

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



UPTET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC MTS Previous Year Paper (Held on: 8 July 2022 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 Intelligence & Reasoning	25	25	0.25	1
2	Numerical Aptitude	25	25	0.25	1
3	General English	25	25	0.25	1
4	General Awareness	25	25	0.25	1

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

General Intelligence & Reasoning

1. In a certain code language, 'VIOLET' is written as 'TJMMCU', and 'MARKET' is written as 'KBPLCU'. How will 'ROCKET' be written in that language? (+1, -0.25)

- a. PPALCU
- b. UCALTP
- c. GGSJAL
- d. PAPPLU

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

416 : 614 :: ?

- a. 384 : 843
- b. 286 : 682
- c. 483 : 843
- d. 592 : 925

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

12, 25, 51, 103, 207, ?

- a. 415
- b. 413

c. 416

d. 414

4. In a certain code language, if bread is called butter, butter is called blood, blood is called water, water is called cheese, and cheese is called toner, then what is red in colour? (+1, -0.25)

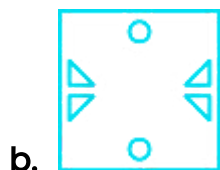
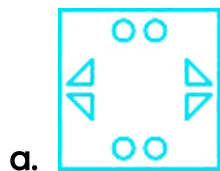
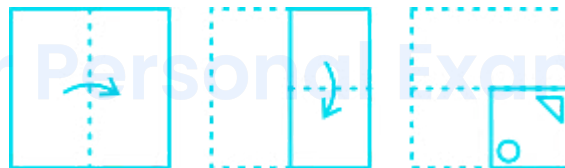
a. Water

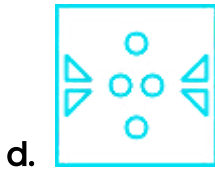
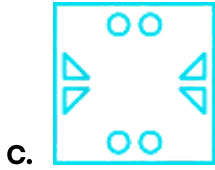
b. Butter

c. Toner

d. Blood

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

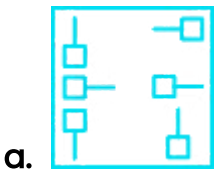
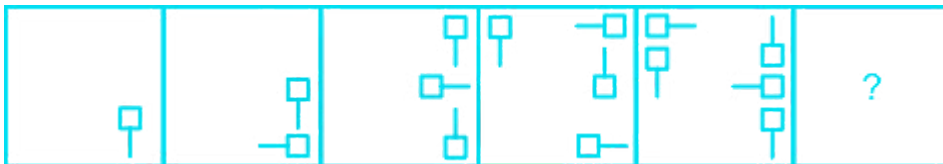


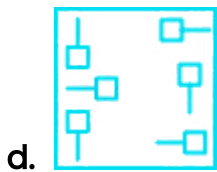
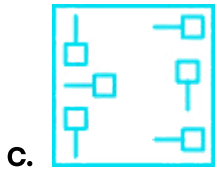
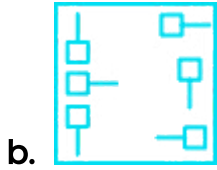


6. In a certain code language, 'READS' is written as 'IVZWH', and 'FRIBC' is written as 'UIRYX'. How will 'GHKTX' be written in that language? (+1, -0.25)

- a. TSPGC
- b. TSPCG
- c. TTPGC
- d. TSPGD

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





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

40, 80, 200, 600, 2100, ?

- a. 9600
- b. 6300
- c. 8400
- d. 10500

9. Seven girls G1, G2, G3, G4, G5, G6 and G7 sit in a row facing towards the north (+1, -0.25)

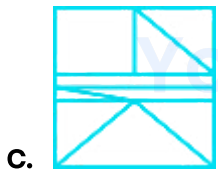
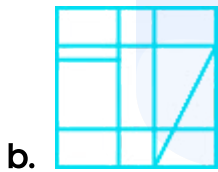
(not necessarily in the same order). G4 sits fifth to the right of G1. G4 does not sit at any of the extreme ends. G6 sits exactly in the middle of the row. G6 sits third to the left of G2. Only two girls sit between G7 and G5. G7 is not an immediate neighbour of G6. Who are the immediate neighbours of G3?

- a. G4 and G2

- b. G5 and G7
- c. G6 and G7
- d. G1 and G2

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

(+1, -0.25)



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

(+1, -0.25)

P4 : N9 :: M16 : K25 :: G49 : ?

- a. H55
- b. F64
- c. I72
- d. E64

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

BAL : ODE :: AGR : ?

- a. UKD
- b. UJE
- c. VJD
- d. UJD



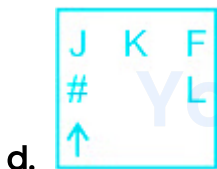
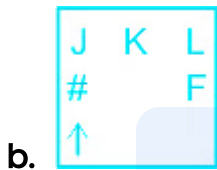
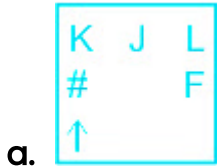
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13. In a certain code language, 'TOPICS' is written as 'QAGONS' and 'GREATH' is (+1, -0.25) written as 'FRYDQF'. How will 'BANDEF' be written in that language?

- a. DCBNYA
- b. DCBMZA
- c. DCBMYA
- d. DCCMZA

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

(+1, -0.25)



15. After interchanging the two signs + and ×, what will be the value of the given equation?

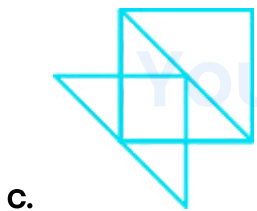
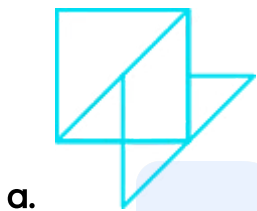
(+1, -0.25)

$$25 \times 5 + 4 \div 2 - 10 = ?$$

- a. 35
- b. 20
- c. 30

d. 25

16. Select the correct mirror image of the given figure when the mirror is placed to its right side. (+1, -0.25)



17. The ages of seven boys B1, B2, B3, B4, B5, B6 and B7 are compared. All boys have different ages. The age of B4 is less than three boys. The age of B1 is (+1, -0.25)

only greater than B7 and B3. The age of B5 is greater than B6 but less than B2. The age of how many boys is less than B6?

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

18. 6 persons A, B, C, D, E and F are sitting around a rectangular table facing the centre (not necessarily in the same order). Two persons are sitting on each larger side and one person is sitting on each shorter side. D is sitting opposite to F. A and E are sitting on the same side. Neither B nor E is sitting just next to D. C sits to the right of D. Which of the following statements is correct? (+1, -0.25)

I. C is the second to the left of F.

II. E is sitting opposite to C.

- a. Only I
- b. Only II
- c. Both I and II
- d. Neither I nor II

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

NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

21 : 9261 :: 17 : 4913 :: 8 : ?

- a. 488
- b. 2356
- c. 1024
- d. 512

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

Statements:

- I. No car is red.
- II. All reds are blues.

Conclusions:

- I. Some blues are not cars.
 - II. No red is a car.
- a. Both conclusions I and II follow
 - b. Neither conclusion I nor II follows
 - c. Only conclusion I follows

d. Only conclusion II follows

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

Statements:

Some blankets are pillows.

All pillows are cushions.

Conclusions:

I. Some blankets are cushions is a possibility.

II. Some cushions are pillows.

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

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

AZBZ : CYDY :: EXFX : GWHW :: IVJV : ?

- a. IJKV
- b. KVLV

c. KULU

d. IUJU

23. By interchanging the given two signs and two numbers (not digits), which of the following equations will NOT be correct? (+1, -0.25)

× and −, 27 and 35

I. $27 \div 7 - 6 \times 5 + 35 = 53$

II. $11 - 7 + 35 \times 420 \div 27 = 93$

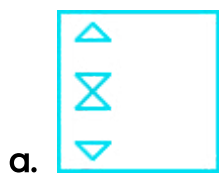
a. Neither I nor II

b. Only II

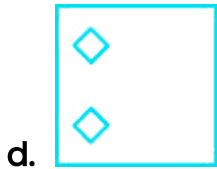
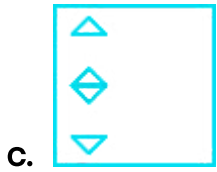
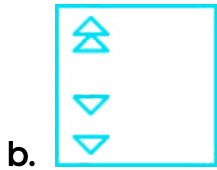
c. Both I and II

d. Only I

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



a.



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

RN, NP, JR, ?, BV

- a. ER
- b. ET
- c. FS
- d. FT

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Numerical Aptitude

26. What will be the compound interest on an amount of ₹ 8,000 for 3 months at 5% per annum, if the interest is payable quarterly? (+1, -0.25)
- a. ₹100
 - b. ₹150
 - c. ₹80
 - d. ₹120
-
27. A bag contains ₹5 and ₹10 coins for a total of 40 coins and a total amount of ₹310. What is the difference between the amount made up of all ₹10 coins and the amount made up of all ₹5 coins? (+1, -0.25)
- a. ₹125
 - b. ₹120
 - c. ₹110
 - d. ₹130
-
28. The cost price of a car is five times of the loss incurred on selling this car. What is the loss percentage? (+1, -0.25)
- a. 25%
 - b. 16.66%
 - c. 20%
 - d. 33.33%

29. What is the value of $5 + [12 + 3 \times \{5 + (6 \times 3 - 5)\}]$? (+1, -0.25)

- a. 75
- b. 74
- c. 71
- d. 66

30. The simple interest on a sum at 3% p.a. in 3 years is ₹315. What is the compound interest on the same sum at 4% p.a. in 2 years, interest compounded yearly? (+1, -0.25)

- a. ₹228.48
- b. ₹204
- c. ₹326.6
- d. ₹285.6

31. In an office with 40 officers, the average salaries of class-A, class-B and class-C officers are ₹600, ₹750 and ₹1,000 a day, respectively. The numbers of class-A, class-B and class-C officers in the office are in the ratio 5 : 4 : 1, respectively. Find the monthly average salary (in ₹) of an officer, all the 40 of them taken together. [Assume the number of days in a month to be 30.] (+1, -0.25)

- a. 25,800
- b. 21,000
- c. 24,030

d. 24,600

32. The volume of a cuboid is 3300 cm^3 . The sum of the length and the breadth of the cuboid is 37 cm. If the difference between the length and the breadth of the cuboid is 13 cm, then what is the height of the cuboid? (+1, -0.25)

a. 18 cm

b. 11 cm

c. 14 cm

d. 16 cm

33. Find the height of a right pyramid if its base is a square of side 80 cm and the volume of the pyramid is 16000 cm^3 . (+1, -0.25)

a. 4.5 cm

b. 7.5 cm

c. $2\sqrt{2}$ cm

d. 2.5 cm

34. A and B currently have an age ratio of 7 : 3. After 7 years this age ratio will become 2 : 1. After how many years from now will the age ratio between the ages of A and B become 3 : 2? (+1, -0.25)

a. 49 years

b. 42 years

c. 35 years

d. 28 years

35. P, Q and R can complete a task together in 15 days. P and R can complete the task together in 40 days. In how many days can Q complete the task alone? (+1, -0.25)

a. 30 days

b. 24 days

c. 21 days

d. 25 days

36. If $P = 2^3 \times 5^8$ and $Q = 3^5 \times 7^3$, then what is the least common multiple of P and Q? (+1, -0.25)

a. $3^5 \times 5^8$

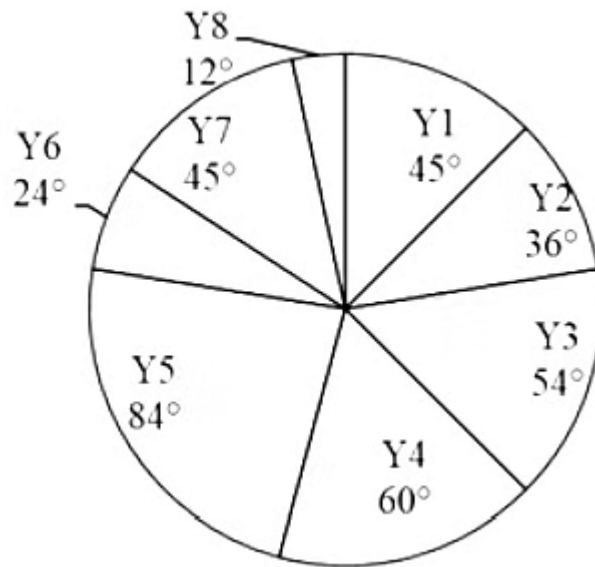
b. $5^8 \times 7^3$

c. $2^3 \times 3^5 \times 5^8 \times 7^3$

d. $3^5 \times 5^8 \times 7^3$

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

The following pie chart shows the sectors representing the shares of the number of matches played by a team in each of eight consecutive years in terms of the central angles (in degrees) with respect to the total number of matches played by the team in all the eight years taken together.



The total number of matches played by the team in the years Y2 and Y8 taken together is approximately what percentage of the total number of matches played by the team in all the eight years taken together?

- a. 13.33%
- b. 15.75%
- c. 10.25%
- d. 14.28%

38. The population of a village decreases every year at the rate of 3%. If the present population is 28227, what was the population of the village two years ago? (+1, -0.25)
- a. 31868
 - b. 30000
 - c. 32472

d. 30560

39. The price of kerosene is ₹48 per litre and the price of spirit is ₹30 per litre. (+1, -0.25)
In what ratio should the kerosene and spirit be mixed so that the profit after selling the mixture at ₹60 per litre will be 50%?

a. 1 : 1

b. 5 : 4

c. 2 : 3

d. 3 : 4

40. Pinky can swim 27 km downstream or 15 km upstream in 3 hours. What is (+1, -0.25)
the velocity of the current?

a. 3 km/h

b. 5 km/h

c. 4 km/h

d. 2 km/h

41. The monthly income of a person is ₹25,000. He spends 80% of his income (+1, -0.25)
and saves the rest. His nominal income and his nominal spending both increased by 10%. What will be his new savings?

a. ₹5,500

b. ₹ 6,000

c. ₹ 5,750

d. ₹ 5,000

42. Study the table given below and answer the question based on it. (+1, -0.25)

The given table shows the percentage of population affected by COVID-19 and the ratio of male to female affected in six different cities.

