63
-

61. Kavita purchased fabric worth ₹ 800 for a dress, and spent ₹ 350 on embroidery and stitching. If she sold a dress at a profit of 20%, then the selling price is: (+1, -0.25)

- a. ₹ 1,220
- b. ₹ 1,380
- c. ₹ 1,500
- d. ₹ 1,310

62. In a joint family of 16 persons, the eldest and the youngest members have an age difference of 82 years. If these two are left out of the counting, then the average age of the remaining 14 persons is 28. The average age of the entire family being 30, what is the age of the eldest person? (+1, -0.25)

- a. 85 years
- b. 88 years
- c. 76 years
- d. 60 years

63. If the mode of the following data is 11, then find the value of k: (+1, -0.25)

11, 8, 9, $(2k - 1)$, 11, 12, 12, 18, 14, 16

- a. 5
- b. 6
- c. 7

d. 4

64. The average of 9 numbers is 19. If the average of the first four numbers is 14, then the average of last 5 numbers is: **(+1, -0.25)**

a. 20

b. 10

c. 25.25

d. 23

65. Two numbers differ by 10. If their LCM is 120 and HCF is 10, then the sum of the number is: **(+1, -0.25)**

a. 130

b. 120

c. 70

d. 50

66. The value of $(16\frac{2}{3} \div 10) - [(\frac{8}{3} \times \frac{5}{4}) \text{ of } \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - (\frac{1}{4} \div \frac{1}{28})]$ is: **(+1, -0.25)**

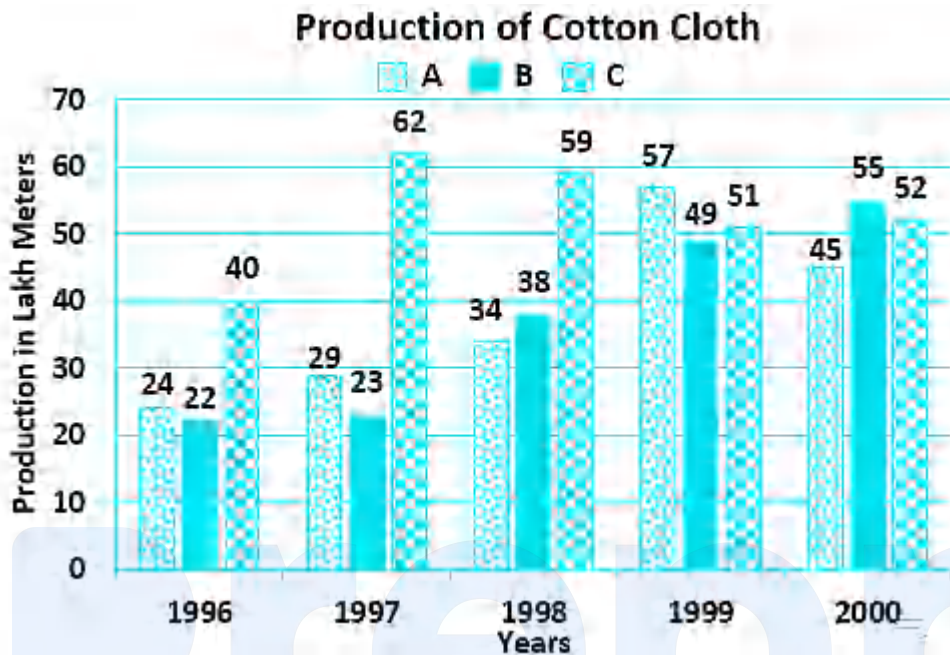
a. 1

b. 5

c. 0

d. 10

67. The following graph shows the production of cotton cloth (in lakh meters) (+1, -0.25) by three companies A, B, and C over the years.



In which years the production of company C is 81.94% (correct to 2 decimal places) of the combined production of company A and company B?

- a. 1996
- b. 1998
- c. 2000
- d. 1999

68. A large container has a 50 litre mixture of juice and water in the ratio 3 : 2. (+1, -0.25) To this, a 60 litre juice and water mixture is added, that has a juice to water ratio of 2 : 1. After this, 11 litres of the solution is replaced with pure juice. What is the ratio of water to juice in the final mixture?

- a. 37 : 18

b. 29 : 81

c. 4 : 7

d. 18 : 37

69. The cost of leveling a square field at the rate of ₹ 52/m² is ₹ 1,30,000. (+1, -0.25)
What will be the cost of fencing its boundary at the rate of ₹35/m?

a. ₹ 2,500

b. ₹ 7,000

c. ₹ 87,500

d. ₹ 3,500

70. Seats in a college for B.Sc. course for Physics, Chemistry and Biology, are (+1, -0.25)
in the proportion of 7 : 5 : 8. There is a proposal to increase the seats by
50%, 40% and 25%, respectively. What will be the proportion of the
increased seats?

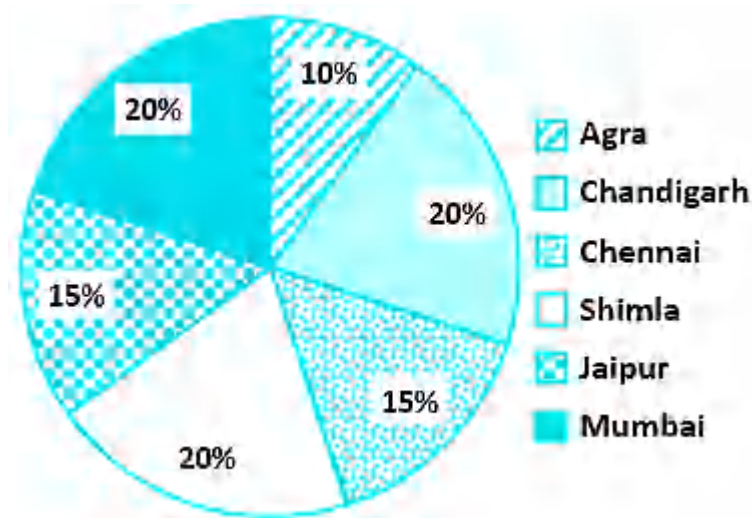
a. 7 : 4 : 4

b. 12 : 9 : 33

c. 21 : 14 : 20

d. 57 : 45 : 33

71. A survey was conducted on 80 families to know about their favorite place (+1, -0.25)
to visit out of 6 particular locations. The same has been shown in the
following pie chart.



What is the central angle for the families who showed interest for visiting Jaipur?

- a. 15°
- b. 25°
- c. 54°
- d. 60°

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72. Ankit invests some money at 9% simple interest for 2 years, and the same sum for 4 years at 10% per annum. He earns ₹ 1,740 in all. The sum invested in each case is: (+1, -0.25)

- a. ₹ 4,350
- b. ₹ 3,000
- c. ₹ 6,000
- d. ₹ 4,500

73. A is 30% more efficient than B. If B finishes a work in 13 days, then in how many days will A finish the same work? (+1, -0.25)

- a. 11
- b. 9
- c. 10
- d. 12

74. A typist uses a paper of size 32 cm × 20 cm. He leaves a margin of 2 cm each on all the sides. If he leaves a margin of 1 cm only on all the sides, then what is the percentage of the increase in the area available for typing (correct to 2 decimal places)? (+1, -0.25)

- a. 20.54%
- b. 82.96%
- c. 17.04%
- d. 79.46%

75. Amit covers a certain distance on his bike at a speed of 40 km/h in 15 min. If he wants to cover the same distance in 12 min, then what should his speed be? (+1, -0.25)

- a. 60 km/h
- b. 50 km/h
- c. 72 km/h

d. 32 km/h

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General Awareness

76. Who among the following built the first European fort in India in the year 1503? **(+1, -0.25)**
- a. Portuguese
 - b. Dutch
 - c. French
 - d. British
-

77. Which state became the first fully organic farming state in 2016? **(+1, -0.25)**
- a. Assam
 - b. Sikkim
 - c. Punjab
 - d. Goa
-

78. Which part of the world has become the highest density of population as of September 2020? **(+1, -0.25)**
- a. East Australia
 - b. North America
 - c. East Africa
 - d. South Central Asia
-

79. What do you call the transparent front part of the eye? (+1, -0.25)

- a. Iris
 - b. Pupil
 - c. Retina
 - d. Cornea
-

80. Which Indian city was included in the UNESCO Creative Cities Network for its contribution to music in November 2017? (+1, -0.25)

- a. Nagpur
 - b. Vadodara
 - c. Bengaluru
 - d. Chennai
-

81. Which of the following is an essential element used in the synthesis of proteins in plants? (+1, -0.25)

- a. Sodium
 - b. Chlorine
 - c. Nitrogen
 - d. Calcium
-

82. The Chalukya Dynasty ruled in Vatapi which is in the modern day Indian state of _____ (+1, -0.25)
- a. Kerala
 - b. Gujarat
 - c. Karnataka
 - d. Tamil Nadu
-

83. Which Indian Lawn Tennis player became the first Asian player to win the Boys' Singles title at Wimbledon in 1954? (+1, -0.25)
- a. Vijay Amritraj
 - b. Anand Amritraj
 - c. Ramanathan Krishnan
 - d. Ramesh Krishnan
-

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84. Which of the following is one of the main active sulphur - containing compounds present in garlic and onion? (+1, -0.25)
- a. Allicin
 - b. Cellulose
 - c. Ethanol
 - d. Phenol
-

85. Pochampally Ikat sarees and dress materials, famous for their traditional geometric patterns, belong to the state of _____ (+1, -0.25)

- a. Telangana
 - b. Tamil Nadu
 - c. Karnataka
 - d. Kerala
-

86. What kind of a traditional sport 'Vallam Kali'? (+1, -0.25)

- a. Boat Racing
 - b. Wrestling
 - c. Running
 - d. Boxing
-

87. 'Ratvai' is a dance form associated with the _____ tribes of India. (+1, -0.25)

- a. Mewati
 - b. Khasi
 - c. Jatapus
 - d. Bhil
-

88. 'Muya Awandru' is a traditional food of this Indian state. (+1, -0.25)

'मुया अवंदू' इस भारतीय राज्य का एक पारंपरिक भोजन है।

- a. Gujarat
 - b. Karnataka
 - c. Chattisgarh
 - d. Tripura
-

89. A paper instructing the bank to pay a specific amount from a person's account to another person in whose name it has been issued is known as: (+1, -0.25)

- a. cash
 - b. cheque
 - c. passbook
 - d. currency
-

90. Who among the following was appointed as the First Lieutenant Governor of Ladakh in October 2019? (+1, -0.25)

- a. Radha Krishna Mathur
 - b. Anil Baijal
 - c. Dineshwar Sharma
 - d. Girish Chandra Murmu
-

91. If two forces act on an object from opposite directions, then the magnitude of the net force acting on it is the _____ of the magnitudes of the two forces. (+1, -0.25)

- a. product
 - b. sum
 - c. ratio
 - d. difference
-

92. What is the maximum amount of investment permissible per senior citizen under Pradhan Mantri Vaya Vandana Yojana? (+1, -0.25)

- a. ₹ 10 lakh
 - b. ₹ 15 lakh
 - c. ₹ 7 lakh
 - d. ₹ 25 lakh
-

93. India and Pakistan had signed the _____, under which the two countries agreed to sort out differences and disputes bilaterally. (+1, -0.25)

- a. Calcutta pact
 - b. Simla Pact
 - c. Lucknow Pact
 - d. Agra Pact
-

94. Rani Rudrama Devi was a famous ruler of the _____ dynasty. (+1, -0.25)

- a. Pandya
 - b. Chola
 - c. Chera
 - d. Kakatiya
-

95. In which year did India give shelter to Dalai Lama, the Tibetan spiritual leader? (+1, -0.25)

- a. 1962
 - b. 1957
 - c. 1960
 - d. 1959
-

96. Which of the following is a low grade brown coal that is soft with high moisture content? (+1, -0.25)

- a. Bituminous
 - b. Anthracite
 - c. Peat
 - d. Lignite
-

97. What do you call one of the most famous constellations that we can see during summer time in the early part of the night? (+1, -0.25)

- a. Cassiopeia
 - b. Ursa Minor
 - c. Orion
 - d. Ursa Major
-

98. In terms of coal reserves, India's rank in the world as of April 2020 was: (+1, -0.25)

- a. ninth
 - b. fifth
 - c. seventh
 - d. third
-

99. Who among the following helped Kaira District Co - operative Milk Producers' Union Ltd expand its work, ushering in the White Revolution? (+1, -0.25)

- a. Verghese Kurien
 - b. Azar Iqbal
 - c. Baba Amte
 - d. Sunderlal Bahuguna
-

100. 'Ace against Odds' is an autobiography by _____. (+1, -0.25)

- a. Hima Das
- b. Sania Mirza
- c. Dutee Chand
- d. Mary Kom

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Answers

1. Answer: b

Explanation:

The correct answer is 'unless reading is'.

★ Key Points

- The given sentence is grammatically incorrect.
- Here, 'unless reading is' should be used instead of 'until reading are'.
- 'Unless' refers to a **precondition**, it means except if. 'Until' implies up to the point of time given, i.e. before that.
- In the given sentence, no point of time is being referred. Hence, 'until' should be changed into 'unless'.
- 'are' should be changed into 'is' because the subject 'a good reader' is singular.

Correct Sentence: *You will never become a good reader unless reading is done with a purpose.*

★ Hinglish

- दिया गया वाक्य व्याकरण की दृष्टि से गलत है।
- यहां, 'until reading are' के बजाय 'unless reading is' का उपयोग किया जाना चाहिए।
- 'Unless' एक **precondition** को संदर्भित करता है, इसका मतलब है कि अगर को छोड़कर। 'Untill' का तात्पर्य दिए गए बिंदु या समय तक, यानी उससे पहले तक है।
- दिए गए वाक्य में समय का कोई बिंदु निर्दिष्ट नहीं किया जा रहा है। इसलिए, 'until' को 'unless' में बदलना चाहिए।
- 'are' को 'is' में बदल देना चाहिए क्योंकि विषय 'a good reader' एकवचन है।

2. Answer: d

Explanation:

The correct answer is '**Children leaving their parents' home to live on their own**'.

★ Key Points

- The most appropriate meaning of the given idiom '**Fly the nest**' is '**Children leaving their parents' home to live on their own**'.
- **Fly the nest:** (of a young person) leave their parents' home to set up home elsewhere. ((एक युवा व्यक्ति का) अपने माता-पिता के घर को कहीं और घर स्थापित करने के लिए छोड़ देना)
 - *Example: When their children had **flown the nest**, they moved to a cottage in Dorset.*

Correct Answer: *Children leaving their parents' home to live on their own.*

3. Answer: b

Explanation:

The correct answer is '**forward**'.

★ Key Points

- The given sentence is grammatically incorrect.
- Here, '**forward**' should be used instead of '**onward**'.
- **Come Forward** is a phrasal verb meaning '**volunteer oneself for a task or post or to give evidence about a crime**'. (किसी कार्य या पद के लिए स्वयंसेवा करना या किसी अपराध के बारे में सबूत देना)
 - For Example - Two witnesses have **come forward** with information.

Correct Sentence: *Many industrialists are coming **forward** to help migrant workers find employment in their villages and cities.*

★ Additional Information

- Let's look at the **meaning** of other words:
 - **Towards** : in the direction of somebody/something. (की ओर)
 - **Backward** : directed towards the back. (उलटा, पश्चगामी)
 - **Onward** : in a continuing forward direction; ahead. (निरंतर आगे की दिशा में; आगे)

4. Answer: d

Explanation:

The correct answer is ' **Lullaby** '.

★ Key Points

- The most appropriate word for the given group of words is ' **Lullaby** '.
- It means 'a gentle song that you sing to help a child to go to sleep'. [(बच्चों के लिए) लोरी]
 - *Example: The infant's mother sang her Hush Little Baby every night, so it quickly became the child's favorite **lullaby**.*

Correct Answer:Lullaby.

★ Additional Information

- Let's look at the **meaning** of other words:
 - **Chorus** : the part of a song that is repeated at the end of each verse. (सहगान; पुनरावृत्त होने वाला गीतखंड)
 - **Prayer** : the words that you use when you speak to God or a god. (प्रार्थना)
 - **Hymn** : a religious song or poem of praise to God or a god. (एक धार्मिक गीत या भगवान की स्तुति की कविता; भजन)

5. Answer: a

Explanation:

The correct answer is 'How long'.

★ Key Points

- The most appropriate option for the given sentence is 'How long'.

- **When** usually indicates a specific point in time or something that is considered as a specific point.
- **How long** indicates a period or length of time, with a beginning and ending point.
 - Example: *How long have you been here?*

Correct Sentence: *How long have you been waiting for me here?*

★ Hinglish

- दिए गए वाक्य के लिए सर्वाधिक उपयुक्त विकल्प '**How long**' है।
- '**When**' आमतौर पर समय में एक विशिष्ट बिंदु या कुछ ऐसा इंगित करता है जिसे एक विशिष्ट बिंदु माना जाता है।
- '**How long**' एक शुरुआत और समाप्ति बिंदु के साथ एक अवधि या समय की अवधि को इंगित करता है।
 - Example: *How long have you been here?*

6. Answer: b

Explanation:

The correct answer is 'harsh'.