City	Percentage of Population Affected by COVID-19	Proportion of men and women diagnosed with COVID-19
Durjanpur	40	3 : 2
Sitapur	21	2 : 1
Durgapur	60	5 : 7
Shyampur	50	7 : 3
Haripur	55	6 : 5
Devpur	25	4 : 1

If in Haripur, the number of male patients of COVID-19 was 8436 and in Sitapur, the number of female patients of COVID-19 was 30% less than the number of female patients of COVID-19 in Haripur, then the number of patients of COVID-19 in Sitapur was What was the total number of patients?

- a. 16,872
- b. 14,763
- c. 19,794
- d. 13,536

43. The average of four consecutive odd numbers is 8. If the next odd number is also considered, then what will be the new average of these five numbers? (+1, -0.25)
- a. 9
 - b. 7
 - c. 10
 - d. 11
-

44. An article costs ₹750. It is marked up to give 30% profit. What is the selling price if a customer gets a discount of 15% on it? (+1, -0.25)
- a. ₹ 758.75
 - b. ₹ 828.75
 - c. ₹ 800
 - d. Same as the cost price
-

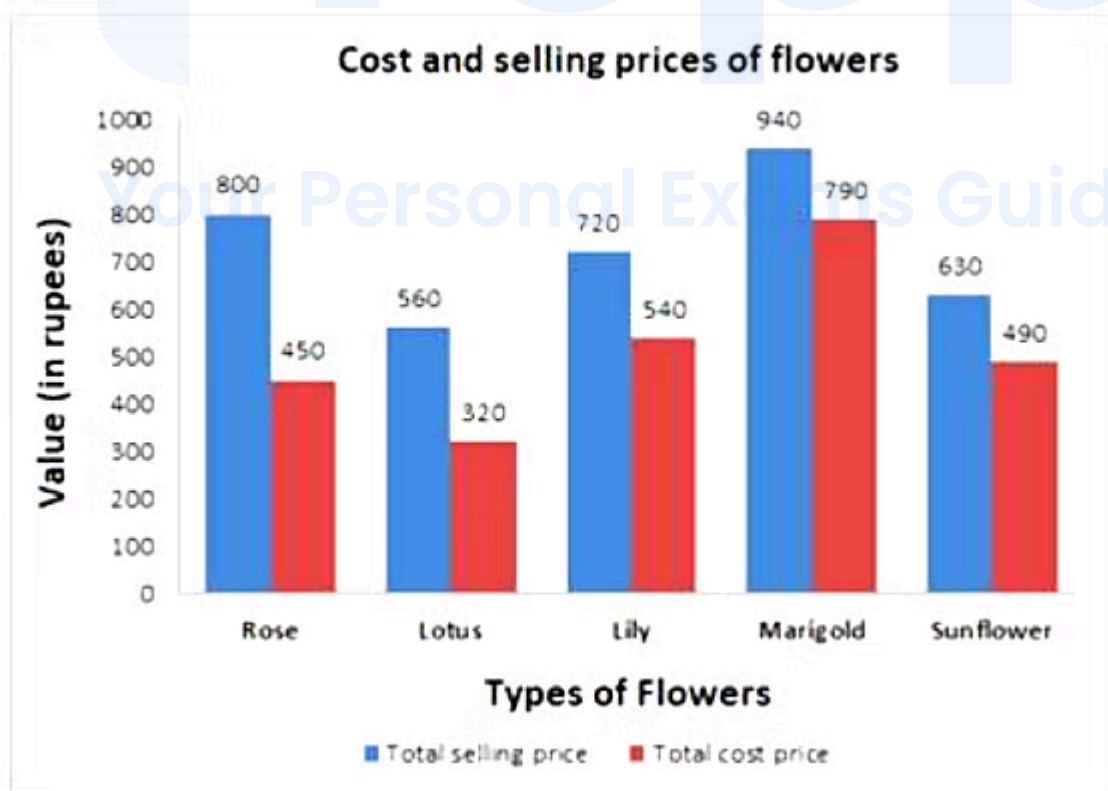
45. The diagonal of a rectangle is 20 cm. If its breadth is 12 cm, then what will be its length? (+1, -0.25)
- a. 15 cm
 - b. 16 cm
 - c. 18 cm
 - d. 17 cm
-

46. A alone can do a piece of work in 12 days. B alone can do the same work in 18 days. C alone can do the same work in 24 days. In how many days will they complete 65% of the work, if all three work together? (+1, -0.25)

- a. 3.6 days
- b. 3.9 days
- c. 4.2 days
- d. 4.5 days

47. Study the given bar-graph and answer the question that follows. (+1, -0.25)

The bar-graph given below shows the total selling price (in ₹) and the total cost price (in ₹) of five different flowers in a flower shop on a particular day.



The number of roses, lilies and sunflowers sold from that shop on that day were 7, 5, and 10, respectively. Find the sum of the profits earned by selling a rose, a lily and a sunflower on that day.

- a. ₹ 120
- b. ₹ 150
- c. ₹ 90
- d. ₹100

48. Find the length of a train, if it completely crosses two bridges of lengths 600 m and 300 m in 80 seconds and 60 seconds, respectively. (+1, -0.25)

- a. 120 m
- b. 130 m
- c. 600 m
- d. 110 m

49. The value of $16^2 - 256^{\frac{1}{4}} + 2197^{\frac{1}{3}}$ is: (+1, -0.25)

- a. 265
- b. 280
- c. 262
- d. 241

50. The selling price of a bulb is half of its cost price. What is the loss percentage? (+1, -0.25)
- a. 60%
 - b. 20%
 - c. 40%
 - d. 50%

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General English

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

The scientists have so far focused on improve cropped yields.

- a. improving crop
- b. improvement crop
- c. No improvement required
- d. improve cropping

52. The following sentence has been split into four segments. Identify the segment that contains a grammatical error. (+1, -0.25)

The brightest stars / can be 30,000 times / most luminous / than the Sun

- a. The brightest stars
- b. most luminous
- c. can be 30,000 times
- d. than the Sun

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

He persuaded other towns near Amman to send _____ soldiers to help him.

- a. its

- b. there
 - c. their
 - d. they
-

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

Callous

- a. Brutal
 - b. Problematic
 - c. Large
 - d. Humane
-

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

Caustic

- a. Acidic
 - b. Photogenic
 - c. Basic
 - d. Soothing
-

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

Could you spell your name _____, please?

- a. weakly

- b. never
- c. again
- d. forever

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

The courses provided by the training institute were more than enough .

- a. more then enough
- b. more enough
- c. most enough
- d. No improvement required

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

To walk the tight rope

- a. Be an expert
- b. Be very cautious
- c. Be well trained
- d. Be very nervous

59. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given (+1, -0.25)

options. If you don't find any error, mark 'No error' as your answer.

Land revenue was one of the / major source of income / for Britishers in India.

- a. No error
- b. Land revenue was one of the
- c. major source of income
- d. for Britishers in India

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

Pilots must be _____ at all times to keep their passengers safe during the flight.

- a. thirsty
- b. distant
- c. vigilant
- d. forceful

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

If she likes something, she'll buy it _____ much it costs.

- a. however
- b. whatever
- c. also

d. very

62. Select the sentence in which a word is INCORRECTLY spelt. (+1, -0.25)

- a. He hoped that he had won the prestigious award.
 - b. I could never be as talented as him.
 - c. His breathe smelled of garlic.
 - d. A woman gasped in horror at the sight of him.
-

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

Wicked

- a. Evil
 - b. Sinful
 - c. Errant
 - d. Moral
-

64. Select the most appropriate synonym of the underlined word. (+1, -0.25)

Medicines should be ordered by the generic name, not by the proprietary or trade name.

- a. Exclusive
- b. General
- c. Individual

d. Specific

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

Ms. Gupta expressed her _____ for my political understanding.

- a. admiration
 - b. location
 - c. strength
 - d. compassion
-

66. Select the most appropriate meaning of the underlined idiom. (+1, -0.25)

When those thugs come near you, run at the drop of a hat.

- a. Be dressed for a party
 - b. With all your belongings
 - c. Go on a short trip
 - d. Without delay
-

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

A person who makes maps

- a. Sinecure
- b. Anarchist

- c. Cartographer
 - d. Polyglot
-

68. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+1, -0.25)

He is / struggling to make / a honest living.

- a. struggling to make
 - b. No error
 - c. a honest living
 - d. He is
-

69. Select the correctly spelt word. (+1, -0.25)

- a. Institute
 - b. Insitute
 - c. Instute
 - d. Insetute
-

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

While travelling, one comes across the larger number of people.

- a. the large number off
- b. No improvement required
- c. an larger number of
- d. a large number of

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

In Delhi, while the bigger schools transport their students in their own or hired buses; others rely on vans, autos and e-rickshaws where many reckless drivers pack in too many children and drive (1) _____, often causing accidents. Many parents take time off their daily (2) _____ to do school-runs. Some use vehicles while others just walk their children to school. Two months ago, it was reported how in the (3) _____ of road-crossing facilities near schools, a bunch of parents were taking turns to play traffic marshals. Not so long ago, children could just walk or cycle to their schools, private tuition classes or sports practice. In fact, school authorities (4) _____ to admit students living within walkable distances so that they wouldn't have to take the school bus or public transport. As Delhi grew, its children (5) _____ not only traffic, broken infrastructure but also violence, air-pollution and overcrowded living conditions.

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

- a. humbly
- b. decisively
- c. rashly
- d. commonly

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

(+1, -0.25)

In Delhi, while the bigger schools transport their students in their own or hired buses; others rely on vans, autos and e-rickshaws where many reckless drivers pack in too many children and drive (1) _____, often causing accidents. Many parents take time off their daily (2) _____ to do school-runs. Some use vehicles while others just walk their children to school. Two months ago, it was reported how in the (3) _____ of road-crossing facilities near schools, a bunch of parents were taking turns to play traffic marshals. Not so long ago, children could just walk or cycle to their schools, private tuition classes or sports practice. In fact, school authorities (4) _____ to admit students living within walkable distances so that they wouldn't have to take the school bus or public transport. As Delhi grew, its children (5) _____ not only traffic, broken infrastructure but also violence, air-pollution and overcrowded living conditions.

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

- a. habit
- b. routines
- c. problems
- d. task

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

(+1, -0.25)

In Delhi, while the bigger schools transport their students in their own or hired buses; others rely on vans, autos and e-rickshaws where many

reckless drivers pack in too many children and drive (1) _____, often causing accidents. Many parents take time off their daily (2) _____ to do school-runs. Some use vehicles while others just walk their children to school. Two months ago, it was reported how in the (3) _____ of road-crossing facilities near schools, a bunch of parents were taking turns to play traffic marshals. Not so long ago, children could just walk or cycle to their schools, private tuition classes or sports practice. In fact, school authorities (4) _____ to admit students living within walkable distances so that they wouldn't have to take the school bus or public transport. As Delhi grew, its children (5) _____ not only traffic, broken infrastructure but also violence, air-pollution and overcrowded living conditions.

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

- a. absence
- b. non-compliance
- c. defiance
- d. reference



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

In Delhi, while the bigger schools transport their students in their own or hired buses; others rely on vans, autos and e-rickshaws where many reckless drivers pack in too many children and drive (1) _____, often causing accidents. Many parents take time off their daily (2) _____ to do school-runs. Some use vehicles while others just walk their children to school. Two months ago, it was reported how in the (3) _____ of road-crossing facilities near schools, a bunch of parents were taking turns to play traffic marshals. Not so long ago, children could just walk or cycle to

their schools, private tuition classes or sports practice. In fact, school authorities (4) _____ to admit students living within walkable distances so that they wouldn't have to take the school bus or public transport. As Delhi grew, its children (5) _____ not only traffic, broken infrastructure but also violence, air-pollution and overcrowded living conditions.

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

- a. rescued
- b. guided
- c. added
- d. preferred

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

In Delhi, while the bigger schools transport their students in their own or hired buses; others rely on vans, autos and e-rickshaws where many reckless drivers pack in too many children and drive (1) _____, often causing accidents. Many parents take time off their daily (2) _____ to do school-runs. Some use vehicles while others just walk their children to school. Two months ago, it was reported how in the (3) _____ of road-crossing facilities near schools, a bunch of parents were taking turns to play traffic marshals. Not so long ago, children could just walk or cycle to their schools, private tuition classes or sports practice. In fact, school authorities (4) _____ to admit students living within walkable distances so that they wouldn't have to take the school bus or public transport. As Delhi grew, its children (5) _____ not only traffic, broken infrastructure but also violence, air-pollution and overcrowded living conditions.

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

- a. faced
- b. replied
- c. called
- d. relied

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General Awareness

76. 'Loor' is a folk dance of which state of India? (+1, -0.25)

- a. Haryana
- b. Manipur
- c. Karnataka
- d. Kerala

77. The Congress split took place in _____. (+1, -0.25)

- a. 1905
- b. 1903
- c. 1907
- d. 1908

78. Poverty line measures poverty on the basis of: (+1, -0.25)

- a. expenditure only
- b. income level and literacy rate
- c. savings only
- d. income level or consumption expenditure

79. As on Jan 2022, who among the following has been appointed as the new Chairman of ISRO? (+1, -0.25)

- a. BN Suresh
 - b. S Somanath
 - c. K Sivan
 - d. ASK Kumar
-

80. The Indian National Congress was established in _____. (+1, -0.25)

- a. 1879
 - b. 1877
 - c. 1875
 - d. 1885
-

81. In which of the following grounds did Yuvraj Singh hit 6 sixes in an over of a T20 International match? (+1, -0.25)

- a. Wanderers Stadium
 - b. Kingsmead Stadium
 - c. Mabhida Stadium
 - d. Newlands Cricket Ground
-

82. Which of the following Articles of the Indian Constitution talks about joint sitting of both Houses in certain cases? (+1, -0.25)

- a. Article 110

- b. Article 128
 - c. Article 75
 - d. Article 108
-

83. 'The Diary of a Young Girl' is an autobiography of _____ . (+1, -0.25)

- a. Agatha Christie
 - b. Michelle Obama
 - c. Jessica Simpson
 - d. Anne Frank
-

84. Which feature of the Indian Constitution is borrowed from the Constitution of Britain? (+1, -0.25)

- a. Fundamental duties
 - b. Parliamentary government
 - c. Judicial review
 - d. Fundamental rights
-

85. Which of the given statements is correct regarding the properties of suspension? (+1, -0.25)

- I. Suspension is a heterogeneous mixture.
- II. The particles of a suspension can be seen by the naked eye.

- a. Only I
 - b. Neither I nor II
 - c. Both I and II
 - d. Only II
-

86. Spirogyra belongs to which group of plant kingdom? (+1, -0.25)

- a. Bryophyta
 - b. Pteridophyta
 - c. Thallophyta
 - d. Angiosperms
-

87. Kamala Narayan is known for which classical dance form? (+1, -0.25)

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

88. Kardang Monastery which is a Buddhist Pilgrimage is situated in which state of India? (+1, -0.25)

- a. Jharkhand
- b. Goa

- c. Himachal Pradesh
 - d. Kerala
-

89. In February 2022, which Indian state government announced that 'Hope Express' would be launched in the state to prevent cancer? (+1, -0.25)

- a. Odisha
 - b. Maharashtra
 - c. Karnataka
 - d. Chhattisgarh
-

90. Who will co-host the ICC Men's T20 World Cup 2024? (+1, -0.25)

- a. Australia
 - b. The United Kingdom
 - c. The United States of America (USA)
 - d. Sri Lanka
-

91. Which of the following crops takes almost a year to grow? (+1, -0.25)

- a. Sugarcane
- b. Peas
- c. Cucumber
- d. Rice

92. In 1526, _____ was defeated by Babur at Panipat. (+1, -0.25)

- a. Sikander Lodi
- b. Rana Lodi
- c. Bahlul Lodi
- d. Ibrahim Lodi

93. How many countries share land boundaries with India? (+1, -0.25)

- a. Seven
- b. Ten
- c. Eight
- d. Five

94. Which of the following is an example of sedimentary rocks? (+1, -0.25)

- a. Sandstone
- b. Granite
- c. Slate
- d. Marble

95. Pongal is a harvest festival of which state of India? (+1, -0.25)

- a. Tamil Nadu

- b. Mizoram
 - c. Rajasthan
 - d. Manipur
-

96. Which of the following is a young fold mountain? (+1, -0.25)

- a. The Alps
 - b. The Appalachians
 - c. Aravalli Range
 - d. The Vosges
-

97. Dharmasutras contain ----- . (+1, -0.25)

- a. tricks to capture an empire
 - b. norms for women only
 - c. techniques to recite shlokas
 - d. norms for rulers
-

98. With which of the following was Kadri Gopalnath associated? (+1, -0.25)

- a. Sitar
- b. Saxophone
- c. Tabla

d. Flute

99. Which of the following bodies publishes the Human Development Report? (+1, -0.25)

- a. United Nations Food Organization
 - b. United Nations Human Resource Development
 - c. World Health Organization
 - d. United Nations Development Programme
-

100. When the litmus solution is neither acidic nor basic then its colour is (+1, -0.25)

- a. purple
- b. red
- c. yellow
- d. blue

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Answers

1. Answer: a

Explanation:

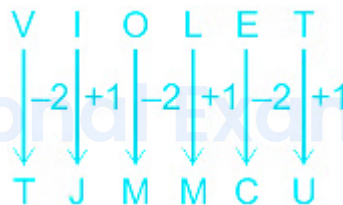
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is :-

Starting from first letter the alternate letters are subtracted with -2 .

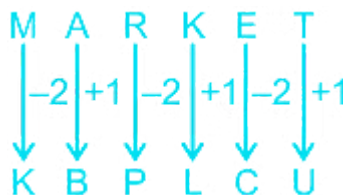
Starting from second letter the alternate letters are added with $+1$.

'VIOLET' is written as 'TJMMCU'.



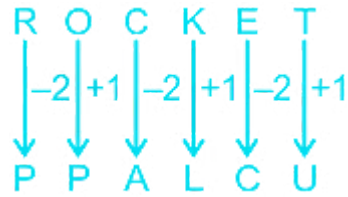
And

'MARKET' is written as 'KBPLCU'.



Similarly,

'ROCKET' will be written as :



Hence, the correct answer is "PPALCU".

2. Answer: b

Explanation:

The logic followed here is :-

Second number = Digits of first number is reversed.

416 : 614 → If we reverse 416, we get 614.

Similarly,

286 : 682 → If we reverse 286, we get 682.

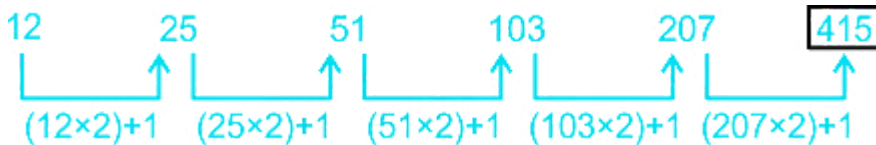
Hence, the correct answer is "286 : 682".

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3. Answer: a

Explanation:

The logic followed here is :-



Hence, the correct answer is "415".

4. Answer: a

Explanation:

The logic followed here is :-

Word	Called
Bread	Butter
Butter	Blood
Blood	Water
Water	Cheese
Cheese	Toner

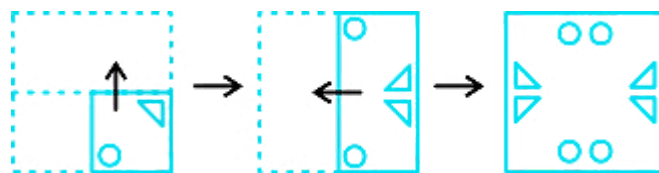
∴ Here, 'Blood' will be 'Red' colour, but here '**Blood**' is called '**Water**'.

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

5. Answer: c

Explanation:

After unfolding the given paper the figure formed is as shown below :



Hence, the correct answer is "Option 3".

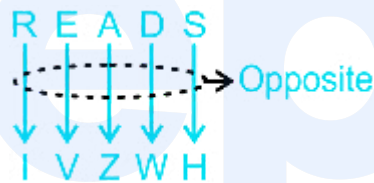
6. Answer: a

Explanation:

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

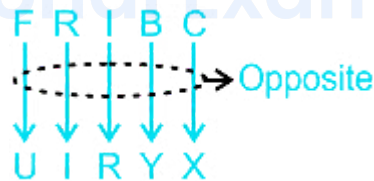
The logic followed here is :-

'READS' is written as 'IVZWH'.



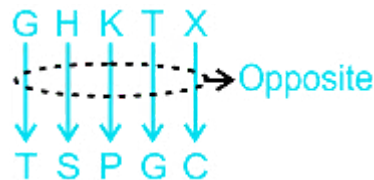
And

'FRIBC' is written as 'UIRYX'.



Similarly,

'GHKTX' will be written as :



Hence, the correct answer is "TSPGC".

7. Answer: d

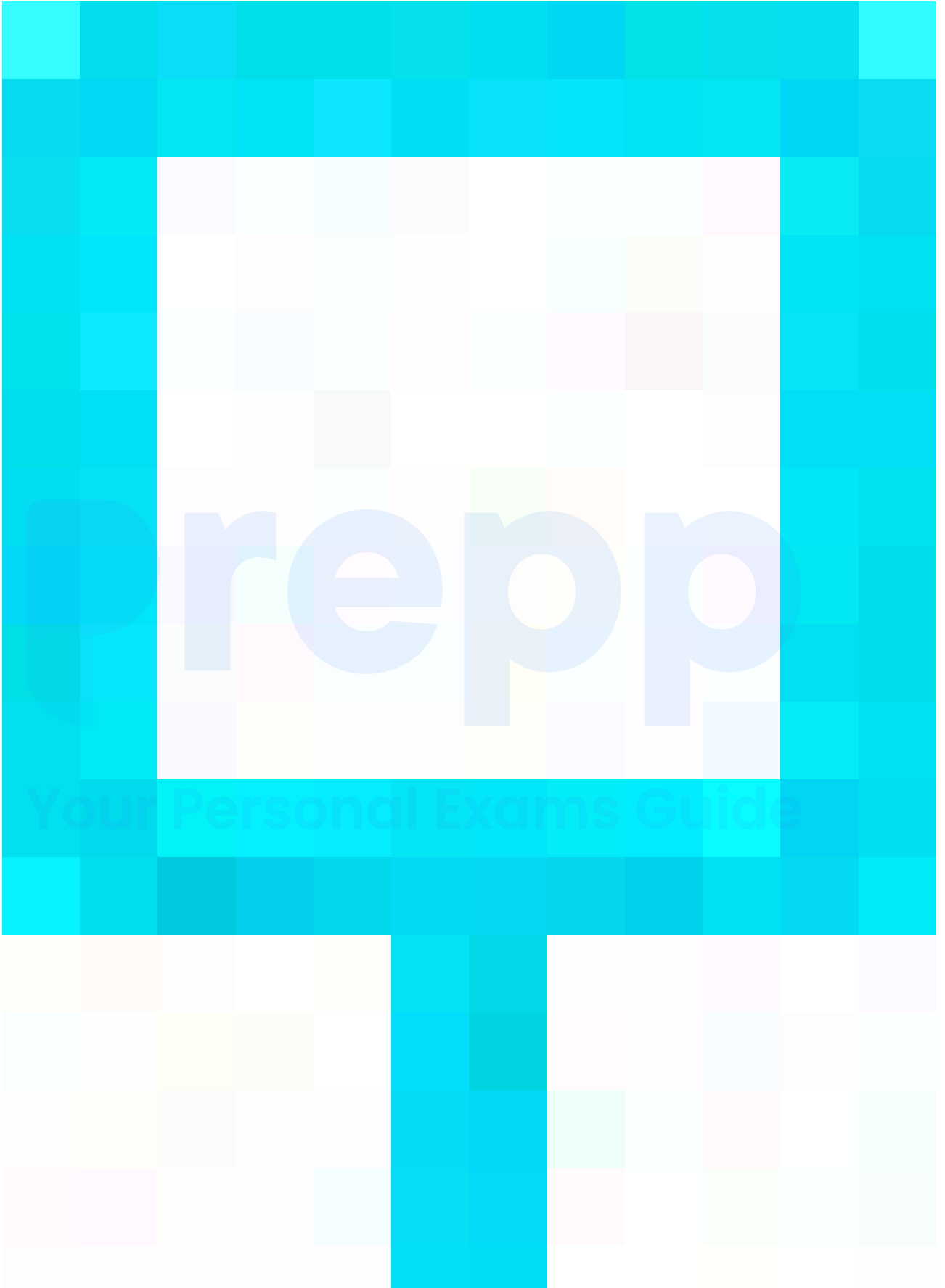
Explanation:

The image that can replace the question mark (?) in the following series is as shown below :

- The symbol "

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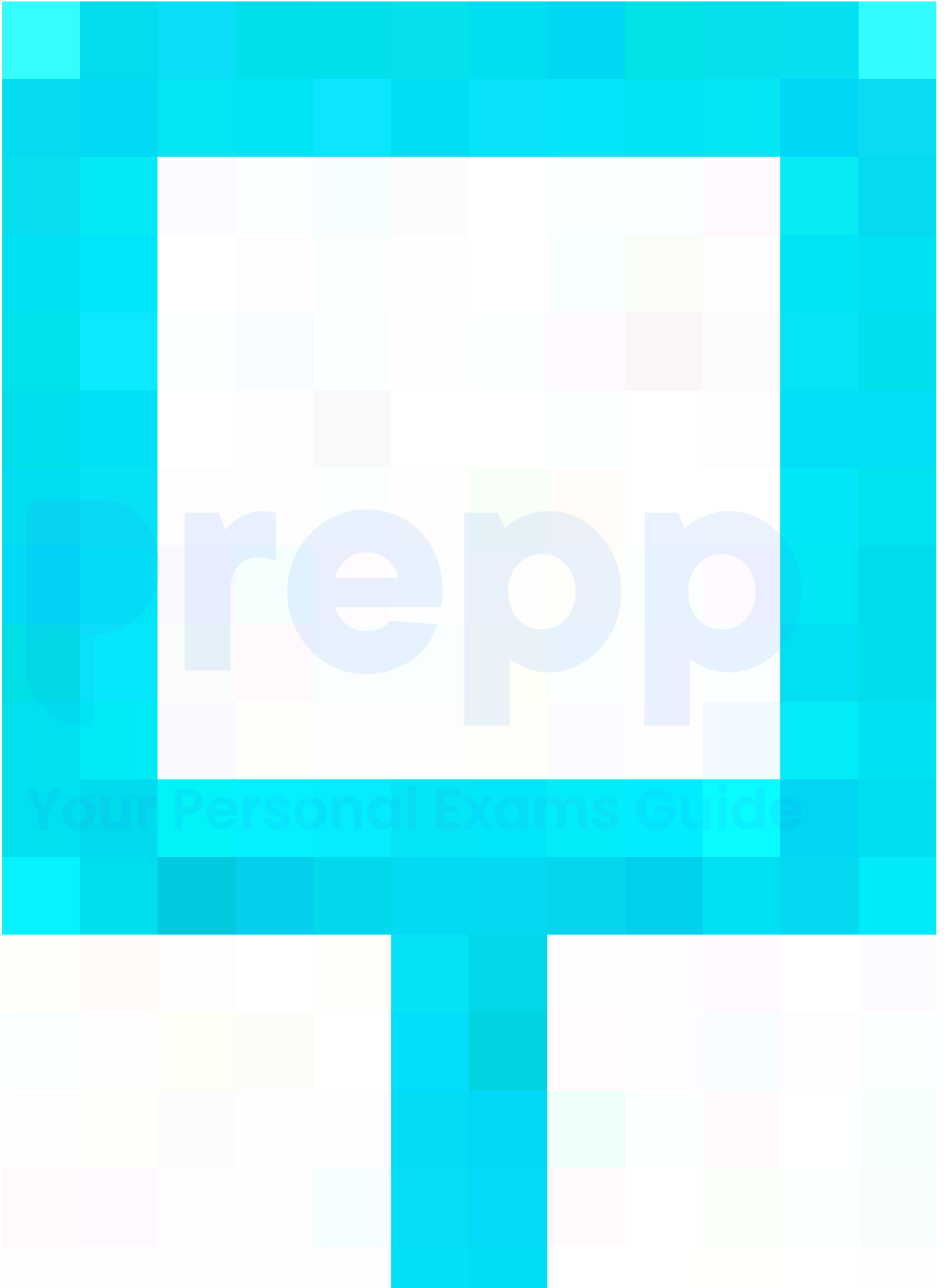




" is rotated 90^0 clockwise from figure to figure.