★ Key Points

- The most appropriate antonym of the given word '**Subtle**' is '**Harsh**'.
- **Subtle** : not very noticeable; not very strong or bright. (बहुत गाढ़ा या चमकदार नहीं, हलका; सूक्ष्म, बारीक)
 - Example: *He gave **subtle** hints, which I totally failed to notice.*
- **Harsh** : having an undesirably strong effect; unpleasantly rough or jarring to the senses. (कठोर; अवांछित रूप से मजबूत प्रभाव होना; अप्रिय रूप से खुरदरा या इंद्रियों को झकझोरने वाला)
 - Example: *He was sentenced to a **harsh** prison term.*

Correct Answer: *Harsh*.

★ Additional Information

- Let's look at the **meaning** of other words:

- **crafty** : clever at getting or achieving things by using unfair or dishonest methods. (अनुचित तरीके से कुछ प्राप्त करने में चालाक; धूर्त, चालाक, चालबाज़)
- **faint** : to lose consciousness. (मूर्छित हो जाना)
- **slight** : very small; not important or serious. (बहुत छोटा; बड़ा या गंभीर नहीं, मामूली)

7. Answer: c

Explanation:

The correct answer is ' **valid** '.

★ Key Points

- The most appropriate word for the given blank is ' **valid** '.
- It means '**that is legally or officially acceptable**'. (वैधानिक या अधिकारिक रूप से मान्य; विधिमान्य)
 - *Example: This passport is **valid** for one year only.*
- The given sentence is trying to express the fact that the discount coupons were only acceptable till six months from the date of issue. (दिया गया वाक्य इस तथ्य को व्यक्त करने का प्रयास कर रहा है कि डिस्काउंट कूपन जारी होने की तारीख से छह महीने तक ही स्वीकार्य थे।)

Correct Sentence: *These discount coupons are **valid** for only six months from the date of issue.*

★ Additional Information

- Let's look at the **meaning** of other words:
 - **attested** : witness or certify formally. (साक्ष्यांकित)
 - **tested** : to try, use or examine something carefully to find out if it is working properly or what it is like. [किसी वस्तु को सावधानी से आजमाना, इस्तेमाल करना या परखना (जानने के लिए कि वह कैसी है या क्या है)]
 - **solid** : hard and firm; not in the form of liquid or gas. (कड़ा और पक्का; द्रव या गैस नहीं, ठोस)

8. Answer: b

Explanation:

The correct answer is ' **Grajual** '.

★ Key Points

- Among the given options, the incorrectly spelt word is ' **Grajual** '.
- Its correct spelling is ' **Gradual** '.
- It means '**happening slowly or over a long period of time; not sudden**'. (मंद गति से लंबी कालावधि में संपन्न; एकाएक नहीं, क्रमिक)
 - *Example: There has been a **gradual** change in the climate.*

★ Additional Information

- Let's look at the **meaning** of other words:
 - **Manual** : using your hands; operated by hand. (जिसमें हाथों का प्रयोग हो; हस्त-चालित)
 - **Mutual** : (used about a feeling or action) felt or done equally by both people involved. [(कोई मनोभाव या क्रिया) दोनों पक्षों द्वारा समान रूप से एक दूसरे के प्रति अनुभूत या संपादित, पारस्परिक, आपसी]
 - **Usual** : happening or used most often. (बहुधा होने या प्रयोग में आने वाला; सामान्य)

9. Answer: a

Explanation:

The correct answer is ' **strict** '.

★ Key Points

- The most appropriate synonym of the given word ' **Stern** ' is **Strict** '.
- **Stern** : very serious; not smiling. (कठोर, बहुत गंभीर; मुस्कान-रहित)
 - *Example: His voice was **stern** again.*

- **Strict** : not allowing people to break rules or behave badly. [सख्त, कठोर (नियम भंग या ग़लत व्यवहार को सहन न करने वाला)]
 - *Example: Samir's very **strict** with his children.*

Correct Answer:strict.

★ Additional Information

- Let's look at the **meaning** of other words:
 - **mild** : not strong; not very bad. (नरम; हलका)
 - **lenient** : (used about punishment or person who punishes) not as strict as expected. [(दंड या दंड देने वाला व्यक्ति) जो आशा के अनुरूप कठोर न हो; नरम, सौम्य]
 - **gentle** : (used about people) kind and calm; touching or treating people or things in a careful way so that they are not hurt. [(व्यक्ति) दयालु और शांत; बिना चोट पहुँचाए कोमलता से व्यवहार करने वाला; सौम्य]

10. Answer: d

Explanation:

The correct answer is '**Why did you spend**'.

★ Key Points

- The given sentence is grammatically incorrect.
- Here, '**Why did you spend**' should be used instead of '**Why did you spent**'.
- We know that after '**did**', the **base form of the verb i.e. spend** should be used.
 - *Example: Julia **didn't come** at all last night.*

Correct Sentence:*Why did you spend so much money on old and useless furniture?*

★ Hinglish

- दिया गया वाक्य व्याकरण की दृष्टि से गलत है।
- यहां '**Why did you spent**' के बजाय '**Why did you spend**' का इस्तेमाल किया जाना चाहिए।
- हम जानते हैं कि '**did**' के बाद **verb** के base form यानी '**spend**' का इस्तेमाल करना चाहिए।
 - *Example: Julia **didn't come** at all last night.*

11. Answer: b

Explanation:

The correct answer is ' **enrage** '.

★ Key Points

- The most appropriate synonym of the given word ' **Provoke** ' is ' **Enrage** '.
- **Provoke** : to cause a particular feeling or reaction. (विशेष भाव या प्रतिक्रिया उत्पन्न करना; उकसाना)
 - *Example: His remarks **provoked** both tears and laughter.*
- **Enrage** : to make somebody very angry. [(किसी व्यक्ति को) बहुत गुस्सा दिलाना, अत्यधिक क्रोधित कर देना]
 - *Example: His thoughtless behavior **enraged** us.*

Correct Answer: *enrage.*

★ Additional Information

- Let's look at the **meaning** of other words:
 - **gratify** : to give somebody pleasure and satisfaction. (प्रसन्नता और संतोष देना)
 - **placate** : to make somebody feel less angry about something. (किसी को शांत करना)
 - **hinder** : to make it more difficult for somebody/something to do something. (व्यक्ति या वस्तु के लिए कठिनाई पैदा करना, किसी के काम में बाधा डालना)

12. Answer: d

Explanation:

The erroneous part is ' **teacher were teaching** '.

★ Key Points

- The given sentence is grammatically incorrect.
- Here, '**teacher was teaching**' should be used instead of '**teacher were teaching**'.
- The given sentence is an example of **subject-verb agreement**.
- In the given sentence '**the teacher**' is a **singular noun** . Hence, a **singular helping verb** should be used.

Correct Sentence: *They went on talking while the **teacher was teaching** an important lesson.*

★ Hinglish

- दिया गया वाक्य व्याकरण की दृष्टि से गलत है।
- यहाँ '**teacher were teaching**' के स्थान पर '**teacher was teaching**' का प्रयोग किया जाना चाहिए।
- दिया गया वाक्य **subject-verb agreement** का एक उदाहरण है।
- दिए गए वाक्य में '**the teacher**' एक **singular noun** है। इसलिए, **singular helping verb** का उपयोग किया जाना चाहिए।

13. Answer: a

Explanation:

The correct answer is '**Nepotism**' .

★ Key Points

- The most appropriate word for the given group of words is '**Nepotism**' .
- It means '**using your power or influence to give unfair advantage to your family, especially by giving them jobs**' . (अपने अधिकार या प्रभाव से परिवार के सदस्यों का अनुचित लाभ (विशेषतः नौकरी देना) पहुँचाना; भाई-भतीजावाद, कुनबापरस्ती)
 - Example: The **nepotism** in which the pope indulged is especially *inexcusable*.

Correct Answer: *Nepotism.*

★ Additional Information

- Let's look at the **meaning** of other words:

- **Nationalism** : the desire of a group of people who share the same race, culture, language, etc. to form an independent country. (जाति, संस्कृति, भाषा आदि की समानता के आधार पर एक स्वतंत्र राष्ट्र-बनाने की जन-भावना)
 - For Example - The war was caused by **nationalism** and greed.
- **Despotism** : the exercise of absolute power, especially in a cruel and oppressive way. (पूर्ण शक्ति का प्रयोग, विशेष रूप से क्रूर और दमनकारी तरीके से)
 - For Example - By the end of the 20th century many countries around the world had rejected **despotism** in favor of democracy.
- **Narcissism** : the habit of admiring yourself too much, especially your appearance. (स्वयं की अत्यधिक प्रशंसा करने का स्वभाव (विशेषकर सौंदर्य); आत्मरति)
 - For Example - In his **narcissism** , he just assumed that everyone else wanted to hear the tiny details of his day.

14. Answer: d

Explanation:

The correct answer is ' **raised** '.

★ Key Points

- The most appropriate word for the given blank is ' **raised** '.
- The given sentence is in the past tense as the **past adverb** 'last year' is used.
- **Raised** means ' **to increase the level of something or to make something better or stronger** '. (किसी वस्तु के स्तर में वृद्धि करना या उसे बेहतर या अधिक सशक्त करना)
 - *Example: The bank **raised** interest rates.*
- In the given sentence, the employer increased the salary of the person last year.

Correct Sentence: *My employers **raised** my salary last year.*

★ Confusion Points

- The verbs **raise** and **rise** both refer to something **going "up"**.
- The main difference between them is that **raise is transitive** (it must have a direct object) and **rise is intransitive** (no direct object).

- In the given sentence, the employer increased the person's salary. It did not increase by itself.
- Thus, we need a **transitive verb** i.e. **raise** .

15. Answer: c

Explanation:

The correct answer is ' of '.

★ Key Points

- The most appropriate word for the given blank is ' of '.
- Here, in the given sentence 'tired of' is a **phrasal verb**.
- It means '**to be frustrated or bored of repeating the same thing**'. (एक ही बात को दोहराने से निराश या ऊब जाना)
 - *Example: She was **tired of** hearing the same dreary tale of drunkenness and violence.*
- After preposition '**vi+ing**' is used. In the given sentence, '**reminding**' is that **verb** .

Correct Sentence: *I am **tired of** reminding you to clean your room.*

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16. Answer: c

Explanation:

The correct answer is ' **founded** '.

★ Key Points

- The most appropriate word for the given blank is ' **founded** '.
- It means '**establish or originate (an institution or organization)**'. [किसी संस्था या संगठन की स्थापना या उत्पत्ति]
 - *Example: The monastery was **founded** in 1665.*
- As per the definition given above ' **founded** ' fits the best in the given context.

Correct Sentence: Swami Dayanand **founded** the Arya Samaj.

★ Additional Information

- Let's look at the **meaning** of other words
 - **invented** : to think of or make something for the first time. (कोई बात प्रथम बार सोचना या वस्तु प्रथम बार बनाना, किसी बात या वस्तु का आविष्कार करना)
 - **developed** : grow or cause to grow and become more mature, advanced, or elaborate. (विकसित करना)
 - **discovered** : to find or learn something that nobody had found or knew before. (किसी नई बात का पता लगाना या उसे जानना)

17. Answer: b

Explanation:

The correct answer is ' **start** '.

★ Key Points

- The most appropriate antonym of the given word ' **Cease** ' is ' **Start** '.
- **Cease** : to stop or end. (समाप्त होना या करना; रुकना या रोकना)
 - *Example: Fighting in the area has now **ceased**.*
- **Start** : to begin doing something. (कुछ करना आरंभ करना)
 - *Example: We'll have to **start** early to catch the bus.*

Correct Answer: start.

★ Additional Information

- Let's look at the **meaning** of other words:
 - **stop** : (of an event, action, or process) come to an end; cease to happen. (विराम)
 - **catch** : to take hold of something that is moving, usually with your hand or hands. (हाथों में लेना; पकड़ना; थामना)
 - **halt** : a short stop in some activity, movement, or growth. [(कार्य, गतिविधि या विकास प्रक्रिया में) लघु विराम या रुकाव]

18. Answer: d

Explanation:

The erroneous part is 'The elegance furnished'.

★ Key Points

- The given sentence is grammatically incorrect.
- Here, '**the elegantly furnished**' should be used instead of '**the elegance furnished**'.
- In the given sentence **adverb** of '**elegance**' that is '**elegantly**' should be used because an adverb is a word or phrase that modifies or qualifies an adjective, verb, or other adverb or a word group, expressing a relation of place, time, circumstance, manner, cause, degree, etc.
- In the given sentence '**elegantly**' is modifying the adjective '**furnished**'.
- The word '**elegantly**' means '**in a graceful and stylish manner**'.
 - Example: a handsome, **elegantly** dressed businessman...

Correct Sentence: *The elegantly furnished drawing room indicated that the owner had good taste.*

★ Hinglish

- दिया गया वाक्य व्याकरण की दृष्टि से गलत है।
- यहां '**the elegance furnished**' के स्थान पर '**the elegantly furnished**' का प्रयोग किया जाना चाहिए।
- दिए गए वाक्य में '**elegance**' का **adverb** जो '**elegantly**' है, का उपयोग किया जाना चाहिए क्योंकि एक क्रिया विशेषण (**adverb**) एक शब्द या वाक्यांश है जो स्थान, समय, परिस्थिति, तरीके, कारण, डिग्री आदि के संबंध को व्यक्त करते हुए एक विशेषण (**adjective**), क्रिया (**verb**), या अन्य क्रिया विशेषण (**adverb**) या एक शब्द समूह को संशोधित या योग्य बनाता है।
- दिए गए वाक्य में '**elegantly**' विशेषण '**furnished**' को **modify** कर रहा है।
- '**Elegantly**' शब्द का अर्थ है '**शानदार और स्टाइलिश तरीके से**'।
 - Example: a handsome, **elegantly** dressed businessman...

19. Answer: d

Explanation:

The erroneous spelling is ' **Suggestion** '.

★ Key Points

- Among the given options, the incorrectly spelt word is ' **Suggestion** '.
- Its correct spelling is ' **Suggestion** '.
- It means 'a plan or idea that somebody mentions for somebody else to discuss and consider'. [(चर्चा या विचार हेतु) कोई सुझाव (कोई योजना या राय)]
 - Example: May I make a **suggestion** ?

★ Additional Information

- Let's look at the **meaning** of other words:
 - **Mediocre** : of not very high quality. [औसत दर्जे का (उच्च कोटि का नहीं), दरम्याना, साधारण]
 - **Legible** : that is clear enough to be read easily. (इतना साफ़ कि पढ़ने में आसानी हो; सुवाच्य, सुपाठ्य)
 - **Opaque** : that you cannot see through. (अपारदर्शी)

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20. Answer: b

Explanation:

The correct answer is 'To have no idea of the answer'.

★ Key Points

- The most appropriate answer for the given idiom 'Your guess is as good as mine' is 'To have no idea of the answer'.
- **Your guess is as good as mine**: used for emphasis when one doesn't know the answer to a question. (जोर देने के लिए उपयोग किया जाता है जब किसी को किसी प्रश्न का उत्तर नहीं

पता होता है)

- Example: "What's her problem?" "I have no idea. **Your guess is as good as mine.**"

Correct Answer: To have no idea of the answer.

21. Answer: d

Explanation:

The correct answer is ' **the** '.

★ Key Points

- The most appropriate answer for the given blank is ' **the** '.
- Article '**the**' before a noun shows that what is referred to is already known to the speaker, listener, writer, and/or reader (it is the definite article).
 - Example: We had to paint**the** apartment before we sold it. (The speaker and the listener know what apartment is being referred to.)
- In the given blank ' **the** ' is referring to the native people.

Correct Paragraph: Albert soon got to learn the language of **the** native people. Now, he could talk to (2) _____ about their problems. They too began to (3) _____ him for advice. Some people, (4) _____, were too shy to share their concerns. Albert eventually (5) _____ them that he was there is to assist them in all matters.

22. Answer: b

Explanation:

The correct answer is ' **them** '.

★ Key Points

- The most appropriate word for the given blank is ' **them** '.
- Here, ' **them** ' is referring the native people. ' **Them** ' is the objective pronoun of ' **they** '.
- Object pronouns are used instead of nouns, usually because we already know what the object is.
- Object pronouns are those pronouns that receive the action in a sentence.
- Here, the native people are receiving the action of Albert i.e. Albert talking to them about their problems.
- The objective pronouns are ' **me, us, him, her, them, and whom** '.