- The symbol "

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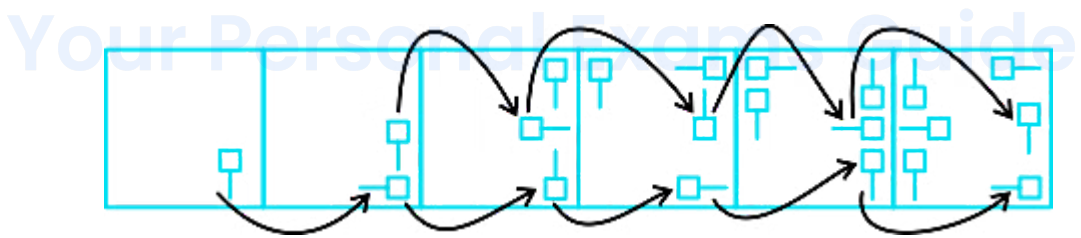
- " is added from figure 2 and rotated 90° Anti-clockwise.
- The process is repeated by adding the symbol "

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" and one rotates clockwise and other rotates Anti-clockwise.



Hence, the correct answer is "Option 3".

8. Answer: c

Explanation:

The logic followed here is :-



Hence, the correct answer is "8400".

9. Answer: c

Explanation:

Seven girls G1, G2, G3, G4, G5, G6 and G7 sit in a row facing towards the north (not necessarily in the same order).

1) G4 sits fifth to the right of G1 and G4 does not sit at any of the extreme ends.



2) G6 sits exactly in the middle of the row and G6 sits third to the left of G2.



3) Only two girls sit between G7 and G5 and G7 is not an immediate neighbour of G6.



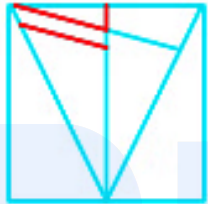







∴ Here, 'G6 and G7' are immediate neighbours of 'G3'.

Hence, the correct answer is "G6 and G7".

10. Answer: c

Explanation:

The figure embedded in the given options is as shown below :

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

Hence, the correct answer is "Option 3".

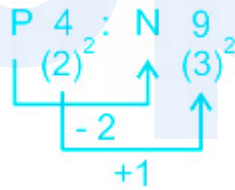
11. Answer: d

Explanation:

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

The logic followed here is :-

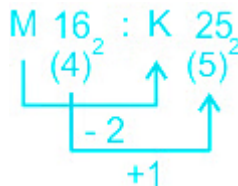
- P4 : N9



And

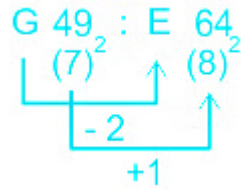
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- M16 : K25



Similarly,

- G49 : ?



Hence, the correct answer is "E64".

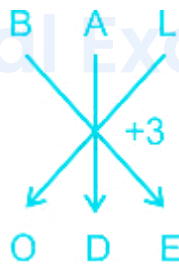
12. Answer: d

Explanation:

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

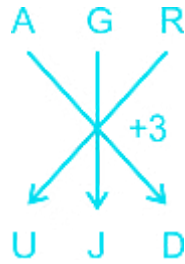
The logic followed here is :-

BAL : ODE



Similarly,

AGR : ?



Hence, the correct answer is "UJD".

13. Answer: b

Explanation:

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

The logic followed here is :-

'TOPICS' is written as 'QAGONS'.



And

'GREATH' is written as 'FRYDQF'.



Similarly,

'BANDEF' will be written as :



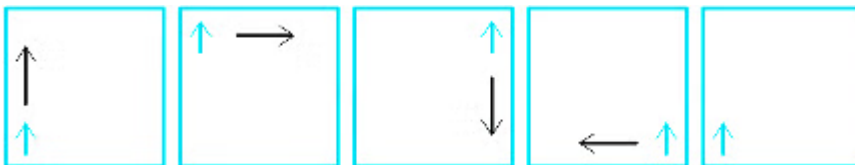
Hence, the correct answer is "DCBMZA".

14. Answer: b

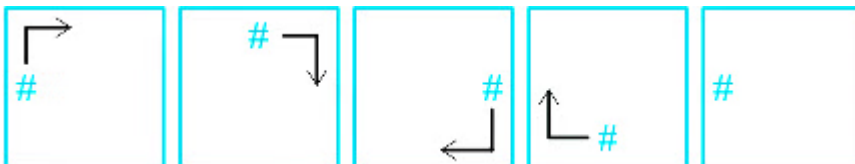
Explanation:

The logic followed here is:

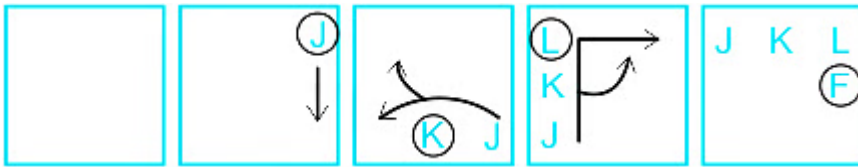
Step I: The arrow skips two places in the next boxes.



Step II: The symbol skips two places in the next boxes.



Step III: A new alphabet is added to each box.



So, the complete series will be:



Hence, the correct answer is "Option 2".

15. Answer: d

Explanation:

The logic followed here is :-

By using BODMAS RULE :

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

Option 1) : 9 and 6

Given equation : $25 \times 5 + 4 \div 2 - 10 = ?$

After interchanging the two signs + and × the equation formed is as follows : $25 + 5 \times 4 \div 2 - 10$

$$= 25 + 5 \times 4 \div 2 - 10$$

$$= 25 + 5 \times 2 - 10$$

$$= 25 + 10 - 10$$

$$= 35 - 10$$

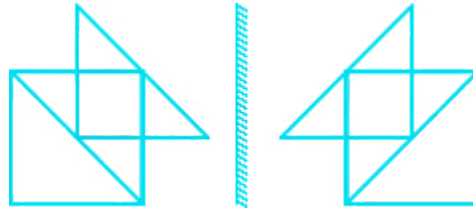
$$= 25$$

Hence, the correct answer is "25".

16. Answer: d

Explanation:

The mirror image of the given figure when the mirror is placed to its right side is as shown below :



Hence, the correct answer is "Option 4".

17. Answer: d

Explanation:

The ages of seven boys B1, B2, B3, B4, B5, B6 and B7 are compared. All boys have different ages.

1) The age of B4 is less than three boys.

$$_ > _ > _ > B4$$

2) The age of B1 is only greater than B7 and B3 and The age of B5 is greater than B6 but less than B2.

$$B2 > B5 > B6 > B4 > B1 > B7/B3 > B7/B3$$

∴ Here, 4 boys age are less than B6.

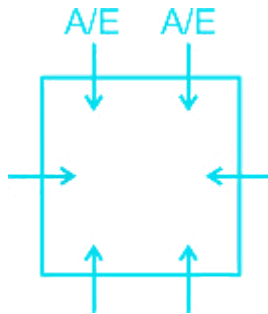
Hence, the correct answer is "4".

18. Answer: a

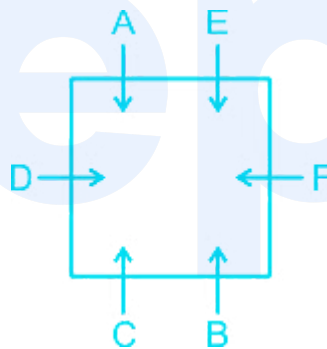
Explanation:

6 persons A, B, C, D, E and F are sitting around a rectangular table facing the centre (not necessarily in the same order). Two persons are sitting on each larger side and one person is sitting on each shorter side.

1) A and E are sitting on the same side.



2) D is sitting opposite to F and C sits to the right of D and Neither B nor E is sitting just next to D.



I. C is the second to the left of F → True (As D is sitting opposite to F and C sits to the right of D so, C is the second to the left of F is true)

II. E is sitting opposite to C → False (As A and E are sitting on the same side and C sits to the right of D and Neither B nor E is sitting just next to D so, E is sitting opposite to B is false)

∴ Here, Only I is the correct answer

Hence, the correct answer is "only I".

19. Answer: d

Explanation:

The logic followed here is :-

Second number = First number³

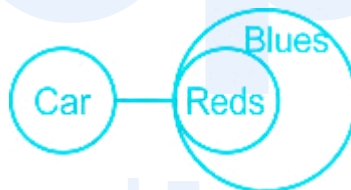
- 21 : 9261 → $21^3 = 9261$
- 17 : 4913 → $17^3 = 4913$
- 8 : ? → $8^3 = 512$

Hence, the correct answer is "512".

20. Answer: a

Explanation:

The least possible Venn diagram for the given statements is as shown below :



Conclusions:

I. Some blues are not cars → True (As All reds are blues and No car is red so, Some blues are not cars is true)

II. No red is a car → True (As No car is red so, No red is a car is true)

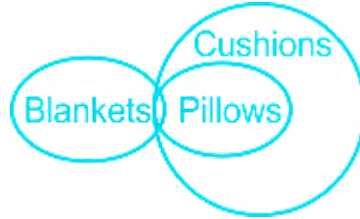
∴ Here, Both conclusions I and II are true.

Hence, the correct answer is "Both conclusions I and II follow".

21. Answer: a

Explanation:

The least possible Venn diagram for the given statements is as shown below :



Conclusions:

I. Some blankets are cushions is a possibility → False (As All pillows are cushions and Some blankets are pillows so, Some blankets are cushions is definitely true. It is not a possibility)

II. Some cushions are pillows → True (As All pillows are cushions so, Some cushions are pillows is true)

∴ Here, Only conclusion II follows

Hence, the correct answer is "Only conclusion II follows".

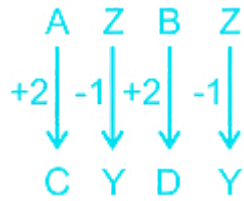
22. Answer: c

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

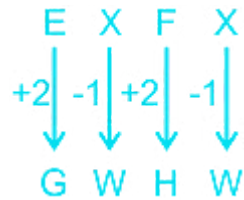
The logic followed here is :-

AZBZ : CYDY



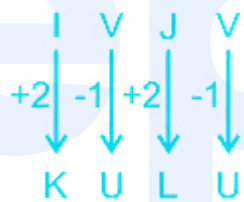
And

EXFX : GWHW



Similarly,

IVJV : ?



Hence, the correct answer is "KULU".

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23. Answer: c

Explanation:

The logic followed here is :-

By using BODMAS RULE :

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

Given conclusion I : $27 \div 7 - 6 \times 5 + 35 = 53$

By interchanging the given two signs \times and $-$ and two numbers 27 and 35 in the given equation the equation formed is as follows : $35 \div 7 \times 6 - 5 + 27 = 53$

$$\Rightarrow \underline{35 \div 7} \times 6 - 5 + 27 = 53$$

$$\Rightarrow \underline{5 \times 6} - 5 + 27 = 53$$

$$\Rightarrow \underline{30} - 5 + \underline{27} = 53$$

$$\Rightarrow \underline{57 - 5} = 53$$

$$\Rightarrow 52 \neq 53$$

LHS \neq RHS

Given conclusion II : $11 - 7 + 35 \times 420 \div 27 = 93$

By interchanging the given two signs \times and $-$ and two numbers 27 and 35 in the given equation the equation formed is as follows : $11 \times 7 + 27 - 420 \div 35 = 93$

$$\Rightarrow 11 \times 7 + 27 - \underline{420 \div 35} = 93$$

$$\Rightarrow 11 \times 7 + 27 - 12 = 93$$

$$\Rightarrow 77 + 27 - 12 = 93$$

$$\Rightarrow 104 - 12 = 93$$

$$\Rightarrow 92 \neq 93$$

LHS \neq RHS

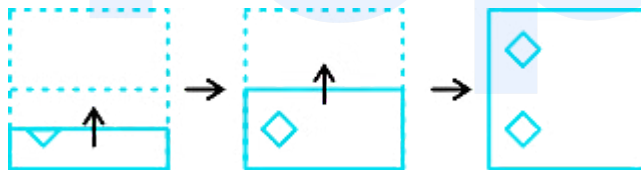
\therefore Here, both conclusions I and II are not correct.

Hence, the correct answer is "Both I and II".

24. Answer: d

Explanation:

After unfolding the given paper the figure formed is as shown below :



Hence, the correct answer is "Option 4".

25. Answer: d

Explanation:

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

The logic followed here is :-



Hence, the correct answer is "FT".

26. Answer: a

Explanation:

Given:

Principal = ₹8,000

Rate of interest = 5%

Time = 3 months

Concept used:

$$\text{Amount} = P(1 + (r)/100)^n$$

$$\text{Interest} = \text{Amount} - \text{Principal}$$

P = Principal

r = rate

n = time

Calculation:

5% is for 12 months

So, for 3 months rate will be $(5/12) \times 3$

⇒ 5/4 %

$$\text{Amount} = 8000(1 + 5/4/100)$$

$$\Rightarrow 8000 \times (1 + 5/400)$$

$$\Rightarrow 8000 \times 81/80$$

$$\Rightarrow 8100$$

$$\text{Interest} = 8100 - 8000 = 100$$

∴ The compound interest is ₹ 100.

27. Answer: d

Explanation:

Given:

A bag contains ₹5 and ₹10 coins for a total of 40 coins and a total amount of ₹310.

Calculation:

Let the 5 rupee coins be x

So, the number of 10 rupee coins = $40 - x$

According to the question,

$$5x + 10(40 - x) = 310$$

$$\Rightarrow 5x + 400 - 10x = 310$$

$$\Rightarrow 5x = 90$$

$$\Rightarrow x = 18$$

So, number of 5 rupee coins = 18 and number of 10 rupee coins = 22

Now,

$$\text{Difference of amount} = 220 - 90$$

$$\Rightarrow 130$$

\therefore The required answer is ₹130.

28. Answer: c

Explanation:

Given:

The cost price of a car is five times the loss incurred on selling this car.

Concept used:

$$\text{Loss \%} = (\text{Loss}/\text{Cost price}) \times 100$$

Calculation:

Let the loss on selling be a

So, Cost price = 5a

Now,

$$\% \text{ of loss} = (a/5a) \times 100$$

$$\Rightarrow 20\%$$

\therefore The loss percentage is 20%.

29. Answer: c

Explanation:

Given:

$$5 + [12 + 3 \times \{5 + (6 \times 3 - 5)\}]$$

Concept used:

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

Calculation:

$$5 + [12 + 3 \times \{5 + (6 \times 3 - 5)\}]$$

$$\Rightarrow 5 + [12 + 3 \times \{5 + (18 - 5)\}]$$

$$\Rightarrow 5 + [12 + 3 \times \{5 + 13\}]$$

$$\Rightarrow 5 + [12 + 3 \times 18]$$

$$\Rightarrow 5 + [12 + 54]$$

$$\Rightarrow 5 + 66$$

$$\Rightarrow 71$$

\therefore The required answer is 71.

30. Answer: d

Explanation:

Given:

SI for 3 years = ₹315

Rate = 3%

Formula used:

$$S.I = \frac{PRT}{100}$$

$$C.I = P [(1 + R/100)^n - 1]$$

Where,

S.I = Simple Interest,

P = Principal,

R = Rate, T or n = Time

Calculation:

According to the question,

$$315 = (P \times 3 \times 3)/100$$

$$\Rightarrow P = 3500$$

Again according to the question,

$$C.I = 3500 [(1 + 4/100)^2 - 1]$$

$$\Rightarrow 3500 [(26/25)^2 - 1]$$

$$\Rightarrow 3500 [676 - 625/625]$$

$$\Rightarrow 3500 [51/625]$$

$$\Rightarrow C.I = ₹285.6$$

\therefore The compound interest is ₹285.6.

31. Answer: b

Explanation:

Given:

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In an office with 40 officers, the average salaries of class-A, class-B and class-C officers are ₹ 600, ₹ 750 and ₹1,000 a day, respectively.

The numbers of class-A, class-B and class-C officers in the office are in the ratio 5 : 4 : 1

Concept used:

Average = Sum of elements/Number of elements

Calculation:

The numbers of class-A, class-B and class-C officers = 20, 16, 4

Now,

$$\text{Salaries of class-A} = 600 \times 20 \times 30$$

$$\Rightarrow 600 \times 600$$

$$\Rightarrow 360000$$

$$\text{Salaries of class-B} = 750 \times 16 \times 30$$

$$\Rightarrow 750 \times 480$$

$$\Rightarrow 360000$$

$$\text{Salaries of class-C} = 1000 \times 4 \times 30$$

$$\Rightarrow 4000 \times 30$$

$$\Rightarrow 120000$$

$$\text{Total} = 360000 + 360000 + 120000$$

$$\Rightarrow 840000$$

$$\text{Average} = 840000/40$$

$$\Rightarrow 21000$$

\therefore The monthly average salary (in ₹) of an officer, all 40 of them taken together is 21,000.

32. Answer: b

Explanation:

Given:

The volume of a cuboid is 3300 cm^3 .

The sum of the length and the breadth of the cuboid is 37 cm. If the difference between the length and the breadth of the cuboid is 13 cm

Calculation:

$$\text{Length} + \text{Breadth} = 37$$

$$\text{Length} - \text{Breadth} = 13$$

$$\Rightarrow 2\text{Length} = 50$$

$$\Rightarrow \text{Length} = 25$$

$$\text{So, breadth} = 12$$

Now,

$$3300 = 25 \times 12 \times h$$

$$\Rightarrow 3300 = 300h$$

$$\Rightarrow h = 11$$

\therefore The required answer is 11.

33. **Answer: b**

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Explanation:

Given:

The base of a right pyramid is a square of side 80 cm

$$\text{Volume} = 16000 \text{ cm}^3$$

Formula used:

$$\text{Volume of pyramid} = (\text{area of base} \times \text{height})/3$$

Calculation:

According to the question,

$$16000 = (80^2 \times \text{height})/3$$

$$\Rightarrow 16000 = (6400 \times \text{height})/3$$

$$\Rightarrow 48000 = (6400 \times \text{height})$$

$$\Rightarrow 48000/6400 = \text{height}$$

$$\Rightarrow 7.5 = \text{height}$$

So, the height of the pyramid is 7.5 cm.

34. Answer: c

Explanation:

Given:

A and B currently have an age ratio of 7 : 3. After 7 years this age ratio will become 2 : 1

Calculation:

Let the age of A and B be $7x$ and $3x$

According to the question,

$$(7x + 7)/(3x + 7) = (2/1)$$

$$\Rightarrow 6x + 14 = 7x + 7$$

$$\Rightarrow x = 7$$

So, present age of A and B = 49 and 21

Again,

Let after y years their age ratio will be 3 : 2

$$\Rightarrow (49 + y)/(21 + y) = 3/2$$

$$\Rightarrow 98 + 2y = 63 + 3y$$

$$\Rightarrow y = 35$$

∴ The required answer is 35 years.

35. Answer: b

Explanation:

Given:

P, Q and R can complete a task together in 15 days.

P and R can complete the task together in 40 days.

Calculation:

(P + Q + R) can complete a work in = 15 days

So,

$$(P + Q + R)'s\ 1\ day's\ work = 1/15 \quad \dots (1)$$

(P + R) can complete a work in = 40 days

$$\text{So, } (P + R)'s\ 1\ day's\ work = 1/40 \quad \dots (2)$$

From (1) and (2) we get, ∴

Q's 1 day's work,

$$\Rightarrow 1/15 - 1/40$$

$$\Rightarrow (8 - 3)/120$$

$$\Rightarrow 5/120$$

$$\Rightarrow 1/24$$

\therefore Q can complete the work in 24 days.

36. Answer: c

Explanation:

Given:

$$P = 2^3 \times 58 \text{ and } Q = 35 \times 73$$

Calculation:

$$P = 2^3 \times 58 \text{ and } Q = 35 \times 73$$

As we can see there is nothing common in the two

$$\text{So, the LCM} = 2^3 \times 35 \times 58 \times 73$$

\therefore The required answer is $2^3 \times 35 \times 58 \times 73$.

37. Answer: a

Explanation:

Calculation:

The total number of matches played by the team in the years Y2 and Y8 taken together = $(36 + 12) = 48^\circ$

Total number of matches played by the team in all the eight years taken together = $(45 + 36 + 54 + 60 + 84 + 24 + 45 + 12)^\circ = 360^\circ$

$$\text{Percentage} = 48^\circ / 360^\circ \times 100$$

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$$\Rightarrow 40/3 = 13.33\%$$

∴ The required answer is 13.33%.

38. Answer: b

Explanation:

Given:

village's current population = 28227

Rate of decrease of population = $R = 3\%$

Time = 2 years

Formula used:

If total current population is x , rate of decrease of population is R and time is T then

$$T \text{ year ago population} = x \times \left\{ \left(\frac{100}{100 - R} \right) \right\}^T$$

Calculation:

$$\text{Population of the town 2 years ago} = 28227 \times \left(\frac{100}{97} \right)^2$$

$$\Rightarrow 28227 \times 100/97 \times 100/97 =$$

$$\Rightarrow 30000$$

∴ The population of the town 2 years ago was 30000.

39. Answer: b

Explanation:

Given:

The price of kerosene is ₹ 48 per litre and the price of spirit is ₹ 30 per litre.

Calculation:

$$\text{Cost price of the mixture} = [60/(100 + 50)] \times 100$$

$$\Rightarrow (60/150) \times 100$$

$$\Rightarrow ₹40$$

Now,

Let x liters of kerosene and y liter of spirit is mixed

So,

$$48x + 30y = 40(x + y)$$

$$\Rightarrow 48x + 30y = 40x + 40y$$

$$\Rightarrow 8x = 10y$$

$$\Rightarrow x/y = 5/4$$

So, ratio of mixture would be 5 : 4.

∴ The kerosene and spirit should be mixed in 5 : 4 ratio.

40. Answer: d

Explanation:

Given:

Pinky can swim 27 km downstream or 15 km upstream in 3 hours.

Concept used:

$$\text{Downstream} = u + v$$

$$\text{Upstream} = u - v$$

Here,

u = speed of the object

v = velocity of the current

Calculation:

$$\text{Downstream speed} = 27/3$$

$$\Rightarrow 9 \text{ km/h}$$

$$\text{Upstream speed} = 15/3$$

$$\Rightarrow 5 \text{ km/h}$$

So,

$$u + v = 9$$

$$u - v = 5$$

$$\text{So, } 2v = 4$$

$$\Rightarrow v = 2 \text{ km/h}$$

\therefore The velocity of the current is 2 km/h.

41. **Answer: a**

Explanation:

Given:

The monthly income of a person is ₹ 25,000.

He spends 80% of his income and saves the rest.

Calculation:

His increased income = $25000 \times 110\%$

$\Rightarrow 27500$

His previous savings = $25000 \times 80\%$

$\Rightarrow 20000$

His new savings = $20000 \times 110\%$

$\Rightarrow 22000$

So, his savings = $27500 - 22000$

$\Rightarrow 5500$

\therefore The required answer is ₹5,500.

42. Answer: b

Explanation:

Calculation:

Number of female patient from Haripur = $8436 \times \frac{5}{6}$

$\Rightarrow 7030$

Now,

Number of female patient from Sitapur = $7030 \times 70\%$

$\Rightarrow 4921$

Number of Covid 19 patient from Haripur = 4921×3

$\Rightarrow 14763$

∴ The required answer is 14763.

43. Answer: a

Explanation:

Given:

The average of four consecutive odd numbers is 8.

Concept used:

Average = Sum of elements/Number of elements

Calculation:

Let's assume the four consecutive odd numbers are y , $(y + 2)$, $(y + 4)$, and $(y + 6)$.

According to the question,

$$y + (y + 2) + (y + 4) + (y + 6) = 8 \times 4$$

$$\Rightarrow 4y + 12 = 32$$

$$\Rightarrow 4y = 20$$

$$\Rightarrow y = 5$$

Now,

The last number is 11

So, the next number is 13

Total of 5 numbers = $32 + 13$

$$\Rightarrow 45$$

Average = $45/5$

⇒ 9

∴ The new average of these five numbers is 9.

44. Answer: b

Explanation:

Given:

An article costs ₹ 750. It is marked up to give 30% profit.

Concept used:

Selling price = Marked price × (100 - Discount)%

Calculation:

Marked up price = 750 × 130%

⇒ 975

Now after discount the selling price of 975 × 85%

⇒ 828.75

∴ The selling price if a customer gets a discount of 15% on it will be ₹ 828.75.

45. Answer: b

Explanation:

Given:

Diagonal of rectangle = 20 cm

The breadth of the rectangle = 12 cm

Formula used:

$$(\text{Diagonal})^2 = (\text{Length})^2 + (\text{Breadth})^2$$

Calculation:

According to the formula,

$$20^2 = \text{length}^2 + 12^2$$

$$\Rightarrow \text{length}^2 = 400 - 144 = 256$$

$$\Rightarrow \text{length} = \sqrt{256} = 16 \text{ cm}$$

\therefore The length of the rectangle is 16 cm.

46. Answer: a

Explanation:

Given:

A alone can do a piece of work in 12 days. B alone can do the same work in 18 days. C alone can do the same work in 24 days.

Concept used:

Total work = Efficiency \times time

Calculation:

LCM of 12, 18, and 24 be 72 i.e total work

So, the efficiency of A, B, and C = 6, 4, 3

Time is taken to complete 65% of the work = $(72/13) \times 65\%$

\Rightarrow 3.6 days

\therefore The required answer is 3.6 days.

47. Answer: d

Explanation:

Calculation:

$$\text{Total profit on roses} = 800 - 450$$

$$\Rightarrow 350$$

$$\text{Total profit on lilies} = 720 - 540$$

$$\Rightarrow 180$$

$$\text{Total profit on sunflowers} = 630 - 490$$

$$\Rightarrow 140$$

The number of roses, lilies, and sunflowers sold from that shop on that day were 7, 5, and 10, respectively.

Now here the total profit of each type of flower is divided by the number of flowers sold that day to get the profit on one type of flower.

$$\text{Sum of the profits earned by selling a rose, a lily and a sunflower on that day} = 350/7 + 180/5 + 140/10$$

$$\Rightarrow 50 + 36 + 14$$

$$\Rightarrow ₹100$$

∴ The required answer is ₹100.

48. Answer: c

Explanation:

Given:

Lengths of two bridges 600 m and 300 m

Time taken = 80 seconds and 60 seconds

Concept used:

Time = Distance/Speed

If a train passes a bridge then it will cover its own length + the length of the bridge

Calculation:

Let the length of the train be x m

According to the question,

$$(600 + x)/80 = (300 + x)/60$$

$$\Rightarrow (600 + x)/4 = (300 + x)/3$$

$$\Rightarrow 1800 + 3x = 1200 + 4x$$

$$\Rightarrow x = 600$$

So, the length of the train = 600 m

\therefore The length of the train is 600 m.

49. Answer: a

Explanation:

Given:

$$16^2 - 256\frac{1}{4} + 2197\frac{1}{3}$$

Calculation:

$$16^2 - 256^{\frac{1}{4}} + 2197^{\frac{1}{3}}$$

$$\Rightarrow 256 - (4^4)^{\frac{1}{4}} + (13^3)^{\frac{1}{3}}$$

$$\Rightarrow 256 - 4 + 13$$

$$\Rightarrow 265$$

\therefore The required answer is 265.

50. Answer: d

Explanation:

Given:

The selling price of a bulb is half of its cost price.

Calculation:

According to the question,

$$\text{Selling price} = \text{Cost price} / 2$$

So, ratio of Cost price and Selling price = 2 : 1

So, loss = 1 against 2

$$\text{So, \% of loss} = (1/2) \times 100$$

$$\Rightarrow 50\%$$

\therefore The required answer is 50%.

51. Answer: a

Explanation:

The correct answer is **'improving crop'**.

★ Key Points

- In the given sentence, '**crop**' should be used as **crop** is a **noun** meaning a cultivated plant that is grown on a large scale commercially, especially a cereal, fruit, or vegetable.
 - **Example:** The main **crops** were oats and barley.
- Thus, **option 4** can be eliminated.
- The preposition '**on**' should be followed by a **gerund form of the verb** i.e. **improving**.
- A **gerund** is the noun form of a verb that ends in **-ing**.
- **Gerunds** are words that are formed with verbs but act as nouns.
- For example, **playing, dancing, eating**.
- Therefore, '**improve cropped**' should be replaced by '**improving crop**'.
- Thus, the correct answer is **Option 1**.

Correct Sentence: *The scientists have so far focused on improving crop yields.*

52. Answer: b

Explanation:

Here the correct answer is **Option 2**.