Correct Paragraph: *Albert soon got to learn the language of the native people. Now, he could talk to them about their problems. They too began to (3) _____ him for advice. Some people, (4) _____, were too shy to share their concerns. Albert eventually (5) _____ them that he was there is to assist them in all matters.*

23. Answer: c

Explanation:

The correct answer is ' **approach** '.

★ **Key Points**

- The most appropriate answer for the given blank is ' **approach** '.
- In the given context it means ' **an act of communicating with another person or group in order to ask for something; to begin to deal with a problem, a situation, etc.** (कुछ मांगने के लिए किसी अन्य व्यक्ति या समूह के साथ संवाद करने का कार्य; किसी समस्या या स्थिति से निपटना शुरू करना)
 - *Example: What is the best way to **approach** this problem?*
- The given sentence is trying to express the fact that the native people started meeting or communicating with Albert in order to take advice from him. (दिया गया वाक्य इस तथ्य को व्यक्त करने का प्रयास कर रहा है कि मूल निवासियों ने अल्बर्ट से सलाह लेने के लिए मिलना या संवाद करना शुरू कर दिया।)

Correct Paragraph: *Albert soon got to learn the language of the native people. Now, he could talk to them about their problems. They too began to approach him for*

advice. Some people, (4) _____, were too shy to share their concerns. Albert eventually (5) _____ them that he was there is to assist them in all matters.

★ Additional Information

- Let's look at the **meaning** of other words:
 - **appear** : to seem. (प्रतीत होना, लगना)
 - **advance** : to move forward. (आगे बढ़ना)
 - **arrange** : to put something in order or in a particular pattern. (व्यवस्थित करना, क्रम विशेष से सजाना)

24. Answer: b

Explanation:

The correct answer is 'however'.

★ Key Points

- The most appropriate word for the given blank is ' **however** '.
- It is used for adding a comment to what you have just said. It means ' **despite this** '. [(अभी कही बात के साथ कुछ और कहने के लिए प्रयुक्त) तथापि, तो भी]
 - *Example: This is one possible solution to the problem. **However**, there are others.*
- The given sentence is trying to express the fact that the native people started to approach him for advice but some were still very shy to share their concerns.

Correct Paragraph: Albert soon got to learn the language of the native people. Now, he could talk to them about their problems. They too began to approach him for advice. Some people, however, were too shy to share their concerns. Albert eventually (5) _____ them that he was there is to assist them in all matters.

★ Additional Information

- Let's look at the **meaning** of other words:
 - **furthermore** : also; in addition. (भी; के अतिरिक्त)

- **therefore** : for that reason. (उस कारण से; इसलिए, अतएव)
- **moreover** : (used for adding another fact) also; in addition. [(कुछ और जोड़ने के लिए प्रयुक्त) साथ ही; के अतिरिक्त]

25. Answer: d

Explanation:

The correct answer is ' **assured** '.

★ Key Points

- The most appropriate word for the given blank is ' **assured** '.
- It means 'tell someone something positively to dispel any doubts.'. (आश्वासित; आत्मविश्वासी)
 - *Example: Everything's okay, she **assured** him.*

Correct Paragraph: Albert soon got to learn the language of the native people. Now, he could talk to them about their problems. They too began to approach him for advice. Some people, however, were too shy to share their concerns. Albert eventually assured them that he was there to assist them in all matters.

★ Additional Information

- Let's look at the **meaning** of the words:
 - **Settled** : not changing or not likely to change. (स्थिर)
 - **Decided** : clear; definite. (स्पष्ट; निश्चित)
 - **Confirmed** : fixed in a particular habit or way of life. [(आदत या जीवन-शैली) न बदली जा सकने वाली; पक्की, स्थायी]

26. Answer: d

Explanation:

Six objects: F, G, H, J, K, L

i. H is twice heavy as K, and J is one and half times as heavy as F.

$$\Rightarrow H = 2K, J = 1.5F$$

$$\Rightarrow K < H, F < J$$

ii. G is half as heavy as J.

$$\Rightarrow G = 0.5J$$

$$\Rightarrow G < J$$

$$\Rightarrow F, G < J$$

iii. F and J together are less heavy than H.

$$\Rightarrow F + J < H$$

$$\Rightarrow K < F + J < H$$

iv. J and L together are twice as heavy as F.

$$\Rightarrow J + L = 2F$$

I. J is one and half times as heavy as F. Let us assume weight of $F = 10x$ and $J = 15x$

$$J > F$$

II. Both F and J together are less heavy than H. $F + J = 25x$. Hence, weight of $H > 25x$.

$$H > J > F$$

III. G is half of J. J is one and half times heavy as F. Therefore weight of $G = 7.5x$

$$H > J > G > F$$

IV. J and L together twice heavy as F. $J + L = 2F$. $15x + L = 2(10x)$, $L = 20x - 15x = 5x$.

$$H > J > G > F > L$$

V. If weight of $H > 25x$. H is twice heavy as K then, possible weight of $K > 12.5x$.

Final arrangement in descending order will be as follows:

$H > K/J > J/K > F > G > L$.

Hence, the correct answer will be **G**.

27. Answer: a

Explanation:

The logic followed here is:

Second term = (First term)² × (first term - 1)

- $294 = (7)^2 \times (7 - 1) = 49 \times 6$
- Similarly, $648 = (9)^2 \times (9 - 1) = 81 \times 8$

Hence, the correct answer is **648**.

28. Answer: a

Explanation:

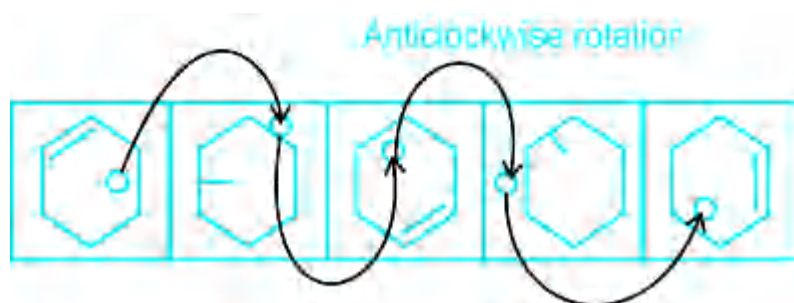


The logic followed here is:

Prepp

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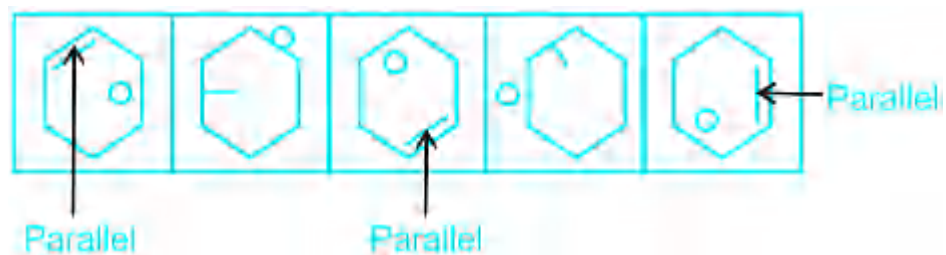
- is rotating anticlockwise along the sides of the hexagon.



prepp

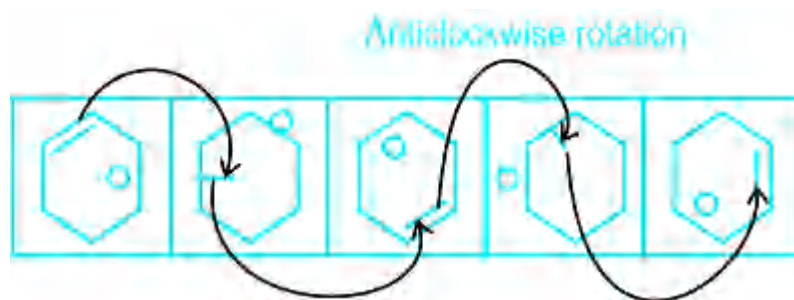
- is perpendicular to one of the sides of the hexagon in figures 2, and 4. It is parallel to one of the sides in figures 1, 3, and 5.

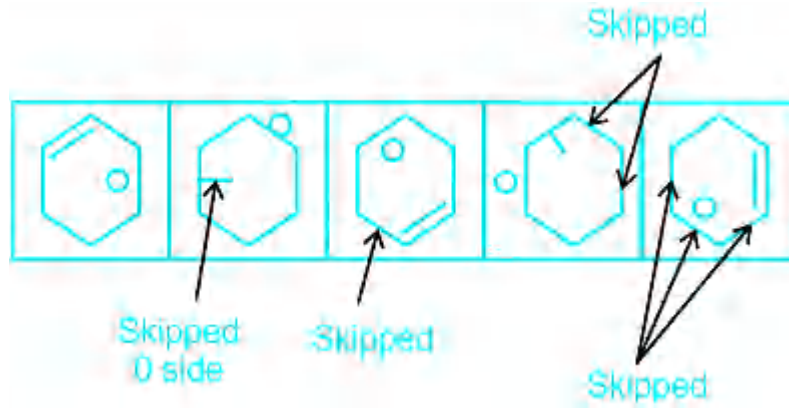
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- is rotating anticlockwise along the sides of the hexagon.
 - It skips 0 sides from figure 1 to figure 2.
 - It skips 1 side from figure 2 to figure 3.
 - It skips 2 sides from figure 3 to figure 4.
 - It skips 3 sides from figure 4 to figure 5.





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

29. Answer: a

Explanation:

The logic followed here is:

$$\sqrt{[(1st\ number)^2 + (3rd\ number)^2]} = \text{middle\ number}$$

$$\{21, 29, 20\}$$

$$= \sqrt{[(21)^2 + (20)^2]}$$

$$= \sqrt{441 + 400}$$

$$= \sqrt{841} = 29 \text{ (middle number)}$$

Option 1: {8, 17, 15}

$$= \sqrt{8^2 + 15^2}$$

$$= \sqrt{64 + 225}$$

$$= \sqrt{289} = 17 \text{ (Middle number)}$$

Hence, the correct answer is "**{8, 17, 15}**".

30. Answer: a

Explanation:

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

The pattern followed here is:

- WIDOWER is coded as VKAOXCU.



Similarly,




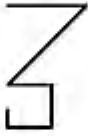



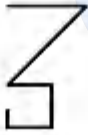
- FORTIFY = ?



Hence, the correct answer is EQOTJDB.

31. Answer: c

Explanation:

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

Hence, the correct answer is "Option 3".

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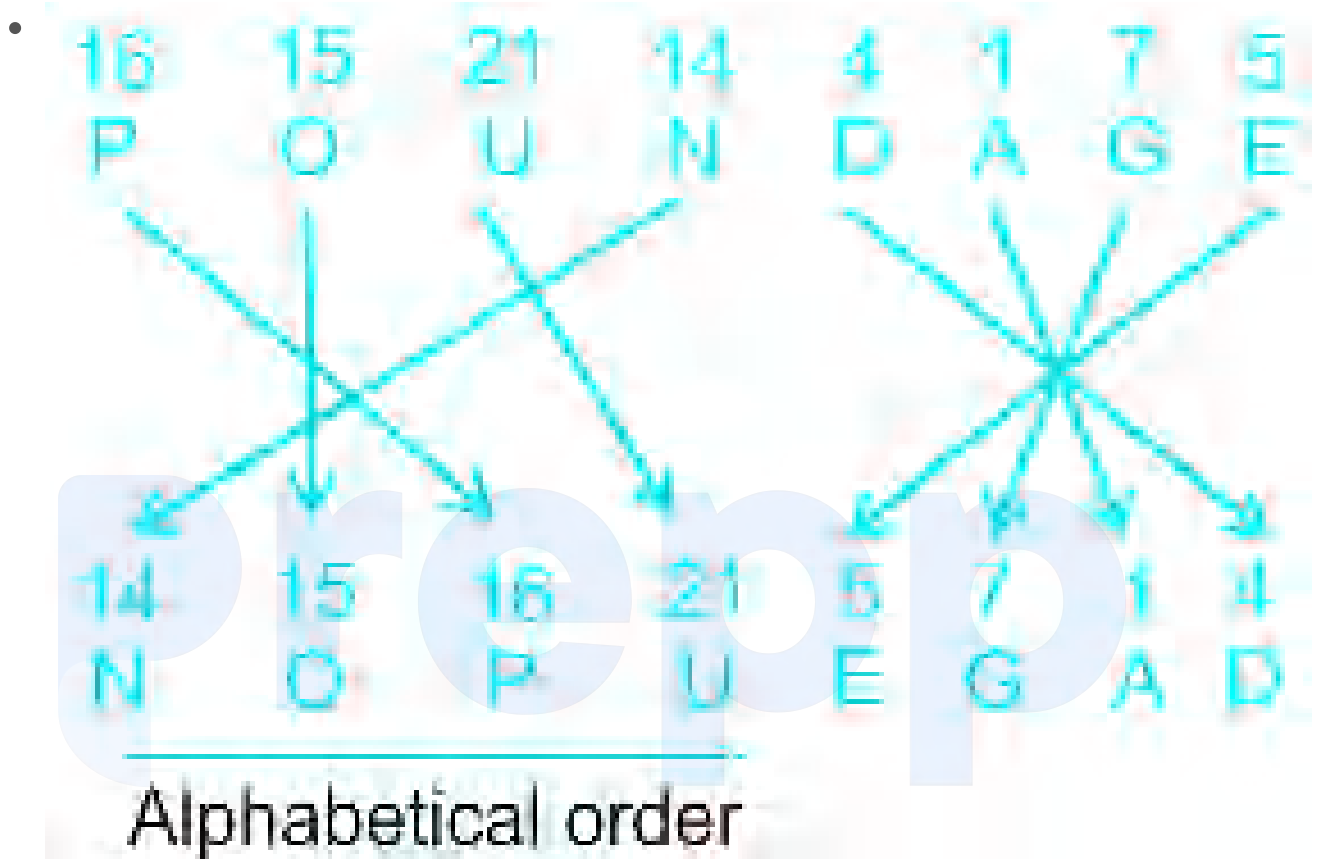
32. Answer: a

Explanation:

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

LOGIC: First four letters are arranged in alphabetical order and the last four letters are arranged diagonally.

The pattern followed here is:



Similarly,

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- Alphabetical order

Hence, the correct answer is "AMSTGNIP".

33. Answer: b

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Explanation:

- The mirror image of the question figure is as follows:



Hence, the correct answer is "Option 2".

34. Answer: a

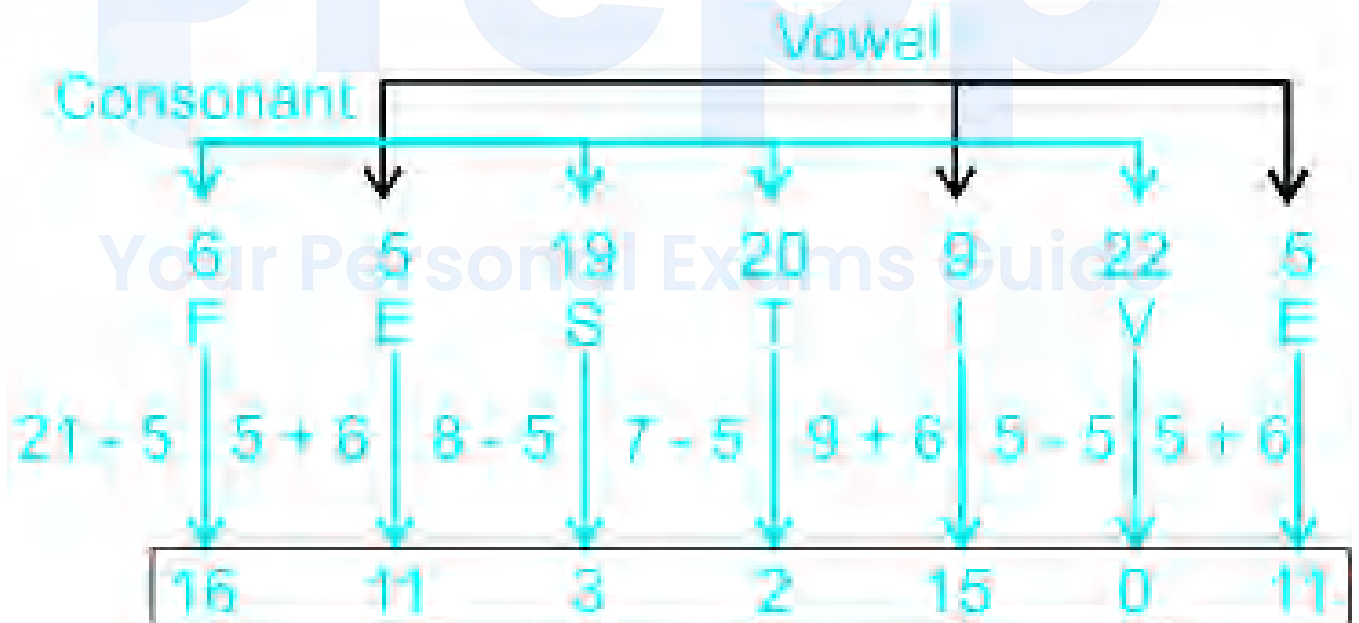
Explanation:

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

LOGIC: Code for consonants = Positional value of opposite letter - 5; code for vowel = Positional value + 6

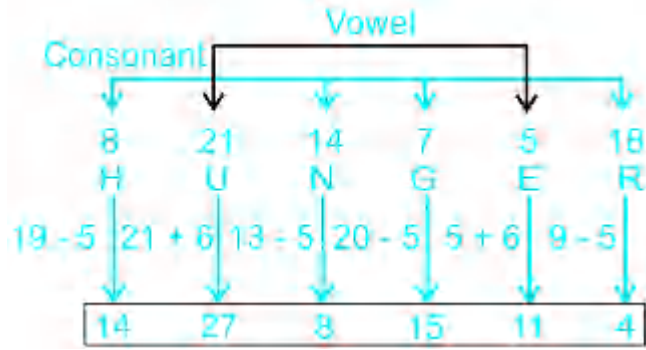
The Pattern followed here is:

- Code for consonants = Positional value of opposite letter - 5;
- code for vowel = Positional value + 6



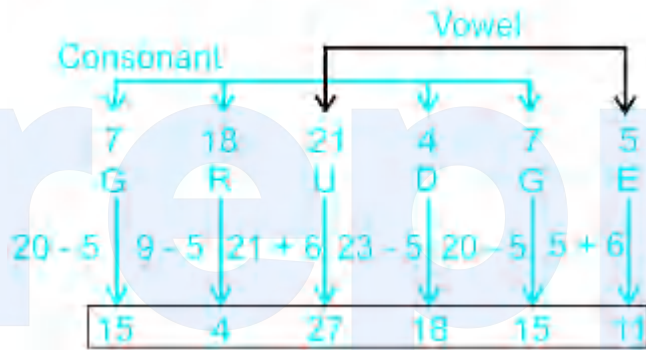
and,

- Code for consonants = Positional value of opposite letter - 5;
- code for vowel = Positional value + 6



Similarly,

- Code for consonants = Positional value of opposite letter - 5;
- code for vowel = Positional value + 6



Thus, GRUDGE is coded as "15427181511".

Hence, the correct answer is "15427181511".

35. Answer: b

Explanation:

Least Possible Venn diagram:



Conclusions:

1. No lake is stream → Does not follow (it is possible but not definite)

This possibility can be shown using the below Venn diagram:



2. Some rivers are streams → Follows (According to statement 1 some streams are rivers so, some rivers are definitely "streams").

Here, **Only conclusion 2 follows** .

Hence, the correct answer is "**Option 2**" .

36. **Answer: d**

Explanation:

Given :

Six persons – A, B, C, D, E, and F

i. There are two boys between B and D, and D is just in front of E.

So, there have two possibility;

Possibility 1)



Possibility 2)



ii. A and C are adjacent to B.

Possibility 1)



Possibility 2)



iii. A is just behind E, and C is just in front of F.

Here Possibility 2 gets eliminated.



As A is not just behind E. The second possibility is to eliminate.

Therefore, it is clearly seen that **A and B** are exactly in the middle positions.

Hence, the correct answer is "option 4".

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37. Answer: d

Explanation:

Option 1): Given: $9 \times 3 - 7 + 9 = 19$

By interchanging + and \times in the given equation

Interchanged equation is : $9 + 3 - 7 \times 9 = 19$

$$\Rightarrow 9 + 3 - 63 = 19$$

$$\Rightarrow 12 - 63 = 19$$

$$\Rightarrow -51 \neq 19$$

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

$$\text{Option 2): } 10 \times 5 \div 10 + 10 = 10$$

By interchanging + and \times in the given equation

$$\text{Interchanged equation is : } 10 + \underline{5 \div 10} \times 10 = 10$$

$$\Rightarrow 10 + \underline{0.5 \times 10} = 10$$

$$\Rightarrow 10 + 5 = 10$$

$$\Rightarrow 15 \neq 10$$

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

$$\text{Option 3): } 4 \div 8 + 6 \times 3 = 8$$

By interchanging + and \times in the given equation

$$\text{Interchanged equation is : } \underline{4 \div 8} \times 6 + 3 = 8$$

$$\Rightarrow \underline{0.5 \times 6} + 3 = 8$$

$$\Rightarrow 3 + 3 = 8$$

$$\Rightarrow 6 \neq 8$$

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

$$\text{Option 4): } 18 \times 3 \div 12 + 8 = 20$$

By interchanging + and \times in the given equation

$$\text{Interchanged equation is : } 18 + \underline{3 \div 12} \times 8 = 20$$

$$\Rightarrow 18 + \underline{0.25 \times 8} = 20$$

$$\Rightarrow 18 + 2 = 20$$

$$\Rightarrow 20 = 20$$

⇒ LHS = RHS

Hence , the correct answer is "Option 4".

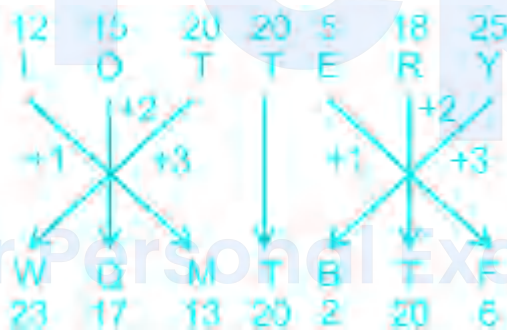
38. Answer: c

Explanation:

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

The logic followed here is :-

LOTTERY : WQMTBTF



Similarly,

SECULAR : ?



Hence, the correct answer is "Option 3" .

39. Answer: a

Explanation:

Given: Eight friends P, Q, R, S, T, U, V and W are sitting in a row facing North.

1) Q sits to the immediate right of P, who is at one of the extreme ends of the line.

- Here P is at one the extreme ends of the line not Q.



2) Q sits third to the left of T and there are two persons between W and T.



3) U is not an immediate neighbor of S and sits to the immediate left of V.

- Here U sits to the immediate left of V.

So there have two possibilities.

There are three persons between V and R.

Possibility 1)



Possibility 2)



4) There are three persons between V and R.



As we cannot draw three persons between V and R . So the second possibility is eliminated.

It is clearly seen that R and S are sitting between Q and T.

Hence, the correct answer is "Option 1" .

40. Answer: d

Explanation:

The pattern followed here is :

- A poetry is a type of Literature.
- Similarly, a portrait is a type of painting.

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

41. Answer: a

Explanation:

Solve by the use of BODMAS Rule;

Given equation: $10 \div 5 - 4 \times 3 + 6 = 13$

On checking and interchanged each option one by one:

1) Given: + and \div

$$= 10 + 5 - 4 \times \underline{3 \div 6} = 13$$

$$= 10 + 5 - \underline{4 \times 0.5}$$

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

$$= \underline{15} - 2$$

$$= 13 = 13 \text{ (True)}$$

2) Given: - and \times

$$= \underline{10 \div 5} \times 4 - 3 + 6 = 13$$

$$= \underline{2 \times 4} - 3 + 6$$

$$= \underline{8} - 3 + 6$$

$$= \underline{14} - 3$$

$$= 11 \neq 13 \text{ (False)}$$

3) Given: \div and \times

$$= 10 \times 5 - \underline{4 \div 3} + 6 = 13$$

$$= \underline{10 \times 5} - 1.33 + 6$$

$$= \underline{50} - 1.33$$

$$= 54.67 \neq 13 \text{ (False)}$$

4) Given: + and -

$$= \underline{10 \div 5} + 4 \times 3 - 6 = 13$$

$$= 2 + \underline{4 \times 3} - 6$$

$$= \underline{2 + 12} - 6$$

$$= \underline{14} - 6$$

= $8 \neq 13$ (False)

Hence, the correct answer is "Option 1".

42. Answer: c

Explanation:

The answer figure which will complete the pattern in the given question figure is as follows:

Hence, the figure in "Option 3" is the correct answer.

43. Answer: c

Explanation:

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

The logic followed here is:

Sum of positional value of all letters - number of letters in a word = Number Code

- CROWN = $3 + 18 + 15 + 23 + 14 = 73$

Total number of letter in CROWN = 5

- Now, $73 - \text{Total number of letter} = 73 - 5 = 68$

And,

- DEPEND = $4 + 5 + 16 + 5 + 14 + 4 = 48$

Total number of letter in DEPEND = 6

- $48 - \text{Total number of letter} = 48 - 6 = 42$

Similarly,

- $\text{IMAGERY} = 9 + 13 + 1 + 7 + 5 + 18 + 25 = 78$

Total number of letter in IMAGERY = 7

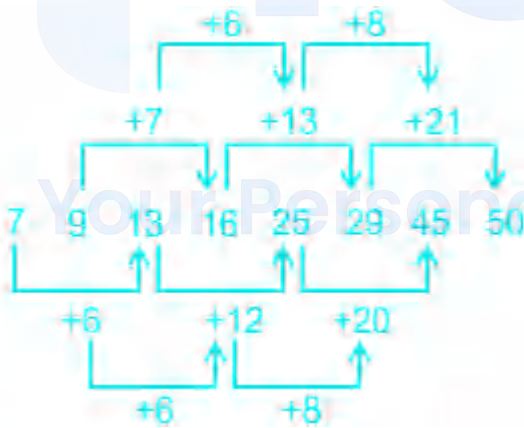
- $78 - \text{Total number of letter} = 78 - 7 = 71$

Hence, the correct answer is "Option 3".

44. Answer: d

Explanation:

The logic followed here is:-



'45' is correct answer.

Hence, the correct answer is "Option 4".

45. Answer: c

Explanation:

The logic followed here is:

'Play' is related to 'Actor' → An **Actor** exhibits his art through a **Play** .

Similarly,

'Concert' is related to 'Musician' → A **Musician** performs his/her art through a **Concert**.

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

46. Answer: c

Explanation:

Venn diagram according to the given information is:

Women, Employed, Mothers

- All mothers are women.
- Some of the mother can be employed and some of the women also can be employed.



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

47. Answer: c

Explanation:

The least possible Venn diagram for the given statements will be as follows:



Conclusion:

I. Some corporations are villages → **False** (It is possible but not definite because there is no direct relation between corporation and villages.)

II. Some towns are corporations → **False** (It is possible but not definite because there is no direct relation between towns and corporation.)

III. No corporation is village → **False** (It is possible but not definite.)

When we combining the statement I and II we can say that either I or III follows

Either conclusion I or conclusion III follows

Hence, **either I or III** is the correct option.

★ Important Points

- **Some** and **No** is complementary pair.
- **Elements** in the I and III conclusion are **same** .
- **Individually both the statements are false.**

★ Hint

Conditions of Either-or case:

1. Individually both the conclusions should be false.
2. One conclusion should be positive and one conclusion should be negative (Complementary pair)

- The two complementary pairs are:
 - All + Some not
 - No + Some

48. Answer: b

Explanation:

- The image obtained when the paper is unfolded:



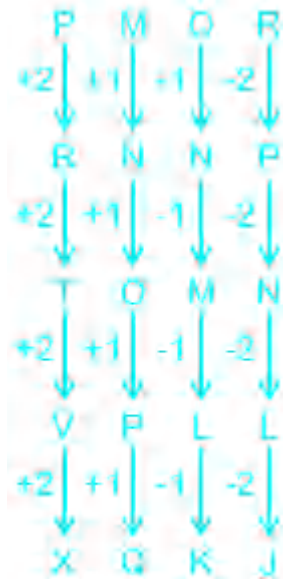
Hence, the correct option is 2.

49. Answer: b

Explanation:

The pattern followed here is:

Alphabets	A	B	D	D	E	F	G	H	I	J	K	L	M
Pos.oral value	1	2	3	4	5	6	7	8	9	10	11	12	13
Pos.oral 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



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

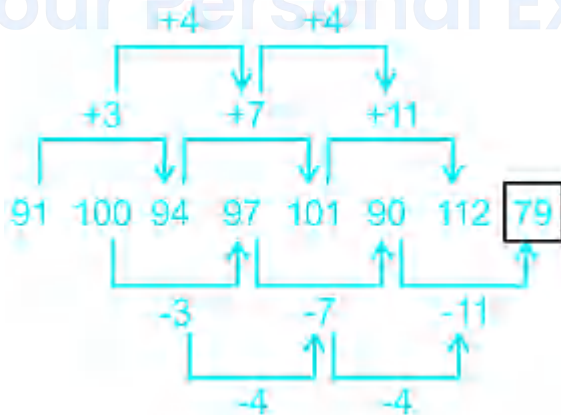
50. Answer: d

Explanation:

The logic followed here is:

- The series is given on alternate double difference.

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Hence, the correct answer is "79".

51. Answer: c

Explanation:

Given:

Sum = Rs. 22,500

Rate = 16%

Time = 1 year

Concept used:

When the sum is compounded half-yearly, then the rate of interest becomes half and time becomes double.

Formula used:

$$A = P(1 + R/100)^T$$

$$CI = (A - P)$$

Calculation:

$$R = 16/2 = 8\%$$

$$T = 2 \times 1 = 2 \text{ years}$$

According to the question

$$A = P(1 + R/100)^T$$

$$\Rightarrow 22,500 \times (1 + 8/100)^2$$

$$\Rightarrow 22,500 \times (108/100)^2$$

$$\Rightarrow (22,500 \times 27/25 \times 27/25)$$

$$\Rightarrow \text{Rs. } 26,244$$

Now,

$$CI = (26,244 - 22,500)$$

$$\Rightarrow \text{Rs. } 3,744$$

\therefore The required interest is Rs. 3,744

52. Answer: b

Explanation:

Given:

12 men can complete a painting work in 8 days.

16 women can complete the same painting work in 12 days

8 men started painting the house.

After 6 days of painting, 2 men were replaced by 4 women

Formula used:

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

Calculation:

$$12 \text{ men can complete a painting work in 8 days} = (12 \times 8) = 96$$

$$16 \text{ women can complete the same painting work in 12 days} = (16 \times 12) = 192$$

$$\text{The ratio of men and women} = (96 : 192)$$

$$\Rightarrow 1 : 2$$

$$\text{Total work} = (12 \times 1 \times 8) = 96 \text{ units}$$

Now,

8 men started the painting for 6 days = $(8 \times 1 \times 6) = 48$ units

Remaining work = $(96 - 48) = 48$ units

2 men were replaced by 4 women = $(4 \times 2) = 8$ women

Now,

Time taken to complete the remaining painting = $(48/8)$

\Rightarrow 6 days

\therefore The required time is 6 days

53. Answer: a

Explanation:

Given:

Profit = 15%

If its cost had been 5% less and it had been sold for ₹ 1,470 less, then the profit would have been 10%.

Calculation:

Let the Cost price of Almirah be x

Then,

$$SP = x + 15x/100$$

$$\Rightarrow (100x + 15x)/100$$

$$\Rightarrow 115x/100$$

$$\Rightarrow 23x/20$$

If its cost had been 5% less than CP

$$\Rightarrow [x - (x \times 5/100)]$$

$$\Rightarrow (x - 5x/100)$$

$$\Rightarrow (100x - 5x)/100$$

$$\Rightarrow 95x/100$$

$$\Rightarrow 19x/20$$

$$\text{And, SP} = 23x/20 - 1470$$

Now,

$$\text{Profit\%} = [(23x/20 - 1470) - 19x/20 / 19x/20]$$

$$\Rightarrow (10 \times 19x/20 \times 1/100) = (4x/20 - 1470)$$

$$\Rightarrow (19x/200 - 4x/20) = -1470$$

$$\Rightarrow (19x - 40x)/200 = -1470$$

$$\Rightarrow -21x/200 = -1470$$

$$\Rightarrow x = (1470 \times 200)/21$$

$$\Rightarrow x = (70 \times 200)$$

$$\Rightarrow x = \text{Rs. } 14,000$$

\therefore The required Cost price is Rs. 14,000

★ Alternate Method

Let the cost of almirah be x

$$\text{SP of almirah} = (115/100 \text{ of } x) = 1.15x$$

$$\text{CP is 5\% less} = (95/100 \times x) = 0.95x$$

If its cost had been 5% less and it had been sold for ₹ 1,470 less,

$$\Rightarrow \text{SP} - 1470 = 0.95x$$

According to the question

$$\text{Profit\%} = \frac{[(SP - 1470) - 0.95x]}{0.95x} = 10/100$$

$$\Rightarrow \frac{[(1.15 - 1470) - 0.95x]}{0.95x} = 1/10$$

$$\Rightarrow 1.15x - 1470 - 0.95x = 0.095x$$

$$\Rightarrow 0.2x - 1470 = 0.095x$$

$$\Rightarrow (0.2x - 0.095x) = 1470$$

$$\Rightarrow 0.105x = 1470$$

$$\Rightarrow x = 14000$$

\therefore The required Cost price is Rs. 14,000.