★ Key Points

- In the given sentence, the error is in part "**most luminous**".
- Here, **the stars** are being **compared** to **the Sun** .
- Therefore, a **comparative degree** should be used.
- When two items/people/situations are compared, a comparative degree is used by putting 'er' to the adjective word or "more" with the adjective in association with the word '**than**'.
- **Examples:**
 - She is **more cheerful** than her sister.
 - She is **smarter** than her sister.

- The presence of the word '**than**' after the blank shows that there must be a comparative degree of the word '**luminous**.'
- The comparative degree of '**luminous**' is '**more luminous**.'
- Therefore, '**most**' should be replaced by '**more**'.
- Thus, the correct answer is **Option 2**.

Correct Sentence: The brightest stars can be 30,000 times more luminous than the Sun.

53. Answer: c

Explanation:

The correct answer is 'their'.

★ Key Points

- The given sentence '*He persuaded other towns near Amman to send _____ soldiers to help him.*' requires a most **appropriate word** from the given options to fill the given blank.
- Moreover, from the given context we are sure that the given blank requires a **possessive pronoun** that help us show possession or ownership in the sentence.
- From the given options , the marked option '**their**' is the possessive form of the third person plural noun 'they'. It is used to **show possession or it means 'belonging to them'**.
- Like in this sentence, the soldiers are owned by other towns which are near Amman . Hence, the most appropriate word is '**their**'.
- The correct answer is **option 3**.

54. Answer: a

Explanation:

The correct answer is '**brutal**'.

★ Key Points

- The given word '**callous**' means not caring about the feelings or suffering of other people. (दूसरों की भावनाओं या पीड़ा की उपेक्षा करते हुए; कठोर हृदय, बेदर्द, निष्ठुर, संवेदनाहीन)
 - **Example:** He should not be **callous** about the safety of his coworkers.
- The marked option '**brutal**' means very cruel and/or violent, inhuman. (अति क्रूर और/या हिंसापूर्ण; पाशविक, अमानुषिक)
- From the **given meaning** and the example sentence above, it is clear that 'cruel' and 'brutal' are synonyms of each other.
- Hence the correct answer is **option 1**.

★ Additional Information

- **Let us look at other options:**
- **Problematic:** Something is referred to as problematic when it presents a problem or difficulty. This term is often used to describe situations, behaviors, or objects that create complications or cannot be easily resolved. (जटिल, संदिग्ध)
 - **Example:** "While the new software feature seems innovative, its incompatibility with older versions makes it problematic for long-time users."
- **Large:** The term large is used to describe something that is of considerable size, quantity, magnitude, or extent. It could refer to physical dimensions, quantities, or abstract measurements. (बड़ा, विशाल)
 - **Example:** "The large elephant towered over the other animals at the zoo."
- **Humane:** Something is described as humane when it shows compassion or benevolence. This term is often used to refer to acts that demonstrate care, empathy, and consideration for humans or animals, particularly in terms of minimizing suffering. (मानवीय, दयामय)
 - **Example:** "Despite having the ability to exterminate the pests with harmful chemicals, the company opted for a more humane method of pest control."

55. Answer: a

Explanation:

The correct answer is 'Acidic'.

★ Key Points

- The given word '**Caustic**' means a substance, especially a strong acid; capable of destroying or eating away by chemical action (एक पदार्थ, विशेष रूप से एक मजबूत एसिड; रासायनिक क्रिया द्वारा नष्ट करने या खाने में सक्षम)
 - **Example:** *To know the significance of caustic soda, it is vital to understand the dyeing process.*
- The marked option '**Acidic**' means having the properties of an acid, or containing acid; having a pH below 7 (अम्लीय)
- From the **given meaning and the example sentence above**, it is clear that 'acidic' and 'caustic' are synonyms.
- Hence the correct answer is **option 1**.

56. Answer: c

Explanation:

The correct answer is 'again'.

★ Key Points

- The given sentence requires an **appropriate word** from the given options to fill the given blank.
- Let us explore the options :
- **Weakly** means in a way that is not physically strong.
- **Never** means not at any time or not on any occasion.
- **Again** means once more; another time.
- **Forever** means for all time; permanently.
- From the above meaning of the given options, 'again' fits the given blank as it explains the context of the sentence.
- Thus, the correct answer is **option 3**.

57. Answer: d

Explanation:

The correct answer is 'no improvement required'.

★ Key Points

- This is a **sentence improvement** question.
- We need to replace the underlined segment with one of the options if there is any scope of improvement.
- Here, **more than enough** is the underlined segment.
- **More than enough** is a phrase which means plentiful, ample.
- There is no error in 'more than enough' phrase and it establishes the context of the given sentence .
- Therefore, the correct answer is **option 4**.

58. Answer: b

Explanation:

The correct answer is 'be very cautious'.

★ Key Points

- The given idiom '**To walk the tight rope**' means to be in situation where mistake is dangerous, to be in a situation where one must be very cautious.
 - **Example:** *He was walking a **tightrope** trying to keep everybody happy.*
- Therefore, from the given meaning and its example sentence, we are clear that the given idiom means to **be very cautious**.
- Hence, the correct answer is **option 2**.

59. Answer: c

Explanation:

The erroneous part is 'major source of income'.

★ Key Points

- The given sentence is not **grammatically correct**.
- There lies in error in **part 2** of the sentence.
- In this segment '**major source of income**' is incorrect .
- Here, '**major sources of income** ' should be there instead of 'major source of income'.
- As the sentence conveys that **Land Revenue** was one of the major resource of income for britishers in India . It was one of the all other sources of income for the Britishers in India.
- Therefore , the correct answer is **option 3**.

60. Answer: c

Explanation:

The correct answer is '**vigilant**'.

★ Key Points

- We have to choose the appropriate word from the given options to fill the given blank as our marked option.
- The marked option '**vigilant**' means to being very careful to notice things or danger.(सतर्क, सावधान)
 - **Example:** They were **vigilant** about protecting their territory.
- From the given meaning and the example sentence, it is clear that '**vigilant**' is the most appropriate word to fill in the given blank contextually.

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

61. Answer: a

Explanation:

The correct answer is 'however'.

★ Key Points

- We need to fill the given blank with **appropriate word** to fill the given blank.
- The given sentence implies that if she likes something, she will buy it not matter how much it costs.
- We need to choose that option which gives us the same sense as described above.
- The marked option '**however**' means despite whatever amount or degree or in whatever manner.
 - *Example: I like that jacket however it comes in only one colour.*
- Therefore, we need to fill 'however' in the given sentence.
- Hence, the correct answer is **option 1**.

62. Answer: c

Explanation:

The erroneous word is '**Breathe**'.

★ Key Points

- The given question is **spelling error** in context question.
- We need to select that sentence which is having any **erroneous spelling**.
- The marked option 'His breathe smelled of garlic' has an erroneous spelled word i.e. Breathe.
- The correct spelling is '**breath**'.
- **Breath** is a noun that means the air that you take into and blow out of your lungs.(साँस, श्वास).

- *Example: Brush your teeth twice as you are suffering from a bad breath.*
- Thus, the correct answer is **option 3**.

63. Answer: d

Explanation:

The correct answer is 'Moral'.

★ Key Points

- The given word '**wicked**' means morally very bad. (चरित्रहीन, भ्रष्ट; बुरा, दुष्ट, पापी)
 - *Example: His character is obscene and he is a **wicked** person.*
- We need to choose its **antonym** from the given options.
- The marked option '**Moral**' means relating to beliefs about what is right or wrong. (उचित-अनुचित से संबंधित; नैतिक)
- Therefore, the correct answer is **option 4**.

★ Additional Information

Other options-

- Evil- morally bad; causing trouble or harming people (बुरा, दुष्ट, पापी; लोगों को दुखी करने वाला)
- Sinful- breaking a religious law; immoral (धार्मिक नियम को भंग करने वाला; पापपूर्ण, अनैतिक)
- Errant- behaving badly in some way, especially by disobeying your parents or leaving home; not behaving in an acceptable way (अनुचित व्यवहार वाला, विशेषतः माता-पिता की अवज्ञा करने वाला या घर छोड़ने वाला; अस्वीकार्य आचरण शैली में व्यवहार करते हुए)

64. Answer: b

Explanation:

The correct answer is 'General'.

★ Key Points

- This is a **synonym in context** question.
- We need to choose that **option** which is the synonym of the word underlined in the given sentence.
- Here, the underlined word '**Generic**' means shared by, including or typical of a whole group of things; not specific, general. (जो किसी समूह की सभी वस्तुओं में समान हो या उनका प्रातिनिधिक हो; अविशिष्ट)
- Thus, the synonym of the given word '**generic**' is given in options as one of its meaning and that is '**General**'.
- Therefore, the correct answer is **option 2**.

65. Answer: a

Explanation:

The correct answer is '**admiration**'.

★ Key Points

- We have to choose the **appropriate word** from the given options to fill the given blank as our marked option.
- The marked option '**admiration**' means a feeling of liking and respecting somebody/something very much.
 - **Example** : He earned the **admiration** of his classmates .
- From the given meaning and the example sentence, it is clear that '**admiration**' is the most appropriate word to fill in the given blank contextually.

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

66. Answer: d

Explanation:

The correct answer is 'without delay'.

★ Key Points

- The given question is an example of idiom in context question.
- The given idiom 'at the drop of a hat' means willing to do immediately without hating.
 - **Example:** The boy is **quarrelsome** and is ready to fight **at the drop of a hat**.
- Therefore, from the given meaning and the example, it is clear that the correct meaning is '**without delay**'.
- Hence , the correct answer is **option 4**.

67. Answer: c

Explanation:

The correct answer is 'Cartographer'.

★ Key Points

- We need to substitute '**A person who makes maps**' with the one word from the given options:
- Let us explore **meanings** of the given **options** :
 - **Sinecure** means a paid position that involves little or no work. (दायित्वहीन काम)
 - **Anarchist** means a person who rebels against any authority, established order, or ruling power. (अराजकतावादी)
 - **Cartographer** means a person who draws or makes maps. (मानचित्रकार; नक्शानवीस)
 - **Polyglot** means knowing or written in more than one language. (एक से अधिक भाषा का ज्ञान या उसमें लेखन; बहुभाषी).
- Therefore, from the above given meanings, it is clear that '**Cartographer**' is the one word for the given group of words.
- Therefore, the correct answer is **option 3**.

68. Answer: c

Explanation:

The erroneous part is 'a honest living'.

★ Key Points

- The given sentence is **grammatically incorrect**.
- We need to find the **error** in a part of this sentence.
- The error lies in **last segment** of this sentence.
- The erroneous part is '**a honest living**'.
- The error lies in incorrect usage of article '**a**' before 'honest living'.
- It should be '**an**' article here owing to the vowel sound of the word 'honest'.
- Thus, the correct answer is **option 3**.

69. Answer: a

Explanation:

The correct answer is '**Institute**'.

★ Key Points

- Among the given options the correctly spelt word is '**Institute**'.
- It means an **organization** that has a particular purpose; the building used by this organization. (विशेष प्रयोजन वाली कोई संस्था; संस्था का भवन)
 - **Example:** It is an **institute** of petroleum and energy studies.
- Therefore, the correct answer is **option 1**.

70. Answer: d

Explanation:

Here the correct answer is 'a large number of'.

★ Key Points

- In the given sentence, the underlined part is erroneous.
- The correct substitution for the underlined part is "a large number of".
- **A large number of** is used before **plurals**, and the verb that follows is **plural**.
 - Example: Despite the instructions, **a large number of** people didn't know what to do.
- The phrase '**the larger number of people**' is incorrect.
- **Option 1** is incorrect because of the presence of the preposition 'off'.
- **Option 3** is incorrect because of the presence of the incorrect article 'an'.
- In the given sentence, since the noun '**people**' is plural, thus, '**a large number of**' should be used.
- Therefore, the correct answer is **Option 4**.

Correct Sentence: *While travelling, one comes across a large number of people.*

71. Answer: c

Explanation:

The correct answer is 'Rashly'.

★ Key Points

- The given sentence '*In Delhi, while the bigger schools transport their students in their own or hired buses; others rely on vans, autos and e-rickshaws where many reckless drivers pack in too many children and drive (1) _____,*' requires an **appropriate word** from the given options to fill the **blank number 1**.
- **Let us explore the options:**
- **Humbly** means in a way that is not proud or arrogant; modestly.
- **Decisively** means in a way that is very important for the final result of a particular situation.
- **Rashly** means too hastily or thoughtlessly
- **Commonly** means normally; usually.

- Therefore, from the given options, only rashly fits well in the blank number one as it explains the sense of driving rashly.
- Hence ,the correct answer is **option 3**.

72. Answer: b

Explanation:

The correct answer is 'Routines'.

★ Key Points

- The given sentence ' *often causing accidents. Many parents take time off their daily (2) _____ to do school-runs.*' requires an appropriate word from the given options to fill the **blank number 2**.
- **The** marked option '**Routines**' means the usual order and way in which you regularly do things.
 - **Example:** *The players had to change their daily **routine** and lifestyle.*
- With the **given example** and the **meaning** of the marked option, it is clear that it fits well in the given blank.
- Therefore, the correct answer is **option 2**.

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73. Answer: a

Explanation:

The correct answer is 'Absence'.

★ Key Points

- The given sentence '*Two months ago, it was reported how in the (3) _____ of road-crossing facilities near schools,*' requires an **appropriate word** from the given options to fill the **blank number 3**.
- Let us explore the **given options**:

- **Absence** means a time when somebody is away from somewhere.
- **Non compliance** means failure or refusal to comply with something .
- **Defiance** means open refusal to obey somebody/something.
- **Reference** means a text that records facts and information.
- The given sentence implies that it was reported how in the **absence** of road crossing facilities near schools ,a bunch of parents were taking turns to play traffic marshals.
- Hence, the correct answer is **option 1**.

74. Answer: d

Explanation:

The correct answer is 'Preferred'.

★ Key Points

- The given sentence '*In fact, school authorities (4) _____ to admit students living within walkable distances so that they wouldn't have to take the school bus or public transport.*' requires an **appropriate word** from the given options to fill the **blank number 4**.

Let us explore all the **options:**

- **Rescued** means to help someone or something out of a dangerous, harmful, or unpleasant situation.
- **Guided** means accompanied by a guide.
- **Added** means existing or occurring as an increase or addition.
- **Preferred** means to choose something rather than something else; to like something better.
- After reading the given sentence and understanding the **meanings of the given options**, we can decipher that the most appropriate word is 'preferred' for the **blank number 4**.