54. Answer: a

Explanation:

Calculation:

The difference of enrollment in the two schools in 2015 = $(532 - 515) = 17$

The difference of enrollment in the two schools in 2016 = $(540 - 465) = 75$

The difference of enrollment in the two schools in 2017 = $(550 - 490) = 60$

The difference of enrollment in the two schools in 2018 = $(570 - 540) = 30$

The difference of enrollment in the two schools in 2019 = $(750 - 600) = 150$

\therefore The difference of enrollment in the two schools, the least in 2015

55. Answer: a

Explanation:

Concept Used:

Follow the BODMAS rule according to the table given below:

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

Calculation:

$$\frac{119 - [48 \div 6 - 7 \{5 \times 12 \div 3 - (15 - 3 - 8)\}]}{24 \div 3 - 9 \text{ of } 3 + (52 - 8 - 4) \div 6}$$

$$\Rightarrow 119 - [48 \div 6 - 7\{5 \times 12 \div 3 - (15 + 5)\}]/24 \div 3 - 9 \text{ of } 3 + (52 - 4) \div 6$$

$$\Rightarrow 119 - [48 \div 6 - 7\{5 \times 12 \div 3 - 20\}]/24 \div 3 - 9 \text{ of } 3 + 48 \div 6$$

$$\Rightarrow 119 - [8 - 7\{5 \times 12 \div 3 - 20\}]/24 \div 3 - 9 \text{ of } 3 + 48 \div 6$$

$$\Rightarrow 119 - [8 - 7(5 \times 12 \div 3 - 20)]/24 \div 3 - 9 \text{ of } 3 + 48 \div 6$$

$$\Rightarrow 119 - [8 - 7(5 \times 4 - 20)]/24 \div 3 - 9 \text{ of } 3 + 48 \div 6$$

$$\Rightarrow 119 - [8 - 7(20 - 20)]/24 \div 3 - 27 + 48 \div 6$$

$$\Rightarrow 119 - 8/(8 - 27 + 8)$$

$$\Rightarrow 111/(-11)$$

$$\Rightarrow -111/11$$

∴ The required value is $-111/11$

56. Answer: a

Explanation:

Given:

A wire is in the form of a square of side = 33 cm

Formula used:

Circumference of the circle = $2\pi r$

Perimeter of the square = $4 \times \text{side}$

Calculation:

According to the question

The wire has the same length

So,

Circumference of the circle = Perimeter of the square

$$\Rightarrow (2 \times \frac{22}{7} \times r) = 4 \times 33$$

$$\Rightarrow 44r/7 = 132$$

$$\Rightarrow r/7 = 3$$

$$\Rightarrow r = (7 \times 3) \text{ cm}$$

$$\Rightarrow r = 21 \text{ cm}$$

\therefore The radius of the circle is 21 cm

57. Answer: b

Explanation:

Given:

Volume of cube = 10 cm

Radius of the sphere = 4.2 cm

Formula used:

Volume of the cube = a^3

Volume of the sphere = $\frac{4}{3}\pi r^3$

Calculation:

According to the question

Volume of wood left = Volume of cube – Volume of sphere

$$\Rightarrow (10)^3 - \frac{4}{3} \times \frac{22}{7} \times (4.2)^3$$

$$\Rightarrow 1000 - \frac{4}{3} \times \frac{22}{7} \times 74.088$$

$$\Rightarrow 1000 - \frac{6519.744}{21}$$

$$\Rightarrow 1000 - 310.464$$

$$\Rightarrow 689.536 \text{ cm}^3$$

\therefore The wood is wasted in the process is 689.536 cm^3

58. Answer: b

Explanation:

Given:

The product of two positive numbers = 1344

The ratio of the two numbers = 7 : 12

Calculation:

Let the ratio of the numbers be $7x$ and $12x$ respectively

According to the question

$$\Rightarrow (12x \times 7x) = 1344$$

$$\Rightarrow 84x^2 = 1344$$

$$\Rightarrow x^2 = (1344/84)$$

$$\Rightarrow x^2 = 16$$

$$\Rightarrow x = 4$$

Now,

$$\text{The smaller number} = 7x = (7 \times 4)$$

$$\Rightarrow 28$$

\therefore The required number is 28

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59. Answer: a

Explanation:

Given:

Two dealers offer an item at the same marked price = Rs. 3000

The first dealer allows successive discounts = 10% and 15%

The other dealer allows successive discounts = 20% and 5%

Formula used:

Successive discount = $[x + y - (xy/100)]$

Calculation:

The first dealer allows successive discounts = 10% and 15%

$$\Rightarrow [10 + 15 - (10 \times 15/100)]$$

$$\Rightarrow (25 - 3/2)$$

$$\Rightarrow (50 - 3)/2$$

$$\Rightarrow 47/2$$

$$\Rightarrow 23.5\%$$

The other dealer allows successive discounts = 20% and 5%

$$\Rightarrow [20 + 5 - (20 \times 5)/100]$$

$$\Rightarrow (25 - 1)$$

$$\Rightarrow 24\%$$

The difference in the selling price of the item under the two offers = Rs. $[3000 \times (24 - 23.5)/100]$

$$\Rightarrow \text{Rs. } (3000 \times 0.5/100)$$

$$\Rightarrow \text{Rs. } (30 \times 0.5)$$

$$\Rightarrow \text{Rs. } 15$$

\therefore The required difference is Rs. 15

60. Answer: c

Explanation:

Given:

Distance = 189 km

The ratio of the speed of car and bus = 3 : 2

Concept used:

When the distance is constant, then speed is inversely proportional to time

Formula used:

Speed = Distance/Time

Calculation:

The ratio of speed of car and bus be $3x$ and $2x$ respectively

When the distance is constant, then speed is inversely proportional to time

So,

The ratio of time of car and bus be $2x$ and $3x$ respectively

Now,

The difference between the time of bus and car = $(3x - 2x) = 1x$

According to the question

Total time taken by car = $(60 \text{ min} + 30 \text{ min}) = 90 \text{ min}$

$\Rightarrow (90/60) = 3/2 \text{ hr}$

Time taken by bus = $(3 \times 3/2) = 9/2 = 4.5 \text{ hr}$

Now,

Speed = $189/4.5$

$\Rightarrow 42 \text{ km/h}$

\therefore The speed of the bus is 42 km/h

61. Answer: b

Explanation:

Given:

Cost price of a fabric dress = Rs. 800

She spent on embroidery and stitching = Rs. 350

Profit = 20%

Calculation:

Total cost price of fabric dress = Rs. $(800 + 350) = \text{Rs. } 1,150$

Profit = 20%

According to the question

Selling price of the dress = Rs. $(1,150 \times 120/100)$

$\Rightarrow \text{Rs. } (138,000/100)$

$\Rightarrow \text{Rs. } 1,380$

\therefore The selling price of the dress is Rs. 1,380

62. Answer: a

Explanation:

Given:

The difference of an age of the eldest and youngest members = 82 years

The average age of remaining 14 persons = 28

The average age of the entire family = 30

Formula used:

Average = sum of observations/Number of observations

Calculation:

Let the age of eldest and youngest be x and y respectively

The difference of an age of the eldest and youngest members = 82 years

$$\Rightarrow (x - y) = 82 \dots(1)$$

Now,

The average age of remaining 14 persons = $(14 \times 28) = 392$

The average age of the entire family = $(16 \times 30) = 480$

The age of the eldest and youngest family = $(480 - 392) = 88$

So,

$$(x + y) = 88 \dots(2)$$

Now, **Your Personal Exams Guide**

Adding equation (1) and (2), we get

$$\Rightarrow (x - y) = 82 + (x + y) = 88$$

$$\Rightarrow 2x = (88 + 82)$$

$$\Rightarrow 2x = 170$$

$$\Rightarrow x = 85 \text{ years}$$

\therefore The age of the eldest person is 85 years

63. Answer: b

Explanation:

Given:

11, 8, 9, $(2k - 1)$, 11, 12, 12, 18, 14, 16

Calculation:

According to the question

The mode of the following data = 11

$$\Rightarrow 2k - 1 = 11$$

$$\Rightarrow 2k = 12$$

$$\Rightarrow k = 6$$

\therefore The value of k is 6

64. Answer: d

Explanation:

Given:

The average of 9 numbers = 19

The average of the first four numbers = 14

Formula used:

Average = $\frac{\text{sum of observations}}{\text{Number of observations}}$

Calculation:

The average of 9 numbers = $(19 \times 9) = 171$

The average of the first four numbers = $(4 \times 14) = 56$

Now,

The average of last 5 numbers = $(171 - 56)/5$

$\Rightarrow 115/5$

$\Rightarrow 23$

\therefore The required average is 23

65. Answer: c

Explanation:

Given:

Difference of two numbers = 10

LCM = 120

HCF = 10

Concept used:

HCF - The greatest common divisor of two or more positive integers happens to be the largest positive integer that divides the numbers without leaving a remainder.

LCM - The least common multiple or lowest common multiple or smallest common multiple of two integers a and b, usually denoted by LCM (a, b) is the smallest positive integer that is divisible by both a and b.

Co-prime - Two numbers are co-prime if they have no common factor other than 1.

Calculation:

HCF = 10

Let the two numbers be 10a and 10b, where a and b are co-primes

LCM of two numbers = 10

$$\Rightarrow 10a \times 10b = \text{LCM} \times \text{HCF}$$

$$\Rightarrow 100ab = 120 \times 10$$

$$\Rightarrow 100ab = 1200$$

$$\Rightarrow ab = 12$$

So, Possible pairs of a and b could be (3,4)

So, the numbers are (30, 40)

Now,

The sum of the number = (30 + 40)

$$\Rightarrow 70$$

\therefore The required sum is 70

66. Answer: c

Explanation:

Concept Used:

Follow the BODMAS rule according to the table given below:

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

Calculation:

$$\begin{aligned}
 & (16\frac{2}{3} \div 10) - \left[\left(\frac{8}{3} \times \frac{5}{4} \right) \text{ of } \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - \left(\frac{1}{4} \div \frac{1}{28} \right) \right] \\
 \Rightarrow & (50/3 \div 10) - \left[\left(\frac{8}{3} \times \frac{5}{4} \right) \text{ of } \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - \left(\frac{1}{4} \div \frac{1}{28} \right) \right] \\
 \Rightarrow & (50/3 \times 1/10) - \left[\left(\frac{8}{3} \times \frac{5}{4} \right) \text{ of } \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - \left(\frac{1}{4} \div \frac{1}{28} \right) \right] \\
 \Rightarrow & 5/3 - \left[\left(\frac{8}{3} \times \frac{5}{4} \right) \text{ of } \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - \left(\frac{1}{4} \div \frac{1}{28} \right) \right] \\
 \Rightarrow & 5/3 - \left[\frac{10}{3} \text{ of } \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - \left(\frac{1}{4} \div \frac{1}{28} \right) \right] \\
 \Rightarrow & 5/3 - \left[\frac{10}{3} \text{ of } \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - \left(\frac{1}{4} \times 28 \right) \right] \\
 \Rightarrow & 5/3 - \left[\frac{10}{3} \text{ of } \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - 7 \right] \\
 \Rightarrow & 5/3 - \left[\frac{10}{3} \times \frac{2}{5} + \frac{16}{3} \times \frac{11}{8} - 7 \right] \\
 \Rightarrow & 5/3 - \left[\frac{4}{3} + \frac{16}{3} \times \frac{11}{8} - 7 \right] \\
 \Rightarrow & 5/3 - \left(\frac{4}{3} + \frac{22}{3} - 7 \right) \\
 \Rightarrow & 5/3 - \left(\frac{4 + 22 - 21}{3} \right) \\
 \Rightarrow & 5/3 - \frac{(26 - 21)}{3} \\
 \Rightarrow & 5/3 - 5/3 \\
 \Rightarrow & 0
 \end{aligned}$$

∴ The required value is 0

67. Answer: b

Explanation:

Calculation:

The combined production of company A and company B in 1996 = (24 + 22) = 46

The production of C in 1996 = 40

The percentage in 1996 = $(46 \times 81.94)/100$

$\Rightarrow 3769.24/100$

$\Rightarrow 37.69$

It is not equal to the production of C

Now,

The combined production of company A and company B in 1997 = $(29 + 23) = 52$

The production of C in 1997 = 62

The percentage in 1997 = $(52 \times 81.94)/100$

$\Rightarrow 4260.88/100$

$\Rightarrow 42.60$

It is not equal to the production of C

Now,

The combined production of company A and company B in 1998 = $(34 + 38) = 72$

The production of C in 1998 = 59

The percentage in 1998 = $(72 \times 81.94)/100$

$\Rightarrow 5899.68/100$

$\Rightarrow 58.99 \sim 59$

It is equal to the production of C

Now,

The combined production of company A and company B in 1999 = $(57 + 49) = 106$

The production of C in 1999 = 51

The percentage in 1999 = $(106 \times 81.94)/100$

$\Rightarrow 8685.64/100$

$\Rightarrow 86.85$

It is not equal to the production of C

Now,

The combined production of company A and company B in 2000 = $(45 + 55) = 100$

The production of C in 2000 = 52

The percentage in 2000 = $(100 \times 81.94)/100$

$\Rightarrow 8194/100$

$\Rightarrow 81.94$

It is not equal to the production of C

\therefore The production of company C is 81.94% (correct to 2 decimal places) of the combined production of company A and company B in the year 1998

68. Answer: d

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Explanation:

Given:

Mixture of juice and water = 50 litre

The ratio of juice and water = 3 : 2

A 60 litre juice and water mixture is added, that has a juice to water ratio of 2 : 1

After this, 11 litres of the solution is replaced with pure juice

Calculation:

The juice in the mixture = $(\frac{3}{5} \times 50) = 30$ litre

The water in the mixture = $(\frac{2}{5} \times 50) = 20$ litre

Now,

A 60 litre juice and water mixture is added, that has a juice to water ratio of 2 : 1

The juice in the mixture = $(\frac{2}{3} \times 60) = 40$

The water in the mixture = $(\frac{1}{3} \times 60) = 20$

Now,

Total mixture of juice = $(30 + 40) = 70$ litre

Total mixture of water = $(20 + 20) = 40$ litre

The ratio of juice and water = $(70 : 40)$

$\Rightarrow 7 : 4$

Now,

The ratio of juice = $(70 - 7) = 63$ litre

The ratio of water = $(40 - 4) = 36$ litre

Now,

11 litres of the solution is replaced with pure juice

$\Rightarrow (63 + 11) : 36$

$\Rightarrow 74 : 36$

$\Rightarrow 37 : 18$

The ratio of water to juice in the final mixture = $18 : 37$

\therefore The required ratio is $18 : 37$

69. Answer: b

Explanation:

Given:

The cost of leveling a square field at the rate of ₹ 52/m² = Rs. 1,30,000

Formula used:

Area of square = (side)²

Perimeter of the square = 4 × side

Calculation:

Area of the square field leveled = (1,30,000/52)

⇒ 2500

(Side)² = 2500 m²

⇒ side = 50 m

Now,

Perimeter of the square = (4 × 50) = 200 m

Now,

The cost of fencing its boundary at the rate of ₹35/m = Rs. (200 × 35)

⇒ Rs. 7,000

∴ The required cost is Rs. 7,000

70. Answer: c

Explanation:

Given:

The ratio of Physics Chemistry and Biology = 7 : 5 : 8

Increased percent in Physics = 50%

Increased percent in Chemistry = 40%

Increased percent in Biology = 25%

Formula used:

Increased value = Original value \times (1 + increased%/100)

Calculation:

Let the seats in Physics, Chemistry and Biology be $7x$, $5x$ and $8x$ respectively.

Number of seats in Physics after increment = $(7x \times 150/100)$

$$\Rightarrow (7x \times 3/2)$$

$$\Rightarrow 21x/2$$

Number of seats in Chemistry after increment = $(5x \times 140/100)$

$$\Rightarrow (5x \times 7/5)$$

$$\Rightarrow 7x$$

Number of seats in Biology after increment = $(8x \times 125/100)$

$$\Rightarrow (8x \times 5/4)$$

$$\Rightarrow 10x$$

Increased ratio = $(21x/2 : 7x : 10x)$

$$\Rightarrow 21x : 14x : 20x$$

$\Rightarrow 21 : 14 : 20$

\therefore The required ratio is $21 : 14 : 20$

71. Answer: c

Explanation:

Calculation:

The families who showed interest for visiting Jaipur = 15%

Now,

The central angle for the families who showed interest for visiting Jaipur = $(15/100 \times 360)$

$\Rightarrow (5400/100)$

$\Rightarrow 54^\circ$

\therefore The required angle is 54°

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72. Answer: b

Explanation:

Given:

Ankit invests some money at 9% simple interest for 2 years

The same sum for 4 years at 10% per annum

He earns = Rs. 1740

Formula used:

$$SI = (P \times R \times T)/100$$

Calculation:

Let the principal be P

According to the question

$$\text{The first SI} = (P \times 9 \times 2)/100$$

$$\Rightarrow 18P/100$$

$$\text{The second SI} = (P \times 4 \times 10)/100$$

$$\Rightarrow 40P/100$$

$$\text{The sum} = (18P/100 + 40P/100)$$

$$\Rightarrow 58P/100$$

Now,

The sum invested in each case

$$\Rightarrow 58P/100 = 1740$$

$$\Rightarrow P/100 = 30$$

$$\Rightarrow P = \text{Rs. } 3000$$

\therefore The required sum is Rs. 3000

73. Answer: c

Explanation:

Given:

A is 30% more efficient than B

Time taken by B to finish the work = 13 days

Concept used:

Efficiency is inversely proportional to the time when the work done is constant.

Calculation:

Ratio of efficiency of A and B = 130 : 100

⇒ 13 : 10

Efficiency is inversely proportional to the time when the work done is constant.

⇒ Ratio of time taken by A and B = 10 : 13

Let A takes x days to do the same job

⇒ 10 : 13 :: x : 13

⇒ 10/13 :: x/13

⇒ x = (10/13 × 13)

⇒ x = 10 days

∴ The time taken by A to finish the job is 10 days

74. Answer: a

Explanation:

Given:

Length of the paper = 32 cm

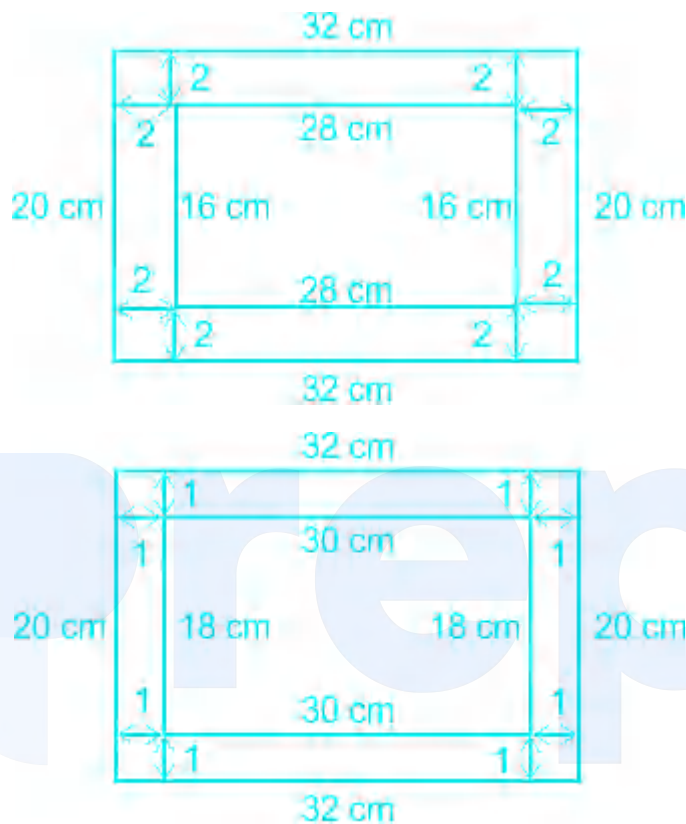
Breadth of the paper = 20 cm

He leaves a margin on all the sides = 2 cm

Formula used:

Area of paper = length \times breadth

Calculation:



According to the question

He leaves a margin of 2 cm each on all the sides

Length of area of the typing = $(32 - 2 - 2) = 28$ cm

Breadth of area of typing = $(20 - 2 - 2) = 16$

Area of the typing, when margin leaves 2 cm = (28×16) cm²

$\Rightarrow 448$ cm²

Now,

If he leaves a margin of 1 cm only on all the sides

Length of area of typing = $(32 - 1 - 1) = 30$ cm

Breadth of the area of typing = $(20 - 1 - 1) = 18$ cm

Area of the typing, when margin leaves 1 cm = (30×18) cm²

⇒ 540 cm²

Now,

Percentage increase = $[(540 - 448)/448 \times 100]$

⇒ $(92/448 \times 100)$

⇒ $(9200/448)$

⇒ 20.54%

∴ The required percentage increase is 20.54%

75. Answer: b

Explanation:

Given: Your Personal Exams Guide

Amit covers a certain distance on his bike at a speed of 40 km/h in 15 min.

Formula used:

Distance = Speed × Time

Calculation:

According to the question

The distance will be = $(40 \times 15)/60 = 10$ km

Now,

Time = 12 min = $12/60 = 1/5$ hours

Now to calculate the speed of the bike

$\Rightarrow 10/(1/5)$

$\Rightarrow 50$ km/h

\therefore The required speed is 50 km/h

76. Answer: a

Explanation:

The correct answer is Portuguese.

★ Key Points

- In 1503, Portuguese viceroy **Afonso de Albuquerque** built the **first European fort in India, Fort Emmanuel** .
- In 1500 , the Portuguese navigator **Pedro Alvares Cabral** established the **first European settlement in India in Kochi** .
- In 1502, **Vasco da Gama** , the discoverer of the sea route to India (1498), founded the **first Portuguese workshop** (trading station) there.
- **Kochi** remained a **Portuguese property until 1663** when it was seized by the Dutch.

★ Additional Information

- Dutch
 - The **Dutch Republic's** first settlement in India, **Fort Geldria or Fort Geldaria** , was located in **Pulicat, Tamil Nadu** , and served as the **capital of Dutch Coromandel**.
 - The **Dutch East India Company** built it in **1613**, and it became the **local administrative centre in 1616**.
 - In the year **1605** , the **Dutch** established their **first factory in Masaulipatam, Andhra Pradesh**.

- **British**
 - **Fort St. George** was the **first fortress in India**, built by the **British East India Company in 1640** . It was **founded in 1644**.
 - It is home to the well-known **St Mary's Church** (an ancient Anglican church), a **museum** (which includes antics and artifacts from British rule), and **Wellesley House** (paintings of the Fort Governer.)
- **French**
 - **Fort Louis** , also known as **Fort Saint Louis** , was a **French fort** located at **Pondicherry** on India's eastern coast.
 - The fort was built around **1701 by François Martin** and completed posthumously around **1706**.
 - A canal separated the native and European settlements.

77. Answer: b

Explanation:

The correct answer is Sikkim.

★ Key Points

- **Sikkim** became the **first totally organic state in 2016** , with the **goal of protecting the environment** , its delicate **ecosystem** , and **rich biodiversity** , as well as offering a **healthier lifestyle** for its residents.
- The declaration was the culmination of a process that started in 2003, the year when it stopped imports of chemical fertilizers into the State.
- The state won the prestigious **Future Policy Gold Award from the UN Food and Agriculture (FAO)** , after beating **51** nominations from around the world. **Sikkim Chief Minister Pawan Kumar Chamling** received the coveted award.

★ Additional Information

- **Organic farming** is a type of agriculture that uses **pesticides made from organic manure and animal or plant waste** . Chemical pesticides and synthetic fertilizers were causing environmental harm, thus this farming began as a response.

- Sikkim

- It is part of the **Eastern Himalayas** , is known for its biodiversity, which includes **alpine and subtropical climates** , as well as being home to **Kangchenjunga, India's highest peak** and the **world's third-highest peak** .
- **Gangtok** is the **capital** and largest city in Sikkim.
- Sikkim Chief Minister **Pawan Kumar Chamling's 24.4 years stint (December 1994 to May 2019)** is the **longest** ever term by a chief minister of any Indian state, surpassing **Jyoti Basu's 23 years in West Bengal**.
- **Cardamom** and **ginger** are the cash crops of Sikkim.
- Sikkim is the **second-largest** cardamom producer state in India after **Kerala**.
- The **highest lakes** in India are **Gurudrongmar Lake** and **Cho Lhamo Lake** , both in Sikkim.
- Sikkim, which makes up **0.5 percent** of India's landmass, has **84 glaciers** , the **largest number** compared to any other state or union territory.
- Only after **Darjeeling, West Bengal**, Sikkim has the **Highest number of Gurkhas** residing in the state and probably in the world.
- **Dalle Khorsani** , from Sikkim, is known to be one of the **world's hottest chillies**.
- **Current Chief Minister** – Prem Singh Tamang
- **Governor** – Ganga Prasad

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78. Answer: d

Explanation:

The correct answer is South Central Asia.

★ Key Points

- South-Central Asia has the **highest population density** in the world, followed by **East and South-East Asia**.
- South Asia has a **population** of about **1.891 billion people** , or roughly **one-fourth of the world's population** , making it the world's most populous and densely populated geographical region.

- **The reason** is people prefer to live on plains more than mountains or plateaus and they live more in moderate climates than extreme hot or cold. From the **agricultural** point of view, **fertile lands** are preferred. **Areas with mineral deposits** are more populated.

★ Additional Information

- **Population density** refers to the number of people living in a unit area of the earth's surface.
- **Data on population density** can be used to **calculate** demographics and examine interactions with ecosystems, human health, and infrastructure.
- According to the **2011 census**, the density of population in India is **382 persons per sq km**.
- Delhi (**11,320**) turns out to be the most densely inhabited followed by Chandigarh (**9,258**), among all States/UTs, both in the 2001 and 2011 Census.

79. Answer: d

Explanation:

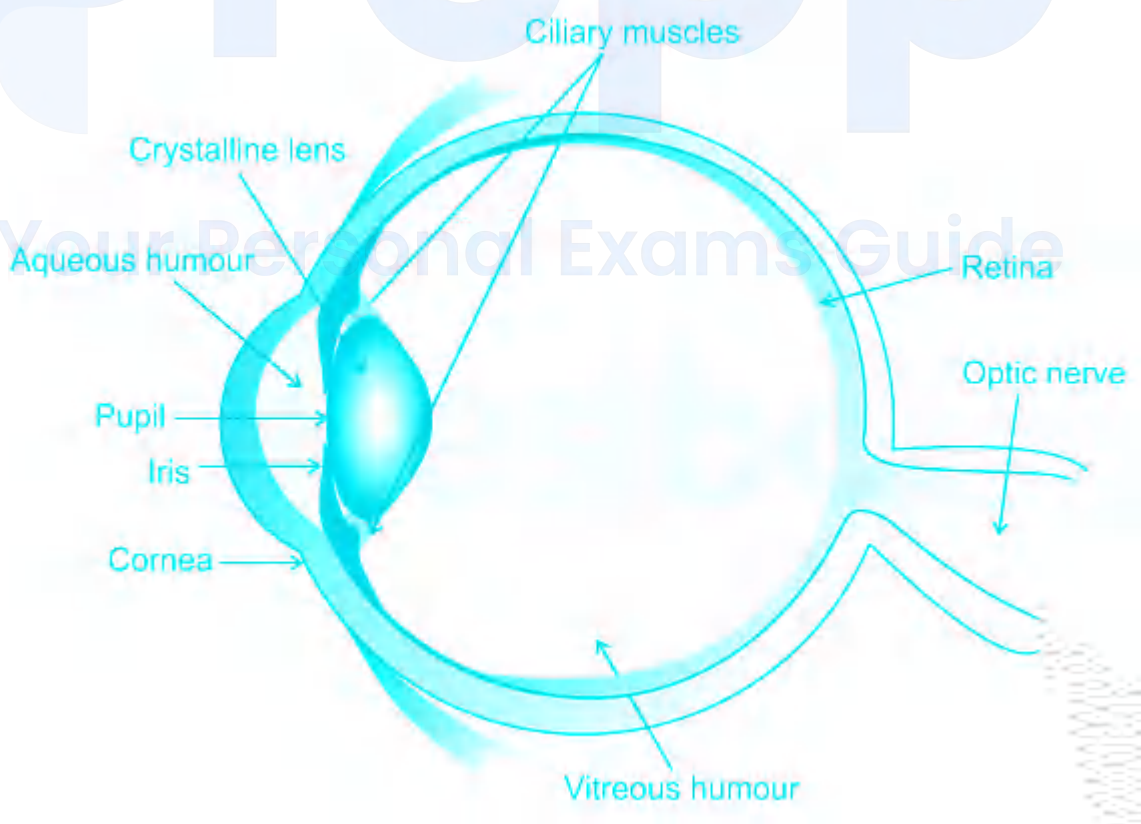
The correct answer is Cornea.

★ Key Points

- **Cornea**
 - The cornea is the **front part of the eye bulging outwards**.
 - It is made up of a **transparent substance**.
 - It is **uniformly thick**.
 - The **outer surface** of the cornea is **convex in shape**.
 - Because of this shape, when the light rays coming from an object enter the eye through the cornea, it just **bends or refracts**.
 - It covers the **pupil (the opening at the center of the eye)**, **iris (the colored part of the eye)**, and the **anterior chamber of the eye (the fluid-filled inside of the eye)**.

★ Additional Information

- **Retina**
 - The **retina** contains the cells that **sense light (photoreceptors)** and the **blood vessels** that nourish them.
 - The **macula** , a **small section of the retina** with millions of closely packed **photoreceptors** , is the most **sensitive component** of the retina.
- **Pupil**
 - **Light travels through the pupil** after passing through the cornea.
 - It is the **black dot** in the middle of the eye.
 - The pupil of the eye is a **gateway that allows and regulates light** to reach the retina. This is part of the process which allows us to **perceive images**.
- **Iris**
 - The amount of **light that enters** the eye is controlled by the iris
 - It is a **circular, colourful region** of the eye that **surrounds the pupil**.
 - When the **environment is dark** , the iris allows **more light** into the eye (**enlarging or dilating the pupil**), and when the **environment is bright**, the iris allows **less light** into the eye (**shrinking or constricting the pupil**).



80. Answer: d

Explanation:

The correct answer is Chennai.

★ Key Points

- **UNESCO Creative Cities Network**
 - The UNESCO Creative Cities Network is a UNESCO project that began in **2004** with the goal of **promoting cooperation among cities** that consider **creativity** a critical component of their **urban development**.
 - The **246 cities** that now make up this network are working toward a **shared goal** : putting creativity and culture industries at the centre of their local development strategies while also engaging actively on a **global scale**.
- As of **November 2019** , there are **five Indian cities** in **UNESCO Creative Cities Network (UCCN)** as follows:
 - **Jaipur** – Crafts and Folk Arts(2015).
 - **Varanasi** – Creative city of Music (2015).
 - **Chennai** – Creative city of Music(2017).
 - **Mumbai** – Film (2019).
 - **Hyderabad** – Gastronomy (2019).
 - **Srinagar** – Crafts and Folk Art (2021).
- UNESCO: United Nations Educational, Scientific and Cultural Organization.
- UNESCO's Headquarter - **Paris, France**
- UNESCO's Head - **Audrey Azoulay**

81. Answer: c

Explanation:

the correct answer is Nitrogen.

★ Key Points

- **Protein synthesis** accounts for a major part of the **energy** required for **plant growth**.
 - **Amino acids** include **nitrogen**, which is a necessary component. All amino acids carry nitrogen in the amino group bonded to the α -carbon atom. Therefore, the name amino acids. **Proteins** are biopolymers of amino acids.
 - In the absence of **nitrogen**, protein synthesis is impossible.

★ Additional Information

- **Calcium**
 - Calcium (Ca) is essential for the **formation of plant tissues** and for the **improvement of plant growth**.
 - It is responsible for **holding plant cell walls together**.
 - It's also important for **activating enzymes** and **sending signals** that **coordinate cellular functions**.
- **Sodium**
 - Sodium is not an essential element for plants but can be used in small quantities, similar to **micronutrients**, to aid in the **metabolism** and **synthesis of chlorophyll**.
- **Chlorine**
 - Chlorine is crucial for **plant photosynthesis** as it is involved in the opening and closing of **stomata** (pores in leaves that enable plants to take in and release carbon dioxide, oxygen, and other gases as required).
 - It also helps **ensure leaves are firm**.

82. **Answer: c**

Explanation:

The correct answer is Karnataka.

★ Key Points

- Pulakeshin I established the **Chalukya dynasty in 543**.
- Pulakeshin I took **Vatapi** (modern Badami in **Bagalkot district, Karnataka**) under his control and made it his **capital**.
- "**Chalukyas of Badami** " is how Pulakeshin I and his descendants are known.
- They ruled over an empire that comprised the entire state of **Karnataka** and **most of Andhra Pradesh** in the **Deccan** .

★ Additional Information

- **Jayasimha** was the **first emperor** of the Chalukya dynasty of Vatapi (modern Badami).
 - In the **early sixth century** , he governed the region around modern Bijapur and was the **grandfather** of the **dynasty's first sovereign ruler, Pulakeshin I**.
- Pulakesin I, Kirtivarman I, Mangalesha, Pulakesin II, Vikramaditya I, and Kirtivarman II are some of the famous rulers of the Chalukya dynasty.
- The Pallava ruler Narsimhavarman 'Mammala' invaded the Chalukyan kingdom, killed Pulakesin II, and captured Vatapi. He adopted the title **Vatapikonda** i.e. the conqueror of Vatapi.
- In 757 AD, Chalukyas were overthrown by their feudatories, the **Rashtrakutas** .
- Despite being **Hindus** , the Chalukya kings were **tolerant to Buddhism and Jainism**.
- The **Vesara style of architecture** is well represented in the **Chalukya temples**. This is also called the **Deccan style or Karnataka Dravida or Chalukyan style**. It is a combination of Dravida and Nagara styles.