Therefore, the correct answer is **option 4**.

75. Answer: a

Explanation:

The correct answer is 'faced'.

★ Key Points

- The given sentence '*As Delhi grew, its children (5) _____ not only traffic, broken infrastructure but also violence, air-pollution, and overcrowded living conditions.*' requires an **appropriate word** from the given options to fill the **blank number 5**.
- The **marked option *faced*** means to deal with something unpleasant; to deal with somebody in a difficult situation.
- In the above sentence, it means '*As the population of Delhi grew, its children had to deal with not only traffic, and broken infrastructure but also violence, and air pollution....*'

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

76. Answer: a

Explanation:

The correct answer is Haryana

★ Key Points

- Loor dance is performed during the Phalaguna month and it is named after the girls in the Bangar area in Haryana. Hence option 1 is correct.
 - It is performed during the Holi festival in February or March.
- This dance marks the **Rabi crop in the farms during the spring season**.
- Other **folk dances related to Haryana** are Phag dance, Saang dance, Ghoomar dance, Jhumar dance etc.

★ Additional Information

- Some of the folk dances related to the other states are listed below:

State	Folk dances
Manipur	Drum dance, Luivat Pheizak Dance, Shim Lam Dance, Thang ta Dance.
Karnataka	Gaarudi Gombe, Togalu Gombeyaata, Yakshgana, Bhutha Kola.
Kerala	Kathakali, Mohiniyattam, Thirvathirakali
Andhra Pradesh	Kuchipudi, Vilasini Natyam, Bhamakalpam, Kolattam
Tamil Nadu	Bharatnatyam, Oyilattam, Bhagavatha Nandanam.

77. Answer: c

Explanation:

The correct answer is 1907.

★ Key Points

- **Congress split**
- The Indian National Congress was split into two groups in 1907 at Surat.
- The years from 1885–1905 was known as the period of the moderates because they dominated the Indian National Congress.
 - The moderates were the leaders of INC who used petitions, prayers, meetings, leaflets, pamphlets, memorandum and delegations to present their demands to the British government.
- Gradually, dissatisfaction arose among people due to the lack of any achievements by the Moderates.
- The Extremists wanted to go against the British violently as the peaceful manners have not yielded any results.

- In the 1907 session of Surat, the Extremists were led by Lal Bal Pal i.e. Lala Lajpat Rai, Bal Gangadhar Tilak, and Bipin Chandra Pal.
- The Moderates were led by Gopal Krishna Gokhale.
- This session was presided by Rash Bihari Ghosh who at first was opposed by the Extremists but later they accepted his presidency.
- The session was suspended and the congress was split into two parts.
- This event in Indian history is known as Surat Split.
- In 1916, they reunited with the Congress in the Lucknow session.
 - This session was presided by A.C. Majmudar.

78. Answer: d

Explanation:

The correct answer is income level or consumption expenditure

★ Key Points

- Poverty is a certain category of people whose income cannot get the basic necessities of life.
- **The poverty line is used to categorize the people in above the poverty line and below the poverty line** i.e., those who can afford the basic necessities fall in the above poverty line and those who cannot, fall in the below poverty line and are considered economically poor.
- **The poverty line depends on the income of the households and their expenditure level. Hence option 4 is correct.**
- Earliest estimation of poverty was done by Dadabhai Naoroji in his book Un-British rule in India in the year 1867-68 and per capita income is estimated at 16 to 35 rupees.

★ Additional Information

- Tendulkar committee (2009), Lakdawala committee (1993), Alagh committee (1979) etc are some of the committees that constituted for poverty estimation.
- **The poverty ration is one of the measures of poverty and is calculated by dividing the number of people below the poverty line (BPL) by the total**

population.

- It is given by $\frac{\text{HouseholdsBelowPovertyLine}}{\text{TotalPopulation}} \times 100$.
- Poverty Gap Index (PGI) is another tool for measuring poverty and it is the difference between the poverty line and the average income of all households below poverty line.
 - It is given by, $\frac{\text{PovertyLine} - \text{AverageIncomeofPoor}}{\text{PovertyLine}}$

79. Answer: b

Explanation:

The correct answer is S Somanath.

★ Key Points

- Sreedhara Panicker Somanath is an Indian aerospace engineer serving as the chairman of the Indian Space Research Organisation. Somanath also served as the Director of Vikram Sarabhai Space Centre, Thiruvananthapuram.
- Shri S. Somanath assumed the charge of Secretary, Department of Space and Chairman, Space Commission on 14 January 2022.
- In his previous assignment, he was Director, Vikram Sarabhai Space Centre (VSSC), the lead Centre.

★ Additional Information

- ISRO
 - It is the pioneer space exploration agency of India, headquartered in Bengaluru.
 - ISRO was formed in 1969 with a vision to develop and harness space technology in national development while pursuing planetary exploration and space science research.
 - ISRO replaced its predecessor, INCOSPAR (Indian National Committee for Space Research), established in 1962 by India's first Prime Minister Pt. Jawaharlal Nehru and scientist Vikram Sarabhai, are considered among the founding fathers of the Indian space program.

80. Answer: d

Explanation:

The correct answer is 1885.

★ Key Points

- The first session of the Indian National Congress was held in December 1885 in Bombay with seventy-two delegates.
- The first president of the Indian National Congress was W.C. Bonerjee.
- A.O Hume assumed the office of INC as General Secretary.
- More than just a political party, Congress was an assembly for politically-minded individuals who were interested in reform.
- The second session of the Congress took place under the leadership of Dadabhai Naoroji in Calcutta. The number of delegates had increased to 434.
- Some of the Presidents of INC-
 - 1895, 1902- Surendranath Banerjee
 - 1885, 1892- W.C. Bonnerjee
 - 1886, 1893, 1906- Dadabhai Naoroji

★ Additional Information

- The first woman President of the Indian National Congress was Annie Besant.
 - She was a British revolutionist, socialist, theosophist, women's rights activist, writer, orator, educationalist, and philanthropist.
 - Regarded as a champion of human freedom, she was an enthusiastic supporter of both Irish and Indian self-rule.
 - She was a genial and productive author with over threehundred books and pamphlets to her credit.
- Sarojini Naidu was the first Indian female President of the Indian National Congress.
- The first Muslim President of the Indian National Congress was Badruddin Tyabji at Madras in 1887.
- First English President was George Yule in 1888 at Allahabad.

- Sucheta Kripalani was an Indian freedom fighter and politician. She was India's first female Chief Minister, serving as the head of the Uttar Pradesh government from 1963 to 1967.
- Amrit Kaur was an Indian activist and politician. She was appointed as the first Health Minister of India in 1947 and remained in office until 1957.

81. Answer: b

Explanation:

The correct answer is Kingsmead Stadium

★ Key Points

- Yuvraj Singh is an Indian all-rounder who played for India from 2000 to 2017.
- In 2007, in the inaugural T20 World Cup against England, Yuvraj Singh hit 6 sixes against Stuart Broad and scored the fastest half-century (in 12 balls) in T20Is.
- He became the first player to hit 6 sixes in an over in a T20 international and he achieved the feat at Kingsmead (also known as Sahara stadium), Durban. Hence option 2 is correct.
- He was the Man of the Tournament in the 2011 World Cup and was awarded the Arjuna award in 2012 and Padma Sri in 2016.

★ Additional Information

- Stuart Broad is an English cricketer who debuted in 2006 and is England's former limited overs skipper.
- Wanderers Stadium, Mabhida Stadium and Newlands Cricket Ground are located in South Africa.
- Wanderers is the host to the 2003 World Cup finals and also host to one of the greatest ODI ever played where South Africa chased down 434 against Australia in 2006.

82. Answer: d

Explanation:

The correct answer is Option 4.

★ Key Points

- Article 108 of the Constitution lays the rule for calling of joint sitting of both the Houses of the Parliament.
- This Joint sitting is summoned by the President in which the speaker presides over the session and in absence of the speaker and deputy speaker takes charge.
- If the Deputy Speaker is also not available then the Deputy Chairman of Rajya Sabha takes over this.
- The rule to hold a joint sitting is that one-tenth of the total number of members of both the houses should be present.
- This situation of joint sitting arises if both the houses of the Parliament are unsuccessful in passing any bill and a situation of deadlock occurs.
- To break this deadlock, the President calls the joint sitting.
- It happens in the case when one house has passed the bill and the other one has rejected, both the houses cannot come on a common page on the amendments to be made to the bill or more than six months time has been elapsed since the bill has been received by the other house and is still not passed.
- In the case of a money bill and a Constitutional Amendment Bill, joint sitting cannot be called.

★ Additional Information

- **Article 110 –**
 - **Money bill** is defined in **Article 110** of the constitution of India. It can be introduced in only **Lok Sabha** and **Vidhan Sabha**.
 - A **Money Bill** can be introduced by a **minister** only. It cannot be introduced in **Rajya Sabha** or **Vidhan Parishad**.
 - Rajya Sabha can delay the money bill for up to **14 days**.
 - **Note: Money bill can be introduced in both the Central government (Lok sabha) and state government (lower house = Vidhan Sabha) in case of a**

bicameral legislature.

- The following states have bicameral legislatures: Andhra Pradesh, Telangana, Bihar, Jammu-Kashmir, Karnataka, Maharashtra and Uttar Pradesh (Jack Ma Tells AP UP Bhi KABab)
- **Article 128 -**
 - According to **article 128** of the **Indian Constitution**, the **chief justice** of India may at any time request a retired **judge** of the **Supreme Court** or a retired **judge of a high court (who is duly qualified for appointment as a judge of the Supreme Court)** to act as a judge of the **Supreme Court** for a **temporary period**. He can do so only with the previous consent of the **president** and also of the person to be so appointed.
- **Article 75 -**
 - According to **Article 75** of **Indian Constitution**, the ministers are collectively responsible to the **Parliament** in **general** and to the **Lok Sabha** in particular.
 - **Lok Sabha** is the bridge between the **Executive** and the **Legislature** .
 - **The Lok Sabha** is the **lower house** of **bicameral Parliament**.
 - The **total number of Ministers**, including the **Prime Minister**, in the **Council of Ministers**, shall not exceed fifteen per cent of the **total number of members of Lok Sabha**.

83. Answer: d

Explanation:

The correct answer is Anne Frank.

★ Key Points

★ Key Points

- Anne Frank was a German poet who wrote diaries like Tales From the Secret Annex and Diary of A Young Girl.
- The story of Anne Frank is among the most well-known of the 6 million Jews who died in the Holocaust.

- Her diary is the first encounter many people have with the history of Nazi Germany's attempt to murder all the Jews of Europe during World War II.



★ [Additional Information](#)

Authors	Books
Arundhati Roy	<ul style="list-style-type: none"> • The God of Small Things • The Ministry of Utmost Happiness • AZADI: Freedom. Fascism. Fiction • My Seditious Heart • The end of imagination • Listening to Grasshoppers
Jhumpa Lahiri	<ul style="list-style-type: none"> • Interpreter of Maladies • The Namesake • Unaccustomed Earth • The Lowland • Whereabouts • Hell-Heaven
Sidney Sheldon	<ul style="list-style-type: none"> • Master of the Game • The Other Side of Midnight • Tell Me Your Dreams • Bloodline • Memories of Midnight • Nothing Lasts Forever

84. Answer: b

Explanation:

The correct answer is Parliamentary government.

★ Key Points

- A lot of features in the Indian Constitution are adopted from various countries like the USA, Canada, Ireland, Australia, France, Germany, South Africa, Japan, etc
- India has a parliamentary form of government that is taken from the British Constitution.
- A parliamentary system of government or parliamentary democracy is a system of democratic governance of a state where the executive remains in power when it derives its democratic legitimacy from its capacity to acquire the confidence of the legislature.
- They are also accountable to the parliament.
- In a parliamentary system, the head of state is the President while the head of government is the Prime Minister.
- Currently, India's Parliament is divided into three major parts and follows bicameralism.
- The upper house is known as Rajya Sabha, the lower house is known as Lok Sabha.

Looking at the options given:

- A parliamentary form of government is adopted from the British Constitution.
- The principle of liberty has been adopted from the French constitution.
- The idea of residual powers has been adopted from the Constitution of Canada.
- The concept of federalism has been taken from the Canadian Constitution.

★ Additional Information

Sources	Features Borrowed
British Constitution	Parliamentary government, Rule of Law, legislative procedure, single citizenship, cabinet system, prerogative writs, parliamentary privileges, and bicameralism.
US Constitution	Fundamental rights, independence of the judiciary, judicial review, impeachment of the president, removal of Supreme Court and high court judges, and post of vice-president.
Irish Constitution	Directive Principles of State Policy, the nomination of members to Rajya Sabha and method of election of the president
Canadian Constitution	Federation with a strong Centre, vesting of residuary powers in the Centre, the appointment of state governors by the Centre, and advisory jurisdiction of the Supreme

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85. Answer: c

Explanation:

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

★ **Key Points**

- Mixtures are of two types: Homogenous and Heterogeneous.
 - **Solutions are homogeneous mixtures.**
- **Suspension is a heterogeneous mixture of solid particles in a fluid.**
 - If the particles in a solution are not settled down, then it is a suspension.

- Particles in a suspension are bigger compared to a solution and **look cloudy due to non-uniformity.**
- **Because of the colour, the suspensions can be seen with the naked eye. Hence option 3 is correct.**

★ Additional Information

- There are two phases in suspensions, they are internal and external.
 - The external phase is the dispersion medium or continuous phase and is fluid.
 - The internal phase or dispersed phase is made of particulate matter which is insoluble in the external phase.
- **In solutions, the particles are dissolved in the liquid completely** and do not settle down.
 - **So, you cannot see the solutions** or they are completely transparent.

86. **Answer: c**

Explanation:

The correct answer is Thallophyta.

★ Key Points

- Plants have diverse varieties.
- There are more than 3 lakh plant species that have already been found in the world.
- Plants are beneficial in human life they give food, and shelter and fulfill many other needs of various organisms.

★ Additional Information

Kingdom plants are divided into five groups- Thallophytes, Bryophytes, Pteridophytes, Gymnosperms, and Angiosperms.

Thallophyta

- The plant body is not differentiated from roots, stems, and leaves.
- They are commonly called algae.

Bryophyta

- These are small terrestrial plants.
- They show differentiation in the body design, with stem, leaf-like structures, and root-like structures.

Pteridophyta

- The plant body is differentiated into roots, stems, and leaves, apart from having a specialized tissue for conduction.

Gymnosperms

- Gymnosperms are plants with naked seeds.

Angiosperms

- Angiosperms are seed-bearing plants. Seeds develop inside tissues that get modified to form the fruit of the plant.

87. Answer: a

Explanation:

The correct answer is Bharatanatyam.

★ Key Points

- **Bharatanatyam**
 - Bharatnatyam is the oldest Indian classical dance
 - It originated hundreds of years ago in the state of Tamilnadu.
 - This dance form expresses the religious themes and spiritual ideas of South India.
 - The ancient Tamil epic Silappatikaram contains the description of Bharatnatyam.

★ Additional Information

Classical Dance	State
Bharatanatyam	Tamil Nadu
Kathak	Uttar Pradesh
Kathakali	Kerala
Kuchipudi	Andhra Pradesh
Odissi	Odisha
Sattriya	Assam
Manipuri	Manipur
Mohiniyattam	Kerala

88. Answer: c

Explanation:

The correct answer is Kardang Monastery.

★ Key Points

- **Kardang Monastery** is a very important Buddhist monastery which was built in the 12th century and is **located on the river Bhaga** at an altitude of around 3500 meters.
- **Kardang Monastery is located in the Lahaul valley, Himachal Pradesh. Hence option 3 is correct.**
- This has a great collection of **paintings, Thangka paintings, old weapons and instrumentals like horns, flutes, drums, etc.**
- The sections inside the monastery include a prayer hall, Chaitya, Statues of Padmasambhava, and Tantra books.

★ Additional Information

- This monastery also consists of a **six-foot-high wooden prayer wheel that is decorated with brass.**
- It is an educational centre which includes a library with a lot of books belonging to earlier eras.
- **Chaam dance is held in the month of June and July** annually and during this, the monks are dressed in masks and headgear.
- The other Buddhist monasteries in India are the **Tawang monastery in Arunachal Pradesh, the Tabo monastery and Kee Monastery in Himachal Pradesh.**

89. Answer: b

Explanation:

The correct answer is Maharashtra

★ Key Points

- Cancer is a disease in which the body's cells grow abnormally and they infiltrate and destroy the normal body cells and spreads throughout the body.
- When the old cells are damaged, the new cells replace them in the body, but when the **damaged cells grow and multiple abnormally, they result in malignant tumours.**
- **Hope Express was launched by Maharashtra Health Minister Rajesh Tope that aims to prevent cancer. Hence option 2 is correct.**
- He also inaugurated the Oncoprime Cancer Center online at the Hattarki Hospital in Gadhinglaj which helps patients in rural areas.

★ Additional Information

- The Hope Express is going to be started in every district in the state as announced by the Health Minister.
- Screening tests, Vaccines and healthy food choices help prevent cancer in its early stages.
- **In 1997, the Ministry of Health and Family Welfare launched Rashtriya Arogya Nidhi Scheme which provides financial assistance for life-threatening diseases**

other than cancer.

90. Answer: c

Explanation:

The correct answer is The United States of America (USA).

★ Key Points

- In a first, the USA will host a global cricket competition - the T20 World Cup in June 2024.
- The event will be co-hosted with the more established cricket nations of the West Indies.
- This will be the first-ever global event hosted in North America.
- USA is a baseball-loving country and it has never appeared at either a T20 or a 50-over World Cup.

★ Important Points

- Australia won the ICC Men's T20 World Cup 2021 by 8 wickets.
- Other T20 World Cups Tournament Schedule:
 - 2026: India, Sri Lanka
 - 2028: Australia, New Zealand
 - 2030: England, Ireland, Scotland

★ Additional Information

- About ICC T20 Cricket World Cup:
 - ICC T20 Cricket World Cup is an international tournament organised by the International Cricket Council (ICC).
 - The first edition was played in South Africa in 2007.
 - India was the winner of the first ICC Men's T20 World Cup tournament while Pakistan was the runner up.
 - Facts about List of ICC T20 Cricket World Cup Winners
 - First Edition: 2007.

- First Winner: India.
- Current champion: Australia (1st title), in 2021, held in UAE and Oman.
- Most successful Team: West Indies (2 titles).
- Administrator: International Cricket Council (ICC)

91. Answer: a

Explanation:

The correct answer is Sugarcane.

★ Key Points

- It takes about a year for the sugarcane crop to be ready.
- Depending on the variety and time of sowing, sugarcane takes about 12 to 18 months to mature.
- January to March is the time of sowing and December to March is the time of harvesting.

★ Important Points

- The tropical sugarcane zone comprises a sugarcane agro-climatic zone that includes the states of Maharashtra, Andhra Pradesh, Tamil Nadu, Karnataka, Gujarat, Madhya Pradesh, Goa, Puducherry and Kerala.
- Sub-tropical sugarcane area: About 55 per cent of the total sugarcane area in the country is in sub-tropical areas. Uttar Pradesh, Bihar, Haryana and Punjab come under this region.
- Peas are sown as a winter crop from mid-October to mid-November. In the mountains, it is sown in May as an autumn crop.
- In temperate regions, sowing is done from October to March.
- The cucumber belongs to the Cucurbitaceae family and is an important summer vegetable crop grown all over India.
- **Rice mainly grows in water-logged areas.**
 - Haryana and Punjab do not have a suitable climate for rice cultivation.
 - They get rain from western disturbances and grow rice on it.

- The limited yield is fully utilized as a cash crop as the staple diet of the state is mainly based on wheat.

92. Answer: d

Explanation:

The correct answer is Ibrahim Lodi.

★ Key Points

The First Battle of Panipat:

- The first battle of Panipat was fought in 1526 between Babur and Ibrahim Lodi.
- In 1526, the Mughal forces of Babur, the Timurid ruler of Kabulistan, defeated the much larger ruling army of Ibrahim Lodi, Sultan of Delhi.
- Panipat was a legendary location where after 1526, multiple battles were fought between the Mughals and varying other forces.
- He was invited by Daulat Khan, the governor of Punjab, to invade the region and unsettle Ibrahim Lodi.
- Lodi's army relied heavily on cavalry and especially on elephants, which in earlier times, could shock the enemy and rout them.
- This battle made the foundation of the Mughal dynasty in India.

★ Additional Information

Sikander Lodi

- Sikander Lodhi ruled from the year 1489-1517.
- He swore the title Sikandar Shah and ascended the throne
- Sikandar Lodi became the next ruler of the Lodi dynasty after the death of his father Bahlul Lodi in July 1489.
- Work on music named "Lahjati-Sikandar Shahi" was created during his reign.

Bahlul Lodi

- Bahlul Lodi was the founder of the Lodi Dynasty.

- He ruled from the year 1451 -1489 A.D.
 - Mewat, Sakit, Gwalior, etc were conquered by him.
-

93. Answer: a

Explanation:

The correct answer is Seven.

★ Key Points

- There are seven countries that share a land border with India namely Pakistan, Afghanistan, Nepal, China, Bangladesh, Bhutan, and Myanmar.
- Bangladesh shares the longest border with India as it is surrounded by India on three sides. It is said to be the 5th largest land border in the world.
- Afghanistan shares the least border with India among the other 6 countries.
- China is the largest country that shares a border with India.
- Bhutan is the smallest country that shares a border with India.

★ Additional Information

Your Personal Exams Guide

COUNTRY	CAPITAL	CURRENCY
Pakistan	Islamabad	Pakistani Rupee
Afghanistan	Kabul	Afghan Afghani
Nepal	Kathmandu	Nepali Rupee
China	Beijing	Renminbi
Bangladesh	Dhaka	Taka
Bhutan	Thimphu	Ngultrum
Myanmar	Naypyidaw	Kyat



94. Answer: a

Explanation:

The correct answer is Sandstone.

★ Key Points

- Sedimentary rocks are types of rock that are formed by the accumulation or sedimentation of minerals or organic particles at the Earth's surface, followed by cementation.
- Typical sedimentary rocks are sandstone, limestone, shale, Gypsum, etc.

- These are also known as aqueous or stratified rocks.
- the rocks are well stratified and show well-defined bedding planes.
- The rocks are soft and can be easily split up along the bedding as well as normal planes.
- The properties of the sedimentary rocks vary considerably depending upon the nature of the sediment and the type of bond between the sediment and grains.

★ Additional Information

- Igneous rock:
 - It is formed by heating and cooling lava or magma.
 - It can be formed with or without crystallization.
 - Types of igneous rock:
 1. Intrusive igneous rock: These rocks crystallize below the earth's surface resulting in large crystals as the cooling takes place slowly. Diorite, granite, pegmatite are examples of intrusive igneous rocks.
 2. Extrusive igneous rock: These rocks erupt onto the surface resulting in small crystals as the cooling takes place quickly.
- The cooling rate is for a few rocks is so quick that they form an amorphous glass.
- Basalt, tuff, pumice are examples of extrusive igneous rock.

95. Answer: a

Explanation:

The correct answer is Tamil Nadu.

★ Key Points

- Pongal:
 - Pongal is a four-day-long harvest festival celebrated mostly in the states of South India, especially in Tamil Nadu.

- It is celebrated in the month of January every year.
- The harvest festival is named after the Tamil word, Ponga, which means to boil.
- The first day of Pongal is called Bhogi and is celebrated in honor of Lord Indra.
- The second day of Pongal is known as Surya Pongal and is dedicated to the Sun God.
- The third day of Pongal is called Mattu Pongal and is celebrated in the name of cows.
- The fourth and final day of Pongal is called Kaanum Pongal, which marks the end of the harvest festival for the year.

96. Answer: a

Explanation:

The correct answer is The Alps.

★ **Key Points**

- There are three types of mountains:-
 - Fold Mountains,
 - Block Mountains
 - Volcanic Mountains.
- Fold Mountains:-
 - **The Himalayan Mountains and the Alps** are young fold mountains with rugged relief and high conical peaks.
 - The Aravali range in India is one of the oldest fold mountain systems in the world.
 - The Appalachians in North America and the Ural mountains in Russia have rounded features and low elevation.
 - They are very old fold mountains.
- Block Mountains:-
 - Block Mountains are created when large areas are broken and displaced vertically.

- The uplifted blocks are termed horsts and the lowered blocks are called graben.
- **The Rhine valley and the Vosges mountain** in Europe are examples of Block mountain systems.
- Volcanic Mountains:-
 - Volcanic mountains are formed due to volcanic activity.
 - Mt.Kilimanjaro in Africa and Mt.Fujiyama in Japan are examples of Volcanic mountains

97. Answer: d

Explanation:

The correct answer is norms for rulers.

★ Key Points

- **Treatises on dharma** are referred to as dharmasutras, a type of **legal and ethical literature** written in **Sanskrit**.
- There are many diverse and **opposing Dharmashastras**, with estimates ranging from **18 to about 100**.
- The Dharmasastra textual corpus, which was written in **poetic verses**, is a part of the **Hindu Smritis**.
- It contains several commentaries and treatises on one's obligations to **one's self, one's family, and society**.
- The books cover a variety of subjects, such as
 - **ashrama** (life stages),
 - **varna** (social classes),
 - **purushartha** (right life aims), as well as
 - **personal virtues and obligations** including ahimsa (non-violence towards all living things),
 - just **war principles**, and other subjects.

★ Additional Information

- The Sanskrit word "shastra" can be translated as "precept, rules, manual, compendium, book, or treatise" in general.
- The word was used to describe any precept, rule, teaching, ritual instruction, or direction in early Vedic literature.
- Shastra was a term used in late and post-Vedic Hindu literature to refer to any treatise, book, or instructional tool, handbook, or compendium on any subject in any field of study, including religion.

98. Answer: b

Explanation:

The correct answer is Saxophone.

★ Key Points

- A pioneer of Carnatic music for the alto saxophone, Kadri Gopalnath was an Indian musician.
- In 2004, he received the Padma Shri honor.
- On October 26, 2004, Gopalnath received the Sangeet Natak Academy Prize for Instrumental Carnatic Music.

★ Additional Information

- Sitar:
 - A plucked stringed instrument from the Indian subcontinent, the sitar is utilized in Hindustani classical music.
- Tabla:
 - India's tabla is a tiny drum or pair of drums that are played with the hands and are tuned to various pitches.
- Flute:
 - The woodwind family of instruments, which includes the flute, is used in classical music.
 - Flutes are aerophones, which means they produce music by vibrating a column of air, like all woodwind instruments do.

99. Answer: d

Explanation:

The correct answer is United Nations Development Programme.

★ Key Points

- An yearly report on the Human Development Index is the **Human Development Report**.
- It is released by the **United Nations Development Programme's** Human Development Report Office.
- The first HDR was introduced in **1990** by Indian Nobel laureate **Amartya Sen** and Pakistani economist **Mahbub ul Haq**.
- In accordance with a **global decline in HDI scores** following the Covid-19 pandemic, India's ranking on the Human Development Index (HDI) has fallen from **130 in 2020 to 132 in 2022**, according to the **Human Development Report 2021–2022**.

★ Additional Information

- In **2021**, India's HDI value was **0.633**, which was lower than the **0.732 global average**.
- India's **life expectancy at birth** was reported to be **67.2 years** in 2021.
- The average number of years spent in **education is 6.7 years**, compared to the expected 11.9 years.
- The **gross national income per capita** stood at **USD 6,590**.
- India is **ranked 122 out of 188 countries** in the **Gender Inequality Index**.

100. Answer: a

Explanation:

The correct answer is purple.

★ Key Points

- The natural colour of litmus is purple.
- When the litmus solution is neither acidic nor basic then its colour is **purple**.
- Litmus paper is used as one of the chemical indicators.
- It is used to determine whether a solution is acidic or basic.
- If the blue litmus paper is put in an acidic solution, it turns red.

★ Additional Information

- **A Litmus paper test is done** to find the solution whether it is **Acidic or Basic in nature**.
- Litmus paper is a type of **pH paper** made by treating paper with natural dyes from lichens.
- The blue litmus paper turns red or pink when it comes into contact with an acidic solution below **a pH of 4.5**
- **It becomes purple if the pH of the solution is between 4.5 and 8.3 and if the pH is above 8.3 it stays blue.**
- The solution which is Basic in nature having a pH range between **8.5 and 14** changes the colour of red litmus paper to blue.

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