83. Answer: c

Explanation:

The correct answer is Ramanathan Krishnan.

★ Key Points

- **Ramanathan Krishnan**
 - In **1954**, **Ramanathan Krishnan** beat **Ashley Cooper** in the final to become **the first Asian to win the boys' singles title at Wimbledon**.

- He reached the Wimbledon semi-finals twice in **1960 and 1961** and gained a **career-high ranking of World No. 6** .
- He was born in **1937** in the small village of **Tenkasi in Nagercoil, Tamil Nadu**.

★ Additional Information

- **Ramesh Krishnan** , in **1979** , won the **junior Wimbledon title** by defeating **David Siegler** in the final **6-0 6-2**.
 - He is from **Madras**.
- **Anand Amritraj** , along with his younger brothers **Vijay and Ashok** , were among the first Indians to compete on the **international tennis tour** .
 - Anand and Vijay were **semifinalists** in the **men's doubles at Wimbledon in 1976**.

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INDIAN WINNERS AT WIMBLEDON

1	RAMANATHAN KRISHNAN	1954	BOY'S SINGLE
2	RAMESH KRISHNAN	1979	BOY'S SINGLE
3	LEANDER PAES 1999, 2003, 2010, 2015	1990 1999	BOY'S SINGLE DOUBLES MIXED DOUBLS
4	MAHESH BHUPATHI 1999, 2002, 2005	1999 2002, 2005	DOUBLES MIXED DOUBLS
5	SANIA MIRZA	2015	DOUBLES
6	SUMIT NAGAL	2015	BOY'S SINGLE

84. Answer: a

Explanation:

the correct answer is Allicin.

★ Key Points

- **Allicin**

- **Garlic's** unique **odour** comes from **allicin** ,an **oily, slightly yellow substance**.
- Garlic includes around **33 sulphur compounds** , which are responsible for the Allium species plants' distinctive **smell, taste, and biological features**.
- **Allicin**, also known as **diallyl thiosulfinate** , is the major thiosulfinate component found in **onions and wild garlic extracts**.
- Allicin does not exist in garlic until it has been crushed or sliced; **injury to the garlic bulb** activates the **enzyme allinase**, which converts **alliin to allicin**.

★ Additional Information

- **Cellulose**

- Cellulose is a **white fibrous substance** with **no flavor and odor, insoluble** in water and organic solvents.
- It is the main ingredient of **plant cell walls** . Cellulose chains are arranged in microfibrils or bundles of polysaccharides that are arranged in fibrils (bundles of microfibrils), which in turn make up the plant cell wall.
- **Wood, paper, and cotton** all contain cellulose.

- **Ethanol**

- Ethanol is an **organic chemical compound** .
- It is simple **alcohol** with the chemical formula **C₂H₆O** .
- Ethanol is a **volatile, flammable, colorless liquid** with a characteristic **wine-like odor and pungent taste**.
- It is used as a **solvent**, in the synthesis of other organic chemicals, and as an **additive to automotive gasoline**.
- Ethanol is also the **intoxicating ingredient** of many alcoholic beverages such as **beer, wine, and distilled spirits**.

- **Phenol**

- Phenol (also called **carbolic acid**) is an **aromatic organic compound** with the molecular formula **C₆ H₅ OH** .
- It is a **white crystalline solid** that is volatile.
- Phenol is used primarily in the production of **phenolic resins** and in the **manufacture of nylon and other synthetic fibers** .
- It is also used in **slimicides** (chemicals that kill bacteria and fungi in slimes), as a **disinfectant and antiseptic** , and in medicinal preparations

such as mouthwash and sore throat lozenges.

85. Answer: a

Explanation:

The correct answer is Telangana.

★ Key Points

• Pochampally Ikat sarees

- It is a saree made in **Bhoodan Pochampally**, **Yadadri Bhuvanagiri district**, **Telangana** State, India.
- They have **traditional geometric patterns** in the **ikat style of dyeing** .
- **Air India** , the official airline of the Indian government, has its cabin crew wear specially designed Pochampally silk sarees.
- Pochampally saree received **Intellectual Property Rights Protection or Geographical Indication (GI) status** in 2005.

★ Additional Information

• Telangana

- The state is known as **India's seed capital** and is located at the confluence of the **Krishna and Godavari rivers** in South India.
- Telangana has **17 Lok Sabha seats** and **119 assembly seats**.
- The present **Chief Minister** is **Kalvakuntla Chandrashekar Rao** , who took office on **2 June 2014** .
- The state already has **15 GI tags** in its account.
 - Pochampally Ikat
 - Silver Filigree of Karimnagar
 - Nirmal Toys and Craft
 - Nirmal Furniture
 - Nirmal Paintings
 - Gadwal Sarees
 - Hyderabad Haleem
 - Cheriya Paintings

- Siddipet Gollabhama
- Narayanpet Handloom Sarees
- Pochampally Ikat (Logo)
- Adilabad Dokra
- Warangal Durries
- Telia Rumal
- **Tamilnadu**
 - **Kanchipuram** , in the Tamil Nadu state, is well-known for its **silk sarees**.
 - Many people refer to these silk sarees as **Kanjivaram** .
 - Kanjivaram sarees are known for their **gorgeous motifs** created by hand-woven **golden zari work**.
- **Karnataka**
 - The **fineness, sheen, and beauty** of **Mysore silk** are legendary.
 - **Karnataka Silk Industries Corporation Ltd (KSIC)** , which holds the patent for its manufacture, is the only company that produces **Mysore silk and saree**.
 - **Maharaja Nalvadi Krishnaraja Wadiyar** created the **Mysore silk factory** in **1912**.
- **Kerala**
 - **Kerala sarees** , better known as **Kasavu sarees** , are symbolic of Kerala's tradition and culture.
 - The **white and gold sarees** are unique due to their natural hues, texture, and **gold border** which adds to their elegance.

86. Answer: a

Explanation:

The correct answer is Boat Racing.

★ Key Points

- Vallam kali
 - It is a **Kerala-based** traditional boat race. It is a type of **canoe racing** in which paddled war canoes are used.

- It is primarily held in the **springtime during the Onam harvest festival**.
- The **Nehru Trophy Boat Race** is a prominent **Vallam kali event** held annually at **Alappuzha, Kerala, India** , in the **Punnamada Lake** (Vembanad, also known as Punnamada is the longest lake in India, as well as the largest lake in the state of Kerala) .
- The winning boat at the Nehru Trophy takes home **₹5 lakh** .
- The main event is the **Chundan Vallam race** (a snake boat' that is roughly **30–35 metres** (100–120 ft) long and has **64 or 128 paddlers** onboard).
- As a result, the **snake boat race** is also known as **Vallam Kali** and is a popular **tourist attraction**.

★ Additional Information

- **Haryana** is known as a traditional powerhouse in sports like **kho-kho, judo, kabaddi, boxing, and wrestling** .
- List of a few well known **traditional games of the Indian states**:
 - Regional Indian martial arts
 - **Lathi khela** from **Bengal**
 - **Huyen langlon** from **Manipur**
 - **Kalari** from **Kerala**
 - **Gatka** from **Panjab region**
 - **Silambam** from **Tamil Nadu**.

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87. Answer: a

Explanation:

The correct answer is Mewati.

★ Key Points

- **Ratvai** dance is well-known in the **Mewat region of the state** .
- During the **rainy season** , men and women perform this dance together.
- This dance is popular at **Nuh and Firozpur Zirka of the Gurgaon region** .
- **Meo**, also called **Mewati** , is an **ethnic group** from the **Mewat region of north-western India** which includes the **Nuh district** (previously Mewat) in **Haryana**

and parts of adjacent **Alwar district and Bharatpur district in Rajasthan.**

- Meo's are **Muslim** and speak the **Indo-Aryan Mewati language.**

★ Additional Information

● **Khasi Tribe**

- The Khasi are an **ethnic group** from **Meghalaya** in north-eastern India, with a sizable population in the neighbouring state of **Assam** and parts of **Bangladesh.**
- "**Ka Pamblang Nongkrem** " is the most important dance of the "Khasis". It is celebrated in the **autumn season** and is essentially a **thanksgiving to God.**
- The Khasis are known for their **ability to weave cane mats, stools, and baskets** . They create a particular type of cane mat known as '**Tlieng,**' which has a useful life of about **20-30 years.**
- Under the Constitution of India, the Khasis have been granted the status of **Scheduled Tribe** .

● **Jatapus**

- In the Indian states of **Andhra Pradesh and Odisha** , the **Jatapu people** are classified as a **scheduled tribe.**
- The Adivasi tribe Jatapus are **pastoral farmers** by heritage. As a result of their acculturation, the Jatapus speak **Telugu** and have absorbed the **Telugu culture** in many respects.
- They observe "**Kandi Padaga**" as a significant holiday and worship "**Godlamma Devatha (Goddess)**" during the one-week-long celebration, which includes **animal sacrifice.**
- During the event, the **women perform the "Dimsa Dance."**

● **Bhil Tribe**

- The Bhil are tribal people who live in the states of **Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Andhra Pradesh, and Rajasthan.**
- The Bhil are recognized for being **skilled archers** with a thorough understanding of their surroundings.
- Traditionally, **guerilla warfare professionals** , most of them are now **farmers and agricultural labourers.** They're also **accomplished sculptors.**
- **Ghoomar** is a traditional folk dance of the Bhil tribe performed to **worship Goddess Sarasvati** which was later embraced by other Rajasthani

communities.

88. Answer: d

Explanation:

The correct answer is Tripura.

★ Key Points

- Tripura's famous cuisines include Muya Awandru, Mui Borok, and Chakhwi.

★ Additional Information

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Your Personal Exams Guide

<u>STATE</u>	<u>TRADITIONAL FOOD</u>
Uttarakhand	Kafuli
Himachal Pradesh	Dhaam
West Bengal	Aloo Posto
Rajasthan	Daal-Baati-Churma
Karnataka	Bisi Bele Bath
Goa	Feni, Balchão and Sorpotel
Jammu And Kashmir	Yakhni, Kahwa chai
Bihar	Litti Chokha
Meghalaya	Jadoh
Rajasthan	Dal Baati Churma
Andhra Pradesh	Pulihora, Gutti vankaya kura

Madhya Pradesh	Bhuttey Ke Kees, Daal Bafla
Odisha	Kora Kha, Chenna poda, Pakhala Bhata
Tripura	Muya Awandru, Mui Borok and Chakhwi
Assam	Khaar
Maharashtra	Vada pav , Pav Bhajji , Puran Poli and Misal pav
Haryana	Bajra Khichdi
Punjab	Sarso ka Saag and Makki di Roti
Kerala	Sadya
Gujarat	Undhiyu, Dhokla, Khaman, Muthia, Thepla' and Khandvi
Manipur	Chamthong or Kangshoi , Eromba , Morok Metpa , Singju , Paaknam , Chak-hao Kheer , Alu Kangmet and Nga-Thongba

89. Answer: b

Explanation:

The correct answer is Cheque.

★ Key Points

• Cheque

- A cheque is a **bill of exchange** in which one party instructs the bank to transfer funds to another party's bank account. It's a **negotiable instrument** protected by the **1881 Negotiable Instruments Act**.
- There are **three parties** involved in the transaction - The **drawer** is the person who writes the cheque, the **drawee** is the bank that has to transfer the funds, and the **payee** is the person whose name is on the cheque.
- A cheque can be **issued** against a **savings account or a current account**.
- A cheque is drawn from a particular bank and is always **payable on demand**.
- A cheque is **valid for three months** from the date of issuing (the date is indicated on the top right-hand corner of the cheque).
- There are **two main types of cheques** –
 - **Bearer Cheque** – is a type of cheque in which the bearer can encash the sum on presentation of the cheque before the authorized bank.
 - **Order Cheque** – is a type of cheque in which only the payee, whose name has been written on the cheque, can encash over the counter.

★ Additional Information

• Passbook

- A passbook, sometimes known as a **bankbook**, is a paper book used to **record bank or building society transactions** on a **deposit account**.
- These were traditionally used for accounts with **minimal transaction volumes**, such as **savings accounts**.

• Currency

- Currency is a kind of payment that can be used to **buy and sell products and services**. In a nutshell, **it's money**, usually in the **form of paper or coins**, issued by a government and widely accepted as a means of payment at face value.
- There are **180 currencies** recognized as **legal tender in United Nations (UN) member states**, **UN observer states**, partially recognized or

unrecognized states, and their dependencies.

90. Answer: a

Explanation:

The correct answer is Radha Krishna Mathur.

★ Key Points

- **Radha Krishna Mathur**
 - He is a **Tripura cadre Indian Administrative Service (IAS)** officer from the **1977 batch**.
 - In **November 2018**, he stepped down as **India's Chief Information Commissioner (CIC)**.
 - He has served as the **Union Defence Secretary, India's Secretary for Micro, Small, and Medium Enterprises**, and the **Chief Secretary of Tripura**.
 - RK Mathur has also served in the Central government as the **Development Commissioner in the Ministry of Textiles** and the **Chief Enforcement Officer in the Ministry of Textiles**.

★ Additional Information

- **Dineshwar Sharma**
 - Dineshwar Sharma (23 March 1954 – 4 December 2020) was an **Indian police officer**.
 - He was the **chief of the Indian Intelligence Bureau (succeeded by Rajiv Jain)**, that is the Director of Intelligence Bureau which is the highest-ranked post in the Indian Police Service (IPS).
 - He was also an **interlocutor** for the Indian government in the state of **Jammu & Kashmir**.
 - From **2019 till his death**, he served as the **34th Administrator of Lakshadweep**.
- **Anil Baijal**
 - Anil Baijal is the **21st Lieutenant Governor of Delhi** and is a retired **Central Government Civil Servant** of the Indian Administrative Service cadre

- He took over office on **31 December 2016** after the sudden resignation of **Najeeb Jung**.
- Vinai Kumar Saxena has been appointed new Lieutenant Governor of Delhi.
- **Girish Chandra Murmu**
 - He is India's **14th Comptroller and Auditor General** , as well as the **Inter-Parliamentary Union's external auditor** .
 - He is also the **chairman of the Asian Organization of Supreme Audit Institutions** and the **United Nations Panel of External Auditors**.

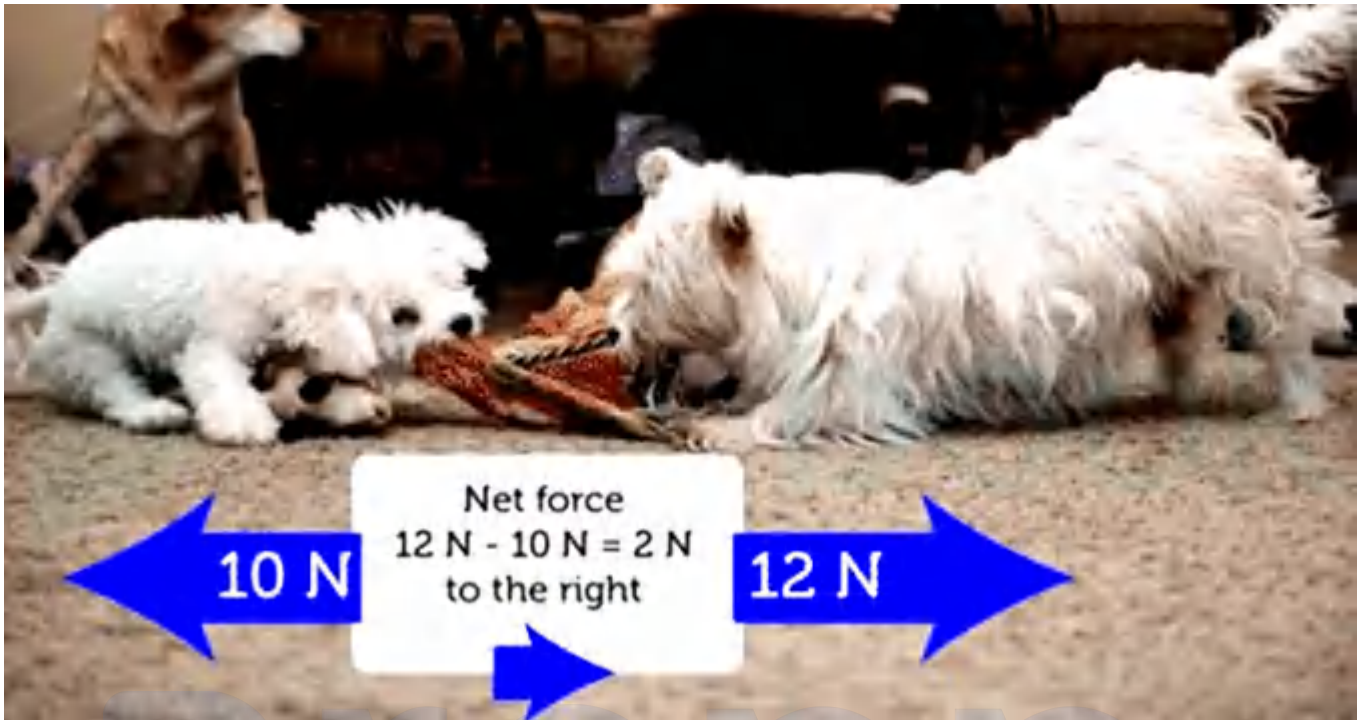
91. Answer: d

Explanation:

The correct answer is **difference**.

★ **Key Points**

- The **net force** acting on an object is the **combination of all of the individual forces acting on it**.
- If two forces act on an object in **opposite directions** , the net force is the **difference between the two forces** . In this case, the net force is always **greater than or equal to zero** but less than either of the individual forces.
- If two forces act on an object in the **same direction** , the net force is the **sum of the two forces** . In this case, the net force is always **greater than either of the individual forces**.
- **Balanced forces** acting on an object will **not change the object's motion**.



92. Answer: b

Explanation:

The correct answer is ₹ 15 lakh.

★ Key Points

- The Pradhan Mantri Vaya Vandana Yojana (PMVVY):
 - It is a **Government of India-sponsored pension scheme** for **senior citizens aged 60 and up**, which was available from May 4, 2017, until March 31, 2020. The scheme has been **extended through March 31, 2023**, for a total of **three years** beyond March 31, 2020.
 - After **three policy years**, the scheme gives a **loan of up to 75% of the purchase price**.
 - The scheme also allows for premature exit for the treatment of any critical/ terminal illness of self or spouse. On such a premature exit, 98% of the Purchase Price shall be refunded.
 - If the **pensioner dies** during the policy term of **10 years**, the benefits of the scheme can be availed by the nominee or the beneficiary.

- The benefits of the scheme are overall applicable to the pensioner, his/her spouse, and dependents.
- **Minimum Entry Age** : 60 years (completed)
- **Maximum Entry Age** : No limit
- **Policy Term** : 10 years
- **Investment limit** : Rs 15 lakh per senior citizen
- **Minimum Pension** :
 - Rs. 1,000/- per month
 - Rs. 3,000/- per quarter
 - Rs. 6,000/- per half-year
 - Rs.12,000/- per year
- **Maximum Pension** :
 - Rs. 9,250/- per month
 - Rs. 27,750/- per quarter
 - Rs. 55,500/- per half-year
 - Rs. 1,11,000/- per year

93. Answer: b

Explanation:

The correct answer is Simla Pact.

★ Key Points

- **Simla Pact**
 - The Simla Agreement, signed by **Prime Minister Indira Gandhi and Pakistani President Zulfikar Ali Bhutto** on **July 2, 1972**, at Shimla, the capital of the Indian state of Himachal Pradesh, was a **peace treaty between India and Pakistan**.
 - It followed the **Indo-Pakistani War of 1971**, which began after India intervened in East Pakistan as an ally of Bengali rebels who were fighting against Pakistani state forces in the **Bangladesh Liberation War**.
 - The treaty's stated **objective** was to "bring an end to the war and confrontation that has previously stained their relations" and to "conceive

the steps to be taken for further **normalization** of India–Pakistan relations, while also laying down the principles that should govern their future interactions.

★ Additional Information

• **Lucknow Pact**

- The Lucknow Pact was a **combined conference** of the **Indian National Congress** headed by **Maratha leader Bal Gangadhar Tilak** and the **All-India Muslim League** led by **Muhammad Ali Jinnah** conducted in **Lucknow** in **December 1916** that resulted in an agreement between the two organizations.
- The two parties agreed to provide **religious minorities** participation in **provincial legislatures** as part of the agreement.
- The **major achievement** of the Lucknow Pact was that the **moderates and radicals** reunited and they jointly demanded self-rule for India. All the Indians got united and protested against the Britishers for self-rule.

• **Agra Summit**

- The Agra Summit was a **landmark two-day conference** between **India and Pakistan** that took place between **July 14 and 16, 2001**.
- It was held in the hopes of settling **long-standing tensions** between **India and Pakistan**.
- A **suggestion** was presented at this summit to dramatically **reduce nuclear arsenals**, as well as **other issues** such as the **Kashmir dispute** and **cross-border terrorism**.
- The **Agra Treaty** was **never signed** because the **negotiations broke down** and the process collapsed.

★ Confusion Points

- Don't get confused by the spelling of Shimla. The pact is known as as '**Simla Pact**'. It is without the letter 'h'.

94. Answer: d

Explanation:

The correct answer is Kakatiya.

★ Key Points

- Rani Rudrama Devi (1263–1289 AD) was one of the **Kakatiya dynasty's most powerful rulers**.
- She was born as Rudramba to **King Ganapati Deva**, who ruled **Warangal, the capital of the Kakatiya kingdom** that had swayed over the entire Andhra Pradesh during the **13th century**.
 - The **most powerful ruler** of this Kakatiya kingdom was **Ganapatideva**, and he ruled for almost **63 years**.
- The Kakatiya Dynasty ruled over the present-day Telangana region from **1150 to 1323 CE**, with **Orugallu (later Warangal)** as its capital.

★ Additional Information

- Pandya dynasty
 - The Pandya dynasty, commonly known as the **Pandya of Madurai**, was an ancient **South Indian dynasty** that was one of **Tamilakam's three main kingdoms**, the other two being **the Cholas and the Cheras**.
 - After defeating the **Kalabras** in the **6th century AD**, a **King** named **Kadungon** formed the **first Pandyan empire**. **Nedunjelidan** was a **powerful ruler** of the **Pandya Dynasty**. He won a battle against the **northern Aryan army**.
- Chola Dynasty
 - The Chola kingdom known as **Cholamandalam** was situated to the northeast of the Pandya Kingdom between the **Pennar** and **Vellar** rivers.
 - The Chola kingdom corresponded to the modern **Tanjore** and **Tiruchirappalli** districts.
 - The earliest known Chola king was **Elara** who conquered Srilanka and ruled over it for nearly 50 years. Their greatest king was **Karikala** (man with charred leg) who founded Puhar (Kaveripatnam) and constructed a **160km embankment along the Kaveri river** with the help of 12,000 Srilankan slaves.

- **Chera Dynasty**

- The Chera dynasty was one of **the most important dynasties** in Kerala's **early history** , as well as areas of **Tamil Nadu** in southern India.
 - The **founder** of the Chera dynasty was **Uthiyan Cheralathan** also called **Udiyangeral**.
 - The greatest of Chera kings, however, was **Senguttuvan** or **Red Chera** . It is said that he invaded the north and even crossed the Ganges.
 - He was also the founder of the **Pattini cult** related to the worship of the Goddess of chastity - **Kannagi** .
 - The capital of Cheras was **Vanji** .
-

95. Answer: d

Explanation:

The correct answer is **1959**.

★ **Key Points**

- **In March 1959** , after years of scattered protests, a full-fledged uprising erupted, forcing the Dalai Lama to leave as the uprising was crushed by Chinese troops.
 - He went into **exile in India on March 31, 1959**, residing in **Dharamsala**, where he created a **democratically based shadow Tibetan authority**.
 - The **Dalai Lama** is the spiritual leader of **Tibetan Buddhism** , and in the tradition of Bodhisattva, he has spent his life committed to **benefiting humanity**.
 - The **14th Dalai Lama** , also known to Tibetans as **Gyalwa Rinpoche**, is the current Dalai Lama, Tibet's top spiritual leader and previous head of state.
-

96. Answer: d

Explanation:

The correct answer is Lignite.

★ Key Points

- **Lignite**
 - Lignite coal, often known as **brown coal**, is the **lowest grade of coal** with the **lowest carbon content**.
 - It is mostly employed in **energy generation** due to its **low heating value** and **high moisture content**.
- **Bituminous**
 - Bituminous coal is a coal that falls in between sub-bituminous and anthracite in terms of rank.
 - Bituminous coal has a **high heating value (Btu)** and is utilized in the United States for **electricity generation and steel production**.
 - When first encountering bituminous coal, it appears **blocky and shiny, and smooth**, but closer inspection reveals **thin, alternating, shiny, and dull layers**.
- **Anthracite**
 - The **highest rank** of coal.
 - It is a **hard, brittle, black glossy coal** with a **high percentage of fixed carbon** and a **low percentage of volatile matter**, sometimes referred to as **hard coal**.
- **Peat**
 - Peat is a **precursor** of coal.
 - Peat is a **soft, organic substance** made up of **partially decomposed plant and mineral materials**.
 - Peat undergoes physical and chemical changes (coalification) to become coal when it is exposed to **high pressure and heat**.

97. **Answer: d**

Explanation:

The correct answer is Ursa Major.

★ Key Points

• Ursa Major

- It is the **third-largest constellation in the sky** and the **largest in the northern hemisphere**.
- Its brightest stars create the **Big Dipper asterism**, also known as the **Plough**, which is one of the most recognizable shapes in the sky.
- It's also known as **the Saptarshi, the Great Bear, or the Big Dipper**.
- This constellation has **seven notable stars**.
- It has the appearance of a **large ladle or a question mark**. There are **three stars** in the handle of the ladle and **four** in its bowl.

★ Additional Information

- A **constellation** is a collection of stars that form a recognizable shape. **Ursa Major, Ursa Minor, and Cassiopeia** are the three major constellations.
- **Cassiopeia**
 - Another prominent constellation in the **northern sky** is Cassiopeia.
 - During the **winter**, it can be seen in the **early hours of the night**.
 - It resembles a **skewed letter W or M**.
- **Orion**
 - Orion is another well-known constellation that can be spotted in the **late evenings throughout the winter**.
 - It's one of the **sky's most beautiful constellations**.
 - There are also **seven or eight brilliant stars** on it.
 - The **Hunter** is another name for Orion. The **hunter's belt** is represented by the **three middle stars**. The **four brilliant stars** appear to be in a **quadrilateral formation**.
- **Ursa Minor**
 - Ursa Minor is sometimes called the **Little Dipper**. This is because its main stars form a shape that looks like a **smaller version of the Big Dipper** in the constellation Ursa Major.

98. Answer: b

Explanation:

The correct answer is fifth.

★ Key Points

- As of 2020, India produced about **729 million tonnes of coal**. However, it is a fact that domestic production is not able to meet the demand for coal in the country.
- India imported **247 million tonnes** of coal last year and spent 1.58 lakh crore as foreign exchange.
- Despite India being the **world's second-largest coal producer** and being the **5th largest country in terms of coal deposits**, with coal reserves that may last at least **100 years** more, the country is unable to produce adequate quantity of coal to meet the requirement of domestic industry and development.
 - **Jharkhand**, in **northeast India**, tops the list of **India's coal reserves** and output, accounting for more than **26% of the country's total**.
 - The majority of the coal deposits in **Jharkhand** are found in a narrow strip that runs east-west, approximately parallel to **24 degrees north latitude**, and dates back to the **Gondwana period**.
- In FY 2020-21, **Chhattisgarh** registered the **highest coal production of 158.409 MT**, followed by **Odisha, Madhya Pradesh, and Jharkhand**. Jharkhand has the **highest coal reserves** in India.
- **China** is the **world's largest coal producer** by a significant margin. In 2020, China accounted for over **50 percent of coal production worldwide**.

★ Additional Information

- The majority of **Gondwana coal** is **bituminous or anthracite**, with **carbon concentrations ranging from 60 to 90%**. Before being used in the **iron and steel industry**, bituminous coal is converted into **coke**.
- **Jharkhand, Orissa, Chhattisgarh, West Bengal, Madhya Pradesh, Andhra Pradesh, Maharashtra, Uttar Pradesh, Bihar, Sikkim, and Assam** are among the states possessing **Gondwana coal fields**, with the number of reserves in the same.

- **Talcher coalfield** is renowned as **India's largest coal reserve** and is commonly referred to as the **state's "black diamond."**
 - The Talcher region is known throughout the country for having the **country's greatest resources of high-quality coal.**
- The **Deucha-Pachami-Dewanganj-Harinsinga coal block** is the **world's second-biggest coal block** and **India's largest.**

99. **Answer: a**

Explanation:

The correct answer is Vergheese Kurien.

★ Key Points

- The **White Revolution** is the achievement of **Kaira district milk producers and co-operative union** which owns and operates the **Amul dairy.**
- **Vergheese Kurien** is renowned as **'Milkman of India'** and the **'Father of the White Revolution'** of the **1970s.**
- Kurien joined hands with **Tribhuvandas Patel**, **founder of the Kaira dairy farmers' union**, to turn the Kaira dairy movement into a nationwide cooperative called **Anand Milk Producers Union Limited (AMPUL)**, later shortened to **Amul.**
 - This was accomplished by establishing a **"national milk grid"** that spans more than **700 Indian villages and cities.**
- **Kurien** has also received accolades such as the **Ramon Magsaysay Award** and the **Water Peace Prize** and the **World Food Prize.**
- The Government of India honoured him with the **Padma Shri** in **1965.**

★ Additional Information

- **Azar Iqbal**
 - In the field of **Urdu poetry and literature**, **Azhar Iqbal** is a well-known and respected figure.
 - In **2015**, he established the **Harfkaar Foundation** to promote **theatre, dastangoi, poetry**, and other **arts forms**, with a concentration on

Urdu/Hindi literature.

- **Baba Amte**
 - **Murlidhar Devidas Amte** , popularly known as Baba Amte, was an **Indian social worker and activist** who was most recognised for his work in the **rehabilitation and empowerment of leprosy patients**.
 - Baba Amte spent his entire life dedicated to **servicing humanity**, and he lived by the motto "**Work Builds; Charity Destroys.**"
 - To help individuals suffering from **leprosy** , Baba founded **Anandwan (Forest of Joy)**.
- **Sunderlal Bahuguna**
 - He was an **Indian environmentalist** and **Chipko movement leader** who lived from **9 January 1927 to 21 May 2021**.
His wife came up with the idea for the **Chipko movement**.
 - He fought for the **preservation of forests** in the **Himalayas** , first as a member of the Chipko movement in the **1970s**, and later spearheaded the **anti-Tehri Dam movement** from the **1980s to early 2004**.
 - Chipko movement, also known as **Chipko Andolan** , was a **nonviolent social and ecological movement** in India in the 1970s led by **rural villagers** , notably **women** , with the **goal of conserving trees and forests** threatened by government-sponsored logging.

100. Answer: b

Your Personal Exams Guide

Explanation:

The correct answer is Sania Mirza.

★ Key Points

- **Sania Mirza**
 - She is a professional **tennis player** from India.
 - She is a former **world No. 1 in doubles** and has **six Grand Slam titles** to her credit.
 - From **2003** until her retirement from singles in **2013** , she was ranked by the **Women's Tennis Association** as **India's No. 1 player** .

- Sania Mirza has also been conferred with the **Arjuna Award in 2004** ,**Padma Shri in 2006** ,**Rajiv Gandhi Khel Ratna** (now called the **Major Dhyan Chand Khel Ratna Award**) in **2015**, and the **Padma Bhushan** in **2016**.

★ Additional Information

- **Hima Das**

- Hima Das, also known as **Dhing Express** , is a sprinter from **Assam, India**.
- She currently owns the Indian national record in the **400 metres** , clocking a time of **50.79 seconds** at the **2018 Asian Games** in **Jakarta, Indonesia**.
- On **September 25, 2018** , the President of India presented her with the **Arjuna Award** .

- **Dutee Chand**

- Dutee Chand is a **professional sprinter** from **Odisha, India** who is currently the **national champion in the women's 100 metres** .
- She is the **first Indian woman** to win a **gold medal** in a **global 100 m race**.
- At the **2018 Asian Games in Jakarta** , Chand won **two medals** . Chand's **silver medal** in the **women's 100m finals** was **India's first** in the category in **32 years** since **PT Usha's** performance in **1986**.
- She is only the **third Indian woman** to ever qualify for the **Summer Olympic Games** in the **Women's 100-meter event**.
- "**Fiercely Female: The Dutee Chand Story**" by **Sundeep Mishra** is a book written on Dutee Chand's life.

- **Mary Kom**

- **Mangte Chungneijang Mary Kom OLY**, from Manipur, is an Indian politician, **amateur boxer** , and incumbent Member of Parliament, Rajya Sabha.
- **Six-time AIBA Women's Boxing Champion** , Mary Kom is a renowned athlete and face of **women boxing** in India.
- Mary Kom was honoured with the **Padma Vibhushan in 2020** , the second-highest civilian award, by **President Ram Nath Kovind**.
- "**Unbreakable: An Autobiography**" book by **Mary Kom**